RIECK

# 銳耐克精密刀具

RIECK
銳耐克精密刀具



2021-2022

銳耐克综合样本

經 銷 商:

關于這些和其它新的產品的詳細信息，請您與當地的銳耐克辦事處聯系，
或查閱補充樣本，或訪問我們的網站

RNECK
锐耐克精密刀具

稳定加工、長壽命



关于安全
●请勿用手直接触摸切削刃、切屑。●请在推荐条件范围内使用，及早更换刀具。●有时会有高温的切屑飞出，伸长的切屑排出。请使用防护罩、防护镜等防护用具。●使用非水溶性切削液时，务必采取防火措施。
●安装刀片或零部件时，请使用附带的扳手稳妥安装。●使用旋转刀具时，务必进行试运转，确认有无振摆、振动、异常声音。

# 产品目录

*Product List*




## 为您提供360°数控刀具与解决方案

为客户提供高性能的刀具和广泛的服务，提升客户的
生产效率同时降低成本。

# 整体硬质合金铣刀系列

锐利耐用 无往不克





# 不锈钢不等齿距
# 高效铣刀

针对难切材料的高效加工



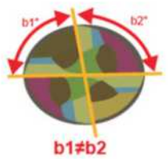

采用超微粒钨钢母材，保证刀具稳定寿命

刀具涂层均采用不锈钢专用涂层

大容量成型槽设计，用于高效加工时有效排屑

刃口特殊处理，
有效增强抗崩能力






不等分割设计，
高速高进给加工时
有效提高抗振动性

刀尖R角保护



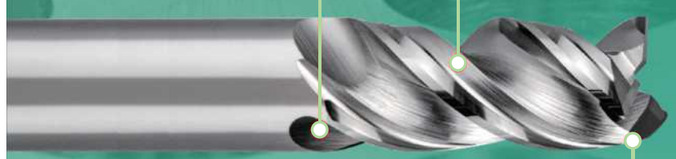
# 强力高效
# 高光铝用刀

精粗一体



不等分螺旋槽,抗振性强
带修光底刃，增强刀尖钢性,
改善底铣加工

特殊槽沟设计
排屑更顺畅



特殊刃口设计，用于开粗，高效切削;
次刃起到抗崩作用，减少后刃带的切削阻力
刃带抛光处理，完美达到精铣的高光效果

# KD 石墨专用系列
## 纳米级金刚石涂层



# KGEX 系列
## 模架专用刀

垂直度保证在0.01mm以内；
表面粗糙度控制在1.6以内；
超长刃加工无明显振刀现象。



# 图标识别指南 Description of Icons

## 硬质合金材料

- UMG 极细超微粒硬质合金
- MG 超微粒硬质合金
- CBN CBN(立方氮化硼)

## 涂层种类

- TiAlN 氮铝化钛纳米涂层
- ALTiN 氮钛化铝纳米涂层
- CX 氮铬铝钛纳米涂层
- WX 氮硅化钛纳米涂层
- CrN 氮化铬纳米涂层
- DIA 金刚石纳米涂层
- DLC 类金刚石涂层

## 可加工硬度

- HRC ▶48 可加工至HRC48度
- HRC ▶55 可加工至HRC55度
- HRC ▶65 可加工至HRC65度
- HRC ▶68 可加工至HRC68度

## 铣刀端齿类型

- 一刃
- 二刃
- 三刃
- 四刃
- 六刃

## 刃角形状

- 保护角型
- 尖角型
- R 圆角型

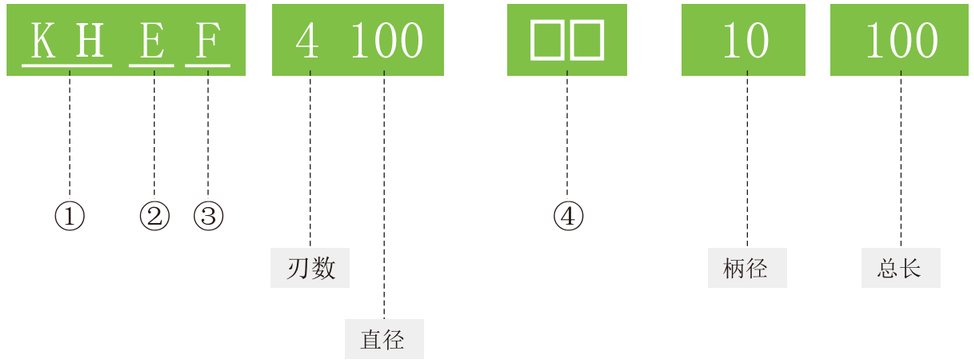
## 螺旋角

- 0° 0度螺旋角
- 15° 15度螺旋角
- 20° 20度螺旋角
- 30° 30度螺旋角
- 35° 35度螺旋角
- 38-41° 38-41度双螺旋角
- 45° 45度螺旋角
- 55° 55度螺旋角



# 型号标示指南

## 钨钢刀型号表示说明:




| ① | ② | ③ | ④ |
|---|---|---|---|
| KG--普通加工<br>KM--高耐磨加工<br>KH--高硬度加工<br>KA--铝加工<br>KO--铜加工<br>KS--不锈钢加工<br>KD--石墨加工 | E--平刀<br>B--球刀<br>R--圆角刀 | F--45° 螺旋角<br>L--长颈刀<br>P--强力型<br>I--柄径为3MM<br>S--粗齿刀<br>X--加长刀 | R为刀尖圆角<br>L为避空长度 |



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## 微小径系列

| 铣刀图片 | 型号 | 页码 | 规格 | 加工材料 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 碳素钢/合金钢 预硬钢/工具钢 | 预硬钢/淬火钢 | | | | 不锈钢 | 球墨铸铁 | 铜合金 | 铝合金 | 石墨 | 钛合金 | 耐热合金 | 塑料 |
| | | | | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| NSME超微精细加工用平底铣刀 | NSME | 016 | | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | | | ○ |
| NSMB超微精细加工用球头铣刀 | NSMB | 017 | | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | | | ○ |
| SMEZ超微细加工用 CBN平底铣刀 | SMEZ | 018 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SMB超微细加工用 CBN球头铣刀 | SMB | 019 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SSE四刃CBN超精加工用平底铣刀 | SSE4/6 | 020~021 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SFB二刃CBN超精加工用球头铣刀 | SFB2 | 022 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SSB二刃CBN超精加工用球头铣刀 | SSB2 | 023 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SSBL二刃CBN超精加工用长颈球头铣刀 | SSBL2 | 024 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SSR二刃CBN超精加工用圆鼻铣刀 | SSR2 | 025~028 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| SSF单刃CBN超精加工用圆鼻铣刀 | SSF | 029 | | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| MHRH高硬度材料用二刃平底铣刀 | MHRH | 035~036 | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| MRBH高硬度材料用二刃长颈球头铣刀 | MRBH | 037~039 | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| MHRHR高硬度材料用二刃长颈型圆鼻铣刀 | MHRHR | 040~041 | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

注：○非常适合　○适合

## KG普通硬度系列

| 铣刀图片 | 型号 | 页码 | 规格 | 加工材料 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 碳素钢/合金钢 预硬钢/工具钢 | 预硬钢/淬火钢 | | | | 不锈钢 | 球墨铸铁 | 铜合金 | 铝合金 | 石墨 | 钛合金 | 耐热合金 | 塑料 |
| | | | | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| KGE二刃钨钢涂层立铣刀 | KGE2 | 042 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGE三刃钨钢涂层立铣刀（45°螺旋角） | KGE3 | 043 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGE四刃钨钢涂层立铣刀（30°螺旋角） | KGE4 | 044 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGEX四刃加长刃钨钢涂层立铣刀（35°螺旋角） | KGEX4 | 045 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGES四刃整体合金波刃立铣刀 | KGES4 | 046 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGEL二刃钨钢涂层深沟立铣刀 | KGEL2 | 047~048 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGB二刃钨钢涂层球头立铣刀 | KGB2 | 049 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGB四刃钨钢涂层球头立铣刀 | KGB4 | 050 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGBL二刃钨钢涂层深沟球头立铣刀 | KGBL2 | 051~052 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGR二刃钨钢涂层R角立铣刀 | KGR2 | 053 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |
| KGR四刃钨钢涂层R角立铣刀 | KGR4 | 054 | | ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

注：○非常适合　○适合

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## KM高耐磨中硬度系列

| 铣刀图片 | 型号 | 页码 | 加工材料 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 规格 | | | 碳素钢/合金钢 预硬钢/工具钢 | 预硬钢/淬火钢 | | | | 不锈钢 | 球墨铸铁 | 铜合金 | 铝合金 | 石墨 | 钛合金 | 耐热合金 | 塑料 |
| | | | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| KMEI二刃小径整体合金立铣刀 | KMEI2 | 065 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMBI二刃小径整体合金球头立铣刀 | KMBI2 | 066 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KME二刃高耐磨整体合金立铣刀 | KME2 | 067 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KME四刃高耐磨整体合金立铣刀（30度螺旋角） | KME4 | 068 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMEF四刃高耐磨整体合金立铣刀(45度螺旋角) | KMEF4 | 069 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMB二刃高耐磨整体合金球头立铣刀 | KMB2 | 070 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMR二刃高耐磨整体合金圆角刀 | KMR2 | 072 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMR四刃高耐磨整体合金圆角刀 | KMR4 | 073 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMRP四刃高耐磨强力型整体合金圆角刀 | KMRP4 | 074 | ○ | ○ | ○ | | | ○ | ○ | ● | ● | | ○ | ○ | |
| KMEL二刃中高耐磨体合金深沟立铣刀 | KMEL2 | 075 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |
| KMEL四刃高耐磨整体合金深沟立铣刀 | KMEL4 | 076 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |
| KMBL二刃中高耐磨体合金深沟球头立铣刀 | KMBL2 | 077~078 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |
| KMRL二刃高耐磨整体合金深沟圆角刀 | KMRL2 | 079~080 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |
| KMRL四刃高耐磨整体合金深沟圆角刀 | KMRL4 | 081~082 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |
| KMBF模具精加工2刃锥颈球头立铣刀 | KMBF2 | 083~084 | ○ | ○ | ○ | | | ● | ● | | | | ○ | | |

注：○非常适合　●适合



## KH高硬度系列

| 铣刀图片 | 型号 | 页码 | 加工材料 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 规格 | | | 碳素钢/合金钢 预硬钢/工具钢 | 预硬钢/淬火钢 | | | | 不锈钢 | 球墨铸铁 | 铜合金 | 铝合金 | 石墨 | 钛合金 | 耐热合金 | 塑料 |
| | | | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| KHEI二刃高硬度小径整体合金立铣刀 | KHEI2 | 096 | ● | ○ | ○ | ○ | ○ | | ● | | | | | | |
| KHBI二刃高硬度小径整体合金球头立铣刀 | KHBI2 | 097 | ● | ○ | ○ | ○ | ○ | | ● | | | | | | |
| KHEF四刃高硬度整体合金立铣刀 | KHEF4 | 098 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHB二刃高硬度整体合金球头立铣刀 | KHB2 | 099 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHBP二刃高硬度强力型整体合金球头立铣刀 | KHBP2 | 100 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHR二刃高硬度整体合金圆角刀 | KHR2 | 101 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHR四刃高硬度整体合金圆角刀 | KHR4 | 102 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHRP四刃高硬度短刃整体合金圆角刀 | KHRP4 | 103 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHRT四刃高硬度强力型整体合金圆角刀 | KHRT4 | 104 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHEL二刃高硬度整体合金深沟立铣刀 | KHEL2 | 105 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHEL四刃高硬度整体合金深沟立铣刀 | KHEL4 | 106 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHBL二刃高硬度整体合金深沟球头立铣刀 | KHBL2 | 107~108 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHRL二刃高硬度整体合金深沟圆角刀 | KHRL2 | 109~110 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHRL四刃高硬度整体合金深沟圆角刀 | KHRL4 | 111~112 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |
| KHEF六刃高硬度整体合金立铣刀 | KHEF6 | 113 | ● | ● | ○ | ○ | ● | ● | ● | ● | | | ● | ● | |

注：○非常适合　●适合

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| 铣刀图片 | 型号 | 页码 | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| **KA铝用系列** | | | | | | | | | | | | | | | |
| KAE-DLC三刃铝用整体合金立铣刀 | KAE-DLC | 125 | | | | | | | | ○ | ○ | | | | ○ |
| KAE二刃铝用整体合金立铣刀 | KAE2 | 126 | | | | | | | | ○ | ○ | | | | ○ |
| KAE三刃铝用整体合金立铣刀 | KAE3 | 127 | | | | | | | | ○ | ○ | | | | ○ |
| KAB二刃铝用整体合金球头立铣刀 | KAB2 | 128 | | | | | | | | ○ | ○ | | | | ○ |
| KAES三刃铝用整体合金波刃立铣刀 | KAES3 | 129 | | | | | | | | ○ | ○ | | | | ○ |
| KAR二刃铝用整体合金圆鼻刀 | KAR2 | 130 | | | | | | | | ○ | ○ | | | | ○ |
| KAR三刃铝用整体合金圆鼻刀 | KAR3 | 131 | | | | | | | | ○ | ○ | | | | ○ |
| **KO铜用系列** | | | | | | | | | | | | | | | |
| KOE二刃铜用整体合金立铣刀 | KOE2 | 135 | | | | | | | | ○ | ○ | | | | ○ |
| KOE四刃铜用整体合金立铣刀 | KOE4 | 136 | | | | | | | | ○ | ○ | | | | ○ |
| KOB二刃铜用整体合金球头立铣刀 | KOB2 | 137 | | | | | | | | ○ | ○ | | | | ○ |

注：○非常适合　○适合

| 规格 | | | 加工材料 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 碳素钢/合金钢 预硬钢/工具钢 | 预硬钢/淬火钢 | | | | 不锈钢 | 球墨铸铁 | 铜合金 | 铝合金 | 石墨 | 钛合金 | 耐热合金 | 塑料 |
| 铣刀图片 | 型号 | 页码 | ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| **KS不锈钢系列** | | | | | | | | | | | | | | | |
| KSE四刃不等距不锈钢专用整体合金立铣刀 | KSE4 | 140 | ○ | | | | | ○ | | | | | ○ | ○ | |
| KSR四刃不等距不锈钢专用整体合金圆鼻刀 | KSR4 | 141 | ○ | | | | | ○ | | | | | ○ | ○ | |
| KSRP四刃加长不等距强力型不锈钢专用圆鼻刀 | KSRP4 | 142 | ○ | | | | | ○ | | | | | ○ | ○ | |
| **KD石墨刀系列** | | | | | | | | | | | | | | | |
| KDB二刃球刀 | KDB2 | 145 | | | | | | | | | | ○ | | | |
| KDB四刃球刀 | KDB4 | 146 | | | | | | | | | | ○ | | | |
| KDE四刃平刀 | KDE4 | 147 | | | | | | | | | | ○ | | | |
| KDR四刃圆鼻刀 | KDR4 | 148 | | | | | | | | | | ○ | | | |
| **整体硬质合金刀系列** | | | | | | | | | | | | | | | |
| | 公制ISO | 150 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 美制UN | 151 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 英制BSP(G) | 152 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 英制BSPT | 152 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 美制NPT | 153 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 美制NPTF | 153 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | 公制ISO | 154~155 | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |

注：○非常适合　○适合



# 可实现高精度、高效率、高硬度材料的高速加工！

## 贴近客户--个性化和高效

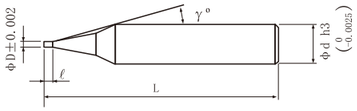
服务不仅“只是”提供产品。
我们围绕刀具使用所提供的服务工具，为我们的客户提供实在和具体的优势，这才是服务这个词的真正意义。





## NSME 超微精细加工用平底铣刀

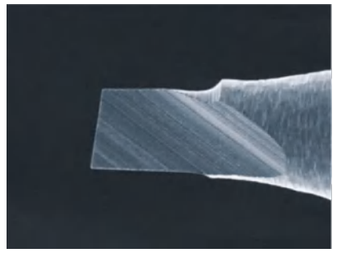




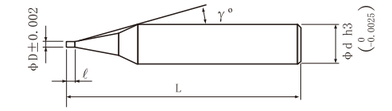

●超高精度规格、刃径公差±2μm、柄径公差h3（真圆度0.1μm）。
●单刃直刃型备有Φ0.01～Φ0.05的5个规格。

| 型号 Model | (D) 刃径 mm | (ℓ)刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| NSME1001 | 0.01 | 0.01 | 15° | 45 | 4 |
| NSME1002 | 0.02 | 0.02 | 15° | 45 | 4 |
| NSME1003 | 0.03 | 0.03 | 15° | 45 | 4 |
| NSME1004 | 0.04 | 0.04 | 15° | 45 | 4 |
| NSME1005 | 0.05 | 0.05 | 15° | 45 | 4 |

扫描式电子显微镜（SEM）照片(600倍)



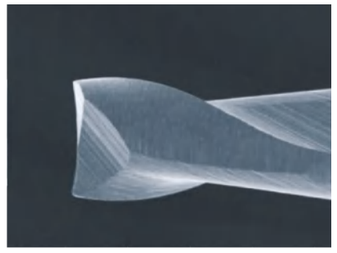





●超高精度规格、刃径公差±2μm、柄径公差h3（真圆度0.1μm）。
●2刃30° 螺旋角型备有Φ0.03～Φ0.09的7个规格。

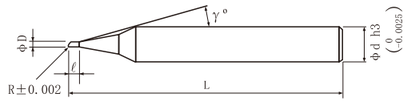
| 型号 Model | (D) 刃径 mm | (ℓ)刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| NSME2003 | 0.03 | 0.045 | 15° | 45 | 4 |
| NSME2004 | 0.04 | 0.060 | 15° | 45 | 4 |
| NSME2005 | 0.05 | 0.075 | 15° | 45 | 4 |
| NSME2006 | 0.06 | 0.090 | 15° | 45 | 4 |
| NSME2007 | 0.07 | 0.105 | 15° | 45 | 4 |
| NSME2008 | 0.08 | 0.120 | 15° | 45 | 4 |
| NSME2009 | 0.09 | 0.135 | 15° | 45 | 4 |

扫描式电子显微镜（SEM）照片(600倍)



## NSMB 超微精细加工用球头铣刀

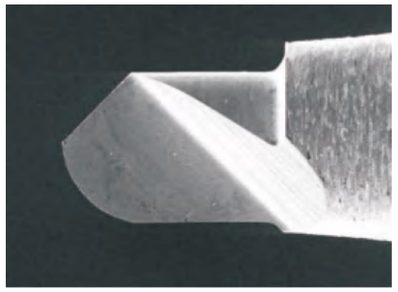





●世界首创！R尺寸 实现高于R0.005的标准化。
●世界最小球头铣刀“Micro Ball”拓展了精细加工领域。
●采用独创的R部形状，实现了美观的加工面。

UMG

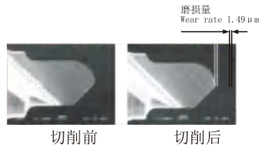
| 型号 Model | (R) R角半径 mm | (ℓ) 刃长 mm | (D) 刃径 mm | (γ) 颈角 | (L)全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| NSMB1001 | R0.005 | 0.01 | 0.01 | 15° | 45 | 4 |
| NSMB1002 | R0.01 | 0.02 | 0.02 | 15° | 45 | 4 |
| NSMB1003 | R0.015 | 0.03 | 0.03 | 15° | 45 | 4 |
| NSMB1004 | R0.02 | 0.04 | 0.04 | 15° | 45 | 4 |
| NSMB1005 | R0.025 | 0.05 | 0.05 | 15° | 45 | 4 |
| NSMB1006 | R0.03 | 0.06 | 0.06 | 15° | 45 | 4 |
| NSMB1008 | R0.04 | 0.08 | 0.08 | 15° | 45 | 4 |
| NSMB1010 | R0.05 | 0.1 | 0.1 | 15° | 45 | 4 |



### 加工范例1

R0.03 透镜阵列型式






切削前 切削后

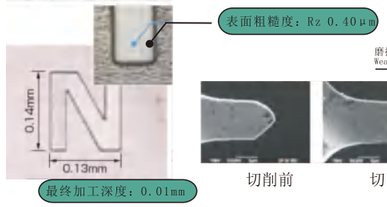
| 加工材料 | 纯铜 | |
|---|---|---|
| 转速 | 60,000min⁻¹ | |
| 进给速度 | 粗加工：50mm/min | 精加工：30mm/min |
| 切深量※ | 粗加工：1μm×2μm (ap×ae) | 精加工：1μm×1μm (ap×ae) |
| 加工时间 | 4小时40分 | |
| 加工长度 | 10.4m | |
| 冷却液 | 油雾 | |

●以同一把刀具进行粗加工、精加工。

※ap表示切入深度，ae表示切入宽度。

### 加工范例2

R0.005 N字符加工







切削前 切削后

| 加工材料 | NAK80 40HRC |
|---|---|
| 转速 | 60，000min⁻¹ |
| 进给速度 | 5mm/min |
| 切深量※ | 0.3μm×0.5μm (ap×ae) |
| 加工时间 | 2小时30分 |
| 加工长度 | 0.8m |
| 冷却液 | 油雾 |

●以同一把刀具进行粗加工、精加工。

※ap表示切入深度，ae表示切入宽度。

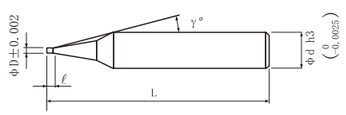






## SMEZ超微细加工用 CBN平底铣刀





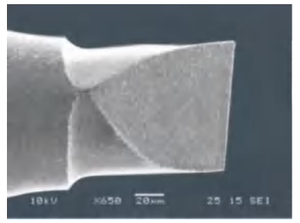

●独特的加工技术和精选的CBN材质完美结合产生出锋利的刀刃.
●刃径精度±2μm.
●柄径公差h3(0~-0.0025).

CBN 20

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| SMEZ1003 | 0.03 | 0.03 | 15° | 50 | 4 |
| SMEZ1004 | 0.04 | 0.04 | 15° | 50 | 4 |
| SMEZ1005 | 0.05 | 0.05 | 15° | 50 | 4 |
| SMEZ1006 | 0.06 | 0.06 | 15° | 50 | 4 |
| SMEZ1007 | 0.07 | 0.07 | 15° | 50 | 4 |
| SMEZ1008 | 0.08 | 0.08 | 15° | 50 | 4 |
| SMEZ1009 | 0.09 | 0.09 | 15° | 50 | 4 |
| SMEZ1010 | 0.1 | 0.1 | 15° | 50 | 4 |

### 加工范例

SMEZ120




CBN Micro Edge Z特殊刃形状（PAT.P）

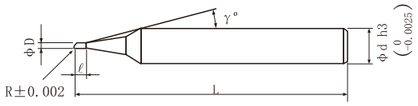


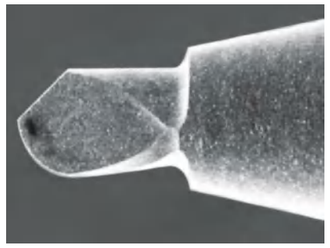


采用独创的刀刃形状，兼具刀具的高刚性和长寿命。可获得优良的精加工表面。
※刃部经过特殊的刃口处理。
※刃部圆角为R5μm以下形状。

## SMB超微细加工用 CBN球头铣刀





●世界首创！CBN材质的微小型球头铣刀。
●开拓精细切削加工的新领域。
●R尺寸从R0.01起实现标准化。
●可实现最大限度发挥CBN材质特长的锋利刀刃。
●从调质钢到淬火钢(60HRC以上)均可长时间加工。

CBN

| 型号 Model | (R)R角半径 mm | (ℓ)刃长 mm | (D)刃径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|
| SMB1002 | R0.01 | 0.02 | 0.02 | 15° | 50 | 4 |
| SMB1003 | R0.015 | 0.03 | 0.03 | 15° | 50 | 4 |
| SMB1004 | R0.02 | 0.04 | 0.04 | 15° | 50 | 4 |
| SMB1005 | R0.025 | 0.05 | 0.05 | 15° | 50 | 4 |
| SMB1006 | R0.03 | 0.06 | 0.06 | 15° | 50 | 4 |
| SMB1008 | R0.04 | 0.08 | 0.08 | 15° | 50 | 4 |
| SMB1010 | R0.05 | 0.1 | 0.1 | 15° | 50 | 4 |

### 加工范例1

R0.05 透镜阵列型式

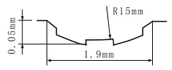




切削前



切削后




| 加工材料 | STAVAX 52HRC | |
|---|---|---|
| 转速 | 60,000min⁻¹ | |
| 进给速度 | 粗加工：200mm/min | 精加工：30mm/min |
| 切深量※ | 粗加工：2μm×5μm (ap×ae) | 精加工：2μm×2μm (ap×ae) |
| 加工时间 | 4小时50分 | |
| 加工长度 | 7.7m | |
| 冷却液 | 油雾 | |

●以同一把刀具进行粗加工、精加工。

※ap表示切入深度，ae表示切入宽度。

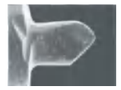
### 加工范例2

R0.03 透镜阵列型式

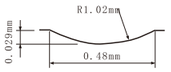




切削前



切削后




| 加工材料 | Pd613 60HRC | |
|---|---|---|
| 转速 | 60,000min⁻¹ | |
| 进给速度 | 粗加工：50mm/min | 精加工：30mm/min |
| 切深量※ | 粗加工：1μm×2μm (ap×ae) | 精加工：2μm×2μm (ap×ae) |
| 加工时间 | 4小时 | |
| 加工长度 | 7.7m | |
| 冷却液 | 油雾 | |

●以同一把刀具进行粗加工、精加工。

※ap表示切入深度，ae表示切入宽度。

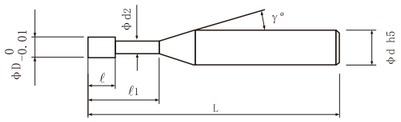






## SSE四刃 CBN超精加工用平底铣刀






●可加工高硬度材料的内角棱边部位。
●采用独创的多刃形状，提高了耐磨性！

CBN HRC ▶68

| 型号 Model | (D)刃径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|
| ● SSE4010-0.2 | 0.1 | 0.2 | 0.04 | 0.075 | 15° | 53 | 4 |
| ● SSE4010-0.5 | | 0.5 | 0.04 | 0.08 | 15° | 53 | 4 |

## SSE六刃 CBN超精加工用平底铣刀

●可加工高硬度材料的内角棱边部位。
●采用独创的多刃形状，提高了耐磨性！

CBN HRC ▶68

| 型号 Model | (D)刃径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|
| ● SSE6020-0.4 | 0.2 | 0.4 | 0.08 | 0.175 | 15° | 53 | 4 |
| ● SSE6020-1 | | 1 | 0.08 | 0.175 | 15° | 53 | 4 |
| ● SSE6030-0.5 | 0.3 | 0.5 | 0.12 | 0.275 | 15° | 49 | 4 |
| ● SSE6030-1.5 | | 1.5 | 0.12 | 0.275 | 15° | 50 | 4 |
| ● SSE6040-0.8 | 0.4 | 0.8 | 0.16 | 0.37 | 15° | 49 | 4 |
| ● SSE6040-2 | | 2 | 0.16 | 0.37 | 15° | 50 | 4 |
| ● SSE6050-1 | 0.5 | 1 | 0.2 | 0.46 | 15° | 49 | 4 |
| ● SSE6050-2.5 | | 2.5 | 0.2 | 0.46 | 15° | 50 | 4 |
| ● SSE6060-1.2 | 0.6 | 1.2 | 0.24 | 0.56 | 15° | 49 | 4 |
| ● SSE6060-3 | | 3 | 0.24 | 0.56 | 15° | 50 | 4 |
| ● SSE6080-1.5 | 0.8 | 1.5 | 0.32 | 0.76 | 15° | 49 | 4 |
| ● SSE6080-4 | | 4 | 0.32 | 0.76 | 15° | 52 | 4 |
| ● SSE6100-2 | 1 | 2 | 0.4 | 0.95 | 15° | 49 | 4 |
| ● SSE6100-5 | | 5 | 0.4 | 0.95 | 15° | 52 | 4 |

## SSE四/六刃 切削参数参考

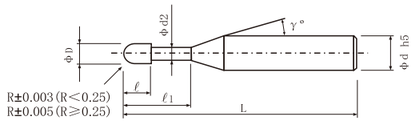
| 加工材料 | | 淬火钢 HPM-38•STAVAX•SKD61 (～55HRC) | | | | 淬火钢 SKD11 (～62HRC) | | | | 高速钢 SKH (～65HRC) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 刃径 | 有效长度 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 |
| | | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ |
| 0.1 | 0.2 | 0.001 | 0.002 | 250 | 40,000 | 0.001 | 0.002 | 200 | 40,000 | 0.001 | 0.002 | 150 | 40,000 |
| | 0.5 | 0.001 | 0.002 | 200 | 40,000 | 0.001 | 0.002 | 150 | 40,000 | 0.001 | 0.001 | 100 | 40,000 |
| 0.2 | 0.4 | 0.003 | 0.002 | 400 | 40,000 | 0.002 | 0.002 | 300 | 40,000 | 0.002 | 0.002 | 200 | 40,000 |
| | 1 | 0.003 | 0.002 | 300 | 40,000 | 0.002 | 0.002 | 200 | 40,000 | 0.002 | 0.002 | 100 | 40,000 |
| 0.3 | 0.5 | 0.005 | 0.003 | 600 | 40,000 | 0.004 | 0.003 | 400 | 40,000 | 0.003 | 0.003 | 400 | 40,000 |
| | 1.5 | 0.005 | 0.002 | 500 | 40,000 | 0.004 | 0.002 | 300 | 40,000 | 0.003 | 0.002 | 200 | 40,000 |
| 0.4 | 0.8 | 0.007 | 0.004 | 700 | 40,000 | 0.005 | 0.003 | 600 | 40,000 | 0.003 | 0.003 | 600 | 40,000 |
| | 2 | 0.007 | 0.003 | 600 | 40,000 | 0.005 | 0.002 | 400 | 40,000 | 0.003 | 0.002 | 400 | 40,000 |
| 0.5 | 1 | 0.01 | 0.005 | 800 | 40,000 | 0.007 | 0.003 | 700 | 40,000 | 0.005 | 0.003 | 600 | 40,000 |
| | 2.5 | 0.01 | 0.004 | 800 | 40,000 | 0.007 | 0.002 | 500 | 40,000 | 0.005 | 0.002 | 400 | 40,000 |
| 0.6 | 1.2 | 0.01 | 0.005 | 800 | 40,000 | 0.007 | 0.003 | 700 | 40,000 | 0.005 | 0.003 | 600 | 40,000 |
| | 3 | 0.01 | 0.004 | 800 | 40,000 | 0.007 | 0.002 | 500 | 40,000 | 0.005 | 0.002 | 400 | 40,000 |
| 0.8 | 1.5 | 0.01 | 0.005 | 800 | 40,000 | 0.007 | 0.004 | 800 | 40,000 | 0.005 | 0.004 | 700 | 40,000 |
| | 3.5 | 0.01 | 0.004 | 800 | 40,000 | 0.007 | 0.003 | 600 | 40,000 | 0.005 | 0.003 | 500 | 40,000 |
| 1 | 2 | 0.01 | 0.006 | 800 | 40,000 | 0.007 | 0.006 | 800 | 40,000 | 0.005 | 0.006 | 800 | 40,000 |
| | 5 | 0.01 | 0.005 | 800 | 40,000 | 0.007 | 0.005 | 600 | 40,000 | 0.005 | 0.005 | 600 | 40,000 |
| 备注 | | ※切深量为进行等高线精加工时的最大值.<br>※切深量的ap表示深度方向的切入量，ae表示半径方向的切入量。<br>※建议使用油雾冷却液。<br>※请根据需要控制刀具的伸出量。<br>※请尽量抑制刀具的偏摆量。（如有可能，请检查所用转速下的动态跳动精度）<br>※进行底面精加工时，进给速度请取切削参数参考表的50%，切深量ap取φ0.1：0.001mm、φ0.2・φ0.3:～0.002mm、φ0.4～0.003mm,切深量ae取刃径0.01×0.005mm作为参考值。 | | | | | | | | | | | |





## SFB二刃 CBN超精加工用球头铣刀






●新构思的刀刃形状直至R的中心部都具有超强的锋利度。
●60HRC的淬火钢可实现连续10小时以上的精加工。
●加工面精度可长时间保持Rz1.0μm。
●大幅减少模具的研磨加工时间。
●请使用油雾冷却液。




| 型号 Model | (R) 球半径 mm | (ℓ1) 有效长度 mm | (ℓ) 刃长 mm | (D) 刃径 mm | (d2) 颈径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SFB2020 | R0.1 | 0.5 | 0.15 | 0.2 | 0.18 | 12° | 50 | 4 |
| SFB2040 | R0.2 | 1 | 0.3 | 0.4 | 0.37 | 12° | 50 | 4 |
| SFB2050 | R0.25 | 1.25 | 0.38 | 0.5 | 0.46 | 12° | 50 | 4 |
| SFB2060 | R0.3 | 1.5 | 0.5 | 0.6 | 0.56 | 12° | 50 | 4 |
| SFB2080 | R0.4 | 2 | 0.6 | 0.8 | 0.76 | 12° | 50 | 4 |
| SFB2100 | R0.5 | 2.5 | 0.7 | 1 | 0.95 | 12° | 50 | 4 |
| SFB2120 | R0.6 | 3 | 0.8 | 1.2 | 1.15 | 12° | 50 | 4 |
| SFB2140 | R0.7 | 3.5 | 1 | 1.4 | 1.35 | 12° | 52 | 4 |
| SFB2150 | R0.75 | 3.8 | 1 | 1.5 | 1.45 | 12° | 52 | 4 |
| SFB2160 | R0.8 | 4 | 1 | 1.6 | 1.55 | 12° | 52 | 4 |
| SFB2180 | R0.9 | 4.5 | 1.2 | 1.8 | 1.75 | 12° | 52 | 4 |
| SFB2200 | R1 | 5 | 1.2 | 2 | 1.94 | 12° | 52 | 4 |

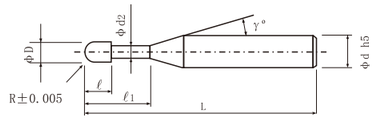
SFB200



采用新构思、新形状，R中心刃的锋利度超群。
最适合长时间的超精密精加工。

## SSB二刃 CBN超精加工用球头铣刀






- ●兼具CBN的长寿命、高精度和钨钢的使用便利性的高效率CBN球头铣刀。
- ●可使用与钨钢刀精加工相同的切深。
- ●采用独创的刀刃形状，R精度达±0.005，并提高了耐崩刃性能！
- ●R刃和外周刃的接线平滑无段差。
- ●～68HRC的高硬度材料也能加工！
- ●建议使用油雾冷却液。




| 型号 Model | （R）球半径 mm | （ℓ1）有效长度 mm | （ℓ）刃长 mm | （D）刃径 mm | （d2）颈径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSB2060 | R0.3 | 1.5 | 0.5 | 0.6 | 0.56 | 15° | 50 | 4 |
| SSB2080 | R0.4 | 2 | 0.6 | 0.8 | 0.76 | 15° | 50 | 4 |
| SSB2100 | R0.5 | 2.5 | 0.7 | 1 | 0.95 | 15° | 50 | 4 |
| SSB2120 | R0.6 | 3 | 0.8 | 1.2 | 1.15 | 15° | 50 | 4 |
| SSB2150 | R0.75 | 3.8 | 1 | 1.5 | 1.45 | 15° | 52 | 4 |
| SSB2200-4 | R1 | 4 | 1.2 | 2 | 1.94 | 15° | 52 | 4 |
| SSB2200-5 | | 5 | 1.2 | 2 | 1.94 | 15° | 52 | 4 |

SSB200



排泄性能优良，切深量可以与钨钢铣刀（精加工）相同，最适合高效率加工。

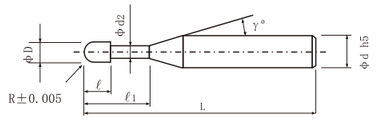




R 整体硬质合金铣刀 I 常用铣削刀片 N 可转位铣削刀具 E 孔加工刀具 C 刀柄系统 K 辅助工具 + 通用信息

## SSBL二刃 CBN超精加工用长颈球头铣刀





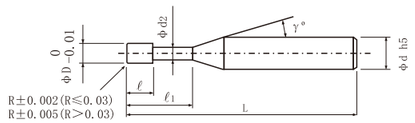

- ●可适用于深沟加工。长颈型已形成系列产品！共有25个规格！
- ●最大有效长度10mm。与以往的CBN刀具相比，可适应更深的沟槽加工。
- ●CBN的长寿命及长颈设计开拓了崭新的加工领域。
- ●极小径规格从R0.05起已经标准化！
- ●采用独创的刀刃形状，R精度达±0.005，并提高的耐崩刃性能！
- ●建议使用油雾冷却液。




| 型号 Model | （R）球半径 mm | （ℓ1）有效长度 mm | （ℓ）刃长 mm | （D）刃径 mm | （d2）颈径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSBL2010-0.3 | R0.05 | 0.3 | 0.08 | 0.1 | 0.085 | 15° | 50 | 4 |
| SSBL2010-0.5 | | 0.5 | 0.08 | 0.1 | 0.085 | 15° | 50 | 4 |
| SSBL2015-0.45 | R0.075 | 0.45 | 0.12 | 0.15 | 0.13 | 15° | 50 | 4 |
| SSBL2015-0.75 | | 0.75 | 0.12 | 0.15 | 0.13 | 15° | 50 | 4 |
| SSBL2020-0.6 | R0.1 | 0.6 | 0.15 | 0.2 | 0.18 | 15° | 50 | 4 |
| SSBL2020-1 | | 1 | 0.15 | 0.2 | 0.18 | 15° | 50 | 4 |
| SSBL2030-0.9 | R0.15 | 0.9 | 0.23 | 0.3 | 0.28 | 15° | 50 | 4 |
| SSBL2030-1.5 | | 1.5 | 0.23 | 0.3 | 0.28 | 15° | 50 | 4 |
| SSBL2040-1.2 | R0.2 | 1.2 | 0.3 | 0.4 | 0.37 | 15° | 50 | 4 |
| SSBL2040-2 | | 2 | 0.3 | 0.4 | 0.37 | 15° | 50 | 4 |
| SSBL2050-1.5 | R0.25 | 1.5 | 0.38 | 0.5 | 0.46 | 15° | 50 | 4 |
| SSBL2050-2.5 | | 2.5 | 0.38 | 0.5 | 0.46 | 15° | 50 | 4 |
| SSBL2060-3 | R0.3 | 3 | 0.5 | 0.6 | 0.56 | 15° | 50 | 4 |
| SSBL2060-4 | | 4 | 0.5 | 0.6 | 0.56 | 15° | 52 | 4 |
| SSBL2060-5 | | 5 | 0.5 | 0.6 | 0.56 | 15° | 52 | 4 |
| SSBL2080-4 | R0.4 | 4 | 0.6 | 0.8 | 0.76 | 15° | 52 | 4 |
| SSBL2100-4 | R0.5 | 4 | 0.7 | 1 | 0.95 | 15° | 53 | 4 |
| SSBL2100-5 | | 5 | 0.7 | 1 | 0.95 | 15° | 53 | 4 |
| SSBL2100-6 | | 6 | 0.7 | 1 | 0.95 | 15° | 53 | 4 |
| SSBL2100-8 | | 8 | 0.7 | 1 | 0.95 | 15° | 53 | 4 |
| SSBL2100-10 | | 10 | 0.7 | 1 | 0.95 | 15° | 53 | 4 |
| SSBL2150-7.5 | R0.75 | 7.5 | 1 | 1.5 | 1.45 | 15° | 52 | 4 |
| SSBL2200-6 | R1 | 6 | 1.2 | 2 | 1.94 | 15° | 52 | 4 |
| SSBL2200-8 | | 8 | 1.2 | 2 | 1.94 | 15° | 52 | 4 |
| SSBL2200-10 | | 10 | 1.2 | 2 | 1.94 | 15° | 52 | 4 |

# SSR二刃 CBN超精加工用圆鼻铣刀






- ●发挥CBN的超群耐磨性来实现角部R的高效率加工。
- ●整个切削刃为连续平滑的刀刃！圆角半径精度±5μm可实现超群的加工表面精度。
- ●调质（预硬）钢～68HRC的高硬度材料都能适用。
- ●建议使用油雾冷却液。



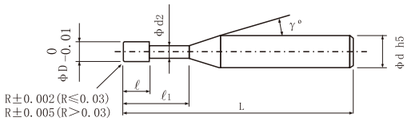

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ1)有效长度 mm | (ℓ) 刃长 mm | (d2) 颈径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSR2020R002-0.5 | 0.2 | R0.02 | 0.5 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2020R002-1 | | | 1 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2020R003-0.5 | | R0.03 | 0.5 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2020R003-1 | | | 1 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2020R005-0.5 | | R0.05 | 0.5 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2020R005-1 | | | 1 | 0.08 | 0.18 | 15° | 50 | 4 |
| SSR2030R002-0.5 | 0.3 | R0.02 | 0.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R002-1 | | | 1 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R002-1.5 | | | 1.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R002-2 | | | 2 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R003-0.5 | | R0.03 | 0.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R003-1 | | | 1 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R003-1.5 | | | 1.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R003-2 | | | 2 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R005-0.5 | | R0.05 | 0.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R005-1 | | | 1 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R005-1.5 | | | 1.5 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2030R005-2 | | | 2 | 0.13 | 0.28 | 15° | 50 | 4 |
| SSR2040R002-0.5 | 0.4 | R0.02 | 0.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R002-1 | | | 1 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R002-1.5 | | | 1.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R002-2 | | | 2 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R003-0.5 | | R0.03 | 0.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R003-1 | | | 1 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R003-1.5 | | | 1.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R003-2 | | | 2 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R005-0.5 | 0.4 | R0.05 | 0.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R005-1 | | | 1 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R005-1.5 | | | 1.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R005-2 | | | 2 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R010-0.5 | 0.4 | R0.1 | 0.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R010-1 | | | 1 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R010-1.5 | | | 1.5 | 0.24 | 0.37 | 15° | 50 | 4 |
| SSR2040R010-2 | | | 2 | 0.24 | 0.37 | 15° | 50 | 4 |





# SSR二刃 CBN超精加工用圆鼻铣刀

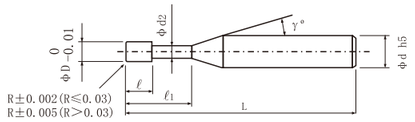





| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ1)有效长度 mm | (ℓ) 刃长 mm | (d2) 颈径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSR2050R002-0.5 | 0.5 | R0.02 | 0.5 | 0.3 | 0.46 | 15° | 48 | 4 |
| SSR2050R002-1 | | | 1 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R002-1.5 | | | 1.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R002-2.5 | | | 2.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R003-0.5 | | R0.03 | 0.5 | 0.3 | 0.46 | 15° | 48 | 4 |
| SSR2050R003-1 | | | 1 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R003-1.5 | | | 1.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R003-2.5 | | | 2.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R005-0.5 | | R0.05 | 0.5 | 0.3 | 0.46 | 15° | 48 | 4 |
| SSR2050R005-1 | | | 1 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R005-1.5 | | | 1.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R005-2.5 | | | 2.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R010-0.5 | | R0.1 | 0.5 | 0.3 | 0.46 | 15° | 48 | 4 |
| SSR2050R010-1 | | | 1 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R010-1.5 | | | 1.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2050R010-2.5 | | | 2.5 | 0.3 | 0.46 | 15° | 50 | 4 |
| SSR2060R002-0.5 | 0.6 | R0.02 | 0.5 | 0.3 | 0.56 | 15° | 48 | 4 |
| SSR2060R002-1 | | | 1 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R002-1.5 | | | 1.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R002-2.5 | | | 2.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R003-0.5 | | R0.03 | 0.5 | 0.3 | 0.56 | 15° | 48 | 4 |
| SSR2060R003-1 | | | 1 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R003-1.5 | | | 1.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R003-2.5 | | | 2.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R005-0.5 | | R0.05 | 0.5 | 0.3 | 0.56 | 15° | 48 | 4 |
| SSR2060R005-1 | | | 1 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R005-1.5 | | | 1.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R005-2.5 | | | 2.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R010-0.5 | | R0.1 | 0.5 | 0.3 | 0.56 | 15° | 48 | 4 |
| SSR2060R010-1 | | | 1 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R010-1.5 | | | 1.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2060R010-2.5 | | | 2.5 | 0.3 | 0.56 | 15° | 50 | 4 |
| SSR2080R002-1.5 | 0.8 | R0.02 | 1.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R002-2.5 | | | 2.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R002-5 | | | 5 | 0.56 | 0.76 | 15° | 53 | 4 |
| SSR2080R003-1.5 | | R0.03 | 1.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R003-2.5 | | | 2.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R003-5 | | | 5 | 0.56 | 0.76 | 15° | 53 | 4 |
| SSR2080R005-1.5 | | R0.05 | 1.5 | 0.56 | 0.76 | 15° | 50 | 4 |

## SSR二刃 CBN超精加工用圆鼻铣刀






| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ1)有效长度 mm | (ℓ) 刃长 mm | (d2) 颈径 mm | (γ) 颈角 mm | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSR2080R005-2.5 | 0.8 | R0.05 | 2.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R005-5 | | | 5 | 0.56 | 0.76 | 15° | 53 | 4 |
| SSR2080R010-1.5 | | R0.1 | 1.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R010-2.5 | | | 2.5 | 0.56 | 0.76 | 15° | 50 | 4 |
| SSR2080R010-5 | | | 5 | 0.56 | 0.76 | 15° | 53 | 4 |
| SSR2100R002-1 | 1 | R0.02 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R002-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R002-3 | | | 3 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R002-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2100R003-1 | | R0.03 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R003-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R003-3 | | | 3 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R003-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2100R005-1 | | R0.05 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R005-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R005-3 | | | 3 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R005-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2100R010-1 | | R0.1 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R010-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R010-3 | | | 3 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R010-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2100R020-1 | | R0.2 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R020-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R020-3 | | | 3 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R020-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2100R030-1 | | R0.3 | 1 | 0.7 | 0.95 | 15° | 49 | 4 |
| SSR2100R030-2 | | | 2 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R030-3 | | | 3 | 0.7 | 0.95 | 15° | 50 | 4 |
| SSR2100R030-5 | | | 5 | 0.7 | 0.95 | 15° | 53 | 4 |
| SSR2150R002-3 | 1.5 | R0.02 | 3 | 0.7 | 1.45 | 15° | 52 | 4 |
| SSR2150R002-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R002-7.5 | | | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R003-3 | | R0.03 | 3 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R003-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R003-7.5 | | | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R005-3 | | R0.05 | 3 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R005-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |

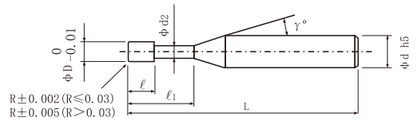




R 整体硬质合金铣刀 I 常用铣削刀片 N 可转位铣削刀具 E 孔加工刀具 C 刀柄系统 K 辅助工具 + 通用信息

## SSR二刃 CBN超精加工用圆鼻铣刀

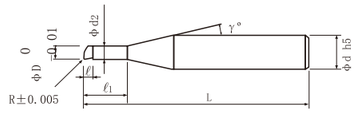





| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ) 颈角 mm | (L) 全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSR2150R005-7.5 | 1.5 | R0.05 | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R010-3 | | R0.1 | 3 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R010-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R010-7.5 | | | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R020-3 | | R0.2 | 3 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R020-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R020-7.5 | | | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R030-3 | | R0.3 | 3 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R030-4.5 | | | 4.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2150R030-7.5 | | | 7.5 | 1 | 1.45 | 15° | 52 | 4 |
| SSR2200R002-4 | 2 | R0.02 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R002-6 | | | 6 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R002-10 | | | 10 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R003-4 | | R0.03 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R003-6 | | | 6 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R003-10 | | | 10 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R005-4 | | R0.05 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R005-6 | | | 6 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R005-10 | | | 10 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R010-4 | | R0.1 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R010-6 | | | 6 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R010-10 | | | 10 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R020-4 | | R0.2 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R020-6 | | | 6 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R020-10 | | | 10 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R030-4 | | R0.3 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R030-6 | | | 6 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R030-10 | | | 10 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R050-4 | | R0.5 | 4 | 1.2 | 1.94 | 15° | 53 | 4 |
| SSR2200R050-6 | | | 6 | 1.2 | 1.94 | 15° | 52 | 4 |
| SSR2200R050-10 | | | 10 | 1.2 | 1.94 | 15° | 52 | 4 |

## SSF单刃 CBN超精加工用圆鼻铣刀





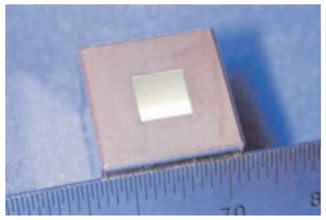

- 最适合精细加工时的基准面加工。
- 采用独创的形状和圆角R,实现稳定的加工表面。
- 建议使用油雾冷却液。

CBN HRC ▶68

| 型号 Model | (D)刃径 mm | (R)R角半径 mm | (ℓ)刃长 mm | (ℓ1)有效长度 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|---|
| SSF1020R005 | 0.2 | R0.05 | 0.1 | 0.5 | 0.18 | 15° | 50 | 4 |
| SSF1030R005 | 0.3 | R0.05 | 0.15 | 0.75 | 0.28 | 15° | 50 | 4 |
| SSF1040R005 | 0.4 | R0.05 | 0.2 | 1 | 0.37 | 15° | 50 | 4 |
| SSF1050R005 | 0.5 | R0.05 | 0.25 | 1.25 | 0.46 | 15° | 50 | 4 |
| SSF1060R005 | 0.6 | R0.05 | 0.3 | 1.5 | 0.56 | 15° | 50 | 4 |
| SSF1080R005 | 0.8 | R0.05 | 0.4 | 2 | 0.76 | 15° | 50 | 4 |
| SSF1100R01 | 1 | R0.1 | 0.5 | 2.5 | 0.95 | 15° | 50 | 4 |
| SSF1150R01 | 1.5 | R0.1 | 0.75 | 3.8 | 1.45 | 15° | 52 | 4 |
| SSF1200R01 | 2 | R0.1 | 1 | 5 | 1.94 | 15° | 52 | 4 |

### 加工范例1

DC53(SKD11)60HRC



刀具尺寸 TOOL SSF120 φ0.5

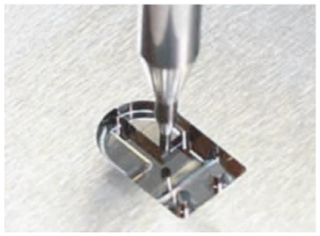



表面粗糙度：Rz 16.3μm （1nm=0.001μm）

精加工参数

| | |
|---|---|
| 转速 | 12,000min⁻¹ |
| 进给速度 | 300mm/min |
| 切深量 | 2μm×5μm (ap×ae) |
| 冷却液 | 油雾 |
| 加工时间 | 30分钟 |

### 加工范例2



刀具尺寸
SSF φ0.8
工件尺寸 Work Size
长10mm×6mm×深2mm

表面粗糙度：Rz 70mm
（1nm=0.001μm）

精加工参数

| | 底面加工 | 侧面加工 |
|---|---|---|
| 转速 | 35,000min⁻¹ | |
| 进给速度 | 150mm/min | |
| 切深量 | 3μm×8μm (ap×ae) | 10μm×10μm (ap×ae) |
| 冷却液 | 油雾 | |
| 加工时间 | 1小时30分 | |





## SMB 切削参数参考

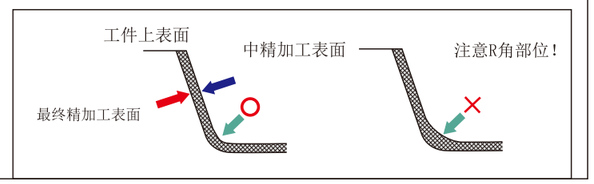
| 加工材料 | 淬火钢 STAVAX ·SKD11·PD613 (～62HRC) | | | | |
|---|---|---|---|---|---|
| R尺寸 | 切深量 | | 进给速度 | 进刀速度 | 转速 |
| | ap mm | ae mm | mm/min | mm/min | min⁻¹ |
| 0.01 | 0.0005 | 0.001 | 5 | 3 | 80,000 |
| 0.02 | 0.001 | 0.001 | 30 | 5 | 80,000 |
| 0.03 | 0.001 | 0.002 | 70 | 10 | 80,000 |
| 0.04 | 0.002 | 0.003 | 100 | 30 | 80,000 |
| 0.05 | 0.002 | 0.005 | 200 | 30 | 80,000 |
| 备注 | ※切深量的ap表示深度方向的切入量，ae表示步距。<br>※刀具的装拆和预调时须充分注意。<br>※请使用油雾冷却剂。<br>请尽量抑制刀具的偏摆量。<br>（如有可能，请检查所用转速下的动态时偏摆精度）<br>※进刀角度请设在3°以下。<br>※增加切深量会导致刀具折断。特别须注意AP值的设定。 | | | | |

## SFB2刃 切削参数参考

| 加工材料 | 调质钢·淬火钢·高速钢 HPM-1 ·NAK80·SKD·SKH (～68HRC) | | | | | |
|---|---|---|---|---|---|---|
| R尺寸 | 切深量 | | 高速条件 | | 超高速条件 | |
| | | | 转速 | 进给速度 | 转速 | 进给速度 |
| | ap mm | ae mm | min⁻¹ | mm/min | min⁻¹ | mm/min |
| 0.1～0.2 | 0.005 | 0.01 | 20,000 | 600 | 50,000 | 1,500 |
| 0.25～0.3 | 0.01 | 0.01 | | 800 | | 2,000 |
| 0.4～0.6 | 0.01 | 0.02 | | 1,200 | | 3,000 |
| 0.7～0.8 | 0.01 | 0.02 | | 1,600 | | 4,000 |
| 0.9～1 | 0.02 | 0.05 | | 2,000 | | 5,000 |
| 备注 | ※该款是超精密加工专用刀具。请在钨钢铣刀做完精加工后使用。<br>※请将切深量固定为切削参数参考表内的数值使用。<br>※R角加工时请特别注意参数设定（刀路轨迹等）。<br>※请使用油雾冷却剂。<br>※铣刀刀柄、机床请尽量使用高精度产品。 | | | | | |

### CBN铣刀使用注意事项

请使整个加工表面的加工余量保持均匀
（尤其须注意R角部位）。
这些会影响加工精度和刀具寿命。



## SSB二刃 切削参数参考

| 加工材料 | | 调质钢・淬火钢 NAK80 ・STAVAX・SKD61 (～52HRC) | | | | 淬火钢 SKD61 (～62HRC) | | | | 高速钢 SKH (～68HRC) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R尺寸 | 有效长 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 |
| | | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ |
| 0.3 | 1.5 | 0.02 | 0.03 | 2,000 | | 0.01 | 0.02 | 2,000 | | 0.01 | 0.02 | 1,500 | |
| 0.4 | 2 | 0.03 | 0.05 | 2,000 | | 0.02 | 0.03 | 2,000 | | 0.01 | 0.03 | 1,500 | |
| 0.5 | 2.5 | 0.05 | 0.05 | 3,000 | | 0.03 | 0.05 | 3,000 | | 0.02 | 0.03 | 2,000 | |
| 0.6 | 3 | 0.05 | 0.05 | 3,000 | 50,000 | 0.03 | 0.05 | 3,000 | 50,000 | 0.02 | 0.03 | 2,000 | 50,000 |
| 0.75 | 3.8 | 0.05 | 0.1 | 4,000 | | 0.05 | 0.05 | 4,000 | | 0.02 | 0.05 | 3,000 | |
| 1 | 4 | 0.1 | 0.1 | 5,000 | | 0.05 | 0.05 | 5,000 | | 0.03 | 0.05 | 3,000 | |
| | 5 | 0.1 | 0.1 | 5,000 | | 0.05 | 0.05 | 5,000 | | 0.03 | 0.05 | 3,000 | |
| 备注 | | ※切深量为中精加工、精加工时的最大值。<br>※切深量的ap表示深度方向的切入量，ae表示步距。<br>※建议使用油雾冷却液。<br>※请以相同的比率调整转速和进给速度。<br>※参数需因切深量和机床刚性的情况做调整。<br>※请根据需要控制刀具的伸出量。 | | | | | | | | | | | |



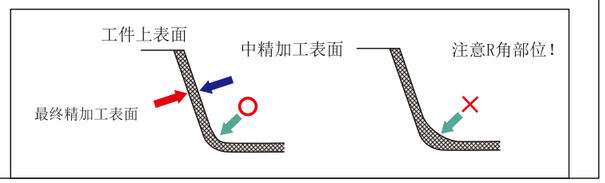


## SSBL二刃 切削参数参考

| 加工材料 | | 调质钢・淬火钢 NAK80 ・STAVAX・SKD61 (～52HRC) | | | | 淬火钢 SKD11 (～62HRC) | | | | 高速钢 SKH (～68HRC) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R尺寸 | 有效长 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 |
| | | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ | ap mm | ae mm | mm/min | min$^{-1}$ |
| 0.05 | 0.3 | 0.005 | 0.005 | 200 | 50,000 | 0.003 | 0.005 | 150 | 50,000 | 0.002 | 0.003 | 120 | 50,000 |
| | 0.5 | 0.003 | 0.003 | 120 | 50,000 | 0.003 | 0.003 | 100 | 50,000 | 0.002 | 0.003 | 80 | 50,000 |
| 0.075 | 0.45 | 0.005 | 0.005 | 300 | 50,000 | 0.003 | 0.005 | 200 | 50,000 | 0.002 | 0.003 | 150 | 50,000 |
| | 0.75 | 0.003 | 0.003 | 200 | 50,000 | 0.003 | 0.003 | 150 | 50,000 | 0.002 | 0.003 | 100 | 50,000 |
| 0.1 | 0.6 | 0.005 | 0.005 | 500 | 50,000 | 0.005 | 0.005 | 380 | 50,000 | 0.003 | 0.003 | 280 | 50,000 |
| | 1 | 0.005 | 0.005 | 300 | 50,000 | 0.005 | 0.005 | 260 | 50,000 | 0.003 | 0.003 | 120 | 50,000 |
| 0.15 | 0.9 | 0.005 | 0.005 | 800 | 50,000 | 0.005 | 0.005 | 460 | 50,000 | 0.003 | 0.005 | 360 | 50,000 |
| | 1.5 | 0.005 | 0.005 | 480 | 50,000 | 0.005 | 0.005 | 320 | 50,000 | 0.003 | 0.005 | 280 | 50,000 |
| 0.2 | 1.2 | 0.005 | 0.01 | 1,200 | 50,000 | 0.005 | 0.01 | 820 | 50,000 | 0.005 | 0.005 | 580 | 50,000 |
| | 2 | 0.005 | 0.01 | 620 | 50,000 | 0.005 | 0.01 | 580 | 50,000 | 0.005 | 0.005 | 380 | 50,000 |
| 0.25 | 1.5 | 0.01 | 0.01 | 1,500 | 50,000 | 0.01 | 0.01 | 1,200 | 50,000 | 0.005 | 0.01 | 860 | 50,000 |
| | 2.5 | 0.01 | 0.01 | 800 | 50,000 | 0.01 | 0.01 | 680 | 50,000 | 0.005 | 0.01 | 540 | 50,000 |
| 0.3 | 3 | 0.01 | 0.02 | 1,600 | 40,000 | 0.01 | 0.02 | 1,200 | 40,000 | 0.01 | 0.01 | 920 | 40,000 |
| | 4 | 0.01 | 0.01 | 1,200 | 30,000 | 0.01 | 0.01 | 960 | 30,000 | 0.005 | 0.01 | 640 | 30,000 |
| | 5 | 0.01 | 0.01 | 800 | 30,000 | 0.005 | 0.01 | 680 | 30,000 | 0.005 | 0.005 | 480 | 30,000 |
| 0.4 | 4 | 0.01 | 0.03 | 1,500 | 30,000 | 0.01 | 0.02 | 1,200 | 30,000 | 0.01 | 0.01 | 920 | 30,000 |
| 0.5 | 4 | 0.03 | 0.05 | 2,400 | 40,000 | 0.02 | 0.03 | 2,400 | 40,000 | 0.02 | 0.02 | 1,500 | 40,000 |
| | 5 | 0.02 | 0.05 | 2,000 | 32,000 | 0.02 | 0.03 | 2,000 | 32,000 | 0.01 | 0.02 | 1,200 | 32,000 |
| | 6 | 0.02 | 0.03 | 1,500 | 25,000 | 0.01 | 0.02 | 1,500 | 25,000 | 0.01 | 0.01 | 1,000 | 25,000 |
| | 8 | 0.01 | 0.03 | 1,200 | 16,000 | 0.01 | 0.02 | 1,000 | 16,000 | 0.01 | 0.01 | 840 | 16,000 |
| | 10 | 0.01 | 0.02 | 800 | 12,000 | 0.005 | 0.01 | 720 | 12,000 | 0.005 | 0.005 | 620 | 12,000 |
| 0.75 | 7.5 | 0.02 | 0.03 | 2,000 | 32,000 | 0.01 | 0.03 | 1,800 | 32,000 | 0.01 | 0.01 | 1,200 | 32,000 |
| 1 | 6 | 0.05 | 0.05 | 4,000 | 40,000 | 0.03 | 0.03 | 4,000 | 40,000 | 0.02 | 0.03 | 2,600 | 40,000 |
| | 8 | 0.03 | 0.05 | 3,000 | 32,000 | 0.02 | 0.03 | 2,600 | 32,000 | 0.01 | 0.02 | 1,800 | 32,000 |
| | 10 | 0.02 | 0.03 | 2,000 | 24,000 | 0.01 | 0.03 | 1,600 | 24,000 | 0.01 | 0.02 | 1,200 | 24,000 |
| 备注 | | ※切深量为中精加工、精加工时的最大值。<br>※切深量的ap表示深度方向的切入量，ae表示步距。<br>※建议使用油雾冷却液。<br>※请以相同的比率调整转速和进给速度。<br>※参数需因切深量和机床刚性的情况做调整。<br>※请根据需要控制刀具的伸出量。 | | | | | | | | | | | |

### CBN铣刀使用注意事项

请使整个加工表面的加工余量保持均匀
（尤其须注意R角部位）。
这些会影响加工精度和刀具寿命。



## SSR二刃 切削参数参考

| 加工材料 | | | 调质钢・淬火钢 NAK80 ・SKD61・STAVAX (～52HRC) | | | | 淬火钢 DC53・ELMAX・PD613 (～62HRC) | | | | 高速钢 DRM3・YXR3 (～68HRC) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 刃径 | 圆角半径 | 有效长 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 | 切深量 | | 进给速度 | 转速 |
| | | | ap mm | ae mm | mm/min | $min^{-1}$ | ap mm | ae mm | mm/min | $min^{-1}$ | ap mm | ae mm | mm/min | $min^{-1}$ |
| 0.2 | 0.02・0.03 | 0.5 | 0.003 | 0.03 | 300 | 50,000 | 0.003 | 0.03 | 300 | 50,000 | 0.002 | 0.02 | 200 | 50,000 |
| | 0.05 | 1 | 0.003 | 0.02 | 200 | 50,000 | 0.003 | 0.02 | 200 | 50,000 | 0.002 | 0.01 | 100 | 50,000 |
| 0.3 | 0.02・0.03 | 0.5・1 | 0.003 | 0.05 | 500 | 50,000 | 0.003 | 0.05 | 400 | 50,000 | 0.002 | 0.03 | 300 | 50,000 |
| | 0.05 | 1.5・2 | 0.003 | 0.03 | 400 | 50,000 | 0.003 | 0.03 | 300 | 50,000 | 0.002 | 0.02 | 200 | 50,000 |
| 0.4 | 0.02・0.03 | 0.5・1 | 0.005 | 0.1 | 700 | 50,000 | 0.005 | 0.1 | 600 | 50,000 | 0.003 | 0.03 | 400 | 50,000 |
| | 0.05・0.1 | 1.5・2 | 0.005 | 0.05 | 500 | 50,000 | 0.005 | 0.05 | 400 | 50,000 | 0.003 | 0.02 | 300 | 50,000 |
| 0.5 | 0.02・0.03 | 0.5・1・1.5 | 0.005 | 0.2 | 600 | 50,000 | 0.005 | 0.2 | 600 | 50,000 | 0.003 | 0.1 | 500 | 50,000 |
| | | 2.5 | 0.005 | 0.1 | 600 | 50,000 | 0.005 | 0.1 | 600 | 50,000 | 0.003 | 0.05 | 500 | 50,000 |
| | 0.05 | 0.5・1・1.5 | 0.01 | 0.2 | 600 | 50,000 | 0.01 | 0.2 | 600 | 50,000 | 0.005 | 0.2 | 500 | 50,000 |
| | | 2.5 | 0.01 | 0.1 | 600 | 50,000 | 0.01 | 0.1 | 600 | 50,000 | 0.005 | 0.1 | 500 | 50,000 |
| | 0.1 | 0.5・1・1.5 | 0.02 | 0.2 | 800 | 50,000 | 0.02 | 0.2 | 800 | 50,000 | 0.01 | 0.1 | 700 | 50,000 |
| | | 2.5 | 0.01 | 0.1 | 800 | 50,000 | 0.01 | 0.1 | 800 | 50,000 | 0.01 | 0.05 | 700 | 50,000 |
| 0.6 | 0.02・0.03 | 0.5・1・1.5 | 0.005 | 0.2 | 600 | 50,000 | 0.005 | 0.2 | 600 | 50,000 | 0.003 | 0.1 | 500 | 50,000 |
| | | 2.5 | 0.005 | 0.1 | 600 | 50,000 | 0.005 | 0.1 | 600 | 50,000 | 0.003 | 0.05 | 500 | 50,000 |
| | 0.05 | 0.5・1・1.5 | 0.01 | 0.2 | 600 | 50,000 | 0.01 | 0.2 | 600 | 50,000 | 0.005 | 0.2 | 500 | 50,000 |
| | | 2.5 | 0.01 | 0.1 | 600 | 50,000 | 0.01 | 0.1 | 600 | 50,000 | 0.005 | 0.1 | 500 | 50,000 |
| | 0.1 | 0.5・1・1.5 | 0.02 | 0.2 | 1,000 | 50,000 | 0.02 | 0.2 | 1,000 | 50,000 | 0.01 | 0.1 | 700 | 50,000 |
| | | 2.5 | 0.01 | 0.1 | 1,000 | 50,000 | 0.01 | 0.1 | 1,000 | 50,000 | 0.01 | 0.05 | 700 | 50,000 |
| 0.8 | 0.02・0.03 | 1.5・2.5 | 0.005 | 0.2 | 800 | 50,000 | 0.005 | 0.2 | 800 | 50,000 | 0.003 | 0.1 | 600 | 40,000 |
| | | 5 | 0.005 | 0.1 | 800 | 50,000 | 0.005 | 0.1 | 800 | 50,000 | 0.003 | 0.05 | 600 | 40,000 |
| | 0.05 | 1.5・2.5 | 0.02 | 0.3 | 1,000 | 50,000 | 0.02 | 0.2 | 1,000 | 50,000 | 0.01 | 0.1 | 700 | 40,000 |
| | | 5 | 0.01 | 0.2 | 1000 | 50,000 | 0.01 | 0.1 | 1,000 | 50,000 | 0.01 | 0.05 | 700 | 40,000 |
| | 0.1 | 1.5・2.5 | 0.02 | 0.3 | 1,400 | 50,000 | 0.02 | 0.2 | 1,200 | 50,000 | 0.01 | 0.1 | 1,000 | 40,000 |
| | | 5 | 0.01 | 0.2 | 1,400 | 50,000 | 0.01 | 0.1 | 1,200 | 50,000 | 0.01 | 0.05 | 1,000 | 40,000 |
| 1 | 0.02・0.03 | 1.2 | 0.005 | 0.4 | 800 | 48,000 | 0.005 | 0.3 | 800 | 48,000 | 0.005 | 0.2 | 600 | 32,000 |
| | 0.05 | | 0.001 | 0.4 | 1,000 | 48,000 | 0.01 | 0.3 | 1,000 | 48,000 | 0.01 | 0.2 | 800 | 32,000 |
| | 0.1・0.2・0.3 | | 0.03 | 0.4 | 1,500 | 48,000 | 0.03 | 0.3 | 1,200 | 48,000 | 0.01 | 0.2 | 1,000 | 32,000 |
| | 0.02・0.03 | 3.5 | 0.005 | 0.3 | 800 | 48,000 | 0.005 | 0.2 | 800 | 48,000 | 0.005 | 0.1 | 600 | 32,000 |
| | 0.05 | | 0.01 | 0.3 | 1,000 | 48,000 | 0.01 | 0.2 | 1,000 | 48,000 | 0.01 | 0.1 | 800 | 32,000 |
| | 0.1・0.2・0.3 | | 0.02 | 0.3 | 1,500 | 48,000 | 0.02 | 0.2 | 1,200 | 48,000 | 0.01 | 0.1 | 1,000 | 32,000 |
| 1.5 | 0.02・0.03 | 3・4.5 | 0.005 | 0.7 | 1,000 | 32,000 | 0.005 | 0.6 | 1,000 | 32,000 | 0.005 | 0.3 | 800 | 20,000 |
| | 0.05 | | 0.02 | 0.7 | 1,000 | 32,000 | 0.01 | 0.6 | 1,000 | 32,000 | 0.01 | 0.3 | 800 | 20,000 |
| | 0.1・0.2・0.3 | | 0.04 | 0.7 | 2,000 | 32,000 | 0.04 | 0.6 | 1,500 | 32,000 | 0.01 | 0.3 | 1,200 | 20,000 |
| | 0.02・0.03 | 7.5 | 0.005 | 0.5 | 1,000 | 32,000 | 0.005 | 0.4 | 1,000 | 32,000 | 0.005 | 0.2 | 800 | 20,000 |
| | 0.05 | | 0.02 | 0.5 | 1,000 | 32,000 | 0.01 | 0.4 | 1,000 | 32,000 | 0.01 | 0.2 | 800 | 20,000 |
| | 0.1・0.2・0.3 | | 0.03 | 0.5 | 2,000 | 32,000 | 0.03 | 0.4 | 1,500 | 32,000 | 0.01 | 0.2 | 1,200 | 20,000 |
| 2 | 0.02・0.03 | 4・6 | 0.005 | 0.8 | 1,000 | 24,000 | 0.005 | 0.7 | 1,000 | 24,000 | 0.005 | 0.5 | 800 | 16,000 |
| | 0.05 | | 0.02 | 0.8 | 1,000 | 24,000 | 0.01 | 0.7 | 1,000 | 24,000 | 0.01 | 0.5 | 800 | 16,000 |
| | 0.1・0.3・0.5 | | 0.05 | 0.8 | 2,000 | 24,000 | 0.05 | 0.7 | 1,500 | 24,000 | 0.01 | 0.5 | 1,200 | 16,000 |
| | 0.02・0.03 | 10 | 0.005 | 0.6 | 1,000 | 24,000 | 0.005 | 0.5 | 1,000 | 24,000 | 0.005 | 0.3 | 800 | 16,000 |
| | 0.05 | | 0.02 | 0.6 | 1,000 | 24,000 | 0.01 | 0.5 | 1,000 | 24,000 | 0.01 | 0.3 | 800 | 16,000 |
| | 0.1・0.3・0.5 | | 0.03 | 0.6 | 2,000 | 24,000 | 0.03 | 0.5 | 1,500 | 24,000 | 0.01 | 0.3 | 1,200 | 16,000 |
| 备注 | | | ※切深量为中精加工、精加工时的最大值。<br>※切深量的ap表示深度方向的切入量，ae表示步距。<br>※建议使用油雾冷却液。<br>※请以相同的比率调整转速和进给速度。<br>※参数需因切深量和机床刚性的情况做调整。<br>※请根据需要控制刀具的伸出量。<br>※铣刀刀柄、机床请尽量使用高精度产品。 | | | | | | | | | | | |



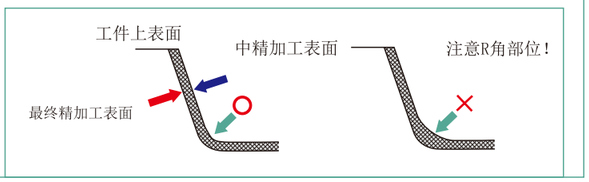


## SSF单刃 切削参数参考

| 加工材料 | 淬火钢・高速钢 STAVAX ・SKD11・SKH (～65HRC) | | | |
|---|---|---|---|---|
| 刃径 | 切深量 | | 进给速度 | 转速 |
| | ap mm | ae mm | mm/min | $min^{-1}$ |
| 0.2 | 0.002 | 0.003 | 50 | 60,000 |
| 0.3 | 0.002 | 0.003 | 100 | 60,000 |
| 0.4 | 0.002 | 0.003 | 150 | 60,000 |
| 0.5 | 0.003 | 0.005 | 200 | 60,000 |
| 0.6 | 0.003 | 0.005 | 240 | 60,000 |
| 0.8 | 0.003 | 0.008 | 280 | 60,000 |
| 1 | 0.005 | 0.01 | 300 | 60,000 |
| 1.5 | 0.005 | 0.02 | 400 | 60,000 |
| 2 | 0.005 | 0.03 | 500 | 60,000 |
| 备注 | ※切深量的ap表示深度方向的切入量，ae表示步距。<br>※建议使用油雾冷却液。<br>※铣刀刀柄、机床请尽量使用高精度产品。<br>※请根据需要控制刀具的伸出量。 | | | |

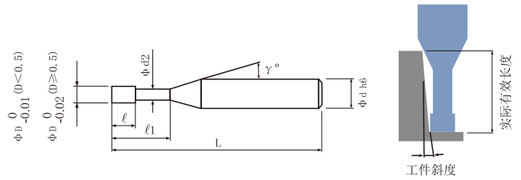
### CBN铣刀使用注意事项

请使整个加工表面的加工余量保持均匀
（尤其须注意R角部位）。
这些会影响加工精度和刀具寿命。



# MHRH 高硬度材料用 二刃平底铣刀






●采用无限白金涂层,在加工高硬度材料时可保持长寿命!
还能提高加工精度!

MG WX 30° HRC ▶65

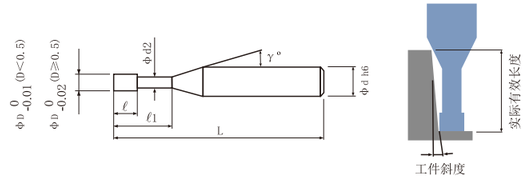
| 型号 Model | (D)刃径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 30' | 1° | 1°30' | 2° | 3° |
| MHRH2010-0.3 | 0.1 | 0.3 | 0.08 | 0.085 | 12° | 45 | 4 | 0.35 | 0.37 | 0.38 | 0.40 | 0.45 |
| MHRH2010-0.5 | | 0.5 | 0.08 | 0.085 | 12° | 45 | 4 | 0.56 | 0.58 | 0.61 | 0.64 | 0.71 |
| MHRH2010-0.75 | | 0.75 | 0.08 | 0.085 | 12° | 45 | 4 | 0.82 | 0.86 | 0.90 | 0.94 | 1.05 |
| MHRH2010-1 | | 1 | 0.08 | 0.085 | 12° | 45 | 4 | 1.08 | 1.13 | 1.18 | 1.24 | 1.38 |
| MHRH2015-0.3 | 0.15 | 0.3 | 0.12 | 0.13 | 12° | 45 | 4 | 0.36 | 0.38 | 0.40 | 0.42 | 0.46 |
| MHRH2015-0.5 | | 0.5 | 0.12 | 0.13 | 12° | 45 | 4 | 0.57 | 0.60 | 0.62 | 0.66 | 0.73 |
| MHRH2015-0.75 | | 0.75 | 0.12 | 0.13 | 12° | 45 | 4 | 0.83 | 0.87 | 0.91 | 0.96 | 1.06 |
| MHRH2015-1 | | 1 | 0.12 | 0.13 | 12° | 45 | 4 | 1.09 | 1.14 | 1.20 | 1.25 | 1.39 |
| MHRH2015-1.5 | | 1.5 | 0.12 | 0.13 | 12° | 45 | 4 | 1.61 | 1.69 | 1.77 | 1.85 | 2.06 |
| MHRH2020-0.5 | 0.2 | 0.5 | 0.15 | 0.18 | 12° | 45 | 4 | 0.57 | 0.60 | 0.62 | 0.66 | 0.73 |
| MHRH2020-0.75 | | 0.75 | 0.15 | 0.18 | 12° | 45 | 4 | 0.83 | 0.87 | 0.91 | 0.96 | 1.06 |
| MHRH2020-1 | | 1 | 0.15 | 0.18 | 12° | 45 | 4 | 1.09 | 1.14 | 1.20 | 1.25 | 1.39 |
| MHRH2020-1.5 | | 1.5 | 0.15 | 0.18 | 12° | 45 | 4 | 1.61 | 1.69 | 1.77 | 1.85 | 2.06 |
| MHRH2020-2 | | 2 | 0.15 | 0.18 | 12° | 45 | 4 | 2.13 | 2.23 | 2.34 | 2.45 | 2.72 |
| MHRH2020-2.5 | | 2.5 | 0.15 | 0.18 | 12° | 45 | 4 | 2.66 | 2.78 | 2.91 | 3.05 | 3.39 |
| MHRH2020-3 | | 3 | 0.15 | 0.18 | 12° | 45 | 4 | 3.18 | 3.32 | 3.48 | 3.65 | 4.06 |
| MHRH2030-1 | 0.3 | 1 | 0.25 | 0.28 | 12° | 45 | 4 | 1.09 | 1.14 | 1.20 | 1.25 | 1.39 |
| MHRH2030-1.5 | | 1.5 | 0.25 | 0.28 | 12° | 45 | 4 | 1.61 | 1.69 | 1.77 | 1.85 | 2.06 |
| MHRH2030-2 | | 2 | 0.25 | 0.28 | 12° | 45 | 4 | 2.13 | 2.23 | 2.34 | 2.45 | 2.72 |
| MHRH2030-2.5 | | 2.5 | 0.25 | 0.28 | 12° | 45 | 4 | 2.66 | 2.78 | 2.91 | 3.05 | 3.39 |
| MHRH2030-3 | | 3 | 0.25 | 0.28 | 12° | 45 | 4 | 3.18 | 3.32 | 3.48 | 3.65 | 4.06 |
| MHRH2040-1 | 0.4 | 1 | 0.4 | 0.37 | 12° | 45 | 4 | 1.12 | 1.17 | 1.22 | 1.28 | 1.43 |
| MHRH2040-1.5 | | 1.5 | 0.4 | 0.37 | 12° | 45 | 4 | 1.64 | 1.71 | 1.79 | 1.88 | 2.09 |
| MHRH2040-2 | | 2 | 0.4 | 0.37 | 12° | 45 | 4 | 2.16 | 2.26 | 2.36 | 2.48 | 2.76 |
| MHRH2040-2.5 | | 2.5 | 0.4 | 0.37 | 12° | 45 | 4 | 2.68 | 2.80 | 2.93 | 3.08 | 3.42 |
| MHRH2040-3 | | 3 | 0.4 | 0.37 | 12° | 45 | 4 | 3.20 | 3.35 | 3.50 | 3.68 | 4.09 |
| MHRH2040-3.5 | | 3.5 | 0.4 | 0.37 | 12° | 45 | 4 | 3.72 | 3.89 | 4.08 | 4.28 | 4.75 |
| MHRH2040-4 | | 4 | 0.4 | 0.37 | 12° | 45 | 4 | 4.25 | 4.44 | 4.65 | 4.88 | 5.42 |
| MHRH2040-5 | | 5 | 0.4 | 0.37 | 12° | 45 | 4 | 5.29 | 5.53 | 5.79 | 6.08 | 6.75 |
| MHRH2040-6 | | 6 | 0.4 | 0.37 | 12° | 45 | 4 | 6.33 | 6.62 | 6.93 | 7.27 | 8.08 |
| MHRH2040-8 | | 8 | 0.4 | 0.37 | 12° | 45 | 4 | 8.42 | 8.80 | 9.21 | 9.67 | 10.74 |
| MHRH2040-10 | | 10 | 0.4 | 0.37 | 12° | 45 | 4 | 10.50 | 10.98 | 11.49 | 12.07 | 13.40 |
| MHRH2050-1 | 0.5 | 1 | 0.4 | 0.46 | 12° | 45 | 4 | 1.14 | 1.19 | 1.25 | 1.31 | 1.46 |
| MHRH2050-1.5 | | 1.5 | 0.4 | 0.46 | 12° | 45 | 4 | 1.66 | 1.74 | 1.82 | 1.91 | 2.12 |
| MHRH2050-2 | | 2 | 0.4 | 0.46 | 12° | 45 | 4 | 2.18 | 2.28 | 2.39 | 2.51 | 2.79 |
| MHRH2050-2.5 | | 2.5 | 0.4 | 0.46 | 12° | 45 | 4 | 2.71 | 2.83 | 2.96 | 3.11 | 3.45 |
| MHRH2050-3 | | 3 | 0.4 | 0.46 | 12° | 45 | 4 | 3.23 | 3.37 | 3.53 | 3.71 | 4.12 |
| MHRH2050-3.5 | | 3.5 | 0.4 | 0.46 | 12° | 45 | 4 | 3.75 | 3.92 | 4.10 | 4.31 | 4.78 |
| MHRH2050-4 | | 4 | 0.4 | 0.46 | 12° | 45 | 4 | 2.27 | 4.46 | 4.67 | 4.91 | 5.45 |
| MHRH2050-4.5 | | 4.5 | 0.4 | 0.46 | 12° | 45 | 4 | 4.79 | 5.01 | 5.24 | 5.50 | 6.12 |





# MHRH 高硬度材料用 二刃平底铣刀

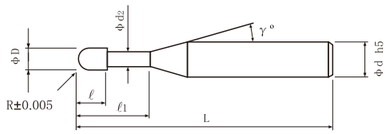


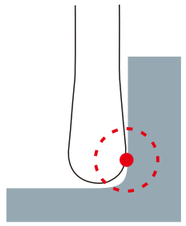



| 型号 Model | (D)刃径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 30' | 1° | 1°30' | 2° | 3° |
| MHRH2050-5 | 0.5 | 5 | 0.4 | 0.46 | 12° | 45 | 4 | 5.31 | 5.55 | 5.81 | 6.10 | 6.78 |
| MHRH2050-6 | | 6 | 0.4 | 0.46 | 12° | 45 | 4 | 6.36 | 6.64 | 6.96 | 7.30 | 8.11 |
| MHRH2050-7 | | 7 | 0.4 | 0.46 | 12° | 45 | 4 | 7.40 | 7.73 | 8.10 | 8.50 | 9.44 |
| MHRH2050-8 | | 8 | 0.4 | 0.46 | 12° | 50 | 4 | 8.44 | 8.82 | 9.24 | 9.70 | 10.77 |
| MHRH2050-9 | | 9 | 0.4 | 0.46 | 12° | 50 | 4 | 9.48 | 9.91 | 10.38 | 10.90 | 12.10 |
| MHRH2050-10 | | 10 | 0.4 | 0.46 | 12° | 50 | 4 | 10.53 | 11.00 | 11.52 | 12.09 | 13.44 |
| MHRH2060-1.5 | 0.6 | 1.5 | 0.5 | 0.56 | 12° | 45 | 4 | 1.66 | 1.74 | 1.82 | 1.91 | 2.12 |
| MHRH2060-2 | | 2 | 0.5 | 0.56 | 12° | 45 | 4 | 2.18 | 2.28 | 2.39 | 2.51 | 2.79 |
| MHRH2060-3 | | 3 | 0.5 | 0.56 | 12° | 45 | 4 | 3.23 | 3.37 | 3.53 | 3.71 | 4.12 |
| MHRH2060-4 | | 4 | 0.5 | 0.56 | 12° | 45 | 4 | 4.27 | 4.46 | 4.67 | 4.91 | 5.45 |
| MHRH2060-5 | | 5 | 0.5 | 0.56 | 12° | 45 | 4 | 5.31 | 5.55 | 5.81 | 6.10 | 6.78 |
| MHRH2060-6 | | 6 | 0.5 | 0.56 | 12° | 45 | 4 | 6.36 | 6.64 | 6.96 | 7.30 | 8.11 |
| MHRH2070-2 | 0.7 | 2 | 0.5 | 0.66 | 12° | 45 | 4 | 2.18 | 2.28 | 2.39 | 2.51 | 2.79 |
| MHRH2070-4 | | 4 | 0.5 | 0.66 | 12° | 45 | 4 | 4.27 | 4.46 | 4.67 | 4.91 | 5.45 |
| MHRH2070-6 | | 6 | 0.5 | 0.66 | 12° | 45 | 4 | 6.36 | 6.64 | 6.96 | 7.30 | 8.11 |
| MHRH2070-8 | | 8 | 0.5 | 0.66 | 12° | 50 | 4 | 8.44 | 8.82 | 9.24 | 9.70 | 10.77 |
| MHRH2070-10 | | 10 | 0.5 | 0.66 | 12° | 50 | 4 | 10.53 | 11.00 | 11.52 | 12.09 | 13.44 |
| MHRH2080-3 | 0.8 | 3 | 0.65 | 0.76 | 12° | 45 | 4 | 3.23 | 3.37 | 3.53 | 3.71 | 4.12 |
| MHRH2080-4 | | 4 | 0.65 | 0.76 | 12° | 45 | 4 | 4.27 | 4.46 | 4.67 | 4.91 | 5.45 |
| MHRH2080-5 | | 5 | 0.65 | 0.76 | 12° | 45 | 4 | 5.31 | 5.55 | 5.81 | 6.10 | 6.78 |
| MHRH2080-6 | | 6 | 0.65 | 0.76 | 12° | 45 | 4 | 6.36 | 6.64 | 6.96 | 7.30 | 8.11 |
| MHRH2080-8 | | 8 | 0.65 | 0.76 | 12° | 45 | 4 | 8.44 | 8.82 | 9.24 | 9.70 | 10.77 |
| MHRH2080-10 | | 10 | 0.65 | 0.76 | 12° | 50 | 4 | 10.53 | 11.00 | 11.52 | 12.09 | 13.44 |
| MHRH2080-12 | | 12 | 0.65 | 0.76 | 12° | 50 | 4 | 12.61 | 13.18 | 13.80 | 14.49 | 16.10 |
| MHRH2100-2 | 1 | 2 | 0.8 | 0.95 | 12° | 50 | 4 | 2.21 | 2.31 | 2.42 | 2.54 | 2.82 |
| MHRH2100-3 | | 3 | 0.8 | 0.95 | 12° | 50 | 4 | 3.25 | 3.40 | 3.56 | 3.74 | 4.15 |
| MHRH2100-4 | | 4 | 0.8 | 0.95 | 12° | 50 | 4 | 4.29 | 4.49 | 4.70 | 4.93 | 5.48 |
| MHRH2100-5 | | 5 | 0.8 | 0.95 | 12° | 50 | 4 | 5.34 | 5.58 | 5.84 | 6.13 | 6.81 |
| MHRH2100-6 | | 6 | 0.8 | 0.95 | 12° | 50 | 4 | 6.38 | 6.67 | 6.98 | 7.33 | 8.14 |
| MHRH2100-7 | | 7 | 0.8 | 0.95 | 12° | 50 | 4 | 7.42 | 7.76 | 8.12 | 8.53 | 9.47 |
| MHRH2100-8 | | 8 | 0.8 | 0.95 | 12° | 50 | 4 | 8.47 | 8.85 | 9.27 | 9.73 | 10.80 |
| MHRH2100-9 | 1 | 9 | 0.8 | 0.95 | 12° | 50 | 4 | 9.51 | 9.94 | 10.41 | 10.92 | 12.14 |
| MHRH2100-10 | | 10 | 0.8 | 0.95 | 12° | 50 | 4 | 10.55 | 11.03 | 11.55 | 12.12 | 13.47 |
| MHRH2100-12 | | 12 | 0.8 | 0.95 | 12° | 50 | 4 | 12.64 | 13.21 | 13.83 | 14.52 | 16.13 |
| MHRH2100-14 | | 14 | 0.8 | 0.95 | 12° | 50 | 4 | 14.72 | 15.39 | 16.11 | 16.91 | 18.79 |
| MHRH2100-16 | | 16 | 0.8 | 0.95 | 12° | 60 | 4 | 16.81 | 17.57 | 18.40 | 19.31 | 21.45 |
| MHRH2100-18 | | 18 | 0.8 | 0.95 | 12° | 60 | 4 | 18.89 | 19.74 | 20.68 | 21.71 | 24.11 |
| MHRH2100-20 | | 20 | 0.8 | 0.95 | 12° | 60 | 4 | 20.98 | 21.92 | 22.96 | 24.10 | 26.78 |
| MHRH2100-22 | | 22 | 0.8 | 0.95 | 12° | 60 | 4 | 23.07 | 24.10 | 25.24 | 26.50 | Free |

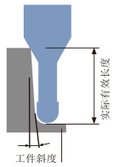
# MRBH　高硬度材料用二刃球头铣刀





由于采用点切削，不会振刀!




●采用高硬度材料用无限白金涂层与独创的新形状,耐崩刃性优异并可有效抑制振刀，从而提高了加工精度。

●适用于`65HRC的高硬度材质。



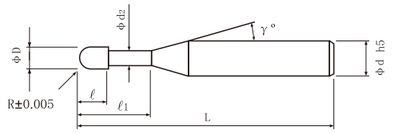

| 型号 Model | (R)球半径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (D)刃径 mm | (d2)颈径 mm | (γ)颈角 | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 30' | 1° | 1°30' | 2° | 3° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MRBH2010-0.2 | R0.05 | 0.2 | 0.07 | 0.1 | 0.085 | 12° | 45 | 4 | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 |
| MRBH2010-0.3 | | 0.3 | 0.07 | 0.1 | 0.085 | 12° | 45 | 4 | 0.34 | 0.36 | 0.37 | 0.39 | 0.42 |
| MRBH2010-0.5 | | 0.5 | 0.07 | 0.1 | 0.085 | 12° | 45 | 4 | 0.55 | 0.57 | 0.60 | 0.63 | 0.69 |
| MRBH2015-0.3 | R0.075 | 0.3 | 0.1 | 0.15 | 0.13 | 12° | 45 | 4 | 0.36 | 0.37 | 0.39 | 0.40 | 0.44 |
| MRBH2015-0.5 | | 0.5 | 0.1 | 0.15 | 0.13 | 12° | 45 | 4 | 0.57 | 0.59 | 0.61 | 0.64 | 0.70 |
| MRBH2015-1 | | 1 | 0.1 | 0.15 | 0.13 | 12° | 45 | 4 | 1.09 | 1.13 | 1.18 | 1.24 | 1.37 |
| MRBH2020-0.3 | R0.1 | 0.3 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 0.35 | 0.36 | 0.38 | 0.39 | 0.42 |
| MRBH2020-0.5 | | 0.5 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 0.56 | 0.58 | 0.61 | 0.63 | 0.69 |
| MRBH2020-0.75 | | 0.75 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 0.82 | 0.85 | 0.89 | 0.93 | 1.02 |
| MRBH2020-1 | | 1 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 1.08 | 1.13 | 1.18 | 1.23 | 1.35 |
| MRBH2020-1.25 | | 1.25 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 1.34 | 1.40 | 1.46 | 1.53 | 1.68 |
| MRBH2020-1.5 | | 1.5 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 1.60 | 1.67 | 1.75 | 1.83 | 2.02 |
| MRBH2020-1.75 | | 1.75 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 1.86 | 1.94 | 2.03 | 2.13 | 2.35 |
| MRBH2020-2 | | 2 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 2.13 | 2.22 | 2.32 | 2.43 | 2.68 |
| MRBH2020-2.5 | | 2.5 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 2.65 | 2.76 | 2.89 | 3.02 | 3.34 |
| MRBH2020-3 | | 3 | 0.15 | 0.2 | 0.18 | 12° | 45 | 4 | 3.17 | 3.31 | 3.46 | 3.62 | 4.01 |
| MRBH2030-0.5 | R0.15 | 0.5 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 0.56 | 0.58 | 0.60 | 0.63 | 0.68 |
| MRBH2030-0.6 | | 0.6 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 0.66 | 0.69 | 0.71 | 0.74 | 0.81 |
| MRBH2030-0.75 | | 0.75 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 0.82 | 0.86 | 0.89 | 0.93 | 1.01 |
| MRBH2030-1 | | 1 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 1.08 | 1.12 | 1.17 | 1.22 | 1.34 |
| MRBH2030-1.25 | | 1.25 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 1.34 | 1.39 | 1.45 | 1.52 | 1.67 |
| MRBH2030-1.5 | | 1.5 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 1.60 | 1.67 | 1.74 | 1.82 | 2.00 |
| MRBH2030-1.75 | | 1.75 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 1.86 | 1.94 | 2.02 | 2.12 | 2.33 |
| MRBH2030-2 | | 2 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 2.12 | 2.21 | 2.31 | 2.42 | 2.66 |
| MRBH2030-2.25 | | 2.25 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 2.38 | 2.48 | 2.59 | 2.71 | 3.00 |
| MRBH2030-2.5 | | 2.5 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 2.64 | 2.76 | 2.88 | 3.01 | 3.33 |
| MRBH2030-3 | | 3 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 3.17 | 3.30 | 3.45 | 3.61 | 3.99 |
| MRBH2030-3.5 | | 3.5 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 3.69 | 3.85 | 4.02 | 4.21 | 4.65 |
| MRBH2030-4 | | 4 | 0.2 | 0.3 | 0.28 | 12° | 45 | 4 | 4.21 | 4.39 | 4.59 | 4.81 | 5.32 |

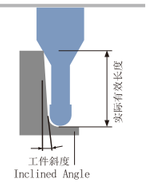




# MRBH　高硬度材料用二刃球头铣刀



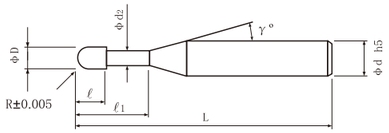


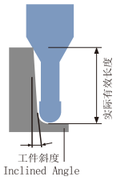




| 型号 Model | (R)球半径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (D)刃径 mm | (d2)颈径 mm | (γ)颈角 mm | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 30' | 1° | 1°30' | 2° | 3° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MRBH2040-0.5 | R0.2 | 0.5 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 0.59 | 0.60 | 0.62 | 0.64 | 0.69 |
| MRBH2040-0.8 | | 0.8 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 0.89 | 0.93 | 0.96 | 1.00 | 1.09 |
| MRBH2040-1 | | 1 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 1.10 | 1.14 | 1.19 | 1.24 | 1.35 |
| MRBH2040-1.5 | | 1.5 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 1.62 | 1.69 | 1.76 | 1.84 | 2.02 |
| MRBH2040-2 | | 2 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 2.15 | 2.23 | 2.33 | 2.43 | 2.68 |
| MRBH2040-2.5 | | 2.5 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 2.67 | 2.78 | 2.90 | 3.03 | 3.34 |
| MRBH2040-3 | | 3 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 3.19 | 3.32 | 3.47 | 3.63 | 4.01 |
| MRBH2040-3.5 | | 3.5 | 0.3 | 0.4 | 0.37 | 12 | 45 | 4 | 3.71 | 3.87 | 4.04 | 4.23 | 4.67 |
| MRBH2040-4 | | 4 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 2.23 | 4.41 | 4.61 | 4.83 | 5.33 |
| MRBH2040-4.5 | | 4.5 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 4.75 | 4.96 | 5.18 | 5.43 | 6.00 |
| MRBH2040-5 | | 5 | 0.3 | 0.4 | 0.37 | 12° | 45 | 4 | 5.27 | 5.50 | 5.75 | 6.02 | 6.66 |
| MRBH2050-1 | R0.25 | 1 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 1.13 | 1.16 | 1.21 | 1.26 | 1.37 |
| MRBH2050-1.5 | | 1.5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 1.65 | 1.71 | 1.78 | 1.85 | 2.03 |
| MRBH2050-2 | | 2 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 2.17 | 2.25 | 2.35 | 2.45 | 2.69 |
| MRBH2050-2.5 | | 2.5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 2.69 | 2.80 | 2.92 | 3.05 | 3.36 |
| MRBH2050-3 | | 3 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 3.21 | 3.34 | 3.49 | 3.65 | 4.02 |
| MRBH2050-3.5 | | 3.5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 3.73 | 3.89 | 4.06 | 4.25 | 4.69 |
| MRBH2050-4 | | 4 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 4.25 | 4.43 | 4.63 | 4.85 | 5.35 |
| MRBH2050-4.5 | | 4.5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 4.78 | 4.98 | 5.20 | 5.44 | 6.01 |
| MRBH2050-5 | | 5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 5.30 | 5.52 | 5.77 | 6.04 | 6.68 |
| MRBH2050-5.5 | | 5.5 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 5.82 | 6.07 | 6.34 | 6.64 | 7.34 |
| MRBH2050-6 | | 6 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 6.34 | 6.61 | 6.91 | 7.24 | 8.00 |
| MRBH2050-8 | | 8 | 0.35 | 0.5 | 0.46 | 12° | 45 | 4 | 8.42 | 8.79 | 9.19 | 9.63 | 10.66 |
| MRBH2060-1 | R0.3 | 1 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 1.12 | 1.16 | 1.20 | 1.25 | 1.35 |
| MRBH2060-1.5 | | 1.5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 1.64 | 1.71 | 1.77 | 1.84 | 2.02 |
| MRBH2060-2 | | 2 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 2.17 | 2.25 | 2.34 | 2.44 | 2.68 |
| MRBH2060-2.5 | | 2.5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 2.69 | 2.79 | 2.91 | 3.04 | 3.34 |
| MRBH2060-3 | | 3 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 3.21 | 3.34 | 3.48 | 3.64 | 4.01 |
| MRBH2060-3.5 | | 3.5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 3.73 | 3.88 | 4.05 | 4.24 | 4.67 |
| MRBH2060-4 | | 4 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 4.25 | 4.43 | 4.62 | 4.84 | 5.33 |
| MRBH2060-4.5 | | 4.5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 4.78 | 4.98 | 5.20 | 5.45 | 6.02 |
| MRBH2060-5 | | 5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 5.29 | 5.52 | 5.76 | 6.03 | 6.66 |
| MRBH2060-5.5 | | 5.5 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 5.82 | 6.07 | 6.34 | 6.64 | 7.35 |
| MRBH2060-6 | | 6 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 6.34 | 6.61 | 6.90 | 7.23 | 7.99 |
| MRBH2060-7 | | 7 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 7.38 | 7.70 | 8.04 | 8.43 | 9.31 |
| MRBH2060-8 | | 8 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 4.42 | 8.79 | 9.18 | 9.62 | 10.64 |
| MRBH2060-9 | | 9 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 9.47 | 9.88 | 10.33 | 10.82 | 11.97 |
| MRBH2060-10 | | 10 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 10.51 | 10.97 | 11.47 | 12.02 | 13.30 |
| MRBH2060-12 | | 12 | 0.45 | 0.6 | 0.56 | 12° | 45 | 4 | 12.59 | 13.14 | 13.75 | 14.41 | 15.95 |
| MRBH2070-2 | R0.35 | 2 | 0.5 | 0.7 | 0.66 | 12° | 45 | 4 | 2.17 | 2.25 | 2.34 | 2.44 | 2.67 |
| MRBH2070-4 | | 4 | 0.5 | 0.7 | 0.66 | 12° | 45 | 4 | 4.25 | 4.43 | 4.62 | 4.84 | 5.33 |
| MRBH2070-6 | | 6 | 0.5 | 0.7 | 0.66 | 12° | 45 | 4 | 6.34 | 6.61 | 6.91 | 7.23 | 8.00 |
| MRBH2070-8 | | 8 | 0.5 | 0.7 | 0.66 | 12° | 45 | 4 | 8.43 | 8.79 | 9.19 | 9.63 | 10.66 |

## MRBH　高硬度材料用二刃长颈球头铣刀






| 型号 Model | (R)球半径 mm | (ℓ1)有效长度 mm | (ℓ) 刃长 mm | (D)刃径 mm | (d2)颈径 mm | (γ)颈角 mm | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 30' | 1° | 1°30' | 2° | 3° |
| MRBH2080-2 | R0.4 | 2 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 2.16 | 2.24 | 2.33 | 2.42 | 2.65 |
| MRBH2080-3 | | 3 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 3.20 | 3.33 | 3.47 | 3.62 | 3.97 |
| MRBH2080-4 | | 4 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 4.25 | 4.42 | 4.61 | 4.82 | 5.30 |
| MRBH2080-5 | | 5 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 5.29 | 5.51 | 5.75 | 6.01 | 6.63 |
| MRBH2080-6 | | 6 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 6.33 | 6.60 | 6.89 | 7.21 | 7.96 |
| MRBH2080-7 | | 7 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 7.38 | 7.69 | 8.03 | 8.41 | 9.28 |
| MRBH2080-8 | | 8 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 8.42 | 8.78 | 9.17 | 9.60 | 10.61 |
| MRBH2080-10 | | 10 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 10.50 | 10.96 | 11.45 | 12.00 | 13.26 |
| MRBH2080-12 | | 12 | 0.6 | 0.8 | 0.76 | 12° | 45 | 4 | 12.59 | 13.14 | 13.73 | 14.39 | 15.92 |
| MRBH2090-2 | R0.45 | 2 | 0.65 | 0.9 | 0.86 | 12° | 45 | 4 | 2.16 | 2.24 | 2.33 | 2.42 | 2.64 |
| MRBH2090-4 | | 4 | 0.65 | 0.9 | 0.86 | 12° | 45 | 4 | 4.25 | 4.42 | 4.61 | 4.82 | 5.30 |
| MRBH2090-6 | | 6 | 0.65 | 0.9 | 0.86 | 12° | 45 | 4 | 6.34 | 6.60 | 6.89 | 7.21 | 7.96 |
| MRBH2090-8 | | 8 | 0.65 | 0.9 | 0.86 | 12° | 45 | 4 | 8.42 | 8.78 | 9.17 | 9.61 | 10.62 |
| MRBH2100-2 | R0.5 | 2 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 2.18 | 2.26 | 2.34 | 2.43 | 2.65 |
| MRBH2100-2.5 | | 2.5 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 2.71 | 2.81 | 2.92 | 3.04 | 3.32 |
| MRBH2100-3 | | 3 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 3.22 | 3.35 | 3.48 | 3.63 | 3.97 |
| MRBH2100-4 | | 4 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 4.27 | 4.44 | 4.62 | 4.83 | 5.30 |
| MRBH2100-5 | | 5 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 5.31 | 5.53 | 5.76 | 6.02 | 6.63 |
| MRBH2100-6 | | 6 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 6.35 | 6.62 | 6.90 | 7.22 | 7.96 |
| MRBH2100-7 | | 7 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 7.40 | 7.71 | 8.04 | 8.42 | 9.28 |
| MRBH2100-8 | | 8 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 8.44 | 8.79 | 9.18 | 9.61 | 10.61 |
| MRBH2100-9 | R0.5 | 9 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 9.48 | 9.88 | 10.32 | 10.81 | 11.94 |
| MRBH2100-10 | | 10 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 10.52 | 10.97 | 11.46 | 12.01 | 13.26 |
| MRBH2100-12 | | 12 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 12.61 | 13.15 | 13.75 | 14.40 | 15.92 |
| MRBH2100-13 | R0.5 | 13 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 13.66 | 14.25 | 14.90 | 15.62 | 17.29 |
| MRBH2100-14 | | 14 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 14.70 | 15.33 | 16.03 | 16.79 | 18.57 |
| MRBH2100-16 | | 16 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 16.78 | 17.51 | 18.31 | 19.18 | 21.23 |
| MRBH2100-18 | | 18 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 18.87 | 19.69 | 20.59 | 21.58 | 23.88 |
| MRBH2100-20 | | 20 | 0.75 | 1 | 0.95 | 12° | 45 | 4 | 20.95 | 21.87 | 22.87 | 23.97 | 26.54 |

## 可切削材料适用表

◎ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ◎ | ○ | ◎ | ○ | ○ | ○ | ○ | ○ | ○ |

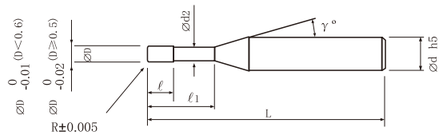


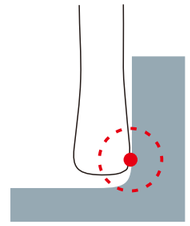




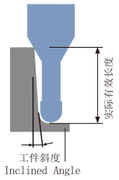
## MHRHR　高硬度材料用二刃长颈型圆鼻铣刀





采用切削阻力较小的点接触，可提高加工表面粗糙度！！



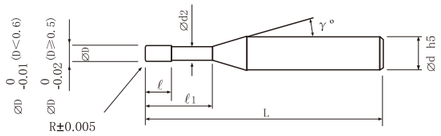

●采用加工高硬度材料的无限白金涂层与倒锥新形状，耐崩刃性优异并可有效抑制振动，从而提高了加工面的精度！

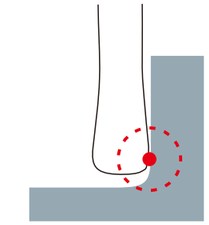



| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 mm | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 30' | 1° | 1°30' | 2° | 3° |
| MHRHR2020R005-0.5 | 0.2 | R0.05 | 0.5 | 0.15 | 0.18 | 12° | 45 | 4 | 0.56 | 0.59 | 0.61 | 0.64 | 0.71 |
| MHRHR2020R005-1 | | | 1 | 0.15 | 0.18 | 12° | 45 | 4 | 1.08 | 1.13 | 1.18 | 1.24 | 1.37 |
| MHRHR2020R005-1.5 | | | 1.5 | 0.15 | 0.18 | 12° | 45 | 4 | 1.61 | 1.68 | 1.75 | 1.84 | 2.03 |
| MHRHR2020R005-2 | | | 2 | 0.15 | 0.18 | 12° | 45 | 4 | 2.13 | 2.22 | 2.32 | 2.43 | 2.70 |
| MHRHR2030R005-1 | 0.3 | R0.05 | 1 | 0.25 | 0.28 | 12° | 45 | 4 | 1.08 | 1.13 | 1.18 | 1.24 | 1.37 |
| MHRHR2030R005-1.5 | | | 1.5 | 0.25 | 0.28 | 12° | 45 | 4 | 1.61 | 1.68 | 1.75 | 1.84 | 2.03 |
| MHRHR2030R005-2 | | | 2 | 0.25 | 0.28 | 12° | 45 | 4 | 2.13 | 2.22 | 2.32 | 2.43 | 2.70 |
| MHRHR2030R005-2.5 | | | 2.5 | 0.25 | 0.28 | 12° | 45 | 4 | 2.65 | 2.77 | 2.89 | 3.03 | 3.36 |
| MHRHR2030R005-3 | | | 3 | 0.25 | 0.28 | 12° | 45 | 4 | 3.17 | 3.31 | 3.46 | 3.63 | 4.02 |
| MHRHR2040R005-1 | 0.4 | R0.05 | 1 | 0.3 | 0.37 | 12° | 45 | 4 | 1.12 | 1.17 | 1.22 | 1.28 | 1.42 |
| MHRHR2040R005-2 | | | 2 | 0.3 | 0.37 | 12° | 45 | 4 | 2.16 | 2.26 | 2.36 | 2.48 | 2.74 |
| MHRHR2040R005-3 | | | 3 | 0.3 | 0.37 | 12° | 45 | 4 | 3.21 | 3.35 | 3.50 | 3.67 | 4.07 |
| MHRHR2040R005-4 | | | 4 | 0.3 | 0.37 | 12° | 45 | 4 | 4.25 | 4.44 | 4.64 | 4.87 | 5.40 |
| MHRHR2040R010-1 | | R0.1 | 1 | 0.3 | 0.37 | 12° | 45 | 4 | 1.12 | 1.17 | 1.22 | 1.27 | 1.40 |
| MHRHR2040R010-2 | | | 2 | 0.3 | 0.37 | 12° | 45 | 4 | 2.16 | 2.25 | 2.36 | 2.47 | 2.73 |
| MHRHR2040R010-3 | | | 3 | 0.3 | 0.37 | 12° | 45 | 4 | 3.21 | 3.34 | 3.50 | 3.66 | 4.05 |
| MHRHR2040R010-4 | | | 4 | 0.3 | 0.37 | 12° | 45 | 4 | 4.25 | 4.43 | 4.64 | 4.86 | 5.38 |
| MHRHR2050R005-1 | 0.5 | R0.05 | 1 | 0.4 | 0.46 | 12° | 45 | 4 | 1.13 | 1.18 | 1.24 | 1.29 | 1.43 |
| MHRHR2050R005-2 | | | 2 | 0.4 | 0.46 | 12° | 45 | 4 | 2.18 | 2.27 | 2.38 | 2.49 | 2.76 |
| MHRHR2050R005-3 | | | 3 | 0.4 | 0.46 | 12° | 45 | 4 | 3.22 | 3.36 | 3.52 | 3.69 | 4.09 |
| MHRHR2050R005-4 | | | 4 | 0.4 | 0.46 | 12° | 45 | 4 | 4.26 | 4.45 | 4.66 | 4.88 | 5.41 |
| MHRHR2050R005-5 | | | 5 | 0.4 | 0.46 | 12° | 45 | 4 | 5.31 | 5.54 | 5.80 | 6.08 | 6.74 |
| MHRHR2050R010-1 | | R0.1 | 1 | 0.4 | 0.46 | 12° | 45 | 4 | 1.13 | 1.18 | 1.23 | 1.28 | 1.42 |
| MHRHR2050R010-2 | | | 2 | 0.4 | 0.46 | 12° | 45 | 4 | 2.17 | 2.27 | 2.37 | 2.48 | 2.74 |
| MHRHR2050R010-3 | | | 3 | 0.4 | 0.46 | 12° | 45 | 4 | 3.22 | 3.36 | 3.51 | 3.68 | 4.07 |
| MHRHR2050R010-4 | | | 4 | 0.4 | 0.46 | 12° | 45 | 4 | 4.26 | 4.45 | 4.65 | 4.87 | 5.40 |
| MHRHR2050R010-5 | | | 5 | 0.4 | 0.46 | 12° | 45 | 4 | 5.30 | 5.54 | 5.79 | 6.07 | 6.72 |
| MHRHR2060R005-2 | 0.6 | R0.05 | 2 | 0.5 | 0.56 | 12° | 45 | 4 | 2.18 | 2.27 | 2.38 | 2.49 | 2.76 |
| MHRHR2060R005-4 | | | 4 | 0.5 | 0.56 | 12° | 45 | 4 | 4.26 | 4.45 | 4.66 | 4.88 | 5.41 |
| MHRHR2060R005-6 | | | 6 | 0.5 | 0.56 | 12° | 45 | 4 | 6.35 | 6.63 | 6.94 | 7.28 | 8.07 |
| MHRHR2060R010-2 | | R0.1 | 2 | 0.5 | 0.56 | 12° | 45 | 4 | 2.17 | 2.27 | 2.37 | 2.48 | 2.74 |
| MHRHR2060R010-4 | | | 4 | 0.5 | 0.56 | 12° | 45 | 4 | 4.26 | 4.45 | 4.65 | 4.87 | 5.40 |
| MHRHR2060R010-6 | | | 6 | 0.5 | 0.56 | 12° | 45 | 4 | 6.35 | 6.63 | 6.93 | 7.27 | 8.05 |

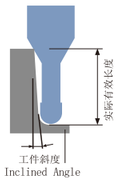
## MHRHR　高硬度材料用二刃长颈型圆鼻铣刀





采用切削阻力较小的点接触，可提高加工表面粗糙度！！




| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ1)有效长度 mm | (ℓ)刃长 mm | (d2)颈径 mm | (γ)颈角 mm | (L)全长 mm | (d)柄径 mm | 相对工件斜度的有效长度 30′ | 1° | 1°30′ | 2° | 3° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MHRHR2070R005-4 | 0.7 | R0.05 | 4 | 0.55 | 0.66 | 12° | 45 | 4 | 4.26 | 4.45 | 4.66 | 4.88 | 5.41 |
| MHRHR2070R005-6 | | | 6 | 0.55 | 0.66 | 12° | 45 | 4 | 6.35 | 6.63 | 6.94 | 7.28 | 8.07 |
| MHRHR2070R010-4 | | R0.1 | 4 | 0.55 | 0.66 | 12° | 45 | 4 | 4.26 | 4.45 | 4.65 | 4.87 | 5.40 |
| MHRHR2070R010-6 | | | 6 | 0.55 | 0.66 | 12° | 45 | 4 | 6.35 | 6.63 | 6.93 | 7.27 | 8.05 |
| MHRHR2080R005-4 | 0.8 | R0.05 | 4 | 0.65 | 0.76 | 12° | 45 | 4 | 4.27 | 4.46 | 4.67 | 4.90 | 5.43 |
| MHRHR2080R005-6 | | | 6 | 0.65 | 0.76 | 12° | 45 | 4 | 6.36 | 6.64 | 6.95 | 7.29 | 8.08 |
| MHRHR2080R005-8 | | | 8 | 0.65 | 0.76 | 12° | 50 | 4 | 8.45 | 8.82 | 9.23 | 9.68 | 10.74 |
| MHRHR2080R010-4 | | R0.1 | 4 | 0.65 | 0.76 | 12° | 45 | 4 | 4.27 | 4.46 | 4.66 | 4.89 | 5.41 |
| MHRHR2080R010-6 | | | 6 | 0.65 | 0.76 | 12° | 45 | 4 | 6.36 | 6.64 | 6.94 | 7.28 | 8.07 |
| MHRHR2080R010-8 | | | 8 | 0.65 | 0.76 | 12° | 50 | 4 | 8.44 | 8.82 | 9.23 | 9.68 | 10.72 |
| MHRHR2080R020-4 | | R0.2 | 4 | 0.65 | 0.76 | 12° | 45 | 4 | 4.27 | 4.45 | 4.65 | 4.87 | 5.38 |
| MHRHR2080R020-6 | | | 6 | 0.65 | 0.76 | 12° | 45 | 4 | 6.35 | 6.63 | 6.93 | 7.26 | 8.04 |
| MHRHR2080R020-8 | | | 8 | 0.65 | 0.76 | 12° | 50 | 4 | 8.44 | 8.81 | 9.21 | 9.66 | 10.69 |
| MHRHR2090R010-4 | 0.9 | R0.1 | 4 | 0.7 | 0.85 | 12° | 45 | 4 | 4.28 | 4.47 | 4.68 | 4.90 | 5.43 |
| MHRHR2090R010-8 | | | 8 | 0.7 | 0.85 | 12° | 50 | 4 | 8.46 | 8.83 | 9.24 | 9.69 | 10.74 |

## 可切削材料适用表

○ 非常适合　○ 适合

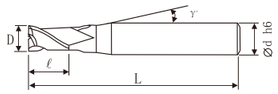
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

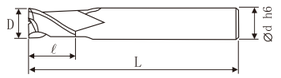




## KGE 二刃钨钢涂层立铣刀






$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KGE2010-0450 | 1.0 | 3.0 | 10 | 50 | 4.0 |
| KGE2015-0450 | 1.5 | 4.0 | 10 | 50 | 4.0 |
| KGE2020-0450 | 2.0 | 6.0 | 10 | 50 | 4.0 |
| KGE2025-0450 | 2.5 | 7.0 | 10 | 50 | 4.0 |
| KGE2030-0650 | 3.0 | 8.0 | 10 | 50 | 6.0 |
| KGE2030-0475 | 3.0 | 12.0 | 10 | 75 | 4.0 |
| KGE2035-0450 | 3.5 | 10.0 | 10 | 50 | 4.0 |
| KGE2040-0450 | 4.0 | 11.0 | - | 50 | 4.0 |
| KGE2040-0650 | 4.0 | 11.0 | 10 | 50 | 6.0 |
| KGE2040-0475 | 4.0 | 15.0 | - | 75 | 4.0 |
| KGE2040-06100 | 4.0 | 15.0 | 10 | 100 | 6.0 |
| KGE2050-0650 | 5.0 | 13.0 | 10 | 50 | 6.0 |
| KGE2050-0675 | 5.0 | 20.0 | 10 | 75 | 6.0 |
| KGE2060-0650 | 6.0 | 16.0 | - | 50 | 6.0 |
| KGE2060-0675 | 6.0 | 20.0 | - | 75 | 6.0 |
| KGE2060-06100 | 6.0 | 20.0 | - | 100 | 6.0 |
| KGE2080-0860 | 8.0 | 20.0 | - | 60 | 8.0 |
| KGE2080-08100 | 8.0 | 25.0 | - | 100 | 8.0 |
| KGE2100-1075 | 10.0 | 22.0 | - | 75 | 10.0 |
| KGE2100-10100 | 10.0 | 30.0 | - | 100 | 10.0 |
| KGE2120-1275 | 12.0 | 26.0 | - | 75 | 12.0 |
| KGE2120-12100 | 12.0 | 35.0 | - | 100 | 12.0 |
| KGE2140-14100 | 14.0 | 32.0 | - | 100 | 14.0 |
| KGE2160-16100 | 16.0 | 38.0 | - | 100 | 16.0 |
| KGE2160-16150 | 16.0 | 50.0 | - | 150 | 16.0 |
| KGE2200-20100 | 20.0 | 38.0 | - | 100 | 20.0 |
| KGE2200-20150 | 20.0 | 55.0 | - | 150 | 20.0 |

☆ 推介切削参数请参考P55

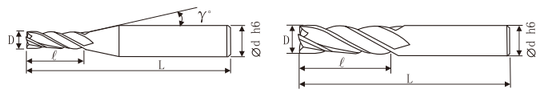
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

## KGE　三刃钨钢涂层立铣刀（45°螺旋角）






ØD $^{0}_{-0.02}$ (D≤12)

ØD $^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KGE3010-0450 | 1.0 | 3.0 | 10 | 50 | 4.0 |
| KGE3010-0650 | 1.0 | 3.0 | 10 | 50 | 6.0 |
| KGE3015-0450 | 1.5 | 4.0 | 10 | 50 | 4.0 |
| KGE3015-0650 | 1.5 | 4.0 | 10 | 50 | 6.0 |
| KGE3020-0450 | 2.0 | 6.0 | 10 | 50 | 4.0 |
| KGE3020-0650 | 2.0 | 6.0 | 10 | 50 | 6.0 |
| KGE3025-0450 | 2.5 | 8.0 | 10 | 50 | 4.0 |
| KGE3025-0650 | 2.5 | 8.0 | 10 | 50 | 6.0 |
| KGE3030-0450 | 3.0 | 8.0 | 10 | 50 | 4.0 |
| KGE3030-0650 | 3.0 | 8.0 | 10 | 50 | 6.0 |
| KGE3030-0675 | 3.0 | 12.0 | 10 | 75 | 6.0 |
| KGE3035-0650 | 3.5 | 10.0 | 10 | 50 | 6.0 |
| KGE3040-0450 | 4.0 | 11.0 | - | 50 | 4.0 |
| KGE3040-0650 | 4.0 | 11.0 | 10 | 50 | 6.0 |
| KGE3040-0675 | 4.0 | 15.0 | 10 | 75 | 6.0 |
| KGE3045-0650 | 4.5 | 11.0 | 10 | 50 | 6.0 |
| KGE3050-0650 | 5.0 | 13.0 | 10 | 50 | 6.0 |
| KGE3050-0675 | 5.0 | 20.0 | 10 | 75 | 6.0 |
| KGE3055-0650 | 5.5 | 16.0 | 10 | 50 | 6.0 |
| KGE3060-0650 | 6.0 | 16.0 | - | 50 | 6.0 |
| KGE3060-0675 | 6.0 | 20.0 | - | 75 | 6.0 |
| KGE3070-0860 | 7.0 | 20.0 | 10 | 60 | 8.0 |
| KGE3080-0860 | 8.0 | 20.0 | - | 60 | 8.0 |
| KGE3080-08100 | 8.0 | 25.0 | - | 100 | 8.0 |
| KGE3090-1075 | 9.0 | 22.0 | 10 | 75 | 10.0 |
| KGE3100-1075 | 10.0 | 25.0 | - | 75 | 10.0 |
| KGE3100-10100 | 10.0 | 30.0 | - | 100 | 10.0 |
| KGE3110-1275 | 11.0 | 26.0 | 10 | 75 | 12.0 |
| KGE3120-1275 | 12.0 | 30.0 | - | 75 | 12.0 |
| KGE3120-12100 | 12.0 | 35.0 | - | 100 | 12.0 |
| KGE3140-1475 | 14.0 | 32.0 | - | 75 | 14.0 |
| KGE3140-14100 | 14.0 | 40.0 | - | 100 | 14.0 |
| KGE3160-16100 | 16.0 | 45.0 | - | 100 | 16.0 |
| KGE3160-16150 | 16.0 | 50.0 | - | 150 | 16.0 |
| KGE3180-18100 | 18.0 | 45.0 | - | 100 | 18.0 |
| KGE3200-20100 | 20.0 | 45.0 | - | 100 | 20.0 |
| KGE3200-20150 | 20.0 | 55.0 | - | 150 | 20.0 |

☆推介切削参数请参考P56

## 可切削材料适用表

○ 非常适合　○ 适合

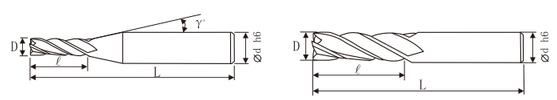
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |





## KGE　四刃钨钢涂层立铣刀（30°螺旋角）






ØD $^{0}_{-0.02}$ (D≤12)

ØD $^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KGE4010-0450 | 1.0 | 3.0 | 10 | 50 | 4.0 |
| KGE4015-0450 | 1.5 | 4.0 | 10 | 50 | 4.0 |
| KGE4020-0450 | 2.0 | 6.0 | 10 | 50 | 4.0 |
| KGE4025-0450 | 2.5 | 8.0 | 10 | 50 | 4.0 |
| KGE4030-0450 | 3.0 | 8.0 | 10 | 50 | 4.0 |
| KGE4030-0650 | 3.0 | 8.0 | 10 | 50 | 6.0 |
| KGE4030-0475 | 3.0 | 12.0 | 10 | 75 | 4.0 |
| KGE4035-0450 | 3.5 | 10.0 | 10 | 50 | 4.0 |
| KGE4040-0450 | 4.0 | 11.0 | - | 50 | 4.0 |
| KGE4040-0650 | 4.0 | 11.0 | 10 | 50 | 6.0 |
| KGE4040-0475 | 4.0 | 15.0 | - | 75 | 4.0 |
| KGE4040-06100 | 4.0 | 15.0 | 10 | 100 | 6.0 |
| KGE4050-0650 | 5.0 | 13.0 | 10 | 50 | 6.0 |
| KGE4050-0675 | 5.0 | 20.0 | 10 | 75 | 6.0 |
| KGE4060-0650 | 6.0 | 16.0 | - | 50 | 6.0 |
| KGE4060-0675 | 6.0 | 20.0 | - | 75 | 6.0 |
| KGE4060-06100 | 6.0 | 25.0 | - | 100 | 6.0 |
| KGE4080-0860 | 8.0 | 20.0 | - | 60 | 8.0 |
| KGE4080-08100 | 8.0 | 25.0 | - | 100 | 8.0 |
| KGE4100-1075 | 10.0 | 22.0 | - | 75 | 10.0 |
| KGE4100-10100 | 10.0 | 30.0 | - | 100 | 10.0 |
| KGE4120-1275 | 12.0 | 26.0 | - | 75 | 12.0 |
| KGE4120-12100 | 12.0 | 35.0 | - | 100 | 12.0 |
| KGE4140-14100 | 14.0 | 32.0 | - | 100 | 14.0 |
| KGE4140-14150 | 14.0 | 40.0 | - | 150 | 14.0 |
| KGE4160-16100 | 16.0 | 38.0 | - | 100 | 16.0 |
| KGE4160-16150 | 16.0 | 50.0 | - | 150 | 16.0 |
| KGE4200-20100 | 20.0 | 40.0 | - | 100 | 20.0 |
| KGE4200-20150 | 20.0 | 55.0 | - | 150 | 20.0 |

☆推介切削参数请参考P57

## 可切削材料适用表

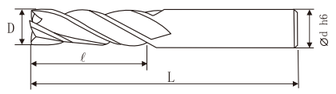
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

## KGEX　四刃加长刃钨钢涂层立铣刀（35°螺旋角）



模架精框專用




$\varnothing D\ {}^{0}_{-0.02}$ (D≤12)

$\varnothing D\ {}^{0}_{-0.03}$ (12<D≤20)

35 | TiAlN | HRC ▶48

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|
| KGEX4010-0450 | 1.0 | 6.0 | 50 | 4.0 |
| KGEX4015-0450 | 1.5 | 9.0 | 50 | 4.0 |
| KGEX4020-0450 | 2.0 | 12.0 | 50 | 4.0 |
| KGEX4025-0450 | 2.5 | 15.0 | 50 | 4.0 |
| KGEX4030-0675 | 3.0 | 20.0 | 75 | 6.0 |
| KGEX4040-0675 | 4.0 | 25.0 | 75 | 6.0 |
| KGEX4050-0675 | 5.0 | 30.0 | 75 | 6.0 |
| KGEX4060-0675 | 6.0 | 30.0 | 75 | 6.0 |
| KGEX4080-08100 | 8.0 | 40.0 | 100 | 8.0 |
| KGEX4100-10110 | 10.0 | 50.0 | 110 | 10.0 |
| KGEX4120-12110 | 12.0 | 50.0 | 110 | 12.0 |
| KGEX4160-16150 | 16.0 | 70.0 | 150 | 16.0 |
| KGEX4200-20150 | 20.0 | 75.0 | 150 | 20.0 |

## 可切削材料适用表

○ 非常适合　○ 适合

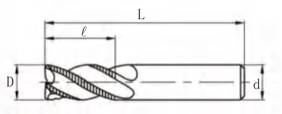
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |





## KGES 四刃整体合金波刃立铣刀






$\varnothing D\ {}^{0}_{-0.02}$ (D≤12)

$\varnothing D\ {}^{0}_{-0.03}$ (12<D≤20)

UMG | TiAlN | 30 | HRC ▶48

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|
| KGES4060-0650 | 6 | 16 | 50 | 6 |
| KGES4080-0860 | 8 | 20 | 60 | 8 |
| KGES4100-1075 | 10 | 25 | 75 | 10 |
| KGES4120-1275 | 12 | 30 | 75 | 12 |
| KGES4160-16100 | 16 | 45 | 100 | 16 |
| KGES4200-20100 | 20 | 45 | 100 | 20 |

☆推介切削参数请参考P58

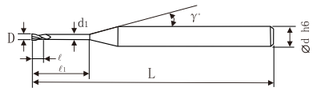
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

# KGEL 二刃钨钢涂层深沟立铣刀









| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (γ) 颈角 | (d1) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KGEL2005-04-0450 | 0.5 | 0.7 | 4.0 | 15 | 0.45 | 50 | 4.0 |
| KGEL2005-06-0450 | | 0.7 | 6.0 | 15 | 0.45 | 50 | 4.0 |
| KGEL2005-08-0450 | | 0.7 | 8.0 | 15 | 0.45 | 50 | 4.0 |
| KGEL2008-04-0450 | 0.8 | 1.2 | 4.0 | 15 | 0.75 | 50 | 4.0 |
| KGEL2008-06-0450 | | 1.2 | 6.0 | 15 | 0.75 | 50 | 4.0 |
| KGEL2008-08-0450 | | 1.2 | 8.0 | 15 | 0.75 | 50 | 4.0 |
| KGEL2008-10-0450 | | 1.2 | 10.0 | 15 | 0.75 | 50 | 4.0 |
| KGEL2010-04-0450 | 1.0 | 1.5 | 4.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2010-06-0450 | | 1.5 | 6.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2010-08-0450 | | 1.5 | 8.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2010-10-0450 | | 1.5 | 10.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2010-12-0450 | | 1.5 | 12.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2010-14-0450 | | 1.5 | 14.0 | 15 | 0.95 | 50 | 4.0 |
| KGEL2012-06-0450 | 1.2 | 1.8 | 6.0 | 15 | 1.15 | 50 | 4.0 |
| KGEL2012-08-0450 | | 1.8 | 8.0 | 15 | 1.15 | 50 | 4.0 |
| KGEL2012-10-0450 | | 1.8 | 10.0 | 15 | 1.15 | 50 | 4.0 |
| KGEL2012-12-0450 | | 1.8 | 12.0 | 15 | 1.15 | 50 | 4.0 |
| KGEL2015-06-0450 | 1.5 | 2.3 | 6.0 | 15 | 1.45 | 50 | 4.0 |
| KGEL2015-08-0450 | | 2.3 | 8.0 | 15 | 1.45 | 50 | 4.0 |
| KGEL2015-10-0450 | | 2.3 | 10.0 | 15 | 1.45 | 50 | 4.0 |
| KGEL2015-12-0450 | | 2.3 | 12.0 | 15 | 1.45 | 50 | 4.0 |
| KGEL2015-14-0450 | | 2.3 | 14.0 | 15 | 1.45 | 50 | 4.0 |

## 可切削材料适用表

○ 非常适合　○ 适合

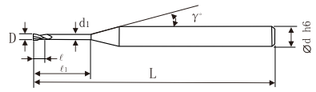
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |





# KGEL 二刃钨钢涂层深沟立铣刀









| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (γ) 颈角 | (d1) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KGEL2020-06-0450 | 2.0 | 3.0 | 6.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2020-08-0450 | | 3.0 | 8.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2020-10-0450 | | 3.0 | 10.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2020-12-0450 | | 3.0 | 12.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2020-14-0450 | | 3.0 | 14.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2020-16-0450 | | 3.0 | 16.0 | 15 | 1.95 | 50 | 4.0 |
| KGEL2025-08-0450 | 2.5 | 3.7 | 8.0 | 15 | 2.4 | 50 | 4.0 |
| KGEL2025-10-0450 | | 3.7 | 10.0 | 15 | 2.4 | 50 | 4.0 |
| KGEL2025-12-0450 | | 3.7 | 12.0 | 15 | 2.4 | 50 | 4.0 |
| KGEL2025-14-0450 | | 3.7 | 14.0 | 15 | 2.4 | 50 | 4.0 |
| KGEL2025-16-0460 | | 3.7 | 16.0 | 15 | 2.4 | 60 | 4.0 |
| KGEL2025-18-0460 | | 3.7 | 18.0 | 15 | 2.4 | 60 | 4.0 |
| KGEL2025-20-0460 | | 3.7 | 20.0 | 15 | 2.4 | 60 | 4.0 |
| KGEL2030-06-0650 | 3.0 | 4.5 | 6.0 | 15 | 2.85 | 50 | 6.0 |
| KGEL2030-08-0650 | | 4.5 | 8.0 | 15 | 2.85 | 50 | 6.0 |
| KGEL2030-10-0650 | | 4.5 | 10.0 | 15 | 2.85 | 50 | 6.0 |
| KGEL2030-12-0650 | | 4.5 | 12.0 | 15 | 2.85 | 50 | 6.0 |
| KGEL2030-14-0660 | | 4.5 | 14.0 | 15 | 2.85 | 60 | 6.0 |
| KGEL2030-16-0660 | | 4.5 | 16.0 | 15 | 2.85 | 60 | 6.0 |
| KGEL2030-18-0660 | | 4.5 | 18.0 | 15 | 2.85 | 60 | 6.0 |
| KGEL2030-20-0660 | | 4.5 | 20.0 | 15 | 2.85 | 60 | 6.0 |
| KGEL2040-12-0650 | 4.0 | 6.0 | 12.0 | 15 | 3.85 | 50 | 6.0 |
| KGEL2040-16-0660 | | 6.0 | 16.0 | 15 | 3.85 | 60 | 6.0 |
| KGEL2040-20-0660 | | 6.0 | 20.0 | 15 | 3.85 | 60 | 6.0 |
| KGEL2040-25-0660 | | 6.0 | 25.0 | 15 | 3.85 | 60 | 6.0 |
| KGEL2050-16-0660 | 5.0 | 7.5 | 16.0 | 15 | 4.85 | 60 | 6.0 |
| KGEL2050-25-0670 | | 7.5 | 25.0 | 15 | 4.85 | 70 | 6.0 |

☆推介切削参数请参考P59

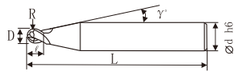
## 可切削材料适用表

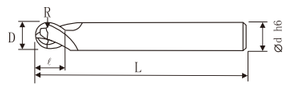
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

## KGB 二刃钨钢涂层球头立铣刀






$\varnothing D\ {}^{0}_{-0.02}$ (D≤12)

$\varnothing D\ {}^{0}_{-0.03}$ (12<D≤20)

R±0.01




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KGB2010-0450 | 1.0 | R0.50 | 1.50 | 10 | 50 | 4.0 |
| KGB2015-0450 | 1.5 | R0.75 | 2.25 | 10 | 50 | 4.0 |
| KGB2020-0450 | 2.0 | R1.00 | 3.00 | 10 | 50 | 4.0 |
| KGB2025-0450 | 2.5 | R1.25 | 3.75 | 10 | 50 | 4.0 |
| KGB2030-0450 | 3.0 | R1.50 | 4.50 | 10 | 50 | 4.0 |
| KGB2030-0650 | 3.0 | R1.50 | 4.50 | 10 | 50 | 6.0 |
| KGB2030-0475 | 3.0 | R1.50 | 4.50 | 10 | 75 | 4.0 |
| KGB2040-0450 | 4.0 | R2.00 | 6.00 | - | 50 | 4.0 |
| KGB2040-0650 | 4.0 | R2.00 | 6.00 | 10 | 50 | 6.0 |
| KGB2040-0475 | 4.0 | R2.00 | 6.00 | - | 75 | 4.0 |
| KGB2040-0675 | 4.0 | R2.00 | 6.00 | 10 | 75 | 6.0 |
| KGB2040-06100 | 4.0 | R2.00 | 6.00 | 10 | 100 | 6.0 |
| KGB2050-0650 | 5.0 | R2.50 | 7.50 | 10 | 50 | 6.0 |
| KGB2050-0675 | 5.0 | R2.50 | 7.50 | 10 | 75 | 6.0 |
| KGB2060-0650 | 6.0 | R3.00 | 9.00 | - | 50 | 6.0 |
| KGB2060-0675 | 6.0 | R3.00 | 9.00 | - | 75 | 6.0 |
| KGB2060-06100 | 6.0 | R3.00 | 9.00 | - | 100 | 6.0 |
| KGB2080-0860 | 8.0 | R4.00 | 12.00 | - | 60 | 8.0 |
| KGB2080-0875 | 8.0 | R4.00 | 12.00 | - | 75 | 8.0 |
| KGB2080-08100 | 8.0 | R4.00 | 12.00 | - | 100 | 8.0 |
| KGB2100-1075 | 10.0 | R5.00 | 15.00 | - | 75 | 10.0 |
| KGB2100-10100 | 10.0 | R5.00 | 15.00 | - | 100 | 10.0 |
| KGB2120-1275 | 12.0 | R6.00 | 18.00 | - | 75 | 12.0 |
| KGB2120-12100 | 12.0 | R6.00 | 18.00 | - | 100 | 12.0 |
| KGB2160-16100 | 16.0 | R8.00 | 24.00 | - | 100 | 16.0 |
| KGB2160-16150 | 16.0 | R8.00 | 24.00 | - | 150 | 16.0 |
| KGB2200-20100 | 20.0 | R10.00 | 30.00 | - | 100 | 20.0 |
| KGB2200-20150 | 20.0 | R10.00 | 30.00 | - | 150 | 20.0 |

☆推介切削参数请参考P60

## 可切削材料适用表

○ 非常适合　○ 适合

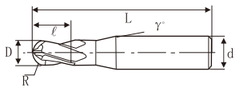
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

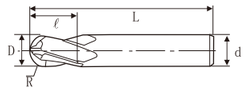




## KGB 四刃钨钢涂层球头立铣刀






$\varnothing D\ {}^{0}_{-0.02}$ (D≤12)

$\varnothing D\ {}^{0}_{-0.03}$ (12<D≤20)

R±0.01




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KGB4040-0650 | 4.0 | R2.0 | 8.0 | 10 | 50 | 6.0 |
| KGB4050-0650 | 5.0 | R2.5 | 10.0 | 10 | 50 | 6.0 |
| KGB4060-0650 | 6.0 | R3.0 | 12.0 | 10 | 50 | 6.0 |
| KGB4080-0860 | 8.0 | R4.0 | 16.0 | 10 | 60 | 8.0 |
| KGB4100-1075 | 10.0 | R5.0 | 20.0 | 10 | 75 | 10.0 |
| KGB4120-1275 | 12.0 | R6.0 | 24.0 | 10 | 75 | 12.0 |
| KGB4140-1475 | 14.0 | R7.0 | 28.0 | 10 | 75 | 14.0 |
| KGB4160-16100 | 16.0 | R8.0 | 32.0 | 10 | 100 | 16.0 |
| KGB4180-18100 | 18.0 | R9.0 | 36.0 | 10 | 100 | 18.0 |
| KGB4200-20100 | 20.0 | R10.0 | 40.0 | 10 | 100 | 20.0 |

☆推介切削参数请参考P61

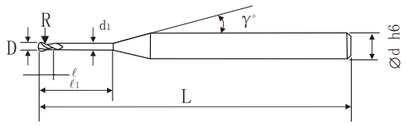
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

## KGBL 二刃钨钢涂层深沟球头立铣刀






ØD $^{0}_{-0.015}$
R±0.005 (R<0.5)
R±0.01 (R≥0.5)




| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (d1) 首径 mm | (ℓ1)有效长度 mm | (γ) 颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KGBL2005-04-0450 | 0.5 | R0.25 | 0.7 | 0.45 | 4.0 | 15 | 50 | 4.0 |
| KGBL2005-06-0450 | 0.5 | R0.25 | 0.7 | 0.45 | 6.0 | 15 | 50 | 4.0 |
| KGBL2006-04-0450 | 0.6 | R0.3 | 0.9 | 0.55 | 4.0 | 15 | 50 | 4.0 |
| KGBL2006-06-0450 | 0.6 | R0.3 | 0.9 | 0.55 | 6.0 | 15 | 50 | 4.0 |
| KGBL2006-08-0450 | 0.6 | R0.3 | 0.9 | 0.55 | 8.0 | 15 | 50 | 4.0 |
| KGBL2008-04-0450 | 0.8 | R0.4 | 1.2 | 0.75 | 4.0 | 15 | 50 | 4.0 |
| KGBL2008-06-0450 | 0.8 | R0.4 | 1.2 | 0.75 | 6.0 | 15 | 50 | 4.0 |
| KGBL2008-08-0450 | 0.8 | R0.4 | 1.2 | 0.75 | 8.0 | 15 | 50 | 4.0 |
| KGBL2008-10-0450 | 0.8 | R0.4 | 1.2 | 0.75 | 10.0 | 15 | 50 | 4.0 |
| KGBL2010-04-0450 | 1.0 | R0.5 | 1.5 | 0.95 | 4.0 | 15 | 50 | 4.0 |
| KGBL2010-06-0450 | 1.0 | R0.5 | 1.5 | 0.95 | 6.0 | 15 | 50 | 4.0 |
| KGBL2010-08-0450 | 1.0 | R0.5 | 1.5 | 0.95 | 8.0 | 15 | 50 | 4.0 |
| KGBL2010-10-0450 | 1.0 | R0.5 | 1.5 | 0.95 | 10.0 | 15 | 50 | 4.0 |
| KGBL2010-12-0450 | 1.0 | R0.5 | 1.5 | 0.95 | 12.0 | 15 | 50 | 4.0 |
| KGBL2012-06-0450 | 1.2 | R0.6 | 1.8 | 1.15 | 6.0 | 15 | 50 | 4.0 |
| KGBL2012-08-0450 | 1.2 | R0.6 | 1.8 | 1.15 | 8.0 | 15 | 50 | 4.0 |
| KGBL2012-12-0450 | 1.2 | R0.6 | 1.8 | 1.15 | 12.0 | 15 | 50 | 4.0 |
| KGBL2012-16-0450 | 1.2 | R0.6 | 1.8 | 1.15 | 16.0 | 15 | 50 | 4.0 |
| KGBL2015-08-0450 | 1.5 | R0.75 | 2.3 | 1.45 | 8.0 | 15 | 50 | 4.0 |
| KGBL2015-12-0450 | 1.5 | R0.75 | 2.3 | 1.45 | 12.0 | 15 | 50 | 4.0 |
| KGBL2015-16-0450 | 1.5 | R0.75 | 2.3 | 1.45 | 16.0 | 15 | 50 | 4.0 |
| KGBL2020-06-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 6.0 | 15 | 50 | 4.0 |

## 可切削材料适用表

○ 非常适合 ○ 适合

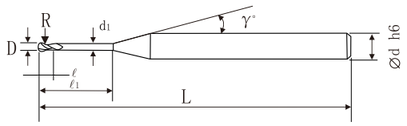
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |





## KGBL 二刃钨钢涂层深沟球头立铣刀






ØD $^{0}_{-0.015}$
R±0.005 (R<0.5)
R±0.01 (R≥0.5)




| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (d1) 首径 mm | (ℓ1)有效长度 mm | (γ) 颈角 | (L)全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KGBL2020-08-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 8.0 | 15 | 50 | 4.0 |
| KGBL2020-10-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 10.0 | 15 | 50 | 4.0 |
| KGBL2020-12-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 12.0 | 15 | 50 | 4.0 |
| KGBL2020-16-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 16.0 | 15 | 50 | 4.0 |
| KGBL2020-20-0450 | 2.0 | R1.0 | 3.0 | 1.95 | 20.0 | 15 | 50 | 4.0 |
| KGBL2025-08-0450 | 2.5 | R1.25 | 3.7 | 2.4 | 8.0 | 15 | 50 | 4.0 |
| KGBL2025-12-0450 | 2.5 | R1.25 | 3.7 | 2.4 | 12.0 | 15 | 50 | 4.0 |
| KGBL2025-16-0460 | 2.5 | R1.25 | 3.7 | 2.4 | 16.0 | 15 | 60 | 4.0 |
| KGBL2025-20-0460 | 2.5 | R1.25 | 3.7 | 2.4 | 20.0 | 15 | 60 | 4.0 |
| KGBL2030-08-0650 | 3.0 | R1.5 | 4.5 | 2.85 | 8.0 | 15 | 50 | 6.0 |
| KGBL2030-10-0650 | 3.0 | R1.5 | 4.5 | 2.85 | 10.0 | 15 | 50 | 6.0 |
| KGBL2030-12-0650 | 3.0 | R1.5 | 4.5 | 2.85 | 12.0 | 15 | 50 | 6.0 |
| KGBL2030-16-0660 | 3.0 | R1.5 | 4.5 | 2.85 | 16.0 | 15 | 60 | 6.0 |
| KGBL2030-20-0660 | 3.0 | R1.5 | 4.5 | 2.85 | 20.0 | 15 | 60 | 6.0 |
| KGBL2040-10-0660 | 4.0 | R2.0 | 6.0 | 3.85 | 10.0 | 15 | 60 | 6.0 |
| KGBL2040-16-0660 | 4.0 | R2.0 | 6.0 | 3.85 | 16.0 | 15 | 60 | 6.0 |
| KGBL2040-20-0660 | 4.0 | R2.0 | 6.0 | 3.85 | 20.0 | 15 | 60 | 6.0 |
| KGBL2040-25-0660 | 4.0 | R2.0 | 6.0 | 3.85 | 25.0 | 15 | 60 | 6.0 |
| KGBL2050-16-0660 | 5.0 | R2.5 | 7.5 | 4.85 | 16.0 | 15 | 60 | 6.0 |
| KGBL2050-25-0670 | 5.0 | R2.5 | 7.5 | 4.85 | 25.0 | 15 | 70 | 6.0 |

☆推介切削参数请参考P62

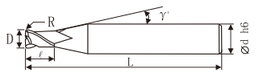
## 可切削材料适用表

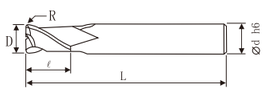
○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS | 合金钢 ALLOY STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ~40HRC | ~50HRC | ~60HRC | ~68HRC | | | | | | | | |
| ○ | ○ | ○ | ○ | | | ○ | ○ | | | | ○ | | |

## KGR 二刃钨钢涂层R角立铣刀






Ød $^{0}_{-0.02}$ (D≤12)

Ød $^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KGR2010R0.2-0450 | 1.0 | 0.2 | 3.0 | 10 | 50 | 4.0 |
| KGR2015R0.2-0450 | 1.5 | 0.2 | 4.0 | 10 | 50 | 4.0 |
| KGR2020R0.2-0450 | 2.0 | 0.2 | 6.0 | 10 | 50 | 4.0 |
| KGR2020R0.5-0450 | 2.0 | 0.5 | 6.0 | 10 | 50 | 4.0 |
| KGR2025R0.2-0450 | 2.5 | 0.2 | 8.0 | 10 | 50 | 4.0 |
| KGR2025R0.5-0450 | 2.5 | 0.5 | 8.0 | 10 | 50 | 4.0 |
| KGR2030R0.2-0450 | 3.0 | 0.2 | 8.0 | 10 | 50 | 4.0 |
| KGR2030R0.3-0450 | 3.0 | 0.3 | 8.0 | 10 | 50 | 4.0 |
| KGR2030R0.5-0450 | 3.0 | 0.5 | 8.0 | 10 | 50 | 4.0 |
| KGR2040R0.2-0450 | 4.0 | 0.2 | 11.0 | 10 | 50 | 4.0 |
| KGR2040R0.3-0450 | 4.0 | 0.3 | 11.0 | 10 | 50 | 4.0 |
| KGR2040R0.5-0450 | 4.0 | 0.5 | 11.0 | 10 | 50 | 4.0 |
| KGR2040R1.0-0450 | 4.0 | 1.0 | 11.0 | 10 | 50 | 4.0 |
| KGR2040R0.2-0675 | 4.0 | 0.2 | 12.0 | 10 | 75 | 4.0 |
| KGR2040R0.5-0675 | 4.0 | 0.5 | 12.0 | 10 | 75 | 4.0 |
| KGR2050R0.3-0650 | 5.0 | 0.3 | 13.0 | 10 | 50 | 6.0 |
| KGR2050R0.5-0650 | 5.0 | 0.5 | 13.0 | 10 | 50 | 6.0 |
| KGR2050R1.0-0650 | 5.0 | 1.0 | 13.0 | 10 | 50 | 6.0 |
| KGR2060R0.3-0650 | 6.0 | 0.3 | 16.0 | - | 50 | 6.0 |
| KGR2060R0.5-0650 | 6.0 | 0.5 | 16.0 | - | 50 | 6.0 |
| KGR2060R1.0-0650 | 6.0 | 1.0 | 16.0 | - | 50 | 6.0 |
| KGR2060R0.5-06100 | 6.0 | 0.5 | 16.0 | - | 100 | 6.0 |
| KGR2060R1.0-06100 | 6.0 | 1.0 | 16.0 | - | 100 | 6.0 |
| KGR2080R0.3-0860 | 8.0 | 0.3 | 20.0 | - | 60 | 8.0 |
| KGR2080R0.5-0860 | 8.0 | 0.5 | 20.0 | - | 60 | 8.0 |
| KGR2080R1.0-0860 | 8.0 | 1.0 | 20.0 | - | 60 | 8.0 |
| KGR2080R0.5-08100 | 8.0 | 0.5 | 20.0 | - | 100 | 8.0 |
| KGR2080R1.0-08100 | 8.0 | 1.0 | 20.0 | - | 100 | 8.0 |
| KGR2100R0.5-1075 | 10.0 | 0.5 | 25.0 | - | 75 | 10.0 |
| KGR2100R1.0-1075 | 10.0 | 1.0 | 25.0 | - | 75 | 10.0 |
| KGR2100R1.5-1075 | 10.0 | 1.5 | 25.0 | - | 75 | 10.0 |
| KGR2100R2.0-1075 | 10.0 | 2.0 | 25.0 | - | 75 | 10.0 |
| KGR2100R0.5-10100 | 10.0 | 0.5 | 22.0 | - | 100 | 10.0 |
| KGR2100R1.0-10100 | 10.0 | 1.0 | 22.0 | - | 100 | 10.0 |
| KGR2120R0.5-1275 | 12.0 | 0.5 | 30.0 | - | 75 | 12.0 |
| KGR2120R1.0-1275 | 12.0 | 1.0 | 30.0 | - | 75 | 12.0 |
| KGR2120R1.5-1275 | 12.0 | 1.5 | 30.0 | - | 75 | 12.0 |
| KGR2120R2.0-1275 | 12.0 | 2.0 | 30.0 | - | 75 | 12.0 |
| KGR2120R0.5-12100 | 12.0 | 0.5 | 26.0 | - | 100 | 12.0 |
| KGR2120R1.0-12100 | 12.0 | 1.0 | 26.0 | - | 100 | 12.0 |
| KGR2120R2.0-12100 | 12.0 | 2.0 | 26.0 | - | 100 | 12.0 |

☆推介切削参数请参考P63

## 可切削材料适用表

○ 非常适合　○ 适合

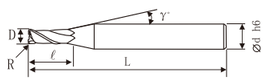
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

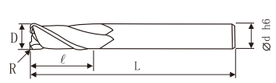




## KGR 四刃钨钢涂层R角立铣刀






Ød $^{0}_{-0.02}$ (D≤12)

Ød $^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KGR4030R0.2-0450 | 3.0 | 0.2 | 8.0 | 10 | 50 | 4.0 |
| KGR4040R0.3-0450 | 4.0 | 0.3 | 10.0 | - | 50 | 4.0 |
| KGR4040R0.5-0450 | 4.0 | 0.5 | 10.0 | - | 50 | 4.0 |
| KGR4050R0.5-0650 | 5.0 | 0.5 | 13.0 | 10 | 50 | 6.0 |
| KGR4050R1.0-0650 | 5.0 | 1.0 | 13.0 | 10 | 50 | 6.0 |
| KGR4060R0.5-0650 | 6.0 | 0.5 | 16.0 | - | 50 | 6.0 |
| KGR4060R1.0-0650 | 6.0 | 1.0 | 16.0 | - | 50 | 6.0 |
| KGR4060R0.5-0675 | 6.0 | 0.5 | 16.0 | - | 75 | 6.0 |
| KGR4060R1.0-0675 | 6.0 | 1.0 | 16.0 | - | 75 | 6.0 |
| KGR4080R0.5-0860 | 8.0 | 0.5 | 20.0 | - | 60 | 8.0 |
| KGR4080R1.0-0860 | 8.0 | 1.0 | 20.0 | - | 60 | 8.0 |
| KGR4080R0.5-08100 | 8.0 | 0.5 | 20.0 | - | 100 | 8.0 |
| KGR4080R1.0-08100 | 8.0 | 1.0 | 20.0 | - | 100 | 8.0 |
| KGR4100R0.5-1075 | 10.0 | 0.5 | 25.0 | - | 75 | 10.0 |
| KGR4100R1.0-1075 | 10.0 | 1.0 | 25.0 | - | 75 | 10.0 |
| KGR4100R2.0-1075 | 10.0 | 2.0 | 25.0 | - | 75 | 10.0 |
| KGR4100R3.0-1075 | 10.0 | 3.0 | 25.0 | - | 75 | 10.0 |
| KGR4100R0.5-10100 | 10.0 | 0.5 | 25.0 | - | 100 | 10.0 |
| KGR4100R1.0-10100 | 10.0 | 1.0 | 25.0 | - | 100 | 10.0 |
| KGR4100R2.0-10100 | 10.0 | 2.0 | 25.0 | - | 100 | 10.0 |
| KGR4120R0.5-1275 | 12.0 | 0.5 | 30.0 | - | 75 | 12.0 |
| KGR4120R1.0-1275 | 12.0 | 1.0 | 30.0 | - | 75 | 12.0 |
| KGR4120R2.0-1275 | 12.0 | 2.0 | 30.0 | - | 75 | 12.0 |
| KGR4120R3.0-1275 | 12.0 | 3.0 | 30.0 | - | 75 | 12.0 |
| KGR4120R0.5-12100 | 12.0 | 0.5 | 30.0 | - | 100 | 12.0 |
| KGR4120R1.0-12100 | 12.0 | 1.0 | 30.0 | - | 100 | 12.0 |
| KGR4120R2.0-12100 | 12.0 | 2.0 | 30.0 | - | 100 | 12.0 |
| KGR4160R1.0-16150 | 16.0 | 1.0 | 45.0 | - | 150 | 16.0 |
| KGR4160R2.0-16150 | 16.0 | 2.0 | 45.0 | - | 150 | 16.0 |

☆推介切削参数请参考P64

## 可切削材料适用表

○ 非常适合　○ 适合

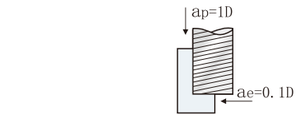
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | | | ○ | | ○ |

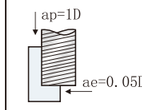
## KGE 二刃钨钢涂层立铣刀

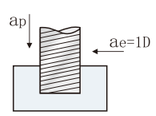


| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 预硬钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | | 碳素钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 20000 | 165 | 20000 | 165 | 20000 | 135 | 20000 | 135 | 20000 | 50 | 20000 | 100 |
| 2 | 15000 | 265 | 15000 | 265 | 15000 | 240 | 15000 | 235 | 11150 | 70 | 13000 | 150 |
| 3 | 14000 | 455 | 14000 | 455 | 13000 | 420 | 10600 | 350 | 7500 | 100 | 8500 | 275 |
| 4 | 10800 | 465 | 10800 | 465 | 10000 | 430 | 8000 | 355 | 5500 | 110 | 6500 | 280 |
| 5 | 8200 | 485 | 8200 | 485 | 7600 | 450 | 6400 | 370 | 4500 | 110 | 5000 | 295 |
| 6 | 7000 | 500 | 7000 | 500 | 6400 | 460 | 5300 | 385 | 3700 | 115 | 4200 | 300 |
| 8 | 5200 | 495 | 5200 | 495 | 4800 | 455 | 4000 | 380 | 2800 | 115 | 3200 | 305 |
| 10 | 4200 | 485 | 4200 | 485 | 3800 | 450 | 3200 | 370 | 2200 | 115 | 2500 | 290 |
| 12 | 3500 | 485 | 3500 | 485 | 3200 | 450 | 2650 | 370 | 1850 | 115 | 2100 | 290 |
| 14 | 3000 | 455 | 3000 | 455 | 2700 | 420 | 2300 | 350 | 1600 | 110 | 1800 | 275 |
| 16 | 2600 | 455 | 2600 | 455 | 2400 | 420 | 2000 | 350 | 1400 | 100 | 1600 | 275 |
| 18 | 2300 | 445 | 2300 | 445 | 2100 | 410 | 1800 | 345 | 1250 | 100 | 1400 | 270 |
| 20 | 2050 | 445 | 2050 | 445 | 1900 | 410 | 1600 | 345 | 1100 | 100 | 1250 | 270 |

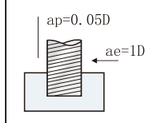
切削量基准（D:直径）




| 刀具直径 | 切深ap |
|---|---|
| Ø1≤D＜Ø3 | 0.15D |
| D≥Ø3 | 0.3D |





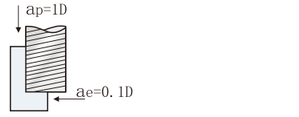


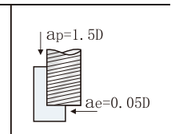

## KGE 三刃钨钢涂层立铣刀（45°螺旋角）

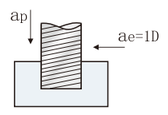


| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 碳素钢、调质钢<br>~40HRC | | 不锈钢 | | 碳素钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 20000 | 215 | 20000 | 215 | 20000 | 175 | 20000 | 175 | 20000 | 65 | 20000 | 130 |
| 2 | 15000 | 345 | 15000 | 345 | 15000 | 310 | 15000 | 305 | 11150 | 90 | 13000 | 195 |
| 3 | 14000 | 590 | 14000 | 590 | 13000 | 546 | 10600 | 455 | 7500 | 130 | 8500 | 360 |
| 4 | 10800 | 600 | 10800 | 605 | 10000 | 560 | 8000 | 460 | 5500 | 145 | 6500 | 365 |
| 5 | 8200 | 630 | 8200 | 630 | 7600 | 585 | 6400 | 480 | 4500 | 145 | 5000 | 380 |
| 6 | 7000 | 650 | 7000 | 650 | 6400 | 600 | 5300 | 500 | 3700 | 150 | 4200 | 390 |
| 8 | 5200 | 645 | 5200 | 645 | 4800 | 590 | 4000 | 495 | 2800 | 150 | 3200 | 400 |
| 10 | 4200 | 630 | 4200 | 630 | 3800 | 585 | 3200 | 480 | 2200 | 150 | 2500 | 380 |
| 12 | 3500 | 630 | 3500 | 630 | 3200 | 585 | 2650 | 480 | 1850 | 150 | 2100 | 380 |
| 14 | 3000 | 590 | 3000 | 590 | 2700 | 545 | 2300 | 455 | 1600 | 145 | 1800 | 360 |
| 16 | 2600 | 590 | 2600 | 590 | 2400 | 545 | 2000 | 455 | 1400 | 130 | 1600 | 360 |
| 18 | 2300 | 580 | 2300 | 580 | 2100 | 530 | 1800 | 450 | 1250 | 130 | 1400 | 360 |
| 20 | 2050 | 580 | 2050 | 580 | 1900 | 530 | 1600 | 450 | 1100 | 130 | 1250 | 350 |

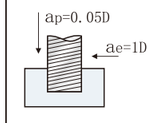
切削量基准（D:直径）




| 刀具直径 | 切深ap |
|---|---|
| Ø1≤D＜Ø3 | 0.15D |
| D≥Ø3 | 0.3D |

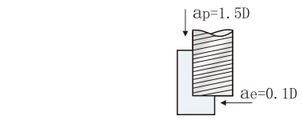


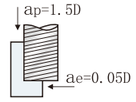
## KGE 四刃钨钢涂层立铣刀（30°螺旋角）

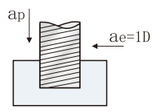


| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | | 碳素钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 20000 | 225 | 20000 | 225 | 20000 | 180 | 20000 | 180 | 20000 | 80 | 20000 | 135 |
| 2 | 15000 | 360 | 15000 | 360 | 15000 | 325 | 15000 | 315 | 11150 | 90 | 13000 | 200 |
| 3 | 14000 | 610 | 14000 | 610 | 13000 | 570 | 10600 | 470 | 7500 | 110 | 8500 | 370 |
| 4 | 10800 | 630 | 10800 | 630 | 10000 | 575 | 8000 | 480 | 5500 | 115 | 6500 | 380 |
| 5 | 8200 | 660 | 8200 | 660 | 7600 | 600 | 6400 | 505 | 4500 | 115 | 5000 | 400 |
| 6 | 7000 | 675 | 7000 | 675 | 6400 | 620 | 5300 | 515 | 3700 | 120 | 4200 | 405 |
| 8 | 5200 | 665 | 5200 | 665 | 4800 | 610 | 4000 | 510 | 2800 | 120 | 3200 | 415 |
| 10 | 4200 | 660 | 4200 | 660 | 3800 | 600 | 3200 | 505 | 2200 | 120 | 2500 | 390 |
| 12 | 3500 | 660 | 3500 | 660 | 3200 | 600 | 2650 | 505 | 1850 | 120 | 2100 | 390 |
| 14 | 3000 | 610 | 3000 | 610 | 2700 | 570 | 2300 | 470 | 1600 | 115 | 1800 | 370 |
| 16 | 2600 | 610 | 2600 | 610 | 2400 | 570 | 2000 | 470 | 1400 | 110 | 1600 | 370 |
| 18 | 2300 | 600 | 2300 | 600 | 2100 | 560 | 1800 | 460 | 1250 | 95 | 1400 | 365 |
| 20 | 2050 | 600 | 2050 | 600 | 1900 | 560 | 1600 | 460 | 1100 | 95 | 1250 | 365 |

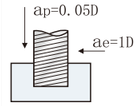
切削量基准（D:直径）




| 刀具直径 | 切深ap |
|---|---|
| ∅1≤D<∅3 | 0.15D |
| D≥∅3 | 0.3D |







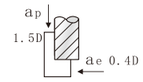

## KGES四刃整体合金波刃立铣刀

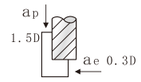


### 推介切削参数表侧面铣削

| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Dc | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F |
| 6 | 6350 | 760 | 5300 | 640 | 4500 | 360 | 3450 | 280 | 2650 | 210 |
| 7 | 5460 | 760 | 4550 | 640 | 3650 | 360 | 3000 | 280 | 2250 | 310 |
| 8 | 4750 | 760 | 4000 | 640 | 3400 | 410 | 2650 | 310 | 2000 | 240 |
| 9 | 4250 | 760 | 3540 | 640 | 2850 | 410 | 2300 | 310 | 1750 | 240 |
| 10 | 3800 | 760 | 3200 | 640 | 2700 | 430 | 2050 | 330 | 1600 | 260 |
| 11 | 3470 | 760 | 2900 | 640 | 2400 | 430 | 1850 | 330 | 1450 | 260 |
| 12 | 3200 | 770 | 2250 | 650 | 1950 | 470 | 1500 | 360 | 1150 | 280 |
| 16 | 2400 | 770 | 2000 | 640 | 1700 | 480 | 1300 | 360 | 1000 | 280 |
| 20 | 1900 | 760 | 1600 | 610 | 1350 | 470 | 1050 | 350 | 800 | 260 |

切削量基准
Depth of cut
(D:直径)




## KGES四刃整体合金波刃立铣刀



### 推介切削参数表槽铣削

| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 切削速度 | 80-120m/min | | 70-100m/min | | 60-90m/min | | 40-70m/min | | 30-60m/min | |
| Dc | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F | 回转速<br>min⁻¹<br>Speed | 进给速度<br>mm/min<br>F |
| 6 | 5300 | 640 | 4500 | 540 | 3700 | 300 | 2900 | 230 | 2400 | 190 |
| 7 | 4500 | 630 | 3800 | 540 | 3200 | 300 | 2500 | 230 | 2050 | 190 |
| 8 | 4000 | 640 | 3400 | 540 | 2800 | 340 | 2200 | 260 | 1800 | 220 |
| 9 | 3500 | 630 | 3000 | 540 | 2450 | 340 | 1950 | 260 | 1600 | 220 |
| 10 | 3200 | 640 | 2700 | 540 | 2250 | 360 | 1750 | 280 | 1450 | 230 |
| 11 | 3000 | 630 | 2450 | 540 | 2050 | 360 | 1600 | 280 | 1300 | 230 |
| 12 | 2650 | 640 | 2250 | 540 | 1850 | 370 | 1450 | 290 | 1200 | 240 |
| 16 | 2000 | 640 | 1700 | 540 | 1400 | 390 | 1100 | 310 | 900 | 250 |
| 20 | 1600 | 640 | 1350 | 510 | 1100 | 390 | 900 | 300 | 700 | 230 |

切削量基准
Depth of cut
(D:直径)




最大ap=12mm



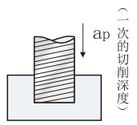

◎ 请使用高精度的机床和刀柄。
◎ 请使用空气冷却或不易产生烟雾的切削液。
◎ 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
◎ 在不干涉的条件下尽可能使刀具悬长最短。

## KGEL 二刃钨钢涂层深沟立铣刀



| 被削材 | | 铸铁、碳素钢、合金钢 ~750N/mm² | | | 碳素钢、合金钢 ~30HRC | | | 预硬钢、调质钢 ~40HRC | | | 不锈钢 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D mm | 有效长度 mm | 回转速 min⁻¹ | 进给速度 mm/min | 切深ap mm | 回转速 min⁻¹ | 进给速度 mm/min | 切深ap mm | 回转速 min⁻¹ | 进给速度 mm/min | 切深ap mm | 回转速 min⁻¹ | 进给速度 mm/min | 切深ap mm |
| 0.5 | 4 | 28000 | 500 | 0.023 | 28000 | 400 | 0.021 | 28000 | 250 | 0.018 | 25000 | 200 | 0.014 |
| 0.5 | 6 | 22000 | 400 | 0.007 | 22000 | 350 | 0.06 | 22000 | 150 | 0.005 | 20000 | 150 | 0.004 |
| 0.5 | 8 | 18000 | 300 | 0.005 | 18000 | 300 | 0.005 | 18000 | 150 | 0.004 | 20000 | 150 | 0.003 |
| 0.8 | 4 | 32000 | 900 | 0.057 | 32000 | 600 | 0.053 | 32000 | 600 | 0.044 | 25000 | 400 | 0.035 |
| 0.8 | 6 | 26000 | 700 | 0.036 | 26000 | 450 | 0.034 | 26000 | 400 | 0.028 | 21000 | 300 | 0.022 |
| 0.8 | 8 | 22000 | 500 | 0.026 | 22000 | 350 | 0.024 | 22000 | 300 | 0.02 | 18000 | 200 | 0.016 |
| 0.8 | 10 | 22000 | 500 | 0.01 | 22000 | 350 | 0.01 | 22000 | 300 | 0.008 | 18000 | 200 | 0.006 |
| 1.0 | 4 | 29000 | 1300 | 0.08 | 27000 | 1000 | 0.08 | 26000 | 900 | 0.07 | 20000 | 600 | 0.05 |
| 1.0 | 6 | 29000 | 1300 | 0.07 | 27000 | 1000 | 0.07 | 26000 | 900 | 0.06 | 20000 | 600 | 0.04 |
| 1.0 | 8 | 24000 | 900 | 0.05 | 23000 | 800 | 0.04 | 22000 | 700 | 0.04 | 18000 | 400 | 0.03 |
| 1.0 | 10 | 20000 | 700 | 0.03 | 19000 | 600 | 0.03 | 18000 | 500 | 0.03 | 15000 | 300 | 0.02 |
| 1.0 | 12 | 20000 | 700 | 0.02 | 19000 | 600 | 0.02 | 18000 | 500 | 0.02 | 15000 | 300 | 0.01 |
| 1.0 | 14 | 18000 | 500 | 0.015 | 15000 | 400 | 0.01 | 15000 | 360 | 0.01 | 12000 | 200 | 0.008 |
| 1.2 | 6 | 25000 | 1100 | 0.09 | 23000 | 1000 | 0.08 | 22000 | 900 | 0.07 | 17000 | 600 | 0.05 |
| 1.2 | 8 | 21000 | 900 | 0.07 | 20000 | 700 | 0.07 | 19000 | 700 | 0.05 | 14000 | 400 | 0.04 |
| 1.2 | 10 | 21000 | 900 | 0.06 | 20000 | 700 | 0.05 | 19000 | 700 | 0.04 | 14000 | 400 | 0.03 |
| 1.2 | 12 | 18000 | 700 | 0.04 | 17000 | 600 | 0.04 | 16000 | 500 | 0.03 | 11000 | 300 | 0.02 |
| 1.5 | 6 | 20000 | 1200 | 0.15 | 18000 | 1000 | 0.14 | 18000 | 900 | 0.11 | 14000 | 600 | 0.09 |
| 1.5 | 8 | 19000 | 900 | 0.11 | 16000 | 800 | 0.1 | 15000 | 700 | 0.08 | 12000 | 400 | 0.07 |
| 1.5 | 10 | 19000 | 900 | 0.09 | 16000 | 800 | 0.08 | 15000 | 700 | 0.06 | 12000 | 400 | 0.05 |
| 1.5 | 12 | 19000 | 900 | 0.07 | 16000 | 800 | 0.06 | 15000 | 700 | 0.05 | 12000 | 400 | 0.04 |
| 1.5 | 14 | 19000 | 700 | 0.06 | 16000 | 650 | 0.05 | 15000 | 630 | 0.04 | 12000 | 360 | 0.03 |
| 2.0 | 6 | 16000 | 1300 | 0.34 | 15000 | 1100 | 0.31 | 14000 | 1000 | 0.26 | 11000 | 700 | 0.21 |
| 2.0 | 8 | 16000 | 1300 | 0.029 | 15000 | 1100 | 0.26 | 14000 | 1000 | 0.22 | 11000 | 700 | 0.18 |
| 2.0 | 10 | 14000 | 900 | 0.26 | 13000 | 800 | 0.24 | 12000 | 700 | 0.20 | 9000 | 500 | 0.16 |
| 2.0 | 12 | 14000 | 900 | 0.14 | 13000 | 800 | 0.13 | 12000 | 700 | 0.11 | 9000 | 500 | 0.09 |
| 2.0 | 14 | 14000 | 900 | 0.10 | 13000 | 800 | 0.11 | 12000 | 700 | 0.09 | 9000 | 500 | 0.07 |
| 2.0 | 16 | 14000 | 900 | 0.08 | 13000 | 800 | 0.08 | 12000 | 700 | 0.07 | 9000 | 500 | 0.06 |

切削量基准（D:直径）








## KGB 二刃钨钢涂层球头立铣刀



| 被削材 | 铸铁 球墨铸铁 | | 碳素钢、合金钢 ~750N/mm² | | 碳素钢、合金钢 ~30HRC | | 预硬钢、调质钢 ~40HRC | | 不锈钢 | | 预硬钢、调质钢 ~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D mm | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| R0.5 | 40000 | 800 | 40000 | 800 | 38000 | 700 | 32000 | 320 | 22300 | 200 | 25000 | 275 |
| R1.0 | 24000 | 900 | 24000 | 900 | 19000 | 760 | 16000 | 400 | 11150 | 230 | 13000 | 275 |
| R1.5 | 15500 | 950 | 15500 | 950 | 12750 | 760 | 10600 | 450 | 7400 | 290 | 8500 | 280 |
| R2.0 | 11500 | 950 | 11500 | 950 | 9550 | 760 | 8000 | 550 | 5550 | 370 | 6500 | 370 |
| R2.5 | 9500 | 1050 | 9500 | 1050 | 7650 | 800 | 6400 | 550 | 4450 | 370 | 5000 | 375 |
| R3.0 | 8000 | 1050 | 8000 | 1050 | 6400 | 800 | 5300 | 580 | 3700 | 390 | 4200 | 390 |
| R4.0 | 6000 | 1300 | 6000 | 1300 | 4800 | 950 | 4000 | 700 | 2750 | 455 | 3200 | 440 |
| R5.0 | 4800 | 1200 | 4800 | 1200 | 3800 | 900 | 3200 | 650 | 2200 | 430 | 2500 | 440 |
| R6.0 | 4000 | 1100 | 4000 | 1100 | 3200 | 840 | 2650 | 610 | 1850 | 430 | 2100 | 420 |
| R8.0 | 3000 | 1050 | 3000 | 1050 | 2400 | 800 | 2000 | 600 | 1350 | 380 | 1600 | 375 |
| R10.0 | 2400 | 950 | 2400 | 950 | 1900 | 680 | 1600 | 560 | 1100 | 370 | 1250 | 330 |

切削量基准（R:球头半径）






## KGB 四刃钨钢涂层球头立铣刀



| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | | 预硬钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 切削速度 | 150m/min | | 150m/min | | 120m/min | | 100m/min | | 70m/min | | 80m/min | |
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| R1.5 | 15500 | 1710 | 15500 | 1710 | 12750 | 1340 | 10600 | 810 | 7400 | 520 | 8500 | 500 |
| R2.0 | 11500 | 1710 | 11500 | 1710 | 9550 | 1340 | 8000 | 990 | 5550 | 660 | 6500 | 665 |
| R2.5 | 9500 | 1890 | 9500 | 1890 | 7650 | 1440 | 6400 | 990 | 4450 | 660 | 5000 | 675 |
| R3.0 | 8000 | 1890 | 8000 | 1890 | 6400 | 1440 | 5300 | 1040 | 3700 | 700 | 4200 | 700 |
| R4.0 | 6000 | 2340 | 6000 | 2340 | 4800 | 1710 | 4000 | 1260 | 2750 | 820 | 3200 | 790 |
| R5.0 | 4800 | 2160 | 4800 | 2160 | 3800 | 1620 | 3200 | 1170 | 2200 | 770 | 2500 | 790 |
| R6.0 | 4000 | 1980 | 4000 | 1980 | 3200 | 1510 | 2650 | 1100 | 1850 | 770 | 2100 | 755 |
| R8.0 | 3000 | 1890 | 3000 | 1890 | 2400 | 1440 | 2000 | 1080 | 1350 | 680 | 1600 | 675 |
| R10.0 | 2400 | 1710 | 2400 | 1710 | 1900 | 1220 | 1600 | 1000 | 1100 | 660 | 1250 | 595 |

切削量<br>基准<br>（R:球头半径）





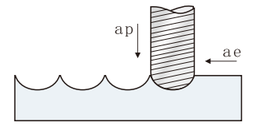



## KGBL 二刃钨钢涂层深沟球头立铣刀



| 被削材 | | 铸铁、碳素钢、合金钢<br>~750N/mm² | | | | 碳素钢、合金钢<br>~30HRC | | | | 预硬钢、调质钢<br>~40HRC | | | | 不锈钢 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 有效长度<br>min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | ae<br>mm | ap<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | ae<br>mm | ap<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | ae<br>mm | ap<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | ae<br>mm | ap<br>mm |
| R0.25 | 4 | 27000 | 400 | 0.025 | 0.02 | 22000 | 380 | 0.025 | 0.02 | 27000 | 300 | 0.025 | 0.02 | 27000 | 200 | 0.025 | 0.02 |
| R0.25 | 6 | 21000 | 200 | 0.015 | 0.01 | 21000 | 180 | 0.015 | 0.01 | 21000 | 160 | 0.015 | 0.01 | 21000 | 150 | 0.015 | 0.01 |
| R0.3 | 4 | 27000 | 400 | 0.12 | 0.03 | 27000 | 380 | 0.12 | 0.03 | 25000 | 250 | 0.12 | 0.03 | 24000 | 200 | 0.12 | 0.03 |
| R0.3 | 6 | 25000 | 300 | 0.12 | 0.03 | 25000 | 280 | 0.12 | 0.03 | 20000 | 150 | 0.12 | 0.03 | 20000 | 140 | 0.12 | 0.03 |
| R0.3 | 8 | 25000 | 240 | 0.12 | 0.03 | 25000 | 225 | 0.12 | 0.03 | 20000 | 120 | 0.12 | 0.03 | 20000 | 110 | 0.12 | 0.03 |
| R0.4 | 4 | 27000 | 600 | 0.16 | 0.04 | 27000 | 550 | 0.16 | 0.04 | 23000 | 450 | 0.16 | 0.04 | 21000 | 300 | 0.16 | 0.04 |
| R0.4 | 6 | 24000 | 400 | 0.12 | 0.04 | 24000 | 360 | 0.12 | 0.04 | 21000 | 250 | 0.12 | 0.04 | 19000 | 200 | 0.12 | 0.04 |
| R0.4 | 8 | 22000 | 300 | 0.12 | 0.04 | 22000 | 270 | 0.12 | 0.04 | 19000 | 150 | 0.12 | 0.04 | 19000 | 140 | 0.12 | 0.04 |
| R0.4 | 10 | 22000 | 270 | 0.09 | 0.03 | 22000 | 250 | 0.09 | 0.03 | 19000 | 135 | 0.09 | 0.03 | 19000 | 120 | 0.09 | 0.03 |
| R0.5 | 4 | 28000 | 600 | 0.20 | 0.05 | 28000 | 550 | 0.20 | 0.05 | 25000 | 500 | 0.20 | 0.05 | 21000 | 300 | 0.20 | 0.05 |
| R0.5 | 6 | 21000 | 400 | 0.20 | 0.05 | 21000 | 360 | 0.20 | 0.05 | 19000 | 300 | 0.20 | 0.05 | 16000 | 200 | 0.20 | 0.05 |
| R0.5 | 8 | 21000 | 360 | 0.15 | 0.05 | 21000 | 320 | 0.15 | 0.05 | 19000 | 270 | 0.15 | 0.05 | 16000 | 180 | 0.15 | 0.05 |
| R0.5 | 10 | 18000 | 300 | 0.10 | 0.03 | 18000 | 270 | 0.10 | 0.03 | 17000 | 200 | 0.10 | 0.03 | 14000 | 150 | 0.10 | 0.03 |
| R0.5 | 12 | 18000 | 270 | 0.10 | 0.03 | 18000 | 250 | 0.10 | 0.03 | 17000 | 180 | 0.10 | 0.03 | 14000 | 135 | 0.10 | 0.03 |
| R0.6 | 6 | 20000 | 600 | 0.24 | 0.06 | 20000 | 540 | 0.24 | 0.06 | 17000 | 300 | 0.24 | 0.06 | 14000 | 200 | 0.24 | 0.06 |
| R0.6 | 8 | 20000 | 540 | 0.24 | 0.06 | 20000 | 500 | 0.24 | 0.06 | 17000 | 270 | 0.24 | 0.06 | 14000 | 170 | 0.24 | 0.06 |
| R0.6 | 12 | 16000 | 300 | 0.18 | 0.06 | 16000 | 270 | 0.18 | 0.06 | 14000 | 200 | 0.18 | 0.06 | 11000 | 150 | 0.18 | 0.06 |
| R0.6 | 16 | 16000 | 270 | 0.12 | 0.03 | 16000 | 230 | 0.12 | 0.03 | 14000 | 175 | 0.12 | 0.03 | 11000 | 135 | 0.12 | 0.03 |
| R0.75 | 8 | 17000 | 600 | 0.30 | 0.08 | 17000 | 540 | 0.30 | 0.08 | 15000 | 300 | 0.30 | 0.08 | 12000 | 250 | 0.30 | 0.08 |
| R0.75 | 12 | 17000 | 540 | 0.24 | 0.06 | 17000 | 500 | 0.24 | 0.06 | 15000 | 275 | 0.24 | 0.06 | 12000 | 225 | 0.24 | 0.06 |
| R0.75 | 16 | 13000 | 300 | 0.16 | 0.04 | 13000 | 275 | 0.16 | 0.04 | 12000 | 200 | 0.16 | 0.04 | 9500 | 150 | 0.16 | 0.04 |
| R1.0 | 6 | 16500 | 800 | 0.40 | 0.10 | 16500 | 750 | 0.40 | 0.10 | 16500 | 560 | 0.40 | 0.10 | 13500 | 450 | 0.40 | 0.10 |
| R1.0 | 8 | 16500 | 800 | 0.32 | 0.10 | 16500 | 750 | 0.32 | 0.10 | 16500 | 560 | 0.32 | 0.10 | 13500 | 450 | 0.32 | 0.10 |
| R1.0 | 10 | 14000 | 630 | 0.30 | 0.08 | 14000 | 600 | 0.30 | 0.08 | 13000 | 450 | 0.30 | 0.08 | 10000 | 270 | 0.30 | 0.08 |
| R1.0 | 12 | 14000 | 630 | 0.30 | 0.06 | 14000 | 600 | 0.30 | 0.06 | 13000 | 450 | 0.30 | 0.06 | 10000 | 270 | 0.30 | 0.06 |
| R1.0 | 16 | 14000 | 550 | 0.24 | 0.06 | 14000 | 530 | 0.24 | 0.06 | 13000 | 400 | 0.24 | 0.06 | 10000 | 270 | 0.24 | 0.06 |
| R1.0 | 20 | 14000 | 360 | 0.16 | 0.06 | 14000 | 330 | 0.16 | 0.06 | 10000 | 225 | 0.16 | 0.06 | 8000 | 175 | 0.16 | 0.06 |

切削量<br>基准<br>（R:球头半径）

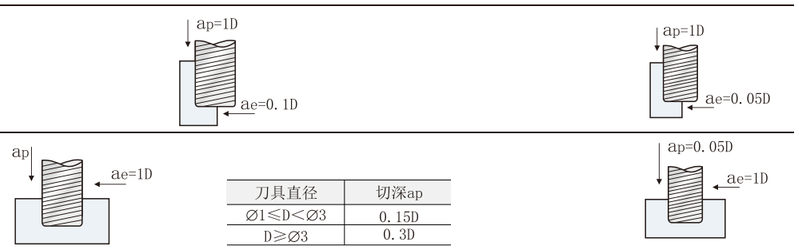


## KGR 二刃钨钢涂层R角立铣刀



| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | | 预硬钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 20000 | 200 | 20000 | 200 | 20000 | 160 | 20000 | 160 | 20000 | 60 | 20000 | 120 |
| 2 | 15000 | 320 | 15000 | 320 | 15000 | 290 | 15000 | 280 | 11150 | 84 | 13000 | 180 |
| 3 | 14000 | 545 | 14000 | 545 | 13000 | 510 | 10600 | 420 | 7500 | 120 | 8500 | 330 |
| 4 | 10800 | 560 | 10800 | 560 | 10000 | 520 | 8000 | 430 | 5500 | 130 | 6500 | 335 |
| 5 | 8200 | 580 | 8200 | 580 | 7600 | 540 | 6400 | 450 | 4500 | 130 | 5000 | 355 |
| 6 | 7000 | 600 | 7000 | 600 | 6400 | 550 | 5300 | 460 | 3700 | 140 | 4200 | 360 |
| 8 | 5200 | 600 | 5200 | 600 | 4800 | 550 | 4000 | 460 | 2800 | 140 | 3200 | 365 |
| 10 | 4200 | 580 | 4200 | 580 | 3800 | 540 | 3200 | 445 | 2200 | 140 | 2500 | 350 |
| 12 | 3500 | 580 | 3500 | 580 | 3200 | 540 | 2650 | 445 | 1850 | 140 | 2100 | 350 |

切削量基准（D:直径）




| 刀具直径 | 切深ap |
|---|---|
| Ø1≤D<Ø3 | 0.15D |
| D≥Ø3 | 0.3D |



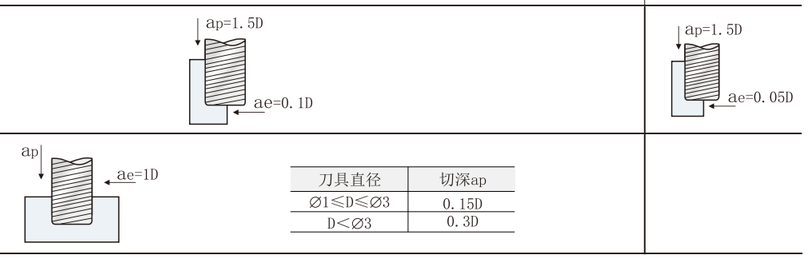


## KGR 四刃钨钢涂层R角立铣刀



| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 碳素钢、调质钢<br>~40HRC | | 不锈钢 | | 预硬钢、调质钢<br>~50HRC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 3 | 14000 | 820 | 14000 | 820 | 13000 | 755 | 10600 | 630 | 7500 | 145 | 8500 | 490 |
| 4 | 10800 | 840 | 10800 | 840 | 10000 | 770 | 8000 | 640 | 5500 | 145 | 6500 | 500 |
| 5 | 8200 | 880 | 8200 | 880 | 7600 | 810 | 6400 | 670 | 4500 | 145 | 5000 | 530 |
| 6 | 7000 | 900 | 7000 | 900 | 6400 | 830 | 5300 | 690 | 3700 | 160 | 4200 | 540 |
| 8 | 5200 | 890 | 5200 | 890 | 4800 | 815 | 4000 | 680 | 2800 | 160 | 3200 | 550 |
| 10 | 4200 | 880 | 4200 | 880 | 3800 | 810 | 3200 | 670 | 2200 | 160 | 2500 | 520 |
| 12 | 3500 | 880 | 3500 | 880 | 3200 | 810 | 2650 | 670 | 1850 | 160 | 2100 | 520 |
| 16 | 2600 | 680 | 2600 | 680 | 2400 | 630 | 2000 | 525 | 1400 | 120 | 1600 | 490 |

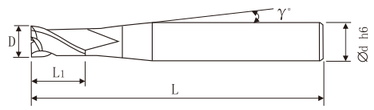
切削量基准（D:直径）




| 刀具直径 | 切深ap |
|---|---|
| Ø1≤D≤Ø3 | 0.15D |
| D<Ø3 | 0.3D |

## KMEI 二刃小径整体合金立铣刀






ØD $^{0}_{-0.015}$ (D≤3)

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KMEI2003-0350 | 0.3 | 0.6 | 10 | 50 | 3 |
| KMEI2004-0350 | 0.4 | 0.8 | 10 | 50 | 3 |
| KMEI2005-0350 | 0.5 | 1 | 10 | 50 | 3 |
| KMEI2006-0350 | 0.6 | 1.2 | 10 | 50 | 3 |
| KMEI2007-0350 | 0.7 | 1.4 | 10 | 50 | 3 |
| KMEI2008-0350 | 0.8 | 1.6 | 10 | 50 | 3 |
| KMEI2009-0350 | 0.9 | 1.8 | 10 | 50 | 3 |
| KMEI2010-0350 | 1 | 2 | 10 | 50 | 3 |
| KMEI2011-0350 | 1.1 | 2 | 10 | 50 | 3 |
| KMEI2012-0350 | 1.2 | 2.5 | 10 | 50 | 3 |
| KMEI2013-0350 | 1.3 | 2.5 | 10 | 50 | 3 |
| KMEI2014-0350 | 1.4 | 3 | 10 | 50 | 3 |
| KMEI2015-0350 | 1.5 | 3 | 10 | 50 | 3 |
| KMEI2016-0350 | 1.6 | 3.5 | 10 | 50 | 3 |
| KMEI2017-0350 | 1.7 | 3.5 | 10 | 50 | 3 |
| KMEI2018-0350 | 1.8 | 4 | 10 | 50 | 3 |
| KMEI2019-0350 | 1.9 | 4 | 10 | 50 | 3 |
| KMEI2020-0350 | 2 | 4 | 10 | 50 | 3 |
| KMEI2021-0350 | 2.1 | 4 | 10 | 50 | 3 |
| KMEI2022-0350 | 2.2 | 4.5 | 10 | 50 | 3 |
| KMEI2023-0350 | 2.3 | 4.5 | 10 | 50 | 3 |
| KMEI2024-0350 | 2.4 | 5 | 10 | 50 | 3 |
| KMEI2025-0350 | 2.5 | 5 | 10 | 50 | 3 |
| KMEI2026-0350 | 2.6 | 5 | 10 | 50 | 3 |
| KMEI2027-0350 | 2.7 | 5.5 | 10 | 50 | 3 |
| KMEI2028-0350 | 2.8 | 5.5 | 10 | 50 | 3 |
| KMEI2029-0350 | 2.9 | 6 | 10 | 50 | 3 |
| KMEI2030-0350 | 3 | 6 | - | 50 | 3 |

☆推介切削参数请参考P85

## 可切削材料适用表

○ 非常适合　○ 适合

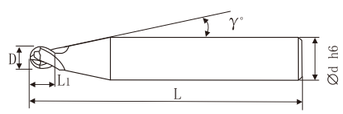
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | | | | | | |





## KMBI二刃小径整体合金球头立铣刀






ØD $^{0}_{-0.015}$ (D≤3)

ØD ±0.05 (D≤3)

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KMBI2003-0350 | 0.3 | 0.15 | 0.5 | 10 | 50 | 3 |
| KMBI2004-0350 | 0.4 | 0.2 | 0.6 | 10 | 50 | 3 |
| KMBI2005-0350 | 0.5 | 0.25 | 0.8 | 10 | 50 | 3 |
| KMBI2006-0350 | 0.6 | 0.3 | 0.9 | 10 | 50 | 3 |
| KMBI2007-0350 | 0.7 | 0.35 | 1 | 10 | 50 | 3 |
| KMBI2008-0350 | 0.8 | 0.4 | 1.2 | 10 | 50 | 3 |
| KMBI2009-0350 | 0.9 | 0.45 | 1.3 | 10 | 50 | 3 |
| KMBI2010-0350 | 1 | 0.5 | 1.5 | 10 | 50 | 3 |
| KMBI2012-0350 | 1.2 | 0.6 | 1.8 | 10 | 50 | 3 |
| KMBI2014-0350 | 1.4 | 0.7 | 2 | 10 | 50 | 3 |
| KMBI2015-0350 | 1.5 | 0.75 | 2.3 | 10 | 50 | 3 |
| KMBI2016-0350 | 1.6 | 0.8 | 2.5 | 10 | 50 | 3 |
| KMBI2018-0350 | 1.8 | 0.9 | 2.7 | 10 | 50 | 3 |
| KMBI2020-0350 | 2 | 1 | 3 | 10 | 50 | 3 |
| KMBI2025-0350 | 2.5 | 1.25 | 3.7 | 10 | 50 | 3 |
| KMBI2030-0350 | 3 | 1.5 | 4.5 | - | 50 | 3 |

☆推介切削参数请参考P85

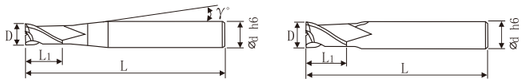
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | | | | | | |

## KME 二刃高耐磨整体合金立铣刀









$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)
$\varnothing D\ {}^{0}_{-0.015}$ (3<D≤10)
$\varnothing D\ {}^{0}_{-0.018}$ (10<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KME2005-0450 | 0.5 | 1.5 | 11 | 50 | 4 |
| KME2008-0450 | 0.8 | 2.4 | 11 | 50 | 4 |
| KME2010-0450 | 1 | 3 | 11 | 50 | 4 |
| KME2010-0650 | 1 | 3 | 11 | 50 | 6 |
| KME2015-0450 | 1.5 | 4 | 11 | 50 | 4 |
| KME2015-0650 | 1.5 | 4 | 11 | 50 | 6 |
| KME2020-0450 | 2 | 6 | 11 | 50 | 4 |
| KME2020-0650 | 2 | 6 | 11 | 50 | 6 |
| KME2025-0450 | 2.5 | 8 | 11 | 50 | 4 |
| KME2025-0650 | 2.5 | 8 | 11 | 50 | 6 |
| KME2030-0450 | 3 | 8 | 11 | 50 | 4 |
| KME2030-0650 | 3 | 8 | 11 | 50 | 6 |
| KME2030-0675 | 3 | 12 | 11 | 75 | 6 |
| KME2040-0450 | 4 | 11 | - | 50 | 4 |
| KME2040-0650 | 4 | 11 | 11 | 50 | 6 |
| KME2040-0675 | 4 | 15 | 11 | 75 | 6 |
| KME2050-0650 | 5 | 13 | 11 | 50 | 6 |
| KME2050-0675 | 5 | 18 | 11 | 75 | 6 |
| KME2060-0650 | 6 | 16 | - | 50 | 6 |
| KME2060-0660 | 6 | 16 | - | 60 | 6 |
| KME2060-0675 | 6 | 20 | - | 75 | 6 |
| KME2080-0860 | 8 | 20 | - | 60 | 8 |
| KME2080-0875 | 8 | 20 | - | 75 | 8 |
| KME2080-08100 | 8 | 25 | - | 100 | 8 |
| KME2100-1075 | 10 | 25 | - | 75 | 10 |
| KME2100-10100 | 10 | 30 | - | 100 | 10 |
| KME2120-1275 | 12 | 30 | - | 75 | 12 |
| KME2120-12100 | 12 | 35 | - | 100 | 12 |
| KME2140-1475 | 14 | 32 | - | 75 | 14 |
| KME2140-14100 | 14 | 40 | - | 100 | 14 |
| KME2160-16100 | 16 | 45 | - | 100 | 16 |
| KME2160-16150 | 16 | 50 | - | 150 | 16 |
| KME2200-20100 | 20 | 45 | - | 100 | 20 |
| KME2200-20150 | 20 | 55 | - | 150 | 20 |

☆推介切削参数请参考P86

## 可切削材料适用表

○ 非常适合　○ 适合

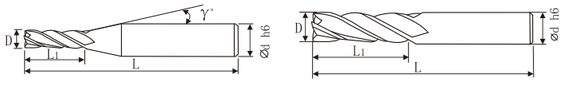
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |





## KME 四刃高耐磨整体合金立铣刀（30度螺旋角）









$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)
$\varnothing D\ {}^{0}_{-0.015}$ (3<D≤10)
$\varnothing D\ {}^{0}_{-0.018}$ (10<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KME4010-0450 | 1 | 3 | 11 | 50 | 4 |
| KME4010-0650 | 1 | 3 | 11 | 50 | 6 |
| KME4015-0450 | 1.5 | 4 | 11 | 50 | 4 |
| KME4015-0650 | 1.5 | 4 | 11 | 50 | 6 |
| KME4020-0450 | 2 | 6 | 11 | 50 | 4 |
| KME4020-0650 | 2 | 6 | 11 | 50 | 6 |
| KME4025-0450 | 2.5 | 8 | 11 | 50 | 4 |
| KME4025-0650 | 2.5 | 8 | 11 | 50 | 6 |
| KME4030-0450 | 3 | 8 | 11 | 50 | 4 |
| KME4030-0650 | 3 | 8 | 11 | 50 | 6 |
| KME4030-0675 | 3 | 12 | 11 | 75 | 6 |
| KME4040-0450 | 4 | 11 | - | 50 | 4 |
| KME4040-0650 | 4 | 11 | 11 | 50 | 6 |
| KME4040-0675 | 4 | 15 | 11 | 75 | 6 |
| KME4050-0650 | 5 | 13 | 11 | 50 | 6 |
| KME4050-0675 | 5 | 18 | 11 | 75 | 6 |
| KME4060-0650 | 6 | 16 | - | 50 | 6 |
| KME4060-0660 | 6 | 16 | - | 60 | 6 |
| KME4060-0675 | 6 | 20 | - | 75 | 6 |
| KME4080-0860 | 8 | 20 | - | 60 | 8 |
| KME4080-0875 | 8 | 20 | - | 75 | 8 |
| KME4080-08100 | 8 | 25 | - | 100 | 8 |
| KME4100-1075 | 10 | 25 | - | 75 | 10 |
| KME4100-10100 | 10 | 30 | - | 100 | 10 |
| KME4120-1275 | 12 | 30 | - | 75 | 12 |
| KME4120-12100 | 12 | 35 | - | 100 | 12 |
| KME4140-1475 | 14 | 32 | - | 75 | 14 |
| KME4140-14100 | 14 | 40 | - | 100 | 14 |
| KME4160-16100 | 16 | 45 | - | 100 | 16 |
| KME4160-16150 | 16 | 50 | - | 150 | 16 |
| KME4200-20100 | 20 | 45 | - | 100 | 20 |
| KME4200-20150 | 20 | 55 | - | 150 | 20 |

☆推介切削参数请参考P86

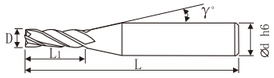
## 可切削材料适用表

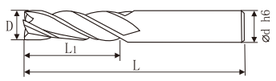
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |

## KMEF 四刃高耐磨整体合金立铣刀(45度螺旋角)






$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)
$\varnothing D\ {}^{0}_{-0.015}$ (3<D≤10)
$\varnothing D\ {}^{0}_{-0.018}$ (10<D≤20)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KMEF4010-0450 | 1 | 3 | 11 | 50 | 4 |
| KMEF4010-0650 | 1 | 3 | 11 | 50 | 6 |
| KMEF4015-0450 | 1.5 | 4 | 11 | 50 | 4 |
| KMEF4015-0650 | 1.5 | 4 | 11 | 50 | 6 |
| KMEF4020-0450 | 2 | 6 | 11 | 50 | 4 |
| KMEF4020-0650 | 2 | 6 | 11 | 50 | 6 |
| KMEF4025-0450 | 2.5 | 7 | 11 | 50 | 4 |
| KMEF4025-0650 | 2.5 | 8 | 11 | 50 | 6 |
| KMEF4030-0450 | 3 | 8 | 11 | 50 | 4 |
| KMEF4030-0650 | 3 | 8 | 11 | 50 | 6 |
| KMEF4030-0675 | 3 | 12 | 11 | 75 | 6 |
| KMEF4040-0450 | 4 | 11 | - | 50 | 4 |
| KMEF4040-0650 | 4 | 11 | 11 | 50 | 6 |
| KMEF4040-0675 | 4 | 15 | 11 | 75 | 6 |
| KMEF4050-0650 | 5 | 13 | 11 | 50 | 6 |
| KMEF4050-0675 | 5 | 18 | 11 | 75 | 6 |
| KMEF4060-0650 | 6 | 16 | - | 50 | 6 |
| KMEF4060-0660 | 6 | 16 | - | 60 | 6 |
| KMEF4060-0675 | 6 | 20 | - | 75 | 6 |
| KMEF4080-0860 | 8 | 20 | - | 60 | 8 |
| KMEF4080-0875 | 8 | 20 | - | 75 | 8 |
| KMEF4080-08100 | 8 | 25 | - | 100 | 8 |
| KMEF4100-1075 | 10 | 25 | - | 75 | 10 |
| KMEF4100-10100 | 10 | 30 | - | 100 | 10 |
| KMEF4120-1275 | 12 | 25 | - | 75 | 12 |
| KMEF4120-12100 | 12 | 35 | - | 100 | 12 |
| KMEF4140-1475 | 14 | 32 | - | 75 | 14 |
| KMEF4140-14100 | 14 | 40 | - | 100 | 14 |
| KMEF4160-16100 | 16 | 45 | - | 100 | 16 |
| KMEF4160-16150 | 16 | 50 | - | 150 | 16 |
| KMEF4200-20100 | 20 | 45 | - | 100 | 20 |
| KMEF4200-20150 | 20 | 55 | - | 150 | 20 |

### 可切削材料适用表

○ 非常适合　○ 适合

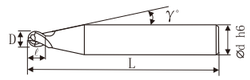
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |

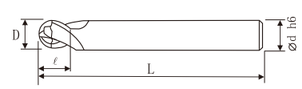




## KMB 二刃高耐磨整体合金球头立铣刀






$\varnothing D\ {}^{0}_{-0.005}$ (0.5<D≤6)
$\varnothing D\ {}^{0}_{-0.008}$ (6<D≤20)




| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d)柄径 mm |
|---|---|---|---|---|---|---|---|
| KMB2005-0450 | 0.5 | 0.25 | 0.4 | 0.46 | 11 | 50 | 4 |
| KMB2006-0450 | 0.6 | 0.3 | 0.5 | 0.56 | 11 | 50 | 4 |
| KMB2008-0450 | 0.8 | 0.4 | 0.6 | 0.76 | 11 | 50 | 4 |
| KMB2010-0450 | 1 | 0.5 | 0.8 | 0.94 | 11 | 50 | 4 |
| KMB2010-0650 | 1 | 0.5 | 0.8 | 0.94 | 11 | 50 | 6 |
| KMB2010-0660 | 1 | 0.5 | 0.8 | 0.94 | 11 | 60 | 6 |
| KMB2010-0675 | 1 | 0.5 | 0.8 | 0.94 | 11 | 75 | 6 |
| KMB2015-0450 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 50 | 4 |
| KMB2015-0650 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 50 | 6 |
| KMB2015-0660 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 60 | 6 |
| KMB2015-0675 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 75 | 6 |
| KMB2020-0450 | 2 | 1 | 1.6 | 1.9 | 11 | 50 | 4 |
| KMB2020-0650 | 2 | 1 | 1.6 | 1.9 | 11 | 50 | 6 |
| KMB2020-0660 | 2 | 1 | 1.6 | 1.9 | 11 | 60 | 6 |
| KMB2020-0675 | 2 | 1 | 1.6 | 1.9 | 11 | 75 | 6 |
| KMB2025-0450 | 2.5 | 1.25 | 2 | 2.4 | 11 | 50 | 4 |
| KMB2025-0650 | 2.5 | 1.25 | 2 | 2.4 | 11 | 50 | 6 |
| KMB2025-0660 | 2.5 | 1.25 | 2 | 2.4 | 11 | 60 | 6 |
| KMB2025-0675 | 2.5 | 1.25 | 2 | 2.4 | 11 | 75 | 6 |
| KMB2030-0450 | 3 | 1.5 | 2.4 | 2.9 | 11 | 50 | 4 |
| KMB2030-0650 | 3 | 1.5 | 2.4 | 2.9 | 11 | 50 | 6 |
| KMB2030-0660 | 3 | 1.5 | 2.4 | 2.9 | 11 | 60 | 6 |
| KMB2030-0675 | 3 | 1.5 | 2.4 | 2.9 | 11 | 75 | 6 |
| KMB2040-0450 | 4 | 2 | 6 | - | - | 50 | 4 |
| KMB2040-0650 | 4 | 2 | 3.2 | 3.9 | 11 | 50 | 6 |
| KMB2040-0660 | 4 | 2 | 3.2 | 3.9 | 11 | 60 | 6 |
| KMB2040-0675 | 4 | 2 | 3.2 | 3.9 | 11 | 75 | 6 |
| KMB2050-0650 | 5 | 2.5 | 4 | 4.85 | 11 | 50 | 6 |
| KMB2050-0660 | 5 | 2.5 | 4 | 4.85 | 11 | 60 | 6 |
| KMB2050-0675 | 5 | 2.5 | 4 | 4.85 | 11 | 75 | 6 |
| KMB2060-0650 | 6 | 3 | 9 | - | - | 50 | 6 |
| KMB2060-0660 | 6 | 3 | 9 | - | - | 60 | 6 |
| KMB2060-0675 | 6 | 3 | 9 | - | - | 75 | 6 |
| KMB2060-06100 | 6 | 3 | 9 | - | - | 100 | 6 |
| KMB2080-0860 | 8 | 4 | 12 | - | - | 60 | 8 |
| KMB2080-0875 | 8 | 4 | 12 | - | - | 75 | 8 |
| KMB2080-08100 | 8 | 4 | 12 | - | - | 100 | 8 |
| KMB2100-1075 | 10 | 5 | 15 | - | - | 75 | 10 |
| KMB2100-10100 | 10 | 5 | 15 | - | - | 100 | 10 |
| KMB2120-1275 | 12 | 6 | 18 | - | - | 75 | 12 |
| KMB2120-12100 | 12 | 6 | 18 | - | - | 100 | 12 |
| KMB2160-16100 | 16 | 8 | 24 | - | - | 100 | 16 |
| KMB2160-16150 | 16 | 8 | 24 | - | - | 150 | 16 |

☆推介切削参数请参考P87

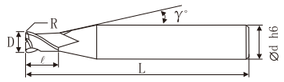
### 可切削材料适用表

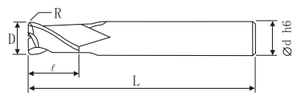
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |

## KMR 二刃高耐磨整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)



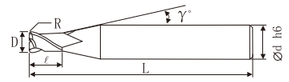

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KMR2010R0.2-0450 | 1 | 0.2 | 2 | 11 | 50 | 4 |
| KMR2015R0.2-0450 | 1.5 | 0.2 | 3 | 11 | 50 | 4 |
| KMR2020R0.2-0450 | 2 | 0.2 | 4 | 11 | 50 | 4 |
| KMR2020R0.5-0450 | 2 | 0.5 | 4 | 11 | 50 | 4 |
| KMR2025R0.2-0450 | 2.5 | 0.2 | 5 | 11 | 50 | 4 |
| KMR2025R0.5-0450 | 2.5 | 0.5 | 5 | 11 | 50 | 4 |
| KMR2030R0.2-0450 | 3 | 0.2 | 6 | 11 | 50 | 4 |
| KMR2030R0.2-0650 | 3 | 0.2 | 6 | 11 | 50 | 6 |
| KMR2030R0.2-0660 | 3 | 0.2 | 6 | 11 | 60 | 6 |
| KMR2030R0.2-0675 | 3 | 0.2 | 6 | 11 | 75 | 6 |
| KMR2030R0.5-0450 | 3 | 0.5 | 6 | 11 | 50 | 4 |
| KMR2030R0.5-0650 | 3 | 0.5 | 6 | 11 | 50 | 6 |
| KMR2030R0.5-0660 | 3 | 0.5 | 6 | 11 | 60 | 6 |
| KMR2030R0.5-0675 | 3 | 0.5 | 6 | 11 | 75 | 6 |
| KMR2040R0.2-0450 | 4 | 0.2 | 8 | - | 50 | 4 |
| KMR2040R0.2-0650 | 4 | 0.2 | 8 | 11 | 50 | 6 |
| KMR2040R0.2-0660 | 4 | 0.2 | 8 | 11 | 60 | 6 |
| KMR2040R0.2-0675 | 4 | 0.2 | 8 | 11 | 75 | 6 |
| KMR2040R0.5-0450 | 4 | 0.5 | 8 | - | 50 | 4 |
| KMR2040R0.5-0650 | 4 | 0.5 | 8 | 11 | 50 | 6 |
| KMR2040R0.5-0660 | 4 | 0.5 | 8 | 11 | 60 | 6 |
| KMR2040R0.5-0675 | 4 | 0.5 | 8 | 11 | 75 | 6 |
| KMR2040R1.0-0450 | 4 | 1 | 8 | - | 50 | 4 |
| KMR2040R1.0-0650 | 4 | 1 | 8 | 11 | 50 | 6 |
| KMR2040R1.0-0660 | 4 | 1 | 8 | 11 | 60 | 6 |
| KMR2040R1.0-0675 | 4 | 1 | 8 | 11 | 75 | 6 |
| KMR2060R0.5-0650 | 6 | 0.5 | 12 | - | 50 | 6 |
| KMR2060R0.5-0660 | 6 | 0.5 | 12 | - | 60 | 6 |
| KMR2060R0.5-0675 | 6 | 0.5 | 12 | - | 75 | 6 |
| KMR2060R1.0-0650 | 6 | 1 | 12 | - | 50 | 6 |
| KMR2060R1.0-0660 | 6 | 1 | 12 | - | 60 | 6 |
| KMR2060R1.0-0675 | 6 | 1 | 12 | - | 75 | 6 |
| KMR2080R0.5-0860 | 8 | 0.5 | 16 | - | 60 | 8 |
| KMR2080R0.5-0875 | 8 | 0.5 | 16 | - | 75 | 8 |
| KMR2080R0.5-08100 | 8 | 0.5 | 16 | - | 100 | 8 |
| KMR2080R1.0-0860 | 8 | 1 | 16 | - | 60 | 8 |

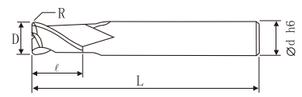


KM高耐磨中硬度系列

## KMR 二刃高耐磨整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KMR2080R1.0-0875 | 8 | 1 | 16 | - | 75 | 8 |
| KMR2080R1.0-08100 | 8 | 1 | 16 | - | 100 | 8 |
| KMR2100R0.5-1075 | 10 | 0.5 | 20 | - | 75 | 10 |
| KMR2100R0.5-10100 | 10 | 0.5 | 20 | - | 100 | 10 |
| KMR2100R1.0-1075 | 10 | 1 | 20 | - | 75 | 10 |
| KMR2100R1.0-10100 | 10 | 1 | 20 | - | 100 | 10 |
| KMR2120R0.5-1275 | 12 | 0.5 | 24 | - | 75 | 12 |
| KMR2120R0.5-12100 | 12 | 0.5 | 24 | - | 100 | 12 |
| KMR2120R1.0-1275 | 12 | 1 | 24 | - | 75 | 12 |
| KMR2120R1.0-12100 | 12 | 1 | 24 | - | 100 | 12 |
| KMR2120R2.0-1275 | 12 | 2 | 24 | - | 75 | 12 |
| KMR2120R2.0-12100 | 12 | 2 | 24 | - | 100 | 12 |

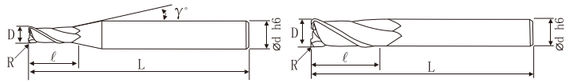
☆推介切削参数请参考P87

## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |

## KMR 四刃高耐磨整体合金圆角刀




ØD $^{0}_{-0.01}$ (D≤3)
ØD $^{0}_{-0.015}$ (3<D≤10)
ØD $^{0}_{-0.018}$ (10<D≤12)

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|
| KMR4030R0.2-0450 | 3 | 0.2 | 6 | 11 | 50 | 4 |
| KMR4030R0.2-0650 | | 0.2 | 6 | 11 | 50 | 6 |
| KMR4030R0.2-0660 | | 0.2 | 6 | 11 | 60 | 6 |
| KMR4030R0.2-0675 | | 0.2 | 6 | 11 | 75 | 6 |
| KMR4030R0.5-0450 | | 0.5 | 6 | 11 | 50 | 4 |
| KMR4030R0.5-0650 | | 0.5 | 6 | 11 | 50 | 6 |
| KMR4030R0.5-0660 | | 0.5 | 6 | 11 | 60 | 6 |
| KMR4030R0.5-0675 | | 0.5 | 6 | 11 | 75 | 6 |
| KMR4040R0.2-0450 | 4 | 0.2 | 8 | - | 50 | 4 |
| KMR4040R0.2-0650 | | 0.2 | 8 | 11 | 50 | 6 |
| KMR4040R0.2-0660 | | 0.2 | 8 | 11 | 60 | 6 |
| KMR4040R0.2-0675 | | 0.2 | 8 | 11 | 75 | 6 |
| KMR4040R0.5-0450 | | 0.5 | 8 | - | 50 | 4 |
| KMR4040R0.5-0650 | | 0.5 | 8 | 11 | 50 | 6 |
| KMR4040R0.5-0660 | | 0.5 | 8 | 11 | 60 | 6 |
| KMR4040R0.5-0675 | | 0.5 | 8 | 11 | 75 | 6 |
| KMR4040R1.0-0450 | | 1 | 8 | - | 50 | 4 |
| KMR4040R1.0-0650 | | 1 | 8 | 11 | 50 | 6 |
| KMR4040R1.0-0660 | | 1 | 8 | 11 | 60 | 6 |
| KMR4040R1.0-0675 | | 1 | 8 | 11 | 75 | 6 |
| KMR4060R0.5-0650 | 6 | 0.5 | 12 | - | 50 | 6 |
| KMR4060R0.5-0660 | | 0.5 | 12 | - | 60 | 6 |
| KMR4060R0.5-0675 | | 0.5 | 12 | - | 75 | 6 |
| KMR4060R1.0-0650 | | 1 | 12 | - | 50 | 6 |
| KMR4060R1.0-0660 | | 1 | 12 | - | 60 | 6 |
| KMR4060R1.0-0675 | | 1 | 12 | - | 75 | 6 |
| KMR4080R0.5-0860 | 8 | 0.5 | 16 | - | 60 | 8 |
| KMR4080R0.5-0875 | | 0.5 | 16 | - | 75 | 8 |
| KMR4080R0.5-08100 | | 0.5 | 16 | - | 100 | 8 |
| KMR4080R1.0-0860 | | 1 | 16 | - | 60 | 8 |
| KMR4080R1.0-0875 | | 1 | 16 | - | 75 | 8 |
| KMR4080R1.0-08100 | | 1 | 16 | - | 100 | 8 |
| KMR4100R0.5-1075 | 10 | 0.5 | 20 | - | 75 | 10 |
| KMR4100R0.5-10100 | | 0.5 | 20 | - | 100 | 10 |
| KMR4100R1.0-1075 | | 1 | 20 | - | 75 | 10 |
| KMR4100R1.0-10100 | | 1 | 20 | - | 100 | 10 |
| KMR4120R0.5-1275 | 12 | 0.5 | 24 | - | 75 | 12 |
| KMR4120R0.5-12100 | | 0.5 | 24 | - | 100 | 12 |
| KMR4120R1.0-1275 | | 1 | 24 | - | 75 | 12 |
| KMR4120R1.0-12100 | | 1 | 24 | - | 100 | 12 |
| KMR4120R2.0-1275 | | 2 | 24 | - | 75 | 12 |
| KMR4120R2.0-12100 | | 2 | 24 | - | 100 | 12 |

☆推介切削参数请参考P88

## 可切削材料适用表

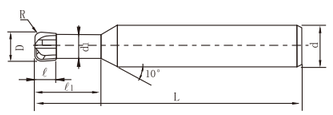
○ 非常适合 ○ 适合

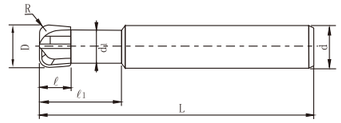
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石 墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑 料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |





## KMRP 四刃高耐磨强力型整体合金圆角刀




ØD $^{0}_{-0.01}$ (D≤3)
ØD $^{0}_{-0.015}$ (3<D≤10)
ØD $^{0}_{-0.018}$ (10<D≤12)

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMRP4030R0.5-0650 | 3 | 0.5 | 1.2 | 8 | 2.9 | 11 | 50 | 6 |
| KMRP4030R0.5-0675 | | 0.5 | 1.2 | 8 | 2.9 | 11 | 75 | 6 |
| KMRP4030R1.0-0650 | | 1 | 1.2 | 8 | 2.9 | 11 | 50 | 6 |
| KMRP4030R1.0-0675 | | 1 | 1.2 | 8 | 2.9 | 11 | 75 | 6 |
| KMRP4040R0.5-0650 | 4 | 0.5 | 1.6 | 10 | 3.9 | 11 | 50 | 6 |
| KMRP4040R0.5-0675 | | 0.5 | 1.6 | 10 | 3.9 | 11 | 75 | 6 |
| KMRP4040R1.0-0650 | | 1 | 1.6 | 10 | 3.9 | 11 | 50 | 6 |
| KMRP4040R1.0-0675 | | 1 | 1.6 | 10 | 3.9 | 11 | 75 | 6 |
| KMRP4050R1.0-0650 | 5 | 1 | 2 | 12 | 4.85 | 11 | 50 | 6 |
| KMRP4050R1.0-0675 | | 1 | 2 | 12 | 4.85 | 11 | 75 | 6 |
| KMRP4060R1.0-0650 | 6 | 1 | 2.5 | 12 | 5.85 | - | 50 | 6 |
| KMRP4060R1.0-0675 | | 1 | 2.5 | 12 | 5.85 | - | 75 | 6 |
| KMRP4060R1.5-0650 | | 1.5 | 2.5 | 12 | 5.85 | - | 50 | 6 |
| KMRP4060R1.5-0675 | | 1.5 | 2.5 | 12 | 5.85 | - | 75 | 6 |
| KMRP4080R1.0-0860 | 8 | 1 | 3.5 | 16 | 7.8 | - | 60 | 8 |
| KMRP4080R1.0-0875 | | 1 | 3.5 | 16 | 7.8 | - | 75 | 8 |
| KMRP4080R1.0-08100 | | 1 | 3.5 | 16 | 7.8 | - | 100 | 8 |
| KMRP4080R2.0-0860 | | 2 | 3.5 | 16 | 7.8 | - | 60 | 8 |
| KMRP4080R2.0-0875 | | 2 | 3.5 | 16 | 7.8 | - | 75 | 8 |
| KMRP4080R2.0-08100 | | 2 | 3.5 | 16 | 7.8 | - | 100 | 8 |
| KMRP4100R1.0-1075 | 10 | 1 | 4 | 20 | 9.8 | - | 75 | 10 |
| KMRP4100R1.0-10100 | | 1 | 4 | 20 | 9.8 | - | 100 | 10 |
| KMRP4100R2.0-1075 | | 2 | 4 | 20 | 9.8 | - | 75 | 10 |
| KMRP4100R2.0-10100 | | 2 | 4 | 20 | 9.8 | - | 100 | 10 |
| KMRP4120R2.0-1275 | 12 | 2 | 5 | 24 | 11.7 | - | 75 | 12 |
| KMRP4120R2.0-12100 | | 2 | 5 | 24 | 11.7 | - | 100 | 12 |
| KMRP4120R3.0-1275 | | 3 | 5 | 24 | 11.7 | - | 75 | 12 |
| KMRP4120R3.0-12100 | | 3 | 5 | 24 | 11.7 | - | 100 | 12 |

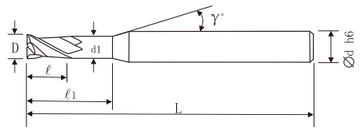
## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石 墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑 料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | | ○ | ○ | |

## KMEL 二刃高耐磨整体合金深沟立铣刀






ØD $^{0}_{-0.01}$ (D≤3)

ØD $^{0}_{-0.012}$ (3<D≤5)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KMEL2004-02-0450 | 0.4 | 0.3 | 2 | 0.36 | 15 | 50 | 4 |
| KMEL2004-03-0450 | | 0.3 | 3 | 0.36 | 15 | 50 | 4 |
| KMEL2005-02-0450 | 0.5 | 0.4 | 2 | 0.46 | 15 | 50 | 4 |
| KMEL2005-03-0450 | | 0.4 | 3 | 0.46 | 15 | 50 | 4 |
| KMEL2005-04-0450 | | 0.4 | 4 | 0.46 | 15 | 50 | 4 |
| KMEL2006-02-0450 | 0.6 | 0.5 | 2 | 0.56 | 15 | 50 | 4 |
| KMEL2006-03-0450 | | 0.5 | 3 | 0.56 | 15 | 50 | 4 |
| KMEL2006-04-0450 | | 0.5 | 4 | 0.56 | 15 | 50 | 4 |
| KMEL2008-04-0450 | 0.8 | 0.7 | 4 | 0.76 | 15 | 50 | 4 |
| KMEL2008-06-0450 | | 0.7 | 6 | 0.76 | 15 | 50 | 4 |
| KMEL2010-04-0450 | 1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMEL2010-06-0450 | | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMEL2010-08-0450 | | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMEL2010-10-0450 | | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMEL2015-06-0450 | 1.5 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMEL2015-08-0450 | | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMEL2015-10-0450 | | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMEL2015-12-0450 | | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMEL2020-08-0450 | 2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMEL2020-10-0450 | | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMEL2020-12-0450 | | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMEL2020-16-0450 | | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMEL2025-10-0450 | 2.5 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KMEL2025-12-0450 | | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KMEL2025-16-0450 | | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KMEL2025-20-0450 | | 2 | 20 | 2.4 | 11 | 50 | 4 |
| KMEL2030-10-0660 | 3 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMEL2030-12-0660 | | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMEL2030-16-0660 | | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMEL2030-20-0660 | | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMEL2030-25-0675 | | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMEL2040-12-0660 | 4 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMEL2040-16-0660 | | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMEL2040-20-0660 | | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMEL2040-25-0675 | | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMEL2040-30-0675 | | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P89

## 可切削材料适用表

○ 非常适合 ○ 适合

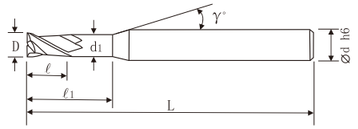
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | | | | ○ | | |





## KMEL 四刃高耐磨整体合金深沟立铣刀






ØD $^{0}_{-0.01}$ (D≤3)

ØD $^{0}_{-0.12}$ (3<D≤5)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KMEL4010-04-0450 | 1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMEL4010-06-0450 | | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMEL4010-08-0450 | | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMEL4010-10-0450 | | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMEL4015-06-0450 | 1.5 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMEL4015-08-0450 | | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMEL4015-10-0450 | | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMEL4015-12-0450 | | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMEL4020-08-0450 | 2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMEL4020-10-0450 | | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMEL4020-12-0450 | | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMEL4020-16-0450 | | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMEL4025-10-0450 | 2.5 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KMEL4025-12-0450 | | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KMEL4025-16-0450 | | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KMEL4025-20-0450 | | 2 | 20 | 2.4 | 11 | 50 | 4 |
| KMEL4030-10-0660 | 3 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMEL4030-12-0660 | | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMEL4030-16-0660 | | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMEL4030-20-0660 | | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMEL4030-25-0675 | | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMEL4040-12-0660 | 4 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMEL4040-16-0660 | | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMEL4040-20-0660 | | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMEL4040-25-0675 | | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMEL4040-30-0675 | | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

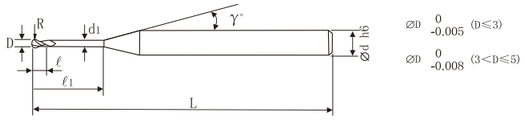
☆推介切削参数请参考P90

## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ○ | | | ○ | ○ | | | | ○ | | |

## KMBL 二刃高耐磨整体合金深沟球头立铣刀




ØD $^{0}_{-0.005}$ (D≤3)

ØD $^{0}_{-0.008}$ (3<D≤5)

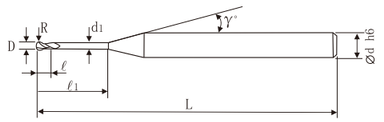
UMG CX 30° ▶55 HRC

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L)全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMBL2004-02-0450 | 0.4 | 0.2 | 0.3 | 2 | 0.36 | 15 | 50 | 4 |
| KMBL2004-03-0450 | | 0.2 | 0.3 | 3 | 0.36 | 15 | 50 | 4 |
| KMBL2005-02-0450 | 0.5 | 0.25 | 0.4 | 2 | 0.46 | 15 | 50 | 4 |
| KMBL2005-03-0450 | | 0.25 | 0.4 | 3 | 0.46 | 15 | 50 | 4 |
| KMBL2005-04-0450 | | 0.25 | 0.4 | 4 | 0.46 | 15 | 50 | 4 |
| KMBL2006-02-0450 | 0.6 | 0.3 | 0.5 | 2 | 0.56 | 15 | 50 | 4 |
| KMBL2006-03-0450 | | 0.3 | 0.5 | 3 | 0.56 | 15 | 50 | 4 |
| KMBL2006-04-0450 | | 0.3 | 0.5 | 4 | 0.56 | 15 | 50 | 4 |
| KMBL2008-04-0450 | 0.8 | 0.4 | 0.7 | 4 | 0.76 | 15 | 50 | 4 |
| KMBL2008-06-0450 | | 0.4 | 0.7 | 6 | 0.76 | 15 | 50 | 4 |
| KMBL2010-04-0450 | 1 | 0.5 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMBL2010-04-0660 | | 0.5 | 0.8 | 4 | 0.94 | 11 | 60 | 6 |
| KMBL2010-06-0450 | | 0.5 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMBL2010-06-0660 | | 0.5 | 0.8 | 6 | 0.94 | 11 | 60 | 6 |
| KMBL2010-08-0450 | | 0.5 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMBL2010-08-0660 | | 0.5 | 0.8 | 8 | 0.94 | 11 | 60 | 6 |
| KMBL2010-10-0450 | | 0.5 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMBL2010-10-0660 | | 0.5 | 0.8 | 10 | 0.94 | 11 | 60 | 6 |
| KMBL2015-06-0450 | 1.5 | 0.75 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMBL2015-06-0660 | | 0.75 | 1.2 | 6 | 1.42 | 11 | 60 | 6 |
| KMBL2015-08-0450 | | 0.75 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMBL2015-08-0660 | | 0.75 | 1.2 | 8 | 1.42 | 11 | 60 | 6 |
| KMBL2015-10-0450 | | 0.75 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMBL2015-10-0660 | | 0.75 | 1.2 | 10 | 1.42 | 11 | 60 | 6 |
| KMBL2015-12-0450 | | 0.75 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMBL2015-12-0660 | | 0.75 | 1.2 | 12 | 1.42 | 11 | 60 | 6 |
| KMBL2020-06-0450 | 2 | 1 | 1.6 | 6 | 1.9 | 11 | 50 | 4 |
| KMBL2020-08-0450 | | 1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMBL2020-08-0660 | | 1 | 1.6 | 8 | 1.9 | 11 | 60 | 6 |
| KMBL2020-10-0450 | | 1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMBL2020-10-0660 | | 1 | 1.6 | 10 | 1.9 | 11 | 60 | 6 |
| KMBL2020-12-0450 | | 1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMBL2020-12-0660 | | 1 | 1.6 | 12 | 1.9 | 11 | 60 | 6 |
| KMBL2020-16-0450 | | 1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMBL2020-16-0660 | | 1 | 1.6 | 16 | 1.9 | 11 | 60 | 6 |
| KMBL2025-08-0450 | 2.5 | 1.25 | 2 | 8 | 2.4 | 11 | 50 | 4 |
| KMBL2025-10-0450 | | 1.25 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KMBL2025-12-0450 | | 1.25 | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KMBL2025-16-0450 | | 1.25 | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KMBL2030-10-0660 | 3 | 1.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMBL2030-12-0660 | | 1.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMBL2030-16-0660 | | 1.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMBL2030-20-0660 | | 1.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |



KM高耐磨中硬度系列

## KMBL 二刃高耐磨整体合金深沟球头立铣刀




ØD $^{0}_{-0.005}$ (D≤3)

ØD $^{0}_{-0.008}$ (3<D≤5)

UMG CX 30° HRC ▶55

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L)全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMBL2030-25-0675 | 3 | 1.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMBL2040-12-0660 | 4 | 2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMBL2040-16-0660 | | 2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMBL2040-20-0660 | | 2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMBL2040-25-0675 | | 2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMBL2040-30-0675 | | 2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMBL2050-16-0660 | 5 | 2.5 | 4 | 16 | 4.85 | 11 | 60 | 6 |
| KMBL2050-20-0660 | | 2.5 | 4 | 20 | 4.85 | 11 | 60 | 6 |
| KMBL2050-25-0675 | | 2.5 | 4 | 25 | 4.85 | 11 | 75 | 6 |
| KMBL2050-30-0675 | | 2.5 | 4 | 30 | 4.85 | 11 | 75 | 6 |

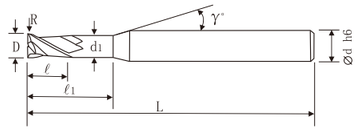
☆推介切削参数请参考P91

## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | | | | ○ | | |

## KMRL 二刃高耐磨整体合金深沟圆角刀




$\varnothing D\ {}^{0}_{-0.001}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.012}$ (3<D≤5)

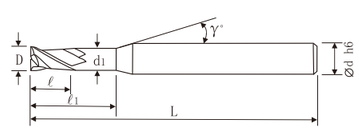
UMG CX 30° HRC ▶55

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L)全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMRL2010R0.1-04-0450 | 1 | 0.1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.1-06-0450 | | 0.1 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.1-08-0450 | | 0.1 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.1-10-0450 | | 0.1 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.2-04-0450 | | 0.2 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.2-06-0450 | | 0.2 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.2-08-0450 | | 0.2 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMRL2010R0.2-10-0450 | | 0.2 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMRL2015R0.1-06-0450 | 1.5 | 0.1 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.1-08-0450 | | 0.1 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.1-10-0450 | | 0.1 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.1-12-0450 | | 0.1 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.2-06-0450 | | 0.2 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.2-08-0450 | | 0.2 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.2-10-0450 | | 0.2 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMRL2015R0.2-12-0450 | | 0.2 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMRL2020R0.1-08-0450 | 2 | 0.1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.1-10-0450 | | 0.1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.1-12-0450 | | 0.1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.1-16-0450 | | 0.1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.2-08-0450 | | 0.2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.2-10-0450 | | 0.2 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.2-12-0450 | | 0.2 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.2-16-0450 | | 0.2 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.5-08-0450 | | 0.5 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.5-10-0450 | | 0.5 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.5-12-0450 | | 0.5 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL2020R0.5-16-0450 | | 0.5 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL2030R0.1-10-0660 | 3 | 0.1 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.1-12-0660 | | 0.1 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.1-16-0660 | | 0.1 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.1-20-0660 | | 0.1 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.1-25-0675 | | 0.1 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMRL2030R0.2-10-0660 | | 0.2 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.2-12-0660 | | 0.2 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.2-16-0660 | | 0.2 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.2-20-0660 | | 0.2 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.2-25-0675 | | 0.2 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMRL2030R0.5-10-0660 | | 0.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.5-12-0660 | | 0.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.5-16-0660 | | 0.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.5-20-0660 | | 0.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL2030R0.5-25-0675 | | 0.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |





## KMRL 二刃高耐磨整体合金深沟圆角刀




$\varnothing D\ {}^{0}_{-0.001}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.012}$ (3<D≤5)

UMG CX 35° HRC ▶55

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1)有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L)全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMRL2040R0.1-12-0660 | 4 | 0.1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.1-16-0660 | | 0.1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.1-20-0660 | | 0.1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.1-25-0675 | | 0.1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL2040R0.1-30-0675 | | 0.1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL2040R0.2-12-0660 | | 0.2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.2-16-0660 | | 0.2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.2-20-0660 | | 0.2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.2-25-0675 | | 0.2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL2040R0.2-30-0675 | | 0.2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL2040R0.5-12-0660 | | 0.5 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.5-16-0660 | | 0.5 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.5-20-0660 | | 0.5 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL2040R0.5-25-0675 | | 0.5 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL2040R0.5-30-0675 | | 0.5 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL2040R1.0-12-0660 | | 1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL2040R1.0-16-0660 | | 1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL2040R1.0-20-0660 | | 1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL2040R1.0-25-0675 | | 1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL2040R1.0-30-0675 | | 1 | 3.2 | 30 | 39 | 11 | 75 | 6 |

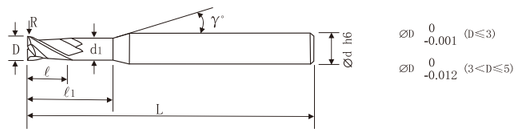
☆推介切削参数请参考P92

## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | | | | ○ | | |

## KMRL 四刃高耐磨整体合金深沟圆角刀




$\varnothing D\ {}^{0}_{-0.001}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.012}$ (3<D≤5)

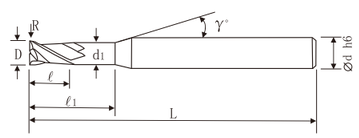
UMG CX 30 HRC ▶55

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMRL4010R0.1-04-0450 | 1 | 0.1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.1-06-0450 | | 0.1 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.1-08-0450 | | 0.1 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.1-10-0450 | | 0.1 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.2-04-0450 | | 0.2 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.2-06-0450 | | 0.2 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.2-08-0450 | | 0.2 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KMRL4010R0.2-10-0450 | | 0.2 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KMRL4015R0.1-06-0450 | 1.5 | 0.1 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.1-08-0450 | | 0.1 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.1-10-0450 | | 0.1 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.1-12-0450 | | 0.1 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.2-06-0450 | | 0.2 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.2-08-0450 | | 0.2 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.2-10-0450 | | 0.2 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KMRL4015R0.2-12-0450 | | 0.2 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KMRL4020R0.1-08-0450 | 2 | 0.1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.1-10-0450 | | 0.1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.1-12-0450 | | 0.1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.1-16-0450 | | 0.1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.2-08-0450 | | 0.2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.2-10-0450 | | 0.2 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.2-12-0450 | | 0.2 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.2-16-0450 | | 0.2 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.5-08-0450 | | 0.5 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.5-10-0450 | | 0.5 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.5-12-0450 | | 0.5 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KMRL4020R0.5-16-0450 | | 0.5 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KMRL4030R0.1-10-0660 | 3 | 0.1 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.1-12-0660 | | 0.1 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.1-16-0660 | | 0.1 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.1-20-0660 | | 0.1 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.1-25-0675 | | 0.1 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMRL4030R0.2-10-0660 | | 0.2 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.2-12-0660 | | 0.2 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.2-16-0660 | | 0.2 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.2-20-0660 | | 0.2 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.2-25-0675 | | 0.2 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KMRL4030R0.5-10-0660 | | 0.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.5-12-0660 | | 0.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.5-16-0660 | | 0.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.5-20-0660 | | 0.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KMRL4030R0.5-25-0675 | | 0.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |



KM高耐磨中硬度系列

## KMRL 四刃高耐磨整体合金深沟圆角刀




$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.12}$ (3<D≤5)

UMG CX 30 HRC ▶55

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KMRL4040R0.1-12-0660 | 4 | 0.1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.1-16-0660 | | 0.1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.1-20-0660 | | 0.1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.1-25-0675 | | 0.1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL4040R0.1-30-0675 | | 0.1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL4040R0.2-12-0660 | | 0.2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.2-16-0660 | | 0.2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.2-20-0660 | | 0.2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.2-25-0675 | | 0.2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL4040R0.2-30-0675 | | 0.2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL4040R0.5-12-0660 | | 0.5 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.5-16-0660 | | 0.5 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.5-20-0660 | | 0.5 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL4040R0.5-25-0675 | | 0.5 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KMRL4040R0.5-30-0675 | | 0.5 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KMRL4040R1.0-12-0660 | | 1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KMRL4040R1.0-16-0660 | | 1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KMRL4040R1.0-20-0660 | | 1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KMRL4040R1.0-25-0675 | | 1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P92

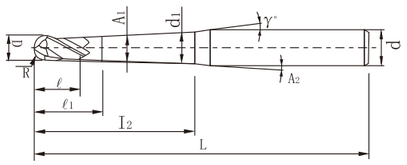
### 可切削材料适用表

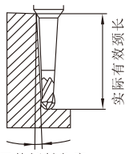
○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | | | ○ | ○ | | | | ○ | | |

## KMBF 模具精加工二刃锥颈球头立铣刀






∅D $^{0}_{-0.005}$ (D≤3)

∅D $^{0}_{-0.008}$ (3<D≤5)



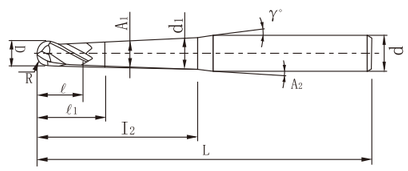

| 型号 Model | 刃径 (D) mm | 圆角半径 (R) mm | 刃长 (ℓ) mm | 有效长 (ℓ1) mm | 颈长 (I2) mm | 斜度 (A1) | 斜度 (A2) | 首径 (d1) mm | 全长 (L) mm | 柄径 (d) mm | 工件倾斜角对应的实际有效颈长 0.5° | 1° | 2° | 3° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMBF05-2005-03-0450 | 0.5 | 0.25 | 0.5 | 1.5 | 3 | 0.5° | 7.8° | 0.49 | 50 | 4 | 3.3 | 3.5 | 3.9 | 4.4 |
| KMBF05-2005-05-0450 | | 0.25 | 0.5 | 1.5 | 5 | 0.5° | 6.8° | 0.53 | 50 | 4 | 5.3 | 5.6 | 6.2 | 7.1 |
| KMBF10-2005-03-0450 | | 0.25 | 0.5 | 1.5 | 3 | 1.0° | 7.8° | 0.52 | 50 | 4 | - | 3.4 | 3.8 | 4.3 |
| KMBF10-2005-05-0450 | | 0.25 | 0.5 | 1.5 | 5 | 1.0° | 6.9° | 0.59 | 50 | 4 | - | 5.4 | 6 | 6.8 |
| KMBF15-2005-03-0450 | | 0.25 | 0.5 | 1.5 | 3 | 1.5° | 7.9° | 0.54 | 50 | 4 | - | - | 3.7 | 4.1 |
| KMBF15-2005-05-0450 | | 0.25 | 0.5 | 1.5 | 5 | 1.5° | 7.0° | 0.65 | 50 | 4 | - | - | 5.8 | 6.6 |
| KMBF05-2006-05-0450 | 0.6 | 0.3 | 0.6 | 1.6 | 5 | 0.5° | 6.8° | 0.62 | 50 | 4 | 5.3 | 5.6 | 6.2 | 7.1 |
| KMBF05-2006-08-0450 | | 0.3 | 0.6 | 1.6 | 8 | 0.5° | 5.7° | 0.68 | 50 | 4 | 8.3 | 8.7 | 9.8 | 11.1 |
| KMBF10-2006-05-0450 | | 0.3 | 0.6 | 1.6 | 5 | 1.0° | 6.8° | 0.68 | 50 | 4 | - | 5.4 | 6 | 6.8 |
| KMBF10-2006-08-0450 | | 0.3 | 0.6 | 1.6 | 8 | 1.0° | 5.8° | 0.79 | 50 | 4 | - | 8.4 | 9.4 | 10.7 |
| KMBF10-2006-10-0450 | | 0.3 | 0.6 | 1.6 | 10 | 1.0° | 5.2° | 0.86 | 50 | 4 | - | 10.4 | 11.6 | 13.2 |
| KMBF10-2006-12-0450 | | 0.3 | 0.6 | 1.6 | 12 | 1.0° | 4.8° | 0.93 | 50 | 4 | - | 12.4 | 13.9 | 15.8 |
| KMBF10-2006-15-0450 | | 0.3 | 0.6 | 1.6 | 15 | 1.0° | 4.2° | 1.03 | 50 | 4 | - | 15.4 | 17.2 | 19.6 |
| KMBF15-2006-05-0450 | | 0.3 | 0.6 | 1.6 | 5 | 1.5° | 6.9° | 0.74 | 50 | 4 | - | - | 5.8 | 6.6 |
| KMBF15-2006-08-0450 | | 0.3 | 0.6 | 1.6 | 8 | 1.5° | 5.9° | 0.9 | 50 | 4 | - | - | 9 | 10.2 |
| KMBF05-2008-08-0450 | 0.8 | 0.4 | 0.8 | 1.8 | 8 | 0.5° | 5.5° | 0.87 | 50 | 4 | 8.3 | 8.7 | 9.8 | 11.1 |
| KMBF05-2008-12-0460 | | 0.4 | 0.8 | 1.8 | 12 | 0.5° | 4.5° | 0.94 | 60 | 4 | 12.3 | 13 | 14.5 | 16.5 |
| KMBF10-2008-08-0450 | | 0.4 | 0.8 | 1.8 | 8 | 1.0° | 5.6° | 0.98 | 50 | 4 | - | 8.4 | 9.4 | 10.7 |
| KMBF10-2008-12-0460 | | 0.4 | 0.8 | 1.8 | 12 | 1.0° | 4.6° | 1.12 | 60 | 4 | - | 12.4 | 13.9 | 15.8 |
| KMBF15-2008-08-0450 | | 0.4 | 0.8 | 1.8 | 8 | 1.5° | 5.8° | 1.09 | 50 | 4 | - | - | 9 | 10.2 |
| KMBF15-2008-12-0460 | | 0.4 | 0.8 | 1.8 | 12 | 1.5° | 4.8° | 1.3 | 60 | 4 | - | - | 13.2 | 15 |
| KMBF05-2010-10-0660 | 1 | 0.5 | 1 | 2.5 | 10 | 0.5° | 6.1° | 1.08 | 60 | 6 | 10.4 | 10.9 | 12.2 | 13.9 |
| KMBF05-2010-15-0660 | | 0.5 | 1 | 2.5 | 15 | 0.5° | 5.1° | 1.16 | 60 | 6 | 15.4 | 16.2 | 18.2 | 20.7 |
| KMBF05-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 0.5° | 4.4° | 1.25 | 70 | 6 | 20.4 | 21.5 | 24.1 | 27.4 |
| KMBF05-2010-25-0670 | | 0.5 | 1 | 2.5 | 25 | 0.5° | 3.8° | 1.34 | 70 | 6 | 25.4 | 26.8 | 30 | 34.2 |
| KMBF05-2010-30-0670 | | 0.5 | 1 | 2.5 | 30 | 0.5° | 3.4° | 1.42 | 70 | 6 | 30.4 | 32 | 35.9 | 41 |
| KMBF10-2010-10-0660 | | 0.5 | 1 | 2.5 | 10 | 1.0° | 6.2° | 1.21 | 60 | 6 | - | 10.5 | 11.8 | 13.4 |
| KMBF10-2010-15-0660 | | 0.5 | 1 | 2.5 | 15 | 1.0° | 5.2° | 1.38 | 60 | 6 | - | 15.5 | 17.4 | 19.8 |
| KMBF10-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 1.0° | 4.5° | 1.56 | 70 | 6 | - | 20.5 | 23 | 26.2 |
| KMBF10-2010-25-0670 | | 0.5 | 1 | 2.5 | 25 | 1.0° | 3.9° | 1.73 | 70 | 6 | - | 25.5 | 28.6 | 32.6 |
| KMBF10-2010-30-0670 | | 0.5 | 1 | 2.5 | 30 | 1.0° | 3.5° | 1.91 | 70 | 6 | - | 30.5 | 34.2 | 39 |
| KMBF10-2010-35-0680 | | 0.5 | 1 | 2.5 | 35 | 1.0° | 3.2° | 2.08 | 80 | 6 | - | 35.5 | 39.8 | 45.4 |
| KMBF15-2010-10-0660 | | 0.5 | 1 | 2.5 | 10 | 1.5° | 6.3° | 1.34 | 60 | 6 | - | - | 11.3 | 12.8 |
| KMBF15-2010-15-0660 | | 0.5 | 1 | 2.5 | 15 | 1.5° | 5.3° | 1.6 | 60 | 6 | - | - | 16.6 | 18.9 |
| KMBF15-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 1.5° | 4.6° | 1.86 | 70 | 6 | - | - | 21.9 | 24.9 |
| KMBF20-2010-15-0660 | | 0.5 | 1 | 2.5 | 15 | 2.0° | 5.4° | 1.82 | 60 | 6 | - | - | 15.8 | 18 |
| KMBF20-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 2.0° | 4.7° | 2.17 | 70 | 6 | - | - | 20.8 | 23.7 |
| KMBF30-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 3.0° | 5° | 2.78 | 70 | 6 | - | - | - | 21.2 |
| KMBF50-2010-20-0670 | | 0.5 | 1 | 2.5 | 20 | 5.0° | 5.7° | 4.01 | 70 | 6 | - | - | - | - |
| KMBF05-2012-12-0660 | 1.2 | 0.6 | 1.2 | 2.7 | 12 | 0.5° | 5.6° | 1.31 | 60 | 6 | 12.4 | 13.1 | 14.6 | 16.6 |
| KMBF05-2012-24-0670 | | 0.6 | 1.2 | 2.7 | 24 | 0.5° | 3.8° | 1.52 | 70 | 6 | 24.4 | 25.7 | 28.8 | 32.8 |
| KMBF10-2012-12-0660 | | 0.6 | 1.2 | 2.7 | 12 | 1.0° | 5.7° | 1.47 | 60 | 6 | - | 12.5 | 14 | 15.9 |
| KMBF10-2012-24-0670 | | 0.6 | 1.2 | 2.7 | 24 | 1.0° | 3.9° | 1.89 | 70 | 6 | - | 24.5 | 27.5 | 31.3 |
| KMBF15-2012-12-0660 | | 0.6 | 1.2 | 2.7 | 12 | 1.5° | 5.8° | 1.63 | 60 | 6 | - | - | 13.4 | 15.2 |

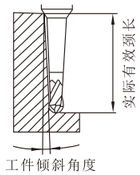


KM高耐磨中硬度系列

KMBF 模具精加工二刃锥颈球头立铣刀






∅D $^{0}_{-0.005}$ (D≤3)

∅D $^{0}_{-0.008}$ (3<D≤5)




| 型号 Model | 刃径 (D) mm | 圆角半径 (R) mm | 刃长 (ℓ) mm | 有效长 (ℓ1) mm | 颈长 (I2) mm | 斜度 (A1) | 斜度 (A2) | 首径 (d1) mm | 全长 (L) mm | 柄径 (d) mm | 工件倾斜角对应的实际有效颈长 0.5° | 1° | 2° | 3° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMBF15-2012-24-0670 | 1.2 | 0.6 | 1.2 | 2.7 | 24 | 1.5° | 4.1° | 2.26 | 70 | 6 | - | - | 26.2 | 29.8 |
| KMBF05-2015-10-0660 | 1.5 | 0.75 | 1.5 | 3 | 10 | 0.5° | 5.9° | 1.57 | 60 | 6 | 10.4 | 10.9 | 12.2 | 13.8 |
| KMBF05-2015-15-0660 | | 0.75 | 1.5 | 3 | 15 | 0.5° | 4.9° | 1.65 | 60 | 6 | 15.4 | 16.2 | 18.1 | 20.6 |
| KMBF05-2015-30-0670 | | 0.75 | 1.5 | 3 | 30 | 0.5° | 3.2° | 1.92 | 70 | 6 | 30.4 | 32 | 35.9 | 40.9 |
| KMBF10-2015-10-0660 | | 0.75 | 1.5 | 3 | 10 | 1.0° | 6° | 1.69 | 60 | 6 | - | 10.5 | 11.8 | 13.3 |
| KMBF10-2015-15-0660 | | 0.75 | 1.5 | 3 | 15 | 1.0° | 5° | 1.86 | 60 | 6 | - | 15.5 | 17.4 | 19.7 |
| KMBF10-2015-20-0670 | | 0.75 | 1.5 | 3 | 20 | 1.0° | 4.2° | 2.04 | 70 | 6 | - | 20.5 | 23 | 26.1 |
| KMBF10-2015-30-0670 | | 0.75 | 1.5 | 3 | 30 | 1.0° | 3.3° | 2.39 | 70 | 6 | - | 30.5 | 34.2 | 39 |
| KMBF15-2015-10-0660 | | 0.75 | 1.5 | 3 | 10 | 1.5° | 6.1° | 1.81 | 60 | 6 | - | - | 11.3 | 12.8 |
| KMBF15-2015-15-0660 | | 0.75 | 1.5 | 3 | 15 | 1.5° | 5.1° | 2.07 | 60 | 6 | - | - | 16.6 | 18.9 |
| KMBF15-2015-30-0670 | | 0.75 | 1.5 | 3 | 30 | 1.5° | 3.4° | 2.86 | 70 | 6 | - | - | 32.5 | 37 |
| KMBF05-2020-20-0660 | 2 | 1 | 2 | 4 | 20 | 0.5° | 3.9° | 2.18 | 60 | 6 | 20.7 | 21.7 | 24.3 | 27.6 |
| KMBF05-2020-30-0670 | | 1 | 2 | 4 | 30 | 0.5° | 2.9° | 2.36 | 70 | 6 | 30.7 | 32.3 | 36.2 | 不干涉 |
| KMBF05-2020-40-0680 | | 1 | 2 | 4 | 40 | 0.5° | 2.4° | 2.53 | 80 | 6 | 40.7 | 42.8 | 48 | 不干涉 |
| KMBF10-2020-20-0660 | | 1 | 2 | 4 | 20 | 1.0° | 4.0° | 2.46 | 60 | 6 | - | 20.8 | 23.3 | 26.4 |
| KMBF10-2020-25-0660 | | 1 | 2 | 4 | 25 | 1.0° | 3.4° | 2.64 | 60 | 6 | - | 25.8 | 28.9 | 32.9 |
| KMBF10-2020-30-0670 | | 1 | 2 | 4 | 30 | 1.0° | 3.0° | 2.81 | 70 | 6 | - | 30.8 | 34.5 | 39.3 |
| KMBF10-2020-35-0680 | | 1 | 2 | 4 | 35 | 1.0° | 2.7° | 2.99 | 80 | 6 | - | 35.8 | 40.1 | 不干涉 |
| KMBF10-2020-40-0680 | | 1 | 2 | 4 | 40 | 1.0° | 2.5° | 3.16 | 80 | 6 | - | 40.8 | 45.8 | 不干涉 |
| KMBF10-2020-50-0690 | | 1 | 2 | 4 | 50 | 1.0° | 2.1° | 3.51 | 90 | 6 | - | 50.8 | 57 | 不干涉 |
| KMBF15-2020-20-0660 | | 1 | 2 | 4 | 20 | 1.5° | 4.1° | 2.74 | 60 | 6 | - | - | 22.3 | 25.3 |
| KMBF15-2020-30-0670 | | 1 | 2 | 4 | 30 | 1.5° | 3.1° | 3.27 | 70 | 6 | - | - | 32.9 | 37.4 |
| KMBF15-2020-40-0680 | | 1 | 2 | 4 | 40 | 1.5° | 2.6° | 3.79 | 80 | 6 | - | - | 43.5 | 不干涉 |
| KMBF20-2020-30-0670 | | 1 | 2 | 4 | 30 | 2.0° | 3.3° | 3.72 | 70 | 6 | - | - | 31.3 | 35.5 |
| KMBF20-2020-40-0680 | | 1 | 2 | 4 | 40 | 2.0° | 2.7° | 4.42 | 80 | 6 | - | - | 41.3 | 不干涉 |
| KMBF30-2020-30-0670 | | 1 | 2 | 4 | 30 | 3.0° | 3.5° | 4.63 | 70 | 6 | - | - | - | 31.8 |
| KMBF30-2020-40-0680 | | 1 | 2 | 4 | 40 | 3.0° | 2.9° | 5.68 | 80 | 6 | - | - | - | 不干涉 |
| KMBF05-2030-30-0670 | 3 | 1.5 | 3 | 6 | 30 | 0.5° | 2.4° | 3.32 | 70 | 6 | 30.7 | 32.3 | 36.2 | 不干涉 |
| KMBF05-2030-40-0680 | | 1.5 | 3 | 6 | 40 | 0.5° | 1.9° | 3.5 | 80 | 6 | 40.7 | 42.9 | 不干涉 | 不干涉 |
| KMBF05-2030-50-0690 | | 1.5 | 3 | 6 | 50 | 0.5° | 1.6° | 3.67 | 90 | 6 | 50.7 | 53.4 | 不干涉 | 不干涉 |
| KMBF10-2030-30-0670 | | 1.5 | 3 | 6 | 30 | 1.0° | 2.5° | 3.74 | 70 | 6 | - | 31 | 34.7 | 不干涉 |
| KMBF10-2030-40-0680 | | 1.5 | 3 | 6 | 40 | 1.0° | 2.0° | 4.09 | 80 | 6 | - | 41 | 45.9 | 不干涉 |
| KMBF10-2030-50-0690 | | 1.5 | 3 | 6 | 50 | 1.0° | 1.7° | 4.44 | 90 | 6 | - | 51 | 不干涉 | 不干涉 |
| KMBF15-2030-30-0670 | | 1.5 | 3 | 6 | 30 | 1.0° | 2.6° | 4.16 | 70 | 6 | - | - | 33.1 | 不干涉 |
| KMBF15-2030-40-0680 | | 1.5 | 3 | 6 | 40 | 1.5° | 2.1° | 4.69 | 80 | 6 | - | - | 43.8 | 不干涉 |
| KMBF15-2030-50-0690 | | 1.5 | 3 | 6 | 50 | 1.5° | 1.7° | 5.21 | 90 | 6 | - | - | 不干涉 | 不干涉 |
| KMBF05-2040-60-06110 | 4 | 2 | 4 | 7 | 60 | 0.5° | 1.0° | 4.83 | 110 | 6 | 60.8 | 64 | 不干涉 | 不干涉 |
| KMBF10-2040-60-06110 | | 2 | 4 | 7 | 60 | 1.0° | 1.02 | 5.76 | 110 | 6 | - | 61.1 | 不干涉 | 不干涉 |

☆推介切削参数请参考P93-95

## 可切削材料适用表

◎ 非常适合 ○ 适合

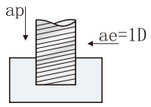
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ◎ | | ◎ | ○ | | | ○ | ◎ | | | | ○ | | |

## KMEI二刃小径整体合金立铣刀



| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | |
|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 0.3 | 32000 | 115 | 32000 | 115 | 32000 | 115 | 32000 | 80 | 32000 | 40 |
| 0.4 | 32000 | 125 | 32000 | 125 | 32000 | 125 | 32000 | 90 | 27500 | 50 |
| 0.5 | 32000 | 125 | 32000 | 125 | 29500 | 125 | 25000 | 90 | 22000 | 50 |
| 0.6 | 32000 | 125 | 32000 | 125 | 24500 | 125 | 21000 | 90 | 18500 | 50 |
| 0.7 | 32000 | 125 | 32000 | 125 | 24500 | 125 | 21000 | 90 | 18500 | 50 |
| 0.8 | 24500 | 125 | 24500 | 125 | 18500 | 125 | 15500 | 90 | 13500 | 50 |
| 0.9 | 24500 | 125 | 24500 | 125 | 18500 | 125 | 15500 | 90 | 13500 | 50 |
| 1.0 | 21000 | 140 | 25000 | 165 | 16800 | 130 | 14500 | 90 | 10000 | 50 |
| 1.5 | 13000 | 140 | 15000 | 165 | 11800 | 130 | 10000 | 90 | 7000 | 50 |
| 2.0 | 13000 | 160 | 15000 | 185 | 11800 | 145 | 10000 | 100 | 7000 | 60 |
| 2.5 | 8700 | 200 | 10000 | 240 | 8200 | 185 | 6600 | 100 | 4700 | 60 |
| 3.0 | 8700 | 235 | 10000 | 270 | 8200 | 220 | 6600 | 100 | 4700 | 75 |

切削量
基准
(D:直径)



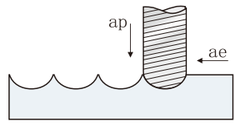

| 刀具直径 | 切深ap |
|---|---|
| D＜Ø1 | 0.05D |
| Ø1≤D≤Ø3 | 0.15D |

## KMBI二刃小径整体合金球头立铣刀



| 被削材 | 铸铁<br>球墨铸铁 | | 碳素钢、合金钢<br>~750N/mm² | | 碳素钢、合金钢<br>~30HRC | | 预硬钢、调质钢<br>~40HRC | | 不锈钢 | |
|---|---|---|---|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| R0.15 | 32000 | 300 | 32000 | 300 | 32000 | 270 | 32000 | 250 | 32000 | 150 |
| R0.2 | 32000 | 380 | 32000 | 380 | 32000 | 320 | 32000 | 300 | 32000 | 175 |
| R0.25 | 32000 | 460 | 32000 | 460 | 32000 | 410 | 32000 | 330 | 32000 | 205 |
| R0.3 | 32000 | 535 | 32000 | 535 | 32000 | 500 | 32000 | 420 | 32000 | 265 |
| R0.35 | 32000 | 550 | 32000 | 550 | 32000 | 520 | 32000 | 440 | 32000 | 270 |
| R0.4 | 32000 | 610 | 32000 | 610 | 32000 | 560 | 32000 | 460 | 27500 | 285 |
| R0.45 | 32000 | 700 | 32000 | 700 | 32000 | 600 | 25000 | 400 | 27500 | 285 |
| R0.5 | 32000 | 765 | 32000 | 765 | 32000 | 640 | 25000 | 400 | 22000 | 285 |
| R1.0 | 24000 | 900 | 24000 | 900 | 19000 | 760 | 16000 | 400 | 11150 | 230 |
| R1.5 | 15500 | 950 | 15500 | 950 | 12750 | 760 | 10600 | 450 | 7400 | 290 |

切削量
基准
(R:球头半径)




| 刀具直径 | 切深ap | 切深ae |
|---|---|---|
| D＜Ø1 | 0.05R | 0.2R |
| Ø1≤D≤Ø3 | 0.1R | 0.2R |





## KME二刃高耐磨系列刀具切削参数参考值　沟槽切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 0.5 | 25000 | 250 | 12500 | 100 | 8500 | 50 |
| 0.8 | 23500 | 280 | 12000 | 125 | 7500 | 55 |
| 1 | 22000 | 300 | 11500 | 135 | 7200 | 63 |
| 1.5 | 17000 | 240 | 9500 | 110 | 6000 | 63 |
| 2 | 16000 | 320 | 7200 | 120 | 4400 | 56 |
| 2.5 | 12500 | 240 | 5800 | 100 | 3500 | 45 |
| 3 | 10000 | 200 | 4800 | 80 | 3000 | 40 |
| 4 | 8000 | 240 | 3500 | 90 | 2500 | 48 |
| 5 | 6400 | 300 | 2800 | 100 | 1800 | 45 |
| 6 | 5500 | 350 | 2400 | 120 | 1500 | 50 |
| 8 | 4000 | 360 | 1500 | 80 | 1200 | 50 |
| 10 | 2000 | 280 | 1000 | 115 | 800 | 50 |
| 12 | 1600 | 240 | 800 | 80 | 640 | 48 |
| 14 | 1350 | 200 | | | | |
| 16 | 1200 | 200 | | | | |
| 20 | 1000 | 200 | | | | |
| 标准切削量 | 4MM以下AP=0.3D AE=1D　4MM以上AP=0.5D　AE=1D | | | | 淬硬钢4MM以下<br>AP=0.1D　AE=1D,<br>4MM以上 AP=0.4D,AE=1D | |

## KME四刃高耐磨系列刀具切削参数参考值　侧壁切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 25000 | 500 | 15000 | 270 | 12000 | 200 |
| 1.5 | 21000 | 400 | 13000 | 200 | 10000 | 150 |
| 2 | 20000 | 550 | 11500 | 300 | 9000 | 150 |
| 2.5 | 17800 | 500 | 10800 | 280 | 8000 | 150 |
| 3 | 16000 | 640 | 9500 | 300 | 7500 | 180 |
| 4 | 13500 | 650 | 8500 | 320 | 7000 | 200 |
| 5 | 12000 | 700 | 8000 | 350 | 6000 | 180 |
| 6 | 10000 | 640 | 6000 | 350 | 5000 | 200 |
| 8 | 7000 | 560 | 4500 | 300 | 3600 | 180 |
| 10 | 5000 | 500 | 3500 | 320 | 2800 | 150 |
| 12 | 4500 | 480 | 3200 | 300 | 2400 | 150 |
| 14 | 4000 | 480 | 2600 | 250 | 2000 | 130 |
| 16 | 3500 | 450 | 2000 | 200 | 1500 | 120 |
| 20 | 3000 | 450 | 1800 | 250 | 1000 | 120 |
| 标准切削量 | 4MM以下AP=1D AE=0.1D 4MM以上AP=1.5D AE=0.1D | | | | 4MM以下AP=1D AE=0.08D<br>4MM以上AP=1.5D AE=0.08D | |

## KMB高耐磨系列刀具切削参数参考值



| 被削材 | 铸铁、碳素钢、合金钢 | | 预硬钢 | |
|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1R0.5 | 18000 | 1000 | 15000 | 1000 |
| 2R1 | 15000 | 1500 | 12000 | 1200 |
| 3R1.5 | 12000 | 1800 | 9600 | 1400 |
| 4R2 | 10000 | 2000 | 8000 | 1600 |
| 6R3 | 9000 | 2500 | 7200 | 2000 |
| 8R4 | 8000 | 3000 | 6400 | 2400 |
| 10R5 | 7000 | 3000 | 5600 | 2000 |
| 12R6 | 6000 | 2500 | 4800 | 1600 |
| 标准切削量 | AP=0.05～0.1 | AE=0.025D | AP=0.03～0.1 | AE=0.025D |

## KMR二刃高耐磨系列刀具切削参数参考值　沟槽切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 0.5 | 25000 | 250 | 12500 | 100 | 8500 | 50 |
| 0.8 | 23500 | 280 | 12000 | 125 | 7500 | 55 |
| 1 | 22000 | 300 | 11500 | 135 | 7200 | 63 |
| 1.5 | 17000 | 240 | 9500 | 110 | 6000 | 63 |
| 2 | 16000 | 320 | 7200 | 120 | 4400 | 56 |
| 2.5 | 12500 | 240 | 5800 | 100 | 3500 | 45 |
| 3 | 10000 | 200 | 4800 | 80 | 3000 | 40 |
| 4 | 8000 | 240 | 3500 | 90 | 2500 | 48 |
| 5 | 6400 | 450 | 2800 | 150 | 1800 | 60 |
| 6 | 5500 | 500 | 2400 | 180 | 1500 | 75 |
| 8 | 4000 | 550 | 1500 | 120 | 1200 | 75 |
| 10 | 2000 | 420 | 1000 | 165 | 800 | 60 |
| 12 | 1600 | 320 | 800 | 120 | 640 | 60 |
| 14 | 1350 | 200 | | | | |
| 16 | 1200 | 200 | | | | |
| 20 | 1000 | 200 | | | | |
| 标准切削量 | 4MM以下AP=0.3D AE=1D 4MM以上AP=0.5D AE=1D | | | | 淬硬钢4MM以下AP=0.1DAE=1D,<br>4MM以上AP=0.4D,AE=1D | |





## KMR四刃高耐磨系列刀具切削参数参考值　侧壁切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 25000 | 500 | 15000 | 270 | 12000 | 200 |
| 1.5 | 21000 | 400 | 13000 | 200 | 10000 | 150 |
| 2 | 20000 | 550 | 11500 | 300 | 9000 | 150 |
| 2.5 | 17800 | 500 | 10800 | 280 | 8000 | 150 |
| 3 | 16000 | 640 | 9500 | 300 | 7500 | 180 |
| 4 | 13500 | 650 | 8500 | 320 | 7000 | 200 |
| 5 | 12000 | 700 | 8000 | 350 | 6000 | 180 |
| 6 | 10000 | 800 | 6000 | 500 | 5000 | 300 |
| 8 | 7000 | 750 | 4500 | 480 | 3600 | 240 |
| 10 | 5000 | 680 | 3500 | 450 | 2800 | 200 |
| 12 | 4500 | 600 | 3200 | 450 | 2400 | 200 |
| 14 | 4000 | 600 | 2600 | 400 | 2000 | 180 |
| 16 | 3500 | 550 | 2000 | 300 | 1500 | 160 |
| 20 | 3000 | 550 | 1800 | 300 | 1000 | 160 |
| 标准切削量 | 4MM以下AP=1D AE=0.1D 4MM以上AP=1.5D AE=0.1D | | | | 4MM以下AP=1D AE=0.08D<br>4MM以上AP=1.5D AE=0.08D | |

## KMEL二刃高耐磨整体合金深沟立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30以下) | | | | 淬火钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 0.4 | 2 | 25000 | 300 | 0.015 | 0.3 | 22000 | 250 | 0.01 | 0.25 | 17600 | 200 | 0.008 | 0.2 |
| | 3 | 20000 | 200 | 0.008 | 0.3 | 18000 | 150 | 0.005 | 0.25 | 14400 | 120 | 0.004 | 0.2 |
| 0.5 | 2 | 25000 | 350 | 0.015 | 0.3 | 22000 | 300 | 0.01 | 0.25 | 17600 | 240 | 0.008 | 0.2 |
| | 3 | 20000 | 200 | 0.008 | 0.3 | 18000 | 200 | 0.005 | 0.25 | 14400 | 160 | 0.004 | 0.2 |
| | 4 | 18000 | 150 | 0.003 | 0.3 | 14000 | 150 | 0.002 | 0.25 | 11200 | 120 | 0.0016 | 0.2 |
| 0.6 | 2 | 25000 | 400 | 0.015 | 0.3 | 22000 | 230 | 0.01 | 0.25 | 17600 | 184 | 0.008 | 0.2 |
| | 3 | 20000 | 300 | 0.008 | 0.3 | 18000 | 140 | 0.005 | 0.25 | 14400 | 112 | 0.004 | 0.2 |
| | 4 | 18000 | 250 | 0.003 | 0.3 | 14000 | 90 | 0.002 | 0.25 | 11200 | 72 | 0.0016 | 0.2 |
| 0.8 | 4 | 25000 | 600 | 0.045 | 0.45 | 22000 | 400 | 0.03 | 0.4 | 17600 | 320 | 0.024 | 0.32 |
| | 6 | 20000 | 450 | 0.03 | 0.45 | 18000 | 300 | 0.02 | 0.4 | 14400 | 240 | 0.016 | 0.32 |
| 1.0 | 4 | 25000 | 1100 | 0.055 | 0.6 | 22000 | 700 | 0.045 | 0.5 | 17600 | 560 | 0.036 | 0.4 |
| | 6 | 20000 | 800 | 0.045 | 0.6 | 18000 | 500 | 0.035 | 0.5 | 14400 | 400 | 0.028 | 0.4 |
| | 8 | 18000 | 700 | 0.035 | 0.6 | 15000 | 400 | 0.025 | 0.5 | 12000 | 320 | 0.02 | 0.4 |
| | 10 | 16000 | 600 | 0.025 | 0.6 | 14000 | 350 | 0.018 | 0.5 | 11200 | 280 | 0.0144 | 0.4 |
| 1.5 | 6 | 20000 | 1200 | 0.08 | 0.9 | 16000 | 720 | 0.07 | 0.75 | 12800 | 576 | 0.056 | 0.6 |
| | 8 | 18000 | 1000 | 0.07 | 0.9 | 14000 | 580 | 0.06 | 0.75 | 11200 | 464 | 0.048 | 0.6 |
| | 10 | 16000 | 850 | 0.06 | 0.9 | 13000 | 520 | 0.05 | 0.75 | 10400 | 416 | 0.04 | 0.6 |
| | 12 | 14000 | 700 | 0.05 | 0.9 | 12000 | 450 | 0.04 | 0.75 | 9600 | 360 | 0.032 | 0.6 |
| 2.0 | 8 | 16000 | 1300 | 0.11 | 1.2 | 13000 | 800 | 0.09 | 1 | 10400 | 640 | 0.072 | 0.8 |
| | 10 | 16000 | 1200 | 0.1 | 1.2 | 13000 | 750 | 0.08 | 1 | 10400 | 600 | 0.064 | 0.8 |
| | 12 | 14000 | 1000 | 0.09 | 1.2 | 12000 | 650 | 0.07 | 1 | 9600 | 520 | 0.056 | 0.8 |
| | 16 | 12000 | 800 | 0.07 | 1.2 | 10000 | 500 | 0.05 | 1 | 8000 | 400 | 0.04 | 0.8 |
| 2.5 | 10 | 13000 | 1300 | 0.14 | 1.5 | 11000 | 800 | 0.11 | 1.25 | 8800 | 640 | 0.088 | 1 |
| | 12 | 13000 | 1200 | 0.13 | 1.5 | 11000 | 750 | 0.1 | 1.25 | 8800 | 600 | 0.08 | 1 |
| | 16 | 11000 | 900 | 0.1 | 1.5 | 9000 | 550 | 0.07 | 1.25 | 7200 | 440 | 0.056 | 1 |
| | 20 | 9000 | 700 | 0.08 | 1.5 | 7000 | 400 | 0.05 | 1.25 | 5600 | 320 | 0.04 | 1 |
| 3.0 | 10 | 11000 | 1400 | 0.18 | 1.8 | 9000 | 900 | 0.14 | 1.5 | 7200 | 720 | 0.112 | 1.2 |
| | 12 | 11000 | 1300 | 0.16 | 1.8 | 9000 | 800 | 0.12 | 1.5 | 7200 | 640 | 0.096 | 1.2 |
| | 16 | 10000 | 1000 | 0.12 | 1.8 | 8000 | 600 | 0.09 | 1.5 | 6400 | 480 | 0.072 | 1.2 |
| | 20 | 9000 | 800 | 0.1 | 1.8 | 7000 | 450 | 0.07 | 1.5 | 5600 | 360 | 0.056 | 1.2 |
| | 25 | 8000 | 700 | 0.08 | 1.8 | 6000 | 380 | 0.06 | 1.5 | 4800 | 304 | 0.048 | 1.2 |
| 4.0 | 12 | 8000 | 1500 | 0.3 | 2.4 | 6000 | 850 | 0.25 | 2 | 4800 | 680 | 0.2 | 1.6 |
| | 16 | 8000 | 1400 | 0.25 | 2.4 | 6000 | 800 | 0.2 | 2 | 4800 | 640 | 0.16 | 1.6 |
| | 20 | 8000 | 1300 | 0.2 | 2.4 | 6000 | 730 | 0.15 | 2 | 4800 | 584 | 0.12 | 1.6 |
| | 25 | 7000 | 1100 | 0.15 | 2.4 | 5000 | 600 | 0.1 | 2 | 4000 | 480 | 0.08 | 1.6 |
| | 30 | 7000 | 1000 | 0.12 | 2.4 | 5000 | 540 | 0.08 | 2 | 4000 | 432 | 0.064 | 1.6 |





## KMEL四刃高耐磨整体合金深沟立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30以下) | | | | 淬火钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 1.0 | 4 | 25000 | 2200 | 0.055 | 0.6 | 22000 | 1400 | 0.045 | 0.5 | 17600 | 1120 | 0.04 | 0.4 |
| | 6 | 20000 | 1600 | 0.045 | 0.6 | 18000 | 1000 | 0.035 | 0.5 | 14400 | 800 | 0.03 | 0.4 |
| | 8 | 18000 | 1400 | 0.035 | 0.6 | 15000 | 800 | 0.025 | 0.5 | 12000 | 640 | 0.02 | 0.4 |
| | 10 | 16000 | 1200 | 0.025 | 0.6 | 14000 | 700 | 0.018 | 0.5 | 11200 | 560 | 0.01 | 0.4 |
| 1.5 | 6 | 20000 | 2400 | 0.008 | 0.9 | 16000 | 1440 | 0.07 | 0.075 | 12800 | 1152 | 0.06 | 0.6 |
| | 8 | 18000 | 2000 | 0.007 | 0.9 | 14000 | 1160 | 0.06 | 0.075 | 11200 | 928 | 0.05 | 0.6 |
| | 10 | 16000 | 1700 | 0.006 | 0.9 | 13000 | 1040 | 0.05 | 0.075 | 10400 | 832 | 0.04 | 0.6 |
| | 12 | 14000 | 1400 | 0.005 | 0.9 | 12000 | 900 | 0.04 | 0.075 | 9600 | 720 | 0.03 | 0.6 |
| 2.0 | 8 | 16000 | 2600 | 0.011 | 1.2 | 13000 | 1600 | 0.09 | 1 | 10400 | 1280 | 0.07 | 0.8 |
| | 10 | 16000 | 2400 | 0.1 | 1.2 | 13000 | 1500 | 0.08 | 1 | 10400 | 1200 | 0.06 | 0.8 |
| | 12 | 14000 | 2000 | 0.09 | 1.2 | 12000 | 1300 | 0.07 | 1 | 9600 | 1040 | 0.06 | 0.8 |
| | 16 | 12000 | 1600 | 0.07 | 1.2 | 10000 | 1000 | 0.05 | 1 | 8000 | 800 | 0.04 | 0.8 |
| 2.5 | 10 | 13000 | 2600 | 0.14 | 1.5 | 11000 | 1600 | 0.11 | 1.25 | 8800 | 1280 | 0.09 | 1 |
| | 12 | 13000 | 2400 | 0.13 | 1.5 | 11000 | 750 | 0.1 | 1.25 | 8800 | 600 | 0.08 | 1 |
| | 16 | 11000 | 1800 | 0.1 | 1.5 | 9000 | 1100 | 0.07 | 1.25 | 7200 | 880 | 0.06 | 1 |
| | 20 | 9000 | 1400 | 0.08 | 1.5 | 7000 | 800 | 0.05 | 1.25 | 5600 | 640 | 0.04 | 1 |
| 3.0 | 10 | 11000 | 2800 | 0.18 | 1.8 | 9000 | 1800 | 0.14 | 1.5 | 7200 | 1440 | 0.11 | 1.2 |
| | 12 | 11000 | 2600 | 0.16 | 1.8 | 9000 | 1600 | 0.12 | 1.5 | 7200 | 1280 | 0.10 | 1.2 |
| | 16 | 10000 | 2000 | 0.12 | 1.8 | 8000 | 1200 | 0.09 | 1.5 | 6400 | 960 | 0.07 | 1.2 |
| | 20 | 9000 | 1600 | 0.1 | 1.8 | 7000 | 900 | 0.07 | 1.5 | 5600 | 720 | 0.06 | 1.2 |
| | 25 | 8000 | 1400 | 0.08 | 1.8 | 6000 | 760 | 0.06 | 1.5 | 4800 | 608 | 0.05 | 1.2 |
| 4.0 | 12 | 8000 | 3000 | 0.3 | 2.4 | 6000 | 1700 | 0.25 | 2 | 4800 | 1360 | 0.2 | 1.6 |
| | 16 | 8000 | 2800 | 0.25 | 2.4 | 6000 | 1600 | 0.2 | 2 | 4800 | 1280 | 0.16 | 1.6 |
| | 20 | 8000 | 2600 | 0.2 | 2.4 | 6000 | 1460 | 0.15 | 2 | 4800 | 1168 | 0.12 | 1.6 |
| | 25 | 7000 | 2200 | 0.15 | 2.4 | 5000 | 1200 | 0.1 | 2 | 4800 | 960 | 0.08 | 1.6 |
| | 30 | 7000 | 2000 | 0.12 | 2.4 | 5000 | 1080 | 0.08 | 2 | 4800 | 864 | 0.06 | 1.6 |

# KMBL二刃高耐磨整体合金深沟球头立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30以下) | | | | 淬火钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| R0.5 | 4 | 50000 | 480 | 0.012 | 0.02 | 35000 | 400 | 0.005 | 0.01 | 25000 | 320 | 0.004 | 0.007 |
| | 6 | 30000 | 180 | 0.005 | 0.005 | 21000 | 150 | 0.003 | 0.003 | 15000 | 120 | 0.002 | 0.002 |
| R0.6 | 4 | 20000 | 960 | 0.025 | 0.05 | 14000 | 800 | 0.02 | 0.04 | 10000 | 640 | 0.015 | 0.03 |
| | 6 | 20000 | 540 | 0.01 | 0.02 | 14000 | 450 | 0.02 | 0.04 | 10000 | 360 | 0.004 | 0.007 |
| | 8 | 18000 | 360 | 0.005 | 0.01 | 12600 | 300 | 0.005 | 0.01 | 9000 | 240 | 0.002 | 0.004 |
| R0.8 | 4 | 20000 | 1800 | 0.05 | 0.12 | 14000 | 1500 | 0.05 | 0.08 | 10000 | 1200 | 0.035 | 0.055 |
| | 6 | 20000 | 1080 | 0.05 | 0.08 | 14000 | 900 | 0.03 | 0.05 | 10000 | 720 | 0.02 | 0.035 |
| | 8 | 18000 | 600 | 0.015 | 0.03 | 12600 | 500 | 0.01 | 0.01 | 9000 | 400 | 0.007 | 0.007 |
| | 10 | 18000 | 420 | 0.005 | 0.01 | 12600 | 350 | 0.003 | 0.005 | 9000 | 280 | 0.002 | 0.003 |
| R1.0 | 4 | 20000 | 3000 | 0.15 | 0.25 | 14000 | 2500 | 0.1 | 0.2 | 10000 | 2000 | 0.07 | 0.14 |
| | 6 | 20000 | 1800 | 0.1 | 0.2 | 14000 | 1500 | 0.07 | 0.12 | 10000 | 1200 | 0.05 | 0.085 |
| | 8 | 20000 | 1440 | 0.05 | 0.1 | 14000 | 1200 | 0.05 | 0.08 | 10000 | 960 | 0.035 | 0.055 |
| | 10 | 20000 | 1200 | 0.03 | 0.05 | 14000 | 1000 | 0.03 | 0.05 | 10000 | 800 | 0.02 | 0.035 |
| | 12 | 16000 | 720 | 0.015 | 0.025 | 11200 | 600 | 0.01 | 0.03 | 8000 | 480 | 0.01 | 0.02 |
| | 16 | 20000 | 2400 | 0.1 | 0.25 | 14000 | 2000 | 0.08 | 0.17 | 10000 | 1600 | 0.055 | 0.12 |
| R1.2 | 8 | 20000 | 1560 | 0.08 | 0.2 | 14000 | 1300 | 0.06 | 0.15 | 10000 | 1040 | 0.04 | 0.1 |
| | 10 | 14000 | 1440 | 0.05 | 0.15 | 9800 | 1200 | 0.03 | 0.08 | 7000 | 960 | 0.02 | 0.055 |
| | 12 | 14000 | 960 | 0.03 | 0.05 | 9800 | 800 | 0.02 | 0.04 | 7000 | 640 | 0.01 | 0.03 |
| R1.5 | 6 | 20000 | 3600 | 0.15 | 0.3 | 14000 | 3000 | 0.12 | 0.24 | 10000 | 2400 | 0.075 | 0.18 |
| | 8 | 20000 | 2880 | 0.1 | 0.25 | 14000 | 2400 | 0.08 | 0.2 | 10000 | 1920 | 0.05 | 0.15 |
| | 10 | 18000 | 2160 | 0.08 | 0.2 | 12600 | 1800 | 0.064 | 0.16 | 9000 | 1440 | 0.04 | 0.12 |
| | 12 | 18000 | 1440 | 0.07 | 0.15 | 12600 | 1200 | 0.056 | 0.12 | 9000 | 960 | 0.035 | 0.09 |
| | 16 | 12000 | 960 | 0.05 | 0.1 | 8400 | 800 | 0.04 | 0.08 | 6000 | 640 | 0.025 | 0.06 |
| R2.0 | 6 | 20000 | 3600 | 0.25 | 0.5 | 14000 | 3000 | 0.2 | 0.4 | 10000 | 2400 | 0.15 | 0.3 |
| | 8 | 16000 | 3000 | 0.2 | 0.3 | 11200 | 2500 | 0.16 | 0.24 | 8000 | 2000 | 0.12 | 0.18 |
| | 10 | 16000 | 3000 | 0.15 | 0.3 | 11200 | 2500 | 0.12 | 0.24 | 8000 | 2000 | 0.09 | 0.18 |
| | 12 | 12000 | 2160 | 0.13 | 0.2 | 8400 | 1800 | 0.104 | 0.16 | 6000 | 1440 | 0.078 | 0.12 |
| | 16 | 10000 | 1920 | 0.1 | 0.15 | 7000 | 1600 | 0.08 | 0.12 | 5000 | 1280 | 0.06 | 0.09 |
| R2.5 | 10 | 8000 | 1200 | 0.06 | 0.1 | 5600 | 1000 | 0.048 | 0.08 | 4000 | 800 | 0.036 | 0.06 |
| | 10 | 16000 | 3600 | 0.2 | 0.5 | 11200 | 3000 | 0.16 | 0.4 | 8000 | 2400 | 0.14 | 0.35 |
| | 12 | 16000 | 3000 | 0.15 | 0.3 | 11200 | 2500 | 0.12 | 0.24 | 8000 | 2000 | 0.105 | 0.21 |
| | 16 | 16000 | 2160 | 0.1 | 0.2 | 11200 | 1800 | 0.08 | 0.16 | 8000 | 1440 | 0.07 | 0.14 |
| | 20 | 12000 | 1320 | 0.075 | 0.15 | 8400 | 1100 | 0.06 | 0.12 | 6000 | 880 | 0.0525 | 0.105 |
| | 30 | 8000 | 960 | 0.04 | 0.08 | 5600 | 800 | 0.032 | 0.064 | 4000 | 640 | 0.028 | 0.056 |
| R3.0 | 10 | 16000 | 4800 | 0.3 | 0.5 | 11200 | 4000 | 0.24 | 0.375 | 8000 | 3200 | 0.18 | 0.3 |
| | 12 | 16000 | 3600 | 0.2 | 0.4 | 11200 | 3000 | 0.16 | 0.3 | 8000 | 2400 | 0.12 | 0.24 |
| | 16 | 16000 | 2160 | 0.15 | 0.35 | 11200 | 1800 | 0.12 | 0.2625 | 8000 | 1440 | 0.09 | 0.21 |
| | 20 | 12000 | 1440 | 0.15 | 0.3 | 8400 | 1200 | 0.12 | 0.225 | 6000 | 960 | 0.09 | 0.18 |
| | 25 | 8000 | 960 | 0.1 | 0.2 | 5600 | 800 | 0.08 | 0.15 | 4000 | 640 | 0.06 | 0.12 |
| R3.5 | 10 | 16000 | 4800 | 0.35 | 0.6 | 11200 | 4000 | 0.28 | 0.48 | 8000 | 3200 | 0.21 | 0.36 |
| | 12 | 16000 | 4800 | 0.3 | 0.4 | 11200 | 4000 | 0.24 | 0.32 | 8000 | 3200 | 0.18 | 0.24 |
| | 16 | 16000 | 2880 | 0.2 | 0.3 | 11200 | 2400 | 0.16 | 0.24 | 8000 | 1920 | 0.12 | 0.18 |
| | 20 | 14000 | 2400 | 0.2 | 0.3 | 9800 | 2000 | 0.16 | 0.24 | 7000 | 1600 | 0.12 | 0.18 |
| | 25 | 14000 | 2400 | 0.17 | 0.3 | 9800 | 2000 | 0.136 | 0.24 | 7000 | 1600 | 0.102 | 0.18 |
| | 30 | 8000 | 1920 | 0.15 | 0.25 | 5600 | 1600 | 0.12 | 0.2 | 4000 | 1280 | 0.09 | 0.15 |
| R4.0 | 12 | 16000 | 4800 | 0.35 | 0.7 | 11200 | 4000 | 0.273 | 0.532 | 8000 | 3200 | 0.21 | 0.42 |
| | 14 | 16000 | 4800 | 0.3 | 0.6 | 11200 | 4000 | 0.234 | 0.456 | 8000 | 3200 | 0.18 | 0.36 |
| | 16 | 16000 | 4200 | 0.25 | 0.55 | 11200 | 3500 | 0.195 | 0.418 | 8000 | 2800 | 0.15 | 0.33 |
| | 20 | 14000 | 3960 | 0.2 | 0.5 | 9800 | 3300 | 0.156 | 0.38 | 7000 | 2640 | 0.12 | 0.3 |
| | 25 | 12000 | 3120 | 0.15 | 0.4 | 8400 | 2600 | 0.117 | 0.304 | 6000 | 2080 | 0.09 | 0.24 |
| | 30 | 12000 | 3120 | 0.12 | 0.25 | 8400 | 2600 | 0.0936 | 0.19 | 6000 | 2080 | 0.072 | 0.15 |
| R5.0 | 16 | 16000 | 4800 | 0.4 | 1 | 11200 | 4000 | 0.312 | 0.76 | 8000 | 3200 | 0.24 | 0.6 |
| | 20 | 16000 | 4800 | 0.35 | 0.7 | 11200 | 4000 | 0.273 | 0.532 | 8000 | 3200 | 0.21 | 0.42 |
| | 25 | 12000 | 3600 | 0.3 | 0.6 | 8400 | 3000 | 0.234 | 0.456 | 6000 | 2400 | 0.18 | 0.36 |
| | 30 | 10000 | 2880 | 0.2 | 0.5 | 7000 | 2400 | 0.156 | 0.38 | 5000 | 1920 | 0.12 | 0.3 |





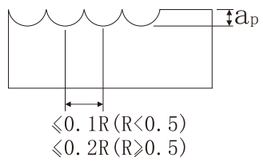
# KMRL二刃高耐磨整体合金深沟圆角刀
# KMRL四刃高耐磨整体合金深沟圆角刀



| 被削材 | | 碳素钢、合金钢 (HRC30以下) | | | | 淬火钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 0.5 | 2 | 36000 | 480 | 0.3 | 0.168 | 30000 | 400 | 0.25 | 0.14 | 25000 | 300 | 0.01 | 0.12 |
| | 4 | 30000 | 336 | 0.18 | 0.168 | 25000 | 280 | 0.15 | 0.14 | 20000 | 180 | 0.005 | 0.12 |
| | 6 | 24000 | 216 | 0.01 | 0.168 | 20000 | 180 | 0.008 | 0.14 | 16000 | 100 | 0.003 | 0.12 |
| 0.6 | 2 | 36000 | 720 | 0.042 | 0.192 | 30000 | 600 | 0.035 | 0.16 | 25000 | 400 | 0.02 | 0.13 |
| | 4 | 30000 | 480 | 0.03 | 0.192 | 25000 | 400 | 0.025 | 0.16 | 20000 | 250 | 0.015 | 0.13 |
| | 6 | 24000 | 300 | 0.018 | 0.192 | 20000 | 250 | 0.015 | 0.16 | 16000 | 150 | 0.008 | 0.13 |
| | 8 | 21600 | 216 | 0.012 | 0.192 | 18000 | 180 | 0.01 | 0.16 | 14000 | 100 | 0.005 | 0.13 |
| 0.8 | 4 | 30000 | 1200 | 0.054 | 0.3 | 25000 | 1000 | 0.045 | 0.25 | 20000 | 600 | 0.025 | 0.2 |
| | 6 | 24000 | 840 | 0.036 | 0.3 | 20000 | 700 | 0.03 | 0.25 | 16000 | 400 | 0.02 | 0.2 |
| | 8 | 21600 | 480 | 0.024 | 0.3 | 18000 | 400 | 0.02 | 0.25 | 14000 | 250 | 0.01 | 0.2 |
| 1.0 | 4 | 30000 | 1680 | 0.066 | 0.42 | 25000 | 1400 | 0.055 | 0.35 | 20000 | 800 | 0.04 | 0.28 |
| | 6 | 24000 | 1200 | 0.054 | 0.42 | 20000 | 1000 | 0.045 | 0.35 | 16000 | 600 | 0.02 | 0.28 |
| | 8 | 21600 | 840 | 0.042 | 0.42 | 18000 | 700 | 0.035 | 0.35 | 14000 | 450 | 0.02 | 0.28 |
| | 10 | 19200 | 720 | 0.03 | 0.42 | 16000 | 600 | 0.025 | 0.35 | 13000 | 350 | 0.01 | 0.28 |
| | 12 | 16800 | 420 | 0.024 | 0.42 | 14000 | 350 | 0.02 | 0.35 | 12000 | 250 | 0.008 | 0.28 |
| | 16 | 14400 | 300 | 0.012 | 0.42 | 12000 | 250 | 0.01 | 0.35 | 10000 | 150 | 0.005 | 0.28 |
| | 20 | 13200 | 180 | 0.006 | 0.42 | 11000 | 150 | 0.005 | 0.35 | 9000 | 100 | 0.003 | 0.28 |
| 1.2 | 6 | 24000 | 1560 | 0.06 | 0.48 | 20000 | 1300 | 0.05 | 0.4 | 17000 | 750 | 0.03 | 0.32 |
| | 8 | 21600 | 1320 | 0.048 | 0.48 | 18000 | 1100 | 0.04 | 0.4 | 15000 | 600 | 0.025 | 0.32 |
| | 10 | 19200 | 1080 | 0.036 | 0.48 | 16000 | 900 | 0.03 | 0.4 | 13000 | 500 | 0.02 | 0.32 |
| | 12 | 16800 | 840 | 0.03 | 0.48 | 14000 | 700 | 0.025 | 0.4 | 11000 | 400 | 0.15 | 0.32 |
| | 16 | 14400 | 420 | 0.018 | 0.48 | 12000 | 350 | 0.015 | 0.4 | 10000 | 200 | 0.008 | 0.36 |
| | 20 | 12000 | 276 | 0.012 | 0.48 | 10000 | 230 | 0.01 | 0.4 | 8000 | 150 | 0.005 | 0.36 |
| 1.5 | 6 | 24000 | 1680 | 0.096 | 0.54 | 20000 | 1400 | 0.08 | 0.45 | 18000 | 1000 | 0.045 | 0.36 |
| | 8 | 21600 | 1440 | 0.084 | 0.54 | 18000 | 1200 | 0.07 | 0.45 | 16000 | 850 | 0.04 | 0.36 |
| | 10 | 19200 | 1200 | 0.072 | 0.54 | 16000 | 1000 | 0.06 | 0.45 | 15000 | 700 | 0.035 | 0.36 |
| | 12 | 16800 | 960 | 0.06 | 0.54 | 14000 | 800 | 0.05 | 0.45 | 13000 | 550 | 0.03 | 0.36 |
| | 16 | 14400 | 720 | 0.042 | 0.54 | 12000 | 600 | 0.035 | 0.45 | 11000 | 450 | 0.018 | 0.36 |
| | 20 | 12000 | 360 | 0.024 | 0.54 | 10000 | 300 | 0.02 | 0.45 | 10000 | 1000 | 0.01 | 0.36 |
| 2.0 | 6 | 19200 | 2520 | 0.144 | 0.6 | 16000 | 2100 | 0.12 | 0.5 | 14000 | 900 | 0.05 | 0.4 |
| | 8 | 19200 | 2400 | 0.132 | 0.6 | 16000 | 2000 | 0.11 | 0.5 | 13000 | 800 | 0.045 | 0.4 |
| | 10 | 19200 | 2160 | 0.12 | 0.6 | 16000 | 1800 | 0.1 | 0.5 | 13000 | 750 | 0.04 | 0.4 |
| | 12 | 16800 | 1800 | 0.108 | 0.6 | 14000 | 1500 | 0.09 | 0.5 | 11000 | 600 | 0.03 | 0.4 |
| | 16 | 14400 | 1440 | 0.084 | 0.6 | 12000 | 1200 | 0.07 | 0.5 | 10000 | 500 | 0.02 | 0.4 |
| | 20 | 12000 | 960 | 0.06 | 0.6 | 10000 | 800 | 0.05 | 0.5 | 8000 | 350 | 0.01 | 0.4 |
| | 25 | 10800 | 720 | 0.03 | 0.6 | 9000 | 600 | 0.025 | 0.5 | 7000 | 250 | 0.008 | 0.4 |
| | 30 | 9600 | 480 | 0.024 | 0.6 | 8000 | 400 | 0.02 | 0.5 | 6400 | 200 | 0.005 | 0.4 |
| 2.5 | 10 | 15600 | 2160 | 0.168 | 0.96 | 13000 | 1800 | 0.14 | 0.8 | 11000 | 900 | 0.07 | 0.65 |
| | 12 | 14400 | 1920 | 0.144 | 0.96 | 12000 | 1600 | 0.12 | 0.8 | 9000 | 750 | 0.05 | 0.65 |
| | 16 | 13200 | 1560 | 0.12 | 0.96 | 11000 | 1300 | 0.1 | 0.8 | 8000 | 550 | 0.05 | 0.65 |
| | 20 | 10800 | 1200 | 0.096 | 0.96 | 9000 | 1000 | 0.08 | 0.8 | 7000 | 450 | 0.05 | 0.65 |
| | 25 | 9600 | 900 | 0.06 | 0.96 | 8000 | 750 | 0.05 | 0.8 | 6000 | 300 | 0.02 | 0.65 |
| | 30 | 8400 | 600 | 0.036 | 0.96 | 7000 | 500 | 0.03 | 0.8 | 5600 | 250 | 0.01 | 0.65 |
| 3.0 | 12 | 13200 | 2160 | 0.192 | 1.08 | 11000 | 1800 | 0.16 | 0.9 | 9000 | 900 | 0.08 | 0.75 |
| | 16 | 12000 | 1920 | 0.156 | 1.08 | 10000 | 1600 | 0.13 | 0.9 | 8000 | 700 | 0.07 | 0.75 |
| | 20 | 10800 | 1560 | 0.132 | 1.08 | 9000 | 1300 | 0.11 | 0.9 | 6400 | 500 | 0.05 | 0.75 |
| | 25 | 9600 | 1200 | 0.096 | 1.08 | 8000 | 1000 | 0.08 | 0.9 | 5600 | 400 | 0.03 | 0.75 |
| | 30 | 8400 | 960 | 0.072 | 1.08 | 7000 | 800 | 0.06 | 0.9 | 4800 | 300 | 0.01 | 0.75 |
| 4.0 | 12 | 10800 | 2640 | 0.264 | 1.44 | 9000 | 2200 | 0.22 | 1.2 | 7000 | 900 | 0.11 | 1 |
| | 16 | 9600 | 2400 | 0.24 | 1.44 | 8000 | 2000 | 0.2 | 1.2 | 6400 | 850 | 0.1 | 1 |
| | 20 | 9000 | 2100 | 0.192 | 1.44 | 7500 | 1750 | 0.16 | 1.2 | 6000 | 800 | 0.09 | 1 |
| | 24 | 8400 | 1800 | 0.144 | 1.44 | 7000 | 1500 | 0.12 | 1.2 | 5600 | 700 | 0.08 | 1 |
| | 32 | 7200 | 960 | 0.096 | 1.44 | 6000 | 800 | 0.08 | 1.2 | 4800 | 500 | 0.04 | 1 |
| 5.0 | 16 | 8400 | 2400 | 0.336 | 1.92 | 7000 | 2000 | 0.28 | 1.6 | 6400 | 1000 | 0.12 | 1.3 |
| | 20 | 7200 | 2160 | 0.3 | 1.92 | 6000 | 1800 | 0.25 | 1.6 | 4800 | 800 | 0.1 | 1.3 |
| | 40 | 4800 | 840 | 0.084 | 1.92 | 4000 | 700 | 0.07 | 1.6 | 3200 | 400 | 0.05 | 1.3 |

## KMBF 模具精加工二刃锥颈球头立铣刀



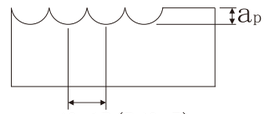
| 被加工材料 | | | 预硬钢，调制钢 ~40HRC | | | 预硬钢，调制钢 ~50HRC | | | 淬硬钢 ~55HRC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 直径 (mm) | 锥半角 (°) | 有效长度 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深$a_p$ (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深$a_p$ (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深$a_p$ (mm) |
| R0.25 | 0.5° | 3 | 30000 | 300 | 0.03 | 30000 | 270 | 0.03 | 30000 | 240 | 0.03 |
| | | 5 | 30000 | 250 | 0.02 | 30000 | 225 | 0.02 | 30000 | 200 | 0.02 |
| | 1.0° | 3 | 30000 | 330 | 0.03 | 30000 | 300 | 0.03 | 30000 | 265 | 0.03 |
| | | 5 | 30000 | 270 | 0.02 | 30000 | 245 | 0.02 | 30000 | 215 | 0.02 |
| | 1.5° | 3 | 30000 | 350 | 0.03 | 30000 | 315 | 0.03 | 30000 | 280 | 0.03 |
| | | 5 | 30000 | 300 | 0.02 | 30000 | 270 | 0.02 | 30000 | 240 | 0.02 |
| R0.30 | 0.5° | 5 | 30000 | 300 | 0.03 | 30000 | 270 | 0.03 | 30000 | 240 | 0.03 |
| | | 8 | 30000 | 250 | 0.02 | 30000 | 225 | 0.02 | 30000 | 200 | 0.02 |
| | 1.0° | 5 | 30000 | 350 | 0.03 | 30000 | 315 | 0.03 | 30000 | 280 | 0.03 |
| | | 8 | 30000 | 300 | 0.02 | 30000 | 270 | 0.02 | 30000 | 240 | 0.02 |
| | | 10 | 30000 | 270 | 0.02 | 30000 | 245 | 0.02 | 30000 | 215 | 0.02 |
| | | 12 | 30000 | 250 | 0.015 | 30000 | 225 | 0.015 | 30000 | 200 | 0.015 |
| | | 15 | 30000 | 250 | 0.01 | 30000 | 225 | 0.01 | 30000 | 200 | 0.01 |
| | 1.5° | 8 | 30000 | 350 | 0.03 | 30000 | 315 | 0.03 | 30000 | 280 | 0.03 |
| | | 15 | 30000 | 300 | 0.01 | 30000 | 270 | 0.01 | 30000 | 240 | 0.01 |
| R0.40 | 0.5° | 8 | 30000 | 350 | 0.05 | 30000 | 315 | 0.05 | 30000 | 280 | 0.05 |
| | | 12 | 30000 | 300 | 0.04 | 30000 | 270 | 0.04 | 30000 | 240 | 0.04 |
| | 1.0° | 8 | 30000 | 400 | 0.05 | 30000 | 360 | 0.05 | 30000 | 320 | 0.05 |
| | | 12 | 30000 | 350 | 0.04 | 30000 | 315 | 0.04 | 30000 | 280 | 0.04 |
| | 1.5° | 8 | 30000 | 450 | 0.05 | 30000 | 405 | 0.05 | 30000 | 360 | 0.05 |
| | | 12 | 30000 | 400 | 0.04 | 30000 | 360 | 0.04 | 30000 | 320 | 0.04 |
| R0.50 | 0.5° | 10 | 22000 | 450 | 0.05 | 22000 | 405 | 0.05 | 22000 | 360 | 0.05 |
| | | 15 | 22000 | 400 | 0.04 | 22000 | 360 | 0.04 | 22000 | 320 | 0.04 |
| | | 20 | 22000 | 370 | 0.03 | 22000 | 335 | 0.03 | 22000 | 295 | 0.03 |
| | | 25 | 22000 | 350 | 0.01 | 22000 | 315 | 0.01 | 22000 | 280 | 0.01 |
| | | 30 | 22000 | 320 | 0.005 | 22000 | 290 | 0.005 | 22000 | 255 | 0.005 |
| | 1.0° | 10 | 22000 | 500 | 0.05 | 22000 | 450 | 0.05 | 22000 | 400 | 0.05 |
| | | 15 | 22000 | 450 | 0.04 | 22000 | 405 | 0.04 | 22000 | 360 | 0.04 |
| | | 20 | 22000 | 430 | 0.02 | 22000 | 390 | 0.02 | 22000 | 345 | 0.02 |
| | | 25 | 22000 | 400 | 0.015 | 22000 | 360 | 0.015 | 22000 | 320 | 0.015 |
| | | 30 | 22000 | 360 | 0.01 | 22000 | 325 | 0.01 | 22000 | 290 | 0.01 |
| | | 35 | 22000 | 320 | 0.005 | 22000 | 290 | 0.005 | 22000 | 255 | 0.005 |
| 最大切深量 | | |   ≤0.1R(R<0.5) ≤0.2R(R≥0.5) | | | | | | | | |





## KMBF 模具精加工二刃锥颈球头立铣刀

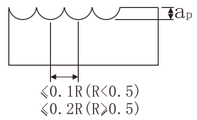


| 被加工材料 | | | 预硬钢，调制钢 ~40HRC | | | 预硬钢，调制钢 ~50HRC | | | 淬硬钢 ~55HRC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 直径 (mm) | 锥半角 (°) | 有效长度 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) |
| R0.50 | 1.5° | 10 | 22000 | 530 | 0.05 | 22000 | 475 | 0.05 | 22000 | 425 | 0.05 |
| | | 15 | 22000 | 500 | 0.04 | 22000 | 450 | 0.04 | 22000 | 400 | 0.04 |
| | | 20 | 22000 | 460 | 0.02 | 22000 | 415 | 0.02 | 22000 | 370 | 0.02 |
| | 2° | 15 | 22000 | 600 | 0.04 | 22000 | 540 | 0.04 | 22000 | 480 | 0.04 |
| | | 20 | 22000 | 500 | 0.02 | 22000 | 450 | 0.02 | 22000 | 400 | 0.02 |
| | 3° | 20 | 22000 | 550 | 0.03 | 22000 | 495 | 0.03 | 22000 | 440 | 0.03 |
| | 5° | 20 | 22000 | 600 | 0.03 | 22000 | 540 | 0.03 | 22000 | 480 | 0.03 |
| R0.60 | 0.5° | 12 | 22000 | 500 | 0.05 | 22000 | 450 | 0.05 | 22000 | 400 | 0.05 |
| | | 24 | 22000 | 400 | 0.02 | 22000 | 360 | 0.02 | 22000 | 320 | 0.02 |
| | 1.0° | 12 | 22000 | 550 | 0.05 | 22000 | 495 | 0.05 | 22000 | 440 | 0.05 |
| | | 24 | 22000 | 450 | 0.02 | 22000 | 405 | 0.02 | 22000 | 360 | 0.02 |
| | 1.5° | 12 | 22000 | 600 | 0.05 | 22000 | 540 | 0.05 | 22000 | 480 | 0.05 |
| | | 24 | 22000 | 550 | 0.02 | 22000 | 495 | 0.02 | 22000 | 440 | 0.02 |
| R0.75 | 0.5° | 10 | 20000 | 600 | 0.1 | 20000 | 540 | 0.1 | 20000 | 480 | 0.1 |
| | | 15 | 20000 | 550 | 0.08 | 20000 | 495 | 0.08 | 20000 | 440 | 0.08 |
| | | 30 | 20000 | 500 | 0.02 | 20000 | 450 | 0.02 | 20000 | 400 | 0.02 |
| | 1.0° | 10 | 20000 | 650 | 0.1 | 20000 | 585 | 0.1 | 20000 | 520 | 0.1 |
| | | 15 | 20000 | 600 | 0.08 | 20000 | 540 | 0.08 | 20000 | 480 | 0.08 |
| | | 20 | 20000 | 550 | 0.05 | 20000 | 495 | 0.05 | 20000 | 440 | 0.05 |
| | | 30 | 20000 | 530 | 0.02 | 20000 | 480 | 0.02 | 20000 | 425 | 0.02 |
| | 1.5° | 10 | 20000 | 700 | 0.1 | 20000 | 630 | 0.1 | 20000 | 560 | 0.1 |
| | | 15 | 20000 | 650 | 0.08 | 20000 | 585 | 0.08 | 20000 | 520 | 0.08 |
| | | 30 | 20000 | 600 | 0.02 | 20000 | 540 | 0.02 | 20000 | 480 | 0.02 |
| R1.0 | 0.5° | 20 | 18000 | 800 | 0.05 | 18000 | 720 | 0.05 | 18000 | 640 | 0.05 |
| | | 30 | 18000 | 650 | 0.03 | 18000 | 585 | 0.03 | 18000 | 520 | 0.03 |
| | | 40 | 18000 | 500 | 0.02 | 18000 | 450 | 0.02 | 18000 | 400 | 0.02 |
| | 1.0° | 20 | 18000 | 900 | 0.05 | 18000 | 810 | 0.05 | 18000 | 720 | 0.05 |
| | | 25 | 18000 | 850 | 0.04 | 18000 | 765 | 0.04 | 18000 | 680 | 0.04 |
| | | 30 | 18000 | 800 | 0.03 | 18000 | 720 | 0.03 | 18000 | 640 | 0.03 |
| | | 35 | 18000 | 750 | 0.03 | 18000 | 675 | 0.03 | 18000 | 600 | 0.03 |
| | | 40 | 18000 | 600 | 0.02 | 18000 | 540 | 0.02 | 18000 | 480 | 0.02 |
| | | 50 | 18000 | 550 | 0.02 | 18000 | 495 | 0.02 | 18000 | 440 | 0.02 |
| 最大切深量 | | |   ≤0.1R(R<0.5) ≤0.2R(R≥0.5) | | | | | | | | |

## KMBF 模具精加工二刃锥颈球头立铣刀



| 被加工材料 | | | 预硬钢，调制钢 ~40HRC | | | 预硬钢，调制钢 ~50HRC | | | 淬硬钢 ~55HRC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 直径 (mm) | 锥半角 (°) | 有效长度 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 切深ap (mm) |
| R1.0 | 1.5° | 20 | 18000 | 1000 | 0.05 | 18000 | 900 | 0.05 | 18000 | 800 | 0.05 |
| | | 30 | 18000 | 900 | 0.03 | 18000 | 810 | 0.03 | 18000 | 720 | 0.03 |
| | | 40 | 18000 | 750 | 0.03 | 18000 | 675 | 0.03 | 18000 | 600 | 0.03 |
| | 2° | 30 | 18000 | 900 | 0.04 | 18000 | 810 | 0.04 | 18000 | 720 | 0.04 |
| | | 40 | 18000 | 850 | 0.03 | 18000 | 765 | 0.03 | 18000 | 680 | 0.03 |
| | 3° | 30 | 18000 | 1000 | 0.04 | 18000 | 900 | 0.04 | 18000 | 800 | 0.04 |
| | | 40 | 18000 | 900 | 0.03 | 18000 | 810 | 0.03 | 18000 | 720 | 0.03 |
| R1.5 | 0.5° | 30 | 16000 | 1100 | 0.1 | 16000 | 990 | 0.1 | 16000 | 880 | 0.1 |
| | | 40 | 16000 | 950 | 0.06 | 16000 | 855 | 0.06 | 16000 | 760 | 0.06 |
| | | 50 | 16000 | 800 | 0.03 | 16000 | 720 | 0.03 | 16000 | 640 | 0.03 |
| | 1.0° | 30 | 16000 | 1200 | 0.1 | 16000 | 1080 | 0.1 | 16000 | 960 | 0.1 |
| | | 40 | 16000 | 1000 | 0.06 | 16000 | 900 | 0.06 | 16000 | 800 | 0.06 |
| | | 50 | 16000 | 850 | 0.03 | 16000 | 765 | 0.03 | 16000 | 680 | 0.03 |
| R1.5 | 1.5° | 30 | 16000 | 1300 | 0.1 | 16000 | 1170 | 0.1 | 16000 | 1040 | 0.1 |
| | | 40 | 16000 | 1100 | 0.06 | 16000 | 990 | 0.06 | 16000 | 880 | 0.06 |
| | | 50 | 16000 | 950 | 0.03 | 16000 | 855 | 0.03 | 16000 | 760 | 0.03 |
| R2.0 | 0.5° | 60 | 14000 | 1100 | 0.1 | 14000 | 990 | 0.1 | 14000 | 880 | 0.1 |
| | 1.0° | 60 | 14000 | 1100 | 0.1 | 14000 | 990 | 0.1 | 14000 | 880 | 0.1 |

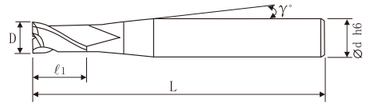
| | |
|---|---|
| 最大切深量 |  ⩽0.1R(R<0.5) ⩽0.2R(R⩾0.5) |





## KHEI 二刃高硬度小径整体合金立铣刀






$\varnothing D\ ^{0}_{-0.015}$ (D≤3)

UMG WX 15 HRC ▶65

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KHEI2003-0350 | 0.3 | 0.6 | 10 | 50 | 3 |
| KHEI2004-0350 | 0.4 | 0.8 | 10 | 50 | 3 |
| KHEI2005-0350 | 0.5 | 1 | 10 | 50 | 3 |
| KHEI2006-0350 | 0.6 | 1.2 | 10 | 50 | 3 |
| KHEI2007-0350 | 0.7 | 1.4 | 10 | 50 | 3 |
| KHEI2008-0350 | 0.8 | 1.6 | 10 | 50 | 3 |
| KHEI2009-0350 | 0.9 | 1.8 | 10 | 50 | 3 |
| KHEI2010-0350 | 1 | 2 | 10 | 50 | 3 |
| KHEI2011-0350 | 1.1 | 2 | 10 | 50 | 3 |
| KHEI2012-0350 | 1.2 | 2.5 | 10 | 50 | 3 |
| KHEI2013-0350 | 1.3 | 2.5 | 10 | 50 | 3 |
| KHEI2014-0350 | 1.4 | 3 | 10 | 50 | 3 |
| KHEI2015-0350 | 1.5 | 3 | 10 | 50 | 3 |
| KHEI2016-0350 | 1.6 | 3.5 | 10 | 50 | 3 |
| KHEI2017-0350 | 1.7 | 3.5 | 10 | 50 | 3 |
| KHEI2018-0350 | 1.8 | 4 | 10 | 50 | 3 |
| KHEI2019-0350 | 1.9 | 4 | 10 | 50 | 3 |
| KHEI2020-0350 | 2 | 4 | 10 | 50 | 3 |
| KHEI2021-0350 | 2.1 | 4 | 10 | 50 | 3 |
| KHEI2022-0350 | 2.2 | 4.5 | 10 | 50 | 3 |
| KHEI2023-0350 | 2.3 | 4.5 | 10 | 50 | 3 |
| KHEI2024-0350 | 2.4 | 5 | 10 | 50 | 3 |
| KHEI2025-0350 | 2.5 | 5 | 10 | 50 | 3 |
| KHEI2026-0350 | 2.6 | 5 | 10 | 50 | 3 |
| KHEI2027-0350 | 2.7 | 5.5 | 10 | 50 | 3 |
| KHEI2028-0350 | 2.8 | 5.5 | 10 | 50 | 3 |
| KHEI2029-0350 | 2.9 | 6 | 10 | 50 | 3 |
| KHEI2030-0350 | 3 | 6 | - | 50 | 3 |

☆推介切削参数请参考P114

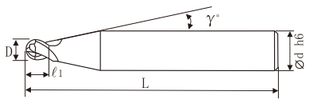
## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | ○ | ○ | | ○ | | | | | | |

## KHBI 二刃高硬度小径整体合金球头立铣刀






$\varnothing D\ ^{0}_{-0.015}$ (D≤3)

$\varnothing D\ \pm 0.05$ (D≤3)

UMG WX 30° HRC▶65

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KHBI2003-0350 | 0.3 | 0.15 | 0.5 | 10 | 50 | 3 |
| KHBI2004-0350 | 0.4 | 0.2 | 0.6 | 10 | 50 | 3 |
| KHBI2005-0350 | 0.5 | 0.25 | 0.8 | 10 | 50 | 3 |
| KHBI2006-0350 | 0.6 | 0.3 | 0.9 | 10 | 50 | 3 |
| KHBI2007-0350 | 0.7 | 0.35 | 1 | 10 | 50 | 3 |
| KHBI2008-0350 | 0.8 | 0.4 | 1.2 | 10 | 50 | 3 |
| KHBI2009-0350 | 0.9 | 0.45 | 1.3 | 10 | 50 | 3 |
| KHBI2010-0350 | 1 | 0.5 | 1.5 | 10 | 50 | 3 |
| KHBI2012-0350 | 1.2 | 0.6 | 1.8 | 10 | 50 | 3 |
| KHBI2014-0350 | 1.4 | 0.7 | 2 | 10 | 50 | 3 |
| KHBI2015-0350 | 1.5 | 0.75 | 2.3 | 10 | 50 | 3 |
| KHBI2016-0350 | 1.6 | 0.8 | 2.5 | 10 | 50 | 3 |
| KHBI2018-0350 | 1.8 | 0.9 | 2.7 | 10 | 50 | 3 |
| KHBI2020-0350 | 2 | 1 | 3 | 10 | 50 | 3 |
| KHBI2025-0350 | 2.5 | 1.25 | 3.7 | 10 | 50 | 3 |
| KHBI2030-0350 | 3 | 1.5 | 4.5 | - | 50 | 3 |

☆推介切削参数请参考P114

## 可切削材料适用表

○ 非常适合 ○ 适合

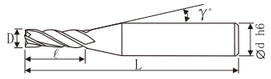
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ◎ | ◎ | ◎ | ◎ | | ○ | | | | | | |

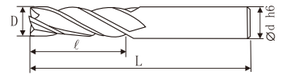




## KHEF 四刃高硬度整体合金立铣刀






$\varnothing D\ ^{0}_{-0.01}$ (D≤3)

$\varnothing D\ ^{0}_{-0.015}$ (3<D≤10)

$\varnothing D\ ^{0}_{-0.018}$ (10<D≤20)

UMG WX 30° HRC▶65

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KHEF4010-0450 | 1 | 3 | 11 | 50 | 4 |
| KHEF4010-0650 | 1 | 3 | 11 | 50 | 6 |
| KHEF4015-0450 | 1.5 | 4 | 11 | 50 | 4 |
| KHEF4015-0650 | 1.5 | 4 | 11 | 50 | 6 |
| KHEF4020-0450 | 2 | 6 | 11 | 50 | 4 |
| KHEF4020-0650 | 2 | 6 | 11 | 50 | 6 |
| KHEF4025-0450 | 2.5 | 7 | 11 | 50 | 4 |
| KHEF4025-0650 | 2.5 | 8 | 11 | 50 | 6 |
| KHEF4030-0450 | 3 | 8 | 11 | 50 | 4 |
| KHEF4030-0650 | 3 | 8 | 11 | 50 | 6 |
| KHEF4030-0675 | 3 | 12 | 11 | 75 | 6 |
| KHEF4040-0450 | 4 | 11 | - | 50 | 4 |
| KHEF4040-0650 | 4 | 11 | 11 | 50 | 6 |
| KHEF4040-0675 | 4 | 15 | 11 | 75 | 6 |
| KHEF4050-0650 | 5 | 13 | 11 | 50 | 6 |
| KHEF4050-0675 | 5 | 18 | 11 | 75 | 6 |
| KHEF4060-0650 | 6 | 16 | - | 50 | 6 |
| KHEF4060-0660 | 6 | 16 | - | 60 | 6 |
| KHEF4060-0675 | 6 | 20 | - | 75 | 6 |
| KHEF4080-0860 | 8 | 20 | - | 60 | 8 |
| KHEF4080-0875 | 8 | 20 | - | 75 | 8 |
| KHEF4080-08100 | 8 | 25 | - | 100 | 8 |
| KHEF4100-1075 | 10 | 25 | - | 75 | 10 |
| KHEF4100-10100 | 10 | 30 | - | 100 | 10 |
| KHEF4120-1275 | 12 | 25 | - | 75 | 12 |
| KHEF4120-12100 | 12 | 35 | - | 100 | 12 |
| KHEF4140-1475 | 14 | 32 | - | 75 | 14 |
| KHEF4140-14100 | 14 | 40 | - | 100 | 14 |
| KHEF4160-16100 | 16 | 45 | - | 100 | 16 |
| KHEF4160-16150 | 16 | 50 | - | 150 | 16 |
| KHEF4200-20100 | 20 | 45 | - | 100 | 20 |
| KHEF4200-20150 | 20 | 55 | - | 150 | 20 |

☆推介切削参数请参考P115

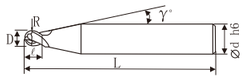
## 可切削材料适用表

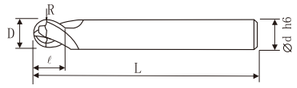
○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHB 二刃高硬度整体合金球头立铣刀






ØD $^{0}_{-0.005}$ (0.5<D≤6)

ØD $^{0}_{-0.008}$ (6<D≤20)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KHB2005-0450 | 0.5 | 0.25 | 0.4 | 0.46 | 11 | 50 | 4 |
| KHB2006-0450 | 0.6 | 0.3 | 0.5 | 0.56 | 11 | 50 | 4 |
| KHB2008-0450 | 0.8 | 0.4 | 0.6 | 0.76 | 11 | 50 | 4 |
| KHB2010-0450 | 1 | 0.5 | 0.8 | 0.94 | 11 | 50 | 4 |
| KHB2010-0650 | 1 | 0.5 | 0.8 | 0.94 | 11 | 50 | 6 |
| KHB2010-0660 | 1 | 0.5 | 0.8 | 0.94 | 11 | 60 | 6 |
| KHB2010-0675 | 1 | 0.5 | 0.8 | 0.94 | 11 | 75 | 6 |
| KHB2015-0450 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 50 | 4 |
| KHB2015-0650 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 50 | 6 |
| KHB2015-0660 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 60 | 6 |
| KHB2015-0675 | 1.5 | 0.75 | 1.2 | 1.42 | 11 | 75 | 6 |
| KHB2020-0450 | 2 | 1 | 1.6 | 1.9 | 11 | 50 | 4 |
| KHB2020-0650 | 2 | 1 | 1.6 | 1.9 | 11 | 50 | 6 |
| KHB2020-0660 | 2 | 1 | 1.6 | 1.9 | 11 | 60 | 6 |
| KHB2020-0675 | 2 | 1 | 1.6 | 1.9 | 11 | 75 | 6 |
| KHB2025-0450 | 2.5 | 1.25 | 2 | 2.4 | 11 | 50 | 4 |
| KHB2025-0650 | 2.5 | 1.25 | 2 | 2.4 | 11 | 50 | 6 |
| KHB2025-0660 | 2.5 | 1.25 | 2 | 2.4 | 11 | 60 | 6 |
| KHB2025-0675 | 2.5 | 1.25 | 2 | 2.4 | 11 | 75 | 6 |
| KHB2030-0450 | 3 | 1.5 | 2.4 | 2.9 | 11 | 50 | 4 |
| KHB2030-0650 | 3 | 1.5 | 2.4 | 2.9 | 11 | 50 | 6 |
| KHB2030-0660 | 3 | 1.5 | 2.4 | 2.9 | 11 | 60 | 6 |
| KHB2030-0675 | 3 | 1.5 | 2.4 | 2.9 | 11 | 75 | 6 |
| KHB2040-0450 | 4 | 2 | 6 | 3.9 | 11 | 50 | 4 |
| KHB2040-0650 | 4 | 2 | 3.2 | 3.9 | 11 | 50 | 6 |
| KHB2040-0660 | 4 | 2 | 3.2 | 3.9 | 11 | 60 | 6 |
| KHB2040-0675 | 4 | 2 | 3.2 | 3.9 | 11 | 75 | 6 |
| KHB2050-0650 | 5 | 2.5 | 4 | 4.85 | 11 | 50 | 6 |
| KHB2050-0660 | 5 | 2.5 | 4 | 4.85 | 11 | 60 | 6 |
| KHB2050-0675 | 5 | 2.5 | 4 | 4.85 | 11 | 75 | 6 |
| KHB2060-0650 | 6 | 3 | 9 | - | - | 50 | 6 |
| KHB2060-0660 | 6 | 3 | 9 | - | - | 60 | 6 |
| KHB2060-0675 | 6 | 3 | 9 | - | - | 75 | 6 |
| KHB2060-06100 | 6 | 3 | 9 | - | - | 100 | 6 |
| KHB2080-0860 | 8 | 4 | 12 | - | - | 60 | 8 |
| KHB2080-0875 | 8 | 4 | 12 | - | - | 75 | 8 |
| KHB2080-08100 | 8 | 4 | 12 | - | - | 100 | 8 |
| KHB2100-1075 | 10 | 5 | 15 | - | - | 75 | 10 |
| KHB2100-10100 | 10 | 5 | 15 | - | - | 100 | 10 |
| KHB2120-1275 | 12 | 6 | 18 | - | - | 75 | 12 |
| KHB2120-12100 | 12 | 6 | 18 | - | - | 100 | 12 |
| KHB2160-16100 | 16 | 8 | 24 | - | - | 100 | 16 |
| KHB2160-16150 | 16 | 8 | 24 | - | - | 150 | 16 |

☆推介切削参数请参考P116

## 可切削材料适用表

◎ 非常适合 ○ 适合

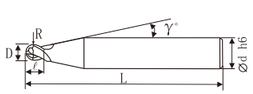
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS / 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

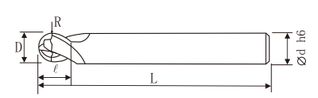




## KHBP 二刃高硬度强力型整体合金球头立铣刀






ØD $^{0}_{-0.005}$ (0.5<D≤6)

ØD $^{0}_{-0.008}$ (6<D≤20)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KHBP2020-0650 | 2 | 1 | 1.6 | 1.9 | 11 | 50 | 6 |
| KHBP2020-0660 | | 1 | 1.6 | 1.9 | 11 | 60 | 6 |
| KHBP2020-0675 | | 1 | 1.6 | 1.9 | 11 | 75 | 6 |
| KHBP2030-0650 | 3 | 1.5 | 2.4 | 2.9 | 11 | 50 | 6 |
| KHBP2030-0660 | | 1.5 | 2.4 | 2.9 | 11 | 60 | 6 |
| KHBP2030-0675 | | 1.5 | 2.4 | 2.9 | 11 | 75 | 6 |
| KHBP2040-0650 | 4 | 2 | 3.2 | 3.9 | 11 | 50 | 6 |
| KHBP2040-0660 | | 2 | 3.2 | 3.9 | 11 | 60 | 6 |
| KHBP2040-0675 | | 2 | 3.2 | 3.9 | 11 | 75 | 6 |
| KHBP2060-0650 | 6 | 3 | 4.8 | 5.85 | - | 50 | 6 |
| KHBP2060-0660 | | 3 | 4.8 | 5.85 | - | 60 | 6 |
| KHBP2060-0675 | | 3 | 4.8 | 5.85 | - | 75 | 6 |
| KHBP2080-0860 | 8 | 4 | 6.4 | 7.8 | - | 60 | 8 |
| KHBP2080-0875 | | 4 | 6.4 | 7.8 | - | 75 | 8 |
| KHBP2080-08100 | | 4 | 6.4 | 7.8 | - | 100 | 8 |
| KHBP2100-1075 | 10 | 5 | 8 | 9.8 | - | 75 | 10 |
| KHBP2100-10100 | | 5 | 8 | 9.8 | - | 100 | 10 |
| KHBP2120-1275 | 12 | 6 | 9.6 | 11.7 | - | 75 | 12 |
| KHBP2120-12100 | | 6 | 9.6 | 11.7 | - | 100 | 12 |
| KHBP2160-16100 | 16 | 8 | 12.8 | 15.7 | - | 100 | 16 |
| KHBP2160-16150 | | 8 | 12.8 | 15.7 | - | 150 | 16 |

☆推介切削参数请参考P116

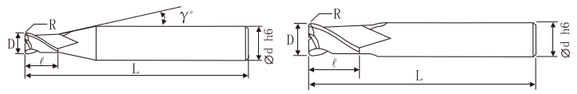
## 可切削材料适用表

◎ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS / 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHR 二刃高硬度整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KHR2010R0.2-0450 | 1 | 0.2 | 2 | 11 | 50 | 4 |
| KHR2015R0.2-0450 | 1.5 | 0.2 | 3 | 11 | 50 | 4 |
| KHR2020R0.2-0450 | 2 | 0.2 | 4 | 11 | 50 | 4 |
| KHR2020R0.5-0450 | | 0.5 | 4 | 11 | 50 | 4 |
| KHR2025R0.2-0450 | 2.5 | 0.2 | 5 | 11 | 50 | 4 |
| KHR2025R0.5-0450 | | 0.5 | 5 | 11 | 50 | 4 |
| KHR2030R0.2-0450 | 3 | 0.2 | 6 | 11 | 50 | 4 |
| KHR2030R0.2-0650 | | 0.2 | 6 | 11 | 50 | 6 |
| KHR2030R0.2-0660 | | 0.2 | 6 | 11 | 60 | 6 |
| KHR2030R0.2-0675 | | 0.2 | 6 | 11 | 75 | 6 |
| KHR2030R0.5-0450 | | 0.5 | 6 | 11 | 50 | 4 |
| KHR2030R0.5-0650 | | 0.5 | 6 | 11 | 50 | 6 |
| KHR2030R0.5-0660 | | 0.5 | 6 | 11 | 60 | 6 |
| KHR2030R0.5-0675 | | 0.5 | 6 | 11 | 75 | 6 |
| KHR2040R0.2-0450 | 4 | 0.2 | 8 | - | 50 | 4 |
| KHR2040R0.2-0650 | | 0.2 | 8 | 11 | 50 | 6 |
| KHR2040R0.2-0660 | | 0.2 | 8 | 11 | 60 | 6 |
| KHR2040R0.2-0675 | | 0.2 | 8 | 11 | 75 | 6 |
| KHR2040R0.5-0450 | | 0.5 | 8 | - | 50 | 4 |
| KHR2040R0.5-0650 | | 0.5 | 8 | 11 | 50 | 6 |
| KHR2040R0.5-0660 | | 0.5 | 8 | 11 | 60 | 6 |
| KHR2040R0.5-0675 | | 0.5 | 8 | 11 | 75 | 6 |
| KHR2040R1.0-0450 | | 1 | 8 | - | 50 | 4 |
| KHR2040R1.0-0650 | | 1 | 8 | 11 | 50 | 6 |
| KHR2040R1.0-0660 | | 1 | 8 | 11 | 60 | 6 |
| KHR2040R1.0-0675 | | 1 | 8 | 11 | 75 | 6 |
| KHR2060R0.5-0650 | 6 | 0.5 | 12 | - | 50 | 6 |
| KHR2060R0.5-0660 | | 0.5 | 12 | - | 60 | 6 |
| KHR2060R0.5-0675 | | 0.5 | 12 | - | 75 | 6 |
| KHR2060R1.0-0650 | | 1 | 12 | - | 50 | 6 |
| KHR2060R1.0-0660 | | 1 | 12 | - | 60 | 6 |
| KHR2060R1.0-0675 | | 1 | 12 | - | 75 | 6 |
| KHR2080R0.5-0860 | 8 | 0.5 | 16 | - | 60 | 8 |
| KHR2080R0.5-0875 | | 0.5 | 16 | - | 75 | 8 |
| KHR2080R0.5-08100 | | 0.5 | 16 | - | 100 | 8 |
| KHR2080R1.0-0860 | | 1 | 16 | - | 60 | 8 |
| KHR2080R1.0-0875 | | 1 | 16 | - | 75 | 8 |
| KHR2080R1.0-08100 | | 1 | 16 | - | 100 | 8 |
| KHR2100R0.5-1075 | 10 | 0.5 | 20 | - | 75 | 10 |
| KHR2100R0.5-10100 | | 0.5 | 20 | - | 100 | 10 |
| KHR2100R1.0-1075 | | 1 | 20 | - | 75 | 10 |
| KHR2100R1.0-10100 | | 1 | 20 | - | 100 | 10 |
| KHR2120R0.5-1275 | 12 | 0.5 | 24 | - | 75 | 12 |
| KHR2120R0.5-12100 | | 0.5 | 24 | - | 100 | 12 |
| KHR2120R1.0-1275 | | 1 | 24 | - | 75 | 12 |
| KHR2120R1.0-12100 | | 1 | 24 | - | 100 | 12 |
| KHR2120R2.0-1275 | | 2 | 24 | - | 75 | 12 |
| KHR2120R2.0-12100 | | 2 | 24 | - | 100 | 12 |

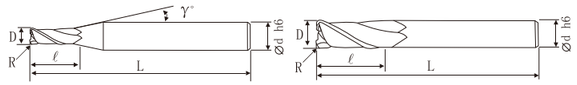
☆推介切削参数请参考P117





## KHR 四刃高硬度整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KHR4030R0.2-0450 | 3 | 0.2 | 6 | 11 | 50 | 4 |
| KHR4030R0.2-0650 | | 0.2 | 6 | 11 | 50 | 6 |
| KHR4030R0.2-0660 | | 0.2 | 6 | 11 | 60 | 6 |
| KHR4030R0.2-0675 | | 0.2 | 6 | 11 | 75 | 6 |
| KHR4030R0.5-0450 | | 0.5 | 6 | 11 | 50 | 4 |
| KHR4030R0.5-0650 | | 0.5 | 6 | 11 | 50 | 6 |
| KHR4030R0.5-0660 | | 0.5 | 6 | 11 | 60 | 6 |
| KHR4030R0.5-0675 | | 0.5 | 6 | 11 | 75 | 6 |
| KHR4040R0.2-0450 | 4 | 0.2 | 8 | - | 50 | 4 |
| KHR4040R0.2-0650 | | 0.2 | 8 | 11 | 50 | 6 |
| KHR4040R0.2-0660 | | 0.2 | 8 | 11 | 60 | 6 |
| KHR4040R0.2-0675 | | 0.2 | 8 | 11 | 75 | 6 |
| KHR4040R0.5-0450 | | 0.5 | 8 | - | 50 | 4 |
| KHR4040R0.5-0650 | | 0.5 | 8 | 11 | 50 | 6 |
| KHR4040R0.5-0660 | | 0.5 | 8 | 11 | 60 | 6 |
| KHR4040R0.5-0675 | | 0.5 | 8 | 11 | 75 | 6 |
| KHR4040R1.0-0450 | | 1 | 8 | - | 50 | 4 |
| KHR4040R1.0-0650 | | 1 | 8 | 11 | 50 | 6 |
| KHR4040R1.0-0660 | | 1 | 8 | 11 | 60 | 6 |
| KHR4040R1.0-0675 | | 1 | 8 | 11 | 75 | 6 |
| KHR4060R0.2-0650 | 6 | 0.2 | 12 | - | 50 | 6 |
| KHR4060R0.2-0660 | | 0.2 | 12 | - | 60 | 6 |
| KHR4060R0.2-0675 | | 0.2 | 12 | - | 75 | 6 |
| KHR4060R0.5-0650 | | 0.5 | 12 | - | 50 | 6 |
| KHR4060R0.5-0660 | | 0.5 | 12 | - | 60 | 6 |
| KHR4060R0.5-0675 | | 0.5 | 12 | - | 75 | 6 |
| KHR4060R1.0-0650 | | 1 | 12 | - | 50 | 6 |
| KHR4060R1.0-0660 | | 1 | 12 | - | 60 | 6 |
| KHR4060R1.0-0675 | | 1 | 12 | - | 75 | 6 |
| KHR4080R0.5-0860 | 8 | 0.5 | 16 | - | 60 | 8 |
| KHR4080R0.5-0875 | | 0.5 | 16 | - | 75 | 8 |
| KHR4080R0.5-08100 | | 0.5 | 16 | - | 100 | 8 |
| KHR4080R1.0-0860 | | 1 | 16 | - | 60 | 8 |
| KHR4080R1.0-0875 | | 1 | 16 | - | 75 | 8 |
| KHR4080R1.0-08100 | | 1 | 16 | - | 100 | 8 |
| KHR4100R0.5-1075 | 10 | 0.5 | 20 | - | 75 | 10 |
| KHR4100R0.5-10100 | | 0.5 | 20 | - | 100 | 10 |
| KHR4100R1.0-1075 | | 1 | 20 | - | 75 | 10 |
| KHR4100R1.0-10100 | | 1 | 20 | - | 100 | 10 |
| KHR4120R0.5-1275 | 12 | 0.5 | 24 | - | 75 | 12 |
| KHR4120R0.5-12100 | | 0.5 | 24 | - | 100 | 12 |
| KHR4120R1.0-1275 | | 1 | 24 | - | 75 | 12 |
| KHR4120R1.0-12100 | | 1 | 24 | - | 100 | 12 |
| KHR4120R2.0-1275 | | 2 | 24 | - | 75 | 12 |
| KHR4120R2.0-12100 | | 2 | 24 | - | 100 | 12 |

☆推介切削参数请参考P118

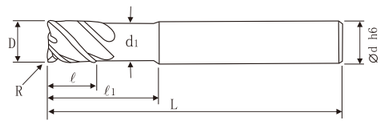
## 可切削材料适用表

◎ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHRP 四刃高硬度短刃整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)

UMG WX 30 HRC ▶65

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KHRP4030R0.2-0450 | 3 | 0.2 | 9 | 3 | 2.9 | 50 | 4 |
| KHRP4030R0.2-0650 | | 0.2 | 9 | 3 | 2.9 | 50 | 6 |
| KHRP4030R0.2-0660 | | 0.2 | 9 | 3 | 2.9 | 60 | 6 |
| KHRP4030R0.2-0675 | | 0.2 | 9 | 3 | 2.9 | 75 | 6 |
| KHRP4030R0.5-0450 | | 0.5 | 9 | 3 | 2.9 | 50 | 4 |
| KHRP4030R0.5-0650 | | 0.5 | 9 | 3 | 2.9 | 50 | 6 |
| KHRP4030R0.5-0660 | | 0.5 | 9 | 3 | 2.9 | 60 | 6 |
| KHRP4030R0.5-0675 | | 0.5 | 9 | 3 | 2.9 | 75 | 6 |
| KHRP4040R0.2-0450 | 4 | 0.2 | 12 | 4 | 3.9 | 50 | 4 |
| KHRP4040R0.2-0650 | | 0.2 | 12 | 4 | 3.9 | 50 | 6 |
| KHRP4040R0.2-0660 | | 0.2 | 12 | 4 | 3.9 | 60 | 6 |
| KHRP4040R0.2-0675 | | 0.2 | 12 | 4 | 3.9 | 75 | 6 |
| KHRP4040R0.5-0450 | | 0.5 | 12 | 4 | 3.9 | 50 | 4 |
| KHRP4040R0.5-0650 | | 0.5 | 12 | 4 | 3.9 | 50 | 6 |
| KHRP4040R0.5-0660 | | 0.5 | 12 | 4 | 3.9 | 60 | 6 |
| KHRP4040R0.5-0675 | | 0.5 | 12 | 4 | 3.9 | 75 | 6 |
| KHRP4040R1.0-0450 | | 1 | 12 | 4 | 3.9 | 50 | 4 |
| KHRP4040R1.0-0650 | | 1 | 12 | 4 | 3.9 | 50 | 6 |
| KHRP4040R1.0-0660 | | 1 | 12 | 4 | 3.9 | 60 | 6 |
| KHRP4040R1.0-0675 | | 1 | 12 | 4 | 3.9 | 75 | 6 |
| KHRP4060R0.2-0650 | 6 | 0.2 | 18 | 6 | 5.85 | 50 | 6 |
| KHRP4060R0.2-0660 | | 0.2 | 18 | 6 | 5.85 | 60 | 6 |
| KHRP4060R0.2-0675 | | 0.2 | 18 | 6 | 5.85 | 75 | 6 |
| KHRP4060R0.5-0650 | | 0.5 | 18 | 6 | 5.85 | 50 | 6 |
| KHRP4060R0.5-0660 | | 0.5 | 18 | 6 | 5.85 | 60 | 6 |
| KHRP4060R0.5-0675 | | 0.5 | 18 | 6 | 5.85 | 75 | 6 |
| KHRP4060R1.0-0650 | | 1 | 18 | 6 | 5.85 | 50 | 6 |
| KHRP4060R1.0-0660 | | 1 | 18 | 6 | 5.85 | 60 | 6 |
| KHRP4060R1.0-0675 | | 1 | 18 | 6 | 5.85 | 75 | 6 |
| KHRP4080R0.5-0860 | 8 | 0.5 | 24 | 8 | 7.8 | 60 | 8 |
| KHRP4080R0.5-0875 | | 0.5 | 24 | 8 | 7.8 | 75 | 8 |
| KHRP4080R0.5-08100 | | 0.5 | 24 | 8 | 7.8 | 100 | 8 |
| KHRP4080R1.0-0860 | | 1 | 24 | 8 | 7.8 | 60 | 8 |
| KHRP4080R1.0-0875 | | 1 | 24 | 8 | 7.8 | 75 | 8 |
| KHRP4080R1.0-08100 | | 1 | 24 | 8 | 7.8 | 100 | 8 |
| KHRP4100R0.5-1075 | 10 | 0.5 | 30 | 10 | 9.8 | 75 | 10 |
| KHRP4100R0.5-10100 | | 0.5 | 30 | 10 | 9.8 | 100 | 10 |
| KHRP4100R1.0-1075 | | 1 | 30 | 10 | 9.8 | 75 | 10 |
| KHRP4100R1.0-10100 | | 1 | 30 | 10 | 9.8 | 100 | 10 |
| KHRP4120R0.5-1275 | 12 | 0.5 | 36 | 12 | 11.7 | 75 | 12 |
| KHRP4120R0.5-12100 | | 0.5 | 36 | 12 | 11.7 | 100 | 12 |
| KHRP4120R1.0-1275 | | 1 | 36 | 12 | 11.7 | 75 | 12 |
| KHRP4120R1.0-12100 | | 1 | 36 | 12 | 11.7 | 100 | 12 |
| KHRP4120R2.0-1275 | | 2 | 36 | 12 | 11.7 | 75 | 12 |
| KHRP4120R2.0-12100 | | 2 | 36 | 12 | 11.7 | 100 | 12 |

☆推介切削参数请参考P118

### 可切削材料适用表

◎ 非常适合 ○ 适合

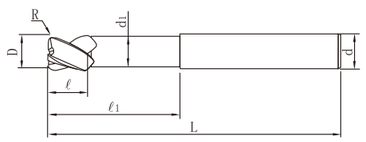
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |





## KHRT 四刃高硬度强力型整体合金圆角刀






ØD 0 -0.01 (D≤3)
ØD 0 -0.015 (3<D≤10)
ØD 0 -0.018 (10<D≤12)

UMG WX 30 HRC ▶65

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KHRT4030R0.5-0650 | 3 | 0.5 | 1.2 | 8 | 2.9 | 50 | 6 |
| KHRT4030R0.5-0675 | | 0.5 | 1.2 | 8 | 2.9 | 75 | 6 |
| KHRT4030R1.0-0650 | | 1 | 1.2 | 8 | 2.9 | 50 | 6 |
| KHRT4030R1.0-0675 | | 1 | 1.2 | 8 | 2.9 | 75 | 6 |
| KHRT4040R0.5-0650 | 4 | 0.5 | 1.6 | 10 | 3.9 | 50 | 6 |
| KHRT4040R0.5-0675 | | 0.5 | 1.6 | 10 | 3.9 | 75 | 6 |
| KHRT4040R1.0-0650 | | 1 | 1.6 | 10 | 3.9 | 50 | 6 |
| KHRT4040R1.0-0675 | | 1 | 1.6 | 10 | 3.9 | 75 | 6 |
| KHRT4050R1.0-0650 | 5 | 1 | 2 | 12 | 4.85 | 50 | 6 |
| KHRT4050R1.0-0675 | | 1 | 2 | 12 | 4.85 | 75 | 6 |
| KHRT4060R1.0-0650 | 6 | 1 | 2.5 | 12 | 5.85 | 50 | 6 |
| KHRT4060R1.0-0675 | | 1 | 2.5 | 12 | 5.85 | 75 | 6 |
| KHRT4060R1.5-0650 | | 1.5 | 2.5 | 12 | 5.85 | 50 | 6 |
| KHRT4060R1.5-0675 | | 1.5 | 2.5 | 12 | 5.85 | 75 | 6 |
| KHRT4080R1.0-0875 | 8 | 1 | 3.5 | 16 | 7.8 | 75 | 8 |
| KHRT4080R1.0-08100 | | 1 | 3.5 | 16 | 7.8 | 100 | 8 |
| KHRT4080R2.0-0875 | | 2 | 3.5 | 16 | 7.8 | 75 | 8 |
| KHRT4080R2.0-08100 | | 2 | 3.5 | 16 | 7.8 | 100 | 8 |
| KHRT4100R1.0-1075 | 10 | 1 | 4 | 20 | 9.8 | 75 | 10 |
| KHRT4100R1.0-10100 | | 1 | 4 | 20 | 9.8 | 100 | 10 |
| KHRT4100R2.0-1075 | | 2 | 4 | 20 | 9.8 | 75 | 10 |
| KHRT4100R2.0-10100 | | 2 | 4 | 20 | 9.8 | 100 | 10 |
| KHRT4120R2.0-1275 | 12 | 2 | 5 | 24 | 11.7 | 75 | 12 |
| KHRT4120R2.0-12100 | | 2 | 5 | 24 | 11.7 | 100 | 12 |
| KHRT4120R3.0-1275 | | 3 | 5 | 24 | 11.7 | 75 | 12 |
| KHRT4120R3.0-12100 | | 3 | 5 | 24 | 11.7 | 100 | 12 |

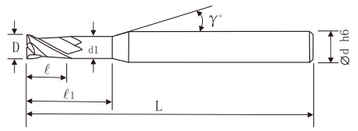
☆推介切削参数请参考P118

### 可切削材料适用表

◎ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHEL 二刃高硬度整体合金深沟立铣刀




$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.12}$ (3<D≤5)

| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|
| KHEL2004-02-0450 | 0.4 | 0.3 | 2 | 0.36 | 15 | 50 | 4 |
| KHEL2004-03-0450 | | 0.3 | 3 | 0.36 | 15 | 50 | 4 |
| KHEL2005-02-0450 | 0.5 | 0.4 | 2 | 0.46 | 15 | 50 | 4 |
| KHEL2005-03-0450 | | 0.4 | 3 | 0.46 | 15 | 50 | 4 |
| KHEL2005-04-0450 | | 0.4 | 4 | 0.46 | 15 | 50 | 4 |
| KHEL2006-02-0450 | 0.6 | 0.5 | 2 | 0.56 | 15 | 50 | 4 |
| KHEL2006-03-0450 | | 0.5 | 3 | 0.56 | 15 | 50 | 4 |
| KHEL2006-04-0450 | | 0.5 | 4 | 0.56 | 15 | 50 | 4 |
| KHEL2008-04-0450 | 0.8 | 0.7 | 4 | 0.76 | 15 | 50 | 4 |
| KHEL2008-06-0450 | | 0.7 | 6 | 0.76 | 15 | 50 | 4 |
| KHEL2010-04-0450 | 1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHEL2010-06-0450 | | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHEL2010-08-0450 | | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHEL2010-10-0450 | | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHEL2015-06-0450 | 1.5 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHEL2015-08-0450 | | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHEL2015-10-0450 | | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHEL2015-12-0450 | | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHEL2020-08-0450 | 2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHEL2020-10-0450 | | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHEL2020-12-0450 | | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHEL2020-16-0450 | | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHEL2025-10-0450 | 2.5 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KHEL2025-12-0450 | | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KHEL2025-16-0450 | | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KHEL2025-20-0450 | | 2 | 20 | 2.4 | 11 | 50 | 4 |
| KHEL2030-10-0660 | 3 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHEL2030-12-0660 | | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHEL2030-16-0660 | | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHEL2030-20-0660 | | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHEL2030-25-0675 | | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHEL2040-12-0660 | 4 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHEL2040-16-0660 | | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHEL2040-20-0660 | | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHEL2040-25-0675 | | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHEL2040-30-0675 | | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P119

## 可切削材料适用表

○ 非常适合　○ 适合

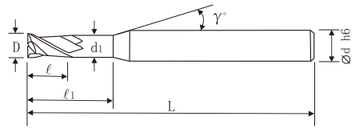
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |



KH高硬度系列

## KHEL 四刃高硬度整体合金深沟立铣刀






$\varnothing D\ {}^{0}_{-0.01}$ (D≤3)

$\varnothing D\ {}^{0}_{-0.12}$ (3<D≤5)

| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|
| KHEL4010-04-0450 | 1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHEL4010-06-0450 | | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHEL4010-08-0450 | | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHEL4010-10-0450 | | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHEL4015-06-0450 | 1.5 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHEL4015-08-0450 | | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHEL4015-10-0450 | | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHEL4015-12-0450 | | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHEL4020-08-0450 | 2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHEL4020-10-0450 | | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHEL4020-12-0450 | | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHEL4020-16-0450 | | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHEL4025-10-0450 | 2.5 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KHEL4025-12-0450 | | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KHEL4025-16-0450 | | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KHEL4025-20-0450 | | 2 | 20 | 2.4 | 11 | 50 | 4 |
| KHEL4030-10-0660 | 3 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHEL4030-12-0660 | | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHEL4030-16-0660 | | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHEL4030-20-0660 | | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHEL4030-25-0675 | | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHEL4040-12-0660 | 4 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHEL4040-16-0660 | | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHEL4040-20-0660 | | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHEL4040-25-0675 | | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHEL4040-30-0675 | | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P119

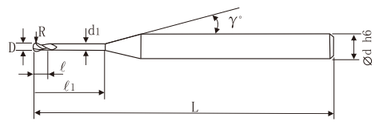
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

# KHBL 二刃高硬度整体合金深沟球头立铣刀






ØD $^{0}_{-0.005}$ (D≤3)

ØD $^{0}_{-0.008}$ (3<D≤5)



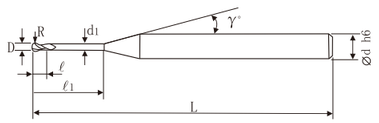

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHBL2004-02-0450 | 0.4 | 0.2 | 0.3 | 2 | 0.36 | 15 | 50 | 4 |
| KHBL2004-03-0450 | | 0.2 | 0.3 | 3 | 0.36 | 15 | 50 | 4 |
| KHBL2005-02-0450 | 0.5 | 0.25 | 0.4 | 2 | 0.46 | 15 | 50 | 4 |
| KHBL2005-03-0450 | | 0.25 | 0.4 | 3 | 0.46 | 15 | 50 | 4 |
| KHBL2005-04-0450 | | 0.25 | 0.4 | 4 | 0.46 | 15 | 50 | 4 |
| KHBL2006-02-0450 | 0.6 | 0.3 | 0.5 | 2 | 0.56 | 15 | 50 | 4 |
| KHBL2006-03-0450 | | 0.3 | 0.5 | 3 | 0.56 | 15 | 50 | 4 |
| KHBL2006-04-0450 | | 0.3 | 0.5 | 4 | 0.56 | 15 | 50 | 4 |
| KHBL2008-04-0450 | 0.8 | 0.4 | 0.7 | 4 | 0.76 | 15 | 50 | 4 |
| KHBL2008-06-0450 | | 0.4 | 0.7 | 6 | 0.76 | 15 | 50 | 4 |
| KHBL2010-04-0450 | 1 | 0.5 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHBL2010-04-0660 | | 0.5 | 0.8 | 4 | 0.94 | 11 | 60 | 6 |
| KHBL2010-06-0450 | | 0.5 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHBL2010-06-0660 | | 0.5 | 0.8 | 6 | 0.94 | 11 | 60 | 6 |
| KHBL2010-08-0450 | | 0.5 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHBL2010-08-0660 | | 0.5 | 0.8 | 8 | 0.94 | 11 | 60 | 6 |
| KHBL2010-10-0450 | | 0.5 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHBL2010-10-0660 | | 0.5 | 0.8 | 10 | 0.94 | 11 | 60 | 6 |
| KHBL2015-06-0450 | 1.5 | 0.75 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHBL2015-06-0660 | | 0.75 | 1.2 | 6 | 1.42 | 11 | 60 | 6 |
| KHBL2015-08-0450 | | 0.75 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHBL2015-08-0660 | | 0.75 | 1.2 | 8 | 1.42 | 11 | 60 | 6 |
| KHBL2015-10-0450 | | 0.75 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHBL2015-10-0660 | | 0.75 | 1.2 | 10 | 1.42 | 11 | 60 | 6 |
| KHBL2015-12-0450 | | 0.75 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHBL2015-12-0660 | | 0.75 | 1.2 | 12 | 1.42 | 11 | 60 | 6 |
| KHBL2020-06-0450 | 2 | 1 | 1.6 | 6 | 1.9 | 11 | 50 | 4 |
| KHBL2020-08-0450 | | 1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHBL2020-08-0660 | | 1 | 1.6 | 8 | 1.9 | 11 | 60 | 6 |
| KHBL2020-10-0450 | | 1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHBL2020-10-0660 | | 1 | 1.6 | 10 | 1.9 | 11 | 60 | 6 |
| KHBL2020-12-0450 | | 1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHBL2020-12-0660 | | 1 | 1.6 | 12 | 1.9 | 11 | 60 | 6 |
| KHBL2020-16-0450 | | 1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHBL2020-16-0660 | | 1 | 1.6 | 16 | 1.9 | 11 | 60 | 6 |
| KHBL2025-08-0450 | 2.5 | 1.25 | 2 | 8 | 2.4 | 11 | 50 | 4 |
| KHBL2025-10-0450 | | 1.25 | 2 | 10 | 2.4 | 11 | 50 | 4 |
| KHBL2025-12-0450 | | 1.25 | 2 | 12 | 2.4 | 11 | 50 | 4 |
| KHBL2025-16-0450 | | 1.25 | 2 | 16 | 2.4 | 11 | 50 | 4 |
| KHBL2030-10-0660 | 3 | 1.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHBL2030-12-0660 | | 1.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHBL2030-16-0660 | | 1.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHBL2030-20-0660 | | 1.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |





# KHBL 二刃高硬度整体合金深沟球头立铣刀






ØD $^{0}_{-0.005}$ (D≤3)

ØD $^{0}_{-0.008}$ (3<D≤5)




| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHBL2030-25-0675 | 3 | 1.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHBL2040-12-0660 | 4 | 2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHBL2040-16-0660 | | 2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHBL2040-20-0660 | | 2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHBL2040-25-0675 | | 2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHBL2040-30-0675 | | 2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHBL2050-16-0660 | 5 | 2.5 | 4 | 16 | 4.85 | 11 | 60 | 6 |
| KHBL2050-20-0660 | | 2.5 | 4 | 20 | 4.85 | 11 | 60 | 6 |
| KHBL2050-25-0675 | | 2.5 | 4 | 25 | 4.85 | 11 | 75 | 6 |
| KHBL2050-30-0675 | | 2.5 | 4 | 30 | 4.85 | 11 | 75 | 6 |

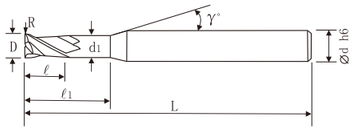
☆推介切削参数请参考P121-122

## 可切削材料适用表

◎ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石 墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑 料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHRL 二刃高硬度整体合金深沟圆角刀




ØD $^{0}_{-0.01}$ (D≤3)

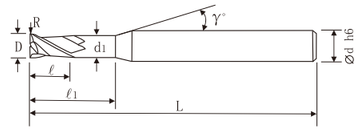
ØD $^{0}_{-0.012}$ (3<D≤5)

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHRL2010R0.1-04-0450 | 1 | 0.1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.1-06-0450 | | 0.1 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.1-08-0450 | | 0.1 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.1-10-0450 | | 0.1 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.2-04-0450 | | 0.2 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.2-06-0450 | | 0.2 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.2-08-0450 | | 0.2 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHRL2010R0.2-10-0450 | | 0.2 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHRL2015R0.1-06-0450 | 1.5 | 0.1 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.1-08-0450 | | 0.1 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.1-10-0450 | | 0.1 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.1-12-0450 | | 0.1 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.2-06-0450 | | 0.2 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.2-08-0450 | | 0.2 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.2-10-0450 | | 0.2 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHRL2015R0.2-12-0450 | | 0.2 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHRL2020R0.1-08-0450 | 2 | 0.1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.1-10-0450 | | 0.1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.1-12-0450 | | 0.1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.1-16-0450 | | 0.1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.2-08-0450 | | 0.2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.2-10-0450 | | 0.2 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.2-12-0450 | | 0.2 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.2-16-0450 | | 0.2 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.5-08-0450 | | 0.5 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.5-10-0450 | | 0.5 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.5-12-0450 | | 0.5 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL2020R0.5-16-0450 | | 0.5 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL2030R0.1-10-0660 | 3 | 0.1 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.1-12-0660 | | 0.1 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.1-16-0660 | | 0.1 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.1-20-0660 | | 0.1 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.1-25-0675 | | 0.1 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHRL2030R0.2-10-0660 | | 0.2 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.2-12-0660 | | 0.2 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.2-16-0660 | | 0.2 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.2-20-0660 | | 0.2 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.2-25-0675 | | 0.2 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHRL2030R0.5-10-0660 | | 0.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.5-12-0660 | | 0.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.5-16-0660 | | 0.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.5-20-0660 | | 0.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL2030R0.5-25-0675 | | 0.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |





## KHRL 二刃高硬度整体合金深沟圆角刀




ØD $^{0}_{-0.01}$ (D≤3)

ØD $^{0}_{-0.012}$ (3<D≤5)

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHRL2040R0.1-12-0660 | 4 | 0.1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.1-16-0660 | | 0.1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.1-20-0660 | | 0.1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.1-25-0675 | | 0.1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL2040R0.1-30-0675 | | 0.1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL2040R0.2-12-0660 | | 0.2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.2-16-0660 | | 0.2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.2-20-0660 | | 0.2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.2-25-0675 | | 0.2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL2040R0.2-30-0675 | | 0.2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL2040R0.5-12-0660 | | 0.5 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.5-16-0660 | | 0.5 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.5-20-0660 | | 0.5 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL2040R0.5-25-0675 | | 0.5 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL2040R0.5-30-0675 | | 0.5 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL2040R1.0-12-0660 | | 1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL2040R1.0-16-0660 | | 1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL2040R1.0-20-0660 | | 1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL2040R1.0-25-0675 | | 1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL2040R1.0-30-0675 | | 1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P123

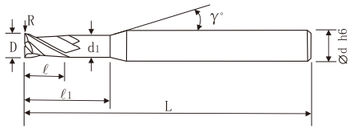
## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHRL 四刃高硬度整体合金深沟圆角刀






$\varnothing D\ ^{0}_{-0.01}$ (D≤3)

$\varnothing D\ ^{0}_{-0.12}$ (3<D≤5)



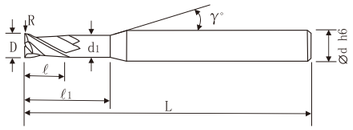

| 型号 Model | (D) 刃径 mm | (R)R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHRL4010R0.1-04-0450 | 1 | 0.1 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.1-06-0450 | | 0.1 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.1-08-0450 | | 0.1 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.1-10-0450 | | 0.1 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.2-04-0450 | | 0.2 | 0.8 | 4 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.2-06-0450 | | 0.2 | 0.8 | 6 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.2-08-0450 | | 0.2 | 0.8 | 8 | 0.94 | 11 | 50 | 4 |
| KHRL4010R0.2-10-0450 | | 0.2 | 0.8 | 10 | 0.94 | 11 | 50 | 4 |
| KHRL4015R0.1-06-0450 | 1.5 | 0.1 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.1-08-0450 | | 0.1 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.1-10-0450 | | 0.1 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.1-12-0450 | | 0.1 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.2-06-0450 | | 0.2 | 1.2 | 6 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.2-08-0450 | | 0.2 | 1.2 | 8 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.2-10-0450 | | 0.2 | 1.2 | 10 | 1.42 | 11 | 50 | 4 |
| KHRL4015R0.2-12-0450 | | 0.2 | 1.2 | 12 | 1.42 | 11 | 50 | 4 |
| KHRL4020R0.1-08-0450 | 2 | 0.1 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.1-10-0450 | | 0.1 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.1-12-0450 | | 0.1 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.1-16-0450 | | 0.1 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.2-08-0450 | | 0.2 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.2-10-0450 | | 0.2 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.2-12-0450 | | 0.2 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.2-16-0450 | | 0.2 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.5-08-0450 | | 0.5 | 1.6 | 8 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.5-10-0450 | | 0.5 | 1.6 | 10 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.5-12-0450 | | 0.5 | 1.6 | 12 | 1.9 | 11 | 50 | 4 |
| KHRL4020R0.5-16-0450 | | 0.5 | 1.6 | 16 | 1.9 | 11 | 50 | 4 |
| KHRL4030R0.1-10-0660 | 3 | 0.1 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.1-12-0660 | | 0.1 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.1-16-0660 | | 0.1 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.1-20-0660 | | 0.1 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.1-25-0675 | | 0.1 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHRL4030R0.2-10-0660 | | 0.2 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.2-12-0660 | | 0.2 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.2-16-0660 | | 0.2 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.2-20-0660 | | 0.2 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.2-25-0675 | | 0.2 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |
| KHRL4030R0.5-10-0660 | | 0.5 | 2.4 | 10 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.5-12-0660 | | 0.5 | 2.4 | 12 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.5-16-0660 | | 0.5 | 2.4 | 16 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.5-20-0660 | | 0.5 | 2.4 | 20 | 2.9 | 11 | 60 | 6 |
| KHRL4030R0.5-25-0675 | | 0.5 | 2.4 | 25 | 2.9 | 11 | 75 | 6 |



KH高硬度系列

## KHRL 四刃高硬度整体合金深沟圆角刀






$\varnothing D\ ^{0}_{-0.01}$ (D≤3)

$\varnothing D\ ^{0}_{-0.12}$ (3<D≤5)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KHRL4040R0.1-12-0660 | 4 | 0.1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.1-16-0660 | | 0.1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.1-20-0660 | | 0.1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.1-25-0675 | | 0.1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL4040R0.1-30-0675 | | 0.1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL4040R0.2-12-0660 | | 0.2 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.2-16-0660 | | 0.2 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.2-20-0660 | | 0.2 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.2-25-0675 | | 0.2 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL4040R0.2-30-0675 | | 0.2 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL4040R0.5-12-0660 | | 0.5 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.5-16-0660 | | 0.5 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.5-20-0660 | | 0.5 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL4040R0.5-25-0675 | | 0.5 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL4040R0.5-30-0675 | | 0.5 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |
| KHRL4040R1.0-12-0660 | | 1 | 3.2 | 12 | 3.9 | 11 | 60 | 6 |
| KHRL4040R1.0-16-0660 | | 1 | 3.2 | 16 | 3.9 | 11 | 60 | 6 |
| KHRL4040R1.0-20-0660 | | 1 | 3.2 | 20 | 3.9 | 11 | 60 | 6 |
| KHRL4040R1.0-25-0675 | | 1 | 3.2 | 25 | 3.9 | 11 | 75 | 6 |
| KHRL4040R1.0-30-0675 | | 1 | 3.2 | 30 | 3.9 | 11 | 75 | 6 |

☆推介切削参数请参考P123

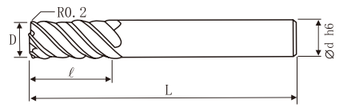
### 可切削材料适用表

◎ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |

## KHEF 六刃高硬度整体合金立铣刀






ØD $^{0}_{-0.012}$ (6<D≤12)

ØD $^{0}_{-0.018}$ (12<D≤20)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|
| KHEF6060-0660 | 6 | 18 | 60 | 6 |
| KHEF6060-0675 | 6 | 24 | 75 | 6 |
| KHEF6080-0860 | 8 | 20 | 60 | 8 |
| KHEF6080-0875 | 8 | 32 | 75 | 8 |
| KHEF6100-1075 | 10 | 30 | 75 | 10 |
| KHEF6100-10100 | 10 | 40 | 100 | 10 |
| KHEF6120-1275 | 12 | 32 | 75 | 12 |
| KHEF6120-12100 | 12 | 45 | 100 | 12 |
| KHEF6160-16100 | 16 | 40 | 100 | 16 |
| KHEF6160-16150 | 16 | 64 | 150 | 16 |
| KHEF6200-20100 | 20 | 45 | 100 | 20 |
| KHEF6200-20150 | 20 | 75 | 150 | 20 |

☆推介切削参数请参考P124

## 可切削材料适用表

◎ 非常适合　○ 适合

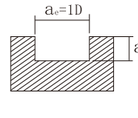
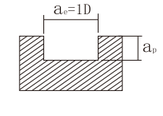
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | ○ | ◎ | ◎ | ○ | ○ | ○ | ○ | | | ○ | ○ | |





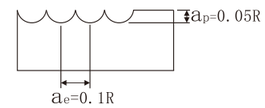
## KHEI二刃高硬度小径整体合金立铣刀



| 被加工材料 | 预硬钢，淬硬钢 40~50HRC | | 淬硬钢 50~60HRC | |
|---|---|---|---|---|
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 0.3 | 23000 | 30 | 16500 | 25 |
| 0.4 | 17500 | 30 | 12500 | 25 |
| 0.5 | 14000 | 30 | 10000 | 25 |
| 0.6 | 11500 | 30 | 8450 | 25 |
| 0.7 | 10000 | 30 | 7500 | 25 |
| 0.8 | 8750 | 30 | 6350 | 25 |
| 0.9 | 8000 | 30 | 5500 | 25 |
| 1.0 | 7000 | 30 | 5050 | 25 |
| 1.5 | 5050 | 40 | 3550 | 25 |
| 2.0 | 3950 | 40 | 2750 | 25 |
| 2.5 | 3500 | 45 | 2500 | 30 |
| 3.0 | 2750 | 45 | 2000 | 30 |
| 最大切深量 |   刀具直径 / 切深$a_p$：D<Φ1 — 0.02D；Φ1≤D≤Φ3 — 0.05D | |   刀具直径 / 切深$a_p$：D<Φ1 — 0.01D；Φ1≤D≤Φ3 — 0.02D | |

## KHBI二刃高硬度小径整体合金球头立铣刀



| 被加工材料 | 预硬钢，淬硬钢 40~50HRC | | 淬硬钢 50~60HRC | |
|---|---|---|---|---|
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| R0.15 | 25000 | 135 | 25000 | 115 |
| R0.2 | 25000 | 140 | 25000 | 120 |
| R0.25 | 25000 | 150 | 25000 | 130 |
| R0.3 | 25000 | 175 | 24000 | 150 |
| R0.35 | 25000 | 190 | 24000 | 150 |
| R0.4 | 24000 | 210 | 18000 | 140 |
| R0.45 | 21000 | 210 | 15000 | 140 |
| R0.5 | 19000 | 210 | 14000 | 140 |
| R1.0 | 9500 | 210 | 7200 | 140 |
| R1.5 | 6400 | 210 | 4800 | 140 |
| 最大切深量 |   | | | |

## KHEF 四刃高硬度平刀-45°
## 刀具切削参数参考值　沟槽切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬火钢 | |
|---|---|---|---|---|---|---|
| 直径 (mm) | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| 0.5 | 25000 | 150 | 20000 | 100 | 18000 | 50 |
| 0.8 | 20000 | 200 | 18000 | 150 | 15000 | 60 |
| 1 | 18000 | 320 | 15000 | 250 | 12000 | 80 |
| 1.5 | 15000 | 360 | 12000 | 300 | 9000 | 100 |
| 2 | 12000 | 400 | 10000 | 350 | 7500 | 100 |
| 2.5 | 10000 | 440 | 8500 | 400 | 6000 | 150 |
| 3 | 8000 | 480 | 7500 | 450 | 4000 | 200 |
| 4 | 6000 | 600 | 5800 | 550 | 3000 | 240 |
| 5 | 4800 | 700 | 4500 | 600 | 2400 | 300 |
| 6 | 4000 | 630 | 3800 | 600 | 1800 | 330 |
| 8 | 3000 | 600 | 2800 | 550 | 1500 | 300 |
| 10 | 2400 | 550 | 2200 | 500 | 1200 | 270 |
| 12 | 2000 | 540 | 1800 | 500 | 1000 | 240 |
| 16 | 1500 | 500 | 1350 | 450 | | |
| 20 | 1200 | 480 | 1000 | 400 | | |
| 标准切削量 | AP=0.2D AE=1D | | | | | |

## KHEF　四刃高硬度平刀-45°
## 刀具切削参数参考值 侧壁切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| 直径 (mm) | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| 0.5 | 25000 | 100 | 22000 | 80 | 20000 | |
| 0.8 | 22000 | 200 | 20000 | 150 | 18000 | 100 |
| 1 | 20000 | 300 | 18000 | 240 | 15000 | 150 |
| 1.5 | 18000 | 400 | 15000 | 300 | 12000 | 200 |
| 2 | 15000 | 500 | 13000 | 400 | 10000 | 300 |
| 2.5 | 13500 | 600 | 12000 | 500 | 9000 | 400 |
| 3 | 12500 | 780 | 10400 | 650 | 8000 | 440 |
| 4 | 9500 | 900 | 8000 | 700 | 7200 | 550 |
| 5 | 7500 | 1000 | 6300 | 750 | 5800 | 680 |
| 6 | 6500 | 1000 | 5300 | 800 | 4500 | 650 |
| 8 | 5000 | 1000 | 4000 | 850 | 3600 | 600 |
| 10 | 4000 | 800 | 3200 | 800 | 2800 | 600 |
| 12 | 3300 | 750 | 2700 | 700 | 2400 | 550 |
| 16 | 2500 | 700 | 2000 | 600 | | |
| 20 | 2000 | 600 | 1600 | 600 | | |
| 标准切削量 | AP=0.2D AE=1D | | | | | |





## KHB二刃高硬度整体合金球头立铣刀
## KHBP二刃高硬度强力型整体合金球头立铣刀



| 被削材 | 碳素钢、合金钢 (HRC30以下) | | | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直径 (mm) | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| R0.25 | 45000 | 840 | 0.05 | 0.0125 | 45000 | 840 | 0.05 | 0.0125 | 45000 | 672 | 0.03 | 0.0125 | 33750 | 315 | 0.02 | 0.0125 |
| R0.4 | 30000 | 1400 | 0.05 | 0.02 | 30000 | 1400 | 0.05 | 0.02 | 30000 | 1120 | 0.03 | 0.02 | 22500 | 525 | 0.02 | 0.02 |
| R0.5 | 20000 | 2000 | 0.05 | 0.025 | 20000 | 2000 | 0.05 | 0.025 | 20000 | 1600 | 0.03 | 0.025 | 15000 | 750 | 0.02 | 0.025 |
| R0.75 | 18000 | 1200 | 0.05 | 0.0375 | 18000 | 1200 | 0.05 | 0.0375 | 18000 | 1000 | 0.03 | 0.0375 | 13000 | 600 | 0.02 | 0.0375 |
| R1.0 | 16000 | 1400 | 0.05 | 0.05 | 16000 | 1500 | 0.05 | 0.05 | 14800 | 2000 | 0.05 | 0.05 | 13500 | 1350 | 0.05 | 0.05 |
| R1.25 | 14400 | 1800 | 0.05 | 0.06 | 14400 | 1620 | 0.05 | 0.06 | 14400 | 1512 | 0.05 | 0.06 | 13800 | 1305 | 0.05 | 0.06 |
| R1.5 | 12000 | 2000 | 0.05 | 0.075 | 12000 | 1800 | 0.05 | 0.075 | 12000 | 1680 | 0.05 | 0.075 | 11500 | 1450 | 0.05 | 0.075 |
| R2.0 | 10000 | 2400 | 0.1 | 0.1 | 10000 | 2000 | 0.08 | 0.1 | 9000 | 1600 | 0.08 | 0.1 | 8000 | 1250 | 0.08 | 0.1 |
| R3.0 | 9000 | 2500 | 0.1 | 0.12 | 9000 | 2500 | 0.08 | 0.12 | 7200 | 2000 | 0.08 | 0.12 | 6000 | 1500 | 0.08 | 0.12 |
| R4.0 | 8500 | 3500 | 0.1 | 0.15 | 8000 | 3000 | 0.08 | 0.15 | 5200 | 1200 | 0.08 | 0.15 | 4800 | 1000 | 0.08 | 0.15 |
| R5.0 | 7500 | 3000 | 0.1 | 0.2 | 7000 | 3000 | 0.08 | 0.2 | 4200 | 1000 | 0.08 | 0.2 | 3800 | 960 | 0.08 | 0.2 |
| R6.0 | 6500 | 2500 | 0.15 | 0.25 | 6000 | 2500 | 0.1 | 0.25 | 3500 | 900 | 0.1 | 0.25 | 3200 | 800 | 0.1 | 0.25 |
| R7.0 | 5200 | 2000 | 0.15 | 0.25 | 4800 | 2000 | 0.1 | 0.25 | 2800 | 720 | 0.1 | 0.25 | 2560 | 640 | 0.1 | 0.25 |
| R8.0 | 3640 | 1750 | 0.15 | 0.25 | 3360 | 1750 | 0.1 | 0.25 | 1960 | 630 | 0.1 | 0.25 | 1792 | 560 | 0.1 | 0.25 |

*2刃强力型球刀可适当提高进给。

## KHR 二刃刀具切削参数参考值　沟槽切削



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬火钢 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 0.5 | 25000 | 250 | 12500 | 100 | 8500 | 50 |
| 0.8 | 23500 | 280 | 12000 | 125 | 7500 | 55 |
| 1 | 22000 | 300 | 11500 | 135 | 7200 | 63 |
| 1.5 | 17000 | 240 | 9500 | 110 | 6000 | 63 |
| 2 | 16000 | 320 | 7200 | 120 | 4400 | 56 |
| 2.5 | 12500 | 240 | 5800 | 100 | 3500 | 45 |
| 3 | 10000 | 200 | 4800 | 80 | 3000 | 40 |
| 4 | 8000 | 240 | 3500 | 90 | 2500 | 48 |
| 5 | 6400 | 300 | 2800 | 100 | 1800 | 45 |
| 6 | 5500 | 350 | 2400 | 120 | 1500 | 50 |
| 8 | 4000 | 360 | 1500 | 80 | 1200 | 50 |
| 10 | 2000 | 280 | 1000 | 115 | 800 | 50 |
| 12 | 1600 | 240 | 800 | 80 | 640 | 48 |
| 16 | | | | | | |
| 20 | | | | | | |
| 标准切削量 | AP=0.2D AE=1D | | | | | |





## KHR四刃高硬度平刀-45° 刀具切削参数参考值 侧壁切削
## KHRP四刃高硬度短刃整体合金圆角刀
## KHRT四刃高硬度强力型整体合金圆角刀



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D<br>mm | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min | 回转速<br>min⁻¹ | 进给速度<br>mm/min |
| 1 | 25000 | 500 | 15000 | 270 | 12000 | 200 |
| 1.5 | 21000 | 400 | 13000 | 200 | 10000 | 150 |
| 2 | 20000 | 550 | 11500 | 300 | 9000 | 150 |
| 2.5 | 17800 | 500 | 10800 | 280 | 8000 | 150 |
| 3 | 16000 | 640 | 9500 | 300 | 7500 | 180 |
| 4 | 13500 | 650 | 8500 | 320 | 7000 | 200 |
| 5 | 12000 | 700 | 8000 | 350 | 6000 | 180 |
| 6 | 10000 | 640 | 6000 | 350 | 5000 | 200 |
| 8 | 7000 | 560 | 4500 | 300 | 3600 | 180 |
| 10 | 5000 | 500 | 3500 | 320 | 2800 | 150 |
| 12 | 4500 | 480 | 3200 | 300 | 2400 | 150 |
| 14 | 4000 | 480 | 2600 | 250 | 2000 | 130 |
| 16 | 3500 | 450 | 2000 | 200 | 1500 | 120 |
| 20 | 3000 | 450 | 1800 | 250 | 1000 | 120 |
| 标准切削量 | 4MM以下AP=1D AE=0.1D 4MM以上AP=1.5D AE=0.1D | | | | | |

## KHEL二刃高硬度整体合金深沟立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 0.5 | 4 | 25000 | 380 | 0.01 | 0.3 | 25000 | 280 | 0.005 | 0.25 | 23000 | 240 | 0.003 | 0.2 |
| | 6 | 25000 | 300 | 0.005 | 0.3 | 20000 | 200 | 0.003 | 0.25 | 18000 | 150 | 0.002 | 0.2 |
| | 8 | 20000 | 200 | 0.005 | 0.3 | 16000 | 160 | 0.002 | 0.25 | 14000 | 130 | 0.002 | 0.2 |
| | 10 | 16000 | 170 | 0.003 | 0.3 | 13000 | 130 | 0.002 | 0.25 | 12000 | 110 | 0.001 | 0.2 |
| | 12 | 14000 | 150 | 0.002 | 0.3 | 12000 | 110 | 0.002 | 0.25 | 10000 | 100 | 0.008 | 0.2 |
| 0.8 | 4 | 25000 | 800 | 0.03 | 0.45 | 25000 | 700 | 0.025 | 0.4 | 23000 | 600 | 0.015 | 0.32 |
| | 6 | 20000 | 620 | 0.025 | 0.45 | 20000 | 550 | 0.02 | 0.4 | 18000 | 450 | 0.01 | 0.32 |
| | 8 | 16000 | 500 | 0.015 | 0.45 | 16000 | 400 | 0.007 | 0.4 | 14000 | 300 | 0.005 | 0.32 |
| | 10 | 16000 | 400 | 0.012 | 0.45 | 16000 | 350 | 0.007 | 0.4 | 12000 | 180 | 0.005 | 0.32 |
| | 12 | 16000 | 300 | 0.007 | 0.45 | 13000 | 220 | 0.005 | 0.4 | 12000 | 120 | 0.003 | 0.32 |
| | 14 | 25000 | 1000 | 0.05 | 0.6 | 23000 | 900 | 0.04 | 0.5 | 18000 | 800 | 0.03 | 0.4 |
| | 16 | 20000 | 900 | 0.03 | 0.6 | 18000 | 700 | 0.02 | 0.5 | 14000 | 600 | 0.01 | 0.4 |
| 1.0 | 8 | 18000 | 800 | 0.03 | 0.6 | 16000 | 600 | 0.02 | 0.5 | 12000 | 500 | 0.01 | 0.4 |
| | 10 | 16000 | 600 | 0.02 | 0.6 | 14000 | 500 | 0.01 | 0.5 | 10000 | 400 | 0.007 | 0.4 |
| | 12 | 16000 | 500 | 0.02 | 0.6 | 13000 | 400 | 0.01 | 0.5 | 10000 | 300 | 0.005 | 0.4 |
| | 16 | 14000 | 400 | 0.12 | 0.6 | 12000 | 320 | 0.006 | 0.5 | 9000 | 250 | 0.004 | 0.4 |
| 1.5 | 6 | 23000 | 1000 | 0.06 | 0.9 | 20000 | 800 | 0.04 | 0.75 | 18000 | 700 | 0.03 | 0.6 |
| | 8 | 20000 | 900 | 0.06 | 0.9 | 18000 | 600 | 0.03 | 0.75 | 14000 | 600 | 0.03 | 0.6 |
| | 10 | 20000 | 800 | 0.04 | 0.9 | 16000 | 500 | 0.03 | 0.75 | 14000 | 500 | 0.02 | 0.6 |
| | 12 | 16000 | 700 | 0.04 | 0.9 | 14000 | 500 | 0.02 | 0.75 | 12000 | 430 | 0.02 | 0.6 |
| | 16 | 12000 | 500 | 0.02 | 0.9 | 10000 | 360 | 0.01 | 0.75 | 9000 | 300 | 0.007 | 0.6 |
| | 20 | 10000 | 400 | 0.01 | 0.9 | 8000 | 300 | 0.008 | 0.75 | 7000 | 280 | 0.005 | 0.6 |
| 2.0 | 6 | 20000 | 1000 | 0.08 | 1.2 | 18000 | 900 | 0.06 | 1 | 15000 | 750 | 0.05 | 0.8 |
| | 8 | 18000 | 900 | 0.07 | 1.2 | 16000 | 800 | 0.05 | 1 | 12000 | 600 | 0.04 | 0.8 |
| | 10 | 16000 | 800 | 0.06 | 1.2 | 14000 | 700 | 0.05 | 1 | 12000 | 500 | 0.04 | 0.8 |
| | 12 | 14000 | 700 | 0.05 | 1.2 | 12000 | 600 | 0.04 | 1 | 10000 | 500 | 0.03 | 0.8 |
| | 16 | 12000 | 600 | 0.04 | 1.2 | 10000 | 500 | 0.03 | 1 | 9200 | 400 | 0.02 | 0.8 |
| | 20 | 10000 | 400 | 0.03 | 1.2 | 9200 | 380 | 0.02 | 1 | 8500 | 340 | 0.01 | 0.8 |
| | 25 | 9200 | 380 | 0.02 | 1.2 | 8500 | 340 | 0.01 | 1 | 7500 | 320 | 0.008 | 0.8 |
| | 30 | 8500 | 340 | 0.01 | 1.2 | 7500 | 320 | 0.008 | 1 | 7200 | 300 | 0.006 | 0.8 |
| 2.5 | 8 | 16000 | 1000 | 0.08 | 1.5 | 14000 | 800 | 0.07 | 1.25 | 10000 | 700 | 0.05 | 1 |
| | 10 | 15000 | 900 | 0.075 | 1.5 | 13000 | 850 | 0.065 | 1.25 | 9800 | 650 | 0.045 | 1 |
| | 12 | 14000 | 800 | 0.07 | 1.5 | 12000 | 700 | 0.06 | 1.25 | 9600 | 600 | 0.04 | 1 |
| | 16 | 12000 | 700 | 0.06 | 1.5 | 10000 | 600 | 0.05 | 1.25 | 8500 | 500 | 0.02 | 1 |
| | 20 | 10000 | 600 | 0.06 | 1.5 | 8200 | 500 | 0.05 | 1.25 | 7500 | 500 | 0.02 | 1 |
| | 25 | 8200 | 500 | 0.05 | 1.5 | 7500 | 480 | 0.04 | 1.25 | 7200 | 480 | 0.015 | 1 |
| | 30 | 7500 | 480 | 0.04 | 1.5 | 7200 | 460 | 0.03 | 1.25 | 7000 | 380 | 0.01 | 1 |





## KHEL四刃高硬度整体合金深沟立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 1.0 | 4 | 25000 | 1700 | 0.055 | 0.6 | 22000 | 1100 | 0.045 | 0.6 | 18700 | 800 | 0.032 | 0.6 |
| | 6 | 20000 | 1200 | 0.045 | 0.6 | 18000 | 750 | 0.035 | 0.6 | 15300 | 600 | 0.025 | 0.6 |
| | 8 | 18000 | 1050 | 0.035 | 0.6 | 15000 | 600 | 0.025 | 0.6 | 12800 | 500 | 0.018 | 0.6 |
| | 10 | 16000 | 900 | 0.025 | 0.6 | 14000 | 520 | 0.018 | 0.6 | 11900 | 400 | 0.013 | 0.6 |
| | 12 | 14000 | 750 | 0.02 | 0.6 | 12000 | 450 | 0.014 | 0.6 | 10200 | 300 | 0.010 | 0.6 |
| | 16 | 12000 | 450 | 0.01 | 0.6 | 10000 | 300 | 0.007 | 0.6 | 8500 | 200 | 0.005 | 0.6 |
| 1.5 | 6 | 20000 | 1800 | 0.08 | 0.9 | 16000 | 1100 | 0.07 | 0.9 | 13600 | 800 | 0.049 | 0.9 |
| | 8 | 18000 | 1500 | 0.07 | 0.9 | 14000 | 900 | 0.06 | 0.9 | 11900 | 700 | 0.042 | 0.9 |
| | 10 | 16000 | 1300 | 0.06 | 0.9 | 13000 | 780 | 0.05 | 0.9 | 11100 | 600 | 0.035 | 0.9 |
| | 12 | 14000 | 1050 | 0.05 | 0.9 | 12000 | 670 | 0.04 | 0.9 | 10200 | 500 | 0.028 | 0.9 |
| | 16 | 12000 | 750 | 0.04 | 0.9 | 10000 | 480 | 0.025 | 0.9 | 8500 | 400 | 0.018 | 0.9 |
| | 20 | 10000 | 600 | 0.02 | 0.9 | 8000 | 360 | 0.014 | 0.9 | 6800 | 300 | 0.010 | 0.9 |
| 2.0 | 6 | 16000 | 2100 | 0.12 | 1.2 | 13000 | 1300 | 0.1 | 1.2 | 11100 | 1000 | 0.070 | 1.2 |
| | 8 | 16000 | 2000 | 0.11 | 1.2 | 13000 | 1200 | 0.09 | 1.2 | 11100 | 900 | 0.063 | 1.2 |
| | 10 | 16000 | 1800 | 0.1 | 1.2 | 13000 | 1100 | 0.08 | 1.2 | 11100 | 800 | 0.056 | 1.2 |
| | 12 | 14000 | 1500 | 0.09 | 1.2 | 12000 | 1000 | 0.07 | 1.2 | 10200 | 800 | 0.049 | 1.2 |
| | 16 | 12000 | 1200 | 0.07 | 1.2 | 10000 | 750 | 0.05 | 1.2 | 8500 | 600 | 0.035 | 1.2 |
| | 20 | 10000 | 900 | 0.05 | 1.2 | 8000 | 550 | 0.035 | 1.2 | 6800 | 400 | 0.025 | 1.2 |
| | 25 | 9000 | 750 | 0.03 | 1.2 | 7000 | 450 | 0.02 | 1.2 | 6000 | 300 | 0.014 | 1.2 |
| | 30 | 8000 | 600 | 0.02 | 1.2 | 6000 | 330 | 0.014 | 1.2 | 5100 | 200 | 0.010 | 1.2 |
| 2.5 | 8 | 13000 | 2100 | 0.15 | 1.5 | 11000 | 1400 | 0.12 | 1.5 | 9400 | 1100 | 0.084 | 1.5 |
| | 10 | 13000 | 1950 | 0.14 | 1.5 | 1100 | 1250 | 0.11 | 1.5 | 900 | 900 | 0.077 | 1.5 |
| | 12 | 13000 | 1800 | 0.13 | 1.5 | 11000 | 1100 | 0.1 | 1.5 | 9400 | 800 | 0.070 | 1.5 |
| | 16 | 11000 | 1400 | 0.1 | 1.5 | 9000 | 850 | 0.07 | 1.5 | 7700 | 600 | 0.049 | 1.5 |
| | 20 | 9000 | 1100 | 0.08 | 1.5 | 7000 | 600 | 0.05 | 1.5 | 6000 | 500 | 0.035 | 1.5 |
| | 25 | 8000 | 900 | 0.05 | 1.5 | 6000 | 500 | 0.035 | 1.5 | 5100 | 400 | 0.025 | 1.5 |
| | 30 | 9500 | 700 | 0.03 | 1.5 | 5000 | 400 | 0.03 | 1.5 | 4300 | 300 | 0.021 | 1.5 |
| 3.0 | 8 | 11000 | 2300 | 0.2 | 1.8 | 9000 | 1500 | 0.16 | 1.8 | 7700 | 1100 | 0.112 | 1.8 |
| | 10 | 11000 | 2150 | 0.18 | 1.8 | 9000 | 1350 | 0.14 | 1.8 | 7700 | 1000 | 0.098 | 1.8 |
| | 12 | 11000 | 2000 | 0.16 | 1.8 | 9000 | 1200 | 0.12 | 1.8 | 7700 | 900 | 0.084 | 1.8 |
| | 16 | 10000 | 1500 | 0.12 | 1.8 | 8000 | 900 | 0.09 | 1.8 | 6800 | 700 | 0.063 | 1.8 |
| | 20 | 9000 | 1200 | 0.1 | 1.8 | 7000 | 680 | 0.07 | 1.8 | 6000 | 500 | 0.049 | 1.8 |
| 4.0 | 25 | 8000 | 1050 | 0.08 | 1.8 | 6000 | 570 | 0.06 | 1.8 | 5100 | 400 | 0.042 | 1.8 |
| | 30 | 7000 | 900 | 0.06 | 1.8 | 5000 | 450 | 0.045 | 1.8 | 4300 | 300 | 0.032 | 1.8 |
| | 40 | 6000 | 800 | 0.06 | 1.8 | 4500 | 400 | 0.04 | 1.8 | 3800 | 300 | 0.028 | 1.8 |
| | 12 | 8000 | 2200 | 0.3 | 2.4 | 6000 | 1300 | 0.25 | 2.4 | 5100 | 1000 | 0.175 | 2.4 |
| | 16 | 8000 | 2100 | 0.25 | 2.4 | 6000 | 1200 | 0.2 | 2.4 | 5100 | 900 | 0.140 | 2.4 |
| | 20 | 8000 | 2000 | 0.2 | 2.4 | 6000 | 1100 | 0.15 | 2.4 | 5100 | 800 | 0.105 | 2.4 |
| 5.0 | 25 | 7000 | 1700 | 0.15 | 2.4 | 5000 | 900 | 0.1 | 2.4 | 4300 | 700 | 0.070 | 2.4 |
| | 30 | 7000 | 1500 | 0.12 | 2.4 | 5000 | 800 | 0.08 | 2.4 | 4300 | 600 | 0.056 | 2.4 |
| | 40 | 5000 | 900 | 0.08 | 2.4 | 4000 | 540 | 0.06 | 2.4 | 3400 | 400 | 0.042 | 2.4 |
| | 16 | 6000 | 2100 | 0.35 | 3 | 4500 | 1200 | 0.3 | 3 | 3800 | 900 | 0.210 | 3 |
| | 20 | 6000 | 1950 | 0.3 | 3 | 4500 | 1050 | 0.25 | 3 | 3800 | 800 | 0.175 | 3 |
| | 25 | 6000 | 1800 | 0.25 | 3 | 4500 | 1000 | 0.2 | 3 | 3800 | 800 | 0.140 | 3 |
| | 30 | 5000 | 1600 | 0.2 | 3 | 4000 | 800 | 0.15 | 3 | 3400 | 600 | 0.105 | 3 |
| | 40 | 4000 | 1400 | 0.15 | 3 | 3800 | 600 | 0.1 | 3 | 3200 | 500 | 0.070 | 3 |

# KHBL二刃高硬度整体合金深沟球头立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 0.5 | 4 | 50000 | 400 | 0.012 | 0.02 | 50000 | 340 | 0.005 | 0.01 | 40000 | 250 | 0.004 | 0.007 |
| | 6 | 30000 | 150 | 0.005 | 0.005 | 30000 | 120 | 0.003 | 0.003 | 20000 | 100 | 0.002 | 0.002 |
| 0.6 | 4 | 20000 | 800 | 0.025 | 0.05 | 20000 | 680 | 0.02 | 0.04 | 20000 | 560 | 0.015 | 0.03 |
| | 6 | 20000 | 450 | 0.01 | 0.02 | 20000 | 680 | 0.02 | 0.04 | 20000 | 310 | 0.004 | 0.007 |
| | 8 | 18000 | 300 | 0.005 | 0.01 | 20000 | 380 | 0.005 | 0.01 | 18000 | 210 | 0.002 | 0.004 |
| 0.8 | 4 | 20000 | 1500 | 0.05 | 0.12 | 20000 | 1300 | 0.05 | 0.08 | 14000 | 1000 | 0.035 | 0.055 |
| | 6 | 20000 | 900 | 0.05 | 0.08 | 20000 | 750 | 0.03 | 0.05 | 14000 | 630 | 0.02 | 0.035 |
| | 8 | 18000 | 500 | 0.015 | 0.03 | 18000 | 420 | 0.01 | 0.01 | 12600 | 350 | 0.007 | 0.007 |
| | 10 | 18000 | 350 | 0.005 | 0.01 | 18000 | 300 | 0.003 | 0.005 | 12600 | 240 | 0.002 | 0.003 |
| 1.0 | 4 | 20000 | 2500 | 0.15 | 0.25 | 20000 | 2100 | 0.1 | 0.2 | 14000 | 1680 | 0.07 | 0.14 |
| | 6 | 20000 | 1500 | 0.1 | 0.2 | 20000 | 1200 | 0.07 | 0.12 | 14000 | 1000 | 0.05 | 0.085 |
| | 8 | 20000 | 1200 | 0.05 | 0.1 | 20000 | 1000 | 0.05 | 0.08 | 14000 | 800 | 0.035 | 0.055 |
| | 10 | 20000 | 1000 | 0.03 | 0.05 | 20000 | 850 | 0.03 | 0.05 | 14000 | 560 | 0.02 | 0.035 |
| | 12 | 16000 | 600 | 0.015 | 0.025 | 16000 | 500 | 0.01 | 0.03 | 14000 | 420 | 0.01 | 0.02 |
| | 16 | 20000 | 2000 | 0.1 | 0.25 | 20000 | 1700 | 0.08 | 0.17 | 14000 | 1400 | 0.055 | 0.12 |
| 1.2 | 8 | 20000 | 1300 | 0.08 | 0.2 | 20000 | 1100 | 0.06 | 0.15 | 14000 | 900 | 0.04 | 0.1 |
| | 10 | 14000 | 1200 | 0.05 | 0.15 | 14000 | 1000 | 0.03 | 0.08 | 9800 | 850 | 0.02 | 0.055 |
| | 12 | 14000 | 800 | 0.03 | 0.05 | 14000 | 680 | 0.02 | 0.04 | 9800 | 550 | 0.01 | 0.03 |
| | 16 | 20000 | 3000 | 0.15 | 0.3 | 20000 | 2400 | 0.12 | 0.24 | 14000 | 2100 | 0.075 | 0.18 |
| 1.5 | 8 | 20000 | 2400 | 0.1 | 0.25 | 20000 | 1920 | 0.08 | 0.2 | 14000 | 1680 | 0.05 | 0.15 |
| | 10 | 18000 | 1800 | 0.08 | 0.2 | 18000 | 1440 | 0.064 | 0.16 | 12000 | 1260 | 0.04 | 0.12 |
| | 12 | 18000 | 1200 | 0.07 | 0.15 | 18000 | 960 | 0.056 | 0.12 | 12000 | 840 | 0.035 | 0.09 |
| | 16 | 12000 | 800 | 0.05 | 0.1 | 12000 | 640 | 0.04 | 0.08 | 12000 | 560 | 0.025 | 0.06 |
| 20 | 6 | 20000 | 3000 | 0.25 | 0.5 | 20000 | 2460 | 0.2 | 0.4 | 14000 | 2100 | 0.15 | 0.3 |
| | 8 | 16000 | 2500 | 0.2 | 0.3 | 16000 | 2050 | 0.16 | 0.24 | 11200 | 1750 | 0.12 | 0.18 |
| | 10 | 16000 | 2500 | 0.15 | 0.3 | 16000 | 2050 | 0.12 | 0.24 | 11200 | 1750 | 0.09 | 0.18 |
| | 12 | 12000 | 1800 | 0.13 | 0.2 | 12000 | 1476 | 0.104 | 0.16 | 8400 | 1260 | 0.078 | 0.12 |
| | 16 | 10000 | 1600 | 0.1 | 0.15 | 10000 | 1312 | 0.08 | 0.12 | 7000 | 1120 | 0.06 | 0.09 |
| | 20 | 8000 | 1000 | 0.06 | 0.1 | 8000 | 820 | 0.048 | 0.08 | 5600 | 700 | 0.036 | 0.06 |
| 25 | 10 | 16000 | 3000 | 0.2 | 0.5 | 14400 | 2400 | 0.16 | 0.4 | 12800 | 1800 | 0.14 | 0.35 |
| | 12 | 16000 | 2500 | 0.15 | 0.3 | 14400 | 2000 | 0.12 | 0.24 | 12800 | 1500 | 0.105 | 0.21 |
| | 16 | 16000 | 1800 | 0.1 | 0.2 | 14400 | 1440 | 0.08 | 0.16 | 12800 | 1080 | 0.07 | 0.14 |
| | 20 | 12000 | 1100 | 0.075 | 0.15 | 10800 | 880 | 0.06 | 0.12 | 9600 | 660 | 0.0525 | 0.105 |
| | 30 | 8000 | 800 | 0.04 | 0.08 | 7200 | 640 | 0.032 | 0.064 | 6400 | 480 | 0.028 | 0.056 |





KHBL二刃高硬度整体合金深沟球头立铣刀



| 被削材 | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 3.0 | 10 | 16000 | 4000 | 0.3 | 0.5 | 12800 | 3200 | 0.24 | 0.375 | 11200 | 2800 | 0.18 | 0.3 |
| | 12 | 16000 | 3000 | 0.2 | 0.4 | 12800 | 2400 | 0.16 | 0.3 | 11200 | 2100 | 0.12 | 0.24 |
| | 16 | 16000 | 1800 | 0.15 | 0.35 | 12800 | 1440 | 0.12 | 0.2625 | 11200 | 1260 | 0.09 | 0.21 |
| | 20 | 12000 | 1200 | 0.15 | 0.3 | 9600 | 960 | 0.12 | 0.225 | 8400 | 840 | 0.09 | 0.18 |
| | 30 | 8000 | 800 | 0.1 | 0.2 | 6400 | 640 | 0.08 | 0.15 | 5600 | 560 | 0.06 | 0.12 |
| 3.5 | 10 | 16000 | 4000 | 0.35 | 0.6 | 12800 | 3200 | 0.28 | 0.48 | 11200 | 2600 | 0.21 | 0.36 |
| | 12 | 16000 | 4000 | 0.3 | 0.4 | 12800 | 3200 | 0.24 | 0.32 | 11200 | 2600 | 0.18 | 0.24 |
| | 16 | 16000 | 2400 | 0.2 | 0.3 | 12800 | 1920 | 0.16 | 0.24 | 11200 | 1560 | 0.12 | 0.18 |
| | 20 | 14000 | 2000 | 0.2 | 0.3 | 11200 | 1600 | 0.16 | 0.24 | 9800 | 1300 | 0.12 | 0.18 |
| | 25 | 14000 | 2000 | 0.17 | 0.3 | 11200 | 1600 | 0.136 | 0.24 | 9800 | 1300 | 0.102 | 0.18 |
| | 30 | 8000 | 1600 | 0.15 | 0.25 | 6400 | 1280 | 0.12 | 0.2 | 5600 | 1040 | 0.09 | 0.15 |
| 4.0 | 12 | 16000 | 4000 | 0.35 | 0.7 | 12800 | 3200 | 0.273 | 0.532 | 9600 | 2400 | 0.21 | 0.42 |
| | 14 | 16000 | 4000 | 0.3 | 0.6 | 12800 | 3200 | 0.234 | 0.456 | 9600 | 2400 | 0.18 | 0.36 |
| | 16 | 16000 | 3500 | 0.25 | 0.55 | 12800 | 2800 | 0.195 | 0.418 | 9600 | 2100 | 0.15 | 0.33 |
| | 20 | 14000 | 3300 | 0.2 | 0.5 | 11200 | 2640 | 0.156 | 0.38 | 8400 | 1980 | 0.12 | 0.3 |
| | 25 | 12000 | 2600 | 0.15 | 0.4 | 9600 | 2080 | 0.117 | 0.304 | 7200 | 1560 | 0.09 | 0.24 |
| | 30 | 12000 | 2600 | 0.12 | 0.25 | 9600 | 2080 | 0.0936 | 0.19 | 7200 | 1560 | 0.072 | 0.15 |
| 5.0 | 16 | 16000 | 4000 | 0.4 | 1 | 12800 | 3200 | 0.312 | 0.76 | 9600 | 2400 | 0.24 | 0.6 |
| | 20 | 16000 | 4000 | 0.35 | 0.7 | 12800 | 3200 | 0.273 | 0.532 | 9600 | 2400 | 0.21 | 0.42 |
| | 25 | 12000 | 3000 | 0.3 | 0.6 | 9600 | 2400 | 0.234 | 0.456 | 7200 | 1800 | 0.18 | 0.36 |
| | 30 | 10000 | 2400 | 0.2 | 0.5 | 8000 | 1920 | 0.156 | 0.38 | 6000 | 1440 | 0.12 | 0.3 |

## KHRL二刃高硬度整体合金深沟圆角刀
## KHRL四刃高硬度整体合金深沟圆角刀



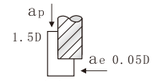
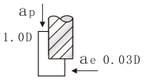
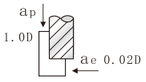
| 被削材 | | 碳素钢、合金钢 (HRC30-45) | | | | 淬火钢 (HRC45-55) | | | | 淬火钢 (HRC55-68) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 直 径 (mm) | 有效长度 mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| 0.5 | 2 | 40000 | 2500 | 0.1 | 0.3 | 30000 | 2000 | 0.1 | 0.2 | 25000 | 1400 | 0.08 | 0.1 |
| | 4 | 40000 | 2500 | 0.1 | 0.2 | 30000 | 1800 | 0.05 | 0.15 | 25000 | 1200 | 0.05 | 0.1 |
| | 6 | 30000 | 1800 | 0.05 | 0.1 | 25000 | 1200 | 0.04 | 0.05 | 20000 | 740 | 0.02 | 0.05 |
| 0.6 | 2 | 30000 | 25000 | 0.1 | 0.3 | 30000 | 2000 | 0.1 | 0.2 | 25000 | 1600 | 0.05 | 0.1 |
| | 4 | 30000 | 2500 | 0.1 | 0.2 | 30000 | 2000 | 0.07 | 0.2 | 25000 | 1600 | 0.05 | 0.1 |
| | 6 | 30000 | 2000 | 0.07 | 0.1 | 25000 | 1600 | 0.05 | 0.1 | 20000 | 1200 | 0.03 | 0.07 |
| | 8 | 30000 | 1600 | 0.05 | 0.1 | 25000 | 1200 | 0.03 | 0.07 | 20000 | 920 | 0.02 | 0.05 |
| 0.8 | 4 | 30000 | 3000 | 0.15 | 0.3 | 30000 | 2500 | 0.3 | 0.1 | 25000 | 1600 | 0.1 | 0.1 |
| | 6 | 30000 | 3000 | 0.15 | 0.2 | 30000 | 2500 | 0.3 | 0.1 | 25000 | 1200 | 0.1 | 0.05 |
| | 8 | 25000 | 2500 | 0.1 | 0.2 | 20000 | 2000 | 0.07 | 0.15 | 18000 | 1600 | 0.05 | 0.1 |
| 1.0 | 4 | 25000 | 3000 | 0.2 | 0.5 | 25000 | 2500 | 0.2 | 0.5 | 20000 | 2000 | 0.15 | 0.3 |
| | 6 | 25000 | 2500 | 0.2 | 0.5 | 25000 | 2000 | 0.2 | 0.3 | 20000 | 1600 | 0.15 | 0.3 |
| | 8 | 20000 | 2000 | 0.2 | 0.3 | 18000 | 1600 | 0.1 | 0.2 | 16000 | 1200 | 0.1 | 0.2 |
| | 10 | 18000 | 2000 | 0.1 | 0.3 | 16000 | 1600 | 0.1 | 0.2 | 14000 | 1200 | 0.1 | 0.1 |
| | 12 | 16000 | 1600 | 0.1 | 0.2 | 14000 | 1200 | 0.1 | 0.1 | 12000 | 940 | 0.05 | 0.1 |
| | 16 | 16000 | 1600 | 0.07 | 0.15 | 14000 | 1200 | 0.05 | 0.08 | 12000 | 940 | 0.03 | 0.07 |
| | 20 | 14000 | 1000 | 0.05 | 0.1 | 12000 | 820 | 0.03 | 0.05 | 10000 | 720 | 0.02 | 0.03 |
| 1.5 | 6 | 25000 | 2500 | 0.2 | 0.5 | 25000 | 2000 | 0.2 | 0.3 | 20000 | 1600 | 0.15 | 0.3 |
| | 8 | 20000 | 2000 | 0.2 | 0.3 | 18000 | 1600 | 0.1 | 0.2 | 16000 | 1200 | 0.1 | 0.2 |
| | 10 | 18000 | 2000 | 0.1 | 0.3 | 16000 | 1600 | 0.1 | 0.2 | 14000 | 1200 | 0.1 | 0.1 |
| | 12 | 16000 | 1600 | 0.1 | 0.2 | 14000 | 1200 | 0.1 | 0.1 | 12000 | 940 | 0.05 | 0.1 |
| | 16 | 16000 | 1600 | 0.07 | 0.15 | 14000 | 1200 | 0.05 | 0.08 | 12000 | 940 | 0.03 | 0.07 |
| | 20 | 14000 | 1000 | 0.05 | 0.1 | 12000 | 820 | 0.03 | 0.05 | 10000 | 720 | 0.02 | 0.03 |
| 2.0 | 6 | 20000 | 3000 | 0.2 | 0.8 | 18000 | 2500 | 0.2 | 0.6 | 14000 | 2000 | 0.2 | 0.5 |
| | 8 | 20000 | 3000 | 0.2 | 0.8 | 18000 | 2500 | 0.2 | 0.6 | 14000 | 2000 | 0.2 | 0.5 |
| | 10 | 20000 | 2500 | 0.2 | 0.6 | 18000 | 2000 | 0.2 | 0.4 | 14000 | 1500 | 0.1 | 0.3 |
| | 12 | 20000 | 2500 | 0.2 | 0.6 | 18000 | 2000 | 0.2 | 0.4 | 14000 | 1500 | 0.1 | 0.3 |
| | 16 | 18000 | 2000 | 0.1 | 0.4 | 16000 | 1600 | 0.1 | 0.3 | 12000 | 1200 | 0.1 | 0.2 |
| | 20 | 18000 | 1600 | 0.1 | 0.3 | 16000 | 1200 | 0.1 | 0.2 | 12000 | 960 | 0.1 | 0.1 |
| 2.0 | 6 | 20000 | 3000 | 0.2 | 0.8 | 18000 | 2500 | 0.2 | 0.6 | 14000 | 2000 | 0.2 | 0.5 |
| | 8 | 20000 | 3000 | 0.3 | 1.5 | 16000 | 2500 | 0.8 | 0.2 | 12000 | 2000 | 0.2 | 0.6 |
| | 10 | 20000 | 3000 | 0.3 | 1.5 | 16000 | 2500 | 0.8 | 0.2 | 12000 | 2000 | 0.2 | 0.6 |
| | 12 | 20000 | 3000 | 0.3 | 1.5 | 16000 | 2500 | 0.8 | 0.2 | 12000 | 2000 | 0.2 | 0.6 |
| | 16 | 20000 | 3000 | 0.3 | 1.5 | 16000 | 2000 | 0.2 | 0.8 | 12000 | 1600 | 0.2 | 0.6 |
| | 20 | 16000 | 2400 | 0.2 | 1 | 14000 | 1800 | 0.6 | 0.1 | 10000 | 1400 | 0.1 | 0.4 |
| | 25 | 16000 | 1600 | 0.2 | 0.8 | 14000 | 1200 | 0.4 | 0.1 | 10000 | 1000 | 0.1 | 0.2 |
| | 30 | 14000 | 1600 | 0.1 | 0.3 | 10000 | 1200 | 0.2 | 0.07 | 8200 | 1000 | 0.05 | 0.15 |
| 2.5 | 10 | 18000 | 3000 | 0.3 | 1.5 | 12000 | 2500 | 0.2 | 1.2 | 9200 | 2000 | 0.2 | 0.7 |
| | 20 | 15000 | 3000 | 0.3 | 1.2 | 10000 | 2000 | 0.2 | 1 | 8000 | 1600 | 0.15 | 0.5 |
| | 30 | 12000 | 2000 | 0.2 | 0.8 | 7600 | 1500 | 0.15 | 0.5 | 6400 | 860 | 0.1 | 0.2 |
| 3.0 | 12 | 18000 | 3000 | 0.3 | 2 | 9600 | 2500 | 0.3 | 1.2 | 8000 | 2000 | 0.2 | 1 |
| | 16 | 16000 | 3000 | 0.3 | 2 | 8000 | 2500 | 0.3 | 1.2 | 7000 | 2000 | 0.2 | 1 |
| | 18 | 16000 | 3000 | 0.3 | 2 | 8000 | 2500 | 0.3 | 1.2 | 7000 | 2000 | 0.2 | 1 |
| | 20 | 16000 | 3000 | 0.3 | 2 | 8000 | 2500 | 0.3 | 1.2 | 7000 | 2000 | 0.2 | 1 |
| | 26 | 15000 | 3000 | 0.2 | 1.5 | 7200 | 2000 | 0.2 | 1 | 6500 | 1500 | 0.15 | 0.7 |
| | 30 | 14000 | 3000 | 0.2 | 1.5 | 7200 | 2000 | 0.2 | 1 | 6500 | 1500 | 0.15 | 0.7 |
| 4.0 | 12 | 9000 | 2200 | 0.22 | 1.2 | 7000 | 900 | 0.11 | 1 | 5000 | 700 | 0.08 | 1 |
| | 16 | 8000 | 2000 | 0.2 | 1.2 | 6400 | 850 | 0.1 | 1 | 4400 | 650 | 0.07 | 1 |
| | 20 | 7500 | 1800 | 0.16 | 1.2 | 6000 | 750 | 0.09 | 1 | 4000 | 550 | 0.06 | 1 |
| | 24 | 7000 | 1500 | 0.12 | 1.2 | 5600 | 700 | 0.08 | 1 | 3600 | 500 | 0.05 | 1 |
| | 32 | 5000 | 1300 | 0.1 | 1.2 | 3800 | 500 | 0.06 | 1 | 2800 | 400 | 0.04 | 1 |
| 5.0 | 20 | 6000 | 1800 | 0.25 | 1.6 | 4800 | 800 | 0.1 | 1.3 | 3200 | 380 | 0.04 | 1.3 |
| | 40 | 4000 | 700 | 0.07 | 1.6 | 3200 | 400 | 0.05 | 1.3 | 2800 | 300 | 0.02 | 1.3 |





## KHEF六刃高硬度整体合金立铣刀

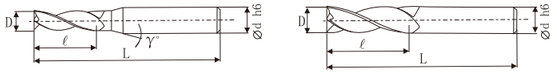


| 被削材 | 预硬钢、淬硬钢 40~50HRC | | 淬硬钢 50~60HRC | | 淬硬钢 60~65HRC | | 淬硬钢 65~70HRC | |
|---|---|---|---|---|---|---|---|---|
| 切削速度 | 300m/min | | 150m/min | | 100m/min | | 60m/min | |
| Dc | 回转速 ($min^{-1}$) Speed | 进给速度 mm/min F | 回转速 ($min^{-1}$) Speed | 进给速度 mm/min F | 回转速 ($min^{-1}$) Speed | 进给速度 mm/min F | 回转速 ($min^{-1}$) Speed | 进给速度 mm/min F |
| 6 | 16000 | 1850 | 8000 | 925 | 5300 | 610 | 3180 | 366 |
| 8 | 12000 | 1850 | 6000 | 925 | 4000 | 610 | 2390 | 366 |
| 10 | 9600 | 1850 | 4800 | 925 | 3200 | 610 | 1910 | 366 |
| 12 | 8000 | 1920 | 4000 | 960 | 2700 | 650 | 1590 | 390 |
| 14 | 6800 | 1600 | 3400 | 815 | 2300 | 550 | 1360 | 330 |
| 16 | 6000 | 1440 | 3000 | 720 | 2000 | 480 | 1190 | 288 |
| 18 | 5300 | 1270 | 2700 | 635 | 1800 | 430 | 1060 | 258 |
| 20 | 4800 | 1150 | 2400 | 575 | 1600 | 385 | 960 | 231 |
| 切深量基准 Depth of cut (D:直径) |   最大Ae=1.0mm | |   最大Ae=0.5mm | |   最大Ae=0.3mm | | | |

◎ 请使用高刚性、高精度的设备和夹具。
◎ 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
◎ 请使用空气冷却或MQL（最小量油雾冷却）。
◎ 侧面铣削推介顺铣加工。
◎ 在不干涉的条件下尽可能使刀具悬长最短。

## KAE-DLC三刃铝用整体合金立铣刀









$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KAE3010-0450-DLC | 1 | 3 | 10 | 50 | 4 |
| KAE3015-0450-DLC | 1.5 | 4 | 10 | 50 | 4 |
| KAE3020-0450-DLC | 2 | 6 | 10 | 50 | 4 |
| KAE3025-0450-DLC | 2.5 | 7 | 10 | 50 | 4 |
| KAE3030-0650-DLC | 3 | 9 | 10 | 50 | 6 |
| KAE3030-0660-DLC | 3 | 12 | 10 | 60 | 6 |
| KAE3040-0650-DLC | 4 | 12 | 10 | 50 | 6 |
| KAE3040-0660-DLC | 4 | 16 | 10 | 60 | 6 |
| KAE3050-0650-DLC | 5 | 15 | 10 | 50 | 6 |
| KAE3050-0660-DLC | 5 | 20 | 10 | 60 | 6 |
| KAE3060-0660-DLC | 6 | 18 | - | 60 | 6 |
| KAE3060-0675-DLC | 6 | 25 | - | 75 | 6 |
| KAE3080-0860-DLC | 8 | 20 | - | 60 | 8 |
| KAE3080-0875-DLC | 8 | 32 | - | 75 | 8 |
| KAE3100-1075-DLC | 10 | 30 | - | 75 | 10 |
| KAE3100-10100-DLC | 10 | 45 | - | 100 | 10 |
| KAE3120-1275-DLC | 12 | 32 | - | 75 | 12 |
| KAE3120-12100-DLC | 12 | 45 | - | 100 | 12 |
| KAE3160-16100-DLC | 16 | 45 | - | 100 | 16 |
| KAE3160-16150-DLC | 16 | 65 | - | 150 | 16 |
| KAE3200-20100-DLC | 20 | 45 | - | 100 | 20 |
| KAE3200-20150-DLC | 20 | 75 | - | 150 | 20 |

## 可切削材料适用表

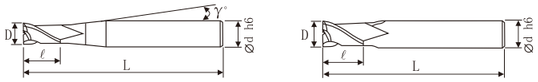
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | ○ | ◎ | | | | ◎ |



## KAE 二刃铝用整体合金立铣刀









$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | （D）刃径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KAE2010-0450 | 1 | 3 | 10 | 50 | 4 |
| KAE2015-0450 | 1.5 | 4 | 10 | 50 | 4 |
| KAE2020-0450 | 2 | 6 | 10 | 50 | 4 |
| KAE2025-0450 | 2.5 | 7 | 10 | 50 | 4 |
| KAE2030-0650 | 3 | 9 | 10 | 50 | 6 |
| KAE2030-0660 | 3 | 12 | 10 | 60 | 6 |
| KAE2040-0650 | 4 | 12 | 10 | 50 | 6 |
| KAE2040-0660 | 4 | 16 | 10 | 60 | 6 |
| KAE2050-0650 | 5 | 15 | 10 | 50 | 6 |
| KAE2050-0660 | 5 | 20 | 10 | 60 | 6 |
| KAE2060-0660 | 6 | 18 | - | 60 | 6 |
| KAE2060-0675 | 6 | 25 | - | 75 | 6 |
| KAE2080-0860 | 8 | 20 | - | 60 | 8 |
| KAE2080-0875 | 8 | 32 | - | 75 | 8 |
| KAE2100-1075 | 10 | 30 | - | 75 | 10 |
| KAE2100-10100 | 10 | 45 | - | 100 | 10 |
| KAE2120-1275 | 12 | 32 | - | 75 | 12 |
| KAE2120-12100 | 12 | 45 | - | 100 | 12 |
| KAE2160-16100 | 16 | 45 | - | 100 | 16 |
| KAE2160-16150 | 16 | 65 | - | 150 | 16 |
| KAE2200-20100 | 20 | 45 | - | 100 | 20 |
| KAE2200-20150 | 20 | 75 | - | 150 | 20 |

☆推介切削参数请参考P132

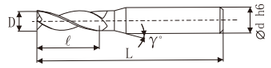
## 可切削材料适用表

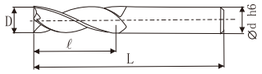
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | ◎ | ◎ | | | | ◎ |

## KAE 三刃铝用整体合金立铣刀






$\varnothing D\ {}^{0}_{-0.02}\ (D\leqslant 12)$

$\varnothing D\ {}^{0}_{-0.03}\ (12<D\leqslant 20)$




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KAE3010-0450 | 1 | 3 | 10 | 50 | 4 |
| KAE3015-0450 | 1.5 | 4 | 10 | 50 | 4 |
| KAE3020-0450 | 2 | 6 | 10 | 50 | 4 |
| KAE3025-0450 | 2.5 | 7 | 10 | 50 | 4 |
| KAE3030-0650 | 3 | 9 | 10 | 50 | 6 |
| KAE3030-0660 | 3 | 12 | 10 | 60 | 6 |
| KAE3040-0650 | 4 | 12 | 10 | 50 | 6 |
| KAE3040-0660 | 4 | 16 | 10 | 60 | 6 |
| KAE3050-0650 | 5 | 15 | 10 | 50 | 6 |
| KAE3050-0660 | 5 | 20 | 10 | 60 | 6 |
| KAE3060-0660 | 6 | 18 | - | 60 | 6 |
| KAE3060-0675 | 6 | 25 | - | 75 | 6 |
| KAE3080-0860 | 8 | 20 | - | 60 | 8 |
| KAE3080-0875 | 8 | 32 | - | 75 | 8 |
| KAE3100-1075 | 10 | 30 | - | 75 | 10 |
| KAE3100-10100 | 10 | 45 | - | 100 | 10 |
| KAE3120-1275 | 12 | 32 | - | 75 | 12 |
| KAE3120-12100 | 12 | 45 | - | 100 | 12 |
| KAE3160-16100 | 16 | 45 | - | 100 | 16 |
| KAE3160-16150 | 16 | 65 | - | 150 | 16 |
| KAE3200-20100 | 20 | 45 | - | 100 | 20 |
| KAE3200-20150 | 20 | 75 | - | 150 | 20 |

☆推介切削参数请参考P132

### 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| | | | | | | | | ○ | ◎ | | | | ◎ |



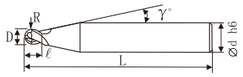


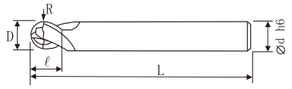




## KAB 二刃铝用整体合金球头立铣刀






$\varnothing D\ {}^{0}_{-0.02}\ (D\leqslant 12)$

R±0.01




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|
| KAB2020-0660 | 2 | 1 | 4 | 10 | 60 | 6 |
| KAB2030-0660 | 3 | 1.5 | 6 | 10 | 60 | 6 |
| KAB2040-0660 | 4 | 2 | 8 | 10 | 60 | 6 |
| KAB2050-0660 | 5 | 2.5 | 10 | 10 | 60 | 6 |
| KAB2060-0660 | 6 | 3 | 12 | - | 60 | 6 |
| KAB2080-0875 | 8 | 4 | 16 | - | 75 | 8 |
| KAB2100-1075 | 10 | 5 | 20 | - | 75 | 10 |
| KAB2120-1275 | 12 | 6 | 24 | - | 75 | 12 |

☆推介切削参数请参考P133

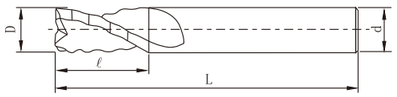
### 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| | | | | | | | | ○ | ◎ | | | | ◎ |

## KAES 三刃铝用整体合金波刃立铣刀






$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)

MG 30

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|
| KAES3060-0650 | 6 | 16 | 50 | 6 |
| KAES3080-0860 | 8 | 20 | 60 | 8 |
| KAES3100-1075 | 10 | 25 | 75 | 10 |
| KAES3120-1275 | 12 | 30 | 75 | 12 |
| KAES3160-16100 | 16 | 45 | 100 | 16 |
| KAES3200-20100 | 20 | 45 | 100 | 20 |

☆推介切削参数请参考P133

## 可切削材料适用表

○ 非常适合 ○ 适合

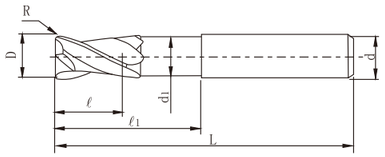
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| | | | | | | | | ○ | ○ | | | | ○ |





## KAR 二刃铝用整体合金圆鼻刀






$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)

MG 30

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (dl) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KAR2060R1.0-0657 | 6 | 1 | 7 | 20 | 5.5 | 57 | 6 |
| KAR2060R1.0-0680 | | 1 | 7 | 43 | 5.5 | 80 | 6 |
| KAR2080R1.0-0863 | 8 | 1 | 9 | 26 | 7.4 | 63 | 8 |
| KAR2080R1.0-0890 | | 1 | 9 | 53 | 7.4 | 90 | 8 |
| KAR2100R1.0-1072 | 10 | 1 | 11 | 31 | 9.2 | 72 | 10 |
| KAR2100R1.0-10100 | | 1 | 11 | 59 | 9.2 | 100 | 10 |
| KAR2100R2.0-1072 | | 2 | 11 | 31 | 9.2 | 72 | 10 |
| KAR2100R2.0-10100 | | 2 | 11 | 59 | 9.2 | 100 | 10 |
| KAR2120R1.0-1283 | 12 | 1 | 12 | 37 | 11 | 83 | 12 |
| KAR2120R1.0-12120 | | 1 | 12 | 74 | 11 | 120 | 12 |
| KAR2120R2.0-1283 | | 2 | 12 | 37 | 11 | 83 | 12 |
| KAR2120R2.0-12120 | | 2 | 12 | 74 | 11 | 120 | 12 |
| KAR2120R3.0-1283 | | 3 | 12 | 37 | 11 | 83 | 12 |
| KAR2120R3.0-12120 | | 3 | 12 | 74 | 11 | 120 | 12 |
| KAR2160R1.0-1692 | 16 | 1 | 16 | 43 | 15 | 92 | 16 |
| KAR2160R1.0-16140 | | 1 | 16 | 84 | 15 | 140 | 16 |
| KAR2160R2.0-1692 | | 2 | 16 | 43 | 15 | 92 | 16 |
| KAR2160R2.0-16140 | | 2 | 16 | 84 | 15 | 140 | 16 |
| KAR2160R3.0-1692 | | 3 | 16 | 43 | 15 | 92 | 16 |
| KAR2160R3.0-16140 | | 3 | 16 | 84 | 15 | 140 | 16 |
| KAR2160R4.0-1692 | | 4 | 16 | 43 | 15 | 92 | 16 |
| KAR2160R4.0-16140 | | 4 | 16 | 84 | 15 | 140 | 16 |
| KAR2200R1.0-20104 | 20 | 1 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R1.0-20140 | | 1 | 20 | 89 | 19 | 140 | 20 |
| KAR2200R2.0-20104 | | 2 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R2.0-20140 | | 2 | 20 | 89 | 19 | 140 | 20 |
| KAR2200R3.0-20104 | | 3 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R3.0-20140 | | 3 | 20 | 89 | 19 | 140 | 20 |
| KAR2200R4.0-20104 | | 4 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R4.0-20140 | | 4 | 20 | 89 | 19 | 140 | 20 |
| KAR2200R5.0-20104 | | 5 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R5.0-20140 | | 5 | 20 | 89 | 19 | 140 | 20 |
| KAR2200R6.0-20104 | | 6 | 20 | 53 | 19 | 104 | 20 |
| KAR2200R6.0-20140 | | 6 | 20 | 89 | 19 | 140 | 20 |

☆推介切削参数请参考P134

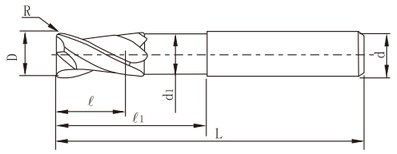
## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| | | | | | | | | ○ | ○ | | | | ○ |

## KAR 三刃铝用整体合金圆鼻刀






$\varnothing D\ {}^{0}_{-0.02}$ (D≤12)

$\varnothing D\ {}^{0}_{-0.03}$ (12<D≤20)




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (dl) 首径 mm | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KAR3120R1.0-1283 | 12 | 1 | 12 | 37 | 11 | 83 | 12 |
| KAR3120R1.0-12120 | | 1 | 12 | 74 | 11 | 120 | 12 |
| KAR3120R2.0-1283 | | 2 | 12 | 37 | 11 | 83 | 12 |
| KAR3120R2.0-12120 | | 2 | 12 | 74 | 11 | 120 | 12 |
| KAR3120R3.0-1283 | | 3 | 12 | 37 | 11 | 83 | 12 |
| KAR3120R3.0-12120 | | 3 | 12 | 74 | 11 | 120 | 12 |
| KAR3160R1.0-1692 | 16 | 1 | 16 | 43 | 15 | 92 | 16 |
| KAR3160R1.0-16140 | | 1 | 16 | 84 | 15 | 140 | 16 |
| KAR3160R2.0-1692 | | 2 | 16 | 43 | 15 | 92 | 16 |
| KAR3160R2.0-16140 | | 2 | 16 | 84 | 15 | 140 | 16 |
| KAR3160R3.0-1692 | | 3 | 16 | 43 | 15 | 92 | 16 |
| KAR3160R3.0-16140 | | 3 | 16 | 84 | 15 | 140 | 16 |
| KAR3160R4.0-1692 | | 4 | 16 | 43 | 15 | 92 | 16 |
| KAR3160R4.0-16140 | | 4 | 16 | 84 | 15 | 140 | 16 |
| KAR3200R1.0-20104 | 20 | 1 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R1.0-20140 | | 1 | 20 | 89 | 19 | 140 | 20 |
| KAR3200R2.0-20104 | | 2 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R2.0-20140 | | 2 | 20 | 89 | 19 | 140 | 20 |
| KAR3200R3.0-20104 | | 3 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R3.0-20140 | | 3 | 20 | 89 | 19 | 140 | 20 |
| KAR3200R4.0-20104 | | 4 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R4.0-20140 | | 4 | 20 | 89 | 19 | 140 | 20 |
| KAR3200R5.0-20104 | | 5 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R5.0-20140 | | 5 | 20 | 89 | 19 | 140 | 20 |
| KAR3200R6.0-20104 | | 6 | 20 | 53 | 19 | 104 | 20 |
| KAR3200R6.0-20140 | | 6 | 20 | 89 | 19 | 140 | 20 |

☆推介切削参数请参考P134

## 可切削材料适用表

○ 非常适合　○ 适合

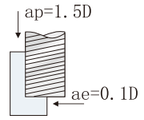
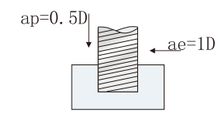
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| `40HRC | `45HRC | `55HRC | `60HRC | `65HRC | `35HRC | `350HB | | | | | | |
| | | | | | | | ○ | ○ | | | | ○ |





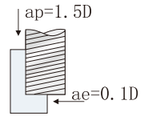
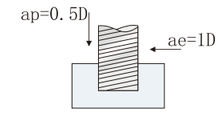
## KAE二刃铝用整体合金立铣刀



| 被削材 | 铝合金 | | 硅铝合金Si≤10% | |
|---|---|---|---|---|
| D (mm) | 回转速 (min⁻¹) | 进给速度 (mm/min) | 回转速 (min⁻¹) | 进给速度 (mm/min) |
| 1 | 40000 | 650 | 40000 | 500 |
| 2 | 40000 | 950 | 32000 | 750 |
| 3 | 26500 | 1500 | 21000 | 1100 |
| 4 | 20000 | 1600 | 16000 | 1250 |
| 5 | 16000 | 1500 | 13000 | 1100 |
| 6 | 13000 | 1250 | 10600 | 1000 |
| 8 | 10000 | 1400 | 8000 | 1100 |
| 10 | 8000 | 1600 | 6500 | 1250 |
| 12 | 6600 | 1650 | 5300 | 1300 |
| 14 | 5700 | 1700 | 4600 | 1350 |
| 16 | 5000 | 1700 | 4000 | 1350 |
| 18 | 4400 | 1700 | 3500 | 1350 |
| 20 | 4000 | 1700 | 3200 | 1350 |
| 切深量 基准 (D:直径) |   | |   | |

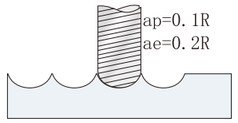
## KAE三刃铝用整体合金立铣刀



| 被削材 | 铝合金 | | 硅铝合金Si≤10% | |
|---|---|---|---|---|
| D (mm) | 回转速 (min⁻¹) | 进给速度 (mm/min) | 回转速 (min⁻¹) | 进给速度 (mm/min) |
| 1 | 40000 | 800 | 40000 | 600 |
| 2 | 40000 | 1200 | 32000 | 900 |
| 3 | 26500 | 1800 | 21000 | 1300 |
| 4 | 20000 | 2000 | 16000 | 1500 |
| 5 | 16000 | 1750 | 13000 | 1300 |
| 6 | 13000 | 1500 | 10600 | 1200 |
| 8 | 10000 | 1650 | 8000 | 1300 |
| 10 | 8000 | 1900 | 6500 | 1500 |
| 12 | 6600 | 1950 | 5300 | 1550 |
| 14 | 5700 | 2000 | 4600 | 1600 |
| 16 | 5000 | 2000 | 4000 | 1600 |
| 18 | 4400 | 2000 | 3500 | 1600 |
| 20 | 4000 | 2000 | 3200 | 1600 |
| 切深量 基准 (D:直径) |   | |   | |

## KAB二刃铝用整体合金球头立铣刀

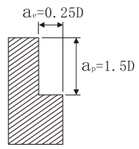
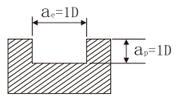


| 被削材 | 铝合金 | | 硅铝合金Si≤10% | |
|---|---|---|---|---|
| D (mm) | 回转速 ($min^{-1}$) | 进给速度 (mm/min) | 回转速 ($min^{-1}$) | 进给速度 (mm/min) |
| R1.0 | 40000 | 2000 | 32000 | 1600 |
| R1.5 | 26500 | 1950 | 21000 | 1550 |
| R2.0 | 20000 | 1950 | 16000 | 1550 |
| R2.5 | 16000 | 1950 | 13000 | 1550 |
| R3.0 | 13000 | 2000 | 10600 | 1600 |
| R4.0 | 10000 | 2450 | 8000 | 2000 |
| R5.0 | 8000 | 2200 | 6500 | 1750 |
| R6.0 | 6600 | 2050 | 5300 | 1650 |
| 切深量基准 R:(球头半径) |  | | | |



## KAES三刃铝用整体合金波刃立铣刀



| 被加工材料 | 铝合金 | | 硅铝合金Si<=10% | |
|---|---|---|---|---|
| 切削速度 | 25m/min | | 200m/min | |
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 6 | 13000 | 3000 | 10600 | 1900 |
| 8 | 10000 | 3000 | 8000 | 1900 |
| 10 | 8000 | 2900 | 6500 | 1850 |
| 12 | 6600 | 2700 | 5300 | 1700 |
| 14 | 5700 | 2600 | 4600 | 1650 |
| 16 | 5000 | 2550 | 4000 | 1600 |
| 18 | 4400 | 2500 | 3500 | 1550 |
| 20 | 4000 | 2400 | 3200 | 1500 |
| 最大切深量 |  | |  | |

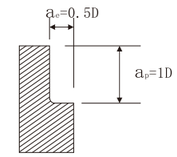






## KAR二刃标准长铝用整体合金圆鼻刀

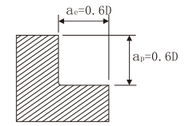


| 被加工材料 | 铝合金 | | 硅铝合金Si<=10% | |
|---|---|---|---|---|
| 切削速度 | 500～800m/min | | 500～800 m/min | |
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 6 | 35000 | 3500 | 35000 | 3500 |
| 8 | 26000 | 3800 | 26000 | 3800 |
| 10 | 21000 | 4000 | 21000 | 4000 |
| 12 | 18000 | 4300 | 18000 | 4300 |
| 16 | 15000 | 4800 | 15000 | 4800 |
| 20 | 12000 | 5500 | 12000 | 5500 |
| 最大切深量 |  | | | |



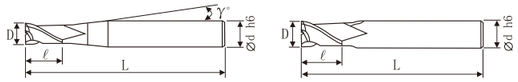
## KAR三刃标准长铝用整体合金圆鼻刀



| 被加工材料 | 铝合金 | | 硅铝合金Si<=10% | |
|---|---|---|---|---|
| 切削速度 | 800～1200m/min | | 800～1200 m/min | |
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 12 | 25000 | 6000 | 25000 | 6000 |
| 16 | 20000 | 6400 | 20000 | 6400 |
| 20 | 15000 | 7000 | 15000 | 7000 |
| 最大切深量 |  | | | |

## KOE 二刃铜用整体合金立铣刀






ØD $^{0}_{-0.02}$ (D≤12)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KOE2010-0450 | 1 | 3 | 10 | 50 | 4 |
| KOE2020-0450 | 2 | 6 | 10 | 50 | 4 |
| KOE2030-0650 | 3 | 8 | 10 | 50 | 6 |
| KOE2040-0650 | 4 | 11 | 10 | 50 | 6 |
| KOE2050-0650 | 5 | 13 | 10 | 50 | 6 |
| KOE2060-0650 | 6 | 16 | - | 50 | 6 |
| KOE2080-0860 | 8 | 20 | - | 60 | 8 |
| KOE2100-1075 | 10 | 25 | - | 75 | 10 |
| KOE2120-1275 | 12 | 30 | - | 75 | 12 |

☆推介切削参数请参考P138

## 可切削材料适用表

○ 非常适合　○ 适合

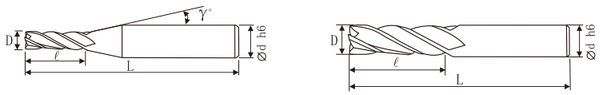
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | ○ | ○ | | | | ○ |



KO铜用系列

## KOE 四刃铜用整体合金立铣刀






ØD $^{0}_{-0.02}$ (D≤12)




| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KOE4030-0650 | 3 | 8 | 10 | 50 | 6 |
| KOE4040-0650 | 4 | 11 | 10 | 50 | 6 |
| KOE4050-0650 | 5 | 13 | 10 | 50 | 6 |
| KOE4060-0650 | 6 | 16 | - | 50 | 6 |
| KOE4080-0860 | 8 | 20 | - | 60 | 8 |
| KOE4100-1075 | 10 | 25 | - | 75 | 10 |
| KOE4120-1275 | 12 | 30 | - | 75 | 12 |

☆推介切削参数请参考P138

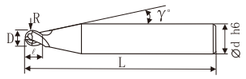
## 可切削材料适用表

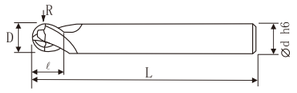
○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | ○ | ○ | | | | ○ |

## KOB 二刃铜用整体合金球头立铣刀






∅D $^{0}_{-0.02}$ (D≤12)

R±0.01

MG CrN 35

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （γ）颈角 | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|
| KOB2010-0450 | 1 | 0.5 | 2 | 10 | 50 | 4 |
| KOB2015-0450 | 1.5 | 0.75 | 3 | 10 | 50 | 4 |
| KOB2020-0450 | 2 | 1 | 4 | 10 | 50 | 4 |
| KOB2025-0450 | 2.5 | 1.25 | 5 | 10 | 50 | 4 |
| KOB2030-0650 | 3 | 1.5 | 6 | 10 | 50 | 6 |
| KOB2035-0650 | 3.5 | 1.75 | 8 | 10 | 50 | 6 |
| KOB2040-0650 | 4 | 2 | 8 | 10 | 50 | 6 |
| KOB2050-0650 | 5 | 2.5 | 10 | 10 | 50 | 6 |
| KOB2060-0650 | 6 | 3 | 12 | - | 50 | 6 |
| KOB2080-0860 | 8 | 4 | 16 | - | 60 | 8 |
| KOB2100-1075 | 10 | 5 | 20 | - | 75 | 10 |
| KOB2120-1275 | 12 | 6 | 24 | - | 75 | 12 |

☆推介切削参数请参考P139

## 可切削材料适用表

○ 非常适合　○ 适合

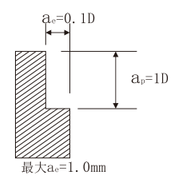
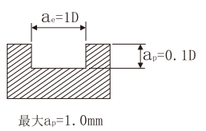
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | ○ | ○ | | | | ○ |





## KOE二刃铜用整体合金立铣刀



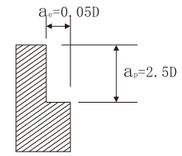
| 被加工材料 | 铜,铜合金 | |
|---|---|---|
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 1 | 40000 | 1800 |
| 2 | 30000 | 2500 |
| 3 | 20000 | 2300 |
| 4 | 15000 | 2000 |
| 5 | 12000 | 1500 |
| 6 | 10000 | 1400 |
| 8 | 8000 | 1000 |
| 10 | 6500 | 900 |
| 12 | 5500 | 850 |
| 最大切深量 |  |  |





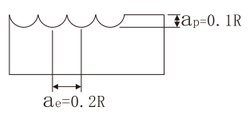
## KOE四刃铜用整体合金立铣刀



| 被加工材料 | 铜,铜合金 | |
|---|---|---|
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| 3 | 10600 | 250 |
| 4 | 8000 | 300 |
| 5 | 6500 | 400 |
| 6 | 5300 | 400 |
| 8 | 4000 | 450 |
| 10 | 3500 | 450 |
| 12 | 3000 | 450 |
| 最大切深量 |  | |

## KOB二刃铜用整体合金球头立铣刀

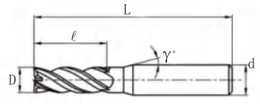


| 被加工材料 | 铜,铜合金 | |
|---|---|---|
| 直径 (mm) | 转速 ($min^{-1}$) | 进给速度 (mm/min) |
| R0.5 | 40000 | 900 |
| R0.75 | 32000 | 800 |
| R1.0 | 24000 | 870 |
| R1.25 | 19000 | 800 |
| R1.5 | 16000 | 850 |
| R1.75 | 14000 | 850 |
| R2.0 | 12000 | 900 |
| R2.5 | 9600 | 900 |
| R3.0 | 8000 | 1200 |
| R4.0 | 7000 | 1500 |
| R5.0 | 4800 | 1300 |
| R6.0 | 4000 | 1200 |
| 最大切深量 |  | |

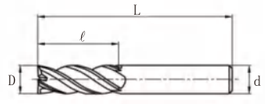


## KSE 四刃不等距不锈钢专用整体合金立铣刀











$\varnothing D\ ^{0}_{-0.02}$ (D≤12)

$\varnothing D\ ^{0}_{-0.03}$ (12<D≤20)

MG ALTiN 38-41°

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (γ) 颈角 | (L) 全长 mm | (d) 柄径 mm |
|---|---|---|---|---|---|
| KSE4040-0650 | 4 | 11 | 10 | 50 | 6 |
| KSE4050-0650 | 5 | 13 | 10 | 50 | 6 |
| KSE4060-0650 | 6 | 16 | - | 50 | 6 |
| KSE4080-0860 | 8 | 20 | - | 60 | 8 |
| KSE4100-1075 | 10 | 25 | - | 75 | 10 |
| KSE4120-1275 | 12 | 30 | - | 75 | 12 |
| KSE4160-16100 | 16 | 45 | - | 100 | 16 |
| KSE4200-20100 | 20 | 45 | - | 100 | 20 |

☆推介切削参数请参考P143

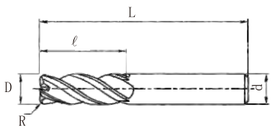
## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | | | | ○ | | | | | ○ | ○ | |

## KSR 四刃不等距不锈钢专用整体合金圆鼻刀






⌀D $^{0}_{-0.02}$ (D≤12)

⌀D $^{0}_{-0.03}$ (12<D≤20)

MG ALTiN 38-41

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|
| KSR4060R0.5-0650 | 6 | 0.5 | 16 | 50 | 6 |
| KSR4060R1.0-0650 | 6 | 1 | 16 | 50 | 6 |
| KSR4080R0.5-0860 | 8 | 0.5 | 20 | 60 | 8 |
| KSR4080R1.0-0860 | 8 | 1 | 20 | 60 | 8 |
| KSR4100R0.5-1075 | 10 | 0.5 | 25 | 75 | 10 |
| KSR4100R1.0-1075 | 10 | 1 | 25 | 75 | 10 |
| KSR4100R2.0-1075 | 10 | 2 | 25 | 75 | 10 |
| KSR4120R0.5-1275 | 12 | 0.5 | 30 | 75 | 12 |
| KSR4120R1.0-1275 | 12 | 1 | 30 | 75 | 12 |
| KSR4120R2.0-1275 | 12 | 2 | 30 | 75 | 12 |
| KSR4160R1.0-16100 | 16 | 1 | 45 | 100 | 16 |
| KSR4160R2.0-16100 | 16 | 2 | 45 | 100 | 16 |
| KSR4160R3.0-16100 | 16 | 3 | 45 | 100 | 16 |
| KSR4200R1.0-20100 | 20 | 1 | 45 | 100 | 20 |
| KSR4200R2.0-20100 | 20 | 2 | 45 | 100 | 20 |
| KSR4200R3.0-20100 | 20 | 3 | 45 | 100 | 20 |

☆推介切削参数请参考P144

## 可切削材料适用表

○ 非常适合 ○ 适合

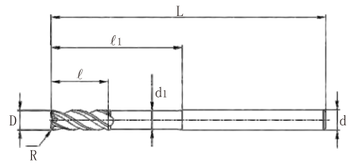
| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | | | | ○ | | | | | ○ | ○ | |





## KSRP 四刃加长不等距强力型不锈钢专用圆鼻刀






⌀D $^{0}_{-0.02}$ (D≤12)

⌀D $^{0}_{-0.03}$ (12<D≤20)

MG ALTiN 38-41

| 型号 Model | （D）刃径 mm | （R）R角半径 mm | （ℓ）刃长 mm | （ℓ1）有效长度 mm | （d1）首径 mm | （L）全长 mm | （d）柄径 mm |
|---|---|---|---|---|---|---|---|
| KSRP4060R0.5-0675 | 6 | 0.5 | 9 | 27 | 5.7 | 75 | 6 |
| KSRP4060R1.0-0675 | 6 | 1 | 9 | 27 | 5.7 | 75 | 6 |
| KSRP4080R0.5-08100 | 8 | 0.5 | 12 | 36 | 7.7 | 100 | 8 |
| KSRP4080R1.0-08100 | 8 | 1 | 12 | 36 | 7.7 | 100 | 8 |
| KSRP4100R0.5-10100 | 10 | 0.5 | 14 | 42 | 9.5 | 100 | 10 |
| KSRP4100R1.0-10100 | 10 | 1 | 14 | 42 | 9.5 | 100 | 10 |
| KSRP4100R2.0-10100 | 10 | 2 | 14 | 42 | 9.5 | 100 | 10 |
| KSRP4120R0.5-12100 | 12 | 0.5 | 16 | 48 | 11.5 | 100 | 12 |
| KSRP4120R1.0-12100 | 12 | 1 | 16 | 48 | 11.5 | 100 | 12 |
| KSRP4120R2.0-12100 | 12 | 2 | 16 | 48 | 11.5 | 100 | 12 |
| KSRP4160R1.0-16150 | 16 | 1 | 20 | 60 | 15.5 | 150 | 16 |
| KSRP4160R2.0-16150 | 16 | 2 | 20 | 60 | 15.5 | 150 | 16 |

☆推介切削参数请参考P144

## 可切削材料适用表

○ 非常适合 ○ 适合

| 碳素钢 CARBON STEELS 预硬钢 PREHARDENED STEELS | 合金钢 ALLOY STEELS 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | | ~45HRC | ~55HRC | ~60HRC ~65HRC | ~35HRC | ~350HB | | | | | | |
| ○ | | | | | ○ | | | | | ○ | ○ | |

## KSE四刃不等距不锈钢专用整体合金立铣刀平刀



| 被削材 | 碳钢、合金钢 | | 不锈钢 | | 耐热合金、钛合金 | |
|---|---|---|---|---|---|---|
| Dc | 回转速 (min⁻¹) Speed | 进给速度 mm/min F | 回转速 (min⁻¹) Speed | 进给速度 mm/min F | 回转速 (min⁻¹) Speed | 进给速度 mm/min F |
| 6.0 | 5300 | 900 | 2700 | 240 | 2470 | 145 |
| 8.0 | 3900 | 840 | 2000 | 255 | 1820 | 155 |
| 10.0 | 3100 | 770 | 1600 | 255 | 1430 | 155 |
| 12.0 | 2600 | 720 | 1300 | 205 | 1235 | 135 |
| 16.0 | 1900 | 625 | 1000 | 180 | 935 | 110 |
| 切削量基准 Depth of cut (D:直径) |  | | | | | |



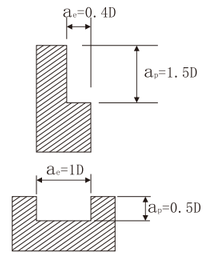
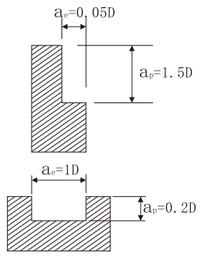
◎ 上表是侧铣加工的标准值，切槽时，转速要以上表的80%～100%，进给速度要以60%～80%为标准值。
◎ 切削不锈钢，钛合金和耐热合金时，推介使用非水溶性切削液。
◎ 请使用高刚性、高精度的机床和刀柄。
◎ 根据切深量和机床刚性调整转速和进给速度。
◎ 推介顺铣加工。
◎ 在不干涉的条件下尽可能使刀具悬长最短。
◎ 上表是基于L/D≤4时的推介值，当L/D>4时，请将转速和进给速度同比降低70%。





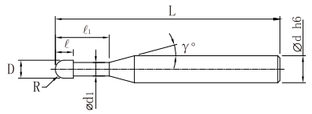
## KSR四刃不等距不锈钢专用整体合金圆鼻刀
## KSRP四刃加长不等距强力型不锈钢专用圆鼻刀



| 被加工材料 | 碳钢、合金钢 | | 不锈钢 | | 耐热合金、钛合金 | |
|---|---|---|---|---|---|---|
| 直径 (mm) | 转速 (min⁻¹) | 进给速度 (mm/min) | 转速 (min⁻¹) | 进给速度 (mm/min) | 转速 (min⁻¹) | 进给速度 (mm/min) |
| 6 | 5300 | 900 | 2700 | 240 | 2470 | 145 |
| 8 | 3900 | 840 | 2000 | 255 | 1820 | 155 |
| 10 | 3100 | 770 | 1600 | 255 | 1430 | 155 |
| 12 | 2600 | 720 | 1300 | 205 | 1235 | 135 |
| 16 | 1900 | 625 | 1000 | 180 | 935 | 110 |
| 最大切深量 |  | | | |  | |

## KDB　二刃球刀






∅D $^{0}_{-0.005}$ (D≤3)

R　±0.005




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (γ) 颈角 | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KDB2010L16-0475 | 1 | 0.5 | 2.5 | 16 | 0.92 | 75 | 11 | 4 |
| KDB2010L20-0475 | 1 | 0.5 | 2.5 | 20 | 0.92 | 75 | 11 | 4 |
| KDB2010L25-0475 | 1 | 0.5 | 2.5 | 25 | 0.92 | 75 | 11 | 4 |
| KDB2015L20-0475 | 1.5 | 0.75 | 4 | 20 | 1.42 | 75 | 11 | 4 |
| KDB2015L25-0475 | 1.5 | 0.75 | 4 | 25 | 1.42 | 75 | 11 | 4 |
| KDB2020L20-0475 | 2 | 1 | 5 | 20 | 1.9 | 75 | 11 | 4 |
| KDB2020L25-0475 | 2 | 1 | 5 | 25 | 1.9 | 75 | 11 | 4 |
| KDB2020L30-0475 | 2 | 1 | 5 | 30 | 1.9 | 75 | 11 | 4 |
| KDB2030L20-0475 | 3 | 1.5 | 7.5 | 20 | 2.9 | 75 | 11 | 4 |
| KDB2030L25-0475 | 3 | 1.5 | 7.5 | 25 | 2.9 | 75 | 11 | 4 |
| KDB2030L30-0475 | 3 | 1.5 | 7.5 | 30 | 2.9 | 75 | 11 | 4 |

☆推介切削参数请参考P149

## 可切削材料适用表

○ 非常适合　○ 适合

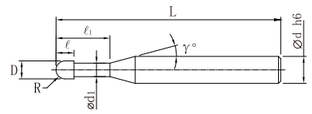
| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | | ○ | | | |





## KDB 四刃球刀






∅D $^{0}_{-0.008}$ (D≤12)

R　±0.01




| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (γ) 颈角 | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KDB4040L20-0475 | 4 | 2 | 10 | 20 | 3.9 | 75 | - | 4 |
| KDB4040L25-0475 | 4 | 2 | 10 | 25 | 3.9 | 75 | - | 4 |
| KDB4040L30-0475 | 4 | 2 | 10 | 30 | 3.9 | 75 | - | 4 |
| KDB4060L25-0675 | 6 | 3 | 15 | 25 | 5.85 | 75 | - | 6 |
| KDB4060L30-06100 | 6 | 3 | 15 | 30 | 5.85 | 100 | - | 6 |
| KDB4080L30-08100 | 8 | 4 | 20 | 30 | 7.8 | 100 | - | 8 |
| KDB4080L40-08150 | 8 | 4 | 20 | 40 | 7.8 | 150 | - | 8 |
| KDB4100L40-10100 | 10 | 5 | 22 | 40 | 9.8 | 100 | - | 10 |
| KDB4100L50-10150 | 10 | 5 | 22 | 50 | 9.8 | 150 | - | 10 |
| KDB4120150-12100 | 12 | 6 | 25 | 50 | 11.7 | 100 | - | 12 |
| KDB4120L60-12150 | 12 | 6 | 25 | 60 | 11.7 | 150 | - | 12 |

☆推介切削参数请参考P149

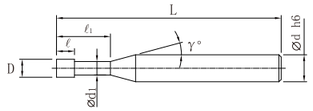
## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 合金钢 ALLOY STEELS / 预硬钢 PREHARDENED STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | | ○ | | | |

## KDE 四刃平刀






ØD $^{0}_{-0.01}$ (D≤3)

ØD $^{0}_{-0.12}$ (3<D≤12)

| 型号 Model | (D) 刃径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (γ) 颈角 | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|
| KDE4010L16-0475 | 1 | 3 | 16 | 0.92 | 75 | 11 | 4 |
| KDE4010L20-0475 | 1 | 3 | 20 | 0.92 | 75 | 11 | 4 |
| KDE4010L25-0475 | 1 | 3 | 25 | 0.92 | 75 | 11 | 4 |
| KDE4015L20-0475 | 1.5 | 5 | 20 | 1.42 | 75 | 11 | 4 |
| KDE4015L25-0475 | 1.5 | 5 | 25 | 1.42 | 75 | 11 | 4 |
| KDE4020L20-0475 | 2 | 6 | 20 | 1.9 | 75 | 11 | 4 |
| KDE4020L25-0475 | 2 | 6 | 25 | 1.9 | 75 | 11 | 4 |
| KDE4020L30-0475 | 2 | 6 | 30 | 1.9 | 75 | 11 | 4 |
| KDE4030L20-0475 | 3 | 9 | 20 | 2.9 | 75 | 11 | 4 |
| KDE4030L25-0475 | 3 | 9 | 25 | 2.9 | 75 | 11 | 4 |
| KDE4030L30-0475 | 3 | 9 | 30 | 2.9 | 75 | 11 | 4 |
| KDE4040L20-0475 | 4 | 12 | 20 | 3.9 | 75 | – | 4 |
| KDE4040L25-0475 | 4 | 12 | 25 | 3.9 | 75 | – | 4 |
| KDE4040L30-0475 | 4 | 12 | 30 | 3.9 | 75 | – | 4 |
| KDE4060L25-0675 | 6 | 18 | 25 | 5.85 | 75 | – | 6 |
| KDE4060L30-06100 | 6 | 24 | 30 | 5.85 | 100 | – | 6 |
| KDE4080L30-08100 | 8 | 24 | 30 | 7.8 | 100 | – | 8 |
| KDE4080L40-08150 | 8 | 32 | 40 | 7.8 | 150 | – | 8 |
| KDE4100L40-10100 | 10 | 30 | 40 | 9.8 | 100 | – | 10 |
| KDE4100L50-10150 | 10 | 40 | 50 | 9.8 | 150 | – | 10 |
| KDE4120L50-12100 | 12 | 36 | 50 | 11.7 | 100 | – | 12 |
| KDE4120L60-12150 | 12 | 48 | 60 | 11.7 | 150 | – | 12 |

☆推介切削参数请参考P149

## 可切削材料适用表

○ 非常适合　○ 适合

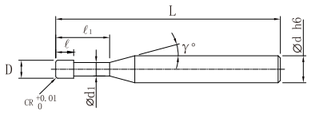
| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS / 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | | ○ | | | |





## KDR 四刃圆鼻刀






ØD $^{0}_{-0.01}$ (D≤3)

ØD $^{0}_{-0.12}$ (3<D≤12)

| 型号 Model | (D) 刃径 mm | (R) R角半径 mm | (ℓ) 刃长 mm | (ℓ1) 有效长度 mm | (d1) 首径 mm | (L) 全长 mm | (γ) 颈角 | (d) 柄径 mm |
|---|---|---|---|---|---|---|---|---|
| KDR4010R0.1L16-0475 | 1 | 0.1 | 2 | 16 | 0.92 | 75 | 11 | 4 |
| KDR4010R0.1L20-0475 | 1 | 0.1 | 2 | 20 | 0.92 | 75 | 11 | 4 |
| KDR4010R0.1L25-0475 | 1 | 0.1 | 2 | 25 | 0.92 | 75 | 11 | 4 |
| KDR4020R0.1L20-0475 | 2 | 0.1 | 4 | 20 | 1.9 | 75 | 11 | 4 |
| KDR4020R0.1L25-0475 | 2 | 0.1 | 4 | 25 | 1.9 | 75 | 11 | 4 |
| KDR4020R0.1L30-0475 | 2 | 0.1 | 4 | 30 | 1.9 | 75 | 11 | 4 |
| KDR4030R0.1L20-0475 | 3 | 0.1 | 6 | 20 | 2.9 | 75 | 11 | 4 |
| KDR4030R0.1L25-0475 | 3 | 0.1 | 6 | 25 | 2.9 | 75 | 11 | 4 |
| KDR4030R0.1L30-0475 | 3 | 0.1 | 6 | 30 | 2.9 | 75 | 11 | 4 |
| KDR4040R0.5L20-0475 | 4 | 0.5 | 8 | 20 | 3.9 | 75 | – | 4 |
| KDR4040R0.5L25-0475 | 4 | 0.5 | 8 | 25 | 3.9 | 75 | – | 4 |
| KDR4040R0.5L30-0475 | 4 | 0.5 | 8 | 30 | 3.9 | 75 | – | 4 |
| KDR4060R0.5L25-0675 | 6 | 0.5 | 12 | 25 | 5.85 | 75 | – | 6 |
| KDR4060R0.5L30-06100 | 6 | 0.5 | 12 | 30 | 5.85 | 100 | – | 6 |
| KDR4080R0.5L30-08100 | 8 | 0.5 | 16 | 30 | 7.8 | 100 | – | 8 |
| KDR4080R0.5L40-08150 | 8 | 0.5 | 16 | 40 | 7.8 | 150 | – | 8 |
| KDR4100R0.5L40-10100 | 10 | 0.5 | 20 | 40 | 9.8 | 100 | – | 10 |
| KDR4100R0.5L50-10150 | 10 | 0.5 | 20 | 50 | 9.8 | 150 | – | 10 |
| KDR4120R0.5L50-12100 | 12 | 0.5 | 24 | 50 | 11.7 | 100 | – | 12 |
| KDR4120R0.5L60-12150 | 12 | 0.5 | 24 | 60 | 11.7 | 150 | – | 12 |

☆推介切削参数请参考P149

## 可切削材料适用表

○ 非常适合　○ 适合

| 碳素钢 CARBON STEELS / 预硬钢 PREHARDENED STEELS / 合金钢 ALLOY STEELS / 工具钢 TOOL STEELS | 预硬钢、淬火钢 PREHARDENED STEELS、HARDENED STEELS | | | | 不锈钢 STAINLESS STEELS | 铸铁 CAST IRON / 球墨铸铁 DUCTILE CAST IRON | 铜合金 COPPER ALLOYS | 铝合金 ALUMINUM ALLOY | 石墨 GRAPHITE | 钛合金 TITANIUM ALLOY | 耐热合金 HEAT RESISTANT ALLOYS | 塑料 PLASTIC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~40HRC | ~45HRC | ~55HRC | ~60HRC | ~65HRC | ~35HRC | ~350HB | | | | | | |
| | | | | | | | | | ○ | | | |

## 石墨刀KDB球刀系列
## 石墨刀KDE平刀系列



| 加工方式 | | 粗加工 Roughing | | | | 精加工 Finishing | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 型 号 Model | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| CDB系列 | 12R6 | 12000 | 10000 | 2 | 2 | 18000 | 8000 | 0.5 | 0.7 |
| | 10R5 | 14500 | 10000 | 2 | 2 | 20000 | 7200 | 0.5 | 0.6 |
| | 8R4 | 16500 | 8000 | 2 | 1.5 | 22000 | 6000 | 0.4 | 0.6 |
| | 6R3 | 18000 | 8000 | 2 | 1.5 | 26000 | 4400 | 0.35 | 0.45 |
| | 4R2 | 18000 | 8000 | 1.5 | 1.5 | 28000 | 4000 | 0.3 | 0.3 |
| | 3R1.5 | 20000 | 6000 | 1.2 | 1 | 29000 | 3500 | 0.25 | 0.2 |
| | 2R1 | 20000 | 5000 | 0.5 | 0.5 | 30000 | 2800 | 0.15 | 0.1 |
| | 1.5R0.75 | 21000 | 3000 | 0.3 | 0.4 | 30000 | 2000 | 0.08 | 0.05 |
| | 1R0.5 | 23000 | 2000 | 0.2 | 0.3 | 31000 | 1500 | 0.08 | 0.05 |
| | 0.6R0.3 | 25000 | 1000 | 0.05 | 0.15 | 32000 | 800 | 0.03 | 0.05 |
| CDE系列 | 12 | 17000 | 10000 | 2 | 8 | 9000 | 1500 | 25 | 0.45 |
| | 10 | 18000 | 10000 | 2 | 7 | 10000 | 1500 | 25 | 0.45 |
| | 8 | 18000 | 8000 | 2 | 5 | 12000 | 1500 | 25 | 0.4 |
| | 6 | 18000 | 7000 | 1.7 | 3 | 13500 | 4200 | 0.3 | 0.4 |
| | 4 | 18000 | 6500 | 1 | 2 | 15000 | 3000 | 0.2 | 0.3 |
| | 3 | 20000 | 6000 | 1 | 1.5 | 16200 | 2400 | 0.2 | 0.25 |
| | 2 | 20000 | 2500 | 0.5 | 1 | 17400 | 1800 | 0.15 | 0.25 |
| | 1.5 | 21000 | 2000 | 0.3 | 0.5 | 18000 | 1200 | 0.1 | 0.25 |
| | 1 | 21000 | 1500 | 0.3 | 0.5 | 18600 | 900 | 0.07 | 0.25 |
| | 0.6 | 23000 | 800 | 0.1 | 0.25 | 20000 | 700 | 0.03 | 0.25 |

## 石墨刀KDR圆鼻刀系列



| 加工方式 | | 粗加工 Roughing | | | | 精加工 Finishing | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 型 号 Model | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm | 转速 r/min | 进给速度 mm/min | Ap mm | Ae mm |
| CDR系列 | 12R1 | 10000 | 10000 | 2 | 6.5 | 10000 | 10000 | 0.5 | 0.6 |
| | 12R0.5 | 9000 | 9000 | 2 | 7 | 9000 | 10000 | 0.5 | 0.45 |
| | 10R1 | 10000 | 9000 | 2 | 5.5 | 11000 | 9000 | 0.5 | 0.6 |
| | 10R0.5 | 9000 | 8000 | 2 | 4.8 | 10800 | 8000 | 0.5 | 0.45 |
| | 8R1 | 12000 | 8000 | 2 | 4.5 | 13800 | 8000 | 0.5 | 0.5 |
| | 8R0.5 | 10000 | 7000 | 2 | 3.8 | 13200 | 7000 | 0.5 | 0.4 |
| | 6R0.5 | 13500 | 7000 | 1.5 | 2.8 | 16200 | 6200 | 0.45 | 0.35 |
| | 40.5 | 15000 | 6500 | 1 | 1.8 | 17000 | 6000 | 0.45 | 0.35 |
| | 4R0.2 | 13500 | 6000 | 1 | 1.8 | 18000 | 5800 | 0.45 | 0.3 |
| | 3R0.2 | 18000 | 5000 | 0.8 | 1.2 | 20000 | 5500 | 0.4 | 0.3 |

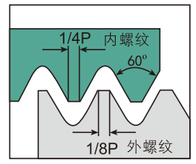


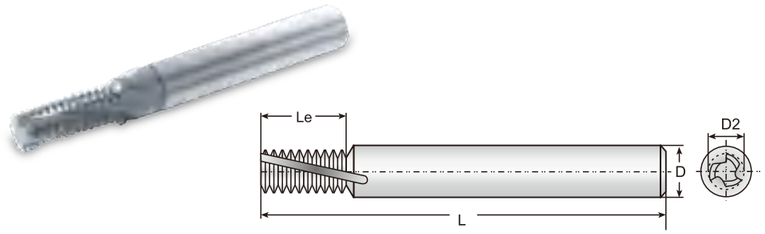




## 公制ISO

外螺纹/内螺纹




### ISO螺纹铣刀-外螺纹

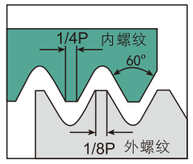
| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 |
|---|---|---|---|---|---|---|---|---|
| M粗牙 | MM | 外螺纹 | D | D2 | L | Le | Z | Zt |
| M3×0.5 | 0.5 | RH04039L06-E0.5ISO | 4 | 3.9 | 45 | 6.0 | 3 | 12 |
| M4.5×0.75 | 0.75 | RH04039L09-E0.75ISO | 4 | 3.9 | 45 | 9.0 | 3 | 12 |
| M6×1.0 | 1.0 | RH04039L12-E1.0ISO | 4 | 3.9 | 45 | 12.0 | 3 | 12 |
| M8×1.25 | 1.25 | RH06059L16-E1.25ISO | 6 | 5.9 | 57 | 16.25 | 3 | 13 |
| M10×1.5 | 1.5 | RH08079L21-E1.5ISO | 8 | 7.9 | 63 | 21.0 | 3 | 14 |
| M14×2.0 | 2.0 | RH10099L28-E2.0ISO | 10 | 9.9 | 73 | 28.0 | 4 | 14 |

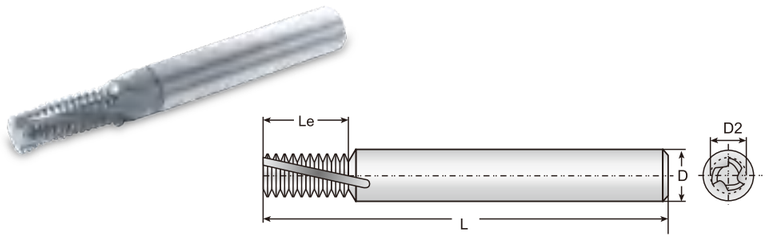
### ISO螺纹铣刀-内螺纹

| 螺纹 | | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|---|
| M粗牙 | 细牙 | MM | 内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| M3×0.5 | M3.5-M16×0.5 | 0.5 | RH04022L06-I0.5ISO | 4 | 2.2 | 45 | 6.0 | 3 | 12 | 2.5 |
| | M4×0.5 | 0.5 | RH04030L08-I0.5ISO | 4 | 3.0 | 45 | 8.0 | 3 | 16 | 3.5 |
| | M5×0.5 | 0.5 | RH04039L10-I0.5ISO | 4 | 3.9 | 45 | 10.0 | 3 | 20 | 4.5 |
| M4×0.7 | | 0.7 | RH04028L08-I0.7ISO | 4 | 2.8 | 45 | 8.4 | 3 | 12 | 3.3 |
| | M6×0.75 | 0.75 | RH04039L12-I0.75ISO | 4 | 3.9 | 45 | 12.0 | 3 | 16 | 5.3 |
| M5×0.8 | | 0.8 | RH04035L10-I0.8ISO | 4 | 3.5 | 45 | 10.4 | 3 | 13 | 4.2 |
| M6×1.0 | M8-M40×1.0 | 1.0 | RH04039L12-I1.0ISO | 4 | 3.9 | 45 | 12.0 | 3 | 12 | 5.0 |
| | M8×1.0 | 1.0 | RH06059L16-I1.0ISO | 6 | 5.9 | 57 | 16.0 | 3 | 16 | 7.0 |
| | M10×1.0 | 1.0 | RH08079L20-I1.0ISO | 8 | 7.9 | 63 | 20.0 | 3 | 20 | 9.0 |
| | M12×1.0 | 1.0 | RH10099L24-I1.0ISO | 10 | 9.9 | 73 | 24.0 | 4 | 24 | 11.0 |
| M8×1.25 | | 1.25 | RH06058L16-I1.25ISO | 6 | 5.8 | 57 | 16.25 | 3 | 13 | 6.8 |
| | M10×1.25 | 1.25 | RH08077L20-I1.25ISO | 8 | 7.7 | 63 | 20.0 | 3 | 16 | 8.8 |
| M10×1.5 | M12-M48×1.5 | 1.5 | RH08077L21-I1.5ISO | 8 | 7.7 | 63 | 21.0 | 3 | 14 | 8.5 |
| | M12×1.5 | 1.5 | RH10094L24-I1.5ISO | 10 | 9.4 | 73 | 24.0 | 4 | 16 | 10.5 |
| | M14×1.5 | 1.5 | RH12112L28-I1.5ISO | 12 | 11.2 | 83 | 28.5 | 4 | 19 | 12.5 |
| | M16×1.5 | 1.5 | RH12119L33-I1.5ISO | 12 | 11.9 | 83 | 33.0 | 4 | 22 | 14.5 |
| M12×1.75 | | 1.75 | RH10087L24-I1.75ISO | 10 | 8.7 | 73 | 24.5 | 4 | 14 | 10.2 |
| M14×2.0 | M17-M80×2.0 | 2.0 | RH10099L28-I2.0ISO | 10 | 9.9 | 73 | 28.0 | 4 | 14 | 12.0 |
| M16×2.0 | M17-M80×2.0 | 2.0 | RH12119L32-I2.0ISO | 12 | 11.9 | 83 | 32.0 | 4 | 16 | 14.0 |
| M18-M22×2.5 | | 2.5 | RH16139L40-I2.5ISO | 16 | 13.9 | 92 | 40.0 | 5 | 16 | 15.5 |
| M24×3.0 | | 3.0 | RH16159L42-I3.0ISO | 16 | 15.9 | 92 | 42.0 | 4 | 14 | 21.0 |

## 美制UN

外螺纹/内螺纹




标准：ANSI B1.1.74
公差等级：2A/2B

### 螺旋槽-外螺纹

| 螺纹 | | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 |
|---|---|---|---|---|---|---|---|---|---|
| UNC | UNF | tpi | 外螺纹 | D | D2 | L | Le | Z | Zt |
| No.8-32 | | 32 | RH04039L09-E32UNC | 4 | 3.9 | 45 | 8.7 | 3 | 11 |
| | No.12-28 | 28 | RH04039L12-E28UNF | 4 | 3.9 | 45 | 11.8 | 3 | 13 |
| No.12-24 | | 24 | RH04039L12-E24UNC | 4 | 3.9 | 45 | 11.6 | 3 | 11 |
| 1/4”×20 | | 20 | RH04039L13-E20UNC | 4 | 3.9 | 45 | 12.7 | 3 | 10 |
| 5/16”×18 | | 18 | RH06059L17-E18UNC | 6 | 5.9 | 57 | 16.9 | 3 | 12 |
| 3/8”×16 | | 16 | RH08079L19-E16UNC | 8 | 7.9 | 63 | 19.1 | 3 | 12 |
| 9/16”×12 | | 12 | RH12119L30-E12UNC | 12 | 11.9 | 83 | 29.6 | 4 | 14 |

### 螺旋槽-内螺纹

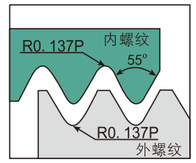
| 螺纹 | | | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNC | UNF | UNEF | tpi | 内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| | No.8-36 | | 36 | RH04030L09-I36UNF | 4 | 3.0 | 45 | 8.5 | 3 | 12 | 3.5 |
| | No.10-32 | No.12-3/8”×32 | 32 | RH04033L11-I32UNF | 4 | 3.3 | 45 | 11.1 | 3 | 14 | 4.0 |
| | No.12-28,1/4”×28 | 7/16”,1/2”×28 | 28 | RH04038L12-I28UNF | 4 | 3.8 | 45 | 11.8 | 3 | 13 | 4.6 |
| | 1/4”×28 | 7/16”,1/2”×28 | 28 | RH06046L13-I28UNF | 6 | 4.6 | 57 | 12.7 | 3 | 14 | 5.5 |
| | | 7/16”,1/2”×28 | 28 | RH10092L23-I28UNEF | 10 | 9.2 | 73 | 22.7 | 4 | 25 | 10.2 |
| No.10-24 | 5/16”, 3/8”×24 | 9/16”-11/16”×24 | 24 | RH04029L11-I24UNC | 4 | 2.9 | 45 | 10.6 | 3 | 10 | 3.8 |
| No.12-24 | 5/16”, 3/8”×24 | 9/16”-11/16”×24 | 24 | RH04035L12-I24UNC | 4 | 3.5 | 45 | 11.6 | 3 | 11 | 4.5 |
| | 5/16”, 3/8”×24 | 9/16”-11/16”×24 | 24 | RH06057L16-I24UNF | 6 | 5.7 | 57 | 15.9 | 3 | 15 | 6.8 |
| | 3/8”×24 | 9/16”-11/16”×24 | 24 | RH08074L19-I24UNF | 8 | 7.4 | 63 | 19.1 | 3 | 18 | 8.5 |
| | | 9/16”-11/16”×24 | 24 | RH12119L29-I24UNEF | 12 | 11.9 | 83 | 28.6 | 4 | 27 | 13.2 |
| 1/4”×20 | 7/16”1/2”×20 | 3/4”-1”×20 | 20 | RH04039L13-I20UNC | 4 | 3.9 | 45 | 12.7 | 3 | 10 | 5.2 |
| | 7/16”1/2”×20 | 3/4”-1”×20 | 20 | RH10085L23-I20UNF | 10 | 8.5 | 73 | 22.9 | 4 | 18 | 9.8 |
| | 1/2”×20 | 3/4”-1”×20 | 20 | RH10099L26-I20UNF | 10 | 9.9 | 73 | 25.4 | 4 | 20 | 11.5 |
| | | 3/4”-1”×20 | 20 | RH16159L38-I20UNEF | 16 | 15.9 | 92 | 38.1 | 5 | 30 | 17.8 |
| 5/16”×18 | 9/16”,5/8”×18 | 11/16”-1 11/16”×18 | 18 | RH06052L17-I18UNC | 6 | 5.2 | 57 | 16.9 | 3 | 12 | 6.5 |
| | 9/16”,5/8”×18 | 11/16”-1 11/16”×18 | 18 | RH12113L30-I18UNF | 12 | 11.3 | 83 | 29.6 | 4 | 21 | 12.8 |
| | 5/8”×18 | 11/16”-1 11/16”×18 | 18 | RH12119L33-I18UNF | 12 | 11.9 | 83 | 32.5 | 4 | 23 | 14.5 |
| 3/8”×16 | 3/4”×16 | | 16 | RH08067L19-I16UNC | 8 | 6.7 | 63 | 19.1 | 3 | 12 | 8.0 |
| | 3/4”×16 | | 16 | RH16159L38-I16UNF | 16 | 15.9 | 92 | 38.1 | 4 | 24 | 17.5 |
| 7/16”×14 | 7/8”×14 | | 14 | RH08076L24-I14UNC | 8 | 7.6 | 63 | 23.6 | 4 | 13 | 9.3 |
| | 7/8”×14 | | 14 | RH20187L44-I14UNF | 20 | 18.7 | 104 | 44.4 | 4 | 24 | 20.5 |
| 1/2”×13 | | | 13 | RH10089L26-I13UNC | 10 | 8.9 | 73 | 25.4 | 4 | 13 | 10.8 |
| 9/16”×12 | 1”-1 1/2”×12 | | 12 | RH12103L30-I12UNC | 12 | 10.3 | 83 | 29.6 | 4 | 14 | 12.3 |
| | 1”-1 1/2”×12 | | 12 | RH20199L51-I12UNF | 20 | 19.9 | 104 | 50.8 | 5 | 24 | 23.5 |
| 5/8”×11 | | | 11 | RH12110L32-I11UNC | 12 | 11.0 | 83 | 32.3 | 4 | 14 | 13.5 |
| 3/4”×10 | | | 10 | RH16135L38-I10UNC | 16 | 13.5 | 92 | 38.1 | 5 | 15 | 16.5 |
| 7/8”×9 | | | 9 | RH16152L45-I9UNC | 16 | 15.2 | 92 | 45.2 | 4 | 16 | 19.5 |
| 1”×8 | | | 8 | RH20170L51-I8UNC | 20 | 17.0 | 104 | 50.8 | 4 | 16 | 22.0 |

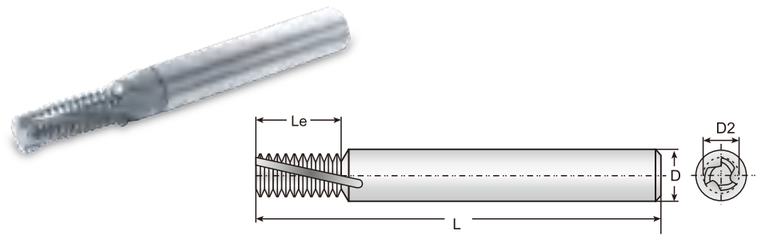




## 英制BSP(G)

外螺纹/内螺纹



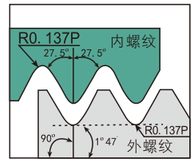

### 螺旋槽

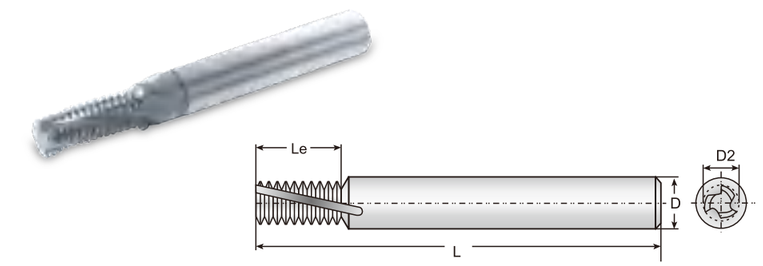
| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|
| 标准型 | tpi | 外螺纹/内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| 1/16”×28,1/8”×28 | 28 | RH06058L16-EI28BSP | 6 | 5.8 | 57 | 16.3 | 3 | 18 | 6.7 |
| 1/8”×28 | 28 | RH08077L20-EI28BSP | 8 | 7.7 | 63 | 20.0 | 3 | 22 | 8.7 |
| 1/4”×19,3/8”×19 | 19 | RH10099L27-EI19BSP | 10 | 9.9 | 73 | 26.7 | 4 | 20 | 11.8 |
| 3/8”×19 | 19 | RH16134L33-EI19BSP | 16 | 13.4 | 92 | 33.4 | 4 | 25 | 15.2 |
| 1/2”,3/4”×14 | 14 | RH16157L44-EI14BSP | 16 | 15.7 | 92 | 43.5 | 5 | 24 | 19.0 |
| 1”,1 1/2”,2”,2 1/2”×11 | 11 | RH20199L42-EI11BSP | 20 | 19.9 | 104 | 41.6 | 5 | 18 | 30.7 |

## 英制BSPT



外螺纹/内螺纹



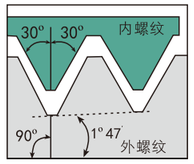




### 螺旋槽

| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|
| 标准型 | tpi | 外螺纹/内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| 1/16”×28 | 28 | RH06058L16-EI28BSPT | 6 | 5.8 | 57 | 16.3 | 3 | 18 | 6.7 |
| 1/8”×28 | 28 | RH08077L20-EI28BSPT | 8 | 7.7 | 63 | 20.0 | 3 | 22 | 8.7 |
| 1/4”×19 | 19 | RH10099L27-EI19BSPT | 10 | 9.9 | 73 | 26.7 | 4 | 20 | 11.8 |
| 3/8”×19 | 19 | RH16134L33-EI19BSPT | 16 | 13.4 | 92 | 33.4 | 4 | 25 | 15.2 |
| 1/2”,3/4”×14 | 14 | RH16157L44-EI14BSPT | 16 | 15.7 | 92 | 43.5 | 5 | 24 | 19.0 |
| 1”,1 1/2”,2”,2 1/2”×11 | 11 | RH20199L42-EI11BSPT | 20 | 19.9 | 104 | 41.6 | 5 | 18 | 30.7 |

## 美制NPT

外螺纹/内螺纹









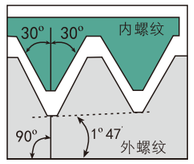
### 螺旋槽

| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|
| 标准型 | tpi | 外螺纹/内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| 1/16”×27 | 27 | RH06053L09-EI27NPT | 6 | 5.3 | 57 | 9.4 | 3 | 10 | 6.3 |
| 1/8”×27 | 27 | RH08075L09-EI27NPT | 8 | 7.5 | 63 | 9.4 | 4 | 10 | 8.5 |
| 1/4”×18 | 18 | RH10094L14-EI18NPT | 10 | 9.4 | 73 | 14.1 | 4 | 10 | 11.1 |
| 3/8”×18 | 18 | RH12119L14-EI18NPT | 12 | 11.9 | 83 | 14.1 | 4 | 10 | 14.5 |
| 1/2”,3/4”×14 | 14 | RH16155L25-EI14NPT | 16 | 15.5 | 92 | 25.4 | 5 | 14 | 17.7,23.0 |
| 1”-2”×11.5 | 11.5 | RH20199L33-EI11.5NPT | 20 | 19.9 | 104 | 33.1 | 5 | 15 | 29.0-56.0 |
| 2 1/2”,3”×8 | 8 | RH20199L38-EI8NPT | 20 | 19.9 | 104 | 38.1 | 4 | 12 | 66.5 |

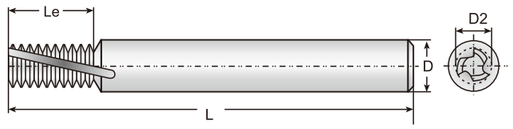
## 美制NPTF



外螺纹/内螺纹






### 螺旋槽

2×D0(L1≤2×螺纹直径)

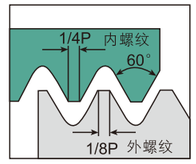
| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|
| 标准型 | tpi | 外螺纹/内螺纹 | D | D2 | L | Le | Z | Zt | mm |
| 1/16”×27 | 27 | RH06053L09-EI27NPTF | 6 | 5.3 | 57 | 9.4 | 3 | 10 | 6.3 |
| 1/8”×27 | 27 | RH08075L09-EI27NPTF | 8 | 7.5 | 63 | 9.4 | 4 | 10 | 8.4 |
| 1/4”×18 | 18 | RH10094L14-EI18NPTF | 10 | 9.4 | 73 | 14.1 | 4 | 10 | 11.1 |
| 3/8”×18 | 18 | RH12119L14-EI18NPTF | 12 | 11.9 | 83 | 14.1 | 4 | 10 | 14.7 |
| 1/2”,3/4”×14 | 14 | RH16155L25-EI14NPTF | 16 | 15.5 | 92 | 25.4 | 5 | 14 | 17.9,23.4 |
| 1”-2”×11.5 | 11.5 | RH20199L33-EI11.5NPTF | 20 | 19.9 | 104 | 33.1 | 5 | 15 | 29.4-56.2 |
| 2 1/2”,3”×8 | 8 | RH20199L38-EI8NPTF | 20 | 19.9 | 104 | 38.1 | 4 | 12 | 67.0 |



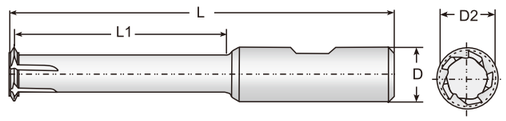


## 公制ISO

内螺纹





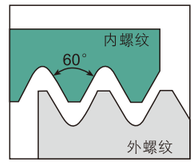

### 深孔螺纹铣刀

| 螺纹 | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|
| M粗牙 | mm | 内螺纹 | D | D2 | L | L1 | Z | Zt | mm |
| M6×1 | 1.0 | RD1T08041-I1.0ISO | 8 | 4.1 | 63 | 19 | 3 | 1 | 5.0 |
| M8×1.25 | 1.25 | RD1T10058-I1.25ISO | 10 | 5.8 | 73 | 26 | 3 | 1 | 6.8 |
| M10×1.5 | 1.50 | RD1T10077-I1.50ISO | 10 | 7.7 | 73 | 32 | 3 | 1 | 8.5 |
| M12×1.5 | 1.50 | RD1T12094-I1.50ISO | 12 | 9.4 | 83 | 38 | 4 | 1 | 10.5 |
| M12×1.75 | 1.75 | RD1T12087-I1.75ISO | 12 | 8.7 | 83 | 38 | 4 | 1 | 10.2 |
| M14×2 | 2.0 | RD1T16102-I2.0ISO | 16 | 10.2 | 92 | 44 | 4 | 1 | 12.0 |
| M16×2 | 2.0 | RD1T16122-I2.0ISO | 16 | 12.2 | 100 | 50 | 4 | 1 | 14.0 |
| M18×2.5 | 2.50 | RD1T16129-I2.5ISO | 16 | 12.9 | 108 | 57 | 5 | 1 | 15.5 |
| M20×2.5 | 2.50 | RD1T16148-I2.5ISO | 16 | 14.8 | 114 | 63 | 5 | 1 | 17.5 |

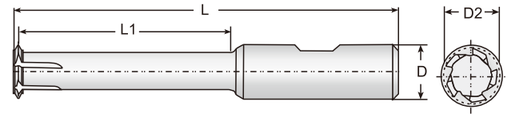
## 范围牙型60°



内螺纹





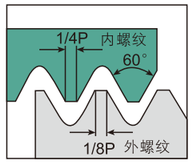




### 深孔螺纹铣刀

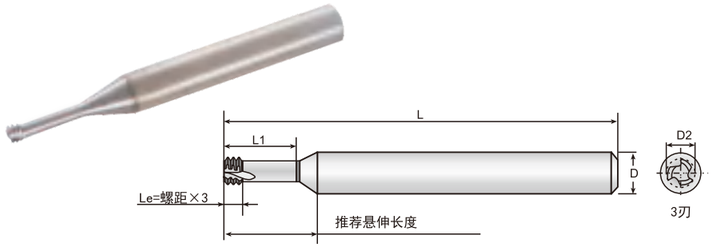
| 小型螺纹 | | | 螺距 | | 订货代码 | 尺寸规格 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M粗牙 | M细牙 | UN, UNS, UNF, UNEF | mm | tpi | 内螺纹 | D | D2 | L | L1 | Z | Zt |
| M5×0.8 | M5×0.5<br>M5×0.75 | No. 10-56UNS, No. 10-48UNS, No. 10-40UNS,<br>No. 10-36UNS, No. 10-32UNF, | 0.5-0.8 | 32-56 | RD1T04390L160-1TA60 | 4 | 3.90 | 45 | 16 | 4 | 1 |
| M6×1.0 | M6×0.5<br>M6×0.75 | No. 12-56UNS, No. 12-48UNS, 1/4-40UNS,<br>1/4-36UNS, 1/4-32UNEF, 1/4-28UNF,<br>1/4-27UNS, 1/4-24UNS | 0.5-1.0 | 24-56 | RD1T06485L200-1TB60 | 6 | 4.85 | 51 | 20 | 5 | 1 |
| M8×1.25 | M7×0.5<br>M7×0.75<br>M7×1.0 | 5/16-48UNS, 5/16-40UNS, 5/16-36UNS,<br>5/16-32UNEF, 5/16-28UN, 5/16-27UNS,<br>5/16-24UNS, 5/16-20UN | 0.5-1.25 | 20-48 | RD1T06590L250-1TF60 | 6 | 5.90 | 64 | 25 | 5 | 1 |
| | M10.5×0.5<br>M11×0.75<br>M11×1.0 | 7/16-32UN, 7/16-28UNEF, 7/16-27UNS,<br>7/16-24UNS | 0.5-1.0 | 24-56 | RD1T10990L350-1TB60 | 10 | 9.90 | 73 | 35 | 6 | 1 |
| M10×1.5 | M10×1.0<br>M10×1.25 | 3/8-24UNF, 3/8-20UN, 7/16-18UNS,<br>7/16-16UN | 1.0-1.50 | 16-24 | RD1T08790L320-1TC60 | 8 | 7.90 | 63 | 32 | 6 | 1 |
| M12×1.75 | M12×1.0<br>M12×1.25<br>M12×1.5 | 1/2-24UNS, 1/2-20UNS, 1/2-18UNS,<br>1/2-16UNS, 1/2-14UNS | 1.0-1.75 | 14-24 | RD1T10990L380-1TD60 | 10 | 9.90 | 73 | 38 | 6 | 1 |
| | M13.5×1.0<br>M14×1.25<br>M14×1.5 | 9/16-24UNEF | 1.0-1.75 | 14-24 | RD1T12119L450-1TD60 | 12 | 11.90 | 83 | 45 | 6 | 1 |

## 公制ISO

### 外螺纹/内螺纹




标准：R262(DIN 13)
公差等级：6H




### 小型螺纹铣刀(标准)

| 螺纹 | | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|---|
| M粗牙 | M细牙 | mm | 内螺纹 | D | D2 | L | L1 | Z | Zt | mm |
| M1.6×0.35 | | 0.35 | RD3T03012L034-I0.35ISO | 3 | 1.20 | 30 | 3.4 | 3 | 3 | 1.25 |
| M2×0.4 | | 0.4 | RD3T06015L042-I0.4ISO | 6 | 1.55 | 57 | 4.2 | 3 | 3 | 1.6 |
| M2.2×0.45 | | 0.45 | RD3T06016L046-I0.45ISO | 6 | 1.65 | 57 | 4.6 | 3 | 3 | 1.75 |
| M2.5×0.45 | | 0.45 | RD3T06019L052-I0.45ISO | 6 | 1.95 | 57 | 5.2 | 3 | 3 | 2.05 |
| M3×0.5 | M3.5-M16×0.5 | 0.5 | RD3T06024L062-I0.5ISO | 6 | 2.40 | 57 | 6.2 | 3 | 3 | 2.5 |
| M3.5×0.6 | | 0.6 | RD3T06027L073-I0.6ISO | 6 | 2.75 | 57 | 7.3 | 3 | 3 | 2.9 |
| M4×0.7 | | 0.7 | RD3T06031L083-I0.7ISO | 6 | 3.15 | 57 | 8.3 | 3 | 3 | 3.3 |
| M5×0.8 | | 0.8 | RD3T06040L104-I0.8ISO | 6 | 4.05 | 57 | 10.4 | 3 | 3 | 4.2 |
| M6×1.0 | M8-M40×1.0 | 1.0 | RD3T06048L125-I1.0ISO | 6 | 4.80 | 57 | 12.5 | 3 | 3 | 5.0 |
| M8×1.25 | | 1.25 | RD3T08065L166-I1.25ISO | 8 | 6.50 | 63 | 16.6 | 3 | 3 | 6.8 |
| M10×1.5 | M12-M48×1.50 | 1.50 | RD3T10082L208-I1.50ISO | 10 | 8.20 | 73 | 20.8 | 3 | 3 | 8.5 |
| M12×1.75 | | 1.75 | RD3T10099L250-I1.75ISO | 10 | 9.90 | 73 | 25.0 | 3 | 3 | 10.3 |
| M16×2.0 | | 2.0 | RD3T12119L330-I2.0ISO | 12 | 11.90 | 83 | 33.0 | 3 | 3 | 14.0 |
| M20×2.5 | | 2.50 | RD3T16159L413-I2.5ISO | 16 | 15.90 | 92 | 41.3 | 3 | 3 | 17.5 |

### 小型螺纹铣刀(加长)

| 螺纹 | | 螺距 | 订货代码 | 尺寸规格 | | | | 槽数 | 齿数 | 底孔直径* |
|---|---|---|---|---|---|---|---|---|---|---|
| M粗牙 | M细牙 | mm | 内螺纹 | D | D2 | L | L1 | Z | Zt | mm |
| M1.6×0.35 | | 0.35 | RD3T03012L050-I0.35ISO | 3 | 1.20 | 30 | 5.0 | 3 | 3 | 1.25 |
| M2×0.4 | | 0.4 | RD3T03015L062-I0.4ISO | 3 | 1.55 | 30 | 6.2 | 3 | 3 | 1.6 |
| M2×0.4 | | 0.4 | RD3T06015L062-I0.4ISO | 6 | 1.55 | 57 | 6.2 | 3 | 3 | 1.6 |
| M2.5×0.45 | | 0.45 | RD3T03019L077-I0.45ISO | 3 | 1.95 | 30 | 7.7 | 3 | 3 | 2.05 |
| M2.5×0.45 | | 0.45 | RD3T06019L077-I0.45ISO | 6 | 1.95 | 57 | 7.7 | 3 | 3 | 2.05 |
| M3×0.5 | M3.5-M16×0.5 | 0.5 | RD3T03024L092-I0.5ISO | 3 | 2.40 | 30 | 9.2 | 3 | 3 | 2.5 |
| M3×0.5 | M3.5-M16×0.5 | 0.5 | RD3T06024L092-I0.5ISO | 6 | 2.40 | 57 | 9.2 | 3 | 3 | 2.5 |
| M4×0.7 | | 0.7 | RD3T06031L123-I0.7ISO | 6 | 3.15 | 57 | 12.3 | 3 | 3 | 3.3 |
| M5×0.8 | | 0.8 | RD3T06040L154-I0.8ISO | 6 | 4.05 | 57 | 15.4 | 3 | 3 | 4.2 |
| M6×1.0 | M8-M40×1.0 | 1.00 | RD3T06048L185-I1.0ISO | 6 | 4.80 | 57 | 18.5 | 3 | 3 | 5.0 |
| M8×1.25 | | 1.25 | RD3T08065L246-I1.25ISO | 8 | 6.50 | 63 | 24.6 | 3 | 3 | 6.8 |








**轴承部加工**

多齿复合铣刀，锋利的铝合金专用刀片，内外同步加工高效，适合高节拍加工。

# 气缸盖

汽缸盖位于汽缸体上方，由一个平台组成，该平台包含燃烧室的一部分，该燃烧室用于定位气门和火花塞。气缸盖是内燃机性能的关键，因为燃烧室的形状，进气通道和进气口决定了发动机容积效率和压缩比的主要部分。除大多数商用车外，大多数零件均由铝制成，因此需要具有特殊几何形状的PCD刀具才能进行高速加工。



## 阀座和导管孔

压套前




压套后




## 凸轮轴孔镗孔




## 凸轮轴半孔铣削






# 刹车系统

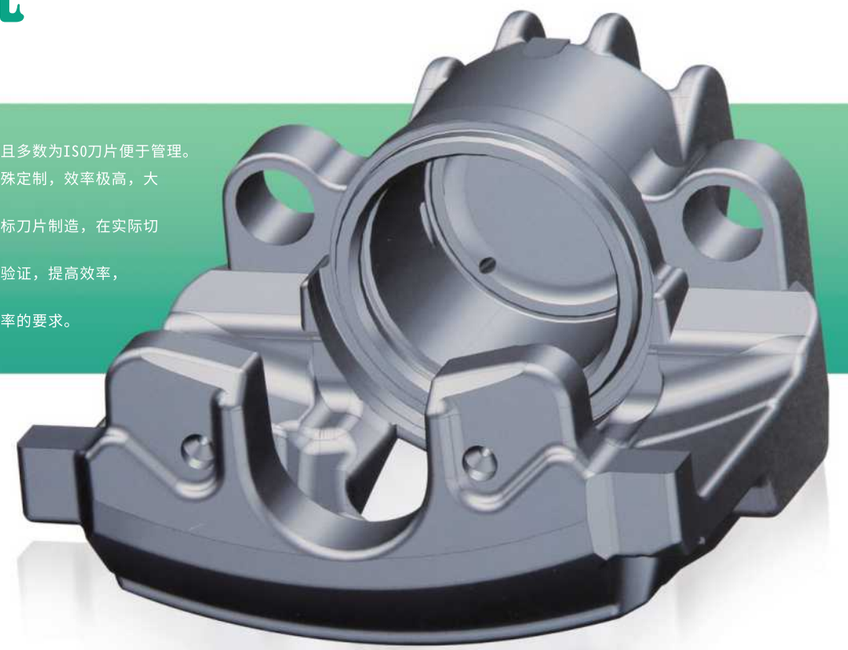
1.主要切削点均采用可转位刀片，并且多数为ISO刀片便于管理。

2.复合刀具专为汽车刹车系统行业特殊定制，效率极高，大幅降低客户制造成本。

3.精确的槽型型线啮合刀片，专属非标刀片制造，在实际切削中有良好的表现。

4.不断优化的整套方案，充分的实施验证，提高效率，节约整个制造系统成本。

5.满足世界顶级汽车零部件企业高效率的要求。



### 卡钳尾部铣刀

- 套铣高效铣刀，操作方便，简单可靠。
- 多刃槽刀片，经济性高。



### 主缸孔粗镗

- ISO刀片设计，缸孔粗镗
- 加入负型刀检刀片
- 经济性更好，使工序安全性极大提高。



### 孔口倒角加工

- ISO刀片设计，孔口倒角
- 多刃刀夹结构，高效经济。



### 主缸孔精铰

- 多刃精铰刀设计，效率高工艺稳定性好，最佳经济效益。
- 3D可调刀柄，保证铰刀安装精度，确保加工精度及刀具寿命。



### 端面槽加工

- 负型刀片与异型刀片组合，精确的端面槽型线啮合，保证了极高的加工效率。
- 刀片全部使用螺钉式锁紧方式，易于操作。



### 卡档加工

- 切向密齿设计的三面刃专用刀具，满足汽车零部件企业高节拍、低成本的需求。亦可为低功率设备提供平装三面刃专用刀具。
- 刀片采用先进的材质，有多重槽型及圆角供选择。
- 单件成本低，加工稳定性好。



### 防尘槽和密封槽加工

- 盖帽式和锯片式结构，适用于不同直径的工件场合。
- 复合刀体材料，独特的刀片设计，优良的减震效果使得加工更稳定，寿命更长。



### 支耳加工

- 切向密齿设计的铣刀盘，上下端面同时加工，高效加工，满足了零部件行业的需求。





## 转向节加工

- 针对主流的两种材料-铝合金及铸铁，可以采用PCD刀片或硬质合金刀片，并且多数为ISO刀片便于管理。
- 复合刀具专为汽车转向系统行业特殊定制，高效率，高稳定，大幅降低客户生产成本。
- 反复试验选定的刀片组合模式，在众多客户使用中表现了极佳的综合成本优势。
- 不断优化的方案，充分的实施验证，提高效率。



- **轴承孔复合加工**
- **横拉孔端面加工**
- **支臂孔加工**
- **控制臂孔加工**



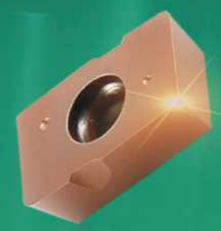
# 网纹加工刀具

网纹加工刀具是专为大量铝质工件加工而设计的，在同类产品中具有最佳的性能。在高速切削过程中不会出现振刀，同时也方便调节。新型PCD 材质使产品具有更长的使用寿命, Blue Box™方案可为磨损刀夹提供修整服务，同时降低库存成本!

- **抗振刀具设计。**
- **刀夹不会出现径向移位。**
- **灵活的刀夹配置。**
- **Blue Box™服务。**
- **独特的燕尾楔块夹持设计。**
- **容屑槽和刀夹整体设计。**
- **极佳的刚性，适合高进给加工。**
- **离心力防护刀夹设计。**
- **快速便捷的设置及调整过程。**
- **无毛刺刀夹适合超精加工应用。**



# 常用铣削刀片



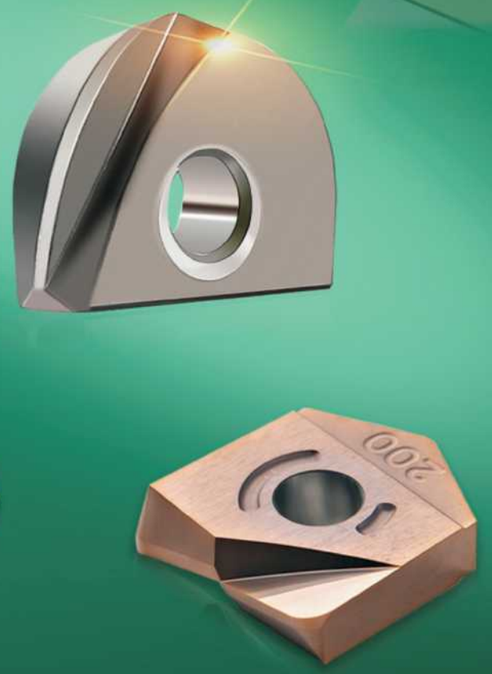
## 大型模具超长时间精切削

采用最新的刃口处理工艺，搭配最新的
TX、HX、AHX涂层工艺，在大型塑胶模具、
冲压模具均能有很好的寿命表现



## 超高硬度加工

最新研发的AHX黄色涂层，
在TiSi系涂层的基础上优化晶粒结构，
可实现超高硬度加工



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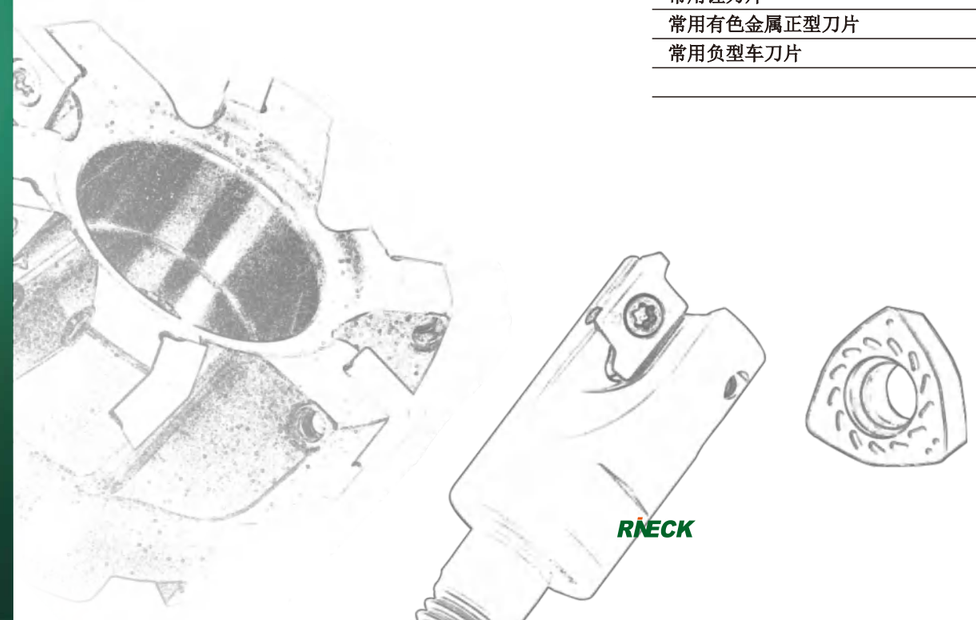
| SP型快速钻刀片 | 177 |
| 常用镗刀片 | 177 |
| 常用有色金属正型刀片 | 178 |
| 常用负型车刀片 | 178 |

# 刀片牌号

## 铣削刀片常用牌号

被加工材料

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ISO-P | 7010 | 9110 NEW | 7012 | 9220 NEW | 7220 NEW | 7025 | 8215 NEW | 7330 NEW | 7030 | 7035 |
| ISO-M | 9110 NEW | 7012 | 9220 NEW | 8215 NEW | 7030 | 7040 | | | | |
| ISO-K | 7010 | 9110 NEW | 7012 | 9220 NEW | 7220 NEW | 7025 | 8215 NEW | 7330 NEW | 7030 | |
| ISO-N | NH01 | | | | | | | | | |
| ISO-S | 9110 | 7012 | | | | | | | | |
| ISO-H | 7005 | 7010 | 9110 NEW | 7012 | | | | | | |

## 车削刀片常用牌号

被加工材料

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ISO-P | 6015 | 6215 | 6315 NEW | 2115 NEW | 6020 | 6025 | 6225 | 6030 | N030 |
| ISO-M | 2115 NEW | 2025 | N030 | | | | | | |
| ISO-K | 5015 | 5115 NEW | 5020 | N030 | | | | | |
| ISO-N | NH01 | | | | | | | | |

P ISO P=钢
M ISO M=不锈钢
K ISO K=铸铁
N ISO N=铝和有色金属材料
S ISO S=耐热合金,难加工材料
H ISO H=淬硬材料

**特别推荐 9220/9110材质**

**9220材质性能：**
适合于中，低切削速度加工钢件，不锈钢，铸铁，具有很高的耐冲击性能！

**9110材质性能：**
适合于中，高切削速度加工钢件，不锈钢，铸铁，具有很高的耐磨损性能！

**7012材质性能介绍**

7012材质：适合于中等切削速度条件下钢件、不锈钢、耐热合金、中高强度和中高硬度钢件材料的轻、中等负荷铣削加工应用！

RX涂层：涂层中添加了特殊的微合金化元素，突破了传统的TiAlN涂层的晶粒尺寸极限，具有更高的涂层硬度和抵抗高温性能！

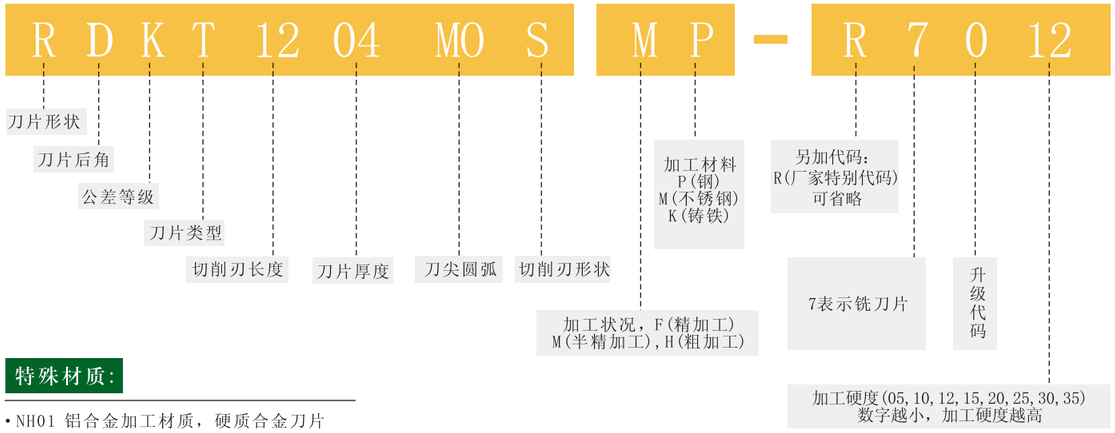
**新7012材质RX涂层性能优势：**

- 更高的涂层硬度　　HV3600-4300
- 更高的涂层耐热性能>1000摄氏度





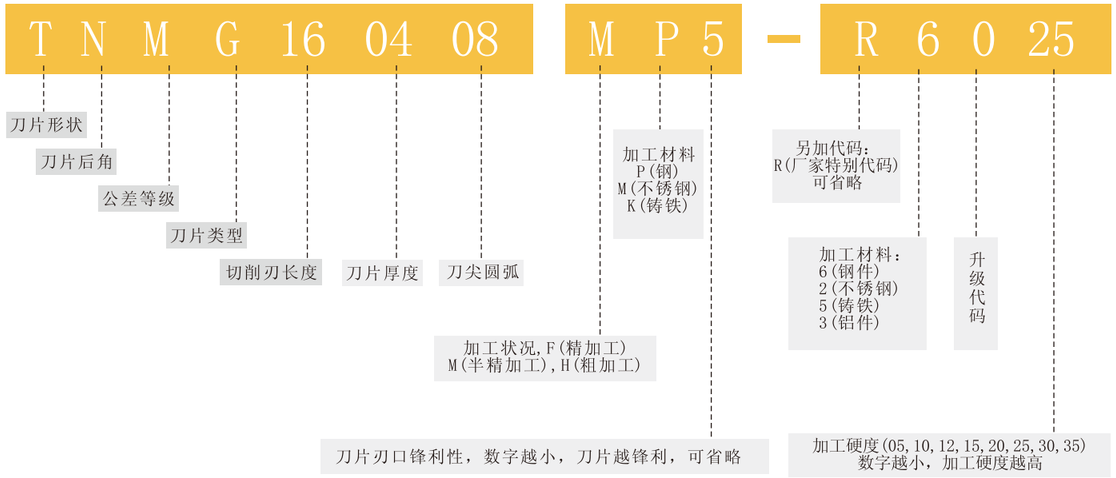
## 铣刀片型号表示说明:




**特殊材质:**

- NH01 铝合金加工材质，硬质合金刀片
- N030 未涂层金属陶瓷刀片
- PL30, PL230 涂层金属陶瓷刀片

## 车刀片型号表示说明:




**特殊材质:**

- NH01 铝合金加工材质，硬质合金刀片
- N030 未涂层金属陶瓷刀片

## RD型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RDMW0501MO | HP-7005 | | ● | ◎ | ● | | ◎ | ● |
| | RDHW0501MO | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
|  | RDMW0702MO | HP-7005 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDHW0702MO | FP-9110 | ▲ | ● | | ● | | | ● |
| | RDHW0702MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMW0702MO | HP-7020 | | ● | ◎ | ● | | ◎ | |
| | RDHW0702MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDEW0702MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
|  | RDKT10T3MOS | MP-7010 | ▲ | ● | | ◎ | | | ● |
| | RDKT10T3MOS | MP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RDKT10T3MOS | MK-7020 | ▲ | ● | | ● | | | ◎ |
| | RDKT10T3MOS | MP-7025 | ▲ | ● | | ◎ | | | |
|  | RDHX10T3MO | HP-7005 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW10T3MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW10T3MO | HP-7035 | ▲ | ● | | ◎ | | | |
| | RDKW10T3MO | HP-8215 | ▲ | ● | | ● | | | |
|  | RDKT1204MOS | MP-7012 | ▲ | ● | ● | ◎ | | ● | ● |
| | RDKT1204MOS | MK-7020 | ▲ | ● | | ● | | | |
| | RDKT1204MOS | MP-7025 | ▲ | ● | | ◎ | | | |
|  | RDKW1204MO | HP-7010 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1204MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1204MO | HP-7220 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7022 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-8215 | ▲ | ● | | ● | | | |
| | RDKW1204MO-HT | HP-7330 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RDHW1204MO | HP-7005 | ▲ | | | | | | ● |
| | RDMW1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMX1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMW1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDMW1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RDKW1604MO | HP-7010 | ▲ | ● | | ● | | | ● |
| | RDKW1604MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW1604MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1604MO | HP-7220 | ▲ | ● | | ● | | | |
| | RDKW1604MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW1605MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKT1605MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | |
| | RDKT1605MO | HP-7220 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料





## RP型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RPEW0802MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RPEW0802MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPEW080 | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPEW1003MO | HP-7010 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO-D | MP-9110 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RPEW1003MO | HP-7220 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-8215 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-8215 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPKT10T3MOS | MP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RPKT10T3MOS | MP-7025 | ▲ | ● | | ● | | | |
|  | RDMT1204MO-D | MP-9110 | ▲ | ● | ● | ● | | | ◎ |
| | RPKT1204MO | HP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RPKT1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPKT1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPKT1204MOS | MP-7012 | | ● | ● | ● | | ◎ | |
| | RPKT1204MOS | MP-7025 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## RC型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RCKT10T3MOE | PL30 | ▲ | ● | ◎ | ● | | | |
| | RCET10T3MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
|  | RCKT10T3MO | MM-7030 | ▲ | ◎ | ● | | | ◎ | |
| | RCKT10T3MO | MM-7040 | ▲ | ◎ | ● | | | ◎ | |
|  | RCKT1204MOE | PL30 | ▲ | ● | ◎ | ● | | | |
| | RCET1204MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
|  | RCKT1204MO | HP-7012 | ▲ | ● | ● | ◎ | | ● | |
| | RCKT1204MO | HP-7020 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | RCKT1204MO | MM-7030 | ▲ | ◎ | ● | | | ◎ | |
| | RCKT1204MO | MM-7040 | ▲ | ◎ | ● | | | ◎ | |
|  | RCKT1606MO | HP-7012 | ▲ | ● | ● | ◎ | | | |
| | RCKT1606MO | MP-7012 | ▲ | ● | ● | ◎ | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## AP型端铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | APKT11T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | APKT160408-AL | NH01 | ▲ | | | ◎ | ● | | |
| | APMT1135PDER-H | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT1135PDER-H | HP-7012 | ▲ | ● | | ● | | | ◎ |
| | APMT1135PDER-H | HP-7025 | ▲ | ● | | ● | | | ◎ |
| | NEW APMT1135PDR-HR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT1135PDTR | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| 8215 | NEW APMT1135PDR | MP-9110 | ▲ | ● | | ● | | | ● |
| | APMT1135PDTR | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | APMT1135PDTR | HP-7025 | ▲ | ● | | ● | | | |
| | NEW APMT1135PDR | HP-7320 | ▲ | ● | | ● | | | |
| | NEW APMT1135PDR | HP-7330 | ▲ | ● | | ● | | | |
| | NEW APMT1135PDR-HM | HP-8215 | ▲ | ● | ● | ● | | | |
| | NEW APMT1135PDR | MP-9220 | ▲ | ● | ● | ● | | ◎ | |
| | NEW APMT1135PDR-HM | MM-6220 | ▲ | ● | ● | | | ● | |
| | APMT160408PDTR-H | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT160408PDER-H | HP-7012 | ▲ | ● | | ● | | | ◎ |
| | APMT160408PDTR-H | HP-7025 | ▲ | ● | | ● | | | ◎ |
| | NEW APMT160404PDR | HP-8215 | ▲ | ● | ◎ | ● | | | |
| | NEW APMT160408PDR-HR | HP-8215 | ▲ | ● | ● | ● | | | |
| | NEW APMT160412PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | NEW APMT160416PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | NEW APMT160420PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | NEW APMT160430PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT160408PDTR | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | NEW APMT160408PDR | MP-9110 | ▲ | ● | | ● | | | ● |
| | APMT160408PDR | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | APMT160408PDR | HP-7025 | ▲ | ● | | ● | | | |
| | NEW APMT160408PDR | HP-7320 | ▲ | ● | | ● | | | |
| | NEW APMT160408PDR | MP-9220 | ▲ | ● | ● | ● | | ◎ | |
| | APKT11T308E | MP-7025 | ▲ | ● | ◎ | ● | | ◎ | |
| | APKT160508PDER | MP-7025 | ▲ | ● | ◎ | ● | | ◎ | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料





## RT型端铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | RT070204R-11 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070204R-11 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT070204R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070204R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT070208R-11 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070208R-11 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT100304R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT100304R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT100308R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT100308R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## JD07型铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | NEW JDMT070204 | MP-9110 | ▲ | ● | ● | ● | | | ◎ |
| | NEW JDMT070208 | MP-9110 | ▲ | ● | ● | ● | | | ◎ |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SD12/15型大进给刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | NEW SDMT120512 | MP-9110 | ▲ | ● | | ● | | | ◎ |
| | NEW SDMT120512 | MP-9220 | ▲ | ● | ◎ | ● | | ◎ | |
| | NEW SDMT150512 | MP-9110 | ▲ | ● | | ● | | | ◎ |
| | NEW SDMT150512 | MP-9220 | ▲ | ● | ◎ | ● | | ◎ | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## EP/XP型 大进给刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | XPKW08T316R | HP-7010 | | ● | | ● | | | ● |
| | XPKW08T316R | HP-7025 | | ● | | ● | | | |
| | XPKW10T416R | HP-7025 | | ● | | ● | | | |
| | NEW XPKW13T516R | HP-7010 | ▲ | ● | | ● | | | ● |
| | XPKW13T516R | HP-7012 | ▲ | ● | ● | ● | | ◎ | ● |
| | XPKW13T516R | HP-7025 | ▲ | ● | | ● | | | |
| | XPKW150620R | HP-7012 | | ● | ● | ● | | ◎ | ● |
| | XPKW150620R | HP-7025 | | ● | | ● | | | |
| | XDKW160620R | HP-7010 | ▲ | ● | | ● | | | ● |
| | XDKW160620R | HP-7220 | ▲ | ● | | ● | | | ◎ |
|  | NEW EPMT0603TN-8 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW EPMT0603TN-8 | HP-7012 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW EPMW1103TN-8 | HP-7330 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW EPMW1103TN-8 | HP-7012 | ▲ | ● | ● | ● | | | |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## LN03/LO03型双面小径高进给

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | LNMU0303ER | MP-9110 | ▲ | ● | ● | ● | | ● | ◎ |
| | LOGU030310 | MP-9110 | ▲ | ● | ● | ● | | ● | ◎ |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## MP型 精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | NEW MPGW070204 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW070208 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100308 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100308 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100304 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100316 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100316 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100320 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | NEW MPGW100308 | KD10 | ▲ | 石 墨 | | | | | |
|  | NEW MPGW100308 | PCD | ▲ | 石 墨 | | | | | |
| | NEW MPGW100308 | CBN | ▲ | ● | | ● | | | ● |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料





## YP型精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | YPHW100308ZER | MP-9110 | ▲ | ● | ● | ● | | ◎ | |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## WNMU08铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | NEW WNMU080608N | HP-7220 | | ● | ● | | | ◎ | |
| | NEW WNMU080608N | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## XNMU08铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | NEW XNMU080608SR | HP-7220 | | ● | ● | | | ◎ | |
| | NEW XNMU080608SR | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## SNMX12铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SNMX1205ANN | HP-7220 | | ● | ● | | | ◎ | |
| | SNMX1205ANN | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SNMU13铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SNMU1305ANTR | HP-7220 | | ● | ● | | | ◎ | |
| | SNMU1305ANTR | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SNMX13铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SNMX130608M | HP-7220 | | ● | ● | | | ◎ | |
| | SNMX130608M | HK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料





## ONMU05铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | ONMU050505N | HP-7220 | | ● | ◎ | | | ◎ | |
| | ONMU050505N | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## VSB 精加工球刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | VSB100-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | VSB120-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | VSB160-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | VSB200-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | VSB250-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | VSB300-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SO快速钻刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SOMT050204 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT060204 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT070306 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT08T306 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT09T308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT11T308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT130408 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## TSB 精锐球刀

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TSB080-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB100-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB120-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB160-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB200-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB250-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |
| | TSB300-S | 7005 | ▲ | ● | ◎ | ● | | ● | ● |

## VSR 精锐R角刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | VSR100R0.2 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR100R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R0.2 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR120R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR160R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR170R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |





## VSR 精锐R角刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | VSR200R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR200R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR210R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR260R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSR250R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |

## TSR 精锐R角刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TSR080R0.2 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR080R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R0.2 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## TSR 精锐R角刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TSR100R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR100R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R0.2 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR120R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR160R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR170R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR200R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR210R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR260R0.3 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R0.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R0.8 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R1.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R1.5 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R2.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSR250R3.0 | 7005 | ▲ | ● | ◎ | ● | | | ● |





## S型面铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SEHT1204AFSN | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | SEHT1204AFSN | HP-7035 | ▲ | ● | | ◎ | | | |
| | SEGX120404-AL | NH01 | ▲ | | | ◎ | ● | | |
|  | SPEN1203EDR | N030 | ▲ | ● | ◎ | ● | | | |
| | SEEN1203AFTN | N030 | ▲ | ● | ◎ | ● | | | |
| | SEKR1203AF | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ◎ |
| | SEKR1203AF | HP-7025 | ▲ | ● | ◎ | ● | | | |

▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

## 粗铣刀片（玉米铣刀用）

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | APLT150412 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | APLT150412 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | APLT150412 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |
|  | SPLT120408 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | SPLT120408 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | SPLT120408 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |

▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

## WC型 快速钻刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | WCMX030208R | HP-7025 | ▲ | ● | ◎ | ● | | | |
| | WCMX040208R | HP-7025 | ▲ | ● | ◎ | ● | | | |
| | WCMX050308R | HP-7025 | ▲ | ● | ◎ | ● | | | |
| | WCMX06T308R | HP-7025 | ▲ | ● | ◎ | ● | | | |
| | WCMX080412R | HP-7025 | ▲ | ● | ◎ | ● | | | |
|  | WCMX030208R | HP-8012 | ● | ● | ● | ● | | | |
| | WCMX040208R | HP-8012 | ● | ● | ● | ● | | | |
| | WCMX050308R | HP-8012 | ● | ● | ● | ● | | | |
| | WCMX06T308R | HP-8012 | ● | ● | ● | ● | | | |
| | WCMX080412R | HP-8012 | ● | ● | ● | ● | | | |

备注：▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

## SP型 快速钻刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RD600-050204T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |
| | RD600-060204T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |
| | RD600-07T308T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |
| | RD600-090408T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |
| | RD600-110408T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |
| | RD600-140512T-GP | HP-7020 | ▲ | ● | ◎ | ● | ◎ | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## 常用镗刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | CCMT060204 | FP-6015 | ▲ | ● | | | | | |
| | CCMT060204 | FP-6215 | ▲ | ● | | | | | |
| | CCMT060204 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT060204 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT060204 | MM-2025 | ▲ | | ● | | | | |
| | NEW CCMT060208 | MP-6225 | ▲ | ● | | | | | |
|  | CCMT09T304 | FP-6015 | ▲ | ● | | | | | |
| | CCMT09T304 | FP-6215 | ▲ | ● | | | | | |
| | CCMT09T304 | FK-5015 | ▲ | | | ● | | | |
| | CCMT09T304 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT09T304 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T304 | MM-2025 | ▲ | | ● | | | | |
| | CCMT09T308 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT09T308 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T308 | MM-2025 | ▲ | | ● | | | | |
| | NEW CCMT120408 | MK-5115 | ▲ | | | ● | | | |
|  | TBGH060102L | FP-7015 | ▲ | ● | ● | ● | | | |
| | TBGH060102L | N030 | ▲ | ● | | | | | |
| | TPGH090202L | FP-7015 | ▲ | ● | ● | ● | | | |
| | TPGH090202L | N030 | ▲ | ● | | | | | |
| | TPGH090204L | FP-7015 | ▲ | ● | ● | ● | | | |
| | TPGH090204L | N030 | ▲ | ● | | | | | |
| | TPGH110302L | FP-7015 | ▲ | ● | ● | ● | | | |
| | TPGH110302L | N030 | ▲ | ● | | | | | |
| | TPGH110304L | FP-7015 | ▲ | ● | ● | ● | | | |
| | TPGH110304L | N030 | ▲ | ● | | | | | |
|  | NEW TBGH060102L | N820 | ▲ | ● | | ● | | | |
| | NEW TPGH090204L | N820 | ▲ | ● | | ● | | | |
| | NEW TPGH110304L | N820 | ▲ | ● | | ● | | | |
| | NEW TPGH080202L | N820 | ▲ | ● | | ● | | | |
| | NEW TPGH080204L | N820 | ▲ | ● | | ● | | | |
| | NEW TPGH090202L | N820 | ▲ | ● | | ● | | | |
| | NEW TCGT110202L | N820 | ▲ | ● | | ● | | | |
| | NEW TCGT110204L | N820 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料









## 常用有色金属正型刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | CCGX060204-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX09T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120404-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120408-AL | NH01 | ▲ | | | ◎ | ● | | |
|  | DCGX070204-AL | NH01 | ▲ | | | ◎ | ● | | |
| | DCGX11T302-AL | NH01 | ▲ | | | ◎ | ● | | |
| | DCGX11T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | DCGX11T308-AL | NH01 | ▲ | | | ◎ | ● | | |
|  | TCGX110204-AL | NH01 | ▲ | | | ◎ | ● | | |
| | TCGX16T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | TCGX16T308-AL | NH01 | ▲ | | | ◎ | ● | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## 常用负型车刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | WNMG080404 | FP-6215 | ▲ | ● | | | | | |
| | WNMG080404 | FP-6225 | ▲ | ● | | | | | |
| | NEW WNMG080404 | TM-6315 | ▲ | ● | | | | | |
| | WNMG080404 | MK-5015 | ▲ | | | ● | | | |
| | NEW WNMG080404 | MK-5115 | ▲ | | | ● | | | |
| | NEW WNMG080404 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW WNMG080404 | MS-2115 | ▲ | | ● | | | | |
| | WNMG080404 | FM-2025 | ▲ | | ● | | | | |
| | WNMG080408 | FP-6030 | ▲ | ● | | | | | |
| | WNMG080408 | MP-6030 | ▲ | ● | | | | | |
| | WNMG080408 | MP-6215 | ▲ | ● | | | | | |
| | WNMG080408 | MP-6225 | ▲ | ● | | | | | |
| | WNMG080408 | MP2-6025 | ▲ | ● | | | | | |
| | NEW WNMG080408 | TM-6315 | ▲ | ● | | | | | |
| | WNMG080408 | MK-5015 | ▲ | | | ● | | | |
| | NEW WNMG080408 | MK-5115 | ▲ | | | ● | | | |
| | NEW WNMG080408 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW WNMG080408 | MS-2115 | ▲ | | ● | | | ◎ | |
| | WNMG080408 | MM-2025 | ▲ | | ● | | | | |
| | WNMG080408 | FM-2025 | ▲ | | ● | | | | |
| | WNMG080412 | MK-5015 | ▲ | | | ● | | | |
| | NEW WNMG080412 | MK-5115 | ▲ | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## 常用负型车刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | CNMG120404 | FP-6215 | ▲ | ● | | | | | |
| | CNMG120404 | FP-6225 | ▲ | ● | | | | | |
| | NEW CNMG120404 | TM-6315 | ▲ | ● | | | | | |
| | NEW CNMG120404 | MK-5115 | ▲ | | | ● | | | |
| | NEW CNMG120404 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW CNMG120404 | MS-2115 | ▲ | | ● | | | | |
| | CNMG120408 | MP-6215 | ▲ | ● | | | | | |
| | CNMG120408 | MP-6225 | ▲ | ● | | | | | |
| | NEW CNMG120408 | TM-6315 | ▲ | ● | | | | | |
| | CNMG120408 | MK-5015 | ▲ | | | ● | | | |
| | NEW CNMG120408 | MK-5115 | ▲ | | | ● | | | |
| | NEW CNMG120408 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW CNMG120408 | MS-2115 | ▲ | | ● | | | | |
| | CNMG120408 | MM-2025 | ▲ | | ● | | | | |
|  | NEW DNMG150404 | MK-5115 | ▲ | | | ● | | | |
| | DNMG150408 | MP-6215 | ▲ | ● | | | | | |
| | DNMG150408 | MP-6225 | ▲ | ● | | | | | |
| | NEW DNMG150408 | TM-6315 | ▲ | ● | | | | | |
| | DNMG150408 | MK-5015 | ▲ | | | ● | | | |
| | NEW DNMG150408 | MK-5115 | ▲ | | | ● | | | |
| | DNMG150608 | MP-6215 | ▲ | ● | | | | | |
| | DNMG150608 | MP-6225 | ▲ | ● | | | | | |
| | NEW SNMG120408 | MA-2115 | ▲ | ● | ● | | | | |
|  | TNMG160404 | FP-6215 | ▲ | ● | | | | | |
| | TNMG160404 | FP-6225 | ▲ | ● | | | | | |
| | TNMG160404 | FK-5015 | ▲ | | | ● | | | |
| | TNMG160404 | MP-6025 | ▲ | ● | | | | | |
| | NEW TNMG160404 | TM-6315 | ▲ | ● | | | | | |
| | NEW TNMG160404 | MK-5115 | ▲ | | | ● | | | |
| | NEW TNMG160404 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW TNMG160404 | MS-2115 | ▲ | | ● | | | | |
| | TNMG160404R-2G | NO30 | ▲ | ● | | ◎ | | | |
| | TNMG160404L-2G | NO30 | ▲ | ● | | ◎ | | | |
| | TNMG160408 | FP-6025 | ▲ | ● | | | | | |
| | TNMG160408 | FP-6215 | ▲ | ● | | | | | |
| | TNMG160408 | MP-6025 | ▲ | ● | | | | | |
| | TNMG160408 | MP-6215 | ▲ | ● | | | | | |
| | NEW TNMG160408 | TM-6315 | ▲ | ● | | | | | |
| | NEW TNMG160408 | MK-5115 | ▲ | | | ● | | | |
| | NEW TNMG160408 | MA-2115 | ▲ | ● | ● | | | | |
| | NEW TNMG160408 | MS-2115 | ▲ | | ● | | | | |
| | NEW TNMG160412 | TM-6315 | ▲ | ● | | | | | |
| | TNMG160408 | MK-5015 | ▲ | | | ● | | | |
| | TNMG160408 | MM-2025 | ▲ | | ● | | | ◎ | |
| | TNMG160408 | MP2-6025 | ▲ | ● | | | | | |
| | NEW VNMG160404 | MK-5115 | ▲ | | | ● | | | |
| | NEW VNMG160404 | MP-2115 | ▲ | ● | ● | | | | |
| | NEW VNMG160408 | MP-2115 | ▲ | ● | ● | | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



# 可转位铣削刀具系列

INDEXABLE MILLING TOOL SERIES

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采用独创技术，实现高速、高效、高精度加工。




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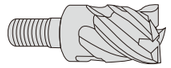
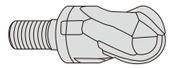
# 硬质合金抗震系列

——提高效率降低成本　刀具的集约化管理

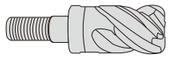




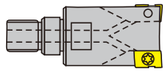
923MC 螺纹式钨钢平头立铣刀



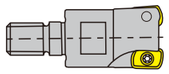
925MC 螺纹式钨钢球头立铣刀



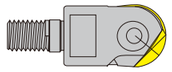
927MC 螺纹式钨钢圆角立铣刀



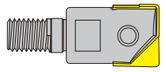
SPVM高速精铣刀



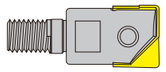
ASR 高进给铣刀



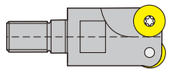
ABPF 精加工球刀



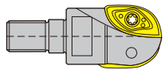
ARPFM 精加工R角刀



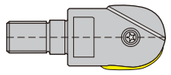
TSR 精加工R角刀



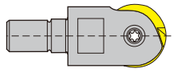
932MC 圆刃铣刀



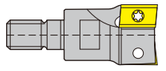
951MC 球型铣刀



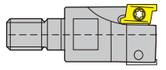
953MC 球型精铣刀



955MC 球型精铣刀



965MC 直角端铣刀



967MC 直角端铣刀

## 优点：

高性能可换刀头和超强硬质合金刀杆的组合，在悬长较长的加工中亦可有效抑制振动，与传统钢制刀杆相比加工效率提高了2~5倍。加工时间大大缩短，加工成本随之下降。
刀头的自由组合及其可换性,覆盖从粗加工到精加工的所有加工要求,对刀具的集约化管理具有划时代的意义。
由于刀头和刀杆采用螺纹连接,可在机床上方便迅速的更换刀头,降低生产成本。

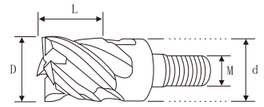


## 923MC　螺纹式钨钢平头立铣刀

| 型　号 Model | D mm | L mm | d mm | M | 库存 |
|---|---|---|---|---|---|
| 923MC-2100 | 10 | 10 | 9.7 | M05 | ◆ |
| 923MC-2120 | 12 | 12 | 11.7 | M06 | ◆ |
| 923MC-2160 | 16 | 16 | 15.7 | M08 | ◆ |
| 923MC-2200 | 20 | 20 | 19.5 | M10 | |
| 923MC-2250 | 25 | 25 | 24.5 | M12 | |

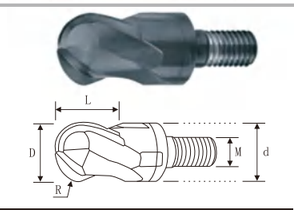


| 型　号 Model | D mm | L mm | d mm | M | 库存 |
|---|---|---|---|---|---|
| 923MC-4100 | 10 | 10 | 9.7 | M05 | ◆ |
| 923MC-4120 | 12 | 12 | 11.7 | M06 | ◆ |
| 923MC-4160 | 16 | 16 | 15.7 | M08 | ◆ |
| 923MC-4200 | 20 | 20 | 19.5 | M10 | |
| 923MC-4250 | 25 | 25 | 24.5 | M12 | |




## 925MC　螺纹式钨钢球头立铣刀

| 型　号 Model | D mm | R mm | L mm | d mm | M | 库存 |
|---|---|---|---|---|---|---|
| 925MC-2100 | 10 | R5.0 | 10 | 9.7 | M05 | ◆ |
| 925MC-2120 | 12 | R6.0 | 12 | 11.7 | M06 | ◆ |
| 925MC-2160 | 16 | R8.0 | 16 | 15.7 | M08 | ◆ |
| 925MC-2200 | 20 | R10.0 | 20 | 19.5 | M10 | ◆ |
| 925MC-2250 | 25 | R12.5 | 25 | 24.5 | M12 | ◆ |




## 927MC　螺纹式钨钢圆角立铣刀

| 型　号 Model | D mm | R mm | L mm | d mm | M | 库存 |
|---|---|---|---|---|---|---|
| 927MC-4100R0.5 | 10 | R0.5 | 10 | 9.7 | M05 | |
| 927MC-4100R1.0 | 10 | R1.0 | 10 | 9.7 | M05 | |
| 927MC-4100R2.0 | 10 | R2.0 | 10 | 9.7 | M05 | ◆ |
| 927MC-4120R0.5 | 12 | R0.5 | 12 | 11.7 | M06 | |
| 927MC-4120R1.0 | 12 | R1.0 | 12 | 11.7 | M06 | |
| 927MC-4120R2.0 | 12 | R2.0 | 12 | 11.7 | M06 | ◆ |
| 927MC-4160R1.0 | 16 | R1.0 | 16 | 15.7 | M08 | |
| 927MC-4160R2.0 | 16 | R2.0 | 16 | 15.7 | M08 | |
| 927MC-4200R1.0 | 20 | R1.0 | 20 | 19.5 | M10 | |
| 927MC-4200R2.0 | 20 | R2.0 | 20 | 19.5 | M10 | |
| 927MC-4200R3.0 | 20 | R3.0 | 20 | 19.5 | M10 | |
| 927MC-4250R1.0 | 25 | R1.0 | 25 | 24.5 | M12 | |
| 927MC-4250R2.0 | 25 | R2.0 | 25 | 24.5 | M12 | |
| 927MC-4250R3.0 | 25 | R3.0 | 25 | 24.5 | M12 | |




**应用场合**


平面铣


型腔铣


曲面铣


螺旋插补


坡走铣


沟槽铣

## 推荐切削条件

### 923MC　螺纹式钨钢平头立铣刀



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D mm | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| 10 | 5000 | 500 | 3500 | 320 | 2800 | 150 |
| 12 | 4500 | 480 | 3200 | 300 | 2400 | 150 |
| 16 | 3500 | 450 | 2000 | 200 | 1500 | 120 |
| 20 | 3000 | 450 | 1800 | 250 | 1000 | 120 |
| 标准切削量 | AP=1.5D AE=0.1D | | | | AP=1.5D AE=0.08D | |

### 925MC　螺纹式钨钢球头立铣刀



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D mm | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| 10 | 8800 | 3600 | 7600 | 3000 | 6500 | 2600 |
| 12 | 8000 | 3200 | 7000 | 2800 | 6000 | 2400 |
| 16 | 6000 | 3000 | 6000 | 2600 | 5400 | 2200 |
| 20 | 4800 | 2900 | 4400 | 2500 | 5000 | 2000 |
| 标准切削量 | AP=0.1mm　AE=0.3mm | | | | | |

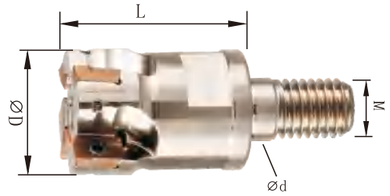
### 927MC　螺纹式钨钢圆角立铣刀



| 被削材 | 铸铁、碳素钢 | | 预硬钢 | | 淬硬钢HRC45～55 | |
|---|---|---|---|---|---|---|
| D mm | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min | 回转速 min⁻¹ | 进给速度 mm/min |
| 10 | 5000 | 680 | 3500 | 450 | 2800 | 200 |
| 12 | 4500 | 600 | 3200 | 450 | 2400 | 200 |
| 16 | 3500 | 550 | 2000 | 300 | 1500 | 160 |
| 20 | 3000 | 550 | 1800 | 300 | 1000 | 160 |
| 标准切削量 | AP=1.5D AE=0.1D | | | | AP=1.5D AE=0.08D | |



## SYM高速精铣刀（模具等精铣用）



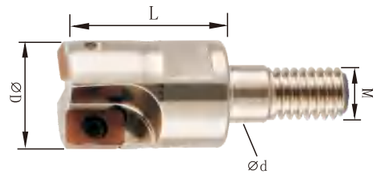

| 型号 Model | D | Ød | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| SYM-17M08-YP10-2T | 17 | 8.5 | 25 | M8 | YPHW1003 | TS2506 | T08 |
| SYM-21M10-YP10-3T | 21 | 10.5 | 30 | M10 | | | |
| SYM-26M12-YP10-4T | 26 | 12.5 | 35 | M12 | | | |

## YP型精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | YPHW100308ZER | MP-9110 | ▲ | ● | ● | ● | | ◎ | |

备注：▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## SPM-MP07 小径高速精铣刀




| 型号 Model | D | Ød | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| SPM-10M05-MP07-2T | 10 | 5.5 | 18 | M5 | MPGW0702 | M2 | T8 |
| SPM-11M05-MP07-2T | 11 | 5.5 | 18 | M5 | | | |
| SPM-12M06-MP07-2T | 12 | 6.5 | 20 | M6 | | | |
| SPM-13M06-MP07-2T | 13 | 6.5 | 20 | M6 | | | |

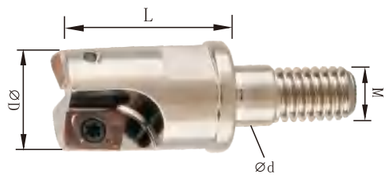
## MP型 精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | MPGW070204 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW070208 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## JDMT07 小径直角高速端铣刀



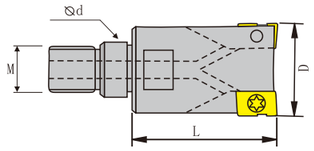

| 型号 Model | D | Ød | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| JD0702-10M05-2T | 10 | 5.5 | 18 | M5 | JDMT0702 | M2 | T6 |
| JD0702-11M05-2T | 11 | 5.5 | 18 | M5 | | | |
| JD0702-12M06-2T | 12 | 6.5 | 20 | M6 | | | |
| JD0702-13M06-2T | 13 | 6.5 | 20 | M6 | | | |

## JD07型铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | JDMT070204 | MP-9110 | ▲ | ● | ● | ● | | | ◎ |
| | JDMT070208 | MP-9110 | ▲ | ● | ● | ● | | | ◎ |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SPVM 高速精铣刀(模具等高精铣及插铣用)




| 型号 Model | D | Ld | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| SPVM-16M08-MP10-2T | 16 | 8.5 | 25 | M8 | MPGW1003 MPHW0603 | TS2506 | TK08 |
| SPVM-17M08-MP10-2T | 17 | | | | | | |
| SPVM-20M10-MP10-2T | 20 | 10.5 | 30 | M10 | | | |
| SPVM-20M10-MP10-3T | | | | | | | |
| SPVM-21M10-MP10-2T | 21 | | | | | | |
| SPVM-21M10-MP10-3T | | | | | | | |
| SPVM-25M12-MP10-3T | 25 | 12.5 | 35 | M12 | | | |
| SPVM-25M12-MP10-4T | | | | | | | |
| SPVM-26M12-MP10-3T | 26 | | | | | | |
| SPVM-26M12-MP10-4T | | | | | | | |
| SPVM-30M16-MP10-3T | 30 | 17 | 40 | M16 | | | |
| SPVM-30M16-MP10-4T | | | | | | | |
| SPVM-32M16-MP10-3T | 32 | | | | | | |
| SPVM-32M16-MP10-5T | | | | | | | |
| SPVM-33M16-MP10-3T | 33 | | | | | | |
| SPVM-33M16-MP10-5T | | | | | | | |
| SPVM-40M16-MP10-3T | 40 | | | | | | |
| SPVM-40M16-MP10-6T | | | | | | | |

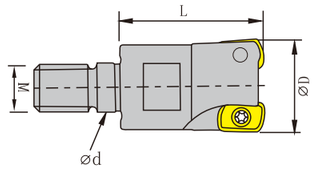
## MP型 精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | MPGW070204 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW070208 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100304 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100316 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100316 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100320 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | KD10 | ▲ | 石 墨 | | | | | |
|  | MPGW100308 | PCD | ▲ | 石 墨 | | | | | |
| | MPGW100308 | CBN | ▲ | ● | | ● | | | ● |

备注:▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料



## ASR 高进给铣刀




| 型号 Model | D mm | L mm | d mm | T mm | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| ASR-16M08-2T | 16 | 26 | 8.5 | 2 | EP..0603TN-8 | MS2506B | TF9 |
| ASR-17M08-2T | 17 | | | | | | |
| ASR-20M10-3T | 20 | 32 | 10.5 | 3 | | | |
| ASR-21M10-3T | 21 | | | | | | |
| ASR-25M12-4T | 25 | 38 | 12.5 | 4 | | | |
| ASR-26M12-4T | 26 | | | | | | |
| ASR-32M16-5T | 32 | 41 | 17 | 5 | | | |
| ASR-35M16-5T | 35 | | | | | | |

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | EPMT0603TN-8 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMT0603TN-8 | HP-7012 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMW1103TN-8 | HP-7330 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMW1103TN-8 | HP-7012 | ▲ | ● | ● | ● | | | |

备注:▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

*程序中的刀尖形状定义方法请参考下图作为近似的圆角R*

| 使用刀片 Insert | 近似R Approximate Input Corner R | 过切量 Over Cut | 残余量 Remains |
|---|---|---|---|
| EPMT0603TN-8 | R2.0 | 0 | 0.497 |
| EPMT0603TN-8 | R2.5 | 0.076 | 0.349 |
| EPMT0603TN-8 | R3.0 | 0.218 | 0.236 |
| EPMT0603TN-8 | R3.5 | 0.419 | 0.108 |
| EPMT0603TN-8 | R4.0 | 0.612 | 0.03 |

尺寸单位:(mm)







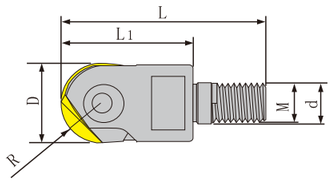
EPMT0603TN-8

## 推荐切削条件

| 直径 | 转速 Speed(min-1) | 进给 F(mm/min) | 切深 Ap(mm) | 切宽 Ae(mm) |
|---|---|---|---|---|
| 32R2 | 1400 | 5000 | 0.5 | 26 |
| 25R2 | 1600 | 5000 | 0.5 | 19 |
| 20R2 | 1800 | 5000 | 0.5 | 14 |
| 16R2 | 2200 | 4000 | 0.5 | 10 |

## ABPF 精加工球刀






| 型号 Model | D | d | L1 | L | R | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| ABPF10-M05 | 10 | 5.5 | 20 | 33 | 5 | M05 | VSB100/ZPFG100 | ZP10 | TK08 |
| ABPF12-M06 | 12 | 6.5 | 22 | 36 | 6 | M06 | VSB120/ZPFG120 | ZP12 | TK10 |
| ABPF16-M08 | 16 | 8.5 | 28 | 45 | 8 | M08 | VSB160/ZPFG160 | ZP16 | TK15 |
| ABPF20-M10 | 20 | 10.5 | 30 | 49 | 10 | M10 | VSB200/ZPFG200 | ZP20 | TK20 |
| ABPF25-M12 | 25 | 12.5 | 40 | 62 | 12.5 | M12 | VSB250/ZPFG250 | ZP25 | TK30 |
| ABPF30-M16 | 30 | 17 | 41 | 64 | 15 | M16 | VSB300/ZPFG300 | ZP30 | TK30 |

## VSB 精加工球刀片

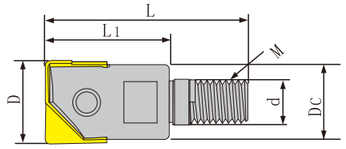
| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | VSB100-S | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSB120-S | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSB160-S | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSB200-S | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSB250-S | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | VSB300-S | 7005 | ▲ | ● | ◎ | ● | | | ● |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## ARPFM 精加工R角刀

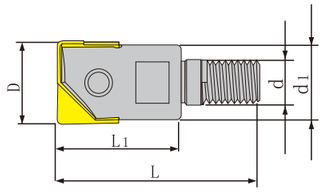





| 型号 Model | D | Dc | d | L1 | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| ARPFM12-M06 | 12 | 11 | 6.5 | 22 | 36 | M06 | VSR120/ZCFW-120 | ZP12 | TK20 |
| ARPFM16-M08 | 16 | 14 | 8.5 | 28 | 45 | M08 | VSR160/ZCFW-160 | ZP16 | TK20 |
| ARPFM20-M10 | 20 | 18 | 10.5 | 30 | 49 | M10 | VSR200/ZCFW-200 | ZP20 | TK25 |
| ARPFM25-M12 | 25 | 22 | 12.5 | 40 | 62 | M12 | VSR250/ZCFW-250 | ZP25 | TK30 |
| ARPFM30-M12 | 30 | 26 | 17 | 41 | 64 | M16 | VSR300/ZCFW-300 | ZP30 | TK30 |

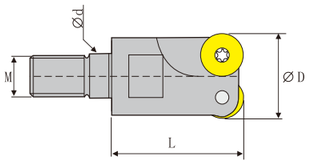
## TSR 精加工R角刀






| 型号 Model | D | d | d1 | L1 | L | M | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| TSR10-M05 | 10 | 5.5 | 9 | 20 | 33 | M05 | TSR-100 | PH05 | TK08 |
| TSR12-M06 | 12 | 6.5 | 11 | 22 | 36 | M06 | TSR-120 | PH06 | TK10 |
| TSR16-M08 | 16 | 8.5 | 14 | 28 | 45 | M08 | TSR-160 | PH08 | TK15 |
| TSR20-M10 | 20 | 10.5 | 18 | 30 | 49 | M10 | TSR-200 | PH10 | TK20 |
| TSR25-M12 | 25 | 12.5 | 22 | 40 | 62 | M12 | TSR-250 | PH12 | TK30 |
| TSR30-M16 | 30 | 17 | 26 | 41 | 64 | M16 | TSR-300 | PH16 | TK30 |
| TSR32-M16 | 32 | 17 | 29 | 41 | 64 | M16 | TSR-320 | PH16 | TK30 |

# 932MC 锁牙式圆刃铣刀




| 型号 Model | D mm | d mm | L mm | z mm | 刀片 | 刀片螺丝 | 扳手 | 压板 | 压板螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| 932MC-09M04-RD05-2T | 9 | 4.5 | 15 | 2 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-10M05-RD05-2T | 10 | 5.5 | 16 | 2 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-11M05-RD05-2T | 11 | 5.5 | 18 | 2 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-12M06-RD05-2T | 12 | 6.5 | 18 | 2 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-12M06-RD05-3T | 12 | 6.5 | 18 | 3 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-13M06-RD05-2T | 13 | 6.5 | 18 | 2 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-13M06-RD05-3T | 13 | 6.5 | 18 | 3 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-16M08-RD05-4T | 16 | 8.5 | 23 | 4 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-17M08-RD05-4T | 17 | 8.5 | 23 | 4 | RDHX0501MO | M2-3.5-2.7 | T6 | - | - | - |
| 932MC-16M08-RD07-2T | 16 | 8.5 | 23 | 2 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-17M08-RD07-2T | 17 | 8.5 | 23 | 2 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-17M08-RD07-3T | 17 | 8.5 | 23 | 3 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-20M10-RD07-3T | 20 | 10.5 | 30 | 3 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-21M10-RD07-3T | 21 | 10.5 | 30 | 3 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-25M12-RD07-4T | 25 | 12.5 | 35 | 4 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-25M12-RD07-5T | 25 | 12.5 | 35 | 5 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-26M12-RD07-4T | 26 | 12.5 | 35 | 4 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-26M12-RD07-5T | 26 | 12.5 | 35 | 5 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-35M16-RD07-5T | 35 | 17 | 43 | 5 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-35M16-RD07-6T | 35 | 17 | 43 | 6 | RDHX0702MO | M2.5-6.45-3.7 | T8 | - | - | - |
| 932MC-25M12-RD10-2T | 25 | 12.5 | 30 | 2 | RD□□10T3MO | M4-10-5.0-43 | T15 | M-5R | M3.5-8-5.5-60 | T15 |
| 932MC-25M12-RD10-3T | 25 | 12.5 | 30 | 3 | RD□□10T3MO | M4-10-5.0-43 | T15 | M-5R | M3.5-8-5.5-60 | T15 |
| 932MC-26M12-RD10-2T | 26 | 12.5 | 35 | 2 | RD□□10T3MO | M4-10-5.0-43 | T15 | M-5R | M3.5-8-5.5-60 | T15 |
| 932MC-30M16-RD10-2T | 30 | 17 | 35 | 2 | RD□□10T3MO | M4-10-5.0-43 | T15 | M-5R | M3.5-8-5.5-60 | T15 |
| 932MC-35M16-RD10-3T | 35 | 17 | 43 | 3 | RD□□10T3MO | M4-10-5.0-43 | T15 | M-5R | M3.5-8-5.5-60 | T15 |

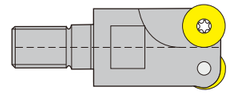


# 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | RDMW0501MO | HP-7005 | | ● | ◎ | ● | | ◎ | ● |
| | RDHW0501MO | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | RDMW0702MO | HP-7005 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDHW0702MO | FP-9110 | ▲ | ● | | ● | | | ● |
| | RDHW0702MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMW0702MO | HP-7020 | | ● | ◎ | ● | | ◎ | |
| | RDHW0702MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDEW0702MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
| | RDKT10T3MOS | MP-7010 | ▲ | ● | | ◎ | | | ● |
| | RDKT10T3MOS | MP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RDKT10T3MOS | MK-7020 | ▲ | ● | | ● | | | ◎ |
| | RDKT10T3MOS | MP-7025 | ▲ | ● | | ◎ | | | |
| | RDHX10T3MO | HP-7005 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW10T3MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW10T3MO | HP-7035 | ▲ | ● | | ◎ | | | |
| | RDKW10T3MO | HP-8215 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

# 推荐切削条件

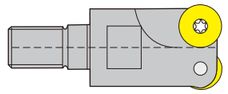


**高速加工用可换式刀头932MC型+979HM型抗振硬杆**

| 被加工材料 | 硬度 | 刀片材质 | 切削速度(转速) V(m/min) | 进给 Fz(mm/刃) | 切深(Ap) Ap(mm) |
|---|---|---|---|---|---|
| 碳素钢<br>50#55#<br>硬度250HB以下 | 160-260HB | 7025<br>7035 | 200-350 | 0.15-0.3 | 0.1-0.3 |
| 预硬钢<br>(3Cr3Mo,P20)<br>硬度30-43HRC | 280-400HB | 7012<br>7020<br>7025 | 200-300 | 0.15-0.3 | 0.1-0.3 |
| 淬火钢<br>(Cr12Mo1V1,T10)<br>硬度40-55HRC | 40-55HRC | 7005<br>7012<br>7020 | 150-250 | 0.1-0.25 | 0.1-0.2 |
| 淬火钢<br>(4Cr5MoSiV1,Cr12Mo1V1)<br>硬度55HRC以上 | 55HRC- | 7005<br>7012 | 100-200 | 0.1-0.2 | 0.1-0.2 |
| 不锈钢<br>(0Cr19Ni9)<br>硬度250HB以下 | 150-250HB | 7012 | 150-300 | 0.15-0.3 | 0.1-0.3 |
| 灰铸铁、球墨铸铁<br>HT250、QT450<br>硬度300HB以下 | 170-300HB | 7012<br>7020<br>7025 | 250-400 | 0.15-0.3 | 0.1-0.3 |

备注：
表中数据请根据机床和工件刚性情况进行适当调整
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速

# 推荐切削条件



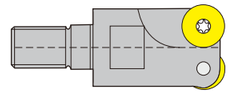
**一般加工用可换式刀头932MC型+979HM型抗振硬杆**

| 被加工材料 | 刀片材质 | 刀具直径(mm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10/11 | | | | 12/13 | | | | 16/17 | | | |
| | | L | AP | N | F | L | AP | N | F | L | AP | N | F |
| | | | | -1 | | | | -1 | | | | -1 | |
| | | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min |
| 碳素钢<br>50#55#<br>硬度250HB以下 | 7025<br>7035 | 50 | 0.4 | 5800 | 2300 | 50 | 0.4 | 5600 | 2200 | 70 | 0.5 | 4500 | 2000 |
| | | 90 | 0.3 | 5000 | 2000 | 90 | 0.3 | 4800 | 2000 | 110 | 0.4 | 3500 | 1500 |
| | | 135 | 0.2 | 4200 | 1600 | 135 | 0.2 | 4000 | 1600 | 150 | 0.3 | 3000 | 1200 |
| 预硬钢<br>(3Cr3Mo,P20)<br>硬度30-43HRC | 7012<br>7025 | 50 | 0.3 | 4600 | 1800 | 50 | 0.3 | 4000 | 1600 | 70 | 0.4 | 3200 | 1200 |
| | | 90 | 0.2 | 3800 | 1500 | 90 | 0.2 | 3600 | 1400 | 110 | 0.3 | 2600 | 1000 |
| | | 135 | 0.1 | 3000 | 1200 | 135 | 0.1 | 3000 | 1200 | 150 | 0.2 | 2600 | 1000 |
| 淬火钢<br>(4Cr5MoSiVi)<br>硬度40-55HRC | 7005<br>7012 | 50 | 0.2 | 2800 | 1100 | 50 | 0.2 | 2600 | 1000 | 70 | 0.3 | 1800 | 700 |
| | | 90 | 0.1 | 2000 | 800 | 90 | 0.1 | 1800 | 700 | 110 | 0.2 | 1400 | 550 |
| | | 135 | | | | 135 | | | | 150 | | | |
| 不锈钢<br>(0Cr19Ni9)<br>硬度250HB以下 | 7012 | 50 | 0.3 | 4600 | 1800 | 50 | 0.3 | 4000 | 1600 | 70 | 0.4 | 3200 | 1200 |
| | | 90 | 0.2 | 3800 | 1500 | 90 | 0.2 | 3600 | 1400 | 110 | 0.3 | 2600 | 1000 |
| | | 135 | 0.1 | 3000 | 1200 | 135 | 0.1 | 3000 | 1200 | 150 | 0.2 | 2600 | 1000 |
| 灰铸铁、球墨铸铁<br>HT250、QT450<br>硬度300HB以下 | 7012<br>7025 | 50 | 0.4 | 4600 | 1800 | 50 | 0.4 | 4000 | 1600 | 70 | 0.4 | 3000 | 1200 |
| | | 90 | 0.3 | 3800 | 1500 | 90 | 0.3 | 3600 | 1400 | 110 | 0.3 | 2700 | 1000 |
| | | 135 | 0.2 | 3200 | 1200 | 135 | 0.2 | 3000 | 1200 | 150 | 0.2 | 2700 | 1000 |



R 整体硬质合金铣刀 I 常用铣削刀片 N 可转位铣削刀具 E
孔加工刀具 C 刀柄系统 K 辅助工具 + 通用信息

# 推荐切削条件

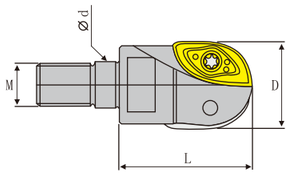


| 被加工材料 | 刀片材质 | 刀具直径(mm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 20/21 | | | | 25/26 | | | | 30/35 | | | |
| | | L | AP | N | F | L | AP | N | F | L | AP | N | F |
| | | | | -1 | | | | -1 | | | | -1 | |
| | | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min |
| 碳素钢<br>50#55#<br>硬度250HB以下 | 7025<br>7035 | 80 | 0.5 | 3500 | 1800 | 90 | 0.8 | 2800 | 1400 | 100 | 0.8 | 2200 | 1100 |
| | | 130 | 0.4 | 3200 | 1600 | 150 | 0.5 | 2500 | 1200 | 160 | 0.5 | 2000 | 1000 |
| | | 200 | 0.3 | 2400 | 1200 | 220 | 0.3 | 1900 | 900 | 230 | 0.3 | 1700 | 900 |
| 预硬钢<br>(3Cr3Mo,P20)<br>硬度30-43HRC | 7012<br>7025 | 80 | 0.4 | 2800 | 1400 | 90 | 0.6 | 2300 | 1200 | 100 | 0.6 | 2000 | 1000 |
| | | 130 | 0.3 | 2600 | 1300 | 150 | 0.4 | 2000 | 1000 | 160 | 0.4 | 1800 | 800 |
| | | 200 | 0.2 | 2200 | 1100 | 220 | 0.2 | 1800 | 900 | 230 | 0.2 | 1600 | 800 |
| 淬火钢<br>(4Cr5MoSiVi)<br>硬度40-55HRC | 7005<br>7012 | 80 | 0.3 | 1500 | 700 | 90 | 0.3 | 1200 | 600 | 100 | 0.3 | 900 | 450 |
| | | 130 | 0.2 | 1200 | 500 | 150 | 0.2 | 900 | 400 | 160 | 0.2 | 700 | 350 |
| | | 200 | | | | 220 | 0.1 | 700 | 300 | 230 | 0.1 | 600 | 300 |
| 不锈钢<br>(0Cr19Ni9)<br>硬度250HB以下 | 7012 | 80 | 0.4 | 2800 | 1200 | 90 | 0.6 | 2300 | 1200 | 100 | 0.6 | 2000 | 1000 |
| | | 130 | 0.3 | 2600 | 1000 | 150 | 0.4 | 2100 | 1000 | 160 | 0.4 | 1800 | 900 |
| | | 200 | 0.2 | 2200 | 900 | 220 | 0.2 | 1900 | 900 | 230 | 0.2 | 1600 | 800 |
| 灰铸铁、球墨铸铁<br>HT250、QT450<br>硬度300HB以下 | 7012<br>7025 | 80 | 0.4 | 2800 | 1200 | 90 | 0.8 | 2200 | 1400 | 100 | 0.8 | 1800 | 1800 |
| | | 130 | 0.3 | 2400 | 1000 | 150 | 0.5 | 1900 | 1200 | 160 | 0.5 | 1600 | 1600 |
| | | 200 | 0.2 | 2200 | 9000 | 220 | 0.3 | 1800 | 1000 | 230 | 0.3 | 1500 | 1200 |

L：悬长　　Ap：切深　　N：主轴转速　　F：进给速度

表中数据仅供考察，请根据机床和工件刚性、夹具刚性等情况适当调整。
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速。
沟槽加工时建议降低主轴转速及进给速度到上述参数的70%。
当悬长太长时，建议不要进行沟槽加工，切宽亦必须减少至1/2D。

# 951MC 球型粗铣刀



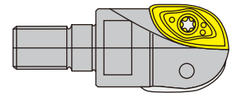

| 型号 Model | D | d | L | z | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| 951MC-12M06-ZP12 | 12 | 6.5 | 23 | 2 | ZP1200 | M2.5 | T9 |
| 951MC-16M08-ZP16 | 16 | 8.5 | 30 | 2 | ZP1600 | M2.5 | T9 |
| 951MC-20M10-ZP20 | 20 | 10.5 | 35 | 2 | ZP2000 | M3.5 | T15 |
| 951MC-25M12-ZP25 | 25 | 12.5 | 40 | 2 | ZP2500 | M4 | T15 |

# 使用刀片

| 规格 | 刀片材质 | P | M | K | N | S |
|---|---|---|---|---|---|---|
| ZP1200 | MKP-7025 | ● | ◎ | ● | | |
| ZP1200 | MKP-7035 | ● | ◎ | ● | | |
| ZP1600 | MKP-7025 | ● | ◎ | ● | | |
| ZP1600 | MKP-7035 | ● | ◎ | ● | | |
| ZP2000 | MKP-7025 | ● | ◎ | ● | | |
| ZP2000 | MKP-7035 | ● | ◎ | ● | | |
| ZP2500 | MKP-7025 | ● | ◎ | ● | | |
| ZP2500 | MKP-7035 | ● | ◎ | ● | | |



# 推荐切削条件



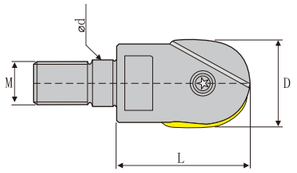
**可换式刀头951MC型+979HM型抗震硬质合金杆**

| 被加工材料 | 刀片材质 | 刀具直径(mm) 12 L | AP | N -1 | F | 16 L | AP | N -1 | F | 20 L | AP | N -1 | F | 25 L | AP | N -1 | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min |
| 碳素钢 50#55# 硬度250HB以下 | 7035 | 50 | 0.6 | 5600 | 2250 | 70 | 0.8 | 4500 | 1800 | 80 | 1.2 | 3800 | 1520 | 90 | 1.3 | 3000 | 1200 |
| | | 100 | 0.3 | 5600 | 2250 | 120 | 0.5 | 4500 | 1800 | 130 | 0.6 | 3800 | 1520 | 150 | 0.6 | 3000 | 1200 |
| | | 150 | 0.2 | 500 | 2000 | 160 | 0.2 | 400 | 1600 | 200 | 0.3 | 3200 | 1280 | 220 | 0.3 | 2200 | 880 |
| 模具钢 (Cr12moIV1) 硬度225HB以下 | 7025 7035 | 50 | 0.6 | 4600 | 1850 | 70 | 0.8 | 4000 | 1600 | 80 | 1.2 | 3200 | 1280 | 90 | 1.3 | 2200 | 880 |
| | | 100 | 0.3 | 4600 | 1850 | 120 | 0.5 | 4000 | 1600 | 130 | 0.6 | 3200 | 1280 | 150 | 0.6 | 2200 | 880 |
| | | 150 | 0.2 | 4000 | 1600 | 160 | 0.2 | 3500 | 1400 | 200 | 0.3 | 2600 | 1050 | 220 | 0.3 | 1800 | 720 |
| 淬火钢 (4Cr5MoSiV1) 硬度455HRC以上 | 7025 | 50 | 0.3 | 3600 | 1080 | 70 | 0.5 | 3000 | 900 | 80 | 0.5 | 2000 | 600 | 90 | 0.6 | 1000 | 400 |
| | | 100 | 0.2 | 3000 | 900 | 120 | 0.2 | 2500 | 750 | 130 | 0.2 | 1600 | 480 | 150 | 0.3 | 800 | 320 |
| | | 150 | | | | 160 | | | | 200 | | | | 220 | 0.2 | 700 | 280 |
| 不锈钢 (0Cr19Ni9) 硬度250HB以下 | 7025 7035 | 50 | 0.5 | 4200 | 1260 | 70 | 0.6 | 3600 | 1080 | 80 | 0.8 | 2800 | 840 | 90 | 0.8 | 1800 | 720 |
| | | 100 | 0.3 | 4200 | 1260 | 120 | 0.3 | 3600 | 1080 | 130 | 0.5 | 2800 | 840 | 150 | 0.5 | 1800 | 720 |
| | | 150 | 0.2 | 3600 | 1080 | 160 | 0.2 | 3000 | 900 | 200 | 0.2 | 2200 | 660 | 220 | 0.2 | 1000 | 600 |
| 灰铸铁、球墨铸铁 HT250、QT450 硬度300HB以下 | 7025 7035 | 50 | 0.8 | 4600 | 1850 | 70 | 0.8 | 4000 | 1600 | 80 | 1.2 | 3200 | 1280 | 90 | 1.3 | 2200 | 880 |
| | | 100 | 0.5 | 4600 | 1850 | 120 | 0.5 | 4000 | 1600 | 130 | 0.6 | 3200 | 1280 | 150 | 0.6 | 2200 | 880 |
| | | 150 | 0.2 | 3800 | 1520 | 160 | 0.2 | 3500 | 1400 | 200 | 0.3 | 2600 | 1050 | 220 | 0.3 | 1800 | 720 |

L:悬长　Ap:切深　N:主轴转速　F:进给速度

备注：
表中数据为一般情况，实际操作时请根据机床和工件刚性情况进行适当调整
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速

# 953MC 球型精铣刀




| 型号 Model | D | d | L | z | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| 953MC-10M05-RN10 | 10 | 5.5 | 20 | 1 | TSB100 | PH05 | T8 |
| 953MC-12M06-RN12 | 12 | 6.5 | 22 | 1 | TSB120 | PH06 | T10 |
| 953MC-16M08-RN16 | 16 | 8.5 | 28 | 1 | TSB160 | PH08 | T15 |
| 953MC-20M10-RN20 | 20 | 10.5 | 30 | 1 | TSB200 | PH10 | T20 |
| 953MC-25M12-RN25 | 25 | 12.5 | 35 | 1 | TSB250 | PH12 | T30 |
| 953MC-30M16-RN30 | 30 | 17 | 43 | 1 | TSB300 | PH16 | T40 |

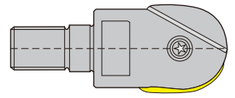
# 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TSB080 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB100 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB120 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB160 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB200 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB250 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB300 | 7005 | ▲ | ● | ◎ | ● | | | ● |





# 推荐切削条件



**一般加工用可换式刀头953MC+979HM型抗震硬质合金杆**

| 被加工材料 | 刀片材质 | 切削速度 | 刀具直径(mm) 10 N | 10 F | 12 N | 12 F | 16 N | 16 F | 20 N | 20 F | 25 N | 25 F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1 | | -1 | | -1 | | -1 | | -1 | |
| | | | min | mm/min | min | mm/min | min | mm/min | min | mm/min | min | mm/min |
| 碳素钢 (180-280HB) | 7005 7015 | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |
| 模具钢 (180-255HB) | 7005 7015 | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |
| 淬火钢 (40-55HRC) | 7005 | 200 | 8000 | 2000 | 6700 | 2000 | 5000 | 2000 | 4000 | 1800 | 3200 | 1600 |
| 淬火钢 (56-63HRC) | 7005 | 150 | 6400 | 1300 | 5300 | 1500 | 4000 | 1400 | 3200 | 1300 | 2600 | 1300 |
| 不锈钢 (150-250HRC) | 7015 | 250 | 9600 | 3000 | 8000 | 3200 | 6000 | 3000 | 4800 | 2400 | 3850 | 2100 |
| 灰铸铁 (160-260HB) | 7005 7015 | 400 | 14500 | 4400 | 12000 | 4800 | 9000 | 4500 | 7200 | 4300 | 6000 | 4000 |
| 球墨铸铁 (170-300HB) | 7005 7015 | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |

N:主轴转速　　F:进给速度

**高速加工用可换式刀头953MC型+979HM型抗振硬杆**

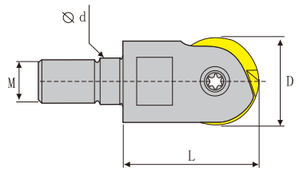
| 被加工材料 | 刀片材质 | 切削速度 | 刀具直径(mm) 10 N | 10 F | 12 N | 12 F | 16 N | 16 F | 20 N | 20 F | 25 N | 25 F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1 | | -1 | | -1 | | -1 | | -1 | |
| | | | min | mm/min | min | mm/min | min | mm/min | min | mm/min | min | mm/min |
| 碳素钢 (180-280HB) | FP7005 FP7015 | 600 | 19000 | 7000 | 16000 | 3700 | 7000 | 12000 | 7000 | 6700 | 7700 | 6000 |
| 模具钢 (180-255HB) | FP7005 FP7015 | 600 | 19000 | 7000 | 16000 | 3700 | 7000 | 12000 | 7000 | 6700 | 7700 | 6000 |
| 淬火钢 (40-55HRC) | FP7005 | 450 | 14500 | 4300 | 12000 | 2000 | 4800 | 9000 | 4500 | 3600 | 5750 | 3450 |
| 淬火钢 (56-63HRC) | FP7005 | 300 | 9500 | 2800 | 8000 | 1500 | 3200 | 6000 | 3200 | 2400 | 3850 | 2300 |
| 不锈钢 (150-250HRC) | FP7015 | 500 | 16000 | 6000 | 13500 | 3200 | 6000 | 10000 | 6000 | 4800 | 6400 | 4500 |
| 灰铸铁 (160-260HB) | FP7005 FP7015 | 750 | 24000 | 9600 | 20000 | 4800 | 10000 | 15000 | 10000 | 9000 | 9600 | 8000 |
| 球墨铸铁 (170-300HB) | FP7005 FP7015 | 600 | 19000 | 7000 | 16000 | 3700 | 7000 | 12000 | 7000 | 6700 | 7700 | 6000 |

N:主轴转速　　F:进给速度

备注：

以上表中数据为2刃刀头的推荐值，其他刃数请参考执行
表中数据为一般情况，实际操作时请根据机床和工件刚性情况进行适当调整
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速
沟槽加工时，建议降低主轴转速及进给速度到上述参数的70%

# 955MC 球型精铣刀



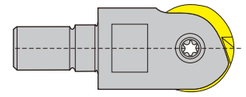

| 型号 Model | D | d | L | z | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| 955MC-08M04-R008 | 8 | 4.5 | 16 | 1 | ROH080 | PR-4 | T8 |
| 955MC-10M05-R010 | 10 | 5.5 | 20 | 1 | ROH100 | PR-5 | T15 |
| 955MC-12M06-R012 | 12 | 6.5 | 22 | 1 | ROH120 | PR-6 | T20 |
| 955MC-16M08-R016 | 16 | 8.5 | 28 | 1 | ROH160 | PR-8 | T20 |
| 955MC-20M10-R020 | 20 | 10.5 | 30 | 1 | ROH200 | PR-10 | T20 |
| 955MC-25M12-R025 | 25 | 12.5 | 40 | 1 | ROH250 | PR-12.5 | T30 |

# 使用刀片

| 规格 d S | 刀片材质 | P | M | K | S | H |
|---|---|---|---|---|---|---|
| ROH080 | FP-7015 | ● | ● | ● | ● | ◎ |
| ROH080 | FP-7220 | ● | ● | ● | ● | ◎ |
| ROH100 | FP-7015 | ● | ● | ● | ● | ◎ |
| ROH120 | FP-7220 | ● | ● | ● | ● | ◎ |
| ROH120 | FP-7015 | ● | ● | ● | ● | ◎ |
| ROH160 | FP-7220 | ● | ● | ● | ● | ◎ |
| ROH160 | FP-7015 | ● | ● | ● | ● | ◎ |
| ROH200 | FP-7220 | ● | ● | ● | ● | ◎ |
| ROH250 | FP-7015 | ● | ● | ● | ● | ◎ |
| ROH250 | FP-7220 | ● | ● | ● | ● | ◎ |



# 推荐切削条件



**一般加工用可换式刀头955MC型+979HM型抗震硬质合金杆**

| 被加工材料 | 刀片材质 | 切削速度 | 刀具直径(mm) 10 N | 10 F | 12 N | 12 F | 16 N | 16 F | 20 N | 20 F | 25 N | 25 F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1 | | -1 | | -1 | | -1 | | -1 | |
| | | | min | mm/min | min | mm/min | min | mm/min | min | mm/min | min | mm/min |
| 碳素钢 (180-280HB) | 7015 7035 | 300 | 11950 | 2800 | 9550 | 2900 | 8000 | 3100 | 4800 | 2700 | 3850 | 2400 |
| 模具钢 (180-255HB) | 7015 7035 | 300 | 11950 | 2800 | 2900 | 2900 | 8000 | 3100 | 4800 | 2700 | 3850 | 2400 |
| 淬火钢 (40-55HRC) | 7015 | 200 | 8000 | 1400 | 1680 | 1680 | 5300 | 1700 | 3200 | 1500 | 2600 | 1250 |
| 淬火钢 (56-63HRC) | 7015 | 150 | 6000 | 700 | 1000 | 1000 | 3980 | 1000 | 2400 | 900 | 1900 | 900 |
| 不锈钢 (150-250HRC) | 7015 7035 | 250 | 10000 | 2300 | 2400 | 2400 | 6700 | 2500 | 4000 | 2300 | 3200 | 1800 |
| 灰铸铁 (160-260HB) | 7015 7035 | 400 | 15950 | 3780 | 4000 | 4000 | 10600 | 4100 | 6500 | 3900 | 5100 | 3550 |
| 球墨铸铁 (170-300HB) | 7015 7035 | 300 | 11950 | 2800 | 2900 | 2900 | 8000 | 3100 | 4800 | 2700 | 3850 | 2400 |

N:主轴转速　　F:进给速度

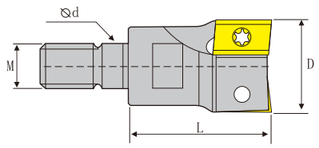
**高速加工用可换式刀头955MC型+979HM型抗震硬质合金杆**

| 被加工材料 | 刀片材质 | 切削速度 | 刀具直径(mm) 8 N | 8 F | 10 N | 10 F | 12 N | 12 F | 16 N | 16 F | 20 N | 20 F | 25 N | 25 F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1 | | -1 | | -1 | | -1 | | -1 | | -1 | |
| | | | min | mm/min | min | mm/min | min | mm/min | min | mm/min | min | mm/min | min | mm/min |
| 碳素钢 (180-280HB) | 7015 7035 | 500 | 11900 | 4975 | 16000 | 4800 | 13500 | 4800 | 10000 | 4800 | 8000 | 4600 | 6400 | 4200 |
| 模具钢 (180-255HB) | 7015 7035 | 500 | 11900 | 4975 | 16000 | 4800 | 13500 | 4800 | 10000 | 4800 | 8000 | 4600 | 6400 | 4200 |
| 淬火钢 (40-55HRC) | 7015 | 350 | 14000 | 2800 | 11150 | 2787 | 9200 | 2900 | 7000 | 2800 | 5575 | 2500 | 4460 | 2350 |
| 淬火钢 (56-63HRC) | 7015 | 200 | 8000 | 1200 | 6400 | 1920 | 5300 | 2100 | 3980 | 2000 | 3185 | 1800 | 2550 | 1700 |
| 不锈钢 (150-250HRC) | 7015 7035 | 400 | 15950 | 3987 | 12750 | 3825 | 10600 | 3825 | 8000 | 3825 | 6370 | 3600 | 5100 | 3450 |
| 灰铸铁 (160-260HB) | 7015 7035 | 650 | 25875 | 6468 | 20700 | 6210 | 17250 | 6350 | 12950 | 6350 | 10350 | 5900 | 8280 | 5480 |
| 球墨铸铁 (170-300HB) | 7015 7035 | 500 | 19900 | 4975 | 16000 | 4800 | 13500 | 4800 | 10000 | 4800 | 8000 | 4600 | 6400 | 4200 |

N:主轴转速　　F:进给速度

备注：
表中数据为一般情况，实际操作时请根据机床和工件刚性情况进行适当调整
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速

# 965MC 直角端铣刀




| 型号 Model | D | d | L | z | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| 965MC-16M08-AP11-2T | 16 | 8.5 | 25 | 2 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-17M08-AP11-2T | 17 | 8.5 | 25 | 2 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-20M10-AP11-2T | 20 | 10.5 | 30 | 2 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-21M10-AP11-2T | 21 | 10.5 | 30 | 2 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-25M12-AP11-3T | 25 | 12.5 | 35 | 3 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-26M12-AP11-3T | 26 | 12.5 | 35 | 3 | APMT1135.. | M2.5-6-3.5-60 | T8 |
| 965MC-33M16-AP11-4T | 33 | 17 | 43 | 4 | APMT1135.. | M2.5-6-3.5-60 | T8 |

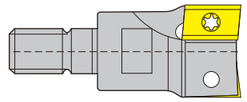
# 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  8215  | APMT1135PDER-H | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT1135PDER-H | HP-7012 | ▲ | ● | | ● | | | ◎ |
| | APMT1135PDER-H | HP-7025 | ▲ | ● | | ● | | | ◎ |
| | APMT1135PDR-HR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT1135PDTR | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT1135PDR | MP-9110 | ▲ | ● | | ● | | | ● |
| | APMT1135PDTR | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | APMT1135PDTR | HP-7025 | ▲ | ● | | ● | | | |
| | APMT1135PDR | HP-7320 | ▲ | ● | | ● | | | |
| | APMT1135PDR | HP-7330 | ▲ | ● | | ● | | | |
| | APMT1135PDR-HM | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT1135PDR | MP-9220 | ▲ | ● | ● | ● | | ◎ | |
| | APMT1135PDR-HM | MM-6320 | ▲ | ● | ● | | | ● | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



# 推荐切削条件



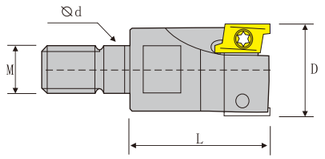
**可换式刀头965MC型+979HM型抗振硬杆**

| 被加工材料 | 刀片材质 | 刀具直径(mm) 16/17 2刃 L | AP | N -1 | F | 20/21 2刃 L | AP | N -1 | F | 25/26 3刃 L | AP | N -1 | F | 33 4刃 L | AP | N -1 | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min | mm | mm | min | mm/min |
| 碳素钢 50#55# 硬度250HB以下 | 8215 | 70 | 0.5 | 2900 | 1700 | 80 | 0.5 | 2400 | 1400 | 90 | 0.5 | 1800 | 1200 | 100 | 0.6 | 1800 | 1200 |
| | 7012 | 10 | 0.4 | 2600 | 1300 | 130 | 0.4 | 2100 | 1300 | 150 | 0.4 | 1600 | 1200 | 160 | 0.5 | 1800 | 1200 |
| | 7025 | 150 | 0.3 | 2400 | 1200 | 200 | 0.3 | 1900 | 1200 | 220 | 0.3 | 1400 | 1000 | 230 | 0.3 | 1500 | 1000 |
| 预硬钢 (3Cr3Mo,P20) 硬度30-43HRC | 8215 | 70 | 0.5 | 2500 | 1300 | 80 | 0.5 | 2100 | 1200 | 90 | 0.5 | 1400 | 1000 | 100 | 0.6 | 1600 | 1000 |
| | 7012 | 10 | 0.4 | 2500 | 1300 | 130 | 0.4 | 2100 | 1200 | 150 | 0.4 | 1400 | 1000 | 160 | 0.5 | 1600 | 1000 |
| | 7025 | 150 | 0.3 | 2400 | 1200 | 200 | 0.3 | 200 | 1000 | 220 | 0.3 | 1400 | 900 | 230 | 0.3 | 1500 | 800 |
| 淬火钢 (4Cr5MoSiVi) 硬度40-55HRC | 7010 | 70 | 0.4 | 1200 | 320 | 80 | 0.4 | 900 | 210 | 90 | 0.4 | 720 | 280 | 100 | 0.5 | 700 | 300 |
| | 7012 | 10 | 0.3 | 1000 | 250 | 130 | 0.3 | 750 | 180 | 150 | 0.3 | 600 | 200 | 160 | 0.3 | 600 | 250 |
| | | 150 | | | | 200 | | | | 220 | 0.2 | 500 | 150 | 230 | 0.2 | 550 | 250 |
| 不锈钢 (0Cr19Ni9) 硬度250HB以下 | 8215 | 70 | 0.5 | 2500 | 1300 | 80 | 0.5 | 2100 | 1200 | 90 | 0.5 | 1300 | 1000 | 100 | 0.6 | 1600 | 100 |
| | 7012 | 10 | 0.4 | 2400 | 1200 | 130 | 0.4 | 1900 | 1000 | 150 | 0.4 | 1500 | 100 | 160 | 0.5 | 1500 | 900 |
| | | 150 | 0.3 | 2400 | 1200 | 200 | 0.3 | 1900 | 1000 | 220 | 0.3 | 1500 | 900 | 230 | 0.3 | 1500 | 750 |
| 灰铸铁、球墨铸铁 HT250、QT450 硬度300HB以下 | 8215 7010 7012 7025 | 70 | 0.5 | 2400 | 1500 | 80 | 0.5 | 1900 | 1300 | 90 | 0.5 | 1500 | 1200 | 100 | 0.6 | 1500 | 1200 |
| | | 10 | 0.4 | 2400 | 1300 | 130 | 0.4 | 1900 | 1300 | 150 | 0.4 | 1500 | 1100 | 160 | 0.5 | 1500 | 1200 |
| | | 150 | 0.3 | 2000 | 1100 | 200 | 0.3 | 1600 | 1100 | 220 | 0.3 | 1300 | 900 | 230 | 0.3 | 1200 | 900 |

L：悬长　　Ap：切深　　N：主轴转速　　F：进给速度

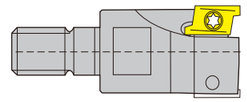
表中数据仅供参考，请根据机床和工件刚性、夹具刚性等情况适当调整。
振动发生时，建议保持每刃进给，减少切深或者降低主轴转速。
沟槽加工时建议降低主轴转速及进给速度到上述参数的70%。
当悬长太长时，建议不要进行沟槽加工，切宽亦必须减少至1/2D。

# 967MC 直角端铣刀




| D | 型号 Model | M | d | L | Z | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| 10 | 967MC-10M05-RT07-2T | M5 | 5.5 | 18 | 2 | RT 07 02 04 | MS2004A | T6 |
| 11 | 967MC-11M05-RT07-2T | | | | | | | |
| 12 | 967MC-12M06-RT07-2T | M6 | 6.5 | 20 | 2 | | | |
| 13 | 967MC-13M06-RT07-2T | | | | | | | |
| 16 | 967MC-16M08-RT10-2T | M8 | 8.5 | 30 | 2 | RT 10 03.... | MS2506B | T9 |
| 17 | 967MC-17M08-RT10-2T | | | | | | | |
| 20 | 967MC-20M10-RT10-3T | M10 | 10.5 | 30 | 3 | | | |
| 21 | 967MC-21M10-RT10-2T | M10 | 10.5 | 30 | 2 | | | |
| 21 | 967MC-21M10-RT10-3T | | | | 3 | | | |
| 25 | 967MC-25M12-RT10-3T | M12 | 12.5 | 35 | 3 | | | |
| 26 | 967MC-26M12-RT10-3T | | | | | | | |
| 32 | 967MC-32M16-RT10-4T | M16 | 17 | 43 | 4 | | | |
| 32 | 967MC-32M16-RT10-5T | | | | 5 | | | |
| 35 | 967MC-35M16-RT10-4T | M18 | 17 | 43 | 4 | | | |
| 35 | 967MC-35M16-RT10-5T | | | | 5 | | | |

# 推荐切削参数



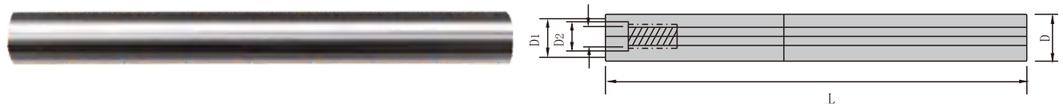
**可换式刀头967MC型+979HM型抗震硬质合金杆**

| 工件材料 | 布氏硬度 | 切深 (MM) | 速度 (mm/min) | 进给 (mm/tooth) |
|---|---|---|---|---|
| 低碳钢 | 85-175 | 1.0-3.0 | 250-350 | 0.04-0.10 |
| 高碳钢 | 175-225 | 1.0-3.0 | 150-250 | 0.04-0.10 |
| 合金钢 | 275-325 | 1.0-3.0 | 120-220 | 0.04-0.10 |
| 工具钢 | 200-250 | 1.0-3.0 | 90-130 | 0.03-0.09 |
| 300系列不锈钢 | - | 1.0-3.0 | 120-220 | 0.03-0.09 |
| 400系列不锈钢 | - | 1.0-3.0 | 150-250 | 0.03-0.09 |
| 高温合金 | - | 1.0-2.0 | 25-40 | 0.02-0.07 |
| 钛合金 | - | 1.0-2.0 | 40-50 | 0.02-0.07 |
| 灰铸铁 | 190-220 | 1.0-4.0 | 250-350 | 0.05-0.10 |
| 球墨铸铁 | 1400 200 | 1.0-4.0 | 140-280 | 0.05-0.08 |

# 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RT070204R-11 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070204R-11 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT070204R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070204R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT070208R-11 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT070208R-11 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT100304R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT100304R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |
| | RT100308R-81 | 7005 | ▲ | ● | ● | ● | | ● | ● |
| | RT100308R-81 | 7020 | ▲ | ● | ● | ● | ● | ● | ● |

## 979HM 钨钢抗震刀柄

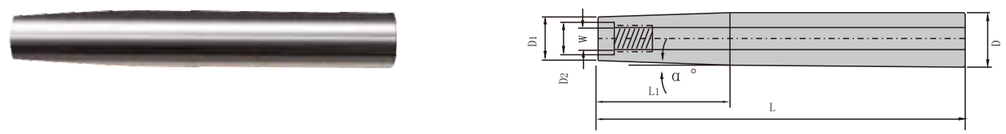



### 直柄型

| 型号 Model | L mm | D1 mm | D mm | M |
|---|---|---|---|---|
| 979HM-0808M04-60L | 60 | 8 | 8 | M4×0.7 |
| 979HM-0808M04-100L | 100 | 8 | 8 | M4×0.7 |
| 979HM-0808M04-120L | 120 | 8 | 8 | M4×0.7 |
| 979HM-1010M05-75L | 75 | 10 | 10 | M5×0.8 |
| 979HM-1010M05-100L | 100 | 10 | 10 | M5×0.8 |
| 979HM-1010M05-150L | 150 | 10 | 10 | M5×0.8 |
| 979HM-1212M06-75L | 75 | 12 | 12 | M6×1.0 |
| 979HM-1212M06-100L | 100 | 12 | 12 | M6×1.0 |
| 979HM-1212M06-150L | 150 | 12 | 12 | M6×1.0 |
| 979HM-1212M06-200L | 200 | 12 | 12 | M6×1.0 |
| 979HM-1616M08-100L | 100 | 16 | 16 | M8×1.25 |
| 979HM-1616M08-150L | 150 | 16 | 16 | M8×1.25 |
| 979HM-1616M08-200L | 200 | 16 | 16 | M8×1.25 |
| 979HM-1616M08-250L | 250 | 16 | 16 | M8×1.25 |
| 979HM-2020M10-150L | 150 | 20 | 20 | M10×1.5 |
| 979HM-2020M10-200L | 200 | 20 | 20 | M10×1.5 |
| 979HM-2020M10-250L | 250 | 20 | 20 | M10×1.5 |
| 979HM-2020M10-300L | 300 | 20 | 20 | M10×1.5 |
| 979HM-2424M12-200L | 200 | 24 | 24 | M12×1.75 |
| 979HM-2424M12-250L | 250 | 24 | 24 | M12×1.75 |
| 979HM-2424M12-300L | 300 | 24 | 24 | M12×1.75 |
| 979HM-2525M12-150L | 150 | 25 | 25 | M12×1.75 |
| 979HM-2525M12-200L | 200 | 25 | 25 | M12×1.75 |
| 979HM-2525M12-250L | 250 | 25 | 25 | M12×1.75 |
| 979HM-2525M12-300L | 300 | 25 | 25 | M12×1.75 |
| 979HM-3232M16-150L | 150 | 32 | 32 | M16×2.0 |
| 979HM-3232M16-200L | 200 | 32 | 32 | M16×2.0 |
| 979HM-3232M16-250L | 250 | 32 | 32 | M16×2.0 |
| 979HM-3232M16-300L | 300 | 32 | 32 | M16×2.0 |
| 979HM-3232M16-400L | 400 | 32 | 32 | M16×2.0 |



## 975HM 钨钢抗震刀柄

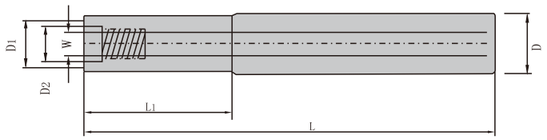



### 锥度型

| 型号 Model | L1 mm | L mm | D1 mm | D mm | M | α ° |
|---|---|---|---|---|---|---|
| 975HM-0808M04-150L-Y60 | 60 | 150 | 7.8 | 8 | M4×0.7 | 1° |
| 975HM-1012M05-150L-Y60 | 60 | 150 | 9.8 | 12 | M5×0.8 | 1° |
| 975HM-1016M05-200L-Y100 | 100 | 200 | 9.8 | 16 | M5×0.8 | 1° |
| 975HM-1020M05-300L-Y135 | 135 | 300 | 9.8 | 20 | M5×0.8 | 2.5° |
| 975HM-1216M06-150L-Y70 | 70 | 150 | 11.8 | 16 | M6×1.0 | 1.65° |
| 975HM-1216M06-200L-Y90 | 90 | 200 | 11.8 | 16 | M6×1.0 | 1.3° |
| 975HM-1216M06-250L-Y115 | 115 | 250 | 11.8 | 16 | M6×1.0 | 1° |
| 975HM-1220M06-300L-Y135 | 135 | 300 | 11.8 | 20 | M6×1.0 | 1.7° |
| 975HM-1620M08-200L-Y90 | 90 | 200 | 15.5 | 20 | M8×1.25 | 1.3° |
| 975HM-1620M08-250L-Y115 | 115 | 250 | 15.5 | 20 | M8×1.25 | 1° |
| 975HM-1620M08-300L-Y135 | 135 | 300 | 15.5 | 20 | M8×1.25 | 0.85° |
| 975HM-2025M10-200L-Y90 | 90 | 200 | 19.8 | 25 | M10×1.5 | 1.6° |
| 975HM-2025M10-250L-Y115 | 115 | 250 | 19.8 | 25 | M10×1.5 | 1.25° |
| 975HM-2025M10-300L-Y135 | 135 | 300 | 19.8 | 25 | M10×1.5 | 1.1° |
| 975HM-2532M12-200L-Y90 | 90 | 200 | 24.5 | 32 | M12×1.75 | 2.3° |
| 975HM-2532M12-250L-Y115 | 115 | 250 | 24.5 | 32 | M12×1.75 | 1.75° |
| 975HM-2532M12-300L-Y135 | 135 | 300 | 24.5 | 32 | M12×1.75 | 1.5° |

## 977HM 钨钢抗震刀柄





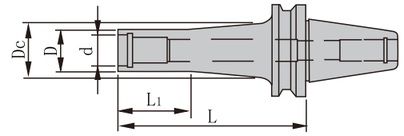

### 避空型

| 型号 Model | L1 mm | L mm | D1 mm | D mm | M |
|---|---|---|---|---|---|
| 977HM-1010M05-75L-Y30 | 30 | 75 | 9.5 | 10 | M5×0.8 |
| 977HM-1010M05-100L-Y50 | 50 | 100 | 9.5 | 10 | M5×0.8 |
| 977HM-1010M05-150L-Y80 | 80 | 150 | 9.5 | 10 | M5×0.8 |
| 977HM-1212M06-75L-Y30 | 30 | 75 | 11.5 | 12 | M6×1.0 |
| 977HM-1212M06-100L-Y50 | 50 | 100 | 11.5 | 12 | M6×1.0 |
| 977HM-1212M06-150L-Y80 | 80 | 150 | 11.5 | 12 | M6×1.0 |
| 977HM-1616M08-100L-Y50 | 50 | 100 | 15.5 | 16 | M8×1.25 |
| 977HM-1616M08-150L-Y90 | 90 | 150 | 15.5 | 16 | M8×1.25 |
| 977HM-1616M08-200L-Y115 | 115 | 200 | 15.5 | 16 | M8×1.25 |
| 977HM-2020M10-100L-Y40 | 40 | 100 | 19.5 | 20 | M10×1.5 |
| 977HM-2020M10-150L-Y90 | 90 | 150 | 19.5 | 20 | M10×1.5 |
| 977HM-2020M10-200L-Y135 | 135 | 200 | 19.5 | 20 | M10×1.5 |
| 977HM-2425M12-150L-Y90 | 90 | 150 | 24.0 | 25 | M12×1.75 |
| 977HM-2425M12-200L-Y115 | 115 | 200 | 24.0 | 25 | M12×1.75 |
| 977HM-2425M12-250L-Y135 | 135 | 250 | 24.0 | 25 | M12×1.75 |
| 977HM-3032M16-150L-Y90 | 90 | 150 | 30.0 | 32 | M16×2.0 |
| 977HM-3032M16-200L-Y115 | 115 | 200 | 30.0 | 32 | M16×2.0 |
| 977HM-3032M16-250L-Y135 | 135 | 250 | 30.0 | 32 | M16×2.0 |
| 977HM-3032M16-300L-Y180 | 180 | 300 | 30.0 | 32 | M16×2.0 |



## BT/FMC 锁牙式刀柄

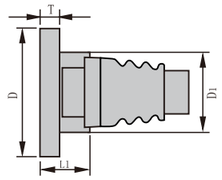





| 型号 Model | D mm | Dc mm | L mm | L1 mm | d mm | 螺纹 mm |
|---|---|---|---|---|---|---|
| BT30-FMC12-35 | 10 | 20 | 57 | 35 | 6.5 | M6 |
| BT30-FMC16-35 | 14 | 20 | 57 | 35 | 8.5 | M8 |
| BT30-FMC20-35 | 18 | 24 | 57 | 35 | 10.5 | M10 |
| BT30-FMC25-35 | 23 | 24 | 57 | 35 | 12.5 | M12 |
| BT30-FMC32-35 | 29 | 30 | 57 | 35 | 17 | M16 |
| BT40-FMC12-50 | 10 | 20 | 87 | 50 | 6.5 | M6 |
| BT40-FMC16-50 | 14 | 23 | 87 | 50 | 8.5 | M8 |
| BT40-FMC20-50 | 18 | 25 | 87 | 50 | 10.5 | M10 |
| BT40-FMC25-50 | 23 | 24 | 87 | 50 | 12.5 | M12 |
| BT40-FMC32-50 | 29 | 32 | 87 | 50 | 17 | M16 |
| BT40-FMC32-90 | 29 | 34 | 127 | 90 | | M16 |
| BT40-FMC40-50 | 36 | 39 | 87 | 50 | 26 | M20 |
| BT40-FMC40-90 | 36 | 39 | 127 | 90 | | M20 |
| BT50-FMC25-75 | 23 | 34 | 125 | 75 | 12.5 | M12 |
| BT50-FMC32-75 | 29 | 34 | 125 | 75 | 17 | M16 |
| BT50-FMC32-150 | 29 | 48 | 200 | 150 | | M16 |
| BT50-FMC40-75 | 36 | 39 | 125 | 75 | 26 | M20 |
| BT50-FMC40-150 | 36 | 48 | 200 | 150 | | M20 |
| BT50-FMC50-30 | 48 | 50 | 78 | 30 | 36 | M25 |
| BT50-FMC50-80 | 48 | 50 | 128 | 80 | | M25 |
| BT50-FMC50-130 | 48 | 50 | 178 | 130 | | M25 |
| BT50-FMC50-180 | 48 | 50 | 228 | 180 | | M25 |
| BT50-FMC50-230 | 48 | 50 | 278 | 230 | | M25 |
| BT50-FMC50-280 | 48 | 50 | 328 | 280 | | M25 |
| BT50-FMC50-330 | 48 | 50 | 378 | 330 | | M25 |
| BT50-FMC50-380 | 48 | 50 | 428 | 380 | | M25 |
| BT50-FMC50-430 | 48 | 50 | 478 | 430 | | M25 |
| BT50-FMC50-480 | 48 | 50 | 528 | 480 | | M25 |

## T型槽铣刀

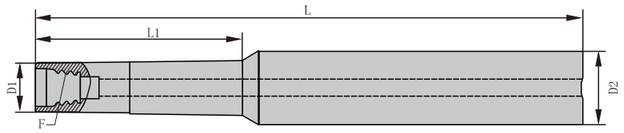





- 可接受非标定做
- 适合加工钢、不锈钢、铸铁、铝合金

| 型号 Model | 刃径D mm | 刃数Z mm | 颈长D1 mm | 刃头长L1 mm | 槽宽T mm |
|---|---|---|---|---|---|
| SNF16-236T1.1 | 23.6 | 8 | 12 | 10 | 1.1 |
| SNF16-236T1.3 | 23.6 | 8 | 12 | 10 | 1.3 |
| SNF16-236T1.5 | 23.6 | 8 | 12 | 10 | 1.5 |
| SNF16-236T1.7 | 23.6 | 8 | 12 | 10 | 1.7 |
| SNF16-236T1.9 | 23.6 | 8 | 12 | 10 | 1.9 |
| SNF16-236T2.0 | 23.6 | 8 | 12 | 10 | 2.0 |
| SNF16-236T2.2 | 23.6 | 8 | 12 | 10 | 2.2 |
| SNF16-236T2.5 | 23.6 | 8 | 12 | 10 | 2.5 |
| SNF16-236T2.7 | 23.6 | 8 | 12 | 10 | 2.7 |
| SNF16-236T2.9 | 23.6 | 8 | 12 | 10 | 2.9 |
| SNF16-236T3.0 | 23.6 | 8 | 12 | 10 | 3.0 |
| SNF16-236T3.2 | 23.6 | 8 | 12 | 10 | 3.2 |
| SNF16-236T3.5 | 23.6 | 8 | 12 | 10 | 3.5 |
| SNF16-236T3.7 | 23.6 | 8 | 12 | 10 | 3.7 |
| SNF16-236T4.0 | 23.6 | 8 | 12 | 10 | 4.0 |

## T型槽铣刀专用刀杆

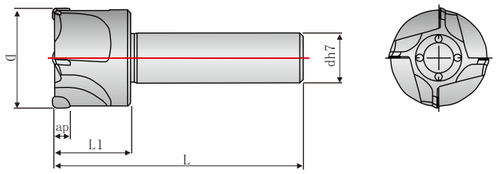



| 型号 Model | 柄径D2 mm | 颈径D1 mm | 全长L mm | 有效长L1 mm |
|---|---|---|---|---|
| TCM-1616-150L | 16 | 12 | 150 | 40 |



## SWM 钢基体PCD刀杆

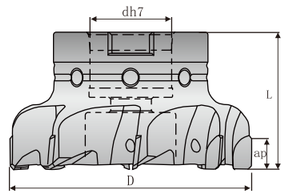





| 型 号 Model | 材质 PCD | 尺寸规格 D | ap | L1 | L | d | z | 重量 Weight | 内冷 Internal Cooling |
|---|---|---|---|---|---|---|---|---|---|
| SWM-010-4-2T-10-80 | ◆ | 10 | 4 | 25 | 80 | 10 | 2 | 0.20 | |
| SWM-012-4-3T-12-80 | ◆ | 12 | 4 | 25 | 80 | 12 | 3 | 0.25 | |
| SWM-016-4-3T-16-80 | ◆ | 16 | 4 | 25 | 80 | 16 | 3 | 0.30 | + |
| SWM-020-4-4T-16-80 | ◆ | 20 | 4 | 25 | 80 | 16 | 4 | 0.40 | + |
| SWM-025-4-4T-16-80 | ◆ | 25 | 4 | 25 | 80 | 16 | 4 | 0.45 | + |
| SWM-032-4-4T-16-80 | ◆ | 32 | 4 | 25 | 80 | 16 | 4 | 0.50 | + |
| SWM-040-4-5T-16-80 | ◆ | 40 | 4 | 25 | 80 | 16 | 5 | 0.55 | + |
| SWM-050-4-5T-20-80 | ◆ | 50 | 4 | 25 | 80 | 20 | 5 | 0.60 | + |

## SWM 钢基体PCD刀盘






| 型　号 Model | 材质 PCD | 尺寸规格 D | ap | L1 | d | z | 重量 Weight | 内冷 Internal Cooling |
|---|---|---|---|---|---|---|---|---|
| SWM-063-6-5T-22A-45C | ◆ | 63 | 6 | 45 | 22 | 5 | 0.90 | + |
| SWM-080-6-6T-27A-50C | ◆ | 80 | 6 | 50 | 27 | 6 | 1.10 | + |
| SWM-100-6-6T-32A-50C | ◆ | 100 | 6 | 50 | 32 | 6 | 2.00 | + |
| SWM-125-6-8T-40A-63C | ◆ | 125 | 6 | 63 | 40 | 8 | 2.80 | + |
| SWM-160-6-8T-40A-63C | ◆ | 160 | 6 | 63 | 40 | 8 | 6.50 | + |






### WMHN
Type–MFWN Square Face Milling cutter
WMHN型 90°面铣刀

Kr=90°
标准规格直径63-250mm
刀片材质选项丰富 PMKS







### HN45
Type- HN45 45°Face Milll
HN45型 45°面铣刀

Kr=45°
12刀尖=经济性与切深的绝佳融合
标准规格直径50-315mm
刀片材质选项丰富 PMKS











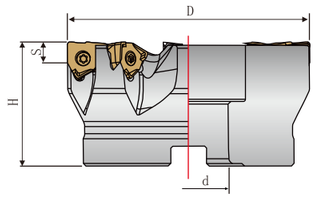


### SN45
Type- SN45 45°Face Mill
SN45型 45°面铣刀

Kr=45°
标准规格直径50-200mm
刀片材质选项丰富 PMKS

## XMHN型 90° 面铣刀






| 型 号 Model | 刃数 Teeth | D | d | H | S | 刀片螺丝 Insert screw | 旗型扳手 Wrench | 重量 Weight |
|---|---|---|---|---|---|---|---|---|
| XMHN90-50-22-4T-R | 4 | 50 | 22 | 40 | 7.5 | M040C130 | Q15B | 0.30 |
| XMHN90-50-22-5T-R | 5 | 50 | 22 | 40 | 7.5 | M040C130 | Q15B | 0.30 |
| XMHN90-63-22-4T-R | 4 | 63 | 22 | 40 | 7.5 | M040C130 | Q15B | 0.40 |
| XMHN90-63-27-6T-R | 6 | 63 | 27 | 40 | 7.5 | M040C130 | Q15B | 0.40 |
| XMHN90-63-27-7T-R | 7 | 63 | 27 | 40 | 7.5 | M040C130 | Q15B | 0.40 |
| XMHN90-80-27-5T-R | 5 | 80 | 27 | 50 | 7.5 | M040C130 | Q15B | 1.00 |
| XMHN90-80-27-7T-R | 7 | 80 | 27 | 50 | 7.5 | M040C130 | Q15B | 1.00 |
| XMHN90-80-27-9T-R | 9 | 80 | 27 | 50 | 7.5 | M040C130 | Q15B | 1.00 |
| XMHN90-100-32-6T-R | 6 | 100 | 32 | 50 | 7.5 | M040C130 | Q15B | 1.50 |
| XMHN90-100-32-8T-R | 8 | 100 | 32 | 50 | 7.5 | M040C130 | Q15B | 1.50 |
| XMHN90-100-32-11T-R | 11 | 100 | 32 | 50 | 7.5 | M040C130 | Q15B | 1.50 |
| XMHN90-125-40-7T-R | 7 | 125 | 40 | 63 | 7.5 | M040C130 | Q15B | 2.80 |
| XMHN90-125-40-11T-R | 11 | 125 | 40 | 63 | 7.5 | M040C130 | Q15B | 2.80 |
| XMHN90-125-40-14T-R | 14 | 125 | 40 | 63 | 7.5 | M040C130 | Q15B | 2.80 |
| XMHN90-160-40-12T-R | 12 | 160 | 40 | 63 | 7.5 | M040C130 | Q15B | 4.80 |
| XMHN90-160-40-16T-R | 16 | 160 | 40 | 63 | 7.5 | M040C130 | Q15B | 4.80 |

## XNMU08铣刀片

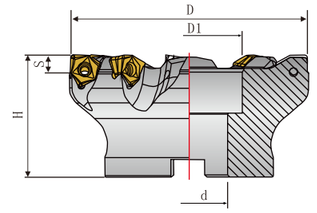
| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | XNMU080608SR | HP-7220 | | ● | ● | | | ◎ | |
| | XNMU080608SR | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## WMHN 90° 面铣刀






| 型 号 Model | 刃数 Teeth | Dmm | D1mm | dmm | Hmm | S | 刀片螺丝 Insert screw | 旗型扳手 Wrench | 重量 Weight |
|---|---|---|---|---|---|---|---|---|---|
| WMHN90-63-22-4T-R | 4 | 63 | 50 | 22 | 40 | 8 | M050J120 | Q20B | 0.35 |
| WMHN90-80-27-5T-R | 5 | 80 | 60 | 27 | 50 | 8 | M050J120 | Q20B | 0.88 |
| WMHN90-100-32-7T-R | 7 | 100 | 70 | 32 | 50 | 8 | M050J120 | Q20B | 1.18 |
| WMHN90-125-40-8T-R | 8 | 125 | 87 | 40 | 63 | 8 | M050J120 | Q20B | 2.54 |
| WMHN90-160-40-10T-R | 10 | 160 | 100 | 40 | 63 | 8 | M050J120 | Q20B | 3.74 |
| WMHN90-200-60-12T-R | 12 | 200 | 142 | 60 | 63 | 8 | M050J120 | Q20B | 6.50 |
| WMHN90-250-60-14T-R | 14 | 250 | 142 | 60 | 63 | 8 | M050J120 | Q20B | 9.00 |

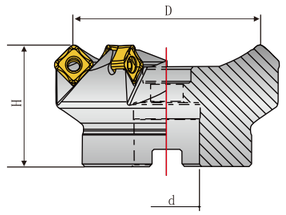
## WNMU08铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | WNMU080608N | HP-7220 | | ● | ● | | | ◎ | |
| | WNMU080608N | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SN45 型45° 面铣刀






| 型 号 Model | 刃数 Teeth | Dmm | dmm | Hmm | 刀片螺丝 Insert screw | 旗型扳手 Wrench | 重量 Weight |
|---|---|---|---|---|---|---|---|
| SN45-50-22-4T-R | 4 | 50 | 22 | 40 | M040C150 | Q15B | 0.30 |
| SN45-63-22-5T-R | 5 | 63 | 22 | 40 | M040C150 | Q15B | 0.50 |
| SN45-80-27-6T-R | 6 | 80 | 27 | 50 | M040C150 | Q15B | 1.20 |
| SN45-100-32-8T-R | 8 | 100 | 32 | 50 | M040C150 | Q15B | 1.80 |
| SN45-125-40-10T-R | 10 | 125 | 40 | 63 | M040C150 | Q15B | 3.00 |
| SN45-160-40-12T-R | 12 | 160 | 40 | 63 | M040C150 | Q15B | 4.60 |
| SN45-200-60-18T-R | 8 | 200 | 60 | 63 | M040C150 | Q15B | 6.50 |

## SNMX12铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SNMX1205ANN | HP-7220 | | ● | ● | | | ◎ | |
| | SNMX1205ANN | MK-5015 | | | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## LNMU0303 双面高进给铣刀




| 型号 Model | D | L | L1 | d | T | 刀片类型 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| EXN03-016-162T-160L | 16 | 160 | 35 | 16 | 2 | LNMU0303 | M2.5 | T08 |
| EXN03-017-162T-160L | 17 | 160 | 35 | 16 | 2 | | | |
| EXN03-020-203T-160L | 20 | 160 | 40 | 20 | 3 | | | |
| EXN03-021-203T-160L | 21 | 160 | 40 | 20 | 3 | | | |
| EXN03-025-254T-160L | 25 | 160 | 50 | 25 | 4 | | | |
| EXN03-025-254T-200L | 25 | 200 | 50 | 25 | 4 | | | |
| EXN03-026-254T-160L | 26 | 160 | 50 | 25 | 4 | | | |
| EXN03-026-254T-200L | 26 | 200 | 50 | 25 | 4 | | | |
| EXN03-033-325T-200L | 33 | 200 | 60 | 32 | 5 | | | |

## LN03/LO03型双面小径高进给

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | LNMU0303ER | MP-9110 | ▲ | ● | ● | ● | | ● | ◎ |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## SPM10 高速精铣刀（模具等高精加工及插铣用）




| 型号 Model | D | L | L1 | d | T | 刀片类型 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| SPM10-1716-125-2T | 17 | 125 | 35 | 16 | 2 | MPGW1003 MPHW0603 | M2.5 | T8 |
| SPM10-1716-175-2T | 17 | 175 | 35 | 16 | 2 | | | |
| SPM10-1716-200-2T | 17 | 200 | 40 | 16 | 2 | | | |
| SPM10-2120-175-3T | 21 | 175 | 40 | 20 | 3 | | | |
| SPM10-2120-200-3T | 21 | 200 | 50 | 20 | 3 | | | |
| SPM10-2625-175-4T | 26 | 175 | 40 | 25 | 4 | | | |
| SPM10-2625-230-4T | 26 | 230 | 60 | 25 | 4 | | | |

## MP型 精磨刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | MPGW070204 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW070208 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | FP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100304 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100316 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100316 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100320 | HP-7010 | ▲ | ● | ● | ● | | ◎ | ● |
| | MPGW100308 | KD10 | ▲ | 石 墨 | | | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## ASR 高进给铣刀






| 型号 Model | D | L | L1 | d | T | 刀片类型 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| ASR-1616-130-2T | 16 | 130 | 35 | 16 | 2 | EPNW0603TN-8 EPMT0603TN-8 EPMT0603EN-8LF | TS2507 | TK08 |
| ASR-1716-130-2T | 17 | | 35 | | | | | |
| ASR-2020-150-3T | 20 | 150 | 40 | 20 | 3 | | | |
| ASR-2120-150-3T | 21 | | 40 | | | | | |
| ASR-2525-150-4T | 25 | | 50 | 25 | 4 | | | |
| ASR-2625-150-4T | 26 | | 40 | | | | | |
| ASR-3032-150-4T | 30 | | | 32 | 5 | | | |
| ASR-3232-150-5T | 32 | | | | | | | |
| ASR-3532-150-5T | 35 | | 45 | | | | | |
| ASR-4032-170-6T | 40 | 170 | | | 6 | | | |
| ASR-1616-180-2T | 16 | 180 | 50 | 16 | 2 | | | |
| ASR-1716-180-2T | 17 | | 35 | | | | | |
| ASR-2020-200-3T | 20 | 200 | 80 | 20 | 3 | | | |
| ASR-2120-200-3T | 21 | | 35 | | | | | |
| ASR-2525-200-4T | 25 | | 100 | 25 | 4 | | | |
| ASR-2625-200-4T | 26 | | 35 | | | | | |
| ASR-3025-200-4T | 30 | | 100 | 32 | 5 | | | |
| ASR-3232-200-5T | 32 | | 100 | | | | | |
| ASR-4032-220-6T | 40 | 220 | 45 | | 6 | | | |

## ASR 高进给铣刀　　使用刀片

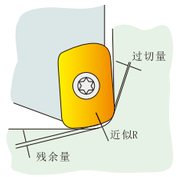
| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | EPMT0603TN-8 | MP-9110 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMT0603TN-8 | HP-7012 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMW1103TN-8 | HP-7330 | ▲ | ● | ● | ● | | ◎ | ● |
| | EPMW1103TN-8 | HP-7012 | ▲ | ● | ● | ● | | | |

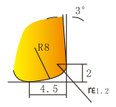
备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

*程序中的刀尖形状定义方法请参考下图作为近似的圆角R*

| 使用刀片<br>Insert | 近似R<br>Approximate Input Corner R | 过切量<br>Over Cut | 残余量<br>Remains |
|---|---|---|---|
| EPMT0603TN-8 | R2.0 | 0 | 0.497 |
| EPMT0603TN-8 | R2.5 | 0.076 | 0.349 |
| EPMT0603TN-8 | R3.0 | 0.218 | 0.236 |
| EPMT0603TN-8 | R3.5 | 0.419 | 0.108 |
| EPMT0603TN-8 | R4.0 | 0.612 | 0.03 |

尺寸单位：(mm)




EPMT0603TN-8



## ASR 高进给铣刀　　推荐切削条件

| 直径 | 转速<br>Speed(min-1) | 进给<br>F(mm/min) | 切深<br>Ap(mm) | 切宽<br>Ae(mm) |
|---|---|---|---|---|
| 32R2 | 1400 | 5000 | 0.5 | 26 |
| 25R2 | 1600 | 5000 | 0.5 | 19 |
| 20R2 | 1800 | 5000 | 0.5 | 14 |
| 16R2 | 2200 | 4000 | 0.5 | 10 |

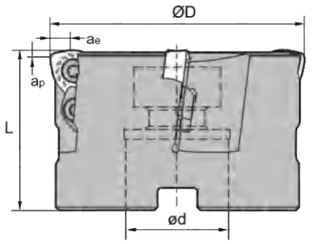




## KXP 大进给铣刀盘



高效

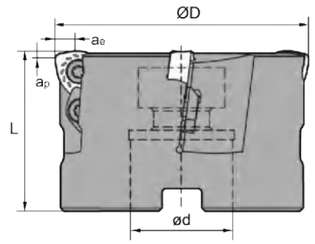



| 型　号<br>Model | D<br>mm | d<br>mm | ae<br>mm | ap<br>mm | L<br>mm | 刃数<br>T | 适用刀片<br>Insert | 螺丝<br>Screw | 扳手<br>Wrench | 库存<br>Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| KXP13-50-22 | 50 | 22 | 5.66 | 1.5 | 50 | 4 | XPKW13T516R | M5 | T20 | ▲ |
| KXP13-63-22 | 63 | 22 | 5.66 | 1.5 | 50 | 4 | XPKW13T516R | M5 | T20 | ▲ |

- 适合于模具高效开粗加工
- 适用于中、大功率机床

# SKS 大进给铣刀盘






| 型　号 Model | D mm | d mm | ae mm | ap mm | L mm | 刃数 T | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| SKS10-63-22-4T | 63 | 22 | 5.66 | 2.0 | 50 | 4 | XDKW160620R | M5 | T20 | ▲ |

- 适合于大进给切削
- 采用锥形设计，抗弯刚性极高

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | XDKW160620R | HP-7220 | ● | ● | ● | | ◎ | ◎ | ▲ |
| | XPKW13T516R | HP-7010 | ● | ● | ● | | ◎ | ◎ | ▲ |
| | XPKW13T516R | HP-7012 | ● | | ● | | ◎ | | ▲ |
| | | | | | | | | | |
|  | XPKW10T416R | HP-7012 | ● | ● | ● | | ◎ | | ▲ |
| | | | | | | | | | |
| | | | | | | | | | |

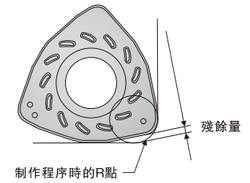
备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## 程序中的刀尖形狀定義方法請參考下圖作爲近似的圓角R

| 使用刀片 Insert | 近似R Approximate Input Corner R | 过切量 Over Cut | 残余量 Remains |
|---|---|---|---|
| XPKW10T416R | R2.5 | | 0.7 |
| XPKW13T516R | R2.0 | | 0.7 |

尺寸單位:(mm)

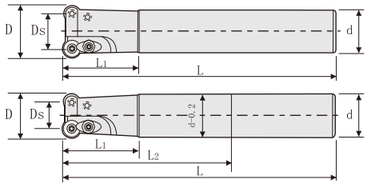



| 被加工材料 | 硬度 | 刀片材质 | 切削速度 VC (m/min) | 进给 fZ(mm/刃) | 切深 AP (mm) |
|---|---|---|---|---|---|
| 碳素钢 | 160-260HB | HP-7010<br>HP-7012<br>HP-7220 | 100-150-180 | 1-3.5 | 1-1.5 |
| 预硬钢 | 280-440HB | HP-7010<br>HP-7012<br>HP-7220 | 80-120-160 | 0.8-2 | 0.8-1.5 |
| 灰铸铁、球墨铸铁 | 170-300HB | HP-7010<br>HP-7012<br>HP-7220 | 100-150-180 | 1-3 | 1-1.5 |

注：1）根据机床刚性及加工状况不同，以上参数可适当调整。
2）如发生振动，推荐降低切深或主轴转速，请不要改变每刃进给量。
3）如机床刚性不足，首先推荐降低切深，然后再降低主轴转速以及进给。
4）使用冷风吹走铁屑，特别是立式加工深型腔时，需充分注意铁屑的处理。

## TRP 圆鼻刀





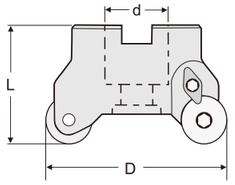

| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| TRP-4R1212-120 | 12 | 12 | 30 | 120 | 1 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R1615.6-160 | 16 | 15.6 | 40 | 160 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R1616-120 | 16 | 16 | 40 | 120 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R1616-160 | 16 | 16 | 40 | 160 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R2019-160 | 20 | 19 | 60 | 160 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R2019-200 | 20 | 19 | 70 | 200 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R2020-160 | 20 | 20 | 60 | 160 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-4R2020-200 | 20 | 20 | 70 | 200 | 2 | RP□□0802MO | T-4R | M3×7 | T8 | ▲ |
| TRP-5R2520-160 | 25 | 20 | 40 | 160 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2524-160 | 25 | 24 | 60 | 160 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2524-200 | 25 | 24 | 70 | 200 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2524-250 | 25 | 24 | 70 | 250 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2525-160 | 25 | 25 | 60 | 160 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2525-200 | 25 | 25 | 70 | 200 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R2525-250 | 25 | 25 | 70 | 250 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3025-160 | 30 | 25 | 50 | 160 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3025-200 | 30 | 25 | 35 | 200 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3025-250 | 30 | 25 | 35 | 250 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3532-160 | 35 | 32 | 48 | 160 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3532-200 | 35 | 32 | 48 | 200 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3532-250 | 35 | 32 | 48 | 250 | 2 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3532-300 | 35 | 32 | 48 | 300 | 3 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R3532-350 | 35 | 32 | 48 | 350 | 3 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R4032-160 | 40 | 32 | 60 | 160 | 4 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-5R5032-200 | 50 | 32 | 60 | 200 | 4 | RP□□1003MO | T-5R | M4×8 | T15 | ▲ |
| TRP-6R3225-160 | 32 | 25 | 42 | 160 | 2 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R3232-200 | 32 | 32 | 80 | 200 | 2 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R3532-200 | 35 | 32 | 50 | 200 | 3 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R3532-250 | 35 | 32 | 60 | 250 | 3 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R4032-200 | 40 | 32 | 48 | 200 | 3 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R4032-250 | 40 | 32 | 48 | 250 | 3 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R5032-200 | 50 | 32 | 48 | 200 | 4 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |

注：★表示特价



## TRP 粗铣圆鼻刀盘






| 型号 Model | D mm | d mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TRP-5R50-22 | 50 | 22 | 50 | 4 | RP□□1003MO | T-5R | M4×10 | T15 | ▲ |
| TRP-6R50-22 | 50 | 22 | 50 | 4 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R63-22 | 63 | 22 | 50 | 4 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R63-22-5T | 63 | 22 | 50 | 5 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R63-25.4 | 63 | 25.4 | 50 | 4 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R80-25.4 | 80 | 25.4 | 50 | 6 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRP-6R100-31.75 | 100 | 31.75 | 50 | 6 | RP□□1204MO | T-6R | M4×10 | T15 | ▲ |

## ◎ RP型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RPEW0802MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RPEW0802MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPEW0802MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPEW1003MO | HP-7010 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO-D | MP-9110 | ▲ | ● | | ● | | | ● |
| | RPEW1003MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RPEW1003MO | HP-7220 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-8215 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-8215 | ▲ | ● | | ● | | | |
| | RPEW1003MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPKT10T3MOS | MP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RPKT10T3MOS | MP-7025 | ▲ | ● | | ● | | | |
|  | RDMT1204MO-D | MP-9110 | ▲ | ● | ● | ● | | | ◎ |
| | RPKT1204MO | HP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RPKT1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RPKT1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RPKT1204MOS | MP-7012 | | ● | ● | ● | | ◎ | |
| | RPKT1204MOS | MP-7025 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## ◎ RP型推荐切削参数

| 被加工材料 | 硬　度 | 刀片材质 | 切削速度 Vc(m/min) | 进给 fz(mm/刃) | 切深 Ap(mm) | | |
|---|---|---|---|---|---|---|---|
| | | | | | 4R | 5R | 6R |
| 碳素钢 | 180-250HB | 7012<br>7022<br>7025<br>8215<br>7030<br>7035 | 120-180 | 0.6-1.5 | 0.3-0.6 | 0.4-1.0 | 1.0-1.5 |
| 工具钢，模具钢 | 180-280HB | 7010<br>7012<br>7022<br>7025<br>8215 | 100-160 | 0.6-1.5 | 0.3-0.6 | 0.4-1.0 | 0.8-1.2 |
| 预硬钢 | 280-400HB | 7010<br>7012<br>7020<br>7022 | 80-150 | 0.5-1.2 | 0.2-0.4 | 0.3-0.6 | 0.6-1.2 |
| 不锈钢 | 150-250HB | 7012<br>7030 | 80-150 | 0.3-0.8 | 0.1-0.3 | 0.2-0.5 | 0.5-1.0 |
| 灰铸铁 | 150-250HB | 7010<br>7012<br>7020<br>7022<br>7025<br>8215 | 120-220 | 0.6-1.5 | 0.3-0.6 | 0.4-1.0 | 1.0-1.5 |
| 球墨铸铁 | 170-300HB | 7010<br>7012<br>7020<br>7022<br>7025<br>8215 | 120-180 | 0.6-1.5 | 0.3-0.6 | 0.4-1.0 | 1.0-1.5 |

1）根据机床刚性及加工状况不同，以上参数可适当调整。
2）如发生振动,推荐降低切深或主轴转速,请不要改变每刃进给量。
3）如机床刚性不足,首先推荐降低切深,然后再降低主轴转速以及进给。
4）使用冷风吹走铁屑,特别是立式加工深型腔时,需充分注意铁屑的处理。



## ◎ RPEW1003MO HP-7220

| | | | |
|---|---|---|---|
| 被加工材料 | 名称 | 汽车灯罩模 | |
| | 材质 | 718H | |
| | 硬度 | HRC32~35 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT40-MLC32-90 | BT40-MLC32-90 |
| | 刀杆型号 | TRP-5R2524-200L | TRP-5R2524-200L |
| | 刀片型号 | 他司刀片 | RPEW1003MO HP-7220 |
| 切削条件 | 切削速度 Vc m/min | 120m/min | 120m/min |
| | 进给 F mm/min | 1800mm/min | 2200mm/min |
| | 切削深度 Ap mm | 0.5mm | 0.5mm |
| | 冷却方式 | 气冷 | 气冷 |
| | 共加工时间 | 1小时50分钟 | 2小时45分钟 |
| 结果 | 加工状况 | 良好 | 良好 |
| | 在加工条件比较恶劣的情况下,RINECK刀片也表现出良好的特性,提高加工效率的同时,刀片寿命也比同类产品明显提高. | | |

## ◎ RPKT1204MOS MP-7025

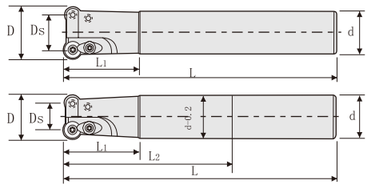
| | | | |
|---|---|---|---|
| 被加工材料 | 名称 | 汽车仪表盘凸模 | |
| | 材质 | 锻打718 | |
| | 硬度 | HRC32 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150L | BT50—FMB22—150 |
| | 刀杆头型号 | TRP-6R63-22-4T | TRP-6R63-22-4T |
| | 刀片型号 | 他司刀片 | RPKT1204MOS MP-7025 |
| 切削条件 | 切削速度 Vc m/min | 138m/min | 138m/min |
| | 进给 F mm/min | 2000mm/min | 3000mm/min |
| | 切削深度 Ap mm | 0.8mm | 1mm |
| | 冷却方式 | 干式切削 | 干式切削 |
| 结果 | 共加工时间 | 1小时50分钟 | 2小时40分钟 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片相比其它公司刀片加工效率上提高1.8倍以上，寿命由原来的1小时50分钟提高到2小时40分钟，为客户节约更多的加工成本。 | | |

## ◎ RPKT1204MO HP-7012

| | | | |
|---|---|---|---|
| 被加工材料 | 名称 | 汽车保险杠 | |
| | 材质 | 45# | |
| | 硬度 | HRC26 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150L | BT50—FMB22—150 |
| | 刀杆头型号 | TRP-6R63-22-4T | TRP-6R63-22-4T |
| | 刀片型号 | 他司刀片 | RPKT1204MO HP-7012 |
| 切削条件 | 切削速度 Vc m/min | 138m/min | 138m/min |
| | 进给 F mm/min | 2800mm/min | 3000mm/min |
| | 切削深度 Ap mm | 1mm | 1mm |
| | 冷却方式 | 干式切削 | 干式切削 |
| 结果 | 共加工时间 | 4小时5分钟 | 5小时25分钟 |
| | 加工状况 | 良好 | 良好 |
| | 在加工45#钢时，RPKT1204MO HP-7012刀片相比竞争对手，进给与寿命都有提升，且价格更优惠，为客户节约更多的加工成本。 | | |

## TRD 圆鼻刀



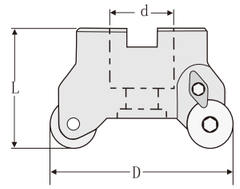



| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| TRD-4R1615.6-160 | 16 | 15.6 | 40 | 160 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R1616-120 | 16 | 16 | 40 | 120 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R1616-160 | 16 | 16 | 50 | 160 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R2019-160 | 20 | 19 | 60 | 160 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R2019-200 | 20 | 19 | 70 | 200 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R2020-160 | 20 | 20 | 60 | 160 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-4R2020-200 | 20 | 20 | 70 | 200 | 2 | RD□□ 0802MO | T-4R | M3×7 | T8 | ▲ |
| TRD-5R2524-160 | 25 | 24 | 60 | 160 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R2524-200 | 25 | 24 | 70 | 200 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R2525-160 | 25 | 25 | 60 | 160 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R2525-200 | 25 | 25 | 70 | 200 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R2525-250 | 25 | 25 | 80 | 250 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3025-160 | 30 | 25 | 40 | 160 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3025-200 | 30 | 25 | 40 | 200 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3025-250 | 30 | 25 | 40 | 250 | 2 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3532-160 | 35 | 32 | 48 | 160 | 3 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3532-200 | 35 | 32 | 48 | 200 | 3 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3532-250 | 35 | 32 | 48 | 250 | 3 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3532-300 | 35 | 32 | 48 | 300 | 3 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-5R3532-350 | 35 | 32 | 48 | 350 | 3 | RD□□ 10T3MO | T-5R | M4×8 | T15 | ▲ |
| TRD-6R3232-160 | 32 | 32 | 50 | 160 | 2 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R3232-200 | 32 | 32 | 80 | 200 | 2 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R3232-250 | 32 | 32 | 100 | 250 | 2 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R3332-200 | 33 | 32 | 50 | 200 | 2 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R3532-200 | 35 | 32 | 50 | 200 | 3 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R3532-250 | 35 | 32 | 60 | 250 | 3 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R4032-200 | 40 | 32 | 48 | 200 | 3 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R4032-250 | 40 | 32 | 48 | 250 | 3 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R5032-200 | 50 | 32 | 48 | 200 | 3 | RD□□ 1204MO | T-6R | M4×10 | T15 | ▲ |

注：★表示特价

## TRD 粗铣圆鼻刀盘






| 型号 Model | D mm | d mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TRD-5R50-22 | 50 | 22 | 50 | 4 | RD□□10T3MO | T-5R | M4×10 | T15 | ▲ |
| TRD-5R63-22 | 63 | 22 | 50 | 4 | RD□□10T3MO | T-5R | M4×10 | T15 | ▲ |
| TRD-6R50-22 | 50 | 22 | 50 | 4 | RD□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R63-22 | 63 | 22 | 50 | 4 | RD□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R63-22-5T | 63 | 22 | 50 | 5 | RD□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-6R63-25.4 | 63 | 25.4 | 50 | 4 | RD□□1204MO | T-6R | M4×10 | T15 | ▲ |
| TRD-8R63-22 | 63 | 22 | 50 | 4 | RD□□1604MO | T-8R | M5×12 | T20 | ▲ |
| TRD-8R80-27 | 80 | 27 | 50 | 5 | RD□□1604MO | T-8R | M5×12 | T20 | ▲ |
| TRD-8R100-32 | 100 | 32 | 50 | 5 | RD□□1604MO | T-8R | M5×12 | T20 | ▲ |

# RD型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RDKT10T3MOS | MP-7010 | ▲ | ● | | ◎ | | | ● |
| | RDKT10T3MOS | MP-7012 | ▲ | ● | ● | ◎ | | ◎ | ● |
| | RDKT10T3MOS | MK-7020 | ▲ | ● | | ● | | | ◎ |
| | RDKT10T3MOS | MP-7025 | ▲ | ● | | ◎ | | | |
|  | RDHX10T3MO | HP-7005 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW10T3MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW10T3MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW10T3MO | HP-7035 | ▲ | ● | | ◎ | | | |
| | RDKW10T3MO | HP-8215 | ▲ | ● | | ● | | | |
|  | RDKT1204MOS | MP-7012 | ▲ | ● | ● | ◎ | | ● | ● |
| | RDKT1204MOS | MK-7020 | ▲ | ● | | ● | | | |
| | RDKT1204MOS | MP-7025 | ▲ | ● | | ◎ | | | |
|  | RDKW1204MO | HP-7010 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1204MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1204MO | HP-7220 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7022 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-8215 | ▲ | ● | | ● | | | |
| | RDKW1204MO-HT | HP-7330 | ▲ | ● | | ● | | | |
| | RDKW1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RDHW1204MO | HP-7005 | ▲ | | | | | | ● |
| | RDMW1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMX1204MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDMW1204MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDMW1204MO | HP-7035 | ▲ | ● | | ◎ | | | |
|  | RDKW1604MO | HP-7010 | ▲ | ● | | ● | | | ● |
| | RDKW1604MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKW1604MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ● |
| | RDKW1604MO | HP-7220 | ▲ | ● | | ● | | | |
| | RDKW1604MO | HP-7025 | ▲ | ● | | ● | | | |
| | RDKW1605MO | MP-9110 | ▲ | ● | | ● | | | ● |
| | RDKT1605MO | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | |
| | RDKT1605MO | HP-7220 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## ◎RD型 推荐切削参数

| 被加工材料 | 硬 度 | 刀片材质 | 切削速度 Vc(m/min) | 进给 fz(mm/刃) | 切深 Ap(mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 3.5R | 4R | 5R | 6R | 8R |
| 碳素钢 | 160 260HB | 7220<br>7025<br>7330<br>8215<br>7035 | 120-180 | 0.6-1.5 | 0.1-0.3 | 0.3-0.6 | 0.4-1.0 | 1.0-1.5 | 1.0-2.0 |
| 预硬钢 | 280-400HB | 7010<br>7012<br>7020<br>7220<br>7025<br>8215<br>7330 | 100-160 | 0.6-1.5 | 0.1-0.3 | 0.3-0.6 | 0.3-0.8 | 0.6-1.2 | 0.8-1.5 |
| 淬火钢 | 40-55HRC | 7005<br>7010<br>7012<br>7020 | 80-150 | 0.3-0.8 | 0.05-0.2 | 0.2-0.4 | 0.2-0.5 | 0.3-0.8 | 0.6-1.2 |
| 淬火钢 | 55HRC~ | 7005<br>7010<br>7012 | 60-100 | 0.2-0.6 | 0.05-0.2 | 0.1-0.3 | 0.2-0.4 | 0.2-0.5 | 0.4-0.8 |
| 不锈钢 | 150-250HB | 7012 | 80-150 | 0.3-0.8 | 0.05-0.2 | 0.1-0.3 | 0.2-0.5 | 0.5-1.0 | 0.6-1.2 |
| 灰铸铁，球墨铸铁 | 170-300HB | 7010<br>7012<br>7020<br>7220<br>7025<br>8215<br>7330 | 120-180 | 0.5-1.5 | 0.1-0.3 | 0.3-0.6 | 0.4-1.0 | 0.8-1.5 | 1.0-2.0 |

1）根据机床刚性及加工状况不同，以上参数可适当调整。
2）如发生振动,推荐降低切深或主轴转速,请不要改变每刃进给量。
3）如机床刚性不足,首先推荐降低切深,然后再降低主轴转速以及进给。
4）使用冷风吹走铁屑,特别是立式加工深型腔时,需充分注意铁屑的处理。

## ◎RDKW10T3MO HP-7012

| | 名称 | 汽车模具 | |
|---|---|---|---|
| 被加工材料 | 材质 | P20调质 | |
| | 硬度 | HRC36 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-MLC32-110 | BT50-MLC32-110 |
| | 刀杆型号 | TRD-5R2524-200L | TRD-5R2524-200L |
| | 刀片型号 | 他司刀片 | RDKW10T3MO HP-7012 |
| 切削条件 | 切削速度 | 130m/min | 130m/min |
| | 进给 | 1800mm/min | 2000mm/min |
| | 切削深度 | 0.5mm | 0.5mm |
| | 冷却方式 | 气冷 | 气冷 |
| 结果 | 共加工时间 | 1小时40分钟 | 3小时15分钟 |
| | 加工状况 | 良好 | 良好 |
| | 加工工件硬度在HRC36时,RINECK刀片在进给提高的同时,加工时间为3小时,寿命比同类产品高出2.5倍. | | |

## ◎RDKW10T3MO HP-7025

| | 名称 | 日用品 | |
|---|---|---|---|
| 被加工材料 | 材质 | 45#调质 | |
| | 硬度 | HRC28 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-MLC32-110 | BT50-MLC32-110 |
| | 刀杆型号 | TRD-5R2524-200L | TRD-5R2524-200L |
| | 刀片型号 | 他司刀片 | RDKW10T3MO HP-7025 |
| 切削条件 | 切削速度 | 150m/min | 150m/min |
| | 进给 | 2000mm/min | 2200mm/min |
| | 切削深度 | 0.6mm | 0.6mm |
| | 冷却方式 | 气冷 | 气冷 |
| 结果 | 共加工时间 | 2小时 | 3小时45分钟 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片在进给提高的同时,加工时间为3小时45分钟,寿命比同类产品高出1.5倍以上. | | |

## ◎RDKW1204MO HP-7010

| | 名称 | 车灯模具型腔 | |
|---|---|---|---|
| 被加工材料 | 材质 | 2738H淬硬 | |
| | 硬度 | HRC35-37 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150L | BT50-FMB22-150 |
| | 刀头型号 | TRD-6R63-22-4T | TRD-6R63-22-4T |
| | 刀片型号 | 他司刀片 | RDKW1204MO HP-7010 |
| 切削条件 | 切削速度 | 100m/min | 125m/min |
| | 进给 | 1800mm/min | 3000mm/min |
| | 切削深度 | 0.6mm | 0.6mm |
| | 冷却方式 | 干式切削 | 干式切削 |
| 结果 | 共加工时间 | 1小时10分钟 | 1小时50分钟 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片在加工高硬度时，在提高进给的情况下，寿命由原来的1小时10分钟，提高到了1小时50分钟，性价比有明显提升。 | | |

## ◎RDKW1204MO HP-7012

| | 名称 | 车灯模具型腔 | |
|---|---|---|---|
| 被加工材料 | 材质 | 2738H淬硬 | |
| | 硬度 | HRC35-37 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150L | BT50-FMB22-150 |
| | 刀头型号 | TRD-6R63-22-4T | TRD-6R63-22-4T |
| | 刀片型号 | 他司刀片 | RDKW1204MO HP-7012 |
| 切削条件 | 切削速度 | 100m/min | 125m/min |
| | 进给 | 1200mm/min | 3000mm/min |
| | 切削深度 | 0.6mm | 0.6mm |
| | 冷却方式 | 干式切削 | 干式切削 |
| 结果 | 共加工时间 | 35分钟 | 1小时20分钟 |
| | 加工状况 | 良好 | 良好 |
| | 在高硬度加工时，相比其它公司刀片进给提高1.6倍， 寿命由原来的35分钟提高到1小时20分种，并且切削噪音小。 | | |

## ◎RDKW1204MO HP-7220

| | 名称 | 汽车配件 | |
|---|---|---|---|
| 被加工材料 | 材质 | 模具钢 | |
| | 硬度 | HRC28 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150L | BT50-FMB22-150 |
| | 刀头型号 | TRD-6R63-22-4T | TRD-6R63-22-4T |
| | 刀片型号 | 他司刀片 | RDKW1204MO HP-7220 |
| 切削条件 | 切削速度 | 140m/min | 140m/min |
| | 进给 | 2000mm/min | 2800mm/min |
| | 切削深度 | 0.6mm | 0.6mm |
| | 冷却方式 | 干式切削 | 干式切削 |
| 结果 | 共加工时间 | 3小时15分钟 | 4小时30分钟 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片相比其它公司刀片进给提高的同时,寿命由原来的3小时20分钟提高到4小时35分钟。 | | |

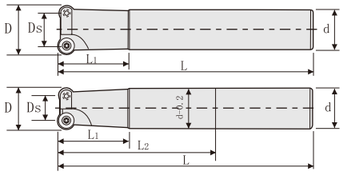
## ◎RDKW1604MO HP-7220

| | 名称 | 汽车仪表盘凸模 | |
|---|---|---|---|
| 被加工材料 | 材质 | 锻打718 | |
| | 硬度 | HRC32 | |
| | | 他司 | RINECK刀片 |
| 刀具 | 刀柄型号 | BT50-FMB22-150 | BT50-FMB22-150 |
| | 刀头型号 | TRD-8R63-22-4T | TRD-8R63-22-4T |
| | 刀片型号 | 他司刀片 | RDKW1604MO HP-7220 |
| 切削条件 | 切削速度 | 125m/min | 125m/min |
| | 进给 | 3000mm/min | 3000mm/min |
| | 切削深度 | 1mm | 1mm |
| | 冷却方式 | 气冷 | 气冷 |
| 结果 | 共加工时间 | 2小时15分钟 | 3小时20分钟 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片在此加工状态下,韧性和抗冲击性都要优于他司刀片,使用寿命比他司刀片高出1.5倍,明显的提高了加工效率。 | | |



## TRC 圆鼻刀

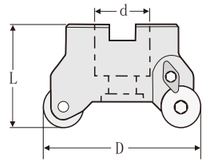



| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| TRC-5R2520-160 | 25 | 20 | 40 | 160 | 2 | RC□□10T3MO | T-5R | M3.5×8.5 | T15 | ▲ |
| TRC-5R2524-200 | 25 | 24 | 40 | 200 | 2 | RC□□10T3MO | T-5R | M3.5×8.5 | T15 | ▲ |
| TRC-5R2525-200 | 25 | 25 | 40 | 200 | 2 | RC□□10T3MO | T-5R | M3.5×8.5 | T15 | ▲ |
| TRC-6R3225-200 | 32 | 25 | 50 | 200 | 2 | RC□□1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-6R3225-250 | 32 | 25 | 50 | 250 | 2 | RC□□1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-6R3332-200 | 33 | 32 | 50 | 200 | 2 | RC□□1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-6R3332-250 | 33 | 32 | 50 | 250 | 2 | RC□□1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-6R4032-200 | 40 | 32 | 60 | 200 | 3 | RC□□1204MO | T-6R | M3.5×8.5 | T15 | ▲ |

# TRC 精铣圆鼻刀盘






| 型号 Model | D mm | d mm | L mm | 刃数 T | 适用刀片 Insert | 压板 Clamp | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TRC-6R50-22 | 50 | 22 | 50 | 4 | RC□□ 1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-6R63-22 | 63 | 22 | 50 | 4 | RC□□ 1204MO | T-6R | M3.5×8.5 | T15 | ▲ |
| TRC-8R63-22 | 63 | 22 | 50 | 4 | RC□□ 1606MO | T-8R | M5×12 | T20 | ▲ |
| TRC-8R80-27 | 80 | 27 | 50 | 5 | RC□□ 1606MO | T-8R | M5×12 | T20 | ▲ |
| TRC-8R100-32 | 100 | 32 | 50 | 6 | RC□□ 1606MO | T-8R | M5×12 | T20 | ▲ |

## ◎ RC型圆刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | RCKT10T3MOE | PL30 | ▲ | ● | ◎ | ● | | | |
| | RCET10T3MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
|  | RCKT10T3MO | MM-7030 | ▲ | ◎ | ● | | | ◎ | |
| | RCKT10T3MO | MM-7040 | ▲ | ◎ | ● | | | ◎ | |
|  | RCKT1204MOE | PL30 | ▲ | ● | ◎ | ● | | | |
| | RCET1204MO | PL230 | ▲ | ● | ◎ | ● | | | ◎ |
|  | RCKT1204MO | HP-7012 | ▲ | ● | ● | ◎ | | ● | |
| | RCKT1204MO | HP-7020 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | RCKT1204MO | MM-7030 | ▲ | ◎ | ● | | | ◎ | |
| | RCKT1204MO | MM-7040 | ▲ | ◎ | ● | | | ◎ | |
|  | RCKT1606MO | HP-7012 | ▲ | ● | ● | ◎ | | | |
| | RCKT1606MO | MP-7012 | ▲ | ● | ● | ◎ | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## ◎ RC型 推荐切削参数

| 被加工材料 | 硬 度 | 刀片材质 | 切削速度 Vc(m/min) | 进给 fz(mm/刃) | 切深 Ap(mm) 5R | 切深 Ap(mm) 6R |
|---|---|---|---|---|---|---|
| 碳素钢 | 180-260HB | 7020<br>PL30<br>PL230 | 180-300 | 0.2-0.5 | 0.15-0.3 | 0.2-0.35 |
| 工具钢，模具钢 | 180-280HB | 7020<br>PL30<br>PL230 | 180-300 | 0.2-0.5 | 0.15-0.3 | 0.2-0.35 |
| 预硬钢 | 280-400HB | 7020<br>PL30<br>PL230 | 150-280 | 0.2-0.4 | 0.15-0.3 | 0.2-0.35 |
| 不锈钢 | 150-250HB | 7030<br>7040 | 100-180 | 0.3-0.8 | 0.2-0.5 | 0.6-1.2 |
| 灰铸铁，球墨铸铁 | 150-300HB | 7020<br>PL30<br>PL230 | 180-300 | 0.2-0.5 | 0.15-0.3 | 0.2-0.35 |

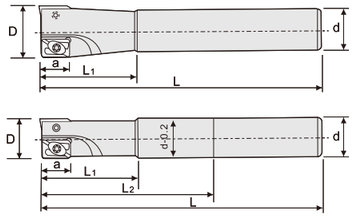
1）根据机床刚性及加工状况不同，以上参数可适当调整。
2）如发生振动,推荐降低切深或主轴转速,请不要改变每刃进给量。
3）如机床刚性不足,首先推荐降低切深,然后再降低主轴转速以及进给。
4）使用冷风吹走铁屑,特别是立式加工深型腔时,需充分注意铁屑的处理。

## ◎ RCKT1204MO MM-7040

| | 名称 | 叶片 | |
|---|---|---|---|
| 被加工材料 | 材质 | 难加工不锈钢 | |
| | 硬度 | HRC30 | |
| | | 他司 | RINECK刀片 |
| 刀 具 | 刀柄型号 | BT40-MLC32-90 | BT40-MLC32-90 |
| | 刀杆型号 | R200-DC32A25-200L | R200-DC32A25-200L |
| | 刀片型号 | 他司刀片 | RCKT1204MO MM-7040 |
| 切削条件 | 切削速度 Vc m/min | 150m/min | 150m/min |
| | 进给 F mm/min | 1000mm/min | 1000mm/min |
| | 切削深度 Ap mm | 1-2.5mm | 1-2.5mm |
| | 冷却方式 | 乳化液 | 乳化液 |
| 结 果 | 共加工时间 | 45分钟 | 1小时 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片在不锈钢的粗加工及半精加工时都有很好地表现，尤其是在加工难加工的叶片时，更表现出了很好地耐磨性。 | | |

## TAP 直角立铣刀



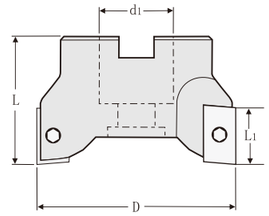



| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TAP300R-1010-100 | 10 | 10 | 25 | 100 | 1 | APMT1135... | M2.5×6 | T8 | ▲ |
| TAP300R-1212-130 | 12 | 12 | 30 | 130 | 1 | APMT1135... | M2.5×6 | T8 | ▲ |
| TAP300R-1615.6-160 | 16 | 15.6 | 50 | 160 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-1616-120 | 16 | 16 | 40 | 120 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-1616-160 | 16 | 16 | 50 | 160 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-1616-200 | 16 | 16 | 60 | 200 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-2019-160 | 20 | 19 | 50 | 160 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-2019-200 | 20 | 19 | 50 | 200 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-2020-120 | 20 | 20 | 50 | 120 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-2020-160 | 20 | 20 | 60 | 160 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP300R-2020-200 | 20 | 20 | 70 | 200 | 2 | APMT1135... | M2.5×6.5 | T8 | ▲ |
| TAP400R-2524-200 | 25 | 24 | 50 | 200 | 2 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-2524-250 | 25 | 24 | 50 | 250 | 2 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-2525-160 | 25 | 25 | 50 | 160 | 2 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-2525-200 | 25 | 25 | 50 | 200 | 2 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3232-200 | 32 | 32 | 48 | 200 | 2 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3532-200 | 35 | 32 | 60 | 200 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3532-250 | 35 | 32 | 60 | 250 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3532-300 | 35 | 32 | 60 | 300 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3532-350 | 35 | 32 | 60 | 350 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-3532-400 | 35 | 32 | 60 | 400 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-4032-200 | 40 | 32 | 60 | 200 | 3 | APMT1604... | M4×9 | T15 | ▲ |
| TAP400R-4032-250 | 40 | 32 | 60 | 250 | 3 | APMT1604... | M4×9 | T15 | ▲ |



## TAP 直角平面铣刀盘






| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TAP400R-50-22 | 50 | 22 | 14 | 50 | 4 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-63-22 | 63 | 22 | 14 | 50 | 4 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-80-27 | 80 | 27 | 14 | 50 | 5 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-100-32 | 100 | 32 | 14 | 50 | 6 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-50-25.4 | 50 | 25.4 | 14 | 50 | 4 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-63-25.4 | 63 | 25.4 | 14 | 50 | 4 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-80-25.4 | 80 | 25.4 | 14 | 50 | 5 | APMT1604... | M4×10 | T15 | ▲ |
| TAP400R-100-31.75 | 100 | 31.75 | 14 | 50 | 6 | APMT1604... | M4×10 | T15 | ▲ |

## ◎ AP型端铣刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
| | APKT160408-AL | NH01 | ▲ | | | ◎ | ● | | |
| | APMT160408PDTR-H | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT160408PDER-H | HP-7012 | ▲ | ● | | ● | | | ◎ |
| | APMT160408PDTR-H | HP-7025 | ▲ | ● | | ● | | | ◎ |
| | APMT160404PDR | HP-8215 | ▲ | ● | ◎ | ● | | | |
| | APMT160408PDR-HR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT160412PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT160416PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT160420PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| | APMT160430PDR | HP-8215 | ▲ | ● | ● | ● | | | |
| 8215 | APMT160408PDTR | HP-7010 | ▲ | ● | ◎ | ● | | | ● |
| | APMT160408PDR | MP-9110 | ▲ | ● | | ● | | | ● |
| | APMT160408PDR | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | APMT160408PDR | HP-7025 | ▲ | ● | | ● | | | |
| | APMT160408PDR | HP-7320 | ▲ | ● | | ● | | | |
| | APMT160408PDR | MP-9220 | ▲ | ● | ● | ● | | ◎ | |

## ◎ AP型 推荐切削参数

| 被加工材料 | 刀片材质 | 切削速度 Vc(m/min) | 进给 fz(mm/刃) | 切深 Ap(mm) |
|---|---|---|---|---|
| 碳素钢 硬度150-260HB | 5020 7010 7012 7025 8215 | 100-180 | 0.4-0.8 | 0.3-0.8 |
| 低合金钢 硬度150-280HB | 5020 7010 7012 7025 8215 | 90-150 | 0.35-0.7 | 0.3-0.7 |
| 模具钢 硬度280-400HB | 5020 7010 7012 7025 8215 | 80-120 | 0.3-0.6 | 0.25-0.6 |
| 不锈钢 硬度150-250HB | 5020 7012 8215 | 60-80 | 0.3-0.6 | 0.2-0.5 |
| 灰铸铁，球墨铸铁 硬度300HB以下 | 5020 7010 7012 7025 8215 | 90-160 | 0.4-0.8 | 0.3-0.8 |
| 铝合金 硬度50-110HB | NH01 | 160-380 | 0.3-0.7 | 0.3-1.0 |

Ap:切深 N：主轴转速 F：进给速度
1）根据机床刚性跟加工状况不同，以上参数可适当调整。
2）加长型按上表条件60%-80% 。
3）沟槽加工时，建议降低主轴转速及进给速度到上述参数的70%。

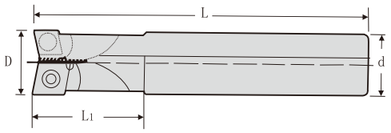
## ◎ APMT1135PDR-HR HP-8215

| | 名称 | 凸模反面流到槽 | |
|---|---|---|---|
| 被加工材料 | 材质 | 2738 | |
| | 硬度 | HRC32 | |
| | | 他司 | RINECK刀片 |
| 刀 具 | 刀柄型号 | BT50-ER25-135 | BT50-ER25-135 |
| | 刀杆型号 | 他司刀杆 | TAP300R-1615.6-160 |
| | 刀片型号 | 他司刀片 | APMT1135PDR-HR HP-8215 |
| 切削条件 | 切削速度 Vc m/min | 80m/min | 80m/min |
| | 进给 F mm/min | 2500mm/min | 2500mm/min |
| | 切削深度 Ap mm | 0.2mm | 0.2mm |
| | 冷却方式 | 气冷 | 气冷 |
| 结 果 | 共加工时间 | 1小时20分 | 2小时35分 |
| | 加工状况 | 良好 | 良好 |
| | RINECK刀片应用范围广泛，即使是在加工硬料时也比他司刀片表现出了更好的耐磨性，此次比较中多为断续加工，加工条件较恶劣，即使如此，RINECK刀片也比他司刀片的寿命高出2倍，表现出了更好的耐冲击性。 | | |



## TJU 鑽铣刀





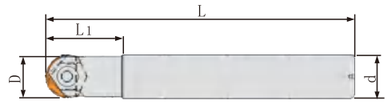

| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 T | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| TJU-1010-100 | 10 | 10 | 30 | 100 | 1 | CCMT060204 | M2.5×6 | T8 | ▲ |
| TJU-1010-130 | 10 | 10 | 30 | 130 | 1 | CCMT060204 | M2.5×6 | T8 | ▲ |
| TJU-1212-120 | 12 | 12 | 30 | 120 | 1 | CPMT080204 | M2.5×6 | T8 | ▲ |
| TJU-1312-120 | 13 | 12 | 30 | 120 | 1 | CPMT080204 | M2.5×6 | T8 | ▲ |
| TJU-1615.6-180 | 16 | 15.6 | 40 | 180 | 2 | CCMT060204 CPMT080204 | M2.5×6 | T8 | ▲ |
| TJU-1616-120 | 16 | 16 | 35 | 120 | 2 | | M2.5×6 | T8 | |
| TJU-1616-180 | 16 | 16 | 40 | 180 | 2 | | M2.5×6 | T8 | ▲ |
| TJU-2020-120 | 20 | 20 | 30 | 120 | 2 | CCMT060204 CPMT090204Z | M2.5×6.5 M3.5×8 | T8 T15 | |
| TJU-2020-160 | 20 | 20 | 50 | 160 | 2 | | | | ▲ |
| TJU-2020-200 | 20 | 20 | 60 | 200 | 2 | | | | ▲ |
| TJU-2525-160 | 25 | 25 | 60 | 160 | 2 | CPMT090308 CPMT120308Z | M4×9 | T15 | ▲ |
| TJU-2525-200 | 25 | 25 | 70 | 200 | 2 | | M4×9 | T15 | ▲ |
| TJU-2525-250 | 25 | 25 | 80 | 250 | 2 | | M4×9 | T15 | ▲ |
| TJU-3232-160 | 32 | 32 | 60 | 160 | 2 | CPMT120408 CPMT160408Z | M5×12 | T20 | |
| TJU-3232-200 | 32 | 32 | 60 | 200 | 2 | | M5×12 | T20 | |
| TJU-3232-250 | 32 | 32 | 70 | 250 | 2 | | M5×12 | T20 | |
| TJU-3232-300 | 32 | 32 | 80 | 300 | 2 | | M5×12 | T20 | |

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | CCMT060204 | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT080204 | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT090204Z | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT090308 | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT120308Z | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT120408 | HC844 | ● | ◎ | ● | | | | ▲ |
| | CPMT160408Z | HC844 | ● | ◎ | ● | | | | ▲ |
|  | CPMT060204 | CY250 | ● | | ● | | | | ▲ |
| | CPMT080204 | CY250 | ● | | ● | | | | ▲ |
| | CPMT090204Z | CY250 | ● | | ● | | | | ▲ |
| | CPMT090308 | CY250 | ● | | ● | | | | ▲ |
| | CPMT120308Z | CY250 | ● | | ● | | | | ▲ |
| | CPMT120408 | CY250 | ● | | ● | | | | ▲ |
| | CPMT160408Z | CY250 | ● | | ● | | | | ▲ |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## ABPF 精加工R角刀杆

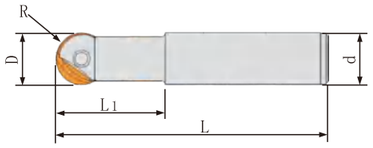





| 型号 Model | D | d | L1 | L | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| ABPF0810-130 | 8 | 10 | 30 | 130 | VSB080/ZPFG080 | ZP08 | TK08 |
| ABPF1010-130 | 10 | 10 | 30 | 130 | VSB100/ZPFG100 | ZP10 | TK08 |
| ABPF1212-130 | 12 | 12 | 30 | 130 | VSB120/ZPFG120 | ZP12 | YK10 |
| ABPF1616-150 | 16 | 16 | 30 | 150 | VSB160/ZPFG160 | ZP16 | TK15 |
| ABPF2020-160 | 20 | 20 | 45 | 160 | VSB200/ZPFG200 | ZP20 | TK20 |
| ABPF2525-180 | 25 | 25 | 45 | 180 | VSB250/ZPFG250 | ZP25 | TK30 |
| ABPF3025-200 | 30 | 25 | 40 | 200 | VSB300/ZPFG300 | ZP30 | TK30 |
| ABPF3232-200 | 32 | 32 | 80 | 200 | VSB320/ZPFG320 | ZP30 | TK30 |

## TSB 精修球刀






| 型号 Model | D | d | L1 | L | R | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| TSB1010-130 | 10 | 10 | 30 | 130 | 5 | TSB-100 | PH05 | TK08 |
| TSB1212-130 | 12 | 12 | 30 | 130 | 6 | TSB-120 | PH06 | TK10 |
| TSB1616-150 | 16 | 16 | 35 | 150 | 8 | TSB-160 | PH08 | TK15 |
| TSB2020-160 | 20 | 20 | 45 | 160 | 10 | TSB-200 | PH10 | TK20 |
| TSB2525-180 | 25 | 25 | 45 | 180 | 12.5 | TSB-250 | PH12 | TK30 |
| TSB3025-200 | 30 | 25 | 40 | 200 | 15 | TSB-300 | PH16 | TK30 |
| TSB3232-200 | 32 | 32 | 80 | 200 | 16 | TSB-320 | PH16 | TK30 |

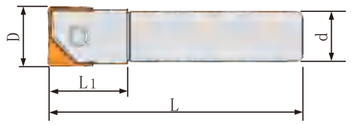
| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TSB080 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB100 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB120 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB160 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB200 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB250 | 7005 | ▲ | ● | ◎ | ● | | | ● |
| | TSB300 | 7005 | ▲ | ● | ◎ | ● | | | ● |

## 推荐切削参数

| 被加工材料 | 切削速度 | 刀具直径 Ø10 | | Ø12 | | Ø16 | | Ø20 | | Ø25 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N(min-1) | F(mm/min) | N(min-1) | F(mm/min) | N(min-1) | F(mm/min) | N(min-1) | F(mm/min) | N(min-1) | F(mm/min) |
| 碳素钢 硬度180-280HB | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |
| 模具钢 硬度180-255HB | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |
| 淬火钢 硬度40-55HRC | 200 | 8000 | 2000 | 6700 | 2000 | 5000 | 2000 | 4000 | 1800 | 3200 | 1600 |
| 淬火钢 硬度56-63HRC | 150 | 6400 | 1300 | 5300 | 1500 | 4000 | 1400 | 3200 | 1300 | 2600 | 1300 |
| 不锈钢 硬度150-250HB | 250 | 9600 | 3000 | 8000 | 3200 | 6000 | 3000 | 4800 | 2400 | 3850 | 2100 |
| 灰铸铁 硬度160-260HB | 400 | 14500 | 4400 | 12000 | 4800 | 9000 | 4500 | 7200 | 4300 | 6000 | 4000 |
| 球墨铸铁 硬度170-300HB | 300 | 11000 | 3300 | 9200 | 3700 | 7000 | 3500 | 5600 | 3000 | 4500 | 2700 |

## TSR 精加工R角刀



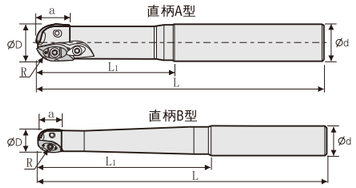



| 型号 Model | D | d | L1 | L | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|
| TSR1010-130 | 10 | 10 | 30 | 130 | TSR100/RNM100 | PH05 | TK08 |
| TSR1212-130 | 12 | 12 | 30 | 130 | TSR120/RNM120 | PH06 | TK10 |
| TSR1616-150 | 16 | 16 | 35 | 150 | TSR160/RNM160 | PH08 | TK15 |
| TSR2020-160 | 20 | 20 | 45 | 160 | TSR200/RNM200 | PH10 | TK20 |
| TSR2525-180 | 25 | 25 | 45 | 180 | TSR250/RNM250 | PH12 | TK30 |
| TSR3025-200 | 30 | 25 | 40 | 200 | TSR300/RNM300 | PH16 | TK30 |



## SZD 粗铣球铣刀






| 型号 Model | R mm | D mm | d mm | L1 mm | L mm | a mm | 刃数 T | 适用刀片 Insert | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| SZD-1620-150 | 8 | 16 | 20 | 70 | 150 | 16 | 2 | ZDHX080R | |
| SZD-1620-180 | 8 | 16 | 20 | 80 | 180 | 16 | 2 | ZDHX080R | |
| SZD-2025-180 | 10 | 20 | 25 | 80 | 180 | 20 | 2 | ZDHX100R | |
| SZD-2025-250 | 10 | 20 | 25 | 150 | 250 | 20 | 2 | ZDHX100R | |
| SZD-2025-300 | 10 | 20 | 25 | 110 | 300 | 20 | 2 | ZDHX100R | |
| SZD-2525-200 | 12.5 | 25 | 25 | 100 | 200 | 25 | 2 | ZDHX125R | |
| SZD-2525-250 | 12.5 | 25 | 25 | 110 | 250 | 25 | 2 | ZDHX125R | |
| SZD-2525-300 | 12.5 | 25 | 25 | 120 | 300 | 25 | 2 | ZDHX125R | |
| SZD-3032-200 | 15 | 30 | 32 | 120 | 200 | 30 | 2 | ZDHX150R | |
| SZD-3032-250 | 15 | 30 | 32 | 150 | 250 | 30 | 2 | ZDHX150R | |
| SZD-3032-300 | 15 | 30 | 32 | 200 | 300 | 30 | 2 | ZDHX150R | |
| SZD-3032-350 | 15 | 30 | 32 | 200 | 350 | 30 | 2 | ZDHX150R | |
| SZD-3232-200 | 16 | 32 | 32 | 120 | 200 | 32 | 2 | ZDHX160R | |
| SZD-3232-250 | 16 | 32 | 32 | 150 | 250 | 32 | 2 | ZDHX160R | |
| SZD-3232-300 | 16 | 32 | 32 | 200 | 300 | 32 | 2 | ZDHX160R | ▲ |
| SZD-3232-350 | 16 | 32 | 32 | 200 | 350 | 32 | 2 | ZDHX160R | |
| SZD-4040-200 | 20 | 40 | 40 | 120 | 200 | 40 | 2 | ZDHX200R | |
| SZD-4040-250 | 20 | 40 | 40 | 150 | 250 | 40 | 2 | ZDHX200R | |
| SZD-4040-300 | 20 | 40 | 40 | 200 | 300 | 40 | 2 | ZDHX200R | |
| SZD-4040-350 | 20 | 40 | 40 | 200 | 350 | 40 | 2 | ZDHX200R | |
| SZD-4050.8-250 | 20 | 40 | 50.8 | 170 | 250 | 40 | 2 | ZDHX200R | |
| SZD-4050.8-300 | 20 | 40 | 50.8 | 220 | 300 | 40 | 2 | ZDHX200R | |
| SZD-4050.8-350 | 20 | 40 | 50.8 | 270 | 350 | 40 | 2 | ZDHX200R | |
| SZD-5050.8-250 | 25 | 50 | 50.8 | 170 | 250 | 50 | 2 | ZDHX250R | ▲ |
| SZD-5050.8-300 | 25 | 50 | 50.8 | 200 | 300 | 50 | 2 | ZDHX250R | ▲ |
| SZD-5050.8-350 | 25 | 50 | 50.8 | 270 | 350 | 50 | 2 | ZDHX250R | |

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | ZDHX080R | HP-7030 | ● | | ● | | | | |
| | ZDHX100R | HP-7030 | ● | | ● | | | | |
| | ZDHX125R | HP-7030 | ● | | ● | | | | |
| | ZDHX150R | HP-7030 | ● | | ● | | | | ▲ |
| | ZDHX160R | HP-7030 | ● | | ● | | | | |
| | ZDHX200R | HP-7030 | ● | | ● | | | | ▲ |
| | ZDHX250R | HP-7030 | ● | | ● | | | | ▲ |

| 被加工材料 | 刀片材质 | 刀径(D) | 10R | 12.5R | 15R | 16R | 20R | 25R |
|---|---|---|---|---|---|---|---|---|
| 中低碳素钢<br>中低合金钢<br>≤36HRC<br>铸铁 | HP-7030 | n(min⁻¹) | 3500 | 2800 | 2330 | 2190 | 1430 | 1400 |
| | | Vc(m/min) | 220(150-250) | | | | | |
| | | fz(mm/t) | 0.3(0.15-0.16) | | | | | |
| | | Vf(mm/min) | 2100 | 1680 | 1398 | 1314 | 858 | 840 |
| | | $a_p$(mm) | ≦ 1.0 | | | | | |
| | | $a_e$(mm) | 0.3D | | | | | |



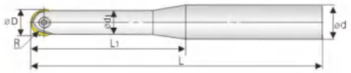
# R2539 精铣球形刀



fig1




fig2




| 型号<br>Model | R<br>mm | D<br>mm | d<br>mm | L1<br>mm | L<br>mm | 适用刀片<br>Insert | 螺钉<br>Screw | 扳手<br>Wrench | 库存<br>Stock |
|---|---|---|---|---|---|---|---|---|---|
| R2539.6R.125.12 | 6 | 12 | 12 | 35 | 125 | ROX120 | M4X10 | T15 | ▲ |
| R2539.6R.150.16 | 6 | 12 | 16 | 70 | 150 | ROX120 | M4X10 | T15 | ▲ |
| R2539.8R.150.16 | 8 | 16 | 16 | 40 | 150 | ROX160 | M5X12 | T20 | ▲ |
| R2539.8R.150.20 | 8 | 16 | 20 | 60 | 150 | ROX160 | M5X12 | T20 | ▲ |
| R2539.10R.180.20 | 10 | 20 | 20 | 65 | 180 | ROX200 | M5X16 | T20 | ▲ |
| R2539.10R.200.25 | 10 | 20 | 25 | 95 | 200 | ROX200 | M5X16 | T20 | ▲ |
| R2539.12.5R.200.25 | 12.5 | 25 | 25 | 70 | 200 | ROX250 | M6X20 | T20 | ▲ |
| R2539.12.5R.250.32 | 12.5 | 25 | 32 | 110 | 250 | ROX250 | M6X20 | T20 | ▲ |
| R2539.15R.250.32 | 15 | 30 | 32 | 80 | 250 | ROX300 | M8X25 | T30 | ▲ |
| R2539.15R.300.32 | 15 | 30 | 32 | 110 | 300 | ROX300 | M8X25 | T30 | ▲ |
| R2539.16R.250.32 | 16 | 32 | 32 | 80 | 250 | ROX320 | M8X25 | T30 | ▲ |

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | ROX120 | FP-7025 | ● | ◎ | ● | | | | |
| | ROX160 | FP-7025 | ● | ◎ | ● | | | | |
| | ROX200 | FP-7025 | ● | ◎ | ● | | | | |
| | ROX250 | FP-7025 | ● | ◎ | ● | | | | |
| | ROX300 | FP-7025 | ● | ◎ | ● | | | | |
| | ROX320 | FP-7025 | ● | ◎ | ● | | | | |

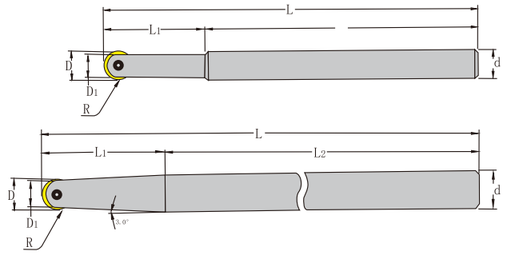
备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

| 被加工材料 | 硬度 | 切削速度 Vc(m/min) | 法向进给：fR(mm/rev) 刀具直径:ØD(mm) 10 | 12 | 16 | 20 | 25 | 30 | 切深 Ap (mm) | 步距 Ae (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 灰铸铁 (HT250、HT300) | 160~260HB | 400~500 | 0.5 | 0.6 | 0.8 | 0.8 | 1.0 | 1.0 | 0.1~0.3 | D/40 |
| 焊接铸铁 (QT600、QT700) | 170~300HB | 300~400 | 0.4 | 0.5 | 0.6 | 0.6 | 0.8 | 0.8 | 0.1~0.3 | D/40 |
| 碳素钢 (50#、55#) | 180~280HB | 300~400 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 01~0.3 | D/50 |
| 低合金钢 (40Cr、40Cr) | 180~280HB | 300~400 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.1~0.3 | D/50 |
| 铸铁 | 280~400HB | 300~350 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.1~0.2 | D/50 |
| 模具钢、工具钢 (Cr12MoIV1、 4Cr5MoSiV1、T10) | 180~255HB | 300~350 | 0.3 | 0.4 | 0.4 | 0.4 | 0.6 | 0.6 | 0.1~0.2 | D/50 |
| 淬火模具钢 (4Cr5MoSiV1、P20) | 40~55HRC | 250~350 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.1~0.2 | D/50 |
| 淬火模具钢 (4Cr5MoSiV1、P10) | 55HRC~ | 150~250 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.1~0.2 | D/50 |
| 不锈钢 (0Cr19Ni9 1Cr18NiTi) | 150~250HB | 200~300 | 0.45 | 0.6 | 0.65 | 0.7 | 0.8 | 0.8 | 0.1~0.2 | D/50 |



# BR 精切削球型铣刀

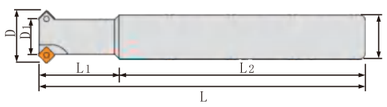





| 型号 Model | R mm | D mm | D1 mm | d mm | L mm | L1 mm | L2 mm | 刀片 Insert | 重量 (KGS) Weight | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C10-BR4-140L | R4 | 8 | 7 | 10 | 140 | 30 | 110 | ROH08. | 0.10 | BR4 | T8 |
| C10-BR5-130L | R5 | 10 | 9 | | 130 | | 100 | ROH10. | 0.10 | BR5 | T15 |
| C12-BR5-150L | | | | 12 | 150 | 35 | 115 | | 0.15 | | |
| C12-BR6-130L | R6 | 12 | 10 | 12 | 130 | 32 | 98 | ROH12. LC.. | 0.14 | BR6 | T20 |
| C16-BR6-160L | R6 | 12 | 10 | 16 | 160 | 58 | 128 | ROH12. | 0.25 | BR6 | |
| C16-BR8-150L | R8 | 16 | 14 | 16 | 150 | 36 | 114 | ROH16. | 0.25 | BR8 | |
| C20-BR8-200L | | | | 20 | 200 | 65 | 135 | | 0.48 | | |
| C20-BR10-160L | R10 | 20 | 18 | 20 | 160 | 45 | 115 | ROH20. | 0.39 | BR10 | |
| C25-BR10-250L | | | | 25 | 250 | 76 | 174 | | 0.91 | | |
| C25-BR12.5-180L | R12.5 | 25 | 23 | 25 | 180 | 45 | 135 | ROH25. | 0.67 | BR12.5 | T30 |
| C32-BR12.5-250L | | | | 32 | 250 | 98 | 152 | | 1.46 | | |
| C32-BR16-200L | R16 | 32 | 30 | | 200 | 45 | 165 | ROH32. | 1.24 | BR16 | |
| C42-BR16-280L | | | | 42 | 280 | 98 | 182 | | 2.66 | | |

## CDP 高速内外倒角刀

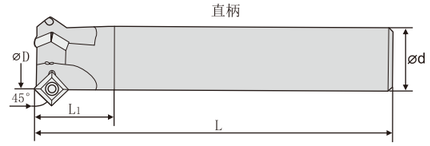





| 型号 Model | D | D1 | d | L1 | L2 | L | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| CDP 1106C10-1T | 11 | 6 | 10 | 17 | 83 | 100 | RD600-050204 | TS2003 | TK06 |
| CDP 1510C12-2T | 15 | 10 | 12 | 20 | 100 | 120 | | | |
| CDP 1711C16-3T | 17 | 11 | 16 | 25 | 125 | 150 | | | |
| CDP 1913C16-3T | 19 | 13 | 16 | 30 | 120 | 150 | | | |
| CDP 2418C20-4T | 24 | 18 | 20 | 35 | 115 | 150 | | | |
| CDP 2216C16-3T | 22 | 16 | 16 | 30 | 80 | 120 | RD600-060204 | TS2205 | TK06 |
| CDP 2717C20-3T | 27 | 17 | 20 | 30 | 80 | 120 | RD600-07T308 | TS2511 | TK08 |
| CDP 3019C20-2T | 30 | 19 | 20 | 40 | 110 | 150 | RD600-090408 | TS3504 | TK15 |
| CDP 4029C25-3T | 40 | 29 | 25 | 40 | 110 | 150 | | | |
| CDP 5039C25-4T | 50 | 39 | 25 | 40 | 110 | 150 | | | |

## CSP 内外倒角刀






| 型号 Model | D mm | d mm | L mm | L1 mm | 刃数 | 刀片 | 扳手 |
|---|---|---|---|---|---|---|---|
| C20-CSP12-100 | 12 | 20 | 100 | 40 | 1 | SPLT120408 | T20 |
| C25-CSP25-120 | 25 | 25 | 120 | 40 | 2 | SPLT120408 | T20 |
| C32-CSP32-180 | 32 | 32 | 180 | 40 | 3 | SPLT120408 | T20 |

## 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SPLT120408 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | SPLT120408 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | SPLT120408 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |

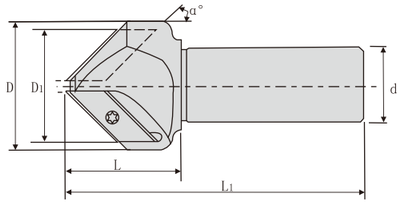
▲表示常备库存　●表示适用于加工材料　◎表示可用于加工材料

## 推荐切削参数

| 被加工材料 | | 加工形态 | 刀片材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) |
|---|---|---|---|---|---|
| P | 低合金钢 | 面铣 | HM-7012 | 100～160 | 0.4 |
| | | 倒角 | | 100～160 | 0.15 |
| | 合金钢 | 面铣 | HM-7025 | 60～100 | 0.3 |
| | | 倒角 | | 60～100 | 0.15 |
| K | 铸铁 | 面铣 | HM-7030 | 100～160 | 0.4 |
| | | 倒角 | | 100～160 | 0.15 |

## CSCC 倒角刀






| 型号 Model | α° mm | D mm | D1 mm | L mm | L1 mm | d mm | 螺丝 | 扳手 | 刀片类型 |
|---|---|---|---|---|---|---|---|---|---|
| CSCC05031R-30° | 30° | 40 | 34 | 50 | 130 | 32 | FS243 M5 | T-20 | RCM300-220404ER |
| CSCC05031R-45° | 45° | 56 | 46 | 50 | 130 | 32 | | | |
| CSCC05031R-60° | 60° | 72 | 56 | 50 | 130 | 32 | | | |

## 使用刀片

| 型 号 Model | 刀片材质 | P | M | K | S | H |
|---|---|---|---|---|---|---|
| RCM300-0404ER | H030 | ● | ● | ● | | |

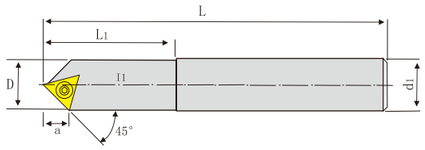
## 推荐切削参数

| 被加工材料 | | 加工形态 | 刀片材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) | 切深 Ap(mm) |
|---|---|---|---|---|---|---|
| P | 低合金钢 | 倒角 | H030 | 120～180 | 0.03～0.1 | 1.0～12.5 |
| | 合金钢 | 倒角 | H030 | 100～140 | 0.03～0.1 | 1.0～12.5 |
| M | 不锈钢 | 倒角 | H030 | 60～100 | 0.03～0.1 | 1.0～12.5 |
| | | 倒角 | H030 | 80～125 | 0.03～0.1 | 1.0～12.5 |
| K | 铸铁 | 倒角 | H030 | 60～80 | 0.03～0.1 | 1.0～12.5 |



## 45° 定位倒角刀




### 特 点

本铣刀可45° 切削，亦可做倒角、V槽切削、可当定位钻使用一般铣床、CNC铣床、CNC车床、钻床倒角。

### 定位钻使用注意事项

1. 加工范围0～20mm，最大切深11.3mm。
2. 铣床加工时:刀具偏摆精度不能过大(0.2mm以内)。
3. 车床加工时:刀具须与刀塔上下进给平行。

| 型号 Model | D mm | L mm | L1 mm | d1 mm | a mm | 倒角范围 mm | 刀片 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| SPP-2020-130L | 20 | 130 | 50 | 20 | 11.3 | Φ0-Φ20 | TCMX16T308E-ZR | M4-10-5.0-43 | T15 |
| SPP-2012-100L | 12 | 100 | - | 20 | 11.3 | Φ0-Φ20 | TCMX16T308E-ZR | M4-10-5.0-43 | T15 |

## 使用刀片

| 规格 | 刀片材质 | P | M | K | S | H |
|---|---|---|---|---|---|---|
| TCMX16T308E | HP-7030 | ● | ● | ◎ | | |

▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

## 推荐切削条件

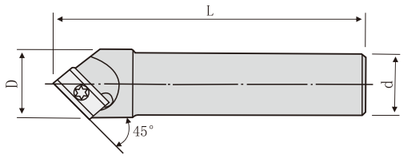
SPP型45度定位倒角刀

| 被加工材料 | 硬度 | 刀片材质 | 加工方式 | 切削速度(转速) V(m/min) | 进给 Fz(mm/刃) |
|---|---|---|---|---|---|
| 碳素钢 50#55# 硬度250HB以下 | 160-260HB | 7030 | 定位 | 150-220 | 0.03-0.05 |
| | | | 倒角 | 150-250 | 0.05-0.1 |
| 预硬钢 (3Cr3Mo,P20) 硬度30-43HRC | 280-400HB | 7030 | 定位 | 80-1400 | 0.03-0.05 |
| | | | 倒角 | 100-150 | 0.05-0.1 |
| 不锈钢 (0Cr19Ni9) 硬度250HB以下 | 150-250HB | 7030 | 定位 | 80-140 | 0.03-0.05 |
| | | | 倒角 | 120-180 | 0.05-0.1 |
| 灰铸铁、球墨铸铁 HT250、QT450 硬度300HB以下 | 170-300HB | 7030 | 定位 | 80-120 | 0.03-0.05 |
| | | | 倒角 | 150-250 | 0.05-0.1 |

根据机床或工件刚性以上参数可适当调整。

## 45°倒角刀



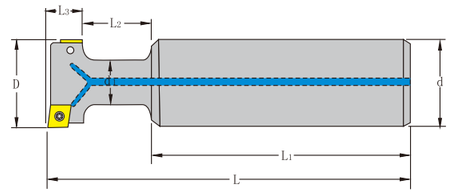

| 型号 Model | D mm | d mm | L mm | 倒角范围 Angle Range | 刃数 T | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| SSK-2020-130L | 20 | 20 | 130 | Ø3-Ø20 | 1 | ADNT160308... | M4×8 | T15 | ▲ |

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | ADNT160308SR | MM-7030 | ● | ● | ● | | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



## ATS T型槽端铣刀




| 型号 Model | D mm | d mm | d1 mm | L mm | L1 mm | L2 mm | L3 mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATS-25-11 | 25 | 25 | 12.5 | 112 | 80 | 21 | 11 | 2 | CC..0602 | 0.35 | M2.5-6.03.5-60 | T8 |
| ATS-32-14 | 32 | 32 | 16 | 120 | 77 | 30 | 14 | 4 | CC..0803 | 0.55 | M3-8.0-4.0-43 | T9 |
| ATS-40-18 | 40 | | 20 | 130 | 80 | 32 | 18 | | CC..09T3 | 0.67 | M4-10-5.7-60 | T15 |
| ATS-50-22 | 50 | | 26 | 140 | | 39 | 22 | | CC..1204 | 0.77 | M5-11-7.5-60 | T20 |

## 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | CCMT060204 | FP-6015 | ▲ | ● | | | | | |
| | CCMT060204 | FP-6215 | ▲ | ● | | | | | |
| | CCMT060204 | MP-6225 | ▲ | ● | | | | | |
| | CCMT060204 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT060204 | MM-2025 | ▲ | | ● | | | | |
| | CCMT060208 | MP-6225 | ▲ | ● | | | | | |
|  | CCMT09T304 | FP-6015 | ▲ | ● | | | | | |
| | CCMT09T304 | FP-6215 | ▲ | ● | | | | | |
| | CCMT09T304 | FK-5015 | ▲ | | | ● | | | |
| | CCMT09T304 | MP-6225 | ▲ | ● | | | | | |
| | CCMT09T304 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T304 | MM-2025 | ▲ | | ● | | | | |
| | CCMT09T308 | MP-6225 | ▲ | ● | | | | | |
| | CCMT09T308 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T308 | MM-2025 | ▲ | | ● | | | | |
| | CCMT120408 | MK-5115 | ▲ | | | ● | | | |
|  | CCGX060204-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX09T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120404-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120408-AL | NH01 | ▲ | | | ◎ | ● | | |

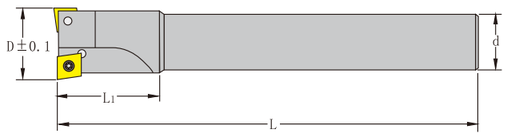
备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## 推荐切削参数

| 被加工材料 | | 刀片材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) |
|---|---|---|---|---|
| P | 合金钢 | MP-6225 | 180～220 | 0.08～0.12 |
| M | 不锈钢 | MM-2025 | 100～120 | 0.07～0.10 |
| K | 铸铁 | MK-5015 | 140～280 | 0.07～0.10 |
| N | 铝合金 | NH01 | 500～700 | 0.15（0.15～0.17） |

# KTB 固定式粗搪刀





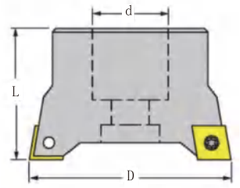

| 型号 Model | D mm | d mm | L mm | L1 mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|
| KTP-1716-120L | 16.7 | 16 | 120 | 30 | 2 | CC..060202(D+0.1)<br>CC..060204(D)<br>CC..060208(D-0.2) | 0.19 | M2.5-6.45-3.7 | T8 |
| KTB-1916-120L | 18.7 | | | | | | 0.19 | | |
| KTB-2016-120L | 19.7 | | | | | | 0.19 | | |
| KTB-2216-120L | 21.7 | | | | | | 0.19 | | |
| KTB-2420-130L | 23.7 | 20 | 130 | | | | 0.32 | | |
| KTB-2520-130L | 24.7 | | | | | | 0.34 | | |
| KTB-2620-130L | 25.7 | 20 | 130 | 30 | | CC..09T302(D+0.1)<br>CC..09T304(D)<br>CC..09T308(D-0.2) | 0.33 | M4-10-5.7-60 | T15 |
| KTB-2720-130L | 26.7 | | | | | | 0.34 | | |
| KTB-2820-130L | 27.7 | | | | | | 0.35 | | |
| KTB-3025-160L | 29.7 | 25 | 160 | 40 | | | 0.62 | | |
| KTB-3525-160L | 34.7 | | | | | | 0.65 | | |
| KTB-4025-160L | 39.7 | | | | | | 0.69 | | |
| KTB-4232-200L | 41.7 | 32 | 200 | 45 | | CC..09T302(D+0.1)<br>CC..09T304(D)<br>CC..09T308(D-0.2) | 1.29 | M4-10-5.7-60 | T15 |
| KTB-4532-200L | 44.7 | | | | | | 1.28 | | |
| KTB-4832-200L | 47.7 | | | | | | 1.33 | | |
| KTB-5032-200L | 49.7 | | | | | | 1.35 | | |
| KTB-5532-200L | 54.7 | | | | | | 1.50 | | |

注:直径及长度要求可定制



# KTB 固定式粗搪刀






| 型号 Model | L | d | D | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|
| KTB45-FMB22 | 50 | 44.8 | 22 | 2 | CC..09T3 | - |
| KTB50-FMB22 | | 49.8 | | | | - |
| KTB55-FMB22 | | 54.8 | | | | - |
| KTB60-FMB22 | | 59.8 | | | | 0.63 |
| KTB60-FMB25.4 | | 59.8 | 25.4 | | | - |
| KTB65-FMB25.4 | | 64.8 | | | | - |
| KTB70-FMB25.4 | | 69.8 | | | | - |
| KTB75-FMB25.4 | | 74.8 | | | | - |
| KTB80-FMB25.4 | | 79.8 | | | | 0.80 |
| KTB85-FMB25.4 | | 84.8 | | | | - |
| KTB90-FMB25.4 | | 89.8 | | | | - |
| KTB95-FMB25.4 | | 94.8 | | | | - |
| KTB100-FMB25.4 | | 99.8 | | | | 1.30 |
| KTB105-FMB31.75 | | 104.8 | 31.75 | | | - |
| KTB110-FMB31.75 | | 109.8 | | | | - |
| KTB115-FMB31.75 | | 114.8 | | | | - |
| KTB120-FMB31.75 | | 119.8 | | | | - |
| KTB125-FMB31.75 | | 124.8 | | | | - |
| KTB130-FMB31.75 | | 129.8 | | | | - |

## KTB固定式粗搪刀片　　使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | CCMT060204 | FP-6015 | ▲ | ● | | | | | |
| | CCMT060204 | FP-6215 | ▲ | ● | | | | | |
| | CCMT060204 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT060204 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT060204 | MM-2025 | ▲ | | ● | | | | |
| | NEW CCMT060208 | MP-6225 | ▲ | ● | | | | | |
|  | CCMT09T304 | FP-6015 | ▲ | ● | | | | | |
| | CCMT09T304 | FP-6215 | ▲ | ● | | | | | |
| | CCMT09T304 | FK-5015 | ▲ | | | ● | | | |
| | CCMT09T304 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT09T304 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T304 | MM-2025 | ▲ | | ● | | | | |
| | CCMT09T308 | MP-6225 | ▲ | ● | | | | | |
| | NEW CCMT09T308 | MP-2115 | ▲ | ● | ● | | | | |
| | CCMT09T308 | MM-2025 | ▲ | | ● | | | | |
| | NEW CCMT120408 | MK-5115 | ▲ | | | ● | | | |
|  | CCGX060204-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX09T304-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120404-AL | NH01 | ▲ | | | ◎ | ● | | |
| | CCGX120408-AL | NH01 | ▲ | | | ◎ | ● | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

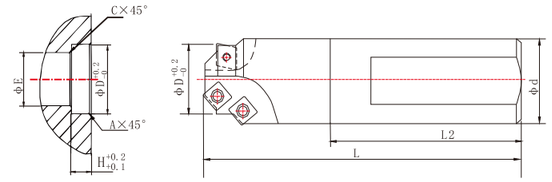
## KTB固定式粗搪刀　　推荐切削参数

| 被加工材料 | | 刀片材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) |
|---|---|---|---|---|
| P | 低合金钢 | MP-6225 | 170～250 | 0.12～0.25 |
| | | | 170～250 | 0.12～0.25 |
| | 合金钢 | MP-6225 | 170～250 | 0.12～0.25 |
| | | | 165～275 | 0.12～0.25 |
| M | 不锈钢 | MM-2025 | 180～260 | 0.10～0.25 |
| | | | 180～260 | 0.10～0.25 |
| K | 铸铁 | MK-5015 | 130～180 | 0.10～0.20 |
| N | 铝合金 | NH01 | | |



## 双倒角沉头刀



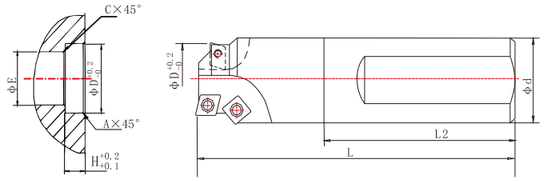



接受非标直接和沉头深度的沉头刀订制。

| 型号 Model | 尺寸 刀具直径 D | 底孔直径 E | 沉孔直径 H | 倒角尺寸 A | 倒角尺寸 C | 柄部直径 d | 总长 L | 刀片 |
|---|---|---|---|---|---|---|---|---|
| CA-1218-6.5 | 18 | 12 | 6.5 | 0.8 | 0.8 | 25 | 100 | CCMT060204 |
| CA-1521-6.5 | 21 | 15 | | 1.0 | | | 120 | |
| CA-1622-6.5 | 22 | 16 | | | | | | |
| CA-2026-6.5 | 26 | 20 | | | | | | |
| CA-2531-6.5 | 31 | 25 | 6.5 | 1.0 | 0.8 | 32 | 120 | CCMT09T304 |
| CA-2531-8.5 | | | 8.5 | | | | | |
| CA-2531-10.5 | | | 10.5 | | | | | |
| CA-3036-8.5 | 36 | 30 | 8.5 | | | | | |
| CA-3036-10.5 | | | 10.5 | | | | | |
| CA-3541-8.5 | 41 | 35 | 8.5 | | | | | |
| CA-3541-10.5 | | | 10.5 | | | | | |
| CA-4046-10.5 | 46 | 40 | 10.5 | 1.0 | 0.8 | 32 | 120 | CCMT09T304 |
| CA-4248-10.5 | 48 | 42 | 10.5 | | | | | |
| CA-4552-10.5 | 52 | 45 | 10.5 | | | | | |
| CA-4855-10.5 | 55 | 48 | 10.5 | | | | | |
| CA-5057-12.5 | 57 | 50 | 12.5 | | | | | |
| CA-5562-10.5 | 62 | 55 | 10.5 | | | | | |
| CA-6067-15.5 | 67 | 60 | 15.5 | 1.0 | 0.8 | 40 | 130 | CCMT09T304 |
| CA-7077-12.5 | 77 | 70 | 12.5 | | | | | |
| CA-7077-15.5 | 77 | 70 | 15.5 | | | | | |
| CA-8088-15.5 | 88 | 80 | 15.5 | | | | | |
| CA-8088-20.5 | 88 | 80 | 20.5 | | | | | |
| CA-9098-20.5 | 98 | 90 | 20.5 | | | | | |

## 螺丝孔沉头刀



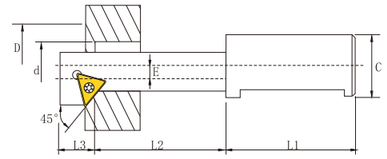



可根据客户需求订制各种沉头刀，欢迎垂询。

| 型号 Model | 尺寸 刀具直径 D | 底孔直径 E | 沉孔直径 H | 倒角尺寸 A | 柄部直径 d | 总长 L | 刀片 |
|---|---|---|---|---|---|---|---|
| CBM6-0711-07 | 11 | 7 | 7 | 1.0 | 25 | 110 | CCMT060204 |
| CBM8-0914-09 | 14 | 9 | 9 | | | 110 | |
| CBM10-1118-11 | 18 | 11 | 11 | | | 120 | |
| CBM12-1320-13 | 20 | 13 | 13 | | 25 | 120 | CCMT060204 |
| CBM14-1623-15 | 23 | 16 | 15 | | | 120 | |
| CBM16-1826-17 | 26 | 18 | 17 | | | 120 | |
| CBM20-2232-21 | 32 | 22 | 21 | | 32 | 120 | CCMT09T308 |
| CBM24-2639-26 | 39 | 26 | 26 | | | 120 | |
| CBM30-3247-32 | 47 | 32 | 32 | | | 120 | |

## 倒拉倒角刀



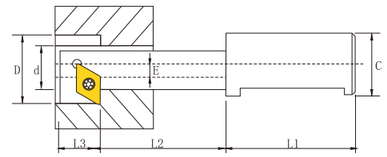



- 不用正反转，减少损坏概率
- 特殊设计本体刚性最佳

| 型号 Model | 尺寸 D | d | C | L1 | L2 | L3 | E | 刀片 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| BC-2014 | 20 | 14 | 16 | 48 | 48 | 13 | 3.2 | TCMT110204 | M2.5 | T8 |
| BC-2317 | 23 | 17 | 20 | 50 | 50 | 13 | 3.2 | | | |
| BC-2721 | 27 | 21 | 25 | 56 | 56 | 13 | 3.2 | | | |
| BC-3124 | 31 | 24 | 25 | 56 | 56 | 13 | 3.2 | | | |

## 倒拉沉头刀



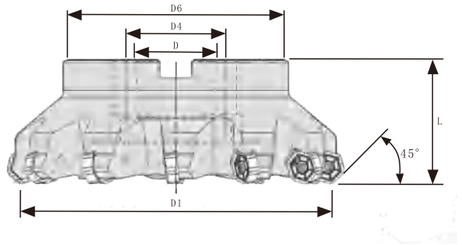



- 减少二次加工，增加微调机构
- 不用正反转，减少损坏概率
- 特殊设计本体刚性最佳

| 型号 Model | 尺寸 D | d | C | L1 | L2 | L3 | E | 刀片 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| M10-1810 | 18 | 10.5 | 16 | 48 | 35 | 13 | 4 | CCMT060204 | M2.5 | T8 |
| M12-2013 | 20 | 13 | 16 | 48 | 40 | 13 | 3.85 | | | |
| M16-2617 | 26 | 17 | 20 | 50 | 50 | 13 | 4.85 | CCMT09T304 | M4 | T15 |
| M20-3321 | 33 | 21 | 25 | 56 | 70 | 13 | 6.4 | | | |
| M24-4025 | 40 | 25 | 25 | 56 | 80 | 13 | 7.9 | | | |

## HN09 45° 双面用面铣刀盘



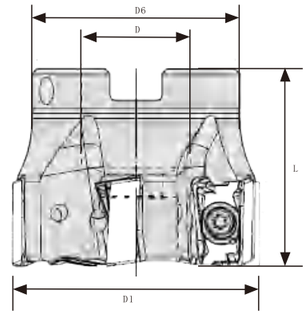



| 型号 Model | $D_1$ mm | D mm | $D_4$ mm | $D_6$ mm | L mm | 刃数 | 刀片 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| KSHR50A04RS45HN09 | 50 | 22 | - | 38 | 40 | 4 | HN..09.. | 193.492 | 190.025 |
| KSHR50A05RS45HN09 | 50 | 22 | - | 38 | 40 | 5 | HN..09.. | 193.492 | 190.025 |
| KSHR63A05RS45HN09 | 63 | 22 | - | 50 | 40 | 5 | HN..09.. | 193.492 | 190.025 |
| KSHR63A06RS45HN09 | 63 | 22 | - | 50 | 40 | 6 | HN..09.. | 193.492 | 190.025 |
| KSHR63A07RS45HN09 | 63 | 22 | - | 50 | 40 | 7 | HN..09.. | 193.492 | 190.025 |
| KSHR80A05RS45HN09 | 80 | 27 | - | 60 | 50 | 5 | HN..09.. | 193.492 | 190.025 |
| KSHR80A06RS45HN09 | 80 | 27 | - | 60 | 50 | 6 | HN..09.. | 193.492 | 190.025 |
| KSHR80A09RS45HN09 | 80 | 27 | - | 60 | 50 | 9 | HN..09.. | 193.492 | 190.025 |
| KSHR100B06RS45HN09 | 100 | 32 | - | 80 | 50 | 6 | HN..09.. | 193.492 | 190.025 |
| KSHR100B08RS45HN09 | 100 | 32 | - | 80 | 40 | 8 | HN..09.. | 193.492 | 190.025 |
| KSHR100B11RS45HN09 | 100 | 32 | - | 80 | 50 | 11 | HN..09.. | 193.492 | 190.025 |
| KSHR125B08RS45HN09 | 125 | 40 | - | 90 | 63 | 8 | HN..09.. | 193.492 | 190.025 |
| KSHR125B10RS45HN09 | 125 | 40 | - | 90 | 63 | 10 | HN..09.. | 193.492 | 190.025 |
| KSHR125B14RS45HN09 | 125 | 40 | - | 90 | 63 | 14 | HN..09.. | 193.492 | 190.025 |
| KSHR160C10RS45HN09 | 160 | 40 | 66.7 | 110 | 63 | 10 | HN..09.. | 193.492 | 190.025 |
| KSHR160C12RS45HN09 | 160 | 40 | 66.7 | 110 | 63 | 12 | HN..09.. | 193.492 | 190.025 |
| KSHR160C16RS45HN09 | 160 | 40 | 66.7 | 110 | 63 | 16 | HN..09.. | 193.492 | 190.025 |
| KSHR200C16RS45HN09 | 200 | 60 | 101.6 | 130 | 63 | 16 | HN..09.. | 193.492 | 190.025 |
| KSHR250C20RS45HN09 | 250 | 60 | 101.6 | 130 | 63 | 20 | HN..09.. | 193.492 | 190.025 |
| KSHR315C24RS45HN09 | 315 | 60 | 101.6 | 230 | 80 | 24 | HN..09.. | 193.492 | 190.025 |



## LN15 90° 双面用面铣刀盘

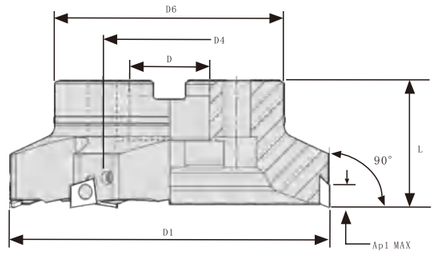





| 型号 Model | $D_1$ mm | D mm | $D_6$ mm | L mm | 刃数 | 刀片 |
|---|---|---|---|---|---|---|
| M4D040Z04S16LN15 | 40 | 16 | 37 | 40 | 4 | LN..15.. |
| M4D040Z05S16LN15 | 40 | 16 | 37 | 40 | 5 | LN..15.. |
| M4D050Z05S22LN15 | 50 | 22 | 42 | 40 | 5 | LN..15.. |
| M4D050Z06S22LN15 | 50 | 22 | 42 | 40 | 6 | LN..15.. |
| M4D063Z06S22LN15 | 63 | 22 | 50 | 40 | 6 | LN..15.. |
| M4D063Z07S22LN15 | 63 | 22 | 50 | 40 | 7 | LN..15.. |
| M4D080Z07S27LN15 | 80 | 27 | 60 | 50 | 7 | LN..15.. |
| M4D080Z09S27LN15 | 80 | 27 | 60 | 50 | 9 | LN..15.. |
| M4D100Z08S32LN15 | 100 | 32 | 80 | 50 | 8 | LN..15.. |
| M4D100Z11S32LN15 | 100 | 32 | 80 | 50 | 11 | LN..15.. |
| M4D125Z09S40LN15 | 125 | 40 | 90 | 63 | 9 | LN..15.. |
| M4D125Z12S40LN15 | 125 | 40 | 90 | 63 | 12 | LN..15.. |
| M4D160Z12S40LN15 | 160 | 40 | 110 | 63 | 12 | LN..15.. |
| M4D160Z16S40LN15 | 160 | 40 | 110 | 63 | 16 | LN..15.. |

## 固定式铝用面铣刀盘

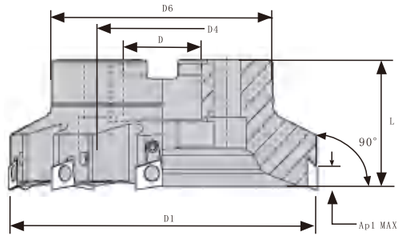





| 型号 Model | $D_1$ mm | D mm | $D_4$ mm | L mm | 刃数 | 刀片 |
|---|---|---|---|---|---|---|
| 40A02RP90BG15CM | 40 | 16 | - | 40 | 2 | BGHX15 |
| 50A03RP90BG15CM | 50 | 22 | - | 40 | 3 | BGHX15 |
| 63A03RP90BG15CM | 63 | 22 | - | 40 | 3 | BGHX15 |
| 80A03RP90BG15CM | 80 | 27 | - | 50 | 3 | BGHX15 |
| 100B04RP90BG15CM | 100 | 32 | - | 50 | 4 | BGHX15 |
| 125B05RP90BG15CM | 125 | 40 | - | 63 | 5 | BGHX15 |
| 160C06RP90BG15CM | 160 | 40 | 66.7 | 63 | 6 | BGHX15 |
| 200C08RP90BG15CM | 200 | 60 | 101.6 | 63 | 8 | BGHX15 |

## 可调式铝用面铣刀盘





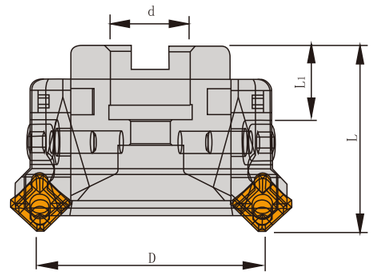

注:所有刀片都可调节

| 型号 Model | $D_1$ mm | D mm | $D_4$ mm | L mm | 刃数 | 刀片 |
|---|---|---|---|---|---|---|
| 63A04RP90BG15C4WHPM | 63 | 22 | - | 40 | 4 | BGHX15 |
| 80A05RP90BG15C5WHPM | 80 | 27 | - | 50 | 5 | BGHX15 |
| 100A06RP90BG15C6WHPM | 100 | 32 | - | 50 | 6 | BGHX15 |
| 125B08RP90BG15C8WHPM | 125 | 40 | - | 63 | 8 | BGHX15 |
| 160C10RP90BG15C10WHPM | 160 | 40 | 66.7 | 63 | 10 | BGHX15 |
| 200C12RP90BG15C12WHPM | 200 | 60 | 101.6 | 63 | 12 | BGHX15 |
| 315C20RP90BG15C20WHPM | 315 | 60 | 101.6 | 80 | 20 | BGHX15 |



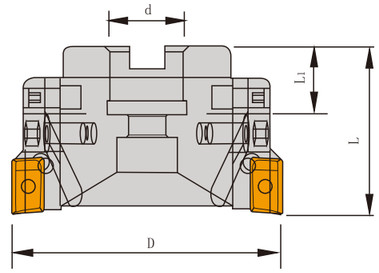
## AKM 铝合金专用铣刀






| 型号 Model | D mm | Dc mm | $L_1$ mm | L mm | Z mm | 刀片类型 Inserts | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|
| AKM-06304R-22 | 63 | 22 | 22 | 50 | 4 | SEHT1204AFEN | TS5001 | T20 |
| AKM-08004R-22 | 80 | 22 | 23 | | 4 | | | |
| AKM-10006R-27 | 100 | 27 | 28 | | 6 | | | |
| AKM-12508R-32 | 125 | 32 | 28 | | 8 | | | |
| AKM-16008R-40 | 160 | 40 | 32 | 55 | 8 | | | |
| AKM-20010R-40 | 200 | 40 | 32 | | 10 | | | |
| AKM-25010R-40 | 250 | 40 | 32 | | 10 | | | |

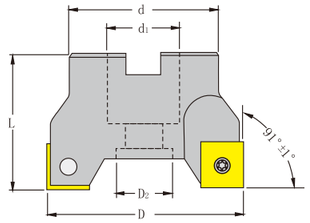
## AAP 铝合金专用铣刀




| 型号 Model | D mm | Dc mm | $L_1$ mm | L | Z | 刀片类型 Inserts | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|
| AAP-08004R-22 | 80 | 22 | 23 | 50 | 4 | APEX1604..PDER-.. | TS4001 | T15 |
| AAP-10006R-32 | 100 | 27 | 28 | | 6 | | | |
| AAP-12508R-32 | 125 | 32 | 28 | | 8 | | | |
| AAP-16008R-40 | 160 | 40 | 32 | 55 | 8 | | | |
| AAP-20010R-40 | 200 | 40 | 32 | | 10 | | | |
| AAP-25010R-40 | 250 | 40 | 32 | | 10 | | | |

## SGP直角平面铣刀盘






| 型号 Model | D mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|
| SGP12R-50-FMB22 | 50 | 18 | 40 | 22 | 50 | 4 | SP..1204 | 0.44 | M5-10-6.3-43 | T20 |
| SGP12R-63-FMB22 | 63 | 18 | 50 | 22 | | 5 | | 0.71 | | |
| SGP12R-80-FMB27 | 80 | 32 | 60 | 27 | 55 | 6 | | 0.99 | | |
| SGP12R-100-FMB32 | 100 | 42 | 70 | 32 | | 8 | | 1.71 | | |
| SGP12R-125-FMB40 | 125 | 58 | 90 | 40 | 63 | | | 3.22 | | |
| SGP12R-160-FMB40 | 160 | | 130 | | | 10 | | 6.220 | | |

## SGP直角平面铣刀盘 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SPLT120408 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | SPLT120408 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | SPLT120408 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |

▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

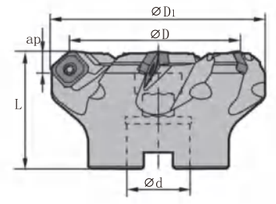
## SGP直角平面铣刀盘 推荐切削参数

| 被加工材料 | | 刀盘材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) | 切深 Ap(mm) |
|---|---|---|---|---|---|
| P | 低合金钢 | HP-8110 | 100～220 | 0.10～0.35 | 2.0～9.0 |
| | | HP-7030 | 100～220 | 0.10～0.35 | 2.0～9.0 |
| | | | 100～220 | 0.10～0.35 | 2.0～9.0 |
| | 合金钢 | HP-8110 | 70～120 | 0.10～0.25 | 1.0～5.0 |
| | | HP-7330 | 70～120 | 0.10～0.25 | 1.0～5.0 |
| | | | 70～120 | 0.10～0.25 | 1.0～5.0 |
| M | 不锈钢 | HP-8110 | 130～200 | 0.12～0.30 | 3.0～8.0 |
| | | HP-7330 | 130～200 | 0.12～0.30 | 3.0～8.0 |
| | | | 130～200 | 0.12～0.30 | 3.0～8.0 |
| K | 铸铁 | HP-8110 | 100～210 | 0.10～0.20 | 2.0～9.0 |
| | | HP-7330 | 80～180 | 0.10～0.20 | 2.0～9.0 |
| N | 铝合金 | NH805 | 450(500～700) | 1.2(1.2～1.8) | 2.0～9.0 |



## S245平面铣刀盘






| 型号 Model | D mm | D1 mm | d mm | L mm | 刃数 Z | 适用刀片 Insert | 刀片螺丝 Screw | 扳手 Wrench | 刀垫 Shim | 刀垫螺丝 Screw | 扳手 Wrench | 库存 stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S245-050Q22-04 | 50 | 61 | 22 | 40 | 4 | SEET12T3 | TM3.5×10 | T15 | - | - | - | ▲ |
| S245-063Q22-05 | 63 | 74 | 22 | 40 | 5 | SEET12T3 | TM3.5×10 | T15 | - | - | - | ▲ |
| S245-080Q27-06 | 80 | 91 | 27 | 50 | 6 | SEET12T3 | TM3.5×10 | T15 | - | - | - | ▲ |
| S245-100Q32-07 | 100 | 107 | 32 | 50 | 7 | SEET12T3 | TM3.5×10 | T15 | - | - | - | ▲ |
| S245-125Q40-08 | 125 | 136 | 40 | 63 | 8 | SEET12T3 | TM3.5×12 | T15 | TGS-B3 | M5×7G | T35L | ▲ |
| S245-160Q40-10 | 160 | 170 | 40 | 63 | 10 | SEET12T3 | TM3.5×12 | T15 | TGS-B3 | M5×7G | T35L | ▲ |
| S245-200Q60-12 | 200 | 210 | 60 | 63 | 12 | SEET12T3 | TM3.5×12 | T15 | TGS-B3 | M5×7G | T35L | ▲ |
| S245-250Q60-14 | 250 | 260 | 60 | 63 | 14 | SEET12T3 | TM3.5×12 | T15 | TGS-B3 | M5×7G | T35L | ▲ |
| S245-315Q60-18 | 315 | 325 | 60 | 70 | 18 | SEET12T3 | TM3.5×12 | T15 | TGS-B3 | M5×7G | T35L | ▲ |

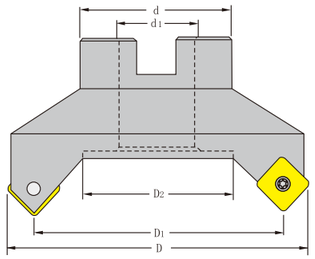
## 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S | H | 库存 |
|---|---|---|---|---|---|---|---|---|---|
|  | SEET12T3-PF | HP-7015 | ● | ○ | ○ | | | | ▲ |
| | SEET12T3-PF | HD-7025 | ● | ○ | ○ | | | | ▲ |
| | SEET12T3-PM | HP-7015 | ● | ○ | ○ | | | | ▲ |
| | SEET12T3-PM | HP-7025 | ● | ○ | ○ | | | | ▲ |
| | SEET12T3-MF | MP-7025 | ○ | ● | | | | | ▲ |
| | SEET12T3-MM | MP-7025 | ○ | ● | | | | | ▲ |
| | SEET12T3-KF | MK-5015 | | | ● | | | | ▲ |
| | SEET12T3-KM | MK-5025 | | | ● | | | | ▲ |
| | SEET12T3-W | N030 | ● | | ● | | | | ▲ |

注：●表示适用于加工材料 ○表示可用于加工材料

## KM 45° 平面铣刀盘






| 型号 Model | D mm | D1 mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KM-50Q22 | 63 | 50 | 18 | 46 | 22 | 40 | 4 | SE..1204 | 0.52 | M5-11-7.0-55 | T20 |
| KM-63Q22 | 76 | 63 | 18 | 48 | 22 | 45 | 5 | | 0.80 | | |
| KM-80Q27 | 95 | 80 | 44.2 | 60 | 27 | 50 | 6 | | 1.21 | | |
| KM-100Q32 | 115 | 100 | 61.8 | 80 | 32 | | | | 1.81 | | |
| KM-125Q40 | 140 | 125 | 72.1 | 90 | 40 | 63 | 8 | | 3.04 | | |
| KM-160Q40 | 175 | 160 | 107.3 | 120 | 40 | | 10 | | 5.35 | | |

## KM 45° 平面铣刀盘 推荐切削参数

| 被加工材料 | | 刀盘材质 | 切削速度 Vc(m/min) | 每刃进给 fz(mm/rev) | 切深 Ap(mm) |
|---|---|---|---|---|---|
| P | 低合金钢 | HP-7012 HP-7035 | 220～260 | 0.20～0.45 | 1.0～3.0 |
| | | | 220～260 | 0.20～0.45 | 1.0～3.0 |
| | | | 240～290 | 0.20～0.45 | 1.0～3.0 |
| | | | 240～290 | 0.20～0.45 | 1.0～3.0 |
| | | | 180～220 | 0.15～0.30 | 1.0～3.0 |
| | | | 180～220 | 0.15～0.30 | 1.0～3.0 |
| | 合金钢 | HP-7012 HP-7035 | 100～195 | 0.20～0.35 | 1.0～3.0 |
| | | | 100～195 | 0.20～0.35 | 1.0～3.0 |
| | | | 110～215 | 0.20～0.35 | 1.0～3.0 |
| | | | 110～215 | 0.20～0.35 | 1.0～3.0 |
| | | | 70～110 | 0.20～0.35 | 1.0～3.0 |
| | | | 100～150 | 0.20～0.35 | 1.0～3.0 |
| M | 不锈钢 | HP-7012 | 140～180 | 0.10～0.30 | 1.0～2.0 |
| | | | 140～180 | 0.10～0.30 | 1.0～2.0 |
| | | | 160～200 | 0.10～0.30 | 1.0～2.0 |
| | | | 160～200 | 0.10～0.30 | 1.0～2.0 |
| | | | 120～140 | 0.15～0.25 | 1.0～2.0 |
| | 不锈钢(析出硬化系) | | 70～85 | 1.15～0.20 | 0.2～1.0 |
| | | | 55～70 | 0.15～0.20 | 0.2～1.0 |
| K | 铸铁 | HP-7012 HP-7035 | 180～300 | 0.15～0.35 | 1.0～3.0 |
| | | | 140～280 | 0.12～0.30 | 1.0～3.0 |
| | | | 140～280 | 0.12～0.30 | 1.0～3.0 |
| | | | 140～280 | 0.12～0.30 | 1.0～3.0 |
| N | 铝合金 | NH01 | 500～850 | 0.15～0.35 | 3.6～6.0 |
| | | | 275～450 | 0.15～0.35 | 3.0～6.0 |
| S | 高温合金 | HP-7012 | 25～40 | 0.15～0.25 | 0.2～1.0 |

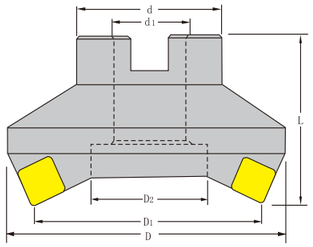
## KM 45° 平面铣刀盘 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SEHT1204AFSN | HP-7012 | ▲ | ● | ● | ● | | ◎ | ◎ |
| | SEHT1204AFSN | HP-7035 | ▲ | ● | | ◎ | | | |
| | SEGX120404-AL | NH01 | ▲ | | | ◎ | ● | | |

▲表示常备库存 ●表示适用于加工材料 ◎表示可用于加工材料

## ASP 45° 舍弃式平面铣刀






| 型号 Model | D mm | D1 mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 双头螺丝 Screw | 垫片螺丝 Shim Screw | 压板 Clamp | 垫片 Shim | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASP-445-3 | 104 | 80 | 36 | 68 | 25.4 | 55 | 5 | SE..1203 | 2.21 | ASP1 | ASP2 | ASP3 | ASP4 | PL4 |
| ASP-445-4 | 128 | 100 | 45 | 85 | 31.75 | | | | 3.34 | | | | | |
| ASP-445-5 | 156 | 125 | 60 | 106 | 38.1 | 60 | 6 | | 5.33 | | | | | |
| ASP-445-6 | 182 | 160 | 72 | 132 | 50.8 | | 8 | | 7.31 | | | | | |
| ASP-445-8 | 228 | 200 | 130 | 128 | | | 10 | | 8.81 | | | | | |
| ASP-445-10 | 284 | 250 | 140 | 160 | 47.625 | | 12 | | 16.0 | | | | | |
| ASP-445-12 | 327 | 300 | | 210 | | | 14 | | 26.08 | | | | | |

## 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SPEN1203EDR | N030 | ▲ | ● | ◎ | ● | | | |
| | SEEN1203AFTN | N030 | ▲ | ● | ◎ | ● | | | |
| | SEKR1203AF | HP-7012 | ▲ | ● | ◎ | ● | | ◎ | ◎ |
| | SEKR1203AF | HP-7025 | ▲ | ● | ◎ | ● | | | |

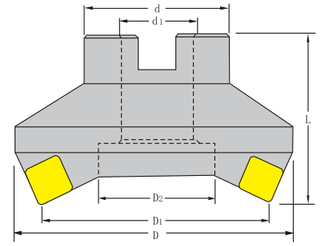
▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料





## ASP 45° 舍弃式平面铣刀

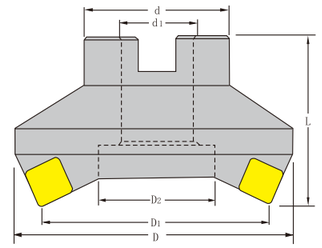





| 型号 Model | D mm | D1 mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 双头螺丝 Screw | 垫片螺丝 Shim Screw | 压板 Clamp | 垫片 Shim | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASP-545-3 | 104 | 80 | 36 | 68 | 25.4 | 55 | 5 | SE..1504 | 2.20 | ASP1 | ASP2 | ASP3 | ASP4 | PL4 |
| ASP-545-4 | 128 | 100 | 45 | 85 | 31.75 | | | | 3.33 | | | | | |
| ASP-545-5 | 156 | 125 | 60 | 106 | 38.1 | 60 | 6 | | 5.32 | | | | | |
| ASP-545-6 | 182 | 160 | 72 | 132 | 50.8 | | 8 | | 7.30 | | | | | |
| ASP-545-8 | 228 | 200 | 130 | 128 | | | 10 | | 8.69 | | | | | |
| ASP-545-10 | 284 | 250 | 140 | 160 | 47.625 | | 12 | | 16.38 | | | | | |
| ASP-545-12 | 327 | 300 | | 210 | | | 14 | | 26.38 | | | | | |

## ASP 65° 舍弃式平面铣刀

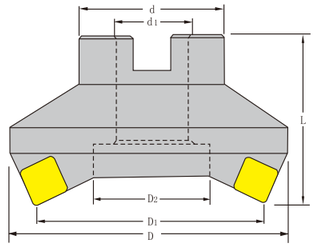





| 型号 Model | D mm | D1 mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 双头螺丝 Screw | 垫片螺丝 Shim Screw | 压板 Clamp | 垫片 Shim | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASP-535-3 | 96 | 80 | 36 | 70 | 25.4 | 55 | 5 | SP..1504 SPK53C2SR | 2.05 | ASP1 | ASP2 | ASP3 | ASP4 | PL4 |
| ASP-535-4 | 118 | 100 | 45 | 80 | 31.75 | | | | 2.90 | | | | | |
| ASP-535-5 | 142 | 125 | 55 | 96 | 38.1 | 60 | 6 | | 4.64 | | | | | |
| ASP-535-6 | 177 | 160 | 72 | | 50.8 | | 8 | | 7.14 | | | | | |
| ASP-535-8 | 218 | 200 | 130 | 200 | 47.625 | | 10 | | 8.87 | | | | | |
| ASP-535-10 | 273 | 250 | | | | | 12 | | 18.4 | | | | | |
| ASP-535-12 | 320 | 300 | | 210 | | | 14 | | 26.9 | | | | | |

## BFP 75° 舍弃式平面铣刀






| 型号 Model | D mm | D1 mm | D2 mm | d mm | d1 mm | L mm | 刃数 Teeth | 刀片 Insert | 重量 (KGS) Weight | 双头螺丝 Screw | 垫片螺丝 Shim Screw | 压板 Clamp | 垫片 Shim | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BFP-3 | 87 | 80 | 36 | 65 | 25.4 | 55 | 5 | SP..1203 | 1.84 | ASP1 | ASP2 | ASP3 | ASP4 | PL4 |
| BFP-4 | 108 | 100 | 45 | 78 | 31.75 | | 6 | | 2.61 | | | | | |
| BFP-5 | 138 | 125 | 55 | 90 | 38.1 | 60 | 8 | | 4.45 | | | | | |
| BFP-6 | 167 | 160 | 73 | 117 | 50.8 | | 10 | | 6.45 | | | | | |
| BFP-8 | 208 | 200 | 128 | 127 | 47.625 | | 12 | | 8.61 | | | | | |
| BFP-10 | 262 | 250 | 140 | 150 | | | 16 | | 14.2 | | | | | |
| BFP-12 | 312 | 300 | | 210 | | | 20 | | 26.7 | | | | | |

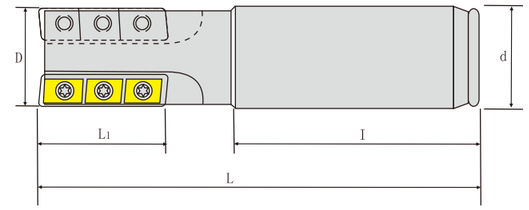
## 推荐切削条件

| 被加工材料 | 硬度 | 刀片材质 | 切削速度 Vc(m/min) | 进给 Fz(mm/min) | 切深 Ap(mm) |
|---|---|---|---|---|---|
| 碳素钢 | 160-260HB | N030/HP-7012/ HP-7025 | 120-220 | 0.15～0.4 | 0.5～2.5 |
| 预硬钢 | 280-400HB | | 80-180 | 0.1～0.3 | 0.5～2.5 |
| 不锈钢 | 150-250HB | | 60-120 | 0.1～0.2 | 0.5～1.5 |
| 灰铸铁、球墨铸铁 | 170-300HB | | 120-200 | 0.1～0.3 | 0.8～2.5 |
| 铝合金 | 50-110HB | | 200-450 | 0.15～0.3 | 0.8～3.0 |



## EKP粗切削玉米铣刀

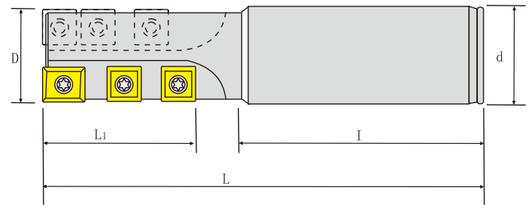





| 型号 Model | D mm | d mm | L mm | e mm | L1 mm | 刃数 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| EKP-16R3232-42M | 32 | 32 | 120 | 60 | 42 | 2 | 6 | AP..1604 | RS-010-M4 | T15 |
| EKP-16R3232-70M | 32 | 32 | 150 | 60 | 70 | 2 | 10 | AP..1604 | RS-010-M4 | T15 |
| EKP-16R4032-56M | 40 | 32 | 135 | 60 | 56 | 3 | 12 | AP..1604 | RS-010-M4 | T15 |
| EKP-16R4032-70M | 40 | 32 | 160 | 70 | 70 | 3 | 15 | AP..1604 | RS-010-M4 | T15 |
| EKP-16R5042-70M | 50 | 42 | 170 | 70 | 70 | 3 | 15 | AP..1604 | RS-010-M4 | T15 |
| EKP-16R5050.8-112M | 50 | 50.8 | 220 | 80 | 112 | 3 | 24 | AP..1604 | RS-010-M4 | T15 |

## EHP粗切削玉米铣刀

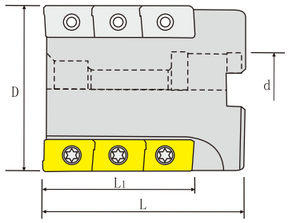





| 型号 Model | D mm | d mm | L mm | ℓ mm | L1 mm | 刃数 | 刀片数 | 刀片 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EHP-2025-32M | 20 | 25 | 110 | 65 | 32 | 2 | 1 | P27215-00 | 6 | P28415-00-SP..0603 | RS-055-M2.5 | T8 |
| EHP-2525-32M | 25 | 25 | 120 | 75 | 32 | 2 | 1 | P27215-00 | 6 | P28415-00-SP..0603 | RS-055-M2.5 | T8 |
| EHP-3232-42M | 32 | 32 | 150 | 75 | 42 | 2 | 1 | P27215-3 | 5 | P28415-00-SP..0903 | RS-019-M4 | T15 |
| EHP-4032-50M | 40 | 32 | 155 | 75 | 50 | 4 | 2 | P27215-3 | 12 | P28415-00-SP..0903 | RS-019-M4 | T15 |
| EHP-4042-50M | 40 | 42 | 165 | 85 | 50 | 4 | 2 | P27215-3 | 12 | P28415-00SP..0903 | RS-019-M4 | T15 |
| EHP-5042-56M | 50 | 42 | 170 | 85 | 56 | 4 | 2 | P27215-3 | 10 | P28495-1-SP..1204 | RS-043-M5 | T20 |
| EHP-5050.8-76M | 50 | 50.8 | 200 | 85 | 76 | 4 | 2 | AP..1504 | 14 | P28495-1-SP..1204 | RS-043-M5 | T20 |

## SKP 粗切削玉米铣刀

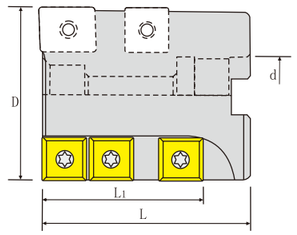





| 型号 Model | D mm | d mm | L mm | L1 mm | 刃数 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| SKP-50Q22-42M | 50 | 22 | 55 | 42 | 3 | 9 | AP..1604 | RS-010-M4 | T15 |
| SKP-63Q27-42M | 63 | 27 | 63 | 42 | 4 | 12 | AP..1604 | RS-010-M4 | T15 |
| SKP-80Q32-70M | 80 | 32 | 85 | 70 | 5 | 25 | AP..1604 | RS-010-M4 | T15 |

## SHP 粗切削玉米铣刀



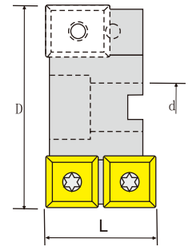



| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 | 刀片数 | 刀片 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SHP-50Q22-34M | 50 | 22 | 34 | 60 | 4 | 2 | P27275-3-APLT150412 | 6 | P28495-1-SPLT120408 | RS-043-M5 | T20 |
| SHP-63Q27-34M | 63 | 27 | 34 | 60 | 4 | 2 | P27275-3-APLT150412 | 6 | P28495-1-SPLT120408 | RS-043-M5 | T20 |
| SHP-80Q32-67M | 80 | 32 | 67 | 80 | 6 | 3 | P27275-3-APLT150412 | 18 | P28495-1-SPLT120408 | RS-043-M5 | T20 |



## KHP 可换式粗切削铣刀头

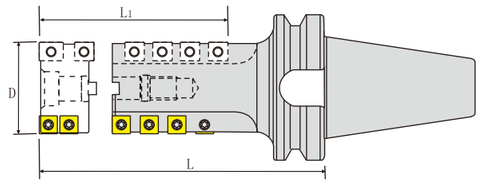





| 型号 Model | D mm | d mm | L mm | 刀片数 | 刀片 | 刀片数 | 刀片 | 刀片螺丝 | |
|---|---|---|---|---|---|---|---|---|---|
| KHP50-24L | 50 | 12.5 | 24 | 2 | P27275-3-APLT150412 | 4 | P28495-1-SPLT120408 | RS-043-M5 | |
| KHP50-50L | 50 | 12.5 | 50 | 2 | P27275-3-APLT150412 | 10 | P28495-1-SPLT120408 | RS-043-M5 | |
| KHP63-34L | 63 | 16.5 | 34 | 2 | P27275-3-APLT150412 | 6 | P28495-1-SPLT120408 | RS-043-M5 | |
| KHP63-65L | 63 | 16.5 | 65 | 2 | P27275-3-APLT150412 | 12 | P28495-1-SPLT120408 | RS-043-M5 | |
| KHP80-34L | 80 | 18 | 34 | 3 | P27275-3-APLT150412 | 9 | P28495-1-SPLT120408 | RS-043-M5 | |

## BT50/SHP 粗切削玉米铣刀柄

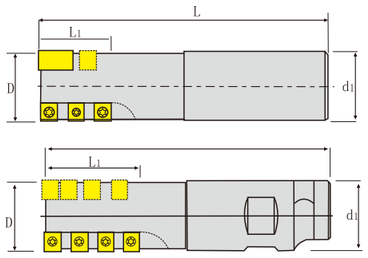





| 型号 Model | D mm | L mm | L1 mm | 刃数 | 螺栓 | 刀片数 | 刀片 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BT50-SHP50-110M | 50 | 185 | 110 | 4 | RFB50 | 2 | P27275-3-APLT150412 | 22 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP50-130M | 50 | 205 | 130 | 4 | RFB50 | 2 | P27275-3-APLT150412 | 26 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP50-160M | 50 | 235 | 160 | 4 | RFB50 | 2 | P27275-3-APLT150412 | 32 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP50-180M | 50 | 255 | 180 | 4 | RFB50 | 2 | P27275-3-APLT150412 | 36 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP63-90M | 63 | 165 | 90 | 4 | RFB63 | 2 | P27275-3-APLT150412 | 18 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP63-120M | 63 | 195 | 120 | 4 | RFB63 | 2 | P27275-3-APLT150412 | 24 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP63-150M | 63 | 225 | 150 | 4 | RFB63 | 2 | P27275-3-APLT150412 | 30 | P28495-1-SPLT120406 | RS-043-M5 | T20 |
| BT50-SHP63-190M | 63 | 265 | 190 | 4 | RFB63 | 2 | P27275-3-APLT150412 | 38 | P28495-1-SPLT120406 | RS-043-M5 | T20 |

## 粗切削玉米铣刀






| 型号 Model | D mm | d mm | L1 mm | L mm | 刃数 | 刀片数 | 刀片 | 刀片螺丝 | 刀片数 | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SLP-40-56L | 40 | 42 | 56 | 173 | 2 | 1 | APLT150412 | M5-11-6.4-4.3 | 5 | SPLT120408 | M5-11-6.4-4.3 | T20 |
| SLP-50-97LM | 50 | 50.8 | 97 | 224 | 4 | 2 | APLT150412 | M5-11-6.4-4.3 | 18 | SPLT120408 | M5-11-6.4-4.3 | T20 |
| SLP-50-158LM | 50 | 50.8 | 158 | 284 | 4 | 2 | APLT150412 | M5-11-6.4-4.3 | 30 | SPLT120408 | M5-11-6.4-4.3 | T20 |

## 使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | APLT150412 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | APLT150412 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | APLT150412 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |
|  | SPLT120408 | HM-7012 | | ● | ◎ | ● | | ◎ | ● |
| | SPLT120408 | HM-7025 | | ● | ◎ | ● | | ◎ | |
| | SPLT120408 | HM-7030 | ▲ | ● | ◎ | ● | | ◎ | |

▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

## 推荐切削条件

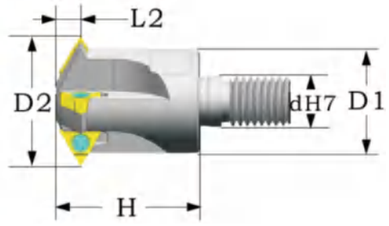
| 被加工材料 | 硬度 | 刀片材质 | 加工方式 | 切削速度 Vc(m/min) | 进给 fz(mm/刃) | 切深 Ap(mm) |
|---|---|---|---|---|---|---|
| 碳素钢 | 160-260HB | 7012 7025 7030 | 侧边加工 | 80-120 | 0.08-0.15 | ~1D |
| | | | 开槽加工 | 60-100 | 0.05-0.12 | ~0.4D |
| 预硬钢 | 280-400HB | 7012 7025 7030 | 侧边加工 | 80-120 | 0.06-0.15 | ~1D |
| | | | 开槽加工 | 60-100 | 0.05-0.12 | ~0.4D |
| 灰铸铁，球墨铸铁 | 170-300HB | 7012 7025 7030 | 侧边加工 | 80-150 | 0.1-0.15 | ~1D |
| | | | 开槽加工 | 60-100 | 0.08-0.12 | ~0.4D |

注:D:刀具直径
1）在使用此刀具前先确定好机床功率
2）根据机床或工件刚性以上参数可适当调整。



## 螺纹连接式模块铣刀头






**推荐内冷却，特别是D2＞0.7倍螺纹直径时。**

| 型号 Model | 螺纹规格 | 尺寸 Dimension（mm） | | | | | 齿数 Z | 螺钉 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|
| | | D1 | D2 | dH7 | H | L2 | | | |
| M20-2.5-D17-M08-2GT | M20*2.5 | 14 | 17 | M 8 | 20 | 5.5 | 4 | M2.5 | T8 |
| M24-3-D20-M08-2GT | M24*3 | 16 | 20 | M 8 | 30 | 5.5 | 2 | M2.5 | T8 |
| M30-3.5-D26-M10-2GT | M30*3.5 | 20 | 26 | M10 | 35 | 5.5 | 3 | M2.5 | T8 |
| M36-4-D31-M12-3GT | M36*4 | 25 | 31 | M12 | 35 | 8 | 3 | M3.5 | T15 |
| M42-4.5-D36-M16-3GT | M42*4.5 | 30 | 36 | M16 | 45 | 8 | 3 | M3.5 | T15 |
| M48-5-D41-M16-3GT | M48*5 | 32 | 41 | M16 | 45 | 8 | 3 | M3.5 | T15 |
| | M56*5.5 | 32 | 41 | M16 | 45 | 8 | 3 | M3.5 | T15 |

### 刀片 Insert（刀片详情参看01页）



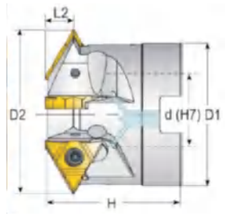

| | |
|---|---|
| 钢 Steel | HP-7220 |
| 铸铁 Cast Iron | HM-7025 |
| 铝合金 Alumnum | NH01 |

### 配上硬质合金杆图样



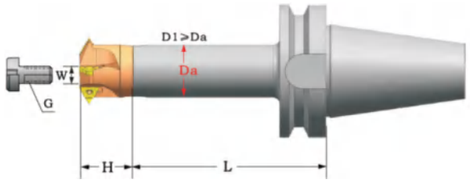
## 螺纹铣刀盘






**推荐内冷却，特别是D2＞0.7倍螺纹直径时。**

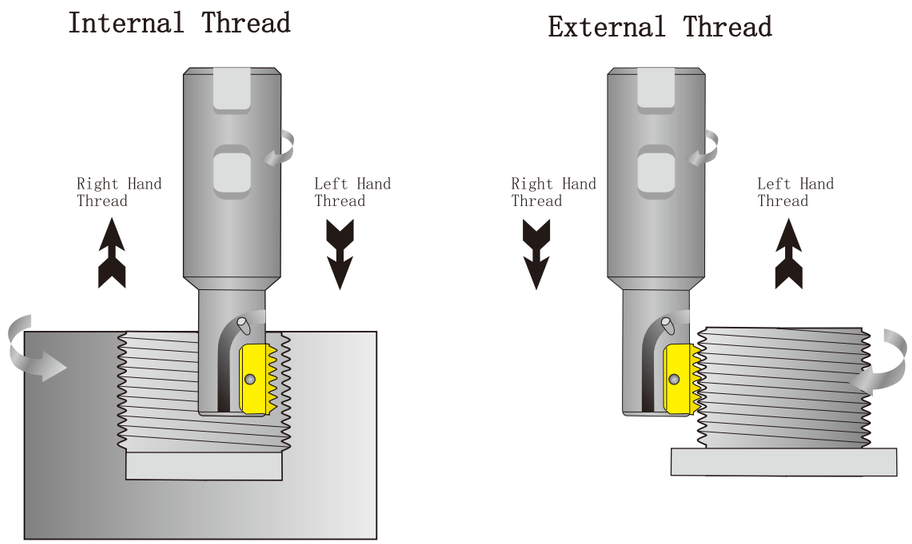
| 型号 Model | 螺纹规格 Thread Type | 尺寸 Dimension (mm) | | | | | 齿数 Z | 螺钉 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|---|---|---|
| | | D1 | D2 | d | H | L2 | | | |
| M64-6-D49-22-3GT | M64*6 | 40 | 49 | 22 | 40 | 7 | 4 | M3 | T10 |
| M80-6-D66-27-3GT | M80*6 | 58 | 66 | 27 | 50 | 7 | 5 | M3 | T10 |
| M100-6-D85-32-3GT | M100*6 | 76 | 85 | 32 | 50 | 7 | 7 | M3 | T10 |




| 订货号 Order Number | | 尺寸 Dimension (mm) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | H | L | W | d | G | ∅Da | |
| | FMB22-150 | 18 | 150 | 10 | 22 | M10 | 40 | |
| BT40/BT50/HSK63A | FMB27-150 | 20 | 150 | 12 | 27 | M12 | 58 | |
| | FMB32-150 | 21 | 150 | 14 | 32 | M16 | 76 | |



## 螺纹铣刀系列



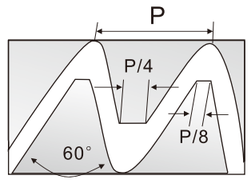

### ◎螺纹铣削说明：

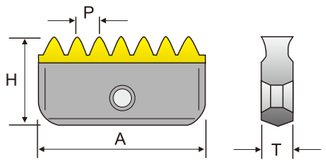
- 螺纹铣削加工是常规螺纹切削和成形加工中一种很有吸引力的替代方式。本目录中有各种带可转换刀片的螺纹铣刀。产品螺纹尺寸范围很广，有公制、英制等

### ◎螺纹铣削加工的优点：

- 可以使用相同的刀柄及刀片加工左旋、右旋螺纹
- 可以使用同把刀具加工螺距相同，而直径不同的螺纹
- 刀片尾端的棱形设计可保证刀具的正确及稳固装夹
- 大部分刀片为双面刀刃
- 一次切削即可产生螺纹
- 可加工锥形螺纹
- 借助提高切削速度和多刃设计的刀片可大幅提高生产效率
- 在盲孔中可切削至最后一个牙距
- 特殊多层涂层增加了刀片寿命
- 对机械功率需求低，因此在小型机械上也可一次性加工较大螺纹，减少刀具的更换及时间的浪费

# 螺纹铣刀片（ISO）



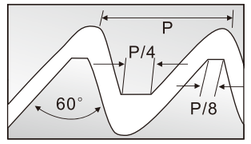



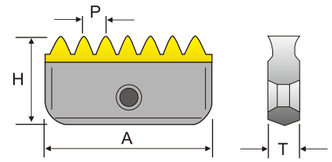

| 螺距 mm | | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|---|
| | | 12 | 14 | 21 | 30 | 40 |
| 0.5 | Ext. | | | | | |
| 0.5 | Int. | *12 I 0.5 ISO | 14I 0.5 ISO | | | |
| 0.75 | Ext. | | 14E 0.75 ISO | | | |
| 0.75 | Int. | *12 I 0.75 ISO | 14I 0.75 ISO | | | |
| 1.0 | Ext. | | 14E 1.0 ISO | 21E 1.0 ISO | | |
| 1.0 | Int. | *12 I 1.0 ISO | 14I 1.0 ISO | 21I 1.0 ISO | | |
| 1.25 | Ext. | | 14E 1.25 ISO | | | |
| 1.25 | Int. | *12 I 1.25 ISO | 14I 1.25 ISO | | | |
| 1.5 | Ext. | | 14E 1.5 ISO | 21E 1.5 ISO | 30E 1.5 ISO | 40E 1.5 ISO |
| 1.5 | Int. | *12 I 1.5 ISO | 14I 1.5 ISO | 21I 1.5 ISO | 30I 1.5 ISO | 40I 1.5 ISO |
| 1.75 | Ext. | | 14E 1.75 ISO | | | |
| 1.75 | Int. | | 14I 1.75 ISO | 21I 1.75 ISO | | |
| 2.0 | Ext. | | 14E 2.0 ISO | 21E 2.0 ISO | 30E 2.0 ISO | 40E 2.0 ISO |
| 2.0 | Int. | | 14I 2.0 ISO | 21I 2.0 ISO | 30I 2.0 ISO | 40I 2.0 ISO |
| 2.5 | Ext. | | 14E 2.5 ISO | 21E 2.5 ISO | | |
| 2.5 | Int. | | 14I 2.5 ISO | 21 I 2.5 ISO | | |
| 3.0 | Ext. | | | 21E 3.0 ISO | 30E 3.0 ISO | 40E 3.0 ISO |
| 3.0 | Int. | | | 21 I 3.0 ISO | 30I 3.0 ISO | 40I 3.0 ISO |
| 3.5 | Ext. | | | | 30E 3.5 ISO | |
| 3.5 | Int. | | | 21 I 3.5 ISO | 30I 3.5 ISO | 40I 3.5 ISO |
| 4.0 | Ext. | | | | 30E 4.0 ISO | 40E 4.0 ISO |
| 4.0 | Int. | | | | 30 I 4.0 ISO | 40I 4.0 ISO |
| 4.5 | Ext. | | | | | |
| 4.5 | Int. | | | | 30 14 5 ISO | 40I 4.5 ISO |
| 5.0 | Ext. | | | | | 40E 5.0 ISO |
| 5.0 | Int. | | | | 30 I 5.0 ISO | 30I 5.0 ISO |
| 5.5 | Ext. | | | | | |
| 5.5 | Int. | | | | | 40I 5.5 ISO |
| 6.0 | Ext. | | | | | 40E 6.0 ISO |
| 6.0 | Int. | | | | | 40I 6.0 ISO |
| H<br>T | | 6.3<br>2.9 | 7.5<br>3.1 | 12<br>4.7 | 16<br>5.5 | 20<br>6.3 |

*单面切削刃



# 螺纹铣刀片（UN UNC UNF UNEF UNS）

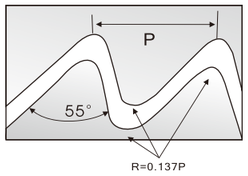


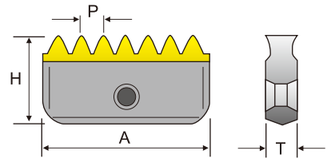




| 螺距 T P I | | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|---|
| | | 12 | 14 | 21 | 30 | 40 |
| 32 | Ext. | | 14 E 32 UN | | | |
| 32 | Int. | 12 I 32 UN | 14 I 32 UN | | | |
| 28 | Ext. | | 14 E 28 UN | | | |
| 28 | Int. | 12 I 28 UN | 14 I 28 UN | | | |
| 27 | Ext. | | | | | |
| 27 | Int. | | 14 I 27 UN | | | |
| 24 | Ext. | | 14 E 24 UN | 21 E 24 UN | | |
| 24 | Int. | 12 I 24 UN | 14 I 24 UN | 21 I 24 UN | | |
| 20 | Ext. | | 14 E 20 UN | 21 E 20 UN | 30 E 20 UN | |
| 20 | Int. | 12 I 20 UN | 14 I 20 UN | 21 I 20 UN | 30 I 20 UN | |
| 18 | Ext. | | 14 E 18 UN | 21 E 18 UN | 30 E 18 UN | |
| 18 | Int. | 12 I 18 UN | 14 I 18 UN | 21 I 18 UN | 30 I 18 UN | |
| 16 | Ext. | | 14 E 16 UN | 21 E 16 UN | 30 E 16 UN | 40 E 16 UN |
| 16 | Int. | 12 I 16 UN | 14 I 16 UN | 21 I 16 UN | 30 I 16 UN | 40 I 16 UN |
| 14 | Ext. | | 14 E 14 UN | 21 E 14 UN | 30 E 14 UN | 40 E 14 UN |
| 14 | Int. | | 14 I 14 UN | 21 I 14 UN | 30 I 14 UN | 40 I 14 UN |
| 12 | Ext. | | 14 E 12 UN | 21 E 12 UN | 30 E 12 UN | 40 E 12 UN |
| 12 | Int. | | 14 I 12 UN | 21 I 12 UN | 30 I 12 UN | 40 I 12 UN |
| 10 | Ext. | | | 21 E 10 UN | 30 E 10 UN | 40 E 10 UN |
| 10 | Int. | | 14 I 10 UN | 21 I 10 UN | 30 I 10 UN | 40 I 10 UN |
| 8 | Ext. | | | | 30 E 8 UN | 40 E 8 UN |
| 8 | Int. | | | 21 I 8 UN | 30 I 8 UN | 40 I 8 UN |
| 7 | Ext. | | | | | |
| 7 | Int. | | | 21 I 7 UN | | |
| 6 | Ext. | | | | 30 E 6 UN | 40 E 6 UN |
| 6 | Int. | | | | 30 I 6 UN | 40 I 6 UN |
| 4.5 | Ext. | | | | | |
| 4.5 | Int. | | | | | 40 I 4.5 UN |
| 4 | Ext. | | | | | |
| 4 | Int. | | | | | 40 I 4 UN |
| H<br>T | | 6.3<br>2.9 | 7.5<br>3.1 | 12<br>4.7 | 16<br>5.5 | 20<br>6.3 |

*单面切削刃

## 螺纹铣刀片（WHIT BSW BSF BSP）

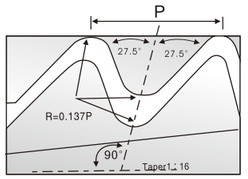


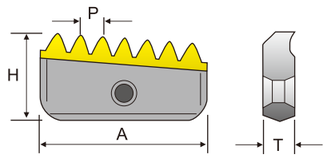




外螺纹和内螺纹使用同一刀片

| 螺距 TPI | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|
| | 12 | 14 | 21 | 30 | 40 |
| 24 | | 14-24W | | | |
| 20 | | 14-20W | 21-20W | | |
| 19 | *12-19W | 14-19W | 21-19W | | |
| 16 | | 14-16W | 21-16W | 30-16W | |
| 14 | | 14-14W | 21-14W | 30-14W | |
| 11 | | | 21-11W | 30-11W | 40-11W |
| 8 | | | | | 40-8W |
| H | 6.3 | 7.5 | 12 | 16 | 20 |
| T | 2.9 | 3.1 | 4.7 | 5.5 | 6.3 |

## 螺纹铣刀片（BSPT）



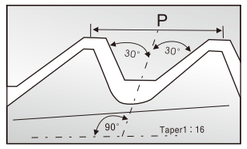



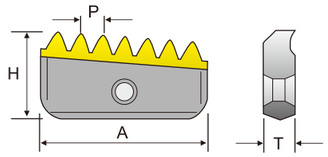

锥形管螺纹刀片为单面刀刃，可以用于内外螺纹

| 螺距 TPI | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|
| | 12 | 14 | 21 | 30 | 40 |
| 19 | 12-19 BSPT | 14-19 BSPT | | | |
| 14 | | 14-14 BSPT | 21-14 BSPT | | |
| 11 | | | 21-11 BSPT | 30-11 BSPT | 40-11 BSPT |
| H | 6.3 | 7.5 | 12 | 16 | 20 |
| T | 2.9 | 3.1 | 4.7 | 5.5 | 6.3 |



## 螺纹铣刀片（NPT）

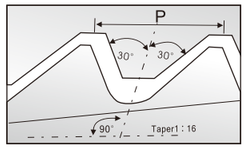


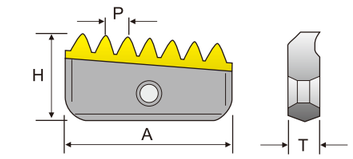




錐形管螺紋刀片爲單面刀刃，可以用于內外螺紋

| 螺距 TPI | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|
| | 12 | 14 | 21 | 30 | 40 |
| 18 | 12-18-NPT | 14-18 NPT | | | |
| 14 | | 14-14 NPT | 21-14 NPT | | |
| 11.5 | | | 21-11.5 NPT | 30-11.5 NPT | 40-11.5 NPT |
| 8 | | | | 30- 8 NPT | 40- 8 NPT |
| H | 6.3 | 7.5 | 12 | 16 | 20 |
| T | 2.9 | 3.1 | 4.7 | 5.5 | 6.3 |

## 螺纹铣刀片（NPTF）



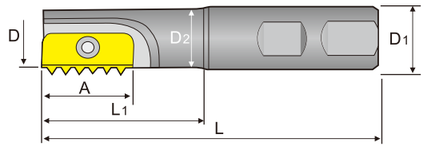




錐形管螺紋刀片爲單面刀刃，可以用于內外螺紋

| 螺距 TPI | 刀片尺寸=A | | | | |
|---|---|---|---|---|---|
| | 12 | 14 | 21 | 30 | 40 |
| 18 | 12-18-NPTF | 14-18 NPTF | | | |
| 14 | | 14-14 NPTF | 21-14 NPTF | | |
| 11.5 | | | 21-11.5 NPTF | 30-11.5 NPTF | 40-11.5 NPTF |
| 8 | | | | 30- 8 NPTF | 40- 8 NPTF |
| H | 6.3 | 7.5 | 12 | 16 | 20 |
| T | 2.9 | 3.1 | 4.7 | 5.5 | 6.3 |

## 单刃螺纹铣刀杆



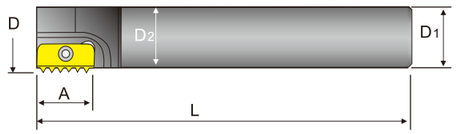



★锥形管用刀片：12-18NPT,12-18NPTF,12-19BSPT
★★不适用于下列刀片：21 I 3.5 ISO, 21 I 8 UN, 21 I 7 Un,
21-11BSPT,21-11.5 NPT ,21-11.5NPTF

| 型号 Model | A mm | D mm | D1 mm | D2 mm | L mm | L1 mm | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| ★ SR0009H12 | 12 | 9.5 | 20 | 7.5 | 85 | 14 | S12 | K12 | ▲ |
| SR0010H12 | 12 | 9.9 | 20 | 7.6 | 85 | 16 | S12 | K12 | ▲ |
| SR0012F14 | 14 | 12.0 | 20 | 8.9 | 75 | 20 | S14 | K14 | ▲ |
| SR0014H14 | 14 | 14.5 | 20 | 11.2 | 85 | 25 | S14 | K14 | ▲ |
| SR0017H14 | 14 | 17.0 | 20 | 13.4 | 85 | 30 | S14 | K14 | ▲ |
| ★★ SR0018H21 | 21 | 18.0 | 20 | 14.4 | 85 | 30 | S21 | K21 | ▲ |
| SR0021H21 | 21 | 21.0 | 20 | 16.5 | 94 | 40 | S21 | K21 | ▲ |
| SR0029J30 | 30 | 29.0 | 25 | 22.4 | 110 | 50 | S30 | K30 | ▲ |
| SR0048M40 | 40 | 48.0 | 40 | 35.0 | 153 | 78 | S40 | K40 | ▲ |

## 加长柄螺纹铣刀杆



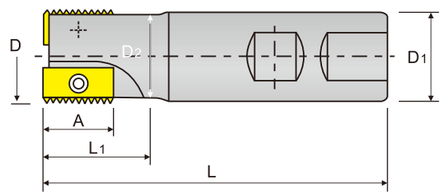



◎对于加长柄,应降低20%-40%切削速度和进给（依据加工工件材料、螺距等）

| 型号 Model | A mm | D mm | D1 mm | L mm | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| SR0025K21 | 21 | 25 | 20 | 125 | S21 | K21 | |
| SR0031M30 | 30 | 31 | 25 | 150 | S30 | K30 | |
| SR0038M30 | 30 | 38 | 32 | 150 | S30 | K30 | |
| SR0048R40 | 40 | 48 | 40 | 210 | S40 | K40 | |

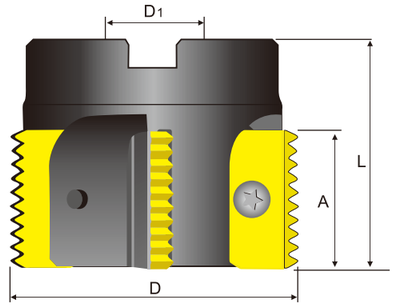


## 双刃螺纹铣刀杆




| 型号 Model | A mm | D mm | D1 mm | D2 mm | L mm | L1 mm | 刃数 T | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| SR0020H14-2 | 14 | 20 | 20 | 16 | 93 | 41 | 2 | S14 | K14 | ▲ |
| SR0030J21-2 | 21 | 30 | 25 | 24 | 108 | 52 | 2 | S21 | K21 | ▲ |
| SR0040L30-2 | 30 | 40 | 32 | 30 | 130 | 70 | 2 | S30 | K30 | ▲ |
| SR0050M40-2 | 40 | 50 | 40 | 38 | 153 | 78 | 2 | S40 | K40 | ▲ |

## 多刃螺纹铣刀盘




| 型号 Model | A mm | D mm | D1 mm | L mm | 刃数 T | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|
| SR0063C21-5 | 21 | 63 | 22 | 50 | 5 | S21 | K21 | |
| SR0063C30-4 | 30 | 63 | 22 | 50 | 4 | S30 | K30 | |
| SR0080D30-4 | 30 | 80 | 27 | 55 | 4 | S30 | K30 | |
| SR0100D30-4 | 30 | 100 | 32 | 60 | 4 | S30 | K30 | |
| SR0080D40-4 | 40 | 80 | 27 | 65 | 4 | S40 | K40 | |
| SR0100E40-4 | 40 | 100 | 32 | 70 | 4 | S40 | K40 | |

# 刀片材质说明及切削速度的选择

刀片材质说明

MT5:超微粒材质加上多层NIC深层,硬度介于ISOK30~K40之间,为通用材质,适合几乎所有材料的加工,适用中低切削速度.

MT7:超微粒底材,多层TiALNi涂层,硬质介于ISOK10~K20之间,为通用材质适合几乎所有材料的加工,适用中高切削速度.

## 切削速度的选择

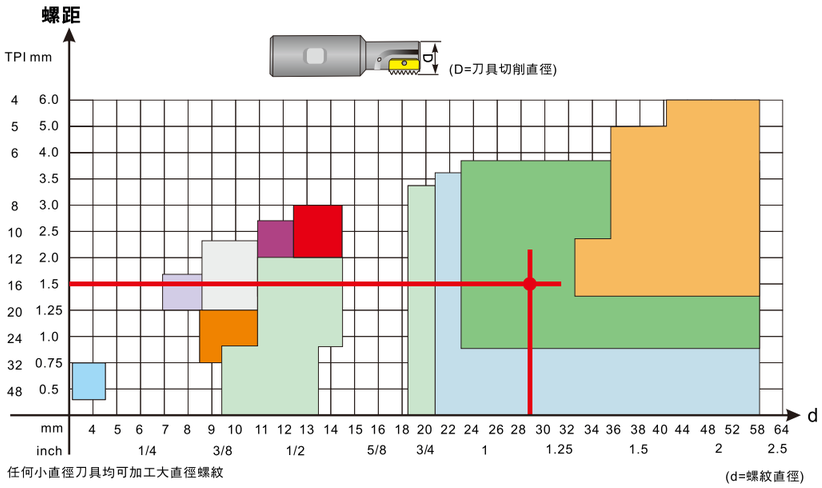
| ISO | 加工材料 | MT5 | MT7 |
|---|---|---|---|
| P | 中低碳钢 | 100-250 | 115-280 |
| | 高碳钢 | 110-180 | 130-200 |
| | 合金钢及热处理钢 | 90-160 | 105-180 |
| M | 不锈钢 | 110-170 | 130-190 |
| | 铸钢 | 130-170 | 150-190 |
| K | 铸铁 | 70-150 | 80-170 |
| | 有色金属及铝合金 | 160-300 | 180-340 |
| N | 塑胶类材料 | 100-400 | 115-460 |
| S | 镍基合金及钛合金 | 20-80 | 25-90 |

推介进给:0.05-0.15mm

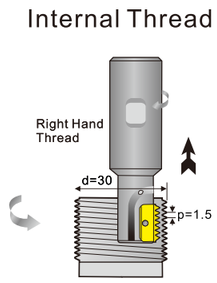
切削速度请参考上表,大部分加工情况下开始加工时请以中间速度切削,加工高硬度材料降低切削速度。

# 螺纹铣削刀具的选择

请依据下图提供的方式选择螺纹铣削刀具（下图适用于ISO UN WHIT NPT NPTF BSPT和PG）




任何小直徑刀具均可加工大直徑螺紋




**例如:**

内螺纹从30×1.5

找出一把刀具可以加工内螺纹直径d=30，螺距P=1.5mm，从上图两条红线交叉处即可设定刀具直径D=21MM它可以选择刀杆SR0021H21刀片21I1.5ISOMT7



# CNC程序

右手螺纹（上拉铣）从底部开始向上拉伸。

程序基于刀具中心，这种编程方法不考虑刀具半径补偿和磨损抵消。

$$A=\frac{Do-D}{2}$$

A=刀具路径半径
Do=螺纹大径
D=刀具切削半径

### ◎一般程序

```
G90  G00  G54  G43 H1XO  YO Z10  S---
G00  Z-(TO THREAD  DEPTH)
G01  G91  G41  D1     X(A/2) Y-(A/2) ZO F—
G03  X(A/2) Y(A/2) R(A/2) Z(1/8 PITCH)
G03  XO YO I-(A) JO Z(PITCH)
G03  X-(A/2)  Y(A/2)  R(A/2) Z(1/8 PITCH)
G01  G40 X-(A/2) Y-(A/2) ZO
G90  XO YO ZO
```

### ◎内螺纹

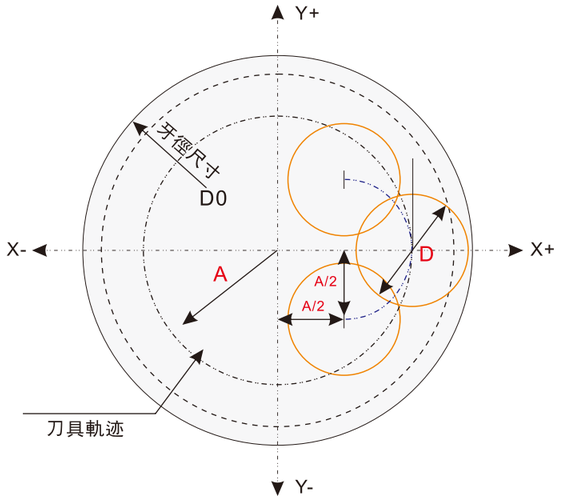
例如：M32×2.0（螺纹深度18mm

刀杆：SR0021 H21(刀具直径21mm)

刀片：21I 2.0 ISO

A=(32-21)/2=5.5

```
G90  G00 G54 G43 H1XO YO Z10 S2800
G00  Z-18
G01  G91 G41×2.75 ZO F85 D1
G03  X2.75 Y2.75 R2.75 ZO.25
G03  XO YO I-5.5 JO Z2
G03  X-2.75 Y2.75 R2.75 ZO.25
G01  X-2.75 Y2.75 R2.75 ZO.25
G01  G40 X-2.75 Y-2.75 ZO
G90  GO XO YO ZO
```



# 孔加工刀具

RINECK孔加工刀具包括了可转位机夹式钻头以及整体硬质合金钻头，用于帮助您优化产品质量和生产效率、并降低生产成本。为不同的孔径与孔深提供多种多样的标准钻头。为了加工更大孔径的需要、RINECK可转位钻头还配备系列的刀夹。





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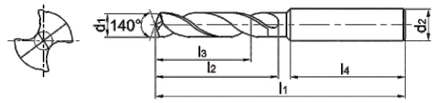
| B041 3D整体硬质合金钻头（外冷式） | 290~291 |
| B042 5D整体硬质合金钻头（外冷式） | 292~293 |
| B051 3D整体硬质合金钻头（内冷式） | 294~295 |
| B052 5D整体硬质合金钻头（内冷式） | 296~297 |
| 12×D 整体硬质合金深孔钻 | 299~300 |
| 15×D 整体硬质合金深孔钻 | 301~302 |
| 20×D 整体硬质合金深孔钻 | 303~304 |
| 25×D 整体硬质合金深孔钻 | 305~306 |
| 30×D 整体硬质合金深孔钻 | 307~308 |
| 可换钻尖式钻头（2×Dc） | 310 |
| 可换钻尖式钻头（3×Dc） | 311 |
| 可换钻尖式钻头（5×Dc） | 312 |
| 可换钻尖式钻头（8×Dc） | 313 |
| 可换钻尖式钻头（12×Dc） | 314 |
| DMP钻头刀片 | 315~319 |
| RO舍弃式快速钻 2×D | 321~322 |
| RO舍弃式快速钻 3×D | 323~324 |
| RO舍弃式快速钻 4×D | 325~326 |
| RO舍弃式快速钻 5×D | 327~328 |
| RD型舍弃式快速钻(2×DC) | 330~331 |
| RD型舍弃式快速钻(3×DC) | 332~333 |
| RD型舍弃式快速钻(4×DC) | 334~335 |
| RD型舍弃式快速钻(5×DC) | 336~337 |
| SD舍弃式快速钻(2×DC) | 338~339 |
| SD舍弃式快速钻(3×DC) | 340~342 |
| SD舍弃式快速钻(4×DC) | 343~344 |
| SD舍弃式快速钻(5×DC) | 345 |
| SD舍弃式快速钻(6×DC) | 346 |
| CSD大孔径快速钻头 | 347 |
| 侧固型快速留芯钻 | 348 |
| 快速留芯钻 | 349~350 |
| 侧固式螺旋刃铲钻 | 351 |
| 侧柄螺旋刃铲钻 | 352 |
| 45° 粗搪孔柄 | 354 |
| 90° 粗搪孔刀柄 | 355 |
| SBS舍弃式搪孔刀 | 356 |
| CBS舍弃式搪孔刀 | 357 |
| CBS舍弃式背搪刀 | 357 |
| BT/BYB微切削搪孔刀杆 | 359 |
| BYB微调切削搪孔头 | 360 |
| MRB双刃粗镗刀 | 363 |

| | 页码 |
|---|---|
| MRB大孔径粗镗刀 | 364 |
| SFB微调精镗刀（可用于正反镗） | 365 |
| SFB大孔径精镗刀 | 366 |
| ABS镗刀主柄 | 367~368 |
| HSK63A-ABS 镗刀接柄 | 369 |
| HSK100A-ABS 镗刀接柄 | 370 |
| ABS镗刀接柄 | 371 |
| ABS镗刀变径接柄 | 372 |
| CBH/DP 减震精搪头 | 374 |
| SCK/DP减震延长杆 | 375 |
| CK/DP 减震搪孔刀杆 | 376 |
| BT/SCK镗头刀柄 | 378 |
| 粗、精塘头刀杆 | 379 |
| BT/SCK镗孔头刀杆 | 380 |
| SCK直柄碳化钨制镗孔头刀杆 | 381 |
| SCK直柄焊接碳化钨制镗孔头刀杆 | 382 |
| 等径搪刀延长杆 | 383 |
| 异径搪刀延长杆 | 383 |
| RBH可调整式双刃粗搪头 | 384 |
| SCK双刃同动式粗搪孔头 | 385 |
| RBH-LA新型大孔径双刃粗镗孔头 | 386 |
| CBH微调精搪头 | 387 |
| SMB超微米替换式精搪头 | 390 |
| MBH微调精搪刀 | 391 |
| CBH新型大孔径微调精镗头 | 392 |
| CBR组合式外圆微调精镗刀系列 | 393 |
| CBI小径微调搪刀系列 | 395 |
| CBI系列专用超小径碳化钨搪孔刀 | 396 |
| CBI系列专用小径孔刀延长杆 | 396 |
| CBI专用小径搪刀杆SBJ型 | 397 |
| SBJ-16精搪头 | 398 |
| SBJ-16精搪刀杆 | 398 |
| 钨钢刀柄专用套筒 | 399 |
| ST抗震钨钢刀杆 | 399 |
| SEB舍弃式搪头 | 400 |
| 粗/精搪孔头刀柄（RBH、NBH、BST） | 401 |
| NBH精密精搪头 | 403 |
| NBH/SBJ精搪刀杆 | 403 |
| NBH精密搪孔组 | 404 |




## B041 3D整体硬质合金钻头（外冷式）





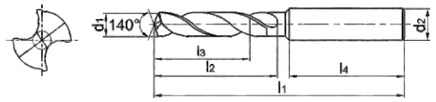

◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B041A02000 | 2.0 | | | | | | ▲ |
| B041A02100 | 2.1 | | | | | | ▲ |
| B041A02200 | 2.2 | 4 | 58 | 13 | 9 | 28 | ▲ |
| B041A02300 | 2.3 | | | | | | ▲ |
| B041A02400 | 2.4 | | | | | | ▲ |
| B041A02500 | 2.5 | | | | | | ▲ |
| B041A02600 | 2.6 | | | | | | ▲ |
| B041A02700 | 2.7 | 4 | 58 | 17 | 12 | 28 | ▲ |
| B041A02800 | 2.8 | | | | | | ▲ |
| B041A02900 | 2.9 | | | | | | ▲ |
| B041A03000 | 3 | | | | | | ▲ |
| B041A03100 | 3.1 | | | | | | ▲ |
| B041A03200 | 3.2 | | | | | | ▲ |
| B041A03300 | 3.3 | | | | | | ▲ |
| B041A03400 | 3.4 | 6 | 62 | 20 | 14 | 36 | ▲ |
| B041A03500 | 3.5 | | | | | | ▲ |
| B041A03600 | 3.6 | | | | | | ▲ |
| B041A03700 | 3.7 | | | | | | ▲ |
| B041A03800 | 3.8 | | | | | | ▲ |
| B041A03900 | 3.9 | | | | | | ▲ |
| B041A04000 | 4 | | | | | | ▲ |
| B041A04100 | 4.1 | | | | | | ▲ |
| B041A04200 | 4.2 | | | | | | ▲ |
| B041A04300 | 4.3 | 6 | 66 | 24 | 17 | 36 | ▲ |
| B041A04400 | 4.4 | | | | | | ▲ |
| B041A04500 | 4.5 | | | | | | ▲ |
| B041A04600 | 4.6 | | | | | | ▲ |
| B041A04700 | 4.7 | | | | | | ▲ |
| B041A04800 | 4.8 | | | | | | ▲ |
| B041A04900 | 4.9 | 6 | 66 | 28 | 20 | 36 | ▲ |
| B041A05000 | 5 | | | | | | ▲ |

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B041A05100 | 5.1 | | | | | | ▲ |
| B041A05200 | 5.2 | | | | | | ▲ |
| B041A05300 | 5.3 | | | | | | ▲ |
| B041A05400 | 5.4 | | | | | | ▲ |
| B041A05500 | 5.5 | 6 | 66 | 28 | 20 | 36 | ▲ |
| B041A05600 | 5.6 | | | | | | ▲ |
| B041A05700 | 5.7 | | | | | | ▲ |
| B041A05800 | 5.8 | | | | | | ▲ |
| B041A05900 | 5.9 | | | | | | ▲ |
| B041A06000 | 6 | | | | | | ▲ |
| B041A06100 | 6.1 | | | | | | ▲ |
| B041A06200 | 6.2 | | | | | | ▲ |
| B041A06300 | 6.3 | | | | | | ▲ |
| B041A06400 | 6.4 | | | | | | ▲ |
| B041A06500 | 6.5 | 8 | 79 | 34 | 24 | 36 | ▲ |
| B041A06600 | 6.6 | | | | | | ▲ |
| B041A06700 | 6.7 | | | | | | ▲ |
| B041A06800 | 6.8 | | | | | | ▲ |
| B041A06900 | 6.9 | | | | | | ▲ |
| B041A07000 | 7.0 | | | | | | ▲ |
| B041A07100 | 7.1 | | | | | | ▲ |
| B041A07200 | 7.2 | | | | | | ▲ |
| B041A07300 | 7.3 | | | | | | ▲ |
| B041A07400 | 7.4 | | | | | | ▲ |
| B041A07500 | 7.5 | 8 | 79 | 41 | 29 | 36 | ▲ |
| B041A07600 | 7.6 | | | | | | ▲ |
| B041A07700 | 7.7 | | | | | | ▲ |
| B041A07800 | 7.8 | | | | | | ▲ |
| B041A07900 | 7.9 | | | | | | ▲ |
| B041A08000 | 8 | | | | | | ▲ |

## B041 3D整体硬质合金钻头（外冷式）






◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

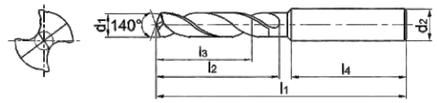
| 型号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B041A08100 | 8.1 | 10 | 89 | 47 | 35 | 40 | ▲ |
| B041A08200 | 8.2 | | | | | | ▲ |
| B041A08300 | 8.3 | | | | | | ▲ |
| B041A08400 | 8.4 | | | | | | ▲ |
| B041A08500 | 8.5 | | | | | | ▲ |
| B041A08600 | 8.6 | | | | | | ▲ |
| B041A08700 | 8.7 | | | | | | ▲ |
| B041A08800 | 8.8 | | | | | | ▲ |
| B041A08900 | 8.9 | | | | | | ▲ |
| B041A09000 | 9 | | | | | | ▲ |
| B041A09100 | 9.1 | | | | | | ▲ |
| B041A09200 | 9.2 | | | | | | ▲ |
| B041A09300 | 9.3 | | | | | | ▲ |
| B041A09400 | 9.4 | | | | | | ▲ |
| B041A09500 | 9.5 | | | | | | ▲ |
| B041A09600 | 9.6 | | | | | | ▲ |
| B041A09700 | 9.7 | | | | | | ▲ |
| B041A09800 | 9.8 | | | | | | ▲ |
| B041A09900 | 9.9 | | | | | | ▲ |
| B041A10000 | 10 | | | | | | ▲ |
| B041A10100 | 10.1 | 12 | 102 | 55 | 40 | 45 | ▲ |
| B041A10200 | 10.2 | | | | | | ▲ |
| B041A10300 | 10.3 | | | | | | ▲ |
| B041A10400 | 10.4 | | | | | | ▲ |
| B041A10500 | 10.5 | | | | | | ▲ |
| B041A10600 | 10.6 | | | | | | ▲ |
| B041A10700 | 10.7 | | | | | | ▲ |
| B041A10800 | 10.8 | | | | | | ▲ |
| B041A10900 | 10.9 | | | | | | ▲ |
| B041A11000 | 11 | | | | | | ▲ |
| B041A11100 | 11.1 | | | | | | ▲ |
| B041A11200 | 11.2 | | | | | | ▲ |
| B041A11300 | 11.3 | | | | | | ▲ |
| B041A11400 | 11.4 | | | | | | ▲ |
| B041A11500 | 11.5 | | | | | | ▲ |

| 型号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B041A11600 | 11.6 | 12 | 102 | 55 | 40 | 55 | ▲ |
| B041A11700 | 11.7 | | | | | | ▲ |
| B041A11800 | 11.8 | | | | | | ▲ |
| B041A11900 | 11.9 | | | | | | ▲ |
| B041A12000 | 12 | | | | | | ▲ |
| B041A12100 | 12.1 | 14 | 107 | 60 | 43 | 45 | ▲ |
| B041A12200 | 12.2 | | | | | | ▲ |
| B041A12300 | 12.3 | | | | | | ▲ |
| B041A12400 | 12.4 | | | | | | ▲ |
| B041A12500 | 12.5 | | | | | | ▲ |
| B041A12600 | 12.6 | | | | | | ▲ |
| B041A12700 | 12.7 | | | | | | ▲ |
| B041A12800 | 12.8 | | | | | | ▲ |
| B041A12900 | 12.9 | | | | | | ▲ |
| B041A13000 | 13 | | | | | | ▲ |
| B041A13100 | 13.1 | | | | | | ▲ |
| B041A13200 | 13.2 | | | | | | ▲ |
| B041A13300 | 13.3 | | | | | | ▲ |
| B041A13400 | 13.4 | | | | | | ▲ |
| B041A13500 | 13.5 | | | | | | ▲ |
| B041A13600 | 13.6 | | | | | | ▲ |
| B041A13700 | 13.7 | | | | | | ▲ |
| B041A13800 | 13.8 | | | | | | ▲ |
| B041A13900 | 13.9 | | | | | | ▲ |
| B041A14000 | 14 | | | | | | ▲ |
| B041A14100 | 14.1 | 16 | 115 | 65 | 45 | 48 | ▲ |
| B041A14200 | 14.2 | | | | | | ▲ |
| B041A14300 | 14.3 | | | | | | ▲ |
| B041A14400 | 14.4 | | | | | | ▲ |
| B041A14500 | 14.5 | | | | | | ▲ |
| B041A14600 | 14.6 | | | | | | ▲ |
| B041A14700 | 14.7 | | | | | | ▲ |
| B041A14800 | 14.8 | | | | | | ▲ |
| B041A14900 | 14.9 | | | | | | ▲ |
| B041A15000 | 15 | | | | | | ▲ |



## B042 5D整体硬质合金钻头（外冷式）





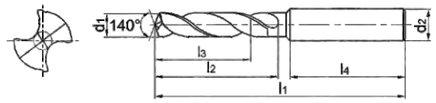

◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

| 型号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B042A02000 | 2.0 | 4 | 58 | 18 | 14 | 28 | ▲ |
| B042A02100 | 2.1 | | | | | | ▲ |
| B042A02200 | 2.2 | | | | | | ▲ |
| B042A02300 | 2.3 | | | | | | ▲ |
| B042A02400 | 2.4 | 4 | 58 | 22 | 17 | 28 | ▲ |
| B042A02500 | 2.5 | | | | | | ▲ |
| B042A02600 | 2.6 | | | | | | ▲ |
| B042A02700 | 2.7 | | | | | | ▲ |
| B042A02800 | 2.8 | | | | | | ▲ |
| B042A02900 | 2.9 | | | | | | ▲ |
| B042A03000 | 3 | 6 | 66 | 28 | 23 | 36 | ▲ |
| B042A03100 | 3.1 | | | | | | ▲ |
| B042A03200 | 3.2 | | | | | | ▲ |
| B042A03300 | 3.3 | | | | | | ▲ |
| B042A03400 | 3.4 | | | | | | ▲ |
| B042A03500 | 3.5 | | | | | | ▲ |
| B042A03600 | 3.6 | | | | | | ▲ |
| B042A03700 | 3.7 | | | | | | ▲ |
| B042A03800 | 3.8 | 6 | 74 | 36 | 29 | 36 | ▲ |
| B042A03900 | 3.9 | | | | | | ▲ |
| B042A04000 | 4 | | | | | | ▲ |
| B042A04100 | 4.1 | | | | | | ▲ |
| B042A04200 | 4.2 | | | | | | ▲ |
| B042A04300 | 4.3 | | | | | | ▲ |
| B042A04400 | 4.4 | | | | | | ▲ |
| B042A04500 | 4.5 | | | | | | ▲ |
| B042A04600 | 4.6 | | | | | | ▲ |
| B042A04700 | 4.7 | | | | | | ▲ |
| B042A04800 | 4.8 | 6 | 82 | 44 | 35 | 36 | ▲ |
| B042A04900 | 4.9 | | | | | | ▲ |
| B042A05000 | 5 | | | | | | ▲ |

| 型号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B042A05100 | 5.1 | 6 | 82 | 44 | 35 | 36 | ▲ |
| B042A05200 | 5.2 | | | | | | ▲ |
| B042A05300 | 5.3 | | | | | | ▲ |
| B042A05400 | 5.4 | | | | | | ▲ |
| B042A05500 | 5.5 | | | | | | ▲ |
| B042A05600 | 5.6 | | | | | | ▲ |
| B042A05700 | 5.7 | | | | | | ▲ |
| B042A05800 | 5.8 | | | | | | ▲ |
| B042A05900 | 5.9 | | | | | | ▲ |
| B042A06000 | 6 | | | | | | ▲ |
| B042A06100 | 6.1 | 8 | 91 | 53 | 43 | 36 | ▲ |
| B042A06200 | 6.2 | | | | | | ▲ |
| B042A06300 | 6.3 | | | | | | ▲ |
| B042A06400 | 6.4 | | | | | | ▲ |
| B042A06500 | 6.5 | | | | | | ▲ |
| B042A06600 | 6.6 | | | | | | ▲ |
| B042A06700 | 6.7 | | | | | | ▲ |
| B042A06800 | 6.8 | | | | | | ▲ |
| B042A06900 | 6.9 | | | | | | ▲ |
| B042A07000 | 7.0 | | | | | | ▲ |
| B042A07100 | 7.1 | 8 | 91 | 53 | 43 | 36 | ▲ |
| B042A07200 | 7.2 | | | | | | ▲ |
| B042A07300 | 7.3 | | | | | | ▲ |
| B042A07400 | 7.4 | | | | | | ▲ |
| B042A07500 | 7.5 | | | | | | ▲ |
| B042A07600 | 7.6 | | | | | | ▲ |
| B042A07700 | 7.7 | | | | | | ▲ |
| B042A07800 | 7.8 | | | | | | ▲ |
| B042A07900 | 7.9 | | | | | | ▲ |
| B042A08000 | 8 | | | | | | ▲ |

## B042 5D整体硬质合金钻头（外冷式）






◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

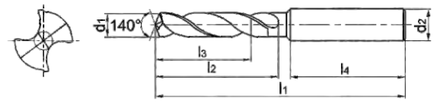
| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B042A08100 | 8.1 | 10 | 103 | 61 | 49 | 40 | ▲ |
| B042A08200 | 8.2 | | | | | | ▲ |
| B042A08300 | 8.3 | | | | | | ▲ |
| B042A08400 | 8.4 | | | | | | ▲ |
| B042A08500 | 8.5 | | | | | | ▲ |
| B042A08600 | 8.6 | | | | | | ▲ |
| B042A08700 | 8.7 | | | | | | ▲ |
| B042A08800 | 8.8 | | | | | | ▲ |
| B042A08900 | 8.9 | | | | | | ▲ |
| B042A09000 | 9 | | | | | | ▲ |
| B042A09100 | 9.1 | | | | | | ▲ |
| B042A09200 | 9.2 | | | | | | ▲ |
| B042A09300 | 9.3 | | | | | | ▲ |
| B042A09400 | 9.4 | | | | | | ▲ |
| B042A09500 | 9.5 | | | | | | ▲ |
| B042A09600 | 9.6 | | | | | | ▲ |
| B042A09700 | 9.7 | | | | | | ▲ |
| B042A09800 | 9.8 | | | | | | ▲ |
| B042A09900 | 9.9 | | | | | | ▲ |
| B042A10000 | 10 | | | | | | ▲ |
| B042A10100 | 10.1 | 12 | 118 | 71 | 56 | 45 | ▲ |
| B042A10200 | 10.2 | | | | | | ▲ |
| B042A10300 | 10.3 | | | | | | ▲ |
| B042A10400 | 10.4 | | | | | | ▲ |
| B042A10500 | 10.5 | | | | | | ▲ |
| B042A10600 | 10.6 | | | | | | ▲ |
| B042A10700 | 10.7 | | | | | | ▲ |
| B042A10800 | 10.8 | | | | | | ▲ |
| B042A10900 | 10.9 | | | | | | ▲ |
| B042A11000 | 11 | | | | | | ▲ |
| B042A11100 | 11.1 | | | | | | ▲ |
| B042A11200 | 11.2 | | | | | | ▲ |
| B042A11300 | 11.3 | | | | | | ▲ |
| B042A11400 | 11.4 | | | | | | ▲ |
| B042A11500 | 11.5 | | | | | | ▲ |

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B042A11600 | 11.6 | 12 | 118 | 71 | 56 | 45 | ▲ |
| B042A11700 | 11.7 | | | | | | ▲ |
| B042A11800 | 11.8 | | | | | | ▲ |
| B042A11900 | 11.9 | | | | | | ▲ |
| B042A12000 | 12 | | | | | | ▲ |
| B042A12100 | 12.1 | 14 | 124 | 77 | 60 | 45 | ▲ |
| B042A12200 | 12.2 | | | | | | ▲ |
| B042A12300 | 12.3 | | | | | | ▲ |
| B042A12400 | 12.4 | | | | | | ▲ |
| B042A12500 | 12.5 | | | | | | ▲ |
| B042A12600 | 12.6 | | | | | | ▲ |
| B042A12700 | 12.7 | | | | | | ▲ |
| B042A12800 | 12.8 | | | | | | ▲ |
| B042A12900 | 12.9 | | | | | | ▲ |
| B042A13000 | 13 | | | | | | ▲ |
| B042A13100 | 13.1 | | | | | | ▲ |
| B042A13200 | 13.2 | | | | | | ▲ |
| B042A13300 | 13.3 | | | | | | ▲ |
| B042A13400 | 13.4 | | | | | | ▲ |
| B042A13500 | 13.5 | | | | | | ▲ |
| B042A13600 | 13.6 | | | | | | ▲ |
| B042A13700 | 13.7 | | | | | | ▲ |
| B042A13800 | 13.8 | | | | | | ▲ |
| B042A13900 | 13.9 | | | | | | ▲ |
| B042A14000 | 14 | | | | | | ▲ |
| B042A14100 | 14.1 | 16 | 133 | 83 | 63 | 48 | ▲ |
| B042A14200 | 14.2 | | | | | | ▲ |
| B042A14300 | 14.3 | | | | | | ▲ |
| B042A14400 | 14.4 | | | | | | ▲ |
| B042A14500 | 14.5 | | | | | | ▲ |
| B042A14600 | 14.6 | | | | | | ▲ |
| B042A14700 | 14.7 | | | | | | ▲ |
| B042A14800 | 14.8 | | | | | | ▲ |
| B042A14900 | 14.9 | | | | | | ▲ |
| B042A15000 | 15 | | | | | | ▲ |



## B051 3D整体硬质合金钻头（内冷式）





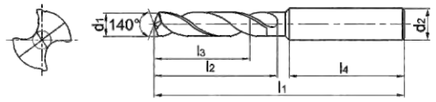

◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B051A02000 | 2.0 | 4 | 58 | 13 | 9 | 28 | ▲ |
| B051A02100 | 2.1 | | | | | | ▲ |
| B051A02200 | 2.2 | | | | | | ▲ |
| B051A02300 | 2.3 | | | | | | ▲ |
| B051A02400 | 2.4 | 4 | 58 | 17 | 12 | 28 | ▲ |
| B051A02500 | 2.5 | | | | | | ▲ |
| B051A02600 | 2.6 | | | | | | ▲ |
| B051A02700 | 2.7 | | | | | | ▲ |
| B051A02800 | 2.8 | | | | | | ▲ |
| B051A02900 | 2.9 | | | | | | ▲ |
| B051A03000 | 3 | 6 | 62 | 20 | 14 | 36 | ▲ |
| B051A03100 | 3.1 | | | | | | ▲ |
| B051A03200 | 3.2 | | | | | | ▲ |
| B051A03300 | 3.3 | | | | | | ▲ |
| B051A03400 | 3.4 | | | | | | ▲ |
| B051A03500 | 3.5 | | | | | | ▲ |
| B051A03600 | 3.6 | | | | | | ▲ |
| B051A03700 | 3.7 | | | | | | ▲ |
| B051A03800 | 3.8 | 6 | 66 | 24 | 17 | 36 | ▲ |
| B051A03900 | 3.9 | | | | | | ▲ |
| B051A04000 | 4 | | | | | | ▲ |
| B051A04100 | 4.1 | | | | | | ▲ |
| B051A04200 | 4.2 | | | | | | ▲ |
| B051A04300 | 4.3 | | | | | | ▲ |
| B051A04400 | 4.4 | | | | | | ▲ |
| B051A04500 | 4.5 | | | | | | ▲ |
| B051A04600 | 4.6 | | | | | | ▲ |
| B051A04700 | 4.7 | | | | | | ▲ |
| B051A04800 | 4.8 | 6 | 66 | 28 | 20 | 36 | ▲ |
| B051A04900 | 4.9 | | | | | | ▲ |
| B051A05000 | 5 | | | | | | ▲ |

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B051A05100 | 5.1 | 6 | 66 | 28 | 20 | 36 | ▲ |
| B051A05200 | 5.2 | | | | | | ▲ |
| B051A05300 | 5.3 | | | | | | ▲ |
| B051A05400 | 5.4 | | | | | | ▲ |
| B051A05500 | 5.5 | | | | | | ▲ |
| B051A05600 | 5.6 | | | | | | ▲ |
| B051A05700 | 5.7 | | | | | | ▲ |
| B051A05800 | 5.8 | | | | | | ▲ |
| B051A05900 | 5.9 | | | | | | ▲ |
| B051A06000 | 6 | | | | | | ▲ |
| B051A06100 | 6.1 | 8 | 79 | 34 | 24 | 36 | ▲ |
| B051A06200 | 6.2 | | | | | | ▲ |
| B051A06300 | 6.3 | | | | | | ▲ |
| B051A06400 | 6.4 | | | | | | ▲ |
| B051A06500 | 6.5 | | | | | | ▲ |
| B051A06600 | 6.6 | | | | | | ▲ |
| B051A06700 | 6.7 | | | | | | ▲ |
| B051A06800 | 6.8 | | | | | | ▲ |
| B051A06900 | 6.9 | | | | | | ▲ |
| B051A07000 | 7.0 | | | | | | ▲ |
| B051A07100 | 7.1 | 8 | 79 | 41 | 29 | 36 | ▲ |
| B051A07200 | 7.2 | | | | | | ▲ |
| B051A07300 | 7.3 | | | | | | ▲ |
| B051A07400 | 7.4 | | | | | | ▲ |
| B051A07500 | 7.5 | | | | | | ▲ |
| B051A07600 | 7.6 | | | | | | ▲ |
| B051A07700 | 7.7 | | | | | | ▲ |
| B051A07800 | 7.8 | | | | | | ▲ |
| B051A07900 | 7.9 | | | | | | ▲ |
| B051A08000 | 8 | | | | | | ▲ |

## B051 3D整体硬质合金钻头（内冷式）






◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

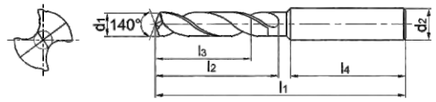
| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B051A08100 | 8.1 | 10 | 89 | 47 | 35 | 40 | ▲ |
| B051A08200 | 8.2 | | | | | | ▲ |
| B051A08300 | 8.3 | | | | | | ▲ |
| B051A08400 | 8.4 | | | | | | ▲ |
| B051A08500 | 8.5 | | | | | | ▲ |
| B051A08600 | 8.6 | | | | | | ▲ |
| B051A08700 | 8.7 | | | | | | ▲ |
| B051A08800 | 8.8 | | | | | | ▲ |
| B051A08900 | 8.9 | | | | | | ▲ |
| B051A09000 | 9 | | | | | | ▲ |
| B051A09100 | 9.1 | | | | | | ▲ |
| B051A09200 | 9.2 | | | | | | ▲ |
| B051A09300 | 9.3 | | | | | | ▲ |
| B051A09400 | 9.4 | | | | | | ▲ |
| B051A09500 | 9.5 | | | | | | ▲ |
| B051A09600 | 9.6 | | | | | | ▲ |
| B051A09700 | 9.7 | | | | | | ▲ |
| B051A09800 | 9.8 | | | | | | ▲ |
| B051A09900 | 9.9 | | | | | | ▲ |
| B051A10000 | 10 | | | | | | ▲ |
| B051A10100 | 10.1 | 12 | 102 | 55 | 40 | 45 | ▲ |
| B051A10200 | 10.2 | | | | | | ▲ |
| B051A10300 | 10.3 | | | | | | ▲ |
| B051A10400 | 10.4 | | | | | | ▲ |
| B051A10500 | 10.5 | | | | | | ▲ |
| B051A10600 | 10.6 | | | | | | ▲ |
| B051A10700 | 10.7 | | | | | | ▲ |
| B051A10800 | 10.8 | | | | | | ▲ |
| B051A10900 | 10.9 | | | | | | ▲ |
| B051A11000 | 11 | | | | | | ▲ |
| B051A11100 | 11.1 | | | | | | ▲ |
| B051A11200 | 11.2 | | | | | | ▲ |
| B051A11300 | 11.3 | | | | | | ▲ |
| B051A11400 | 11.4 | | | | | | ▲ |
| B051A11500 | 11.5 | | | | | | ▲ |

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B051A11600 | 11.6 | 12 | 102 | 55 | 40 | 55 | ▲ |
| B051A11700 | 11.7 | | | | | | ▲ |
| B051A11800 | 11.8 | | | | | | ▲ |
| B051A11900 | 11.9 | | | | | | ▲ |
| B051A12000 | 12 | | | | | | ▲ |
| B051A12100 | 12.1 | 14 | 107 | 60 | 43 | 45 | ▲ |
| B051A12200 | 12.2 | | | | | | ▲ |
| B051A12300 | 12.3 | | | | | | ▲ |
| B051A12400 | 12.4 | | | | | | ▲ |
| B051A12500 | 12.5 | | | | | | ▲ |
| B051A12600 | 12.6 | | | | | | ▲ |
| B051A12700 | 12.7 | | | | | | ▲ |
| B051A12800 | 12.8 | | | | | | ▲ |
| B051A12900 | 12.9 | | | | | | ▲ |
| B051A13000 | 13 | | | | | | ▲ |
| B051A13100 | 13.1 | | | | | | ▲ |
| B051A13200 | 13.2 | | | | | | ▲ |
| B051A13300 | 13.3 | | | | | | ▲ |
| B051A13400 | 13.4 | | | | | | ▲ |
| B051A13500 | 13.5 | | | | | | ▲ |
| B051A13600 | 13.6 | | | | | | ▲ |
| B051A13700 | 13.7 | | | | | | ▲ |
| B051A13800 | 13.8 | | | | | | ▲ |
| B051A13900 | 13.9 | | | | | | ▲ |
| B051A14000 | 14 | | | | | | ▲ |
| B051A14100 | 14.1 | 16 | 115 | 65 | 45 | 48 | ▲ |
| B051A14200 | 14.2 | | | | | | ▲ |
| B051A14300 | 14.3 | | | | | | ▲ |
| B051A14400 | 14.4 | | | | | | ▲ |
| B051A14500 | 14.5 | | | | | | ▲ |
| B051A14600 | 14.6 | | | | | | ▲ |
| B051A14700 | 14.7 | | | | | | ▲ |
| B051A14800 | 14.8 | | | | | | ▲ |
| B051A14900 | 14.9 | | | | | | ▲ |
| B051A15000 | 15 | | | | | | ▲ |



## B052 5D整体硬质合金钻头（内冷式）





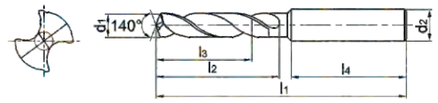

◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B052A02000 | 2.0 | 4 | 58 | 18 | 14 | 28 | ▲ |
| B052A02100 | 2.1 | | | | | | ▲ |
| B052A02200 | 2.2 | | | | | | ▲ |
| B052A02300 | 2.3 | | | | | | ▲ |
| B052A02400 | 2.4 | 4 | 58 | 22 | 17 | 28 | ▲ |
| B052A02500 | 2.5 | | | | | | ▲ |
| B052A02600 | 2.6 | | | | | | ▲ |
| B052A02700 | 2.7 | | | | | | ▲ |
| B052A02800 | 2.8 | | | | | | ▲ |
| B052A02900 | 2.9 | | | | | | ▲ |
| B052A03000 | 3 | 6 | 66 | 28 | 23 | 36 | ▲ |
| B052A03100 | 3.1 | | | | | | ▲ |
| B052A03200 | 3.2 | | | | | | ▲ |
| B052A03300 | 3.3 | | | | | | ▲ |
| B052A03400 | 3.4 | | | | | | ▲ |
| B052A03500 | 3.5 | | | | | | ▲ |
| B052A03600 | 3.6 | | | | | | ▲ |
| B052A03700 | 3.7 | | | | | | ▲ |
| B052A03800 | 3.8 | 6 | 74 | 36 | 29 | 36 | ▲ |
| B052A03900 | 3.9 | | | | | | ▲ |
| B052A04000 | 4 | | | | | | ▲ |
| B052A04100 | 4.1 | | | | | | ▲ |
| B052A04200 | 4.2 | | | | | | ▲ |
| B052A04300 | 4.3 | | | | | | ▲ |
| B052A04400 | 4.4 | | | | | | ▲ |
| B052A04500 | 4.5 | | | | | | ▲ |
| B052A04600 | 4.6 | | | | | | ▲ |
| B052A04700 | 4.7 | | | | | | ▲ |
| B052A04800 | 4.8 | 6 | 82 | 44 | 35 | 36 | ▲ |
| B052A04900 | 4.9 | | | | | | ▲ |
| B052A05000 | 5 | | | | | | ▲ |

| 型 号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B052A05100 | 5.1 | 6 | 82 | 44 | 35 | 36 | ▲ |
| B052A05200 | 5.2 | | | | | | ▲ |
| B052A05300 | 5.3 | | | | | | ▲ |
| B052A05400 | 5.4 | | | | | | ▲ |
| B052A05500 | 5.5 | | | | | | ▲ |
| B052A05600 | 5.6 | | | | | | ▲ |
| B052A05700 | 5.7 | | | | | | ▲ |
| B052A05800 | 5.8 | | | | | | ▲ |
| B052A05900 | 5.9 | | | | | | ▲ |
| B052A06000 | 6 | | | | | | ▲ |
| B052A06100 | 6.1 | 8 | 91 | 53 | 43 | 36 | ▲ |
| B052A06200 | 6.2 | | | | | | ▲ |
| B052A06300 | 6.3 | | | | | | ▲ |
| B052A06400 | 6.4 | | | | | | ▲ |
| B052A06500 | 6.5 | | | | | | ▲ |
| B052A06600 | 6.6 | | | | | | ▲ |
| B052A06700 | 6.7 | | | | | | ▲ |
| B052A06800 | 6.8 | | | | | | ▲ |
| B052A06900 | 6.9 | | | | | | ▲ |
| B052A07000 | 7.0 | | | | | | ▲ |
| B052A07100 | 7.1 | 8 | 91 | 53 | 43 | 36 | ▲ |
| B052A07200 | 7.2 | | | | | | ▲ |
| B052A07300 | 7.3 | | | | | | ▲ |
| B052A07400 | 7.4 | | | | | | ▲ |
| B052A07500 | 7.5 | | | | | | ▲ |
| B052A07600 | 7.6 | | | | | | ▲ |
| B052A07700 | 7.7 | | | | | | ▲ |
| B052A07800 | 7.8 | | | | | | ▲ |
| B052A07900 | 7.9 | | | | | | ▲ |
| B052A08000 | 8 | | | | | | ▲ |

## B052 5D整体硬质合金钻头（内冷式）






◎ 适用于普通钢到难切削材料的高效钻削
◎ 采用波形刃设计，实现了超群的锋利度和强度，同时促进切屑的排出

| 型　号 | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B052A08100 | 8.1 | | | | | | ▲ |
| B052A08200 | 8.2 | | | | | | ▲ |
| B052A08300 | 8.3 | | | | | | ▲ |
| B052A08400 | 8.4 | | | | | | ▲ |
| B052A08500 | 8.5 | | | | | | ▲ |
| B052A08600 | 8.6 | | | | | | ▲ |
| B052A08700 | 8.7 | | | | | | ▲ |
| B052A08800 | 8.8 | | | | | | ▲ |
| B052A08900 | 8.9 | | | | | | ▲ |
| B052A09000 | 9 | 10 | 103 | 61 | 49 | 40 | ▲ |
| B052A09100 | 9.1 | | | | | | ▲ |
| B052A09200 | 9.2 | | | | | | ▲ |
| B052A09300 | 9.3 | | | | | | ▲ |
| B052A09400 | 9.4 | | | | | | ▲ |
| B052A09500 | 9.5 | | | | | | ▲ |
| B052A09600 | 9.6 | | | | | | ▲ |
| B052A09700 | 9.7 | | | | | | ▲ |
| B052A09800 | 9.8 | | | | | | ▲ |
| B052A09900 | 9.9 | | | | | | ▲ |
| B052A10000 | 10 | | | | | | ▲ |
| B052A10100 | 10.1 | | | | | | ▲ |
| B052A10200 | 10.2 | | | | | | ▲ |
| B052A10300 | 10.3 | | | | | | ▲ |
| B052A10400 | 10.4 | | | | | | ▲ |
| B052A10500 | 10.5 | | | | | | ▲ |
| B052A10600 | 10.6 | | | | | | ▲ |
| B052A10700 | 10.7 | | | | | | ▲ |
| B052A10800 | 10.8 | 12 | 118 | 71 | 56 | 45 | ▲ |
| B052A10900 | 10.9 | | | | | | ▲ |
| B052A11000 | 11 | | | | | | ▲ |
| B052A11100 | 11.1 | | | | | | ▲ |
| B052A11200 | 11.2 | | | | | | ▲ |
| B052A11300 | 11.3 | | | | | | ▲ |
| B052A11400 | 11.4 | | | | | | ▲ |
| B052A11500 | 11.5 | | | | | | ▲ |

| 型　号 Model | d1 mm | d2 mm | l1 mm | l2 mm | l3 mm | l4 mm | 库存 Stock |
|---|---|---|---|---|---|---|---|
| B052A11600 | 11.6 | | | | | | ▲ |
| B052A11700 | 11.7 | | | | | | ▲ |
| B052A11800 | 11.8 | 12 | 118 | 71 | 56 | 45 | ▲ |
| B052A11900 | 11.9 | | | | | | ▲ |
| B052A12000 | 12 | | | | | | ▲ |
| B052A12100 | 12.1 | | | | | | ▲ |
| B052A12200 | 12.2 | | | | | | ▲ |
| B052A12300 | 12.3 | | | | | | ▲ |
| B052A12400 | 12.4 | | | | | | ▲ |
| B052A12500 | 12.5 | | | | | | ▲ |
| B052A12600 | 12.6 | | | | | | ▲ |
| B052A12700 | 12.7 | | | | | | ▲ |
| B052A12800 | 12.8 | | | | | | ▲ |
| B052A12900 | 12.9 | | | | | | ▲ |
| B052A13000 | 13 | 14 | 124 | 77 | 60 | 45 | ▲ |
| B052A13100 | 13.1 | | | | | | ▲ |
| B052A13200 | 13.2 | | | | | | ▲ |
| B052A13300 | 13.3 | | | | | | ▲ |
| B052A13400 | 13.4 | | | | | | ▲ |
| B052A13500 | 13.5 | | | | | | ▲ |
| B052A13600 | 13.6 | | | | | | ▲ |
| B052A13700 | 13.7 | | | | | | ▲ |
| B052A13800 | 13.8 | | | | | | ▲ |
| B052A13900 | 13.9 | | | | | | ▲ |
| B052A14000 | 14 | | | | | | ▲ |
| B052A14100 | 14.1 | | | | | | ▲ |
| B052A14200 | 14.2 | | | | | | ▲ |
| B052A14300 | 14.3 | | | | | | ▲ |
| B052A14400 | 14.4 | | | | | | ▲ |
| B052A14500 | 14.5 | | | | | | ▲ |
| B052A14600 | 14.6 | 16 | 133 | 83 | 63 | 48 | ▲ |
| B052A14700 | 14.7 | | | | | | ▲ |
| B052A14800 | 14.8 | | | | | | ▲ |
| B052A14900 | 14.9 | | | | | | ▲ |
| B052A15000 | 15 | | | | | | ▲ |

## 推荐切削参数

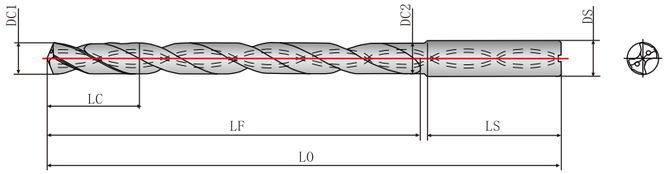




| 分组 | | 切削速度-vc 范围-m/min 最小值 | 初始值 | 最大值 | 公制 根据直径推荐进给率 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | 1 | 60 | 70 | 100 | mm/r | 0.04-0.09 | 0.05-0.11 | 0.06-0.13 | 0.09-0.16 | 0.11-0.22 | 0.13-0.26 | 0.15-0.31 | 0.18-0.35 | 0.22-0.42 | 0.28-0.54 |
| | 2 | 80 | 90 | 100 | mm/r | 0.04-0.09 | 0.05-0.11 | 0.06-0.13 | 0.08-0.16 | 0.12-0.22 | 0.14-0.26 | 0.17-0.31 | 0.20-0.35 | 0.24-0.42 | 0.31-0.53 |
| | 3 | 50 | 70 | 90 | mm/r | 0.05-0.11 | 0.06-0.13 | 0.07-0.15 | 0.09-0.17 | 0.13-0.23 | 0.15-0.28 | 0.19-0.33 | 0.22-0.38 | 0.26-0.47 | 0.31-0.59 |
| | 4 | 50 | 70 | 100 | mm/r | 0.04-0.12 | 0.05-0.13 | 0.06-0.15 | 0.08-0.17 | 0.12-0.23 | 0.14-0.28 | 0.17-0.33 | 0.19-0.38 | 0.23-0.47 | 0.29-0.59 |
| | 6 | 30 | 40 | 60 | mm/r | 0.03-0.05 | 0.04-0.06 | 0.05-0.07 | 0.06-0.10 | 0.08-0.14 | 0.10-0.18 | 0.12-0.22 | 0.14-0.24 | 0.18-0.32 | 0.23-0.41 |
| M | 1 | 20 | 30 | 40 | mm/r | 0.02-0.05 | 0.03-0.06 | 0.04-0.70 | 0.05-0.09 | 0.08-0.11 | 0.09-0.12 | 0.10-0.14 | 0.12-0.16 | 0.14-0.18 | 0.16-0.20 |
| | 2 | 30 | 40 | 50 | mm/r | 0.02-0.06 | 0.03-0.07 | 0.04-0.08 | 0.06-0.10 | 0.08-0.12 | 0.09-0.14 | 0.10-0.16 | 0.12-0.18 | 0.14-0.20 | 0.16-0.22 |
| | 3 | 20 | 30 | 40 | mm/r | 0.02-0.05 | 0.03-0.06 | 0.04-0.07 | 0.06-0.09 | 0.08-0.11 | 0.09-0.12 | 0.10-0.14 | 0.12-0.16 | 0.14-0.18 | 0.16-0.20 |
| K | 1 | 80 | 130 | 170 | mm/r | 0.09-0.18 | 0.10-0.20 | 0.11-0.22 | 0.12-0.24 | 0.16-0.31 | 0.20-0.38 | 0.23-0.44 | 0.25-0.49 | 0.31-0.06 | 0.38-0.47 |
| | 2 | 90 | 110 | 120 | mm/r | 0.06-0.13 | 0.08-0.15 | 0.10-0.17 | 0.12-0.19 | 0.16-0.25 | 0.20-0.31 | 0.23-0.36 | 0.25-0.40 | 0.31-0.48 | 0.38-0.60 |
| | 3 | 80 | 110 | 130 | mm/r | 0.05-0.11 | 0.06-0.13 | 0.07-0.15 | 0.09-0.19 | 0.12-0.25 | 0.14-0.30 | 0.17-0.35 | 0.19-0.40 | 0.25-0.48 | 0.30-0.60 |
| N | 1 | 90 | 230 | 270 | mm/r | 0.05-0.12 | 0.06-0.13 | 0.08-0.14 | 0.10-0.16 | 0.12-0.20 | 0.16-0.24 | 0.20-0.28 | 0.24-0.32 | 0.28-0.40 | 0.32-0.48 |
| | 2 | 90 | 220 | 270 | mm/r | 0.04-0.08 | 0.06-0.12 | 0.08-0.16 | 0.10-0.20 | 0.12-0.24 | 0.16-0.28 | 0.20-0.32 | 0.24-0.36 | 0.28-0.44 | 0.32-0.52 |
| | 3 | 90 | 180 | 225 | mm/r | 0.10-0.13 | 0.11-0.14 | 0.12-0.14 | 0.13-0.16 | 0.14-0.20 | 0.16-0.24 | 0.20-0.28 | 0.24-0.32 | 0.28-0.40 | 0.32-0.44 |
| | 5 | 90 | 130 | 270 | mm/r | 0.04-0.08 | 0.06-0.12 | 0.08-0.16 | 0.10-0.20 | 0.12-0.24 | 0.16-0.28 | 0.20-0.32 | 0.24-0.36 | 0.28-0.40 | 0.32-0.48 |
| S | 1 | 20 | 25 | 30 | mm/r | 0.01-0.04 | 0.02-0.05 | 0.03-0.06 | 0.04-0.08 | 0.06-0.10 | 0.08-0.12 | 0.09-0.13 | 0.10-0.14 | 0.12-0.16 | 0.14-0.18 |
| | 2 | 10 | 20 | 30 | mm/r | 0.01-0.03 | 0.02-0.03 | 0.02-0.04 | 0.03-0.06 | 0.05-0.08 | 0.07-0.10 | 0.08-0.11 | 0.09-0.12 | 0.10-0.14 | 0.11-0.16 |
| | 3 | 20 | 25 | 40 | mm/r | 0.01-0.03 | 0.02-0.03 | 0.02-0.04 | 0.02-0.05 | 0.04-0.07 | 0.05-0.09 | 0.07-0.10 | 0.08-0.11 | 0.09-0.13 | 0.10-0.15 |
| | 4 | 20 | 25 | 50 | mm/r | 0.01-0.03 | 0.02-0.03 | 0.02-0.04 | 0.03-0.06 | 0.05-0.08 | 0.07-0.10 | 0.08-0.11 | 0.09-0.12 | 0.10-0.14 | 0.11-0.16 |

# 12×D 整体硬质合金深孔钻






12×D 130° 30°

适合加工材料：P、M、K

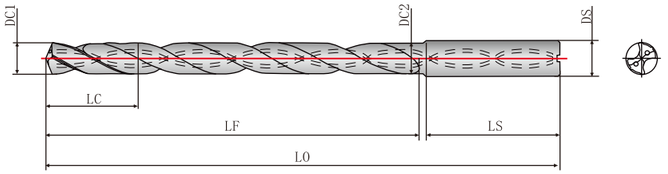
| 型 号 Model | Φ • dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-P80112-0300 | 3.0 | 54 | 4 | 36 | 92 |
| SP-P80112-0350 | 3.5 | 54 | 4 | 36 | 92 |
| SP-P80112-0400 | 4.0 | 64 | 4 | 36 | 102 |
| SP-P80112-0450 | 4.5 | 64 | 6 | 36 | 102 |
| SP-P80112-0500 | 5.0 | 80 | 6 | 36 | 118 |
| SP-P80112-0550 | 5.5 | 80 | 6 | 36 | 118 |
| SP-P80112-0600 | 6.0 | 80 | 6 | 36 | 118 |
| SP-P80112-0650 | 6.5 | 108 | 7 | 36 | 146 |
| SP-P80112-0700 | 7.0 | 108 | 8 | 36 | 146 |
| SP-P80112-0750 | 7.5 | 108 | 8 | 36 | 146 |
| SP-P80112-0800 | 8.0 | 120 | 8 | 36 | 162 |
| SP-P80112-0850 | 8.5 | 120 | 10 | 40 | 162 |
| SP-P80112-0900 | 9.0 | 120 | 10 | 40 | 162 |
| SP-P80112-0950 | 9.5 | 120 | 10 | 40 | 162 |
| SP-P80112-1000 | 10.0 | 120 | 12 | 45 | 162 |
| SP-P80112-1050 | 10.5 | 156 | 12 | 45 | 204 |
| SP-P80112-1100 | 11.0 | 156 | 12 | 45 | 204 |
| SP-P80112-1150 | 11.5 | 156 | 12 | 45 | 204 |
| SP-P80112-1200 | 12.0 | 156 | 12 | 45 | 204 |
| SP-P80112-1250 | 12.5 | 182 | 14 | 45 | 230 |
| SP-P80112-1300 | 13.0 | 182 | 14 | 45 | 230 |
| SP-P80112-1350 | 13.5 | 182 | 14 | 45 | 230 |
| SP-P80112-1400 | 14.0 | 182 | 14 | 45 | 230 |
| SP-P80112-1450 | 14.5 | 208 | 16 | 48 | 260 |
| SP-P80112-1500 | 15.0 | 208 | 16 | 48 | 260 |
| SP-P80112-1550 | 15.5 | 208 | 16 | 48 | 260 |
| SP-P80112-1600 | 16.0 | 208 | 16 | 48 | 260 |
| SP-P80112-1650 | 16.5 | 234 | 18 | 48 | 285 |
| SP-P80112-1700 | 17.0 | 234 | 18 | 48 | 258 |
| SP-P80112-1750 | 17.5 | 234 | 18 | 48 | 258 |
| SP-P80112-1800 | 18.0 | 234 | 18 | 48 | 258 |
| SP-P80112-1850 | 18.5 | 258 | 20 | 50 | 310 |
| SP-P80112-1900 | 19.0 | 258 | 20 | 50 | 310 |
| SP-P80112-1950 | 19.5 | 258 | 20 | 50 | 310 |
| SP-P80112-2000 | 20.0 | 258 | 20 | 50 | 310 |

备注：需配合引导钻使用



# 12×D 整体硬质合金钻头






12×D 130° 30°

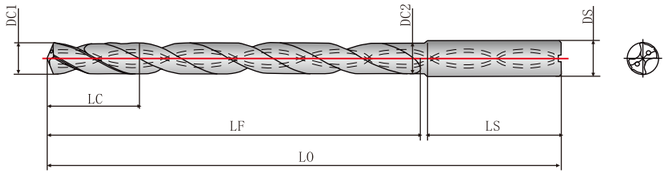
适合加工材料：N

| 型 号 Model | Φ • dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-N80112-0300 | 3.0 | 54 | 4 | 36 | 92 |
| SP-N80112-0350 | 3.5 | 54 | 4 | 36 | 92 |
| SP-N80112-0400 | 4.0 | 64 | 4 | 36 | 102 |
| SP-N80112-0450 | 4.5 | 64 | 6 | 36 | 102 |
| SP-N80112-0500 | 5.0 | 80 | 6 | 36 | 118 |
| SP-N80112-0550 | 5.5 | 80 | 6 | 36 | 118 |
| SP-N80112-0600 | 6.0 | 80 | 6 | 36 | 118 |
| SP-N80112-0650 | 6.5 | 108 | 7 | 36 | 146 |
| SP-N80112-0700 | 7.0 | 108 | 8 | 36 | 146 |
| SP-N80112-0750 | 7.5 | 108 | 8 | 36 | 146 |
| SP-N80112-0800 | 8.0 | 120 | 8 | 36 | 162 |
| SP-N80112-0850 | 8.5 | 120 | 10 | 40 | 162 |
| SP-N80112-0900 | 9.0 | 120 | 10 | 40 | 162 |
| SP-N80112-0950 | 9.5 | 120 | 10 | 40 | 162 |
| SP-N80112-1000 | 10.0 | 120 | 12 | 45 | 162 |
| SP-N80112-1050 | 10.5 | 156 | 12 | 45 | 204 |
| SP-N80112-1100 | 11.0 | 156 | 12 | 45 | 204 |
| SP-N80112-1150 | 11.5 | 156 | 12 | 45 | 204 |
| SP-N80112-1200 | 12.0 | 156 | 12 | 45 | 204 |
| SP-N80112-1250 | 12.5 | 182 | 14 | 45 | 230 |
| SP-N80112-1300 | 13.0 | 182 | 14 | 45 | 230 |
| SP-N80112-1350 | 13.5 | 182 | 14 | 45 | 230 |
| SP-N80112-1400 | 14.0 | 182 | 14 | 45 | 230 |
| SP-N80112-1450 | 14.5 | 208 | 16 | 48 | 260 |
| SP-N80112-1500 | 15.0 | 208 | 16 | 48 | 260 |
| SP-N80112-1550 | 15.5 | 208 | 16 | 48 | 260 |
| SP-N80112-1600 | 16.0 | 208 | 16 | 48 | 260 |
| SP-N80112-1650 | 16.5 | 234 | 18 | 48 | 285 |
| SP-N80112-1700 | 17.0 | 234 | 18 | 48 | 258 |
| SP-N80112-1750 | 17.5 | 234 | 18 | 48 | 258 |
| SP-N80112-1800 | 18.0 | 234 | 18 | 48 | 258 |
| SP-N80112-1850 | 18.5 | 258 | 20 | 50 | 310 |
| SP-N80112-1900 | 19.0 | 258 | 20 | 50 | 310 |
| SP-N80112-1950 | 19.5 | 258 | 20 | 50 | 310 |
| SP-N80112-2000 | 20.0 | 258 | 20 | 50 | 310 |

备注：需配合引导钻使用

## 15×D 整体硬质合金深孔钻






15×D 130° 30°

适合加工材料：P、M、K

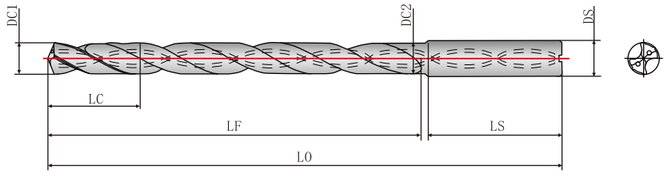
| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-P80115-0300 | 3.0 | 55 | 4 | 36 | 95 |
| SP-P80115-0350 | 3.5 | 55 | 4 | 36 | 95 |
| SP-P80115-0400 | 4.0 | 71 | 4 | 36 | 109 |
| SP-P80115-0450 | 4.5 | 93 | 6 | 36 | 133 |
| SP-P80115-0500 | 5.0 | 105 | 6 | 36 | 145 |
| SP-P80115-0550 | 5.5 | 105 | 6 | 36 | 145 |
| SP-P80115-0600 | 6.0 | 110 | 6 | 36 | 148 |
| SP-P80115-0650 | 6.5 | 120 | 7 | 36 | 162 |
| SP-P80115-0700 | 7.0 | 120 | 8 | 36 | 162 |
| SP-P80115-0750 | 7.5 | 137 | 8 | 36 | 180 |
| SP-P80115-0800 | 8.0 | 137 | 8 | 36 | 180 |
| SP-P80115-0850 | 8.5 | 160 | 10 | 40 | 204 |
| SP-P80115-0900 | 9.0 | 160 | 10 | 40 | 204 |
| SP-P80115-0950 | 9.5 | 175 | 10 | 40 | 221 |
| SP-P80115-1000 | 10.0 | 175 | 10 | 40 | 221 |
| SP-P80115-1050 | 10.5 | 198 | 12 | 45 | 247 |
| SP-P80115-1100 | 11.0 | 198 | 12 | 45 | 247 |
| SP-P80115-1150 | 11.5 | 213 | 12 | 45 | 263 |
| SP-P80115-1200 | 12.0 | 213 | 12 | 45 | 263 |
| SP-P80115-1250 | 12.5 | 248 | 14 | 45 | 297 |
| SP-P80115-1300 | 13.0 | 248 | 14 | 45 | 297 |
| SP-P80115-1350 | 13.5 | 248 | 14 | 45 | 297 |
| SP-P80115-1400 | 14.0 | 248 | 14 | 45 | 297 |
| SP-P80115-1450 | 14.5 | 258 | 16 | 48 | 313 |
| SP-P80115-1500 | 15.0 | 258 | 16 | 48 | 313 |

备注：需配合引导钻使用



## 15×D 整体硬质合金钻头






15×D 130° 30°

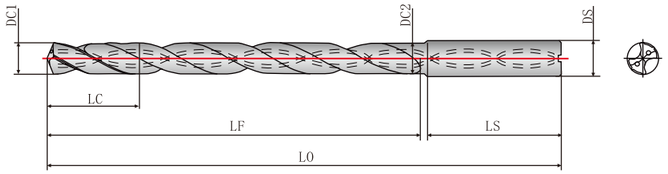
适合加工材料：N

| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-N80115-0300 | 3.0 | 55 | 4 | 36 | 95 |
| SP-N80115-0350 | 3.5 | 55 | 4 | 36 | 95 |
| SP-N80115-0400 | 4.0 | 71 | 4 | 36 | 109 |
| SP-N80115-0450 | 4.5 | 93 | 6 | 36 | 133 |
| SP-N80115-0500 | 5.0 | 105 | 6 | 36 | 145 |
| SP-N80115-0550 | 5.5 | 105 | 6 | 36 | 145 |
| SP-N80115-0600 | 6.0 | 110 | 6 | 36 | 148 |
| SP-N80115-0650 | 6.5 | 120 | 7 | 36 | 162 |
| SP-N80115-0700 | 7.0 | 120 | 8 | 36 | 162 |
| SP-N80115-0750 | 7.5 | 137 | 8 | 36 | 180 |
| SP-N80115-0800 | 8.0 | 137 | 8 | 36 | 180 |
| SP-N80115-0850 | 8.5 | 160 | 10 | 40 | 204 |
| SP-N80115-0900 | 9.0 | 160 | 10 | 40 | 204 |
| SP-N80115-0950 | 9.5 | 175 | 10 | 40 | 221 |
| SP-N80115-1000 | 10.0 | 175 | 10 | 40 | 221 |
| SP-N80115-1050 | 10.5 | 198 | 12 | 45 | 247 |
| SP-N80115-1100 | 11.0 | 198 | 12 | 45 | 247 |
| SP-N80115-1150 | 11.5 | 213 | 12 | 45 | 263 |
| SP-N80115-1200 | 12.0 | 213 | 12 | 45 | 263 |
| SP-N80115-1250 | 12.5 | 248 | 14 | 45 | 297 |
| SP-N80115-1300 | 13.0 | 248 | 14 | 45 | 297 |
| SP-N80115-1350 | 13.5 | 248 | 14 | 45 | 297 |
| SP-N80115-1400 | 14.0 | 248 | 14 | 45 | 297 |
| SP-N80115-1450 | 14.5 | 258 | 16 | 48 | 313 |
| SP-N80115-1500 | 15.0 | 258 | 16 | 48 | 313 |

备注：需配合引导钻使用

# 20×D 整体硬质合金深孔钻






20×D 130° 30°

适合加工材料：P、M、K

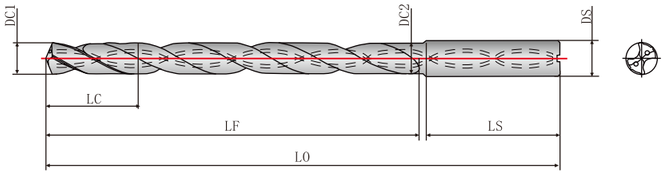
| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-P80120-0300 | 3.0 | 70 | 4 | 36 | 110 |
| SP-P80120-0350 | 3.5 | 91 | 4 | 36 | 129 |
| SP-P80120-0400 | 4.0 | 91 | 4 | 36 | 129 |
| SP-P80120-0450 | 4.5 | 118 | 6 | 36 | 158 |
| SP-P80120-0500 | 5.0 | 118 | 6 | 36 | 158 |
| SP-P80120-0550 | 5.5 | 134 | 6 | 36 | 172 |
| SP-P80120-0600 | 6.0 | 134 | 6 | 36 | 172 |
| SP-P80120-0650 | 6.5 | 162 | 7 | 36 | 200 |
| SP-P80120-0700 | 7.0 | 162 | 8 | 36 | 200 |
| SP-P80120-0750 | 7.5 | 184 | 8 | 36 | 222 |
| SP-P80120-0800 | 8.0 | 184 | 8 | 36 | 222 |
| SP-P80120-0850 | 8.5 | 205 | 10 | 40 | 249 |
| SP-P80120-0900 | 9.0 | 205 | 10 | 40 | 249 |
| SP-P80120-0950 | 9.5 | 227 | 10 | 40 | 271 |
| SP-P80120-1000 | 10.0 | 227 | 10 | 40 | 271 |

备注：需配合引导钻使用



# 20×D 整体硬质合金钻头






20×D 130° 30°

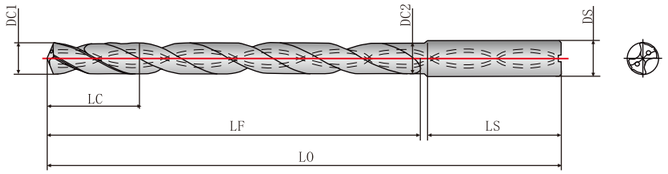
适合加工材料：N

| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-N80120-0300 | 3.0 | 70 | 4 | 36 | 110 |
| SP-N80120-0350 | 3.5 | 91 | 4 | 36 | 129 |
| SP-N80120-0400 | 4.0 | 91 | 4 | 36 | 129 |
| SP-N80120-0450 | 4.5 | 118 | 6 | 36 | 158 |
| SP-N80120-0500 | 5.0 | 118 | 6 | 36 | 158 |
| SP-N80120-0550 | 5.5 | 134 | 6 | 36 | 172 |
| SP-N80120-0600 | 6.0 | 134 | 6 | 36 | 172 |
| SP-N80120-0650 | 6.5 | 162 | 7 | 36 | 200 |
| SP-N80120-0700 | 7.0 | 162 | 8 | 36 | 200 |
| SP-N80120-0750 | 7.5 | 184 | 8 | 36 | 222 |
| SP-N80120-0800 | 8.0 | 184 | 8 | 36 | 222 |
| SP-N80120-0850 | 8.5 | 205 | 10 | 40 | 249 |
| SP-N80120-0900 | 9.0 | 205 | 10 | 40 | 249 |
| SP-N80120-0950 | 9.5 | 227 | 10 | 40 | 271 |
| SP-N80120-1000 | 10.0 | 227 | 10 | 40 | 271 |

备注：需配合引导钻使用

## 25×D 整体硬质合金深孔钻






25×D 130° 30°

适合加工材料：P、M、K

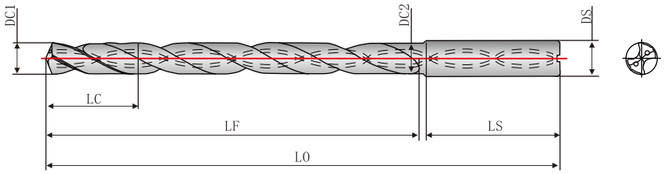
| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-P80125-0300 | 3.0 | 85 | 4 | 36 | 125 |
| SP-P80125-0350 | 3.5 | 116 | 4 | 36 | 156 |
| SP-P80125-0400 | 4.0 | 116 | 4 | 36 | 156 |
| SP-P80125-0450 | 4.5 | 145 | 6 | 36 | 183 |
| SP-P80125-0500 | 5.0 | 145 | 6 | 36 | 183 |
| SP-P80125-0550 | 5.5 | 170 | 6 | 36 | 210 |
| SP-P80125-0600 | 6.0 | 170 | 6 | 36 | 210 |
| SP-P80125-0650 | 6.5 | 197 | 7 | 36 | 237 |
| SP-P80125-0700 | 7.0 | 197 | 8 | 36 | 237 |
| SP-P80125-0750 | 7.5 | 220 | 8 | 36 | 260 |
| SP-P80125-0800 | 8.0 | 220 | 8 | 36 | 260 |
| SP-P80125-0850 | 8.5 | 250 | 10 | 40 | 294 |
| SP-P80125-0900 | 9.0 | 250 | 10 | 40 | 294 |
| SP-P80125-0950 | 9.5 | 277 | 10 | 40 | 321 |
| SP-P80125-1000 | 10.0 | 277 | 10 | 40 | 321 |

备注：需配合引导钻使用



## 25×D 整体硬质合金钻头






25×D 130° 30°

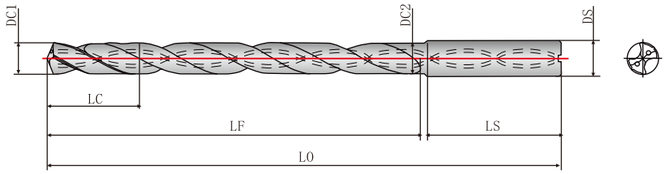
适合加工材料：N

| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-N80125-0300 | 3.0 | 85 | 4 | 36 | 125 |
| SP-N80125-0350 | 3.5 | 116 | 4 | 36 | 156 |
| SP-N80125-0400 | 4.0 | 116 | 4 | 36 | 156 |
| SP-N80125-0450 | 4.5 | 145 | 6 | 36 | 183 |
| SP-N80125-0500 | 5.0 | 145 | 6 | 36 | 183 |
| SP-N80125-0550 | 5.5 | 170 | 6 | 36 | 210 |
| SP-N80125-0600 | 6.0 | 170 | 6 | 36 | 210 |
| SP-N80125-0650 | 6.5 | 197 | 7 | 36 | 237 |
| SP-N80125-0700 | 7.0 | 197 | 8 | 36 | 237 |
| SP-N80125-0750 | 7.5 | 220 | 8 | 36 | 260 |
| SP-N80125-0800 | 8.0 | 220 | 8 | 36 | 260 |
| SP-N80125-0850 | 8.5 | 250 | 10 | 40 | 294 |
| SP-N80125-0900 | 9.0 | 250 | 10 | 40 | 294 |
| SP-N80125-0950 | 9.5 | 277 | 10 | 40 | 321 |
| SP-N80125-1000 | 10.0 | 277 | 10 | 40 | 321 |

备注：需配合引导钻使用

# 30×D 整体硬质合金深孔钻






30×D 130° 30°

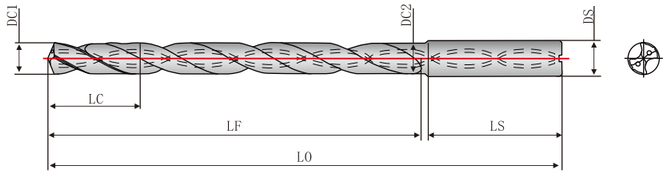
适合加工材料：P、M、K

| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-P80130-0300 | 3.0 | 100 | 4 | 36 | 140 |
| SP-P80130-0350 | 3.5 | 136 | 4 | 36 | 176 |
| SP-P80130-0400 | 4.0 | 136 | 4 | 36 | 176 |
| SP-P80130-0450 | 4.5 | 168 | 6 | 36 | 208 |
| SP-P80130-0500 | 5.0 | 168 | 6 | 36 | 208 |
| SP-P80130-0550 | 5.5 | 180 | 6 | 36 | 232 |
| SP-P80130-0600 | 6.0 | 180 | 6 | 36 | 232 |
| SP-P80130-0650 | 6.5 | 232 | 7 | 36 | 272 |
| SP-P80130-0700 | 7.0 | 232 | 8 | 36 | 272 |
| SP-P80130-0750 | 7.5 | 263 | 8 | 36 | 303 |
| SP-P80130-0800 | 8.0 | 263 | 8 | 36 | 303 |

备注：需配合引导钻使用

# 30×D 整体硬质合金钻头






30×D 130° 30°

适合加工材料：N

| 型　号 Model | Φ・dc 公差h7 | 槽 长 lf | 柄径 ds 公差h6 | 柄 长 ls | 总 长 lo |
|---|---|---|---|---|---|
| SP-N80130-0300 | 3.0 | 100 | 4 | 36 | 140 |
| SP-N80130-0350 | 3.5 | 136 | 4 | 36 | 176 |
| SP-N80130-0400 | 4.0 | 136 | 4 | 36 | 176 |
| SP-N80130-0450 | 4.5 | 168 | 6 | 36 | 208 |
| SP-N80130-0500 | 5.0 | 168 | 6 | 36 | 208 |
| SP-N80130-0550 | 5.5 | 180 | 6 | 36 | 232 |
| SP-N80130-0600 | 6.0 | 180 | 6 | 36 | 232 |
| SP-N80130-0650 | 6.5 | 232 | 7 | 36 | 272 |
| SP-N80130-0700 | 7.0 | 232 | 8 | 36 | 272 |
| SP-N80130-0750 | 7.5 | 263 | 8 | 36 | 303 |
| SP-N80130-0800 | 8.0 | 263 | 8 | 36 | 303 |

备注：需配合引导钻使用

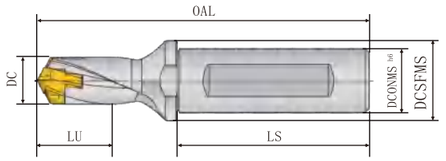


# 高效率的可换头钻头



## 可换钻尖式钻头（2×Dc）






| 型　号<br>Model | DC | DCONMS | DCSFMS | LU | LS | OAL | 刀座尺寸 | 刀片 |
|---|---|---|---|---|---|---|---|---|
| TID060F12-3 | 6-6.4 | 12 | 16 | 10 | 45 | 68 | 6 | DMP060-DMP064 |
| TID065F12-3 | 6.5-6.9 | 12 | 16 | 11 | 45 | 69.1 | 6.5 | DMP065-DMP069 |
| TID070F12-3 | 7-7.4 | 12 | 16 | 12 | 45 | 70.1 | 7 | DMP070-DMP074 |
| TID075F12-3 | 7.5-7.9 | 12 | 16 | 13 | 45 | 70.9 | 7 | DMP075-DMP079 |
| TID080F12-3 | 8-8.9 | 12 | 16 | 14 | 45 | 72.4 | 8 | DMP080-DMP084 |
| TID090F12-3 | 9-9.9 | 12 | 16 | 16 | 45 | 74.3 | 9 | DMP090-DMP094 |
| TID100F16-3 | 10-10.9 | 16 | 20 | 17 | 48 | 79.2 | 10 | DMP100-DMP104 |
| TID110F16-3 | 11-11.9 | 16 | 20 | 19 | 48 | 81.1 | 11 | DMP110-DMP114 |
| TID120F16-3 | 12-12.9 | 16 | 20 | 20 | 48 | 83 | 12 | DMP120-DMP124 |
| TID130F16-3 | 13-13.9 | 16 | 20 | 22 | 48 | 85.1 | 13 | DMP130-DMP134 |
| TID140F16-3 | 14-14.9 | 16 | 20 | 24 | 48 | 89.1 | 14 | DMP140-DMP144 |
| TID150F20-3 | 15-15.9 | 20 | 25 | 26 | 50 | 96.2 | 15 | DMP150-DMP159 |
| TID160F20-3 | 16-16.9 | 20 | 25 | 27 | 50 | 99.3 | 16 | DMP160-DMP169 |
| TID170F20-3 | 17-17.9 | 20 | 25 | 29 | 50 | 102.4 | 17 | DMP170-DMP179 |
| TID180F25-3 | 18-18.9 | 25 | 32 | 30 | 56 | 111.5 | 18 | DMP180-DMP189 |
| TID190F25-3 | 19-19.9 | 25 | 32 | 33 | 56 | 114.5 | 19 | DMP190-DMP199 |
| TID200F25-3 | 20-20.9 | 25 | 32 | 34 | 56 | 117.6 | 20 | DMP200-DMP209 |
| TID210F25-3 | 21-21.9 | 25 | 32 | 36 | 56 | 120.7 | 21 | DMP210-DMP219 |
| TID220F25-3 | 22-22.9 | 25 | 32 | 37 | 56 | 123.8 | 22 | DMP220-DMP229 |
| TID230F32-3 | 23-23.9 | 32 | 42 | 39 | 60 | 130.8 | 23 | DMP230-DMP239 |
| TID240F32-3 | 24-24.9 | 32 | 42 | 40 | 60 | 133.9 | 24 | DMP240-DMP249 |
| TID250F32-3 | 25-25.9 | 32 | 42 | 43 | 60 | 137 | 25 | DMP250-DMP259 |

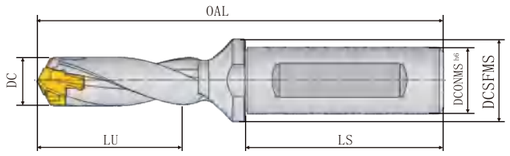
## 备件

| 型号 | 锁紧扳手 |
|---|---|
| TID060-095 | K-TID6-9.99 |
| TID100-190 | K-TID10-19.99 |
| TID200-250 | K-TID20-26.99 |

| 刀具直径 | 孔径公差 |
|---|---|
| Φ6-Φ25.9 | +0.05/0 |

## 可换钻尖式钻头（3×Dc）






| 型　号 Model | DC | DCONMS | DCSFMS | LU | LS | DMP | 刀座尺寸 | 刀片 |
|---|---|---|---|---|---|---|---|---|
| TID060F12-3 | 6-6.4 | 12 | 16 | 19 | 45 | 77 | 6 | DMP060-DMP064 |
| TID065F12-3 | 6.5-6.9 | 12 | 16 | 21 | 45 | 78.8 | 6.5 | DMP065-DMP069 |
| TID070F12-3 | 7-7.4 | 12 | 16 | 22 | 45 | 80.6 | 7 | DMP070-DMP074 |
| TID075F12-3 | 7.5-7.9 | 12 | 16 | 24 | 45 | 82.1 | 7 | DMP075-DMP079 |
| TID080F12-3 | 8-8.4 | 12 | 16 | 26 | 45 | 84.4 | 8 | DMP080-DMP084 |
| TID085F12-3 | 8.5-8.9 | 12 | 16 | 28 | 45 | 85.9 | 8 | DMP085-DMP089 |
| TID090F12-3 | 9-9.4 | 12 | 16 | 29 | 45 | 87.8 | 9 | DMP090-DMP094 |
| TID095F12-3 | 9.5-9.9 | 12 | 16 | 31 | 45 | 89.3 | 9 | DMP095-DMP099 |
| TID100F16-3 | 10-10.4 | 16 | 20 | 32 | 48 | 94.2 | 10 | DMP100-DMP104 |
| TID105F16-3 | 10.5-10.9 | 16 | 20 | 34 | 48 | 95.7 | 10 | DMP105-DMP109 |
| TID110F16-3 | 11-11.4 | 16 | 20 | 35 | 48 | 97.6 | 11 | DMP110-DMP114 |
| TID115F16-3 | 11.5-11.9 | 16 | 20 | 37 | 48 | 99.1 | 11 | DMP115-DMP119 |
| TID120F16-3 | 12-12.4 | 16 | 20 | 38 | 48 | 101 | 12 | DMP120-DMP124 |
| TID125F16-3 | 12.5-12.9 | 16 | 20 | 39 | 48 | 102.5 | 12 | DMP125-DMP129 |
| TID130F16-3 | 13-13.4 | 16 | 20 | 41 | 48 | 104.6 | 13 | DMP130-DMP134 |
| TID135F16-3 | 13.5-13.9 | 16 | 20 | 44 | 48 | 106.1 | 13 | DMP135-DMP139 |
| TID140F16-3 | 14-14.4 | 16 | 20 | 45 | 48 | 110.1 | 14 | DMP140-DMP144 |
| TID145F16-3 | 14.5-14.9 | 16 | 20 | 47 | 48 | 111.6 | 14 | DMP145-DMP149 |
| TID150F20-3 | 15-15.9 | 20 | 25 | 48 | 50 | 118.7 | 15 | DMP150-DMP159 |
| TID160F20-3 | 16-16.9 | 20 | 25 | 51 | 50 | 123.3 | 16 | DMP160-DMP169 |
| TID170F20-3 | 17-17.9 | 20 | 25 | 54 | 50 | 127.9 | 17 | DMP170-DMP179 |
| TID180F25-3 | 18-18.9 | 25 | 32 | 57 | 56 | 138.5 | 18 | DMP180-DMP189 |
| TID190F25-3 | 19-19.9 | 25 | 32 | 61 | 56 | 143 | 19 | DMP190-DMP199 |
| TID200F25-3 | 20-20.9 | 25 | 32 | 64 | 56 | 147.6 | 20 | DMP200-DMP209 |
| TID210F25-3 | 21-21.9 | 25 | 32 | 67 | 56 | 152.2 | 21 | DMP210-DMP219 |
| TID220F25-3 | 22-22.9 | 25 | 32 | 70 | 56 | 156.8 | 22 | DMP220-DMP229 |
| TID230F32-3 | 23-23.9 | 32 | 42 | 73 | 60 | 165.3 | 23 | DMP230-DMP239 |
| TID240F32-3 | 24-24.9 | 32 | 42 | 76 | 60 | 169.9 | 24 | DMP240-DMP249 |
| TID250F32-3 | 25-25.9 | 32 | 42 | 80 | 60 | 174.5 | 25 | DMP250-DMP259 |

## 备件

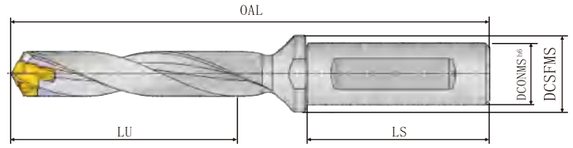
| 型号 | 锁紧扳手 |
|---|---|
| TID060-095 | K-TID6-9.99 |
| TID100-190 | K-TID10-19.99 |
| TID200-250 | K-TID20-26.99 |

| 刀具直径 | 孔径公差 |
|---|---|
| φ6-φ25.9 | +0.05/0 |



## 可换钻尖式钻头（5×Dc）






| 型　号 Model | DC | DCONMS | DCSFMS | LU | LS | OAL | 刀座尺寸 | 刀片 |
|---|---|---|---|---|---|---|---|---|
| TID060F12-5 | 6-6.4 | 12 | 16 | 31 | 45 | 89 | 6 | DMP060-DMP064 |
| TID065F12-5 | 6.5-6.9 | 12 | 16 | 34 | 45 | 91.8 | 6.5 | DMP065DMP069 |
| TID070F12-5 | 7-7.4 | 12 | 16 | 36 | 45 | 94.6 | 7 | DMP070DMP074 |
| TID075F12-5 | 7.5-7.9 | 12 | 16 | 39 | 45 | 97.1 | 7 | DMP075DMP079 |
| TID080F12-5 | 8-8.4 | 12 | 16 | 42 | 45 | 100.4 | 8 | DMP080DMP084 |
| TID085F12-5 | 8.5-8.9 | 12 | 16 | 45 | 45 | 102.9 | 8 | DMP085DMP089 |
| TID090F12-5 | 9-9.4 | 12 | 16 | 47 | 45 | 105.8 | 9 | DMP090DMP094 |
| TID095F12-5 | 9.5-9.9 | 12 | 16 | 50 | 45 | 108.3 | 9 | DMP095DMP099 |
| TID100F16-5 | 10-10.4 | 16 | 20 | 52 | 48 | 114.2 | 10 | DMP100DMP104 |
| TID105F16-5 | 10.5-10.9 | 16 | 20 | 55 | 48 | 116.7 | 10 | DMP105DMP109 |
| TID110F16-5 | 11-11.4 | 16 | 20 | 57 | 48 | 119.6 | 11 | DMP110DMP114 |
| TID115F16-5 | 11.5-11.9 | 16 | 20 | 60 | 48 | 122.1 | 11 | DMP115DMP119 |
| TID120F16-5 | 12-12.4 | 16 | 20 | 62 | 48 | 125 | 12 | DMP120DMP124 |
| TID125F16-5 | 12.5-12.9 | 16 | 20 | 64 | 48 | 127.5 | 12 | DMP125DMP129 |
| TID130F16-5 | 13-13.4 | 16 | 20 | 67 | 48 | 130.6 | 13 | DMP130DMP134 |
| TID135F16-5 | 13.5-13.9 | 16 | 20 | 71 | 48 | 133.1 | 13 | DMP135DMP139 |
| TID140F16-5 | 14-14.4 | 16 | 20 | 73 | 48 | 138.2 | 14 | DMP140DMP144 |
| TID145F16-5 | 14.5-14.9 | 16 | 20 | 76 | 48 | 140.7 | 14 | DMP145DMP149 |
| TID150F20-5 | 15-15.9 | 20 | 25 | 78 | 50 | 148.7 | 15 | DMP150DMP159 |
| TID160F20-5 | 16-16.9 | 20 | 25 | 83 | 50 | 155.3 | 16 | DMP160DMP169 |
| TID170F20-5 | 17-17.9 | 20 | 25 | 88 | 50 | 161.9 | 17 | DMP170DMP179 |
| TID180F25-5 | 18-18.9 | 25 | 32 | 93 | 56 | 174.5 | 18 | DMP180DMP189 |
| TID190F25-5 | 19-19.9 | 25 | 32 | 99 | 56 | 181 | 19 | DMP190DMP199 |
| TID200F25-5 | 20-20.9 | 25 | 32 | 104 | 56 | 187.6 | 20 | DMP200DMP209 |
| TID210F25-5 | 21-21.9 | 25 | 32 | 109 | 56 | 194.2 | 21 | DMP210DMP219 |
| TID220F25-5 | 22-22.9 | 25 | 32 | 114 | 56 | 200.8 | 22 | DMP220DMP229 |
| TID230F32-5 | 23-23.9 | 32 | 42 | 119 | 60 | 211.3 | 23 | DMP230DMP239 |
| TID240F32-5 | 24-24.9 | 32 | 42 | 124 | 60 | 217.9 | 24 | DMP240DMP249 |
| TID250F32-5 | 25-25.9 | 32 | 42 | 130 | 60 | 224.5 | 25 | DMP250DMP259 |

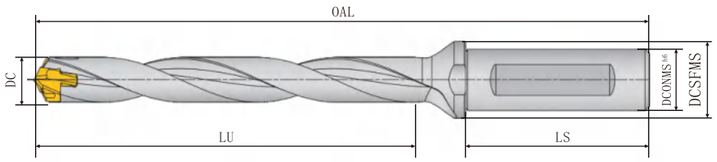
## 备件

| 型号 | 锁紧扳手 |
|---|---|
| TID060-095 | K-TID6-9.99 |
| TID100-190 | K-TID10-19.99 |
| TID200-250 | K-TID20-26.99 |

| 刀具直径 | 孔径公差 |
|---|---|
| φ6-017.9 | +0.06/0 |
| φ18-φ25.9 | +0.065/0 |

## 可换钻尖式钻头 (8×Dc)






| 型 号 Model | DC | DCONMS | DCSFMS | LU | LS | DMP | DMC | 刀座尺寸 | 钻头 |
|---|---|---|---|---|---|---|---|---|---|
| TID070F12-8 | 7-7.4 | 12 | 16 | 57 | 45 | 115.6 | 115.8 | 7 | DM*070DM*074 |
| TID075F12-8 | 7.5-7.9 | 12 | 16 | 61 | 45 | 119.6 | 119.8 | 7 | DM*075DM*079 |
| TID080F12-8 | 8-8.4 | 12 | 16 | 66 | 45 | 124.4 | 124.9 | 8 | DM*080DM*084 |
| TID085F12-8 | 8.5-8.9 | 12 | 16 | 70 | 45 | 128.4 | 128.9 | 8 | DM*085DM*089 |
| TID090F12-8 | 9-9.4 | 12 | 16 | 74 | 45 | 132.8 | 133 | 9 | DM*090DM*094 |
| TID095F12-8 | 9.5-9.9 | 12 | 16 | 78 | 45 | 136.8 | 137 | 9 | DM*095DM*099 |
| TID100F16-8 | 10-10.4 | 16 | 20 | 82 | 48 | 144.2 | 144.4 | 10 | DM*100DM*104 |
| TID105F16-8 | 10.5-10.9 | 16 | 20 | 86 | 48 | 148.2 | 148.4 | 10 | DM*105DM*109 |
| TID110F16-8 | 11-11.4 | 16 | 20 | 90 | 48 | 152.6 | 153.2 | 11 | DM*110DM*114 |
| TID115F16-8 | 11.5-11.9 | 16 | 20 | 94 | 48 | 156.6 | 157.2 | 11 | DM*115DM*119 |
| TID120F16-8 | 12-12.4 | 16 | 20 | 98 | 48 | 161 | 161.6 | 12 | DM*120DM*124 |
| TID125F16-8 | 12.5-12.9 | 16 | 20 | 102 | 48 | 165 | 165.6 | 12 | DM*125DM*129 |
| TID130F16-8 | 13-13.4 | 16 | 20 | 106 | 48 | 169.6 | 170.2 | 13 | DM*130DM*134 |
| TID135F16-8 | 13.5-13.9 | 16 | 20 | 111 | 48 | 173.6 | 174.2 | 13 | DM*135DM*139 |
| TID140F16-8 | 14-14.4 | 16 | 20 | 115 | 48 | 180.1 | 180.9 | 14 | DM*140DM*144 |
| TID145F16-8 | 14.5-14.9 | 16 | 20 | 119 | 48 | 184.2 | 185 | 14 | DM*145DM*149 |
| TID150F20-8 | 15-15.9 | 20 | 25 | 123 | 50 | 193.7 | 194.5 | 15 | DM*150DM*159 |
| TID160F20-8 | 16-16.9 | 20 | 25 | 131 | 50 | 203.3 | 204.1 | 16 | DM*160DM*169 |
| TID170F20-8 | 17-17.9 | 20 | 25 | 139 | 50 | 212.9 | 213.8 | 17 | DM*170DM*179 |
| TID180F25-8 | 18-18.9 | 25 | 32 | 147 | 56 | 228.5 | 229.5 | 18 | DM*180DM*189 |
| TID190F25-8 | 19-19.9 | 25 | 32 | 156 | 56 | 238 | 239 | 19 | DM*190DM*199 |
| TID200F25-8 | 20-20.9 | 25 | 32 | 164 | 56 | 247.6 | 248.8 | 20 | DM*200DM*209 |
| TID210F25-8 | 21-21.9 | 25 | 32 | 172 | 56 | 257.2 | 258.4 | 21 | DM*210DM*219 |
| TID220F25-8 | 22-22.9 | 25 | 32 | 180 | 56 | 266.8 | 268.2 | 22 | DM*220DM*229 |
| TID230F32-8 | 23-23.9 | 32 | 42 | 188 | 60 | 280.3 | 281.7 | 23 | DM*230DM*239 |
| TID240F32-8 | 24-24.9 | 32 | 42 | 196 | 60 | 289.9 | 291.3 | 24 | DM*240DM*249 |
| TID250F32-8 | 25-25.9 | 32 | 42 | 205 | 60 | 299.5 | 301 | 25 | DM*250DM*259 |

## 备件

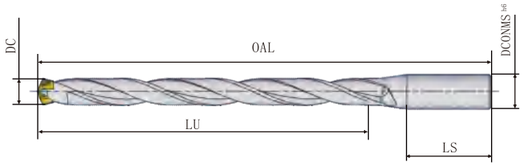
| 型号 | 锁紧扳手 |
|---|---|
| TID060-095 | K-TID6-9.99 |
| TID100-190 | K-TID10-19.99 |
| TID200-250 | K-TID20-26.99 |

| 刀具直径 | 孔径公差 |
|---|---|
| φ7-017.9 | +0.06/0 |
| φ18-φ25.9 | +0.065/0 |



## 可换钻尖式钻头 (12×Dc)圆柱柄






| 型 号 Model | DC | DCONMS | LU | LS | OAL | 刀座尺寸 | 钻头 |
|---|---|---|---|---|---|---|---|
| TID080R12-12 | 8-8.4 | 12 | 98 | 45 | 156.4 | 8 | DM*080-DM*084 |
| TID085R12-12 | 8.5-8.9 | 12 | 104 | 45 | 162.4 | 8 | DM*085-DM*089 |
| TID090R12-12 | 9-9.4 | 12 | 110 | 45 | 168.8 | 9 | DM*090-DM*094 |
| TID095R12-12 | 9.5-9.9 | 12 | 116 | 45 | 174.8 | 9 | DM*095-DM*099 |
| TID100R16-12 | 10-10.4 | 16 | 122 | 48 | 184.2 | 10 | DM*100-DM*104 |
| TID105R16-12 | 10.5-10.9 | 16 | 128 | 48 | 190.2 | 10 | DM*105-DM*109 |
| TID110R16-12 | 11-11.4 | 16 | 134 | 48 | 196.6 | 11 | DM*110-DM*114 |
| TID115R16-12 | 11.5-11.9 | 16 | 140 | 48 | 202 | 11 | DM*115-DM*119 |
| TID120R16-12 | 12-12.4 | 16 | 146 | 48 | 209 | 12 | DM*120-DM*124 |
| TID125R16-12 | 12.5-12.9 | 16 | 152 | 48 | 215 | 12 | DM*125-DM*129 |
| TID130R16-12 | 13-13.4 | 16 | 158 | 48 | 221.6 | 13 | DM*130-DM*134 |
| TID135R16-12 | 13.5-13.9 | 16 | 165 | 48 | 227.6 | 13 | DM*135-DM*139 |
| TID140R16-12 | 14-14.4 | 16 | 171 | 48 | 236.2 | 14 | DM*140-DM*144 |
| TID145R16-12 | 14.5-14.9 | 16 | 177 | 48 | 242.2 | 14 | DM*145-DM*149 |
| TID150R16-12 | 15-15.9 | 20 | 183 | 50 | 253.7 | 15 | DM*150-DM*159 |
| TID160R20-12 | 16-16.9 | 20 | 195 | 50 | 267.3 | 16 | DM*160-DM*169 |
| TID170R20-12 | 17-17.9 | 20 | 207 | 50 | 280.9 | 17 | DM*170-DM*179 |
| TID180R20-12 | 18-18.9 | 25 | 219 | 56 | 300.5 | 18 | DM*180-DM*189 |
| TID190R20-12 | 19-19.9 | 25 | 232 | 56 | 314 | 19 | DM*190-DM*199 |
| TID200R20-12 | 20-20.9 | 25 | 244 | 56 | 327.6 | 20 | DM*200-DM*209 |
| TID210R20-12 | 21-21.9 | 25 | 256 | 56 | 341.2 | 21 | DM*210-DM*219 |
| TID220R20-12 | 22-22.9 | 25 | 267 | 56 | 354.8 | 22 | DM*220-DM*229 |
| TID230R20-12 | 23-23.9 | 32 | 276 | 60 | 372.3 | 23 | DM*230-DM*239 |
| TID240R20-12 | 24-24.9 | 32 | 288 | 60 | 385.9 | 24 | DM*240-DM*249 |
| TID250R20-12 | 25-25.9 | 32 | 300 | 60 | 399.5 | 25 | DM*250-DM*259 |

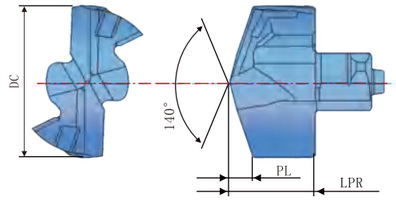
## 备件

| 型号 | 锁紧扳手 |
|---|---|
| TID060-095 | K-TID6-9.99 |
| TID100-190 | K-TID10-19.99 |
| TID200-250 | K-TID20-26.99 |

| 刀具直径 | 孔径公差 |
|---|---|
| φ10-017.9 | +0.08/0 |
| φ18-φ25.9 | +0.095/0 |

## DMP钻头刀片





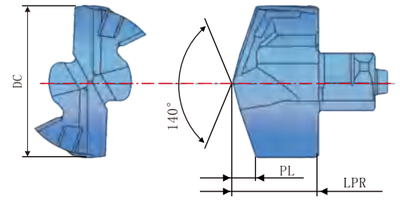

| 型　号 Model | DC | 材质 HP-7220 | LPR | PL | 刀座尺寸 | 钻体 |
|---|---|---|---|---|---|---|
| DMP060 | 6 | ● | 3.9 | 1.09 | 6 | TID*060* |
| DMP061 | 6.1 | ● | 3.9 | 1.11 | 6 | TID*060* |
| DMP062 | 6.2 | ● | 3.9 | 1.13 | 6 | TID*060* |
| DMP063 | 6.3 | ● | 3.9 | 1.14 | 6 | TID*060* |
| DMP064 | 6.4 | ● | 3.9 | 1.16 | 6 | TID*060* |
| DMP065 | 6.5 | ● | 4.2 | 1.27 | 6.5 | TID*065* |
| DMP066 | 6.6 | ● | 4.2 | 1.29 | 6.5 | TID*065* |
| DMP067 | 6.7 | ● | 4.2 | 1.31 | 6.5 | TID*065* |
| DMP068 | 6.8 | ● | 4.2 | 1.33 | 6.5 | TID*065* |
| DMP069 | 6.9 | ● | 4.2 | 1.34 | 6.5 | TID*065* |
| DMP070 | 7 | ● | 4.5 | 1.03 | 7 | TID*070* |
| DMP071 | 7.1 | ● | 4.5 | 1.05 | 7 | TID*070* |
| DMP072 | 7.2 | ● | 4.5 | 1.07 | 7 | TID*070* |
| DMP073 | 7.3 | ● | 4.5 | 1.08 | 7 | TID*070* |
| DMP074 | 7.4 | ● | 4.5 | 1.1 | 7 | TID*070* |
| DMP075 | 7.5 | ● | 4.5 | 1.12 | 7 | TID*075* |
| DMP076 | 7.6 | ● | 4.5 | 1.14 | 7 | TID*075* |
| DMP077 | 7.7 | ● | 4.5 | 1.16 | 7 | TID*075* |
| DMP078 | 7.8 | ● | 4.5 | 1.18 | 7 | TID*075* |
| DMP079 | 7.9 | ● | 4.5 | 1.19 | 7 | TID*075* |
| DMP080 | 8 | ● | 5.3 | 1.2 | 8 | TID*080* |
| DMP081 | 8.1 | ● | 5.3 | 1.22 | 8 | TID*080* |
| DMP082 | 8.2 | ● | 5.3 | 1.24 | 8 | TID*080* |
| DMP083 | 8.3 | ● | 5.3 | 1.25 | 8 | TID*080* |
| DMP084 | 8.4 | ● | 5.3 | 1.27 | 8 | TID*080* |
| DMP085 | 8.5 | ● | 5.3 | 1.29 | 8 | TID*085* |
| DMP086 | 8.6 | ● | 5.3 | 1.31 | 8 | TID*085* |
| DMP087 | 8.7 | ● | 5.3 | 1.33 | 8 | TID*085* |
| DMP088 | 8.8 | ● | 5.3 | 1.35 | 8 | TID*085* |
| DMP089 | 8.9 | ● | 5.3 | 1.36 | 8 | TID*085* |
| DMP090 | 9 | ● | 5.7 | 1.37 | 9 | TID*090* |
| DMP091 | 9.1 | ● | 5.7 | 1.39 | 9 | TID*090* |
| DMP092 | 9.2 | ● | 5.7 | 1.41 | 9 | TID*090* |
| DMP093 | 9.3 | ● | 5.7 | 1.42 | 9 | TID*090* |
| DMP094 | 9.4 | ● | 5.7 | 1.44 | 9 | TID*090* |
| DMP095 | 9.5 | ● | 5.7 | 1.46 | 9 | TID*095* |
| DMP096 | 9.6 | ● | 5.7 | 1.48 | 9 | TID*095* |
| DMP097 | 9.7 | ● | 5.7 | 1.5 | 9 | TID*095* |
| DMP098 | 9.8 | ● | 5.7 | 1.52 | 9 | TID*095* |
| DMP099 | 9.9 | ● | 5.7 | 1.53 | 9 | TID*095* |



R 整体硬质合金铣刀
I 常用铣削刀片
N 可转位铣削刀具
E 孔加工刀具
C 刀柄系统
K 辅助工具
+ 通用信息

## DMP钻头刀片

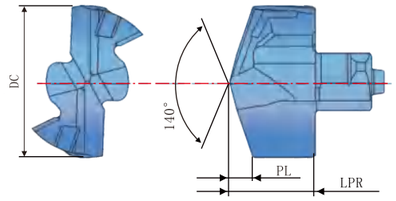





| 型　号 Model | DC | 材质 HP-7220 | LPR | PL | 刀座尺寸 | 钻体 |
|---|---|---|---|---|---|---|
| DMP100 | 10 | ● | 6.1 | 1.47 | 10 | TID*100* |
| DMP101 | 10.1 | ● | 6.1 | 1.49 | 10 | TID*100* |
| DMP102 | 10.2 | ● | 6.1 | 1.51 | 10 | TID*100* |
| DMP103 | 10.3 | ● | 6.1 | 1.52 | 10 | TID*100* |
| DMP104 | 10.4 | ● | 6.1 | 1.54 | 10 | TID*100* |
| DMP105 | 10.5 | ● | 6.1 | 1.56 | 10 | TID*105* |
| DMP106 | 10.6 | ● | 6.1 | 1.58 | 10 | TID*105* |
| DMP107 | 10.7 | ● | 6.1 | 1.6 | 10 | TID*105* |
| DMP108 | 10.8 | ● | 6.1 | 1.62 | 10 | TID*105* |
| DMP109 | 10.9 | ● | 6.1 | 1.63 | 10 | TID*105* |
| DMP110 | 11 | ● | 6.5 | 1.67 | 11 | TID*110* |
| DMP111 | 11.1 | ● | 6.5 | 1.69 | 11 | TID*110* |
| DMP112 | 11.2 | ● | 6.5 | 1.71 | 11 | TID*110* |
| DMP113 | 11.3 | ● | 6.5 | 1.72 | 11 | TID*110* |
| DMP114 | 11.4 | ● | 6.5 | 1.74 | 11 | TID*110* |
| DMP115 | 11.5 | ● | 6.5 | 1.76 | 11 | TID*115* |
| DMP116 | 11.6 | ● | 6.5 | 1.78 | 11 | TID*115* |
| DMP117 | 11.7 | ● | 6.5 | 1.8 | 11 | TID*115* |
| DMP118 | 11.8 | ● | 6.5 | 1.82 | 11 | TID*115* |
| DMP119 | 11.9 | ● | 6.5 | 1.83 | 11 | TID*115* |
| DMP120 | 12 | ● | 6.8 | 1.82 | 12 | TID*120* |
| DMP121 | 12.1 | ● | 6.8 | 1.84 | 12 | TID*120* |
| DMP122 | 12.2 | ● | 6.8 | 1.86 | 12 | TID*120* |
| DMP123 | 12.3 | ● | 6.8 | 1.87 | 12 | TID*120* |
| DMP124 | 12.4 | ● | 6.8 | 1.89 | 12 | TID*120* |
| DMP125 | 12.5 | ● | 6.8 | 1.91 | 12 | TID*125* |
| DMP126 | 12.6 | ● | 6.8 | 1.93 | 12 | TID*125* |
| DMP127 | 12.7 | ● | 6.8 | 1.95 | 12 | TID*125* |
| DMP128 | 12.8 | ● | 6.8 | 1.97 | 12 | TID*125* |
| DMP129 | 12.9 | ● | 6.8 | 1.98 | 12 | TID*125* |
| DMP130 | 13 | ● | 7.4 | 1.96 | 13 | TID*130* |
| DMP131 | 13.1 | ● | 7.4 | 1.98 | 13 | TID*130* |
| DMP132 | 13.2 | ● | 7.4 | 2 | 13 | TID*130* |
| DMP133 | 13.3 | ● | 7.4 | 2.01 | 13 | TID*130* |
| DMP134 | 13.4 | ● | 7.4 | 2.03 | 13 | TID*130* |
| DMP135 | 13.5 | ● | 7.4 | 2.05 | 13 | TID*135* |
| DMP136 | 13.6 | ● | 7.4 | 2.07 | 13 | TID*135* |
| DMP137 | 13.7 | ● | 7.4 | 2.09 | 13 | TID*135* |
| DMP138 | 13.8 | ● | 7.4 | 2.11 | 13 | TID*135* |
| DMP139 | 13.9 | ● | 7.4 | 2.12 | 13 | TID*135* |

## DMP钻头刀片



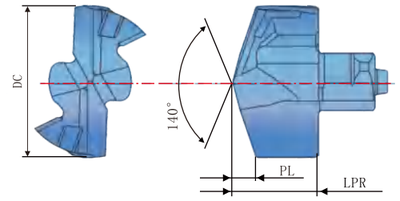



| 型　号 Model | DC | 材质 HP-7220 | LPR | PL | 刀座尺寸 | 钻体 |
|---|---|---|---|---|---|---|
| DMP140 | 14 | ● | 8 | 2.12 | 14 | TID*140* |
| DMP141 | 14.1 | ● | 8 | 2.14 | 14 | TID*140* |
| DMP142 | 14.2 | ● | 8 | 2.16 | 14 | TID*140* |
| DMP143 | 14.3 | ● | 8 | 2.17 | 14 | TID*140* |
| DMP144 | 14.4 | ● | 8 | 2.19 | 14 | TID*140* |
| DMP145 | 14.5 | ● | 8 | 2.21 | 14 | TID*145* |
| DMP146 | 14.6 | ● | 8 | 2.23 | 14 | TID*145* |
| DMP147 | 14.7 | ● | 8 | 2.25 | 14 | TID*145* |
| DMP148 | 14.8 | ● | 8 | 2.27 | 14 | TID*145* |
| DMP149 | 14.9 | ● | 8 | 2.28 | 14 | TID*145* |
| DMP150 | 15 | ● | 8.5 | 2.27 | 15 | TID*150* |
| DMP151 | 15.1 | ● | 8.5 | 2.29 | 15 | TID*150* |
| DMP152 | 15.2 | ● | 8.5 | 2.31 | 15 | TID*150* |
| DMP153 | 15.3 | ● | 8.5 | 2.32 | 15 | TID*150* |
| DMP154 | 15.4 | ● | 8.5 | 2.34 | 15 | TID*150* |
| DMP155 | 15.5 | ● | 8.5 | 2.36 | 15 | TID*150* |
| DMP156 | 15.6 | ● | 8.5 | 2.38 | 15 | TID*150* |
| DMP157 | 15.7 | ● | 8.5 | 2.4 | 15 | TID*150* |
| DMP158 | 15.8 | ● | 8.5 | 2.42 | 15 | TID*150* |
| DMP159 | 15.9 | ● | 8.5 | 2.43 | 15 | TID*150* |
| DMP160 | 16 | ● | 9.1 | 2.42 | 16 | TID*160* |
| DMP161 | 16.1 | ● | 9.1 | 2.44 | 16 | TID*160* |
| DMP162 | 16.2 | ● | 9.1 | 2.46 | 16 | TID*160* |
| DMP163 | 16.3 | ● | 9.1 | 2.47 | 16 | TID*160* |
| DMP164 | 16.4 | ● | 9.1 | 2.49 | 16 | TID*160* |
| DMP165 | 16.5 | ● | 9.1 | 2.51 | 16 | TID*160* |
| DMP166 | 16.6 | ● | 9.1 | 2.53 | 16 | TID*160* |
| DMP167 | 16.7 | ● | 9.1 | 2.55 | 16 | TID*160* |
| DMP168 | 16.8 | ● | 9.1 | 2.57 | 16 | TID*160* |
| DMP169 | 16.9 | ● | 9.1 | 2.58 | 16 | TID*160* |
| DMP170 | 17 | ● | 9.7 | 2.59 | 17 | TID*170* |
| DMP171 | 17.1 | ● | 9.7 | 2.61 | 17 | TID*170* |
| DMP172 | 17.2 | ● | 9.7 | 2.63 | 17 | TID*170* |
| DMP173 | 17.3 | ● | 9.7 | 2.64 | 17 | TID*170* |
| DMP174 | 17.4 | ● | 9.7 | 2.66 | 17 | TID*170* |
| DMP175 | 17.5 | ● | 9.7 | 2.68 | 17 | TID*170* |
| DMP176 | 17.6 | ● | 9.7 | 2.7 | 17 | TID*170* |
| DMP177 | 17.7 | ● | 9.7 | 2.72 | 17 | TID*170* |
| DMP178 | 17.8 | ● | 9.7 | 2.74 | 17 | TID*170* |
| DMP179 | 17.9 | ● | 9.7 | 2.75 | 17 | TID*170* |



## DMP钻头刀片

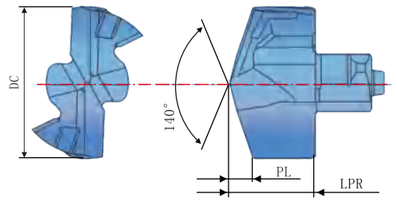





| 型　号 Model | DC | 材质 HP-7220 | LPR | PL | 刀座尺寸 | 钻体 |
|---|---|---|---|---|---|---|
| DMP180 | 18 | ● | 10.3 | 2.73 | 18 | TID*180* |
| DMP181 | 18.1 | ● | 10.3 | 2.75 | 18 | TID*180* |
| DMP182 | 18.2 | ● | 10.3 | 2.77 | 18 | TID*180* |
| DMP183 | 18.3 | ● | 10.3 | 2.78 | 18 | TID*180* |
| DMP184 | 18.4 | ● | 10.3 | 2.8 | 18 | TID*180* |
| DMP185 | 18.5 | ● | 10.3 | 2.82 | 18 | TID*180* |
| DMP186 | 18.6 | ● | 10.3 | 2.84 | 18 | TID*180* |
| DMP187 | 18.7 | ● | 10.3 | 2.86 | 18 | TID*180* |
| DMP188 | 18.8 | ● | 10.3 | 2.88 | 18 | TID*180* |
| DMP189 | 18.9 | ● | 10.3 | 2.89 | 18 | TID*180* |
| DMP190 | 19 | ● | 10.8 | 2.88 | 19 | TID*190* |
| DMP191 | 19.1 | ● | 10.8 | 2.9 | 19 | TID*190* |
| DMP192 | 19.2 | ● | 10.8 | 2.92 | 19 | TID*190* |
| DMP1927 | 19.27 | ● | 10.8 | 2.93 | 19 | TID*190* |
| DMP193 | 19.3 | ● | 10.8 | 2.93 | 19 | TID*190* |
| DMP194 | 19.4 | ● | 10.8 | 2.95 | 19 | TID*190* |
| DMP195 | 19.5 | ● | 10.8 | 2.97 | 19 | TID*190* |
| DMP196 | 19.6 | ● | 10.8 | 2.99 | 19 | TID*190* |
| DMP197 | 19.7 | ● | 10.8 | 3.01 | 19 | TID*190* |
| DMP198 | 19.8 | ● | 10.8 | 3.03 | 19 | TID*190* |
| DMP199 | 19.9 | ● | 10.8 | 3.04 | 19 | TID*190* |
| DMP200 | 20 | ● | 11.4 | 3.02 | 20 | TID*200* |
| DMP201 | 20.1 | ● | 11.4 | 3.04 | 20 | TID*200* |
| DMP202 | 20.2 | ● | 11.4 | 3.06 | 20 | TID*200* |
| DMP203 | 20.3 | ● | 11.4 | 3.07 | 20 | TID*200* |
| DMP204 | 20.4 | ● | 11.4 | 3.09 | 20 | TID*200* |
| DMP205 | 20.5 | ● | 11.4 | 3.11 | 20 | TID*200* |
| DMP206 | 20.6 | ● | 11.4 | 3.13 | 20 | TID*200* |
| DMP207 | 20.7 | ● | 11.4 | 3.15 | 20 | TID*200* |
| DMP208 | 20.8 | ● | 11.4 | 3.17 | 20 | TID*200* |
| DMP209 | 20.9 | ● | 11.4 | 3.18 | 20 | TID*200* |
| DMP210 | 21 | ● | 12 | 3.18 | 21 | TID*210* |
| DMP211 | 21.1 | ● | 12 | 3.2 | 21 | TID*210* |
| DMP212 | 21.2 | ● | 12 | 3.22 | 21 | TID*210* |
| DMP213 | 21.3 | ● | 12 | 3.23 | 21 | TID*210* |
| DMP214 | 21.4 | ● | 12 | 3.25 | 21 | TID*210* |
| DMP215 | 21.5 | ● | 12 | 3.27 | 21 | TID*210* |
| DMP216 | 21.6 | ● | 12 | 3.29 | 21 | TID*210* |
| DMP217 | 21.7 | ● | 12 | 3.31 | 21 | TID*210* |
| DMP218 | 21.8 | ● | 12 | 3.33 | 21 | TID*210* |

## DMP钻头刀片






| 型　号 Model | DC | 材质 HP-7220 | LPR | PL | 刀座尺寸 | 钻体 |
|---|---|---|---|---|---|---|
| DMP219 | 21.9 | ● | 12 | 3.34 | 21 | TID*210* |
| DMP220 | 22 | ● | 12.6 | 3.32 | 22 | TID*220* |
| DMP221 | 22.1 | ● | 12.6 | 3.34 | 22 | TID*220* |
| DMP222 | 22.2 | ● | 12.6 | 3.36 | 22 | TID*220* |
| DMP223 | 22.3 | ● | 12.6 | 3.37 | 22 | TID*220* |
| DMP224 | 22.4 | ● | 12.6 | 3.39 | 22 | TID*220* |
| DMP225 | 22.5 | ● | 12.6 | 3.41 | 22 | TID*220* |
| DMP226 | 22.6 | ● | 12.6 | 3.43 | 22 | TID*220* |
| DMP227 | 22.7 | ● | 12.6 | 3.45 | 22 | TID*220* |
| DMP228 | 22.8 | ● | 12.6 | 3.47 | 22 | TID*220* |
| DMP229 | 22.9 | ● | 12.6 | 3.48 | 22 | TID*220* |
| DMP230 | 23 | ● | 13.1 | 3.46 | 23 | TID*230* |
| DMP231 | 23.1 | ● | 13.1 | 3.48 | 23 | TID*230* |
| DMP232 | 23.2 | ● | 13.1 | 3.5 | 23 | TID*230* |
| DMP233 | 23.3 | ● | 13.1 | 3.51 | 23 | TID*230* |
| DMP234 | 23.4 | ● | 13.1 | 3.53 | 23 | TID*230* |
| DMP235 | 23.5 | ● | 13.1 | 3.55 | 23 | TID*230* |
| DMP236 | 23.6 | ● | 13.1 | 3.57 | 23 | TID*230* |
| DMP237 | 23.7 | ● | 13.1 | 3.59 | 23 | TID*230* |
| DMP238 | 23.8 | ● | 13.1 | 3.61 | 23 | TID*230* |
| DMP239 | 23.9 | ● | 13.1 | 3.62 | 23 | TID*230* |
| DMP240 | 24 | ● | 13.7 | 3.62 | 24 | TID*240* |
| DMP241 | 24.1 | ● | 13.7 | 3.64 | 24 | TID*240* |
| DMP242 | 24.2 | ● | 13.7 | 3.66 | 24 | TID*240* |
| DMP243 | 24.3 | ● | 13.7 | 3.67 | 24 | TID*240* |
| DMP244 | 24.4 | ● | 13.7 | 3.69 | 24 | TID*240* |
| DMP245 | 24.5 | ● | 13.7 | 3.71 | 24 | TID*240* |
| DMP246 | 24.6 | ● | 13.7 | 3.73 | 24 | TID*240* |
| DMP247 | 24.7 | ● | 13.7 | 3.75 | 24 | TID*240* |
| DMP248 | 24.8 | ● | 13.7 | 3.77 | 24 | TID*240* |
| DMP249 | 24.9 | ● | 13.7 | 3.78 | 24 | TID*240* |
| DMP250 | 25 | ● | 14.3 | 3.8 | 25 | TID*250* |
| DMP251 | 25.1 | ● | 14.3 | 3.82 | 25 | TID*250* |
| DMP252 | 25.2 | ● | 14.3 | 3.84 | 25 | TID*250* |
| DMP253 | 25.3 | ● | 14.3 | 3.85 | 25 | TID*250* |
| DMP254 | 25.4 | ● | 14.3 | 3.87 | 25 | TID*250* |
| DMP255 | 25.5 | ● | 14.3 | 3.89 | 25 | TID*250* |
| DMP256 | 25.6 | ● | 14.3 | 3.91 | 25 | TID*250* |
| DMP2567 | 25.67 | ● | 14.3 | 3.92 | 25 | TID*250* |
| DMP257 | 25.7 | ● | 14.3 | 3.93 | 25 | TID*250* |
| DMP258 | 25.8 | ● | 14.3 | 3.95 | 25 | TID*250* |
| DMP259 | 25.9 | ● | 14.3 | 3.96 | 25 | TID*250* |



# SOMT

**MP9110材质**

阶进技术
可确保切削力的完美平衡

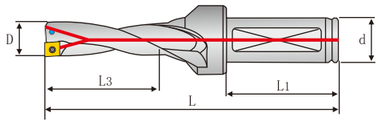
新品 NEW PRODUCT





## RO舍弃式快速钻 2×D





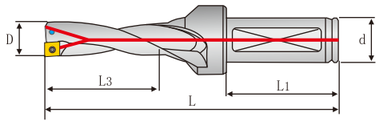

• 直径范围：D13～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R002-130S20-SOMT05 | 13 | 20 | 88 | 29 | 44 | SOMT050204 | M2×4 | T06 |
| R002-135S20-SOMT05 | 13.5 | | 89 | 30 | | | | |
| R002-140S20SOMT05 | 14 | | 90 | 31 | | | | |
| R002-145S20SOMT05 | 14.5 | | 91 | 32 | | | | |
| R002-150S20SOMT05 | 15 | | 92 | 33 | | | | |
| R002-155S20SOMT05 | 15.5 | | 93 | 34 | | | | |
| R002-160S20SOMT05 | 16 | | 94 | 35 | | | | |
| R002-165S20SOMT06 | 16.5 | | 95 | 36 | | SOMT060204 | M2.2×5 | T07 |
| R002-170S20SOMT06 | 17 | | 96 | 37 | | | | |
| R002-175S25SOMT06 | 17.5 | 25 | 109 | 38 | 56 | | | |
| R002-180S25SOMT06 | 18 | | 110 | 39 | | | | |
| R002-185S25SOMT06 | 18.5 | | 111 | 40 | | | | |
| R002-190S25SOMT06 | 19 | | 112 | 41 | | | | |
| R002-195S25SOMT07 | 19.5 | | 113 | 42 | | SOMT070306 | | |
| R002-200S25SOMT07 | 20 | | 114 | 43 | | | | |
| R002-205S25SOMT07 | 20.5 | | 115 | 44 | | | | |
| R002-210S25SOMT07 | 21 | | 116 | 45 | | | | |
| R002-215S25SOMT07 | 21.5 | | 117 | 46 | | | | |
| R002-220S25SOMT07 | 22 | | 118 | 47 | | | | |
| R002-225S25SOMT08 | 22.5 | | 119 | 48 | | SOMT08T306 | M2.5×6 | T08 |
| R002-230S25SOMT08 | 23 | | 123 | 49 | | | | |
| R002-235S25SOMT08 | 23.5 | | 124 | 50 | | | | |
| R002-240S25SOMT08 | 24 | | 125 | 51 | | | | |
| R002-245D25SOMT08 | 24.5 | | 126 | 52 | | | | |
| R002-250S25SOMT08 | 25 | | 127 | 53 | | | | |
| R002-255S32SOMT08 | 25.5 | 32 | 134 | 54 | 60 | SOMT09T308 | M3.5×8.5 | T15 |
| R002-260S32SOMT08 | 26 | | 135 | 55 | | | | |
| R002-265S32SOMT09 | 26.5 | | 136 | 56 | | | | |
| R002-270S32SOMT09 | 27 | | 137 | 57 | | | | |
| R002-275S32SOMT09 | 27.5 | | 138 | 58 | | | | |
| R002-280S32SOMT09 | 28 | | 139 | 59 | | | | |
| R002-285S32SOMT09 | 28.5 | | 140 | 60 | | | | |
| R002-290S32SOMT09 | 29 | | 143 | 62 | | | | |
| R002-295S32SOMT09 | 29.5 | 32 | 144 | 63 | | | | |
| R002-300S32SOMT09 | 30 | | 148 | 64 | | | | |
| R002-305S32SOMT09 | 30.5 | | 149 | 65 | | | | |
| R002-310S32SOMT09 | 31 | | 150 | 66 | | | | |
| R002-315S32SOMT09 | 31.5 | | 151 | 67 | | | | |



## RO舍弃式快速钻 2×D



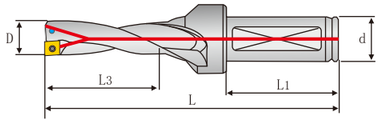



• 直径范围：D13～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R002-320S32SOMT11 | 32 | 32 | 152 | 68 | 60 | SOMT11T308 | M3.5×8.5 | T15 |
| R002-325S32SOMT11 | 32.5 | | 153 | 69 | | | | |
| R002-330S32SOMT11 | 33 | | 154 | 70 | | | | |
| R002-335S32SOMT11 | 33.5 | | 155 | 71 | | | | |
| R002-340S32SOMT11 | 34 | | 156 | 72 | | | | |
| R002-345S32SOMT11 | 34.5 | | 157 | 73 | | | | |
| R002-350S32SOMT11 | 35 | | 158 | 74 | | | | |
| R002-355S32SOMT11 | 35.5 | | 159 | 75 | | | | |
| R002-360S32SOMT11 | 36 | | 160 | 76 | | | | |
| R002-365S32SOMT11 | 36.5 | | 161 | 77 | | | | |
| R002-370S32SOMT13 | 37 | | 169 | 79 | | SOMT130408 | M4×10 | T15 |
| R002-375S32SOMT13 | 37.5 | | 170 | 80 | | | | |
| R002-380S32SOMT13 | 38 | | 171 | 81 | | | | |
| R002-385S32SOMT13 | 38.5 | | 172 | 82 | | | | |
| R002-390S32SOMT13 | 39 | | 173 | 83 | | | | |
| R002-395S32SOMT13 | 39.5 | | 174 | 84 | | | | |
| R002-400S32SOMT13 | 40 | 40 | 185 | 85 | 70 | | | |
| R002-410S32SOMT13 | 41 | | 187 | 87 | | | | |
| R002-420S32SOMT13 | 42 | | 189 | 89 | | | | |
| R002-430S32SOMT13 | 43 | | 191 | 91 | | | | |

## RO舍弃式快速钻 3×D





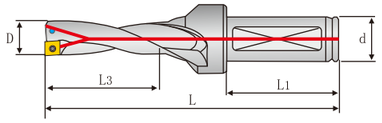

• 直径范围：D13～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R003-130S20-SOMT05 | 13 | 20 | 101 | 42 | 44 | SOMT050204 | M2×4 | T06 |
| R003-135S20-SOMT05 | 13.5 | | 103 | 44 | | | | |
| R003-140S20-SOMT05 | 14 | | 104 | 45 | | | | |
| R003-145S20-SOMT05 | 14.5 | | 106 | 47 | | | | |
| R003-150S20-SOMT05 | 15 | | 107 | 48 | | | | |
| R003-155S20-SOMT05 | 15.5 | | 109 | 50 | | SOMT060204 | M2.2×5 | T07 |
| R003-160S20-SOMT05 | 16 | | 110 | 51 | | | | |
| R003-165S20-SOMT06 | 16.5 | | 112 | 53 | | | | |
| R003-170S20-SOMT06 | 17 | | 113 | 54 | | | | |
| R003-175S20-SOMT06 | 17.5 | | 127 | 56 | 56 | SOMT070306 | | |
| R003-180S20-SOMT06 | 18 | | 128 | 57 | | | | |
| R003-185S20-SOMT06 | 18.5 | | 130 | 59 | | | | |
| R003-190S20-SOMT06 | 19 | | 131 | 60 | | | | |
| R003-195S20-SOMT07 | 19.5 | | 133 | 62 | | | | |
| R003-200S20-SOMT07 | 20 | | 134 | 63 | | | | |
| R003-205S20-SOMT07 | 20.5 | | 136 | 65 | | | | |
| R003-210S20-SOMT07 | 21 | | 137 | 66 | | | | |
| R003-215S20-SOMT07 | 21.5 | | 139 | 68 | | SOMT08T306 | M2.5×6 | T08 |
| R003-220S20-SOMT07 | 22 | | 140 | 69 | | | | |
| R003-225S20-SOMT08 | 22.5 | | 142 | 71 | | | | |
| R003-230S20-SOMT08 | 23 | | 146 | 72 | | | | |
| R003-235S20-SOMT08 | 23.5 | | 148 | 74 | | | | |
| R003-240S20-SOMT08 | 24 | | 149 | 75 | | | | |
| R003-245S20-SOMT08 | 24.5 | | 151 | 77 | | | | |
| R003-250S20-SOMT08 | 25 | | 152 | 78 | | | | |
| R003-255S32-SOMT08 | 25.5 | 32 | 160 | 80 | 60 | SOMT09T308 | M3.5×8.5 | T15 |
| R003-260S32-SOMT08 | 26 | | 161 | 81 | | | | |
| R003-265S32-SOMT09 | 26.5 | | 163 | 83 | | | | |
| R003-270S32-SOMT09 | 27 | | 164 | 84 | | | | |
| R003-275S32-SOMT09 | 27.5 | | 166 | 86 | | | | |
| R003-280S32-SOMT09 | 28 | | 167 | 87 | | | | |
| R003-285S32-SOMT09 | 28.5 | | 169 | 89 | | | | |
| R003-290S32-SOMT09 | 29 | | 172 | 91 | | | | |
| R003-295S32-SOMT09 | 29.5 | 32 | 174 | 93 | | | | |
| R003-300S32-SOMT09 | 30 | | 178 | 94 | | | | |
| R003-305S32-SOMT09 | 30.5 | | 180 | 96 | | | | |
| R003-310S32-SOMT09 | 31 | | 181 | 97 | | | | |
| R003-315S32-SOMT09 | 31.5 | | 183 | 99 | | | | |



## RO舍弃式快速钻 3×D



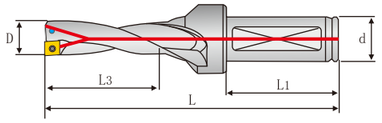



• 直径范围：D13～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R003-320S32-SOMT11 | 32 | 32 | 184 | 100 | 60 | SOMT11T308 | M3.5×8.5 | T15 |
| R003-325S32-SOMT11 | 32.5 | | 186 | 102 | | | | |
| R003-330S32-SOMT11 | 33 | | 187 | 103 | | | | |
| R003-335S32-SOMT11 | 33.5 | | 189 | 105 | | | | |
| R003-340S32-SOMT11 | 34 | | 190 | 106 | | | | |
| R003-345S32-SOMT11 | 34.5 | | 192 | 108 | | | | |
| R003-350S32-SOMT11 | 35 | | 193 | 109 | | | | |
| R003-355S32-SOMT11 | 35.5 | | 195 | 111 | | | | |
| R003-360S32-SOMT11 | 36 | | 196 | 112 | | | | |
| R003-365S32-SOMT11 | 36.5 | | 198 | 114 | | | | |
| R003-370S32-SOMT13 | 37 | | 206 | 116 | | | | |
| R003-375S32-SOMT13 | 37.5 | | 208 | 118 | | | | |
| R003-380S32-SOMT13 | 38 | | 209 | 119 | | | | |
| R003-385S32-SOMT13 | 38.5 | | 211 | 121 | | | | |
| R003-390S32-SOMT13 | 39 | | 212 | 122 | | | | |
| R003-395S32-SOMT13 | 39.5 | | 214 | 124 | | | | |
| R003-400S32-SOMT13 | 40 | 40 | 225 | 125 | 70 | SOMT130408 | M4×10 | T15 |
| R003-410S32-SOMT13 | 41 | | 228 | 128 | | | | |
| R003-420S32-SOMT13 | 42 | | 231 | 131 | | | | |
| R003-430S32-SOMT13 | 43 | | 234 | 134 | | | | |

## RO舍弃式快速钻 4×D





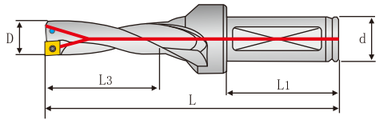

• 直径范围：D14～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R004-140S20-SOMT05 | 14 | 20 | 118 | 59 | 44 | SOMT050204 | M2×4 | T06 |
| R004-145S20-SOMT05 | 14.5 | | 120 | 61 | | | | |
| R004-150S20-SOMT05 | 15 | | 122 | 63 | | | | |
| R004-155S20-SOMT05 | 15.5 | | 124 | 65 | | | | |
| R004-160S20-SOMT05 | 16 | | 126 | 67 | | | | |
| R004-165S20-SOMT06 | 16.5 | | 128 | 69 | | SOMT060204 | M2.2×5 | T07 |
| R004-170S20-SOMT06 | 17 | | 130 | 71 | | | | |
| R004-175S25-SOMT06 | 17.5 | 25 | 144 | 73 | 56 | | | |
| R004-180S25-SOMT06 | 18 | | 146 | 75 | | | | |
| R004-185S25-SOMT06 | 18.5 | | 148 | 77 | | | | |
| R004-190S25-SOMT06 | 19 | | 150 | 79 | | | | |
| R004-195S25-SOMT07 | 19.5 | | 152 | 81 | | SOMT070306 | | |
| R004-200S25-SOMT07 | 20 | | 154 | 83 | | | | |
| R004-205S25-SOMT07 | 20.5 | | 156 | 85 | | | | |
| R004-210S25-SOMT07 | 21 | | 158 | 87 | | | | |
| R004-215S25-SOMT07 | 21.5 | | 160 | 89 | | | | |
| R004-220S25-SOMT07 | 22 | | 162 | 91 | | | | |
| R004-225S25-SOMT08 | 22.5 | | 164 | 93 | | SOMT08T306 | M2.5×6 | T08 |
| R004-230S25-SOMT08 | 23 | | 169 | 95 | | | | |
| R004-235S25-SOMT08 | 23.5 | | 171 | 97 | | | | |
| R004-240S25-SOMT08 | 24 | | 173 | 99 | | | | |
| R004-245S25-SOMT08 | 24.5 | | 175 | 101 | | | | |
| R004-250S25-SOMT08 | 25 | | 177 | 103 | | | | |
| R004-255S32-SOMT08 | 25.5 | 32 | 185 | 105 | 60 | SOMT09T308 | M3.5×8.5 | T15 |
| R004-260S32-SOMT08 | 26 | | 187 | 107 | | | | |
| R004-265S32-SOMT09 | 26.5 | | 189 | 109 | | | | |
| R004-270S32-SOMT09 | 27 | | 191 | 111 | | | | |
| R004-275S32-SOMT09 | 27.5 | | 193 | 113 | | | | |
| R004-280S32-SOMT09 | 28 | | 195 | 115 | | | | |
| R004-285S32-SOMT09 | 28.5 | | 197 | 117 | | | | |
| R004-290S32-SOMT09 | 29 | | 201 | 120 | | | | |
| R004-295S32-SOMT09 | 29.5 | 32 | 203 | 122 | | | | |
| R004-300S32-SOMT09 | 30 | | 208 | 124 | | | | |
| R004-305S32-SOMT09 | 30.5 | | 210 | 126 | | | | |
| R004-310S32-SOMT09 | 31 | | 212 | 128 | | | | |
| R004-315S32-SOMT09 | 31.5 | | 214 | 130 | | | | |



## RO舍弃式快速钻 4×D



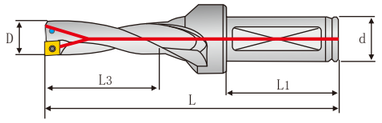



• 直径范围：D14～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| R004-320S32-SOMT11 | 32 | 32 | 216 | 132 | 60 | SOMT11T308 | M3.5×8.5 | T15 |
| R004-325S32-SOMT11 | 32.5 | | 218 | 134 | | | | |
| R004-330S32-SOMT11 | 33 | | 220 | 136 | | | | |
| R004-335S32-SOMT11 | 33.5 | | 222 | 138 | | | | |
| R004-340S32-SOMT11 | 34 | 32 | 224 | 140 | | | | |
| R004-345S32-SOMT11 | 34.5 | | 226 | 142 | | | | |
| R004-350S32-SOMT11 | 35 | | 228 | 144 | | | | |
| R004-355S32-SOMT11 | 35.5 | | 230 | 146 | | | | |
| R004-360S32-SOMT11 | 36 | | 232 | 148 | | | | |
| R004-365S32-SOMT11 | 36.5 | | 234 | 150 | | | | |
| R004-370S32-SOMT13 | 37 | | 243 | 153 | | SOMT130408 | M4×10 | T15 |
| R004-375S32-SOMT13 | 37.5 | | 245 | 155 | | | | |
| R004-380S32-SOMT13 | 38 | | 247 | 157 | | | | |
| R004-385S32-SOMT13 | 38.5 | | 249 | 159 | | | | |
| R004-390S32-SOMT13 | 39 | | 251 | 161 | | | | |
| R004-395S32-SOMT13 | 39.5 | | 253 | 163 | | | | |
| R004-400S40-SOMT13 | 40 | 40 | 265 | 165 | 70 | | | |
| R004-410S40-SOMT13 | 41 | | 269 | 169 | | | | |
| R004-420S40-SOMT13 | 42 | | 273 | 173 | | | | |
| R004-430S40-SOMT13 | 43 | | 277 | 177 | | | | |

# RO舍弃式快速钻 5×D






• 直径范围：D16～D43

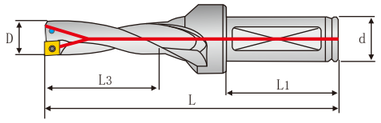
| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RO05-160S20-SOMT05 | 16 | 20 | 142 | 83 | 44 | SOMT050204 | M2×4 | T06 |
| RO05-165S20-SOMT06 | 16.5 | | 145 | 86 | | SOMT060204 | M2.2×5 | T07 |
| RO05-170S20-SOMT06 | 17 | | 147 | 88 | | | | |
| RO05-175S25-SOMT06 | 17.5 | 25 | 162 | 91 | 56 | | | |
| RO05-180S25-SOMT06 | 18 | | 164 | 93 | | | | |
| RO05-185S25-SOMT06 | 18.5 | | 167 | 96 | | | | |
| RO05-190S25-SOMT06 | 19 | | 169 | 98 | | | | |
| RO05-195S25-SOMT07 | 19.5 | | 172 | 101 | | SOMT070306 | | |
| RO05-200S25-SOMT07 | 20 | | 174 | 103 | | | | |
| RO05-205S25-SOMT07 | 20.5 | | 177 | 106 | | | | |
| RO05-210S25-SOMT07 | 21 | | 179 | 108 | | | | |
| RO05-215S25-SOMT07 | 21.5 | | 182 | 111 | | | | |
| RO05-220S25-SOMT07 | 22 | | 184 | 113 | | | | |
| RO05-225S25-SOMT08 | 22.5 | | 187 | 116 | | SOMT08T306 | M2.5×6 | T08 |
| RO05-230S25-SOMT08 | 23 | | 192 | 118 | | | | |
| RO05-235S25-SOMT08 | 23.5 | | 195 | 121 | | | | |
| RO05-240S25-SOMT08 | 24 | | 197 | 123 | | | | |
| RO05-245S25-SOMT08 | 24.5 | | 200 | 126 | | | | |
| RO05-250S25-SOMT08 | 25 | | 202 | 128 | | | | |
| RO05-255S32-SOMT08 | 25.5 | 32 | 213 | 130 | 60 | | | |
| RO05-260S32-SOMT08 | 26 | | 216 | 133 | | | | |
| RO05-265S32-SOMT09 | 26.5 | | 219 | 136 | | | | |
| RO05-270S32-SOMT09 | 27 | | 220 | 138 | | | | |
| RO05-275S32-SOMT09 | 27.5 | | 221 | 141 | | SOMT09T308 | M2.5×6 | T15 |
| RO05-280S32-SOMT09 | 28 | | 223 | 143 | | | | |
| RO05-285S32-SOMT09 | 28.5 | | 226 | 146 | | | | |
| RO05-290S32-SOMT09 | 29 | | 230 | 148 | | | | |
| RO05-295S32-SOMT09 | 29.5 | | 233 | 151 | | | | |
| RO05-300S32-SOMT09 | 30 | 32 | 238 | 154 | | | | |
| RO05-305S32-SOMT09 | 30.5 | | 241 | 157 | | | | |
| RO05-310S32-SOMT09 | 31 | | 243 | 159 | | | | |
| RO05-315S32-SOMT09 | 31.5 | | 245 | 162 | | | | |



R 整体硬质合金铣刀
I 常用铣削刀片
N 可转位铣削刀具
E 孔加工刀具
C 刀柄系统
K 辅助工具
+ 通用信息

# RO舍弃式快速钻 5×D






• 直径范围：D16～D43

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RO05-320S32-SOMT11 | 32 | 32 | 248 | 164 | 60 | SOMT11T308 | M3.5×8.5 | T15 |
| RO05-325S32-SOMT11 | 32.5 | | 251 | 167 | | | | |
| RO05-330S32-SOMT11 | 33 | | 253 | 169 | | | | |
| RO05-335S32-SOMT11 | 33.5 | | 255 | 172 | | | | |
| RO05-340S32-SOMT11 | 34 | | 258 | 174 | | | | |
| RO05-345S32-SOMT11 | 34.5 | | 261 | 177 | | | | |
| RO05-350S32-SOMT11 | 35 | 32 | 263 | 179 | | | | |
| RO05-355S32-SOMT11 | 35.5 | | 265 | 182 | | | | |
| RO05-360S32-SOMT11 | 36 | | 268 | 184 | | | | |
| RO05-365S32-SOMT11 | 36.5 | | 271 | 187 | | | | |
| RO05-370S32-SOMT13 | 37 | | 280 | 190 | | SOMT130408 | M4×10 | T15 |
| RO05-375S32-SOMT13 | 37.5 | | 283 | 118 | | | | |
| RO05-380S32-SOMT13 | 38 | | 285 | 119 | | | | |
| RO05-385S32-SOMT13 | 38.5 | | 288 | 121 | | | | |
| RO05-390S32-SOMT13 | 39 | | 290 | 122 | | | | |
| RO05-395S32-SOMT13 | 39.5 | | 293 | 124 | | | | |
| RO05-400S40-SOMT13 | 40 | 40 | 305 | 125 | 70 | | | |
| RO05-410S40-SOMT13 | 41 | | 310 | 128 | | | | |
| RO05-420S40-SOMT13 | 42 | | 315 | 131 | | | | |
| RO05-430S40-SOMT13 | 43 | | 320 | 134 | | | | |

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | SOMT050204 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT060204 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT070306 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT08T306 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT09T308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT11T308 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |
| | SOMT130408 | MP-9110 | ▲ | ● | ● | ● | | ◎ | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

# 快速钻

—— 专业孔加工而设计

## 刀具

- 两个进水孔，适合在车床及铣床上鑽孔。
- 产品直径从12.5mm到50mm，规格齐全。
- 鑽孔深度有2xDc，3xDc,4xDc。

## 应用场合

- 适合所有钢和鑄鐵材料，包括不锈钢和难加工材料。
- 通用性好（平面，斜面，交叉，扩口）。
- 鑽削平衡，振动小，获得更高的表面质量。

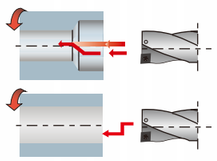
## 可转位刀片

- 真正的四切削刃，经济型更佳。
- 先进的槽型设计，使得断屑效果更好。

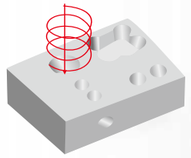


*更快的加工效率*
*更高的表面质量*
*更好的断屑效果*
*降低适用成本*

## 钻削方式

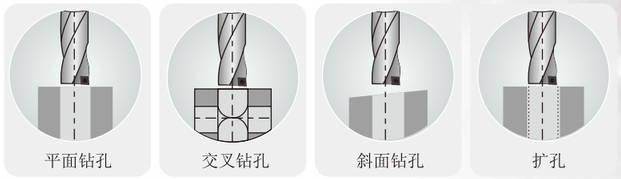


工件旋转



鑽孔旋转

## 钻削类型





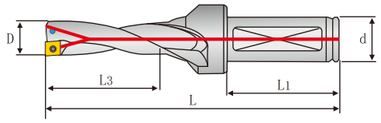



## RD型舍弃式快速钻(2×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　$Dc^{0}_{-0.1}$
- 孔公差　$\phi d^{+0.2}_{-0.1}$



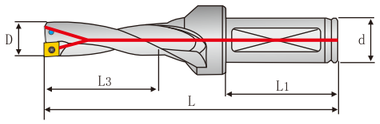

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD02-125S20-05 | 12.5 | 20 | 94 | 26 | 50 | RD600-050204 | TS2003 | TK06 |
| RD02-130S20-05 | 13 | | | | | | | |
| RD02-135S20-05 | 13.5 | | 96 | 28 | | | | |
| RD02-140S20-05 | 14 | | | | | | | |
| RD02-145S20-05 | 14.5 | | 99 | 30 | | | | |
| RD02-150S20-05 | 15 | | | | | | | |
| RD02-155S25-06 | 15.5 | 25 | 108 | 32 | 56 | RD600-060204 | TS2202 | TK06 |
| RD02-160S25-06 | 16 | | | | | | | |
| RD02-165S25-06 | 16.5 | | 110 | 34 | | | | |
| RD02-170S25-06 | 17 | | | | | | | |
| RD02-175S25-06 | 17.5 | | 113 | 36 | | | | |
| RD02-180S25-06 | 18 | | | | | | | |
| RD02-185S25-06 | 18.5 | | 115 | 38 | | | | |
| RD02-190S25-06 | 19 | | | | | | | |
| RD02-195S25-06 | 19.5 | | 119 | 40 | | | | |
| RD02-200S25-06 | 20 | | | | | | | |
| RD02-205S25-06 | 20.5 | | 121 | 42 | | | | |
| RD02-210S25-06 | 21 | | | | | | | |
| RD02-215S25-06 | 21.5 | | 123 | 44 | | | | |
| RD02-220S25-07 | 22 | | | | | | | |
| RD02-225S32-07 | 22.5 | 32 | 131 | 46 | 60 | RD600-07T308 | TS2511 | TK08 |
| RD02-230S32-07 | 23 | | | | | | | |
| RD02-235S32-07 | 23.5 | | 134 | 48 | | | | |
| RD02-240S32-07 | 24 | | | | | | | |
| RD02-245S32-07 | 24.5 | | 137 | 50 | | | | |
| RD02-250S32-07 | 25 | | | | | | | |
| RD02-255S32-07 | 25.5 | | 139 | 52 | | | | |
| RD02-260S32-07 | 26 | | | | | | | |
| RD02-265S32-07 | 26.5 | | 142 | 54 | | | | |
| RD02-270S32-07 | 27 | | | | | | | |
| RD02-275S32-07 | 27.5 | | 144 | 56 | | | | |
| RD02-280S32-09 | 28 | | | | | RD600-090408 | TS3504 | TK15 |
| RD02-285S32-09 | 28.5 | | 146 | 58 | | | | |
| RD02-290S32-09 | 29 | | | | | | | |
| RD02-295S32-09 | 29.5 | | 148 | 60 | | | | |
| RD02-300S32-09 | 30 | | | | | | | |
| RD02-305S32-09 | 30.5 | | 150 | 62 | | | | |
| RD02-310S32-09 | 31 | | | | | | | |
| RD02-315S32-09 | 31.5 | | 152 | 64 | | | | |
| RD02-320S32-09 | 32 | | | | | | | |

## RD型舍弃式快速钻(2×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$




| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD02-325S32-09 | 32.5 | 32 | 154 | 66 | 60 | RD600-090408 | TS3504 | TK15 |
| RD02-330S32-09 | 33 | | | | | | | |
| RD02-340S32-11 | 34 | | 156 | 68 | | RD600-110408 | TS4006 | TK15 |
| RD02-350S32-11 | 35 | | 158 | 70 | | | | |
| RD02-360S32-11 | 36 | | 160 | 72 | | | | |
| RD02-370S32-11 | 37 | | 162 | 74 | | | | |
| RD02-380S32-11 | 38 | | 164 | 76 | | | | |
| RD02-390S32-11 | 39 | | 166 | 78 | | | | |
| RD02-400S40-11 | 40 | 40 | 185 | 80 | | | | |
| RD02-410S40-11 | 41 | | 187 | 82 | | | | |
| RD02-420S40-14 | 42 | | 189 | 84 | 70 | RD600-140512 | TS5009 | TK20 |
| RD02-430S40-14 | 43 | | 191 | 86 | | | | |
| RD02-440S40-14 | 44 | | 193 | 88 | | | | |
| RD02-450S40-14 | 45 | | 195 | 90 | | | | |
| RD02-460S40-14 | 46 | | 197 | 92 | | | | |
| RD02-470S40-14 | 47 | | 199 | 94 | | | | |
| RD02-480S40-14 | 48 | | 201 | 96 | | | | |
| RD02-490S40-14 | 49 | | 203 | 98 | | | | |
| RD02-500S40-14 | 50 | | 205 | 100 | | | | |



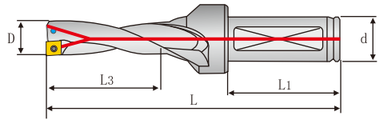


## RD型舍弃式快速钻(3×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$



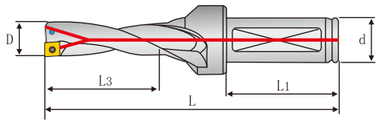

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD03-125S20-05 | 12.5 | 20 | 107 | 39 | 50 | RD600-050204 | TS2003 | TK06 |
| RD03-130S20-05 | 13 | | | | | | | |
| RD03-135S20-05 | 13.5 | | 110 | 42 | | | | |
| RD03-140S20-05 | 14 | | | | | | | |
| RD03-145S20-05 | 14.5 | | 114 | 45 | | | | |
| RD03-150S20-05 | 15 | | | | | | | |
| RD03-155S25-06 | 15.5 | 25 | 124 | 48 | 56 | RD600-060204 | TS2202 | TK06 |
| RD03-160S25-06 | 16 | | | | | | | |
| RD03-165S25-06 | 16.5 | | 127 | 51 | | | | |
| RD03-170S25-06 | 17 | | | | | | | |
| RD03-175S25-06 | 17.5 | | 131 | 54 | | | | |
| RD03-180S25-06 | 18 | | | | | | | |
| RD03-185S25-06 | 18.5 | | 134 | 57 | | | | |
| RD03-190S25-06 | 19 | | | | | | | |
| RD03-195S25-06 | 19.5 | | 139 | 60 | | | | |
| RD03-200S25-06 | 20 | | | | | | | |
| RD03-205S25-06 | 20.5 | | 142 | 63 | | | | |
| RD03-210S25-06 | 21 | | | | | | | |
| RD03-215S25-06 | 21.5 | | 145 | 66 | | | | |
| RD03-220S25-07 | 22 | 32 | | | 60 | RD600-07T308 | TS2511 | TK08 |
| RD03-225S32-07 | 22.5 | | 154 | 69 | | | | |
| RD03-230S32-07 | 23 | | | | | | | |
| RD03-235S32-07 | 23.5 | | 158 | 72 | | | | |
| RD03-240S32-07 | 24 | | | | | | | |
| RD03-245S32-07 | 24.5 | | 162 | 75 | | | | |
| RD03-250S32-07 | 25 | | | | | | | |
| RD03-255S32-07 | 25.5 | | 165 | 78 | | | | |
| RD03-260S32-07 | 26 | | | | | | | |
| RD03-265S32-07 | 26.5 | | 169 | 81 | | | | |
| RD03-270S32-07 | 27 | | | | | | | |
| RD03-275S32-07 | 27.5 | | 172 | 84 | | | | |
| RD03-280S32-09 | 28 | | | | | RD600-090408 | TS3504 | TK15 |
| RD03-285S32-09 | 28.5 | | 175 | 87 | | | | |
| RD03-290S32-09 | 29 | | | | | | | |
| RD03-295S32-09 | 29.5 | | 178 | 90 | | | | |
| RD03-300S32-09 | 30 | | | | | | | |
| RD03-305S32-09 | 30.5 | | 181 | 93 | | | | |
| RD03-310S32-09 | 31 | | | | | | | |
| RD03-315S32-09 | 31.5 | | 184 | 96 | | | | |
| RD03-320S32-09 | 32 | | | | | | | |

## RD型舍弃式快速钻(3×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$




| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD03-325S32-09 | 32.5 | 32 | 187 | 99 | 60 | RD600-090408 | TS3504 | TK15 |
| RD03-330S32-09 | 33 | | 190 | 102 | | RD600-110408 | TS4006 | TK15 |
| RD03-340S32-11 | 34 | | 193 | 105 | | | | |
| RD03-350S32-11 | 35 | | 196 | 108 | | | | |
| RD03-360S32-11 | 36 | | 199 | 111 | | | | |
| RD03-370S32-11 | 37 | | 202 | 114 | | | | |
| RD03-380S32-11 | 38 | | 205 | 117 | | | | |
| RD03-390S32-11 | 39 | | 225 | 120 | | | | |
| RD03-400S40-11 | 40 | 40 | 228 | 123 | | | | |
| RD03-410S40-11 | 41 | | 231 | 126 | 70 | RD600-140512 | TS5009 | TK20 |
| RD03-420S40-14 | 42 | | 234 | 129 | | | | |
| RD03-430S40-14 | 43 | | 237 | 132 | | | | |
| RD03-440S40-14 | 44 | | 240 | 135 | | | | |
| RD03-450S40-14 | 45 | | 243 | 138 | | | | |
| RD03-460S40-14 | 46 | | 246 | 141 | | | | |
| RD03-470S40-14 | 47 | | 249 | 144 | | | | |
| RD03-480S40-14 | 48 | | 252 | 147 | | | | |
| RD03-490S40-14 | 49 | | 255 | 150 | | | | |
| RD03-500S40-14 | 50 | | | | | | | |



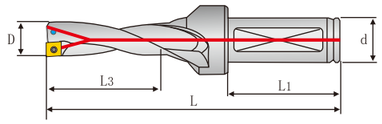


## RD舍弃式快速钻(4×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$



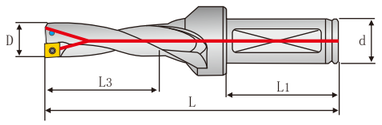

| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD04-125S20-05 | 12.5 | 20 | 120 | 52 | 50 | RD600-050204 | TS2003 | TK06 |
| RD04-130S20-05 | 13 | | | | | | | |
| RD04-135S20-05 | 13.5 | | 124 | 56 | | | | |
| RD04-140S20-05 | 14 | | | | | | | |
| RD04-145S20-05 | 14.5 | | 129 | 60 | | | | |
| RD04-150S20-05 | 15 | | | | | | | |
| RD04-155S25-06 | 15.5 | 25 | 140 | 64 | 56 | RD600-060204 | TS2202 | TK06 |
| RD04-160S25-06 | 16 | | | | | | | |
| RD04-165S25-06 | 16.5 | | 144 | 68 | | | | |
| RD04-170S25-06 | 17 | | | | | | | |
| RD04-175S25-06 | 17.5 | | 148 | 72 | | | | |
| RD04-180S25-06 | 18 | | | | | | | |
| RD04-185S25-06 | 18.5 | | 152 | 76 | | | | |
| RD04-190S25-06 | 19 | | | | | | | |
| RD04-195S25-06 | 19.5 | | 156 | 80 | | | | |
| RD04-200S25-06 | 20 | | | | | | | |
| RD04-205S25-06 | 20.5 | | 160 | 84 | | | | |
| RD04-210S25-06 | 21 | | | | | | | |
| RD04-215S25-06 | 21.5 | | 164 | 88 | | | | |
| RD04-220S25-07 | 22 | 32 | | | 60 | RD600-07T308 | TS2511 | TK08 |
| RD04-225S32-07 | 22.5 | | 177 | 92 | | | | |
| RD04-230S32-07 | 23 | | | | | | | |
| RD04-235S32-07 | 23.5 | | 181 | 96 | | | | |
| RD04-240S32-07 | 24 | | | | | | | |
| RD04-245S32-07 | 24.5 | | 185 | 100 | | | | |
| RD04-250S32-07 | 25 | | | | | | | |
| RD04-255S32-07 | 25.5 | | 189 | 104 | | | | |
| RD04-260S32-07 | 26 | | | | | | | |
| RD04-265S32-07 | 26.5 | | 196 | 108 | | | | |
| RD04-270S32-07 | 27 | | | | | | | |
| RD04-275S32-07 | 27.5 | | 200 | 112 | | | | |
| RD04-280S32-09 | 28 | | | | | | | |
| RD04-285S32-09 | 28.5 | | 204 | 116 | | RD600-090408 | TS3504 | TK15 |
| RD04-290S32-09 | 29 | | | | | | | |
| RD04-295S32-09 | 29.5 | | 208 | 120 | | | | |
| RD04-300S32-09 | 30 | | | | | | | |
| RD04-305S32-09 | 30.5 | | 212 | 124 | | | | |
| RD04-310S32-09 | 31 | | | | | | | |
| RD04-315S32-09 | 31.5 | | 216 | 128 | | | | |
| RD04-320S32-09 | 32 | | | | | | | |

## RD舍弃式快速钻(4×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$




| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD04-325S32-09 | 32.5 | 32 | 220 | 132 | 60 | RD600-090408 | TS3504 | TK15 |
| RD04-330S32-09 | 33 | | | | | | | |
| RD04-340S32-11 | 34 | | 224 | 136 | | RD600-110408 | TS4006 | TK15 |
| RD04-350S32-11 | 35 | | 228 | 140 | | | | |
| RD04-360S32-11 | 36 | | 232 | 144 | | | | |
| RD04-370S32-11 | 37 | | 236 | 148 | | | | |
| RD04-380S32-11 | 38 | | 240 | 152 | | | | |
| RD04-390S32-11 | 39 | | 244 | 156 | | | | |
| RD04-400S40-11 | 40 | 40 | 265 | 160 | | | | |
| RD04-410S40-11 | 41 | | 269 | 164 | | | | |
| RD04-420S40-14 | 42 | | 273 | 168 | 70 | RD600-140512 | TS5009 | TK20 |
| RD04-430S40-14 | 43 | | 277 | 172 | | | | |
| RD04-440S40-14 | 44 | | 281 | 176 | | | | |
| RD04-450S40-14 | 45 | | 285 | 180 | | | | |
| RD04-460S40-14 | 46 | | 289 | 184 | | | | |
| RD04-470S40-14 | 47 | | 293 | 188 | | | | |
| RD04-480S40-14 | 48 | | 297 | 192 | | | | |
| RD04-490S40-14 | 49 | | 301 | 196 | | | | |
| RD04-500S40-14 | 50 | | 305 | 200 | | | | |



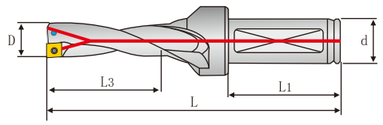


## RD舍弃式快速钻(5×Dc)

- 直径范围　12.5-50mm



- 鑽头直径　Dc $^{0}_{-0.1}$
- 孔公差　ød $^{+0.2}_{-0.1}$




| 型　号 Model | 直径 Dmm | 柄径 dmm | 全长 Lmm | 倍数 L3mm | 柄长 L1mm | 使用刀片 | 螺钉 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| RD05-130S20-05 | 13 | 20 | 133 | 65 | 50 | RD600-050204 | TS2003 | TK06 |
| RD05-140S20-05 | 14 | | 138 | 70 | | | | |
| RD05-150S20-05 | 15 | | 144 | 75 | | | | |
| RD05-160S25-06 | 16 | 25 | 156 | 80 | 56 | RD600-060204 | TS2205 | TK06 |
| RD05-170S25-06 | 17 | | 161 | 85 | | | | |
| RD05-180S25-06 | 18 | | 166 | 90 | | | | |
| RD05-190S25-06 | 19 | | 171 | 95 | | | | |
| RD05-200S25-06 | 20 | | 176 | 100 | | | | |
| RD05-210S25-06 | 21 | | 181 | 105 | | | | |
| RD05-220S25-07 | 22 | | 186 | 110 | | | | |
| RD05-230S32-07 | 23 | 32 | 200 | 115 | 60 | RD600-07T308 | TS2511 | TK08 |
| RD05-240S32-07 | 24 | | 205 | 120 | | | | |
| RD05-250S32-07 | 25 | | 210 | 125 | | | | |
| RD05-260S32-07 | 26 | | 215 | 130 | | | | |
| RD05-270S32-07 | 27 | | 223 | 135 | | | | |
| RD05-280S32-09 | 28 | | 228 | 140 | | RD600-090408 | TS3504 | TK15 |
| RD05-290S32-09 | 29 | | 233 | 145 | | | | |
| RD05-300S32-09 | 30 | | 238 | 150 | | | | |
| RD05-310S32-09 | 31 | | 243 | 155 | | | | |
| RD05-320S32-09 | 32 | | 248 | 160 | | | | |
| RD05-330S32-09 | 33 | | 253 | 165 | | | | |
| RD05-340S32-11 | 34 | | 258 | 170 | | RD600-110408 | TS4006 | TK15 |
| RD05-350S32-11 | 35 | | 263 | 175 | | | | |
| RD05-360S32-11 | 36 | | 268 | 180 | | | | |
| RD05-440S40-14 | 44 | 40 | 325 | 220 | 70 | RD600-140512 | TS5009 | TK20 |

## RD舍弃式快速钻　　使用刀片

| 刀片形状 | 刀片型号 | 刀片材质 | P | M | K | N | S |
|---|---|---|---|---|---|---|---|
|  | RD600-050204T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-060204T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-07T308T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-090408T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-110408T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-140512T-GP | HP-7020 | ● | ● | ● | | ◎ |
| | RD600-050204DA | K10 | | | | ● | |
| | RD600-060204DA | K10 | | | | ● | |
| | RD600-07T308DA | K10 | | | | ● | |
| | RD600-090408DA | K10 | | | | ● | |
| | RD600-110408DA | K10 | | | | ● | |
| | RD600-140512DA | K10 | | | | ● | |

## RD舍弃式快速钻　　推介切削参数

● **RD型快速钻**

| 材　料 | Vc (m/min) | 进给(mm/rev) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | D12.5～D15 | D15.5～D21.5 | D22～D27.5 | D28～D33 | D34～D41 | D42～D50 | D51～D56 | D57～D66 | D67～D73 |
| 低碳钢 (-0.3%C) | 180-250 | 0.05-0.08 | 0.06-0.10 | 0.06-0.12 | 0.07-0.13 | 0.08-0.15 | 0.08-0.16 | 0.06-0.12 | 0.08-0.12 | 0.08-0.12 |
| 碳钢 (-0.3%C) | 160-220 | 0.06-0.12 | 0.08-0.15 | 0.10-0.18 | 0.12-0.22 | 0.12-0.24 | 0.13-0.25 | 0.10-0.15 | 0.12-0.18 | 0.12-0.18 |
| 低碳合金钢 (-HB300) | 150-220 | 0.06-0.12 | 0.08-0.14 | 0.10-0.18 | 0.12-0.22 | 0.12-0.23 | 0.13-0.24 | 0.08-0.15 | 0.10-0.18 | 0.10-0.18 |
| 高碳合金钢 (HB300-) | 130-180 | 0.06-0.10 | 0.08-0.15 | 0.10-0.20 | 0.12-0.23 | 0.12-0.24 | 0.13-0.25 | 0.08-0.15 | 0.10-0.15 | 0.10-0.15 |
| 不锈钢 | 170-240 | 0.05-0.10 | 0.06-0.12 | 0.08-0.15 | 0.09-0.16 | 0.10-0.17 | 0.11-0.19 | 0.06-0.12 | 0.08-0.15 | 0.08-0.15 |
| 铸铁 | 180-250 | 0.06-0.12 | 0.08-0.16 | 0.12-0.20 | 0.15-0.25 | 0.16-0.28 | 0.18-0.30 | 0.12-0.20 | 0.15-0.22 | 0.15-0.22 |
| 球墨铸铁 | 130-200 | 0.06-0.10 | 0.08-0.15 | 0.10-0.18 | 0.12-0.20 | 0.15-0.23 | 0.16-0.25 | 0.10-0.15 | 0.10-0.20 | 0.10-0.20 |
| 铝合金 | 330-380 | 0.06-0.14 | 0.08-0.15 | 0.10-0.20 | 0.12-0.22 | 0.14-0.23 | 0.15-0.26 | 0.15-0.22 | 0.15-0.25 | 0.15-0.25 |
| 钛合金 (Ti 6Ai) | 30-60 | 0.05-0.10 | 0.06-0.14 | 0.08-0.18 | 0.10-0.22 | 0.14-0.23 | 0.15-0.24 | 0.10-0.15 | 0.12-0.16 | 0.12-0.16 |

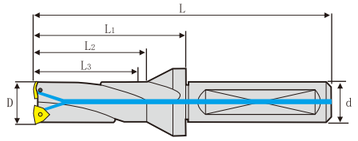
根据机床或工件刚性以上参数可适当调整。





## SD舍弃式快速钻头(2×Dc)



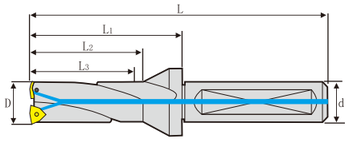



- 采用抗震性工具钢材质
- 整体预硬后,再进行精修,避免二次热处理所生应变

| 型　号 Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD16-32L | 16 | 114 | 58 | 37 | 32 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD17-34L | 17 | 116 | 60 | 39 | 34 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD18-36L | 18 | 119 | 63 | 41 | 36 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19-38L | 19 | 122 | 65 | 43 | 38 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20-40L | 20 | 125 | 69 | 46 | 40 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD21-42L | 21 | 127 | 71 | 47 | 42 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22-44L | 22 | 129 | 73 | 49 | 44 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23-46L | 23 | 132 | 76 | 51 | 46 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24-48L | 24 | 135 | 79 | 54 | 48 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25-50L | 25 | 138 | 82 | 56 | 50 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD26-52L | 26 | 144 | 84 | 57 | 52 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD27-54L | 27 | 146 | 86 | 59 | 54 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD28-56L | 28 | 149 | 89 | 61 | 56 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD29-58L | 29 | 151 | 91 | 63 | 58 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD30-60L | 30 | 155 | 95 | 66 | 60 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD31-62L | 31 | 158 | 98 | 68 | 62 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD32-64L | 32 | 160 | 100 | 70 | 64 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD33-66L | 33 | 163 | 103 | 73 | 66 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD34-68L | 34 | 165 | 105 | 74 | 68 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD35-70L | 35 | 168 | 108 | 76 | 70 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD36-72L | 36 | 167 | 107 | 75 | 72 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD37-74L | 37 | 173 | 113 | 80 | 74 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD38-76L | 38 | 176 | 116 | 82 | 76 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C32-SD39-78L | 39 | 178 | 118 | 84 | 78 | 32 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C40-SD40-80L | 40 | 191 | 121 | 86 | 80 | 40 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C40-SD41-82L | 41 | 194 | 124 | 88 | 82 | 40 | WC..06T308 | M3.5-8.0-53-60 | T15 |
| C40-SD42-84L | 42 | 196 | 126 | 90 | 84 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD43-86L | 43 | 198 | 128 | 92 | 86 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD44-88L | 44 | 201 | 131 | 94 | 88 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD45-90L | 45 | 203 | 133 | 96 | 90 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD46-92L | 46 | 206 | 136 | 98 | 92 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD47-94L | 47 | 208 | 138 | 100 | 94 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD48-96L | 48 | 211 | 141 | 102 | 96 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD49-98L | 49 | 214 | 143 | 104 | 98 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD50-100L | 50 | 212 | 142 | 108 | 100 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD51-102L | 51 | 212 | 142 | 107 | 102 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD52-104L | 52 | 214 | 144 | 109 | 104 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD53-106L | 53 | 216 | 146 | 111 | 106 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD54-108L | 54 | 218 | 148 | 113 | 108 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD55-110L | 55 | 220 | 150 | 115 | 110 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD56-112L | 56 | 222 | 152 | 117 | 112 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD57-114L | 57 | 224 | 154 | 119 | 114 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD58-116L | 58 | 226 | 156 | 121 | 116 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD59-118L | 59 | 228 | 158 | 123 | 118 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD60-120L | 60 | 230 | 160 | 125 | 120 | 40 | WC..080412 | M4-10-5.7-60 | T15 |

## SD舍弃式快速钻头(2×Dc)






- 采用抗震性工具钢材质
- 整体预硬后,再进行精修,避免二次热处理所生应变

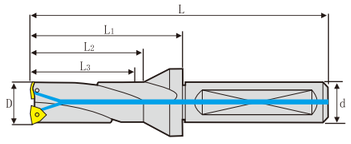
| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C40-SD61-122L | 61 | 232 | 162 | 127 | 122 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD62-124L | 62 | 234 | 164 | 129 | 124 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD63-126L | 63 | 236 | 166 | 131 | 126 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD64-128L | 64 | 238 | 168 | 133 | 128 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD65-130L | 65 | 240 | 170 | 135 | 130 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD66-132L | 66 | 242 | 172 | 137 | 132 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD67-134L | 67 | 244 | 174 | 139 | 134 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD68-136L | 68 | 246 | 176 | 141 | 136 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD69-138L | 69 | 248 | 178 | 143 | 138 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD70-140L | 70 | 250 | 180 | 145 | 140 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD71-142L | 71 | 252 | 182 | 147 | 142 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD72-144L | 72 | 254 | 184 | 149 | 144 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD73-146L | 73 | 256 | 186 | 151 | 146 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD74-148L | 74 | 258 | 188 | 153 | 148 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD75-150L | 75 | 260 | 190 | 155 | 150 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD76-152L | 76 | 262 | 192 | 157 | 152 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD77-154L | 77 | 264 | 194 | 159 | 154 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD78-156L | 78 | 266 | 196 | 161 | 156 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD79-158L | 79 | 268 | 198 | 163 | 158 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD80-160L | 80 | 272 | 200 | 165 | 160 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD81-162L | 81 | 272 | 202 | 167 | 162 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD82-164L | 82 | 274 | 204 | 169 | 164 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD83-166L | 83 | 276 | 206 | 171 | 166 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD84-168L | 84 | 278 | 208 | 173 | 168 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD85-170L | 85 | 280 | 210 | 175 | 170 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |





## SD舍弃式快速钻头(3×Dc)



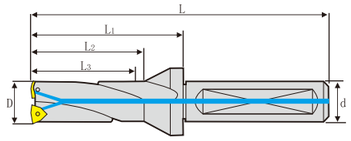



- 采用抗震性工具钢材质
- 整体预硬后,再进行精修,避免二次热处理所生应变

| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD14-42L | 14 | 115 | 65 | 45 | 42 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD15-45L | 15 | 118 | 68 | 47 | 45 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD16-48L | 16 | 130 | 74 | 53 | 48 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD17-51L | 17 | 133 | 77 | 56 | 51 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD18-54L | 18 | 137 | 81 | 59 | 54 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19-57L | 19 | 140 | 84 | 62 | 57 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20-60L | 20 | 145 | 89 | 66 | 60 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD21-63L | 21 | 148 | 92 | 68 | 63 | 25 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22-66L | 22 | 151 | 95 | 71 | 66 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23-69L | 23 | 155 | 99 | 74 | 69 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24-72L | 24 | 159 | 103 | 78 | 72 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25-75L | 25 | 163 | 107 | 81 | 75 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD26-78L | 26 | 170 | 110 | 83 | 78 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD27-81L | 27 | 173 | 113 | 86 | 81 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD28-84L | 28 | 177 | 117 | 89 | 84 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD29-87L | 29 | 180 | 120 | 92 | 87 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD30-90L | 30 | 185 | 125 | 96 | 90 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD31-93L | 31 | 189 | 129 | 99 | 93 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD32-96L | 32 | 192 | 132 | 102 | 96 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD33-99L | 33 | 196 | 136 | 105 | 99 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD34-102L | 34 | 199 | 139 | 108 | 102 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD35-105L | 35 | 203 | 143 | 111 | 105 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD36-108L | 36 | 203 | 143 | 111 | 108 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD37-111L | 37 | 210 | 150 | 117 | 111 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD38-114L | 38 | 214 | 154 | 120 | 114 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD39-117L | 39 | 217 | 157 | 123 | 117 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD40-120L | 40 | 231 | 161 | 126 | 120 | 40 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD41-123L | 41 | 235 | 165 | 129 | 123 | 40 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD42-126L | 42 | 238 | 168 | 132 | 126 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD43-129L | 43 | 241 | 171 | 135 | 129 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD44-132L | 44 | 245 | 175 | 138 | 132 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD45-135L | 45 | 248 | 178 | 141 | 135 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD46-138L | 46 | 252 | 182 | 144 | 138 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD47-141L | 47 | 255 | 185 | 147 | 141 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD48-144L | 48 | 259 | 189 | 150 | 144 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD49-147L | 49 | 262 | 192 | 153 | 147 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD50-150L | 50 | 262 | 192 | 158 | 150 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD51-153L | 51 | 262 | 192 | 162 | 153 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD52-156L | 52 | 262 | 192 | 165 | 156 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD53-159L | 53 | 262 | 192 | 168 | 159 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD54-162L | 54 | 262 | 192 | 170 | 162 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD55-168L | 55 | 262 | 192 | 175 | 165 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD56-178L | 56 | 257 | 205 | 180 | 168 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD57-171L | 57 | 257 | 205 | 185 | 171 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD58-174L | 58 | 280 | 205 | 185 | 174 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD59-177L | 59 | 285 | 215 | 187 | 177 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD60-180L | 60 | 285 | 215 | 190 | 180 | 40 | WC..080412 | M4-10-5.7-60 | T15 |

## SD舍弃式快速钻头(3×Dc)






- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

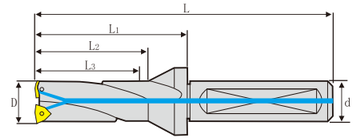
| 型　号 Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C40-SD61-183L | 61 | 293 | 223 | 188 | 183 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD62-186L | 62 | 296 | 226 | 191 | 186 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD63-189L | 63 | 299 | 229 | 194 | 189 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD64-192L | 64 | 302 | 232 | 197 | 192 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD65-195L | 65 | 305 | 235 | 200 | 195 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD66-198L | 66 | 308 | 238 | 203 | 198 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C40-SD67-201L | 67 | 311 | 241 | 206 | 201 | 40 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD68-204L | 68 | 314 | 244 | 209 | 204 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD69-207L | 69 | 317 | 247 | 212 | 207 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD70-210L | 70 | 320 | 250 | 215 | 210 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD71-213L | 71 | 323 | 253 | 218 | 213 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD72-216L | 72 | 326 | 256 | 221 | 216 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD73-219L | 73 | 329 | 259 | 224 | 219 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD74-222L | 74 | 332 | 262 | 227 | 222 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD75-225L | 75 | 335 | 265 | 230 | 225 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD76-228L | 76 | 338 | 268 | 233 | 228 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD77-231L | 77 | 341 | 271 | 236 | 231 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD78-234L | 78 | 344 | 274 | 239 | 234 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD79-237L | 79 | 347 | 277 | 242 | 237 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD80-240L | 80 | 350 | 280 | 245 | 240 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD81-243L | 81 | 353 | 283 | 248 | 243 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD82-246L | 82 | 356 | 286 | 251 | 246 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD83-249L | 83 | 359 | 286 | 254 | 249 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD84-252L | 84 | 362 | 292 | 257 | 252 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD85-255L | 85 | 365 | 295 | 260 | 255 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |





## SD舍弃式快速钻头(3×Dc)



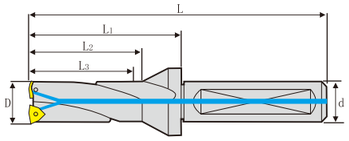



- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

| 型　号 Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD14.5-42L | 14.5 | 115 | 65 | 45 | 42 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD15.5-45L | 15.5 | 118 | 68 | 47 | 45 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD16.5-48L | 16.5 | 130 | 74 | 53 | 48 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD17.5-51L | 17.5 | 133 | 77 | 56 | 51 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD18.5-54L | 18.5 | 137 | 81 | 59 | 54 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19.5-57L | 19.5 | 140 | 84 | 62 | 57 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20.5-60L | 20.5 | 145 | 89 | 66 | 60 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD21.5-63L | 21.5 | 148 | 92 | 68 | 63 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22.5-66L | 22.5 | 151 | 95 | 71 | 66 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23.5-69L | 23.5 | 155 | 99 | 74 | 69 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24.5-72L | 24.5 | 159 | 103 | 78 | 72 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25.5-75L | 25.5 | 163 | 163 | 81 | 75 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |

## SD舍弃式快速钻头(4×Dc)






- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

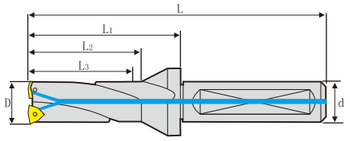
| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD14-56L | 14 | 129 | 79 | 59 | 56 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD15-60L | 15 | 133 | 83 | 62 | 60 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD16-64L | 16 | 146 | 90 | 69 | 64 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD17-68L | 17 | 150 | 94 | 73 | 68 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD18-72L | 18 | 155 | 99 | 77 | 72 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19-76L | 19 | 159 | 103 | 81 | 76 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20-80L | 20 | 165 | 109 | 86 | 80 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD21-84L | 21 | 169 | 113 | 89 | 84 | 25 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22-88L | 22 | 173 | 117 | 93 | 88 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23-92L | 23 | 178 | 122 | 97 | 92 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24-96L | 24 | 183 | 127 | 102 | 96 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25-100L | 25 | 188 | 132 | 106 | 100 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD26-104L | 26 | 196 | 136 | 109 | 104 | 32 | WC..050308 | M3-8.0-5.3-60 | T9 |
| C32-SD27-108L | 27 | 200 | 140 | 113 | 108 | 32 | WC..050308 | M3-8.0-5.3-60 | T9 |
| C32-SD28-112L | 28 | 205 | 145 | 117 | 112 | 32 | WC..050308 | M3-8.0-5.3-60 | T9 |
| C32-SD29-116L | 29 | 209 | 149 | 121 | 116 | 32 | WC..050308 | M3-8.0-5.3-60 | T9 |
| C32-SD30-120L | 30 | 215 | 155 | 126 | 120 | 32 | WC..050308 | M3-8.0-5.3-60 | T9 |
| C32-SD31-124L | 31 | 220 | 160 | 130 | 124 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD32-128L | 32 | 224 | 164 | 134 | 128 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD33-132L | 33 | 229 | 169 | 138 | 132 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD34-136L | 34 | 233 | 173 | 142 | 136 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD35-140L | 35 | 238 | 178 | 146 | 140 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD39-156L | 39 | 256 | 196 | 162 | 156 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD41-164L | 41 | 276 | 208 | 170 | 164 | 40 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD44-176L | 44 | 289 | 219 | 182 | 176 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD47-188L | 47 | 302 | 231 | 194 | 188 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD49-196L | 49 | 311 | 241 | 202 | 196 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD54-216L | 54 | 316 | 261 | 222 | 216 | 40 | WC..080412 | M4-10-5.7-60 | T15 |
| C40-SD59-236L | 59 | 344 | 281 | 242 | 236 | 40 | WC..080412 | M4-10-5.7-60 | T15 |





## SD舍弃式快速钻头(4×Dc)



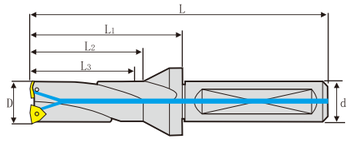



- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C50-SD61-244L | 61 | 354 | 284 | 249 | 244 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD62-248L | 62 | 358 | 288 | 253 | 248 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD63-252L | 63 | 362 | 292 | 257 | 252 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD64-256L | 64 | 366 | 296 | 261 | 256 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD65-260L | 65 | 370 | 300 | 265 | 260 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD66-264L | 66 | 374 | 304 | 269 | 264 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD67-268L | 67 | 378 | 308 | 273 | 268 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD68-272L | 68 | 382 | 312 | 277 | 272 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD69-276L | 69 | 386 | 316 | 281 | 276 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD70-280L | 70 | 390 | 320 | 285 | 280 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD71-284L | 71 | 394 | 324 | 289 | 284 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD72-288L | 72 | 398 | 328 | 293 | 288 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD73-292L | 73 | 402 | 332 | 297 | 292 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD74-296L | 74 | 406 | 336 | 301 | 296 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |
| C50-SD75-300L | 75 | 410 | 340 | 305 | 300 | 50 | WC..080412 | M3.5-8.0-5.3-60 | T15 |

## SD舍弃式快速钻头(5×Dc)






- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

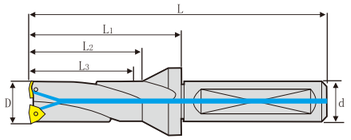
| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD15-75L | 15 | 161 | 105 | 80 | 75 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD16-80L | 16 | 166 | 110 | 85 | 80 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD17-85L | 17 | 171 | 115 | 90 | 85 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD18-90L | 18 | 176 | 120 | 95 | 90 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19-95L | 19 | 181 | 125 | 100 | 95 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20-100L | 20 | 186 | 130 | 105 | 100 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD21-105L | 21 | 200 | 135 | 110 | 105 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22-110L | 22 | 205 | 140 | 115 | 110 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23-115L | 23 | 210 | 145 | 120 | 115 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24-120L | 24 | 215 | 150 | 125 | 120 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25-125L | 25 | 220 | 155 | 130 | 125 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD26-130L | 26 | 225 | 160 | 135 | 130 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD27-135L | 27 | 230 | 165 | 140 | 135 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD28-140L | 28 | 235 | 170 | 145 | 140 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD29-145L | 29 | 240 | 175 | 150 | 145 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD30-150L | 30 | 245 | 180 | 155 | 150 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD31-155L | 31 | 250 | 185 | 160 | 155 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD32-160L | 32 | 255 | 190 | 165 | 160 | 32 | WC..050308 | M3-8.0-4.4-60 | T9 |
| C32-SD33-165L | 33 | 260 | 195 | 170 | 165 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD34-170L | 34 | 265 | 200 | 175 | 170 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD35-175L | 35 | 270 | 205 | 180 | 175 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD36-180L | 36 | 275 | 210 | 185 | 180 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD37-185L | 37 | 280 | 215 | 190 | 185 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD38-190L | 38 | 285 | 220 | 195 | 190 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD39-195L | 39 | 290 | 225 | 200 | 195 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD40-200L | 40 | 295 | 230 | 205 | 200 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD41-205L | 41 | 300 | 235 | 210 | 205 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD42-210L | 42 | 305 | 240 | 215 | 210 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD43-215L | 43 | 310 | 245 | 220 | 215 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD44-220L | 44 | 315 | 250 | 225 | 220 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD45-225L | 45 | 320 | 255 | 230 | 225 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD46-230L | 46 | 325 | 260 | 235 | 230 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD47-235L | 47 | 330 | 265 | 240 | 235 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD48-240L | 48 | 335 | 270 | 245 | 240 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD49-245L | 49 | 340 | 275 | 250 | 245 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD50-250L | 50 | 345 | 280 | 255 | 250 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD51-255L | 51 | 350 | 285 | 260 | 255 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD52-260L | 52 | 355 | 290 | 265 | 260 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD53-265L | 53 | 360 | 295 | 270 | 265 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD54-270L | 54 | 365 | 300 | 275 | 270 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD55-275L | 55 | 370 | 305 | 280 | 275 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD56-280L | 56 | 375 | 310 | 285 | 280 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD57-285L | 57 | 380 | 315 | 290 | 285 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD58-290L | 58 | 385 | 320 | 295 | 290 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD59-295L | 56 | 390 | 325 | 300 | 295 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD60-300L | 60 | 395 | 330 | 305 | 300 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |





## SD舍弃式快速钻头(6×Dc)





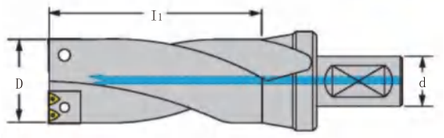

- 采用抗震性工具钢材质
- 整体预硬后,在进行精修,避免二次热处理所生应变

| 型　号<br>Model | D | L | L1 | L2 | L3 | d | 刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| C25-SD18-108L | 18 | 194 | 138 | 113 | 108 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD19-114L | 19 | 200 | 144 | 119 | 114 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C25-SD20-120L | 20 | 206 | 150 | 125 | 120 | 25 | WC..030208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD21-126L | 21 | 221 | 161 | 131 | 126 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD22-132L | 22 | 227 | 167 | 137 | 132 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD23-138L | 23 | 233 | 173 | 143 | 138 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD24-144L | 24 | 239 | 179 | 149 | 144 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD25-150L | 25 | 245 | 185 | 155 | 150 | 32 | WC..040208 | M2.5-6.3-3.35-60 | T8 |
| C32-SD26-156L | 26 | 251 | 191 | 161 | 156 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD27-162L | 27 | 257 | 197 | 167 | 162 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD28-168L | 28 | 263 | 203 | 173 | 168 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD29-174L | 29 | 269 | 209 | 179 | 174 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD30-180L | 30 | 275 | 215 | 185 | 180 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD31-186L | 31 | 281 | 221 | 191 | 186 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD32-192L | 32 | 287 | 227 | 197 | 192 | 32 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| C32-SD33-198L | 33 | 293 | 233 | 203 | 198 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD34-204L | 34 | 299 | 239 | 209 | 204 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD35-210L | 35 | 305 | 245 | 215 | 210 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD36-216L | 36 | 311 | 251 | 221 | 216 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD37-222L | 37 | 317 | 257 | 227 | 222 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD38-228L | 38 | 323 | 263 | 233 | 228 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD39-234L | 39 | 329 | 269 | 239 | 234 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD40-240L | 40 | 335 | 275 | 245 | 240 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD41-246L | 41 | 341 | 281 | 251 | 246 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD42-252L | 42 | 347 | 287 | 257 | 252 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C32-SD43-258L | 43 | 368 | 298 | 263 | 258 | 32 | WC..06T308 | M3.5-8.0-5.3-60 | T15 |
| C40-SD44-264L | 44 | 374 | 304 | 269 | 264 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD45-270L | 45 | 380 | 310 | 275 | 270 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD46-276L | 46 | 386 | 316 | 281 | 276 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD47-282L | 47 | 392 | 322 | 287 | 282 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD48-288L | 48 | 398 | 328 | 293 | 288 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD49-294L | 49 | 404 | 334 | 299 | 294 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |
| C40-SD50-300L | 50 | 410 | 340 | 305 | 300 | 40 | WC..080412 | M4-10.0-5.7-60 | T15 |

## CSD 大孔径快速钻头






特　点

- 可利用更换刀片座方式就可让刀具直径加大
- 有效降低购刀成本
- 刚性的设计大幅提高了加工的效率

| 型　号 Model | l1 | D | d | 内刃 | 外刃 | 钻孔范围 | 固定螺丝 | 刀片 | 重量 |
|---|---|---|---|---|---|---|---|---|---|
| C40-CSD6161-195L | 195 | 61 | 40 | ICSD6165 | OCSD61 | Ø61～Ø65mm | BH-M8-20 | WC..D6T3 | 6.05 |
| C40-CSD6162-195L | | 62 | | | OCSD62 | | | | - |
| C40-CSD6163-195L | | 63 | | | OCSD63 | | | | - |
| C40-CSD6164-195L | | 64 | | | OCSD64 | | | | - |
| C40-CSD6165-195L | | 65 | | | OCSD65 | | | | - |
| C40-CSD6666-210L | 210 | 66 | | ICSD6670 | OCSD66 | Ø66～Ø70mm | | | 7.42 |
| C40-CSD6667-210L | | 67 | | | OCSD67 | | | | - |
| C40-CSD6668-210L | | 68 | | | OCSD68 | | | | - |
| C40-CSD6669-210L | | 69 | | | OCSD69 | | | | - |
| C40-CSD6670-210L | | 70 | | | OCSD70 | | | | - |
| C40-CSD7171-225L | 225 | 71 | | ICSD7175 | OCSD71 | Ø71～Ø75mm | | | 7.62 |
| C40-CSD7172-225L | | 72 | | | OCSD72 | | | | - |
| C40-CSD7173-225L | | 73 | | | OCSD73 | | | | - |
| C40-CSD7174-225L | | 74 | | | OCSD74 | | | | - |
| C40-CSD7175-225L | | 75 | | | OCSD75 | | | | - |
| C40-CSD7676-240L | 240 | 76 | | ICSD7680 | OCSD76 | Ø76～Ø80mm | BH-M8-22 | | - |
| C40-CSD7677-240L | | 77 | | | OCSD77 | | | | - |
| C40-CSD7678-240L | | 78 | | | OCSD78 | | | | - |
| C40-CSD7679-240L | | 79 | | | OCSD79 | | | | - |
| C40-CSD7680-240L | | 80 | | | OCSD80 | | | | 8.84 |

### 配件表 Accessories

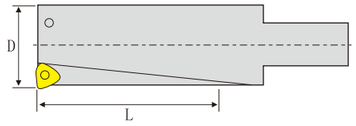
| 刀片 | 螺丝 | 扳手 | 扭力值 | 扳手 | 螺丝膏 |
|---|---|---|---|---|---|
| WC..06T3 | M3.5-8.0-5.-60 | T15K | 3.0 | PT5 | CHMT-6020 |





## 侧固型快速留芯钻

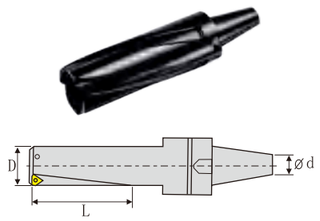


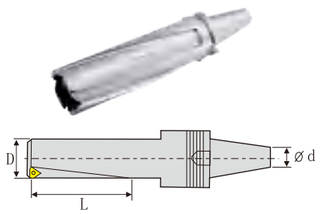


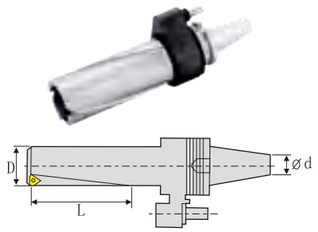

| 有效加工长 Drill Length L:50mm | 有效加工长 Drill Length L:100mm | 有效加工长 Drill Length L:150mm | 外径 O.D. | 刀片规格 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|
| RND50-50L | RND50-100L | RND50-150L | 50 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND53-50L | RND53-100L | RND53-150L | 53 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND55-50L | RND55-100L | RND55-150L | 55 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND60-50L | RND60-100L | RND60-150L | 60 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND62-50L | RND62-100L | RND62-150L | 62 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND64-50L | RND64-100L | RND64-150L | 64 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND66-50L | RND66-100L | RND66-150L | 66 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND68-50L | RND68-100L | RND68-150L | 68 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND70-50L | RND70-100L | RND70-150L | 70 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND73-50L | RND73-100L | RND73-150L | 73 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND75-50L | RND75-100L | RND75-150L | 75 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND78-50L | RND78-100L | RND78-150L | 78 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND80-50L | RND80-100L | RND80-150L | 80 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND82-50L | RND82-100L | RND82-150L | 82 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND85-50L | RND85-100L | RND85-150L | 85 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND87-50L | RND87-100L | RND87-150L | 87 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND90-50L | RND90-100L | RND90-150L | 90 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND92-50L | RND92-100L | RND92-150L | 92 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND95-50L | RND95-100L | RND95-150L | 95 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND97-50L | RND97-100L | RND97-150L | 97 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| RND100-50L | RND100-100L | RND100-150L | 100 | WC..050308 | M3.0-8.0-4.4-60 | T9 |

未尽规格可订制

# 快速留芯钻




| 有效加工长 Drill Length L:50mm | 有效加工长 Drill Length L:100mm | 外径 O.D. | 刀片规格 | 螺丝 | 扳手 |
|---|---|---|---|---|---|
| BT50-RD55-200L | BT50-RD55-250L | 55 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD58-200L | BT50-RD58-250L | 58 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD60-200L | BT50-RD60-250L | 60 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD62-200L | BT50-RD62-250L | 62 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD65-200L | BT50-RD65-250L | 65 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD68-200L | BT50-RD68-250L | 68 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD70-200L | BT50-RD70-250L | 70 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD75-200L | BT50-RD75-250L | 75 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD78-200L | BT50-RD78-250L | 78 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD80-200L | BT50-RD80-250L | 80 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD85-200L | BT50-RD85-250L | 85 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD88-200L | BT50-RD88-250L | 88 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD90-200L | BT50-RD90-250L | 90 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD93-200L | BT50-RD93-250L | 93 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD96-200L | BT50-RD96-250L | 96 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD98-200L | BT50-RD98-250L | 98 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD100-200L | BT50-RD100-250L | 100 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD103-200L | BT50-RD103-250L | 103 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD105-200L | BT50-RD105-250L | 105 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD108-200L | BT50-RD108-250L | 108 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD110-200L | BT50-RD110-250L | 110 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD115-200L | BT50-RD115-250L | 115 | WC..050308 | M3.0-8.0-4.4-60 | T9 |
| BT50-RD120-200L | BT50-RD120-250L | 120 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD125-200L | BT50-RD125-250L | 125 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD130-200L | BT50-RD130-250L | 130 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD135-200L | BT50-RD135-250L | 135 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD140-200L | BT50-RD140-250L | 140 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD145-200L | BT50-RD145-250L | 145 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD150-200L | BT50-RD150-250L | 150 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD155-200L | BT50-RD155-250L | 155 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD160-200L | BT50-RD160-250L | 160 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD165-200L | BT50-RD165-250L | 165 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD170-200L | BT50-RD170-250L | 170 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD175-200L | BT50-RD175-250L | 175 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD180-200L | BT50-RD180-250L | 180 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD185-200L | BT50-RD185-250L | 185 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD190-200L | BT50-RD190-250L | 190 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD195-200L | BT50-RD195-250L | 195 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD200-200L | BT50-RD200-250L | 200 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD210-200L | BT50-RD210-250L | 210 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |
| BT50-RD220-200L | BT50-RD220-250L | 220 | WC..06T308 | M3.5-7.0-5.3-60 | T15 |

未尽规格可订制



# 刀片型号及材质

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | WCMX030208R | 8012 | ▲ | ● | ● | ● | | | |
| | WCMX040208R | 8012 | ▲ | ● | ● | ● | | | |
| | WCMX050308R | 8012 | ▲ | ● | ● | ● | | | |
| | WCMX06T308R | 8012 | ▲ | ● | ● | ● | | | |
| | WCMX080412R | 8012 | ▲ | ● | ● | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料

# 推介切削参数

| 被加工材料 | 切削速度 Vc (m/min) | 进给fz(mm/刃) | | | | | |
|---|---|---|---|---|---|---|---|
| | | D12.5～D15 | D15.5～D21.5 | D22～D27.5 | D28～D33 | D34～D41 | D42～D50 |
| 低碳钢 (-0.3%C) | 160-220 | 0.05-0.07 | 0.06-0.08 | 0.06-0.10 | 0.07-0.12 | 0.08-0.13 | 0.08-0.16 |
| 碳钢 (-0.3%C) | 150-220 | 0.06-0.10 | 0.08-0.12 | 0.10-0.15 | 0.12-0.18 | 0.12-0.20 | 0.13-0.20 |
| 低碳合金钢 (-HB300) | 120-180 | 0.06-0.10 | 0.08-0.12 | 0.10-0.15 | 0.12-0.18 | 0.12-0.20 | 0.13-0.20 |
| 高碳合金钢 (HB300-) | 100-150 | 0.06-0.10 | 0.08-0.13 | 0.10-0.18 | 0.12-0.20 | 0.12-0.20 | 0.13-0.20 |
| 不锈钢 | 80-150 | 0.05-0.08 | 0.06-0.10 | 0.08-0.12 | 0.09-0.13 | 0.10-0.15 | 0.11-0.15 |
| 铸铁 | 130-200 | 0.06-0.10 | 0.08-0.12 | 0.12-0.16 | 0.15-0.20 | 0.16-0.20 | 0.16-0.20 |
| 球墨铸铁 | 100-180 | 0.06-0.10 | 0.08-0.12 | 0.10-0.16 | 0.12-0.18 | 0.15-0.20 | 0.16-0.20 |
| 铝合金 | 330-380 | 0.06-0.12 | 0.08-0.13 | 0.10-0.18 | 0.12-0.20 | 0.14-0.20 | 0.15-0.20 |

## 注意事项：

- 使用快速钻头尽量用高压中心出水,以增加刀片寿命及排屑良好.
- 使用在CNC车床时刀具中心点及机械主轴中心尽量平行。
- CNC车床使用如扩孔，刀片外刃必须和刀塔移动角度平行

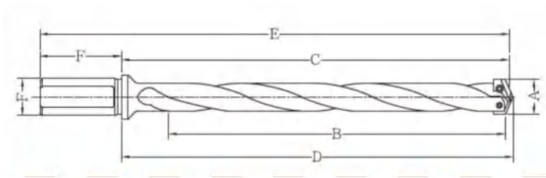
$N=\frac{Vcx1000}{\Pi(3.14)xD}$　　$F=Nxf_z$

Vc切削速度n/min　F 进给速度mm/min
D 搪孔径　$f_z$ 进给量 mm/rev
N 回转数 rpm　Ap 搪孔量 mm

## 侧固式 螺旋刃铲钻



| 刀片系列 Insert series | 订购参考 Order reference | 订购参考 Insert Range (Diameter) | B最大钻深 Max.Drilling (Length) | F柄径 Shank Size | 螺丝 Screw | 扳手 Wrench |
|---|---|---|---|---|---|---|
| Z | C20-11.5-12.5-50L-R | 11.5~12.5 | 50L | 20 | M2.2 | T7 |
| | C20-11.5-12.5-100L-R | | 110L | | | |
| 0 | C20-13-17.5-70L-R | 13-17.5 | 70L | 20 | M2.5 | T8 |
| | C20-13-17.5-100L-R | | 100L | | | |
| | C20-13-17.5-150L-R | | 150L | | | |
| | C20-15.5-17.5-70L-R | 15.5-17.5 | 70L | 20 | M2.5 | T8 |
| | C20-15.5-17.5-100L-R | | 100L | | | |
| | C20-15.5-17.5-150L-R | | 150L | | | |
| | C20-15.5-17.5-200L-R | | 200L | | | |
| 1 | C25-18-24-150L-R | 18-24 | 150L | 25 | M3.0 | T9 |
| | C25-18-24-200L-R | | 200L | | | |
| | C25-18-24-250L-R | | 250L | | | |
| | C25-18-24-300L-R | | 300L | | | |
| | C25-22-24-150L-R | 22-24 | 150L | 25 | M3.0 | T9 |
| | C25-22-24-200L-R | | 200L | | | |
| | C25-22-24-250L-R | | 250L | | | |
| | C25-22-24-300L-R | | 300L | | | |
| 2 | C32-25-35-150L-R | 25-35 | 150L | 32 | M3.5 | T15 |
| | C32-25-32-200L-R | | 200L | | | |
| | C32-25-35-250L-R | | 250L | | | |
| | C32-25-35-300L-R | | 300L | | | |
| | C32-30-35-200L-R | 30-35 | 200L | 32 | M3.5 | T15 |
| | C32-30-35-250L-R | | 250L | | | |
| | C32-30-35-300L-R | | 300L | | | |
| | C32-30-35-350L-R | | 350 | | | |
| 3 | C40-36-47-250L-R | 36-47 | 250L | 40 | M5.0 | T20 |
| | C40-36-47-300L-R | | 300L | | | |
| | C40-36-47-350L-R | | 350L | | | |
| | C40-36-47-400L-R | | 400L | | | |
| 4 | C40-48-65-250L-R | 48-65 | 250L | 40 | M5.0 | T20 |
| | C40-48-65-300L-R | | 300L | | | |
| | C40-48-65-350L-R | | 350L | | | |
| | C40-48-65-400L-R | | 400L | | | |
| | C40-48-65-450L-R | | 450L | | | |



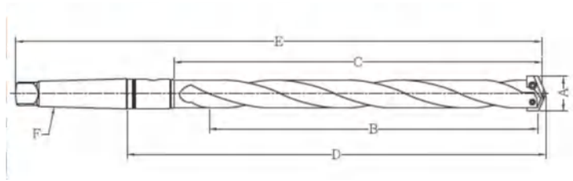





## 侧柄 螺旋刃铲钻



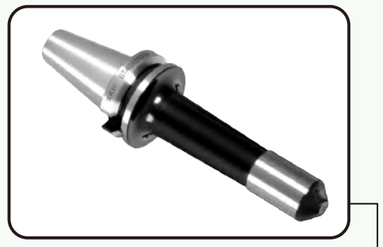
| 刀片系列 Insert series | 订购参考 Order reference | A刀片范围 Insert Range (Diameter) | B最大钻深 Max.Drilling (Length) | F柄径 Shank Size | 螺丝 Screw | 扳手 Wrench | 注水油环 Rotary Coolant (Adapter) |
|---|---|---|---|---|---|---|---|
| Z | MT2-11.5-12.5-50L-R | 11.5~12.5 | 50L | #2 | M2.2 | T7 | RCA#2 |
| | MT2-11.5-12.5-100L-R | | 100L | | | | |
| 0 | MT2-13-17.5-70L-R | 13-17.5 | 70L | #2 | M2.5 | T8 | RCA#2 |
| | MT2-13-17.5-100L-R | | 100L | | | | |
| | MT3-13-17.5-150L-R | | 150L | | | | |
| | MT2-15.5-17.5-70L-R | 15.5-17.5 | 70L | #2 | M2.5 | T8 | RCA#2 |
| | MT2-15.5-17.5-100L-R | | 100L | | | | |
| | MT2-15.5-17.5-150L-R | | 150L | | | | |
| | MT2-15.5-17.5-200L-R | | 200L | | | | |
| 1 | MT3-18-24-150L-R | 18-24 | 150L | #3 | M3.0 | T9 | RCA#3 |
| | MT3-18-24-200L-R | | 200L | | | | |
| | MT3-18-24-250L-R | | 250L | | | | |
| | MT3-18-24-300L-R | | 300L | | | | |
| | MT3-22-24-150L-R | 22-24 | 150L | #3 | M3.0 | T9 | RCA#3 |
| | MT3-22-24-200L-R | | 200L | | | | |
| | MT3-22-24-250L-R | | 250L | | | | |
| | MT3-22-24-300L-R | | 300L | | | | |
| 2 | MT4-25-35-150L-R | 25-35 | 150L | #4 | M3.5 | T15 | RCA#4 |
| | MT4-25-35-200L-R | | 200L | | | | |
| | MT4-25-35-250L-R | | 250L | | | | |
| | MT4-25-35-300L-R | | 300L | | | | |
| | MT4-30-35-200L-R | 30-35 | 200L | #4 | M3.5 | T15 | RCA#4 |
| | MT4-30-35-250L-R | | 250L | | | | |
| | MT4-30-35-300L-R | | 300L | | | | |
| | MT4-30-35-350L-R | | 350 | | | | |
| 3 | MT4-36-47-250L-R | 36-47 | 250L | #4 | M5.0 | T20 | RCA#4 |
| | MT4-36-47-300L-R | | 300L | | | | |
| | MT4-36-47-350L-R | | 350L | | | | |
| | MT4-36-47-400L-R | | 400L | | | | |
| 4 | MT5-48-65-250L-R | 48-65 | 250L | #5 | M5.0 | T20 | RCA#5 |
| | MT5-48-65-300L-R | | 300L | | | | |
| | MT5-48-65-350L-R | | 350L | | | | |
| | MT5-48-65-400L-R | | 400L | | | | |
| | MT5-48-65-450L-R | | 450L | | | | |
| 5 | MT5-64-88-300L-R | 64-88 | 300L | #5 | M6.0 | T25 | RCA#5 |
| | MT5-64-88-350L-R | | 350L | | | | |
| | MT5-64-88-400L-R | | 400L | | | | |
| | MT5-64-88-450L-R | | 450L | | | | |
| 7 | MT5-90-114-400L-R | 90-114 | 400L | #5 | M6.0 | T25 | RCA#5 |
| | MT5-90-114-500L-R | | 500L | | | | |
| | MT5-90-114-600L-R | | 600L | | | | |






# 整体式粗/精搪孔刀具选配图

45° BT/BSA 粗搪孔刀柄



90° BT/BSB 粗搪孔刀柄



CBS 背搪专用刀



CBS 舍弃式搪孔刀



SBS 舍弃式搪孔刀




BT/BYB 精搪刀

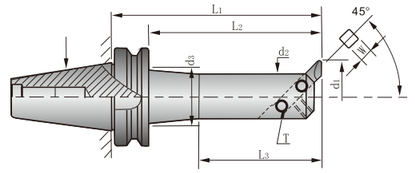


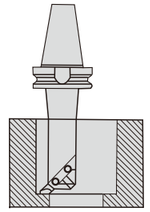




# 45° 粗搪孔柄





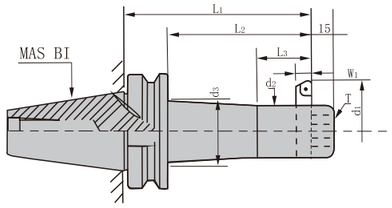



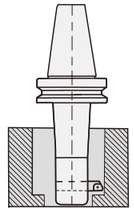
- 可适用通孔与盲孔
- 可选用四方形舍弃刀具或焊刃刀具

| 型　号 Model (d2-I1) | L 最小加工孔 | L 最大加工孔 | d2 | d3 | L2 | L3 | W | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT40×BSA25-120 | 25 | 38 | 20 | 22 | 90 | 35 | 8 | M6 | 1.2 |
| BT40×BSA30-150 | 30 | 42 | 24 | 26 | 120 | 40 | 8 | M6 | 1.4 |
| BT40×BSA38-165 | 38 | 52 | 30 | 33 | 135 | 50 | 10 | M8 | 1.7 |
| BT40×BSA42-165 | 42 | 56 | 34 | 37 | 135 | 50 | 10 | M8 | 2.0 |
| BT40×BSA50-165 | 50 | 65 | 40 | 44 | 135 | 65 | 13 | M10 | 2.3 |
| BT40×BSA62-180 | 62 | 90 | 50 | 56 | 150 | 80 | 16 | M10 | 2.4 |
| BT40×BSA72-180 | 72 | 110 | 60 | - | 150 | 95 | 19 | M10 | 3.9 |
| BT40×BSA90-180 | 90 | 125 | 75 | - | 150 | 110 | 19 | M12 | 5.2 |
| BT50×BSA25-135 | 25 | 38 | 20 | 22 | 92 | 35 | 8 | M6 | 4.2 |
| BT50×BSA30-165 | 30 | 42 | 24 | 26 | 122 | 40 | 8 | M6 | 4.4 |
| BT50×BSA38-180 | 38 | 52 | 30 | 33 | 137 | 50 | 10 | M8 | 4.8 |
| BT50×BSA42-210 | 42 | 56 | 34 | 37 | 167 | 60 | 10 | M8 | 5.0 |
| BT50×BSA50-180 | 50 | 65 | 40 | 44 | 137 | 65 | 13 | M10 | 5.4 |
| BT50×BSA50-240 | 50 | 65 | 40 | 44 | 197 | 65 | 13 | M10 | 5.7 |
| BT50×BSA62-195 | 62 | 90 | 50 | 56 | 152 | 80 | 16 | M10 | 6.2 |
| BT50×BSA62-270 | 62 | 90 | 50 | 56 | 227 | 80 | 16 | M10 | 7.6 |
| BT50×BSA72-195 | 72 | 110 | 60 | 66 | 152 | 95 | 19 | M10 | 7.0 |
| BT50×BSA72-285 | 72 | 110 | 60 | 66 | 242 | 95 | 19 | M10 | 9.3 |
| BT50×BSA90-210 | 90 | 125 | 75 | 80 | 167 | 110 | 19 | M12 | 9.2 |
| BT50×BSA90-300 | 90 | 125 | 75 | 80 | 257 | 110 | 19 | M12 | 12.3 |
| BT50×BSA105-195 | 105 | 160 | 90 | - | - | - | 25 | M12 | 10.7 |
| BT50×BSA105-285 | 105 | 160 | 90 | 94 | - | 130 | 25 | M12 | 15.0 |
| BT50×BSA130-255 | 130 | 190 | 110 | - | - | 120 | 25 | M12 | 14.5 |

## 90° 粗搪孔刀柄





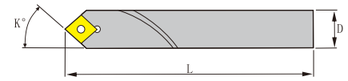
- 使用于孔径凹凸不平，毛胚粗糙之加工物
- 可选用四方形熔焊刀具或舍弃式刀具
- 适用于搪通孔，也可用于反镗及倒角

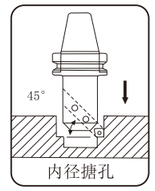
| 型 号 Model (d1-I1) | L 最小加工孔 | L 最大加工孔 | d2 | d3 | L2 | L3 | W | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT40×BSB25-120 | 25 | 52 | 20 | 22 | 90 | 35 | 8 | M6 | 1.2 |
| BT40×BSB38-150 | 38 | 70 | 30 | 33 | 120 | 55 | 10 | M8 | 1.7 |
| BT40×BSB50-165 | 50 | 90 | 40 | 44 | 135 | 70 | 13 | M10 | 2.5 |
| BT40×BSB62-180 | 62 | 115 | 50 | 56 | 150 | 80 | 16 | M10 | 3.6 |
| BT40×BSB90-180 | 90 | 150 | 75 | - | 150 | 115 | 19 | M12 | 5.9 |
| BT50×BSB25-135 | 25 | 52 | 20 | 22 | 92 | 35 | 8 | M6 | 4.3 |
| BT50×BSB38-180 | 38 | 70 | 30 | 32 | 137 | 55 | 10 | M8 | 4.9 |
| BT50×BSB50-180 | 50 | 90 | 40 | 44 | 137 | 70 | 13 | M10 | 5.5 |
| BT50×BSB50-240 | 50 | 90 | 40 | 44 | 197 | 70 | 13 | M10 | 5.8 |
| BT50×BSB62-195 | 62 | 115 | 50 | 56 | 152 | 80 | 16 | M10 | 6.4 |
| BT50×BSB62-270 | 62 | 115 | 50 | 56 | 227 | 80 | 16 | M10 | 7.8 |
| BT50×BSB72-195 | 72 | 135 | 60 | 66 | 152 | 95 | 19 | M12 | 7.3 |
| BT50×BSB72-285 | 72 | 135 | 60 | 66 | 242 | 95 | 19 | M12 | 9.6 |
| BT50×BSB90-210 | 90 | 150 | 75 | 80 | 167 | 115 | 19 | M12 | 9.7 |
| BT50×BSB90-300 | 90 | 150 | 75 | 80 | 257 | 115 | 19 | M12 | 12.8 |
| BT50×BSB105-195 | 105 | 190 | 90 | 90 | - | - | 25 | M12 | 11.4 |
| BT50×BSB105-285 | 105 | 190 | 90 | 94 | - | 135 | 25 | M12 | 15.7 |
| BT50×BSB130-255 | 130 | 260 | 110 | - | - | 60 | 25 | M12 | 14.1 |



## SBS 舍弃式搪孔刀



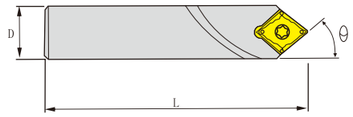




- 适用于BSA、BSB粗搪刀杆、ABH精搪刀
- SBS适合精加工及中切削加工

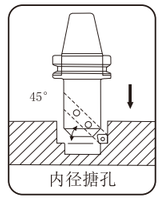
| 型 号 Model | D | L | 角度 | 适用刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|
| SBS-308 | 8 | 55 | 30° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-310 | 10 | 65 | 30° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-313 | 13 | 80 | 30° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-316 | 16 | 120 | 30° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-319 | 19 | 140 | 30° | TP..160304 | M4-10-5.0-43 | T15 |
| SBS-325 | 25 | 150 | 30° | TP..160304 | M4-10-5.0-43 | T15 |
| SBS-408 | 8 | 55 | 45° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-410 | 10 | 65 | 45° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-413 | 13 | 80 | 45° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-416 | 16 | 120 | 45° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-419 | 19 | 140 | 45° | TP..160304 | M4-10-5.0-43 | T15 |
| SBS-425 | 25 | 150 | 45° | TP..160304 | M4-10-5.0-43 | T15 |
| SBS-908 | 8 | 55 | 90° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-910 | 10 | 65 | 90° | TP..090204 | M2.5-6.0-3.5-60 | T8 |
| SBS-913 | 13 | 80 | 90° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-916 | 16 | 120 | 90° | TP..110304 | M3-8.0-4.0-43 | T9 |
| SBS-919 | 19 | 140 | 90° | TP..160304 | M4-10-5.0-43 | T15 |
| SBS-925 | 25 | 150 | 90° | TP..160304 | M4-10-5.0-43 | T15 |

## CBS 舍弃式搪孔刀




- 适用于BSA、BSB粗搪刀杆、ABH精搪刀
- CBS适合重切削加工

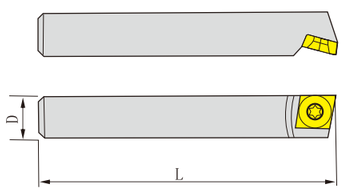


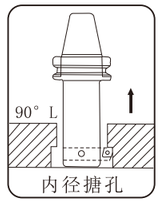

| 型　号 Model | D | L | 角度 | 适用刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|
| CBS-308 | 8 | 55 | 30° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-310 | 10 | 65 | 30° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-313 | 13 | 80 | 30° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-316 | 16 | 120 | 30° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-319 | 19 | 140 | 30° | CC□□ 1204 | M5-11-7.5-60 | T20 |
| CBS-408 | 8 | 55 | 45° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-410 | 10 | 65 | 45° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-413 | 13 | 80 | 45° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-416 | 16 | 120 | 45° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-419 | 19 | 140 | 45° | CC□□ 1204 | M5-11-7.5-60 | T20 |
| CBS-908 | 8 | 55 | 90° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-910 | 10 | 65 | 90° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS-913 | 13 | 80 | 90° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-916 | 16 | 120 | 90° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS-919 | 19 | 140 | 90° | CC□□ 1204 | M5-11-7.5-60 | T20 |

## CBS 舍弃式背搪刀



「背搪专用」



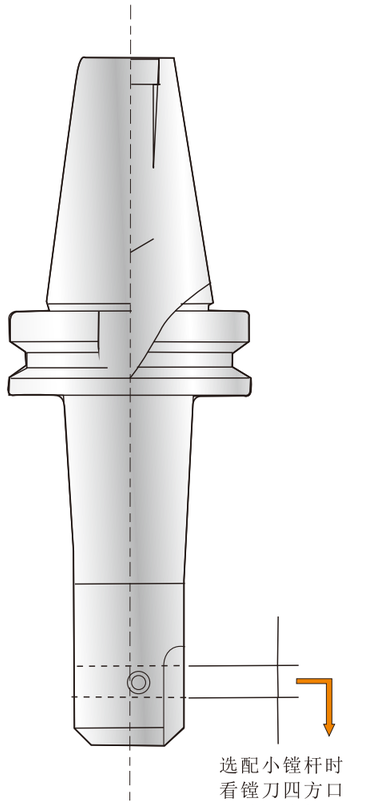




| 型　号 Model | D | L | 角度 | 适用刀片 | 刀片螺丝 | 扳手 |
|---|---|---|---|---|---|---|
| CBS908L | 8 | 55 | 90° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS910L | 10 | 65 | 90° | CC□□ 0602 | M2.5-6.0-3.5-60 | T9 |
| CBS913L | 13 | 80 | 90° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS916L | 16 | 120 | 90° | CC□□ 09T3 | M4-10-5.7-60 | T15 |
| CBS919L | 19 | 140 | 90° | CC□□ 1204 | M5-11-7.5-60 | T20 |



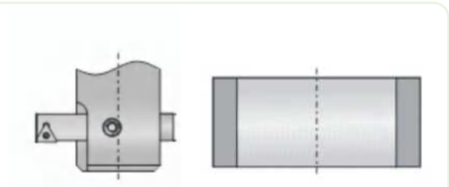
## 直角型BSB粗搪刀应用

- 90度BSB镗刀常用于通孔加工，倒角加工，反镗加工。
- 结构简单，调节范围大。
- 镗头价格便宜，易于更换，通用性较强。
- 单刃结构切削效率低，不带内冷却孔，调节不带刻度需要在对刀仪或采用打表的方式进行调节。

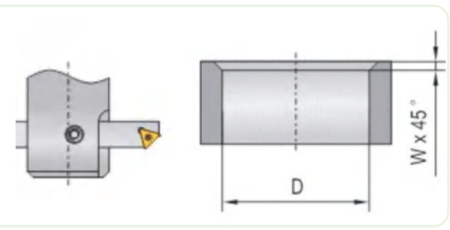


选配小镗杆时
看镗刀四方口
尺寸跟小镗杆
边长是否一至。

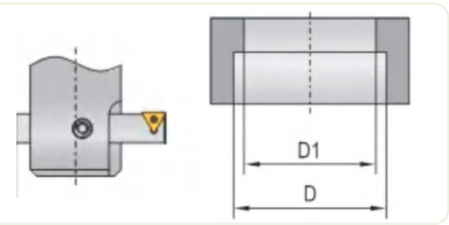
搪孔



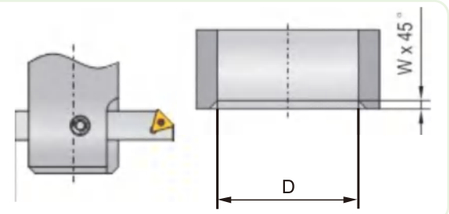
倒角




反搪孔

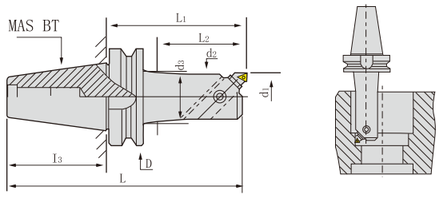



反倒角



# BT/BYB 微切削搪孔刀杆







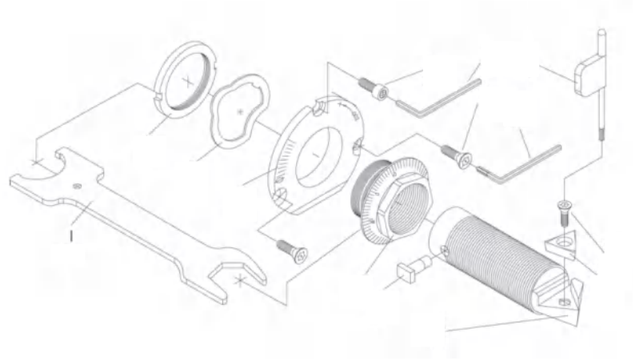

- 刻度表可作0.02mm微调
- 刀片另外购买

| 型　号 Model (d1-I1) | L | I2 | I3 | D | d1 | | d2 | d3 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 最小加工孔 | 最大加工孔 | | | |
| BT40×BYB19-120 | 185.4 | 83 | 65.4 | 63 | 19 | 22.5 | 18 | 18 | 1.5 |
| BT40×BYB22-135 | 200.4 | 98 | 65.4 | 63 | 22 | 29.5 | 20 | 21 | 1.5 |
| BT40×BYB29-150 | 215.4 | 116 | 65.4 | 63 | 29 | 41 | 25 | 27 | 1.5 |
| BT40×BYB29-180 | 245.4 | 146 | 65.4 | 63 | 29 | 41 | 25 | 27 | 2.0 |
| BT40×BYB38-150 | 215.4 | 113 | 65.4 | 63 | 38 | 50 | 35 | 36 | 1.8 |
| BT40×BYB38-210 | 275.4 | 173 | 65.4 | 63 | 38 | 50 | 35 | 36 | 2.2 |
| BT40×BYB48-150 | 215.4 | 113 | 65.4 | 63 | 48 | 65 | 41 | 46 | 2.1 |
| BT40×BYB48-210 | 275.4 | 173 | 65.4 | 63 | 48 | 65 | 41 | 46 | 2.3 |
| BT40×BYB62-150 | 215.4 | 123 | 65.4 | 63 | 62 | 90 | 54 | 60 | 2.9 |
| BT40×BYB62-210 | 275.4 | 183 | 65.4 | 63 | 62 | 90 | 54 | 60 | 3.6 |
| BT40×BYB82-150 | 215.4 | 120 | 65.4 | 63 | 82 | 110 | 67 | 60 | 3.6 |
| BT40×BYB82-210 | 275.4 | 180 | 65.4 | 63 | 82 | 110 | 67 | 60 | 4.0 |
| BT50×BYB19-135 | 236.8 | 85 | 101.8 | 100 | 19 | 22.5 | 18 | 18 | 3.8 |
| BT50×BYB22-150 | 251.8 | 100 | 101.8 | 100 | 22 | 29.5 | 20 | 21 | 3.9 |
| BT50×BYB29-150 | 251.8 | 100 | 101.8 | 100 | 29 | 41 | 25 | 27 | 4.5 |
| BT50×BYB29-180 | 281.8 | 130 | 101.8 | 100 | 29 | 41 | 25 | 27 | 4.6 |
| BT50×BYB38-165 | 266.8 | 115 | 101.8 | 100 | 38 | 50 | 35 | 36 | 4.5 |
| BT50×BYB38-225 | 326.8 | 175 | 101.8 | 100 | 38 | 50 | 35 | 36 | 5.0 |
| BT50×BYB48-165 | 266.8 | 122 | 101.8 | 100 | 48 | 65 | 41 | 40 | 5.2 |
| BT50×BYB48-210 | 311.8 | 160 | 101.8 | 100 | 48 | 65 | 41 | 46 | 5.5 |
| BT50×BYB48-255 | 356.8 | 205 | 101.8 | 100 | 48 | 65 | 41 | 46 | 5.7 |
| BT50×BYB62-180 | 281.8 | 130 | 101.8 | 100 | 62 | 90 | 54 | 53 | 7.0 |
| BT50×BYB62-240 | 341.8 | 185 | 101.8 | 100 | 62 | 90 | 54 | 60 | 7.6 |
| BT50×BYB62-330 | 431.8 | 280 | 101.8 | 100 | 62 | 90 | 54 | 60 | 9.5 |
| BT50×BYB82-165 | 266.8 | 116 | 101.8 | 100 | 82 | 110 | 67 | 67 | 9.5 |
| BT50×BYB82-240 | 341.8 | 190 | 101.8 | 100 | 82 | 110 | 67 | 75 | 9.5 |
| BT50×BYB82-315 | 416.8 | 272 | 101.8 | 100 | 82 | 110 | 67 | 75 | 12.0 |



# BYB 微调切削搪孔头





- 刀片另外购买
- 搪孔头M7-62以及M7-82相同，但本体必须分开订购
- 刻度表可作0.02mm微调

| 型　号 Model | I09 | J10 | L12 | K11 | M13 | C03 | N14 |
|---|---|---|---|---|---|---|---|
| M2-19 | W2 | M2.3x0.4P | P1.5 | - | - | M2 | T6 |
| M2-22 | W2 | M2.3x0.4P | P1.5 | - | - | M2 | T6 |
| M3-29 | W3 | M2.6x0.45P | P2 | - | - | M2 | T6 |
| M5-38 | W5 | M3x0.5P | P2.5 | - | - | M2.5 | T9 |
| M5-48 | W5 | M3x0.5P | P2.5 | M3x0.5P | P2 | M2.5 | T9 |
| M7-62 | W7 | M3x0.5P | P2.5 | M4x0.7P | T15 | M4 | T15 |
| M7-82 | W7 | M3x0.5P | P2.5 | M4x0.7P | T15 | M4 | T15 |

| 编号 | 零件名称 | 编号 | 零件处理 |
|---|---|---|---|
| 1 | 本体 | 8 | 螺帽 |
| 2 | 刀片 | 9 | 扳手 |
| 3 | 刀片螺丝 | 10 | 固定螺丝 |
| 4 | 按键 | 11 | 星形螺丝 |
| 5 | 六角调整螺帽 | 12 | 六角扳手 |
| 6 | 刻度表 | 13 | 星形扳手 |
| 7 | 平面簧 | 14 | 刀片扳手 |

| 型　号 Model | 搪孔范围 | | L | 使用刀片 | 搪孔量 ap | 进给量 mm/rve | 切削速度 m/min | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| | MIN. | MAX. | | | | | | |
| M2-19 | 19 | 22.5 | 20.7 | TBGT060102L | 0.05-0.20 | 0.05-0.10 | 碳钢 100-200 不锈钢 70-140 铸铁 70-140 铝 150-300 | 0.06 |
| M2-22 | 22 | 29.5 | 23.5 | TBGT060102L | 0.05-0.20 | 0.05-0.10 | | 0.06 |
| M3-29 | 29 | 41 | 31.0 | TBGT060102L | 0.05-0.20 | 0.05-0.10 | | 0.07 |
| M5-38 | 38 | 50 | 40.0 | TPGT110304L | 0.10-0.25 | 0.07-0.15 | | 0.08 |
| M5-48 | 48 | 65 | 47.7 | TPGT110304L | 0.10-0.25 | 0.07-0.15 | | 0.10 |
| M7-62 | 62 | 90 | 63.5 | TPGT16T304L | 0.10-0.25 | 0.07-0.15 | | 0.20 |
| M7-82 | 82 | 110 | 63.5 | TPGT16T304L | 0.10-0.25 | 0.07-0.15 | | 0.20 |

## 分体式粗/精镗系列 - ABS接口系列搪刀选配图






## ABS 模块应用形式

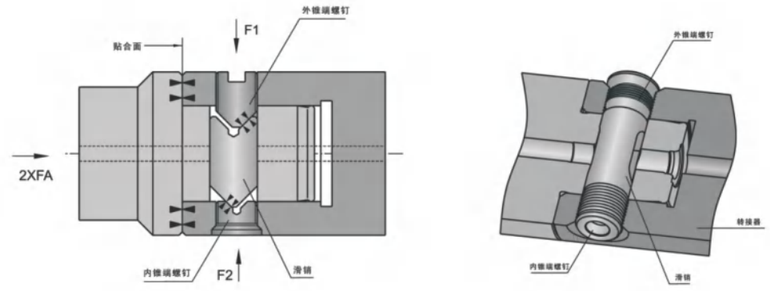
**特点：**

- 刚性高，连接强度大。
  内锥端螺钉、外锥端螺钉和滑销的锥形楔块作用，使模块与主柄紧固连接。
- 切削扭矩作为扭力施加在主轴上，可使连接部的轴向紧固力提高50%~80%。
- 高精度，连接部的重复定位精度可保持在2~3μ。
- 可应用于小直径（⌀26）到大直径（⌀200以上）的广泛领域。
- 在标准机床上即可使用内部冷却。
- 采用等径中间模块，可轻松调整刀具长度。
- 采用变径中间模块，可进行不同直径刀头的安装。

## ABS 模块结构

- 用F1的力拧夹紧螺钉，滑销沿径向移动，与固定的锥形螺钉相接触，产生反作用力F2。

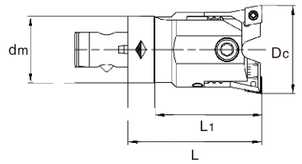
由于内锥端螺钉、外锥端螺钉与滑销的中心之间的偏心，内锥端螺钉与滑销相当于在锥形楔块的右侧接触，滑销与外锥端螺钉相当于在锥形楔块的左侧接触，接触的位置不在一条直线上。因此，对这个力进行矢量分析，如上图所示，轴向力作用于同一方向，连接力FA增至2倍。另外，切削时产生的切削力作为扭应力传导出来，使在内锥端螺钉、外锥端螺钉上产生的力F1,F2增大，从而进一步增大连结力FA。



## MRB 双刃粗镗刀

高刚性 High rigidity





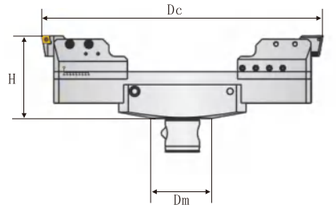

| | 型 号 Model | 搪孔范围 Range(mm) | 组合刀柄 Tool Connection | dm mm | L mm | L1 mm | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|
| 强壮型 | MRB2736-ABS25-CC06 | 27-36 | ABS25 | 25 | 50 | - | CC..0602… | M2.5 | T7 | ▲ |
| | MRB3545-ABS32-CC06 | 35-45 | ABS32 | 32 | 60 | - | CC..0602… | M2.5 | T7 | ▲ |
| | MRB4456-ABS40-CC09 | 44-56 | ABS40 | 40 | 70 | - | CC..09T3… | M3.5 | T15 | ▲ |
| | MRB5571-ABS50-CC12 | 55-71 | ABS50 | 50 | 80 | - | CC..1204… | M4 | T15 | ▲ |
| | MRB6993-ABS63-CC12 | 69-93 | ABS63 | 63 | 90 | - | CC..1204… | M4 | T15 | ▲ |
| | MRB90122-ABS80-CC12 | 90-122 | ABS80 | 80 | 100 | - | CC..1204… | M4 | T15 | ▲ |
| | MRB120164-ABS80-CC12 | 120-164 | ABS80 | 80 | 100 | - | CC..1204… | M4 | T15 | ▲ |
| | MRB160224-ABS100-CC12 | 160-224 | ABS100 | 100 | 100 | - | CC..1204… | M4 | T15 | ▲ |
| 标准型 | MRB3342-ABS25-CC06 | 33-42 | ABS25 | 25 | 50 | 40 | CC..0602… | M2.5 | T7 | ▲ |
| | MRB4153-ABS32-CC09 | 41-53 | ABS32 | 32 | 60 | 48 | CC..09T3… | M3.5 | T15 | ▲ |
| | MRB5268-ABS40-CC12 | 52-68 | ABS40 | 40 | 70 | 58 | CC..1204… | M4 | T15 | ▲ |
| | MRB6791-ABS50-CC12 | 67-91 | ABS50 | 50 | 80 | 65 | CC..1204… | M4 | T15 | ▲ |
| | MRB90121-ABS63-CC12 | 90-121 | ABS63 | 63 | 100 | 70 | CC..1204… | M4 | T15 | ▲ |
| | MRB120160-ABS80-CC12 | 120-160 | ABS80 | 80 | 100 | 78 | CC..1204… | M4 | T15 | ▲ |

注：全系列中心出水



## MRB 大孔径粗镗刀

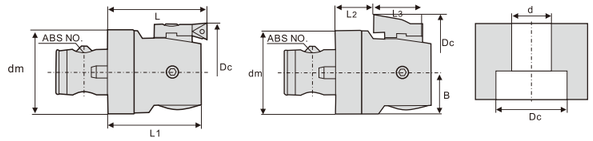





| 型 号 Model | 搪孔范围 Range | 组合刀柄 Tool Connection | dm mm | H mm | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|
| MRB150-215 | 150~215 | ABS63 | 63 | 75 | CC..1204 | M3.5 | T15 | ▲ |
| MRB215-280 | 215~280 | ABS63 | 63 | 80 | CC..1204 | M3.5 | T15 | ▲ |
| MRB280-970 | 280~970 | ABS80 | 80 | 95 | CC..1204 | M3.5 | T15 | ▲ |
| MRB370-460 | 370~460 | ABS80 | 80 | 100 | CC..1204 | M3.5 | T15 | ▲ |
| MRB460-580 | 460~580 | ABS100 | 100 | 110 | CC..1204 | M3.5 | T15 | ▲ |
| MRB580-700 | 580~700 | ABS100 | 100 | 120 | CC..1204 | M3.5 | T15 | ▲ |

## SFB 微调精镗刀（可用于正反镗）





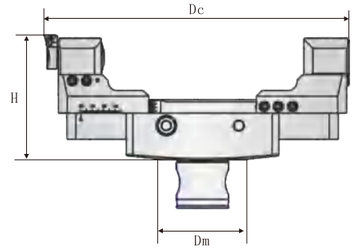

| 型　号 Model | 搪刀头型号 Insert carriage | DC mm | Dm mm | L1 mm | L mm | DC mm | L2 mm | L3 mm | B mm | 重量 KGS | 适用刀片 Insert | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SFB2036-ABS25-TP08 | SFB1-1 | 20-26 | 25 | 60 | 63 | - | 10.5 | 19 | 10 | 0.22 | TP..0802.. | ▲ |
| | SFB1-2 | 25-31 | 25 | 60 | 63 | - | 10.5 | 19 | 10 | 0.22 | TP..0802.. | ▲ |
| | SFB1-3 | 30-36 | 25 | 60 | 63 | 30-36 | 10.5 | 19 | 10 | 0.22 | TP..0802.. | ▲ |
| SFB2647-ABS25-TP08 | SFB2-1 | 26~33 | 25 | 42 | 45 | - | 21 | 21 | 13.5 | 0.16 | TP..0802.. | ▲ |
| | SFB2-2 | 32~40 | 25 | 42 | 45 | 36~40 | 21 | 21 | 13.5 | 0.16 | TP..0802.. | ▲ |
| | SFB2-3 | 39~47 | 25 | 42 | 45 | 39~47 | 21 | 21 | 13.5 | 0.16 | TP..0802.. | ▲ |
| SFB3360-ABS32-TP08 | SFB3-1 | 33~42 | 32 | 45 | 50 | - | 20 | 25 | 17 | 0.28 | TP..0802.. | ▲ |
| | SFB3-2 | 41~51 | 32 | 45 | 50 | 46~51 | 20 | 25 | 17 | 0.28 | TP..0802.. | ▲ |
| | SFB3-3 | 50~60 | 32 | 45 | 50 | 50~60 | 20 | 25 | 17 | 0.28 | TP..0802.. | ▲ |
| SFB4174-ABS40-TP11 | SFB4-1 | 41~54 | 40 | 56 | 60 | - | 27 | 29 | 21 | 0.55 | TP..1103.. | ▲ |
| | SFB4-2 | 50~63 | 40 | 56 | 60 | 53~63 | 27 | 29 | 21 | 0.55 | TP..1103.. | ▲ |
| | SFB4-3 | 61~74 | 40 | 56 | 60 | 61~74 | 27 | 29 | 21 | 0.55 | TP..1103.. | ▲ |
| SFB5395-ABS50-TP11 | SFB5-1 | 53~70 | 50 | 56 | 60 | 62~70 | 22 | 34 | 26 | 1.23 | TP..1103.. | ▲ |
| | SFB5-2 | 65~82 | 50 | 56 | 60 | 65~82 | 22 | 34 | 26 | 1.23 | TP..1103.. | ▲ |
| | SFB5-3 | 78~95 | 50 | 56 | 60 | 78~95 | 22 | 34 | 26 | 1.23 | TP..1103.. | ▲ |
| SFB68150-ABS63-TP11 | SFB6-1 | 68~100 | 63 | 66.2 | 73 | 80~100 | 21.4 | 44.8 | 32.5 | 1.85 | TP..1103.. | ▲ |
| | SFB6-2 | 94~126 | 63 | 66.2 | 73 | 94~126 | 21.4 | 44.8 | 32.5 | 1.85 | TP..1103.. | ▲ |
| | SFB6-3 | 118~150 | 63 | 66.2 | 73 | 118~150 | 21.4 | 44.8 | 32.5 | 1.85 | TP..1103.. | ▲ |
| SFB100203-ABS80-TP11 | SFB6-1 | 100~156 | 80 | 86.2 | 90 | 112~153 | 41 | 45.2 | 45.5 | 3.97 | TP..1103.. | ▲ |
| | SFB6-2 | 126~179 | 80 | 86.2 | 90 | 126~179 | 41 | 45.2 | 45.5 | 3.97 | TP..1103.. | ▲ |
| | SFB6-3 | 150~203 | 80 | 86.2 | 90 | 150~203 | 41 | 45.2 | 45.5 | 3.97 | TP..1103.. | ▲ |

注：全系列中心出水



## SFB 大孔径精镗刀

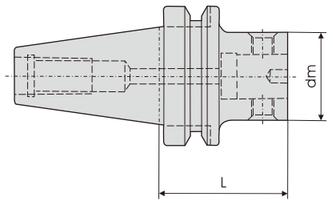





| 型　号 Model | 搪孔范围 Range | 组合刀柄 Tool Connection | dm mm | H mm | 适用刀片 Insert | 螺丝 Screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|
| SFB150-215 | 150~215 | ABS63 | 63 | 75 | TC..110204 | SIC025065 | FT07 | ▲ |
| SFB215-280 | 215~280 | ABS63 | 63 | 80 | TC..110204 | SIC025065 | FT07 | ▲ |
| SFB280-370 | 280~370 | ABS80 | 80 | 95 | TC..110204 | SIC025065 | FT07 | ▲ |
| SFB370-460 | 370~460 | ABS80 | 80 | 100 | TC..110204 | SIC025065 | FT07 | ▲ |
| SFB460-580 | 460~580 | ABS100 | 100 | 110 | TC..110204 | SIC025065 | FT07 | ▲ |
| SFB580-700 | 580~700 | ABS100 | 100 | 120 | TC..110204 | SIC025065 | FT07 | ▲ |

## ABS 镗刀主柄



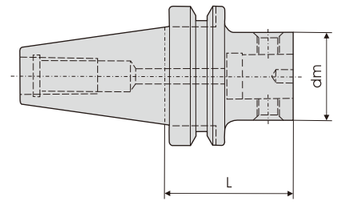



| 型　号 Model | dm mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| BT30-ABS25-40 | 25 | 40 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT30-ABS32-50 | 32 | 50 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT30-ABS40-50 | 40 | 50 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT40-ABS25-60 | 25 | 60 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT40-ABS25-100 | 25 | 100 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT40-ABS25-130 | 25 | 130 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT40-ABS32-60 | 32 | 60 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT40-ABS32-85 | 32 | 85 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT40-ABS32-110 | 32 | 110 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT40-ABS32-140 | 32 | 140 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT40-ABS40-60 | 40 | 60 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT40-ABS40-90 | 40 | 90 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT40-ABS40-120 | 40 | 120 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT40-ABS40-150 | 40 | 150 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT40-ABS50-60 | 50 | 60 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT40-ABS50-95 | 50 | 95 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT40-ABS50-125 | 50 | 125 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT40-ABS50-165 | 50 | 165 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT40-ABS63-70 | 63 | 70 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT40-ABS63-105 | 63 | 105 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT40-ABS63-145 | 63 | 145 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT40-ABS63-180 | 63 | 180 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS25-70 | 25 | 70 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT50-ABS25-100 | 25 | 100 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT50-ABS25-125 | 25 | 125 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT50-ABS25-150 | 25 | 150 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| BT50-ABS32-70 | 32 | 70 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT50-ABS32-100 | 32 | 100 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT50-ABS32-130 | 32 | 130 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT50-ABS32-160 | 32 | 160 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |



ABS 镗刀主柄



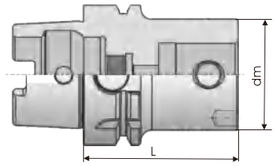



| 型　号 Model | dm mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| BT50-ABS32-190 | 32 | 190 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| BT50-ABS40-70 | 40 | 70 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT50-ABS40-105 | 40 | 105 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT50-ABS40-140 | 40 | 140 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT50-ABS40-175 | 40 | 175 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT50-ABS40-210 | 40 | 210 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| BT50-ABS50-70 | 50 | 70 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT50-ABS50-105 | 50 | 105 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT50-ABS50-145 | 50 | 145 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT50-ABS50-185 | 50 | 185 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT50-ABS50-230 | 50 | 230 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| ★ BT50-ABS50-280 | 50 | 280 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| BT50-ABS63-80 | 63 | 80 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-120 | 63 | 120 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-165 | 63 | 165 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-210 | 63 | 210 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-260 | 63 | 260 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-310 | 63 | 310 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS63-360 | 63 | 360 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| BT50-ABS80-100 | 80 | 100 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| BT50-ABS80-175 | 80 | 175 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| BT50-ABS80-235 | 80 | 235 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| ★ BT50-ABS80-300 | 80 | 300 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| ★ BT50-ABS80-380 | 80 | 380 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| BT50-ABS100-110 | 100 | 110 | KBE-100 | W8 | KBI-100 | WS8 | ▲ |
| BT50-ABS100-200 | 100 | 200 | KBE-100 | W8 | KBI-100 | WS8 | ▲ |
| JT40-ABS63-90 | 63 | 90 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| JT50-ABS63-60 | 63 | 60 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| JT50-ABS63-145 | 63 | 145 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |

注：带 ★ 号的为非标品，订购时需另询价。

## HSK63A-ABS 镗刀接柄



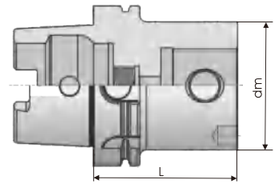



| 型　号 Model | dm mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| HSK63A-ABS25-50 | 25 | 50 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK63A-ABS25-100 | 25 | 100 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK63A-ABS25-130 | 25 | 130 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK63A-ABS32-50 | 32 | 50 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK63A-ABS32-85 | 32 | 85 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK63A-ABS32-110 | 32 | 110 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK63A-ABS32-140 | 32 | 140 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK63A-ABS40-60 | 40 | 60 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK63A-ABS40-90 | 40 | 90 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK63A-ABS40-120 | 40 | 120 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK63A-ABS40-150 | 40 | 150 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK63A-ABS50-70 | 50 | 70 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK63A-ABS50-95 | 50 | 95 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK63A-ABS50-125 | 50 | 125 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK63A-ABS50-165 | 50 | 165 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK63A-ABS63-80 | 63 | 80 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK63A-ABS63-105 | 63 | 105 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK63A-ABS63-145 | 63 | 145 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK63A-ABS63-180 | 63 | 180 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK63A-ABS80-100 | 80 | 100 | 21A80-E1 | S10 | 21A80-E2 | S6 | ▲ |



## HSK100A-ABS 镗刀接柄

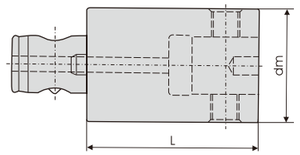





| 型　号 Model | dm mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| HSK100A-ABS25-60 | 25 | 60 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK100A-ABS25-100 | 25 | 100 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK100A-ABS25-125 | 25 | 125 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK100A-ABS25-150 | 25 | 150 | 21A25-E1 | S3 | 21A25-E2 | S2 | ▲ |
| HSK100A-ABS32-60 | 32 | 60 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK100A-ABS32-100 | 32 | 100 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK100A-ABS32-130 | 32 | 130 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK100A-ABS32-160 | 32 | 160 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK100A-ABS32-190 | 32 | 190 | 21A32-E1 | S4 | 21A32-E2 | S2.5 | ▲ |
| HSK100A-ABS40-80 | 40 | 80 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK100A-ABS40-105 | 40 | 105 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK100A-ABS40-140 | 40 | 140 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK100A-ABS40-175 | 40 | 175 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK100A-ABS40-210 | 40 | 210 | 21A40-E1 | S5 | 21A40-E2 | S3 | ▲ |
| HSK100A-ABS50-80 | 50 | 80 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS50-105 | 50 | 105 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS50-145 | 50 | 145 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS50-185 | 50 | 185 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS50-230 | 50 | 230 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS50-280 | 50 | 280 | 21A50-E1 | S6 | 21A50-E2 | S4 | ▲ |
| HSK100A-ABS63-80 | 63 | 80 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-120 | 63 | 120 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-165 | 63 | 165 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-210 | 63 | 210 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-260 | 63 | 260 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-310 | 63 | 310 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS63-360 | 63 | 360 | 21A63-E1 | S8 | 21A63-E2 | S5 | ▲ |
| HSK100A-ABS80-90 | 80 | 90 | 21A80-E1 | S8 | 21A80-E2 | S6 | ▲ |
| HSK100A-ABS80-175 | 80 | 175 | 21A80-E1 | S10 | 21A80-E2 | S6 | ▲ |
| HSK100A-ABS80-235 | 80 | 235 | 21A80-E1 | S10 | 21A80-E2 | S6 | ▲ |
| HSK100A-ABS80-300 | 80 | 300 | 21A80-E1 | S10 | 21A80-E2 | S6 | ▲ |
| HSK100A-ABS80-380 | 80 | 380 | 21A80-E1 | S10 | 21A80-E2 | S6 | ▲ |
| HSK100A-ABS100-100 | 100 | 100 | 21A100-E1 | S12 | 21A100-E2 | S8 | ▲ |
| HSK100A-ABS100-200 | 100 | 200 | 21A100-E1 | S12 | 21A100-E2 | S8 | ▲ |

## ABS 镗刀接柄



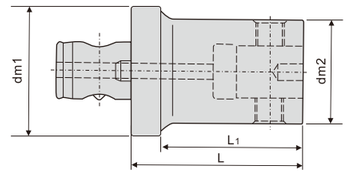



| 型　号 Model | dm mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|
| ABS25-25-45L | 25 | 45 | KBE-25 | W2 | KBI-25 | WS2 | ▲ |
| ABS32-32-50L | 32 | 50 | KBE-32 | W3 | KBI-32 | WS3 | ▲ |
| ABS40-40-60L | 40 | 60 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| ABS40-40-90L | 40 | 90 | KBE-40 | W4 | KBI-40 | WS4 | ▲ |
| ABS50-50-65L | 50 | 65 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| ABS50-50-100L | 50 | 100 | KBE-50 | W5 | KBI-50 | WS5 | ▲ |
| ABS63-63-85L | 63 | 85 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| ABS63-63-125L | 63 | 125 | KBE-63 | W6 | KBI-63 | WS6 | ▲ |
| ABS80-80-85L | 80 | 85 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| ABS80-80-125L | 80 | 125 | KBE-80 | W8 | KBI-80 | WS8 | ▲ |
| ABS100-100-85L | 100 | 85 | KBE-100 | W8 | KBI-100 | WS8 | ▲ |
| ABS100-100-160L | 100 | 160 | KBE-100 | W8 | KBI-100 | WS8 | ▲ |



## ABS 镗刀变径接柄






| 型　号 Model | dm1 mm | dm2 mm | L1 mm | L mm | 外侧边螺丝 Outter screw | 扳手 Wrench | 内侧边螺丝 Inner screw | 扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|
| ABS40-32-40L | 40 | 32 | 28 | 40 | KBE-32 | W4 | KBI-32 | WS2.5 | ▲ |
| ABS50-32-50L | 50 | 32 | 35 | 50 | KBE-32 | W4 | KBI-32 | WS2.5 | ▲ |
| ABS50-40-50L | 50 | 40 | 35 | 50 | KBE-40 | W5 | KBI-40 | WS3 | ▲ |
| ABS63-40-60L | 63 | 40 | 40 | 60 | KBE-40 | W5 | KBI-40 | WS3 | ▲ |
| ABS63-50-60L | 63 | 50 | 40 | 60 | KBE-50 | W6 | KBI-50 | WS4 | ▲ |
| ABS80-40-60L | 80 | 40 | 35 | 60 | KBE-40 | W5 | KBI-40 | WS3 | ▲ |
| ABS80-50-60L | 80 | 50 | 35 | 60 | KBE-50 | W6 | KBI-50 | WS4 | ▲ |
| ABS80-63-60L | 80 | 63 | 35 | 60 | KBE-63 | W8 | KBI-63 | WS5 | ▲ |
| ABS100-63-80L | 100 | 63 | 50 | 80 | KBE-63 | W8 | KBI-63 | WS5 | ▲ |
| ABS100-80-80L | 100 | 80 | 50 | 80 | KBE-80 | W10 | KBI-80 | WS6 | ▲ |

# 减震系列

## 具吸收纵/横向震波

阻止加工中产生振动

更快的切削进给及良好的加工表面精度

532 mm『 7.8D 』

487 mm『 7.1D 』

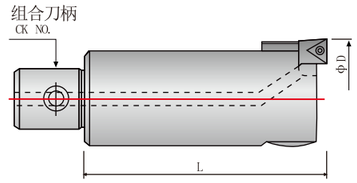
377 mm『 5.5D 』



RNECK

## CBH/DP 减震精搪头



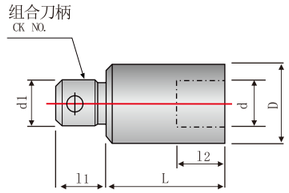



- 镗孔范围：φ20～φ102
- 精度：≤0.01mm

| 型　号 Model | ⊘D塘孔范围 | | 组合刀柄 CK No | L | 使用刀片 | 螺丝 | 扳手 | 扭力值 N.m | 重量 Weight |
|---|---|---|---|---|---|---|---|---|---|
| | Min | Max | | | | | | | |
| CBH20DP-90L-TP08 | 20 | 26 | CK1 | 90 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.22 |
| CBH25DP-90L-TP08 | 25 | 33 | CK2 | 90 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.39 |
| CBH32DP-100L-TP08 | 32 | 42 | CK3 | 100 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.71 |
| CBH40DP-110L-TP08 | 40 | 55 | CK4 | 11 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 1.27 |
| CBH52DP-140L-TP08 | 52 | 75 | CK5 | 140 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 2.72 |
| CBH68DP-175L-TP08 | 68 | 102 | CK6 | 175 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 5.70 |
| CBH68DP-175L-TP09 | 68 | 102 | CK6 | 175 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 5.70 |
| CBH68DP-175L-TP11 | 68 | 102 | CK6 | 175 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 5.70 |

## SCK/DP 减震延长杆



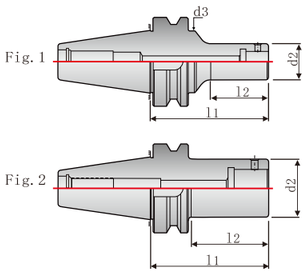



| 型　号<br>Model | 组合刀柄<br>CK NO | L | l1 | l2 | D | d | d1 | 通用搪孔头 | 重量<br>Weight |
|---|---|---|---|---|---|---|---|---|---|
| SCK2DP-2-75L | CK2 | 75 | 16 | 18 | 24 | 14 | 14 | CBH25/SMB25 | 0.33 |
| SCK3DP-3-100L | CK3 | 100 | 20 | 22 | 31 | 18 | 18 | CBH32/SMB32 | 0.62 |
| SCK4DP-4-110L | CK4 | 110 | 24 | 26 | 39 | 22 | 22 | CBH40/SMB41 | 1.11 |
| SCK5DP-5-130L | CK5 | 130 | 30 | 32 | 50 | 28 | 28 | CBH52/SMB53 | 2.30 |
| SCK6DP-6-170L | CK6 | 170 | 40 | 42 | 64 | 36 | 36 | CBH68/SMB68 | 5.10 |



## CK/DP 减震搪孔刀杆






### 6倍长

| 型　号<br>Model | l1 | l2 | d2 | d3 | 通用搪孔头 | Fig | 重量<br>Weight |
|---|---|---|---|---|---|---|---|
| BT40×CK2DP-150 | 150 | 110 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | - |
| BT40×CK3DP-200 | 200 | 160 | 31 | 50 | SMB32/SCK3950-C | 1 | - |
| BT40×CK4DP-235 | 235 | 200 | 39 | 50 | SMB41/SCK4965-C | 1 | - |
| BT40×CK5DP-310 | 310 | 280 | 50 | - | SMB53/SCK6382-C | 2 | - |
| BT40×CK6DP-295 | 295 | 270 | 64 | - | SMB68/SCK80102-C | 2 | - |
| BT40×CK2DP-160 | 160 | 110 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | - |
| BT40×CK3DP-220 | 220 | 160 | 31 | 50 | SMB32/SCK3950-C | 1 | - |
| BT40×CK4DP-260 | 260 | 205 | 39 | 64 | SMB41/SCK4965-C | 1 | - |
| BT40×CK5DP-310 | 310 | 265 | 50 | 64 | SMB53/SCK6382-C | 1 | - |
| BT40×CK6DP-375 | 375 | 330 | 64 | - | SMB68/SCK80102-C | 2 | - |

### 8倍长

| 型　号<br>Model | l1 | l2 | d2 | d3 | 通用搪孔头 | Fig | 重量<br>Weight |
|---|---|---|---|---|---|---|---|
| BT40×CK2DP-200 | 200 | 160 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | - |
| BT40×CK3DP-260 | 260 | 220 | 31 | 50 | SMB32/SCK3950-C | 1 | - |
| BT40×CK4DP-315 | 315 | 280 | 39 | 50 | SMB41/SCK4965-C | 1 | - |
| BT40×CK2DP-210 | 210 | 160 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | - |
| BT40×CK3DP-280 | 280 | 220 | 31 | 50 | SMB32/SCK3950-C | 1 | - |
| BT40×CK4DP-340 | 340 | 285 | 39 | 64 | SMB41/SCK4965-C | 1 | - |
| BT40×CK5DP-400 | 400 | 355 | 50 | 64 | SMB53/SCK6382-C | 1 | - |
| BT40×CK6DP-505 | 505 | 460 | 64 | - | SMB68/SCK80102-C | 2 | - |

## SCK系列搪孔组合图



SCK 本体



SCK等长径长杆



SCK异径延长杆



MBH精搪头



CBH精搪头



SMB精搪头



RBH精搪头



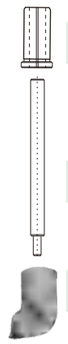
SBJ-16精搪头



CBH精搪头



SBJ-16
精搪刀杆



钨钢刀柄套筒

钨钢刀柄

舍弃式搪头

搪孔加工，组合弹性模组化
刀杆本体整支通孔，利于出水及抗震



## BT/SCK 镗头刀柄



Fig1

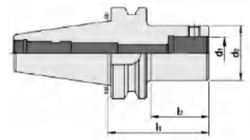
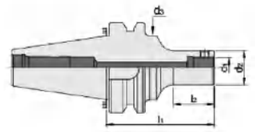


Fig2



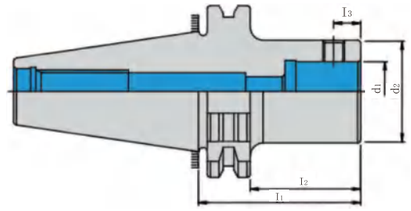
| 型　号 Model | $d_1$ mm | $d_2$ mm | $d_3$ mm | $l_1$ mm | $l_2$ mm | 侧边螺丝 | Fig | 重量 kg |
|---|---|---|---|---|---|---|---|---|
| BT30×SCK1-55 | 11 | 19 | - | 55 | 33 | M4-0.7P-5L | 1 | 0.70 |
| BT30×SCK1-70 | 11 | 19 | - | 70 | 48 | M4-0.7P-6L | 1 | 0.70 |
| BT30×SCK2-75 | 14 | 23.5 | - | 75 | 53 | M5-0.8P-7.5L | 1 | 0.80 |
| BT30×SCK3-50 | 18 | 31 | - | 50 | 28 | M6-1.0P-7.5L | 1 | 0.90 |
| BT30×SCK4-70 | 22 | 39 | - | 70 | 48 | M8-1.25P-10L | 1 | 1.00 |
| BT30×SCK5-70 | 28 | 50 | - | 70 | 48 | M10-1.5P-13L | 1 | 1.10 |
| BT30×SCK6-60 | 36 | 63 | - | 60 | 38 | M12-1.75P-19L | 1 | 1.20 |
| BT40×SCK1-100 | 11 | 19 | 44.5 | 100 | 51 | M4-0.7P-6L | 2 | 1.20 |
| BT40×SCK2-75 | 14 | 23.5 | 44.5 | 75 | 28 | M5-0.8P-8L | 2 | 1.30 |
| BT40×SCK3-80 | 18 | 31 | - | 80 | 53 | M6-1.0P-10L | 1 | 1.45 |
| BT40×SCK4-70 | 22 | 39 | - | 70 | 43 | M8-1.25P-10L | 1 | 1.50 |
| BT40×SCK4-100 | 22 | 39 | - | 100 | 73 | M8-1.25P-10L | 1 | 1.70 |
| BT40×SCK5-60 | 28 | 50 | - | 60 | 33 | M10-1.5P-13L | 1 | 1.80 |
| BT40×SCK5-80 | 28 | 50 | - | 80 | 53 | M10-1.5P-13L | 1 | 1.95 |
| BT40×SCK5-120 | 28 | 50 | - | 120 | 90 | M10-1.5P-13L | 1 | - |
| BT40×SCK5-150 | 28 | 50 | - | 150 | 120 | M10-1.5P-13L | 1 | - |
| BT40×SCK6-55 | 36 | 63 | - | 55 | 28 | M12-1.75P-19L | 1 | 2.15 |
| BT40×SCK6-100 | 36 | 63 | - | 100 | 73 | M12-1.75P-19L | 1 | - |
| BT40×SCK6-120 | 36 | 63 | - | 120 | 93 | M12-1.75P-19L | 1 | - |
| BT40×SCK6-150 | 36 | 63 | - | 150 | 123 | M12-1.75P-19L | 1 | - |
| BT50×SCK1-105 | 11 | 19 | 69.85 | 105 | 38 | M4-0.7P-6L | 2 | 3.90 |
| BT50×SCK2-105 | 14 | 23.5 | 69.85 | 105 | 39 | M5-0.8P-8L | 2 | 4.00 |
| BT50×SCK2-135 | 14 | 23.5 | 69.85 | 135 | 67 | M5-0.8P-8L | 2 | 4.10 |
| BT50×SCK3-110 | 18 | 31 | - | 110 | 72 | M6-1.0P-10L | 1 | 4.40 |
| BT50×SCK3-140 | 18 | 31 | - | 140 | 102 | M6-1.0P-10L | 1 | 4.60 |
| BT50×SCK4-100 | 22 | 39 | - | 100 | 62 | M8-1.25P-10L | 1 | 4.80 |
| BT50×SCK4-160 | 22 | 39 | - | 160 | 122 | M8-1.25P-10L | 1 | 5.20 |
| BT50×SCK5-90 | 28 | 50 | - | 90 | 52 | M10-1.5P-13L | 1 | 5.40 |
| BT50×SCK5-165 | 28 | 50 | - | 165 | 127 | M10-1.5P-13L | 1 | 6.20 |
| BT50×SCK5-210 | 28 | 50 | - | 210 | 172 | M10-1.5P-13L | 1 | 6.40 |
| BT50×SCK6-85 | 36 | 63 | - | 85 | 47 | M12-1.75P-19L | 1 | 5.90 |
| BT50×SCK6-155 | 36 | 63 | - | 155 | 117 | M12-1.75P-19L | 1 | 6.50 |
| BT50×SCK6-215 | 36 | 63 | - | 215 | 177 | M12-1.75P-19L | 1 | 6.90 |
| BT50×SCK6-250 | 36 | 63 | - | 250 | 212 | M12-1.75P-19L | 1 | - |
| BT50×SCK6-300 | 36 | 63 | - | 300 | 262 | M12-1.75P-19L | 1 | 10.6 |
| BT50×SCK6-350 | 36 | 63 | - | 350 | 312 | M12-1.75P-19L | 1 | - |

- 内孔公差h6;
- 整支通孔，利于出水及抗震;
- 可共用并互容于大多数的“CK”系列。

☆在选配SCK长柄时，为使刚性更好，建议使用BT/SCK 镗孔头刀杆。

## 粗、精搪头刀杆





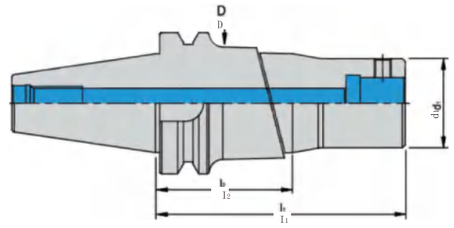

| 型　号<br>Model | l1<br>mm | l2<br>mm | l3<br>mm | d1<br>mm | d2<br>mm | 重量<br>kg |
|---|---|---|---|---|---|---|
| DAT40×SCK1-80 | 80 | 60.9 | 5.05 | 11 | 19 | 1.00 |
| DAT40×SCK1-95 | 95 | 75.9 | 5.05 | 11 | 19 | 1.05 |
| DAT40×SCK2-80 | 80 | 60.9 | 6.62 | 14 | 23.5 | 1.10 |
| DAT40×SCK2-110 | 110 | 90.9 | 6.62 | 14 | 23.5 | 1.15 |
| DAT40×SCK3-90 | 90 | 70.9 | 8 | 18 | 31 | 1.20 |
| DAT40×SCK3-125 | 125 | 105.9 | 8 | 18 | 31 | 1.25 |
| DAT40×SCK4-80 | 80 | 60.9 | 10 | 22 | 39 | 1.30 |
| DAT40×SCK4-110 | 110 | 90.9 | 10 | 22 | 39 | 1.35 |
| DAT40×SCK5-95 | 95 | 75.9 | 13 | 28 | 50 | 1.40 |
| DAT40×SCK5-110 | 110 | 90.9 | 13 | 28 | 50 | 1.45 |
| DAT40×SCK5-150 | 150 | 130.9 | 13 | 28 | 50 | - |
| DAT40×SCK6-65 | 65 | 45.9 | 16 | 36 | 63 | 1.50 |
| DAT40×SCK6-95 | 95 | 75.9 | 16 | 36 | 63 | 1.55 |
| DAT40×SCK6-125 | 125 | 105.9 | 16 | 36 | 63 | - |
| DAT40×SCK6-150 | 150 | 130.9 | 16 | 36 | 63 | - |
| DAT50×SCK1-110 | 110 | 90.9 | 5.05 | 11 | 19 | 3.10 |
| DAT50×SCK1-125 | 125 | 105.9 | 5.05 | 11 | 19 | 3.15 |
| DAT50×SCK2-95 | 95 | 75.9 | 6.62 | 14 | 23.5 | 3.20 |
| DAT50×SCK2-125 | 125 | 105.9 | 6.62 | 14 | 23.5 | 3.25 |
| DAT50×SCK3-125 | 125 | 105.9 | 8 | 18 | 31 | 3.30 |
| DAT50×SCK3-155 | 155 | 125.9 | 8 | 18 | 31 | 3.35 |
| DAT50×SCK4-110 | 110 | 90.9 | 10 | 22 | 39 | 3.40 |
| DAT50×SCK4-125 | 125 | 105.9 | 10 | 22 | 39 | 3.45 |
| DAT50×SCK4-165 | 165 | 145.6 | 10 | 22 | 39 | - |
| DAT50×SCK5-65 | 65 | 45.9 | 13 | 28 | 50 | 3.50 |
| DAT50×SCK5-140 | 140 | 120.9 | 13 | 28 | 50 | 3.55 |
| DAT50×SCK5-200 | 200 | 180.9 | 13 | 28 | 50 | - |
| DAT50×SCK6-98 | 98 | 78.9 | 16 | 36 | 63 | 4.24 |
| DAT50×SCK6-140 | 140 | 120.9 | 16 | 36 | 63 | 3.60 |
| DAT50×SCK6-170 | 170 | 150.9 | 16 | 36 | 63 | 3.65 |
| DAT50×SCK6-230 | 230 | 210.9 | 16 | 36 | 63 | - |

◎内孔公差H6;
◎整支通孔，利于出水及抗震;
◎可共用并互容于大多数“CK”系列;
◎侧边锁固螺丝与键槽呈90°，确保搪孔切削后能退换刀;
◎锁固时请使用螺丝防卡油防止因搪孔加工扭力过大，导致螺丝卡死难以拆卸组装。



## BT/SCK 镗孔头刀杆

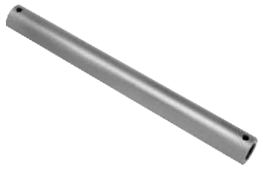


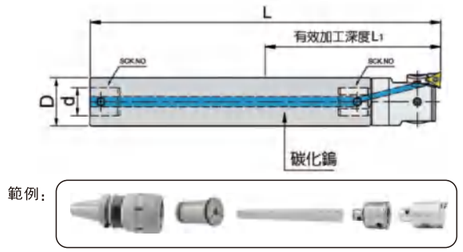



| 型　号<br>Model | l1<br>mm | l2<br>mm | D<br>mm | d1<br>mm | 侧边螺丝 | 重量<br>kg |
|---|---|---|---|---|---|---|
| BT50-SCK6-240BG(D=80) | 320 | 240 | 80 | 63 | M12-1.75P-19L | 12.18 |
| BT50-SCK6-240BG(D=100) | 320 | 240 | 100 | 63 | M12-1.75P-19L | 16.26 |
| BT50-SCK6-300BG(D=80) | 380 | 300 | 80 | 63 | M12-1.75P-19L | 14.05 |
| BT50-SCK6-300BG(D=100) | 380 | 300 | 100 | 63 | M12-1.75P-19L | 19.37 |
| BT50-SCK6-360BG(D=80) | 440 | 360 | 80 | 63 | M12-1.75P-19L | 15.94 |
| BT50-SCK6-360BG(D=100) | 440 | 360 | 100 | 63 | M12-1.75P-19L | 22.46 |

◎内孔公差H6;
◎整支通孔，利于出水及抗震;
◎可共用并互容于大多数“CK”系列;
◎侧边顶固螺丝与键槽成90度，确保搪孔切削完毕时的相对位置;
◎顶固时请使用螺丝防卡油防止因搪孔加工扭力过大，导致螺丝卡死难以拆卸组装;
◎加大外径设计，提高整体刚性，应用于大倍率比的孔加工;
◎D=80，建议最小加工孔径90mm以上;
◎D=100，建议最小加工孔径110mm以上;
◎请先确认机床的主轴与换刀臂的实际抓力量。

## SCK 直柄碳化钨制镗孔头刀杆

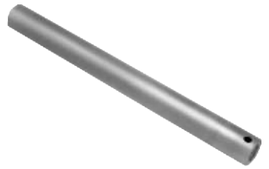


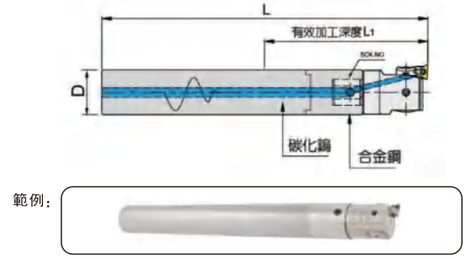



| 型　号<br>Model | d<br>mm | D<br>mm | L<br>mm | L1<br>mm | 适用镗孔头 | 重量<br>kg |
|---|---|---|---|---|---|---|
| C19-SCK1-150L | 11 | 19 | 225 | 150 | CBH20 | 0.80 |
| C19-SCK1-200L | 11 | 19 | 275 | 200 | CBH20 | 1.00 |
| C24-SCK2-180L | 14 | 24 | 260 | 180 | CBH25 | 1.45 |
| C24-SCK2-240L | 14 | 24 | 320 | 240 | CBH25 | 1.80 |
| C32-SCK3-240L | 18 | 32 | 320 | 240 | CBH32 | 2.80 |
| C32-SCK3-310L | 18 | 32 | 390 | 310 | CBH32 | 3.50 |
| C40-SCK4-310L | 22 | 40 | 390 | 310 | CBH40 | 5.00 |
| C40-SCK4-400L | 22 | 40 | 480 | 400 | CBH40 | 6.50 |



## SCK直柄焊接碳化钨制镗孔头刀杆

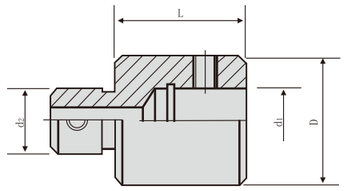





| 型　号<br>Model | D<br>mm | L<br>mm | L1<br>mm | 适用镗孔头 | 重量<br>kg |
|---|---|---|---|---|---|
| SC19-SCK1-130L | 19 | 180 | 130 | CBH20 | - |
| SC19-SCK1-150L | 19 | 225 | 150 | CBH20 | - |
| SC19-SCK1-200L | 19 | 275 | 200 | CBH20 | - |
| SC24-SCK2-140L | 24 | 200 | 140 | CBH25 | - |
| SC24-SCK2-180L | 24 | 260 | 180 | CBH25 | - |
| SC24-SCK2-240L | 24 | 320 | 240 | CBH25 | - |
| SC32-SCK3-160L | 32 | 240 | 160 | CBH32 | - |
| SC32-SCK3-240L | 32 | 320 | 240 | CBH32 | - |
| SC32-SCK3-310L | 32 | 390 | 310 | CBH32 | - |

## 等径搪刀延长杆

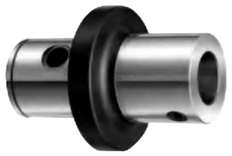


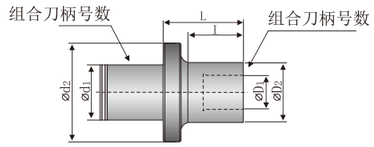



• 等径延长杆规格:

| 型　号 Model | d1 | d2 | D | L | 使用搪头 | 重量 (KGS) |
|---|---|---|---|---|---|---|
| SCK1-1-30L | 11 | 11 | 19 | 30 | CBH20 | 0.07 |
| SCK2-2-30L | 14 | 14 | 24 | 30 | RBH25,CBH25 | 0.1 |
| SCK3-3-30L | 18 | 18 | 31 | 30 | RBH32,CBH32 | 0.15 |
| SCK4-4-45L | 22 | 22 | 39 | 45 | RBH40,CBH40 | 0.4 |
| SCK5-5-60L | 28 | 28 | 50 | 60 | RBH52,CBH52 | 0.8 |
| SCK6-6-60L | 36 | 36 | 64 | 60 | RBH68-RBH90,SBJ16,CBH68,100,150 | 1.4 |

## 异径搪刀延长杆






• 异径延长杆规格:

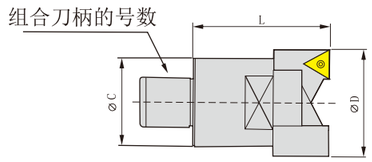
| 型　号 Model | d1 | d2 | D1 | D2 | L | I | 使用搪头 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| SCK2-1-36L | 14 | 24 | 11 | 19 | 36 | 30 | CBH20 | 0.1 |
| SCK3-1-41L | 18 | 31 | 11 | 19 | 41 | 30 | CBH20 | 0.15 |
| SCK3-2-37L | 18 | 31 | 14 | 24 | 37 | 25 | RBH25,CBH25 | 0.15 |
| SCK4-1-58L | 22 | 39 | 11 | 19 | 58 | 40 | CBH20 | 0.3 |
| SCK4-2-50L | 22 | 39 | 14 | 24 | 50 | 36 | RBH25,CBH25 | 0.3 |
| SCK4-3-50L | 22 | 39 | 18 | 31 | 50 | 37 | RBH32,CBH25 | 0.35 |
| SCK5-1-60L | 28 | 50 | 11 | 19 | 60 | 40 | CBH20 | 0.45 |
| SCK5-2-54L | 28 | 50 | 14 | 24 | 54 | 35 | RBH25,CBH25 | 0.45 |
| SCK5-2-74L | 28 | 50 | 14 | 24 | 74 | 55 | RBH25,CBH25 | 0.6 |
| SCK5-3-47L | 28 | 50 | 18 | 31 | 47 | 29 | RBH32,CBH32 | 0.52 |
| SCK5-3-72L | 28 | 50 | 18 | 31 | 72 | 54 | RBH32,CBH32 | 0.68 |
| SCK5-4-42L | 28 | 50 | 22 | 39 | 42 | 25 | RBH40,CBH40 | 0.5 |
| SCK5-4-67L | 28 | 50 | 22 | 39 | 67 | 50 | RBH40,CBH40 | 0.8 |
| SCK6-1-70L | 36 | 64 | 11 | 19 | 70 | 40 | CBH20 | 0.95 |
| SCK6-2-63L | 36 | 64 | 14 | 21 | 63 | 45 | RBH25,CBH25 | 0.78 |
| SCK6-2-93L | 36 | 64 | 14 | 21 | 93 | 75 | RBH25,CBH25 | 0.8 |
| SCK6-3-56L | 36 | 64 | 18 | 31 | 56 | 39 | RBH32,CBH32 | 0.8 |
| SCK6-3-96L | 36 | 64 | 18 | 31 | 96 | 79 | RBH32,CBH32 | 1.07 |
| SCK6-4-51L | 36 | 64 | 22 | 39 | 51 | 35 | RBH40,CBH40 | 0.92 |
| SCK6-4-101L | 36 | 64 | 22 | 39 | 101 | 85 | RBH40,CBH40 | 1.30 |
| SCK6-5-41L | 36 | 64 | 28 | 52 | 41 | 25 | RBH52,CBH52 | 0.94 |
| SCK6-5-91L | 36 | 64 | 28 | 52 | 91 | 75 | RBH52,CBH52 | 1.60 |
| BST-SCK6 | 50 | 95 | 36 | 64 | 100 | 60 | - | 3.32 |



## RBH可调整式双刃粗搪头



《加工直径Φ20~Φ450mm》



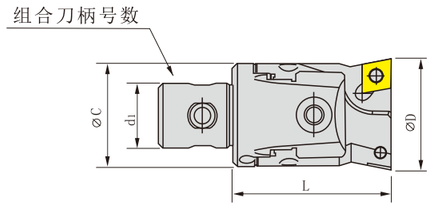

### 特　点

1. 适用单刃搪孔,双刃搪孔及高低阶搪孔,搪孔范围Φ25mm-Φ450mm
2. 新型刀刃滑座设计，强度增强.加工时,滑座承受的两个作用力互相抵消,产生最大的刚性和切削力,适合各种形态的搪孔作业
3. 可依照不同的加工需求,轻易调整搪刀,做小量多样的加工,加工深度可配合延长杆延伸所在需长度
4. 精确的侧边刻度.协助使用者轻易调整到所需的范围无须在刀具设定义上预设
5. 最适合在各型切削中心机或搪床上配合使用,并可搭配各种厂牌相同规格的指定刀片,即省刀具研磨时间并大幅增加搪孔效率
6. 直径Φ200mm以上大孔径搪刀,使用直接组件,结构简单刚性强,调整范围为直径50mm

| 型　号 Model | C | 组合刀柄 | 使用搪头 Min | 使用搪头 Max | L | 使用刀片 | 螺丝 | 扳手 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| RBH25-33-C | 24 | SCK2 | 25 | 33 | 45 | CCMT060204 | M2.5 | T8 | 0.15 |
| RBH32-42-T | 31 | SCK3 | 32 | 42 | 55 | TCMT110204 | M2.5 | T8 | 0.3 |
| RBH32-42-C | 31 | SCK3 | 32 | 42 | 55 | CCMT060204 | M2.5 | T8 | 0.3 |
| RBH40-55-T | 39 | SCK4 | 40 | 55 | 65 | TCMT16T304 | M4 | T15 | 0.5 |
| RBH40-55-C | 39 | SCK4 | 40 | 55 | 65 | CCMT09T3 | M4 | T15 | 0.5 |
| RBH52-70-T | 50 | SCK5 | 52 | 70 | 75 | TCMT16T304 | M4 | T15 | 1 |
| RBH52-70-C | 50 | SCK5 | 52 | 70 | 75 | CCMT09T3 | M4 | T20 | 1 |
| RBH68-92-T | 64 | SCK6 | 68 | 92 | 85 | TCMT16T304 | M4 | T15 | 2 |
| RBH68-92-C | 64 | SCK6 | 68 | 92 | 85 | CCMT120404 | M5 | T20 | 2 |
| RBH90-122-T | 80 | SCK6 | 90 | 122 | 100 | TCMT220408 | M5 | T20 | 2.9 |
| RBH90-122-C | 80 | SCK6 | 90 | 122 | 100 | CCMT120404 | M5 | T20 | 2.9 |
| RBH120-164-T | 100 | BST | 120 | 164 | 95 | TCMT220408 | M5 | T20 | 3.8 |
| RBH120-164-C | 100 | BST | 120 | 164 | 95 | CCMT120404 | M5 | T20 | 3.8 |
| RBH160-204-T | 130 | BST | 160 | 204 | 95 | TCMT220408 | M5 | T20 | 4.8 |
| RBH160-204-C | 130 | BST | 160 | 204 | 95 | CCMT120404 | M5 | T20 | 4.8 |
| RBH200-254-T | 170 | BST | 200 | 254 | 95 | TCMT220408 | M5 | T20 | 6.5 |
| RBH200-254-C | 170 | BST | 200 | 254 | 95 | CCMT120404 | M5 | T20 | 6.5 |
| RBH250-304-T | 210 | BST | 250 | 304 | 95 | TCMT220408 | M5 | T20 | 8.3 |
| RBH250-304-C | 210 | BST | 250 | 304 | 95 | CCMT120404 | M5 | T20 | 8.3 |
| RBH300-354-T | 260 | BST | 300 | 354 | 95 | TCMT220408 | M5 | T20 | 10 |
| RBH300-354-C | 260 | BST | 300 | 354 | 95 | CCMT120404 | M5 | T20 | 10 |
| RBH350-400-T | 310 | BST | 350 | 400 | 95 | TCMT220408 | M5 | T20 | |
| RBH350-400-C | 310 | BST | 350 | 400 | 95 | CCMT120404 | M5 | T20 | |
| RBH400-454-T | 360 | BST | 400 | 454 | 95 | TCMT220408 | M5 | T20 | |
| RBH400-454-C | 360 | BST | 400 | 454 | 95 | CCMT120404 | M5 | T20 | |

## SCK 双刃同动式粗搪孔头





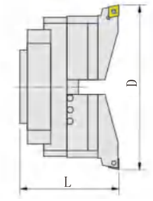

| 型　号 Model | Dmm 搪孔范围 | 组合刀柄 | $d_1$ mm | L mm | C mm | 适用刀片 | 重量 kg |
|---|---|---|---|---|---|---|---|
| SCK24-30-C | 24～30 | SCK2 | 14 | 34 | 22 | CCMT0602... | 0.14 |
| SCK29-40-C | 29～40 | SCK2 | 14 | 42 | 27 | CCMT09T3... | 0.41 |
| SCK39-50-C | 39～50 | SCK3 | 18 | 45 | 32 | CCMT09T3... | 0.33 |
| SCK49-65-C | 49～65 | SCK4 | 22 | 56 | 42 | CCMT1204... | 0.59 |
| SCK63-82-C | 63～82 | SCK5 | 28 | 66 | 54 | CCMT1204... | 1.13 |
| SCK80-102-C | 80～102 | SCK6 | 36 | 86 | 68 | CCMT1204... | 1.05 |



## RBH-LA 新型大孔径双刃粗镗孔头



◎搪孔范围∅200-∅2000;
◎刀杆 BST FMA47.625




| 型　号 Model | 搪孔范围 Min. | 搪孔范围 Max. | L | 组合型式 组合刀柄 | 组合型式 连接盘 | 组合型式 横向滑板 | 组合型式 滑块 | 组合型式 刀片座垫片 | 组合型式 刀片座 | 重量 |
|---|---|---|---|---|---|---|---|---|---|---|
| RBH200-310LA-C | 200 | 310 | 130 | BST | BR200 | RST200 | RS200 | RS201 | RB200C12<br>RB200T16<br>RB200T22<br>RB200S12<br>(四选一) | 9.52 |
| RBH300-410LA-C | 300 | 410 | 130 | | BR200 | RST300 | | | | 11.52 |
| RBH400-510LA-C | 400 | 510 | 130 | | BR200 | RST400 | | | | 13.52 |
| RBH500-610LA-C | 500 | 610 | 130 | | BR200 | RST500 | | | | 15.52 |
| RBH600-900LA-C | 600 | 900 | 150 | FMA 47.625 | BR600 | RST300×2只 | | | | 23.02 |
| RBH900-1200LA-C | 900 | 1200 | 150 | | BR900 | RST400×2只 | | | | 31.72 |
| RBH1200-1600LA-C | 1200 | 1600 | 180 | | BR1200 | RST500×2只 | | | | 46.62 |
| RBH1600-2000LA-C | 1600 | 2000 | 180 | | BR1600 | RST500×2只 | | | | 51.82 |

◎RBH600LA以下加工调整范围为直径110mm；
◎RBH600LA～RBH900LA调整范围为300mm；
◎RBH1200LA以上调整范围为400mm。

☆使用刀片座垫片可实现不等高粗镗

## 配件表

| 刀片座 | 刀片 | 螺丝 | 扳手 | 扭力值 | 重量 |
|---|---|---|---|---|---|
| RB200C12 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 0.68 |
| RB200T16 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.68 |
| RB200T22 | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 0.68 |
| RB200S12 | SC..1204 | M5 | T20 | 5.0 | 0.68 |

☆有四种刀片座可供选择

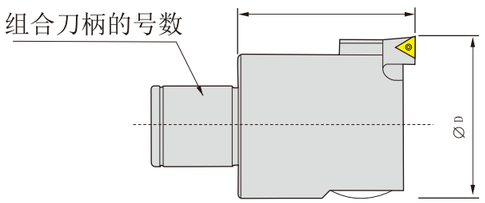
## 刀片型号及材质

| 规　格 | 刀片材质 | P | M | K | S | H |
|---|---|---|---|---|---|---|
| CCMT060204 | MP-6225 | ● | | | | |
| CCMT060204 | MM-2020 | | ● | | | |
| CCMT060204 | MK-5015 | | | ● | | |
| CCMT09T304 | MP-6225 | ● | | | | |
| CCMT09T304 | MM-2020 | | ● | | | |
| CCMT09T304 | MK-5015 | | | ● | | |
| CCMT09T308 | MP-6225 | ● | | | | |
| CCMT09T308 | MM-2020 | | ● | | | |
| CCMT09T308 | MK-5015 | | | ● | | |
| CCMT120404 | MP-6225 | ● | | | | |
| CCMT120404 | MM-2020 | | ● | | | |
| CCMT120404 | MK-5015 | | | ● | | |
| CCMT120408 | MP-6225 | ● | | | | |
| CCMT120408 | MM-2020 | | ● | | | |
| CCMT120408 | MK-5015 | | | ● | | |

## CBH 微调精搪头



《加工直径φ20~φ1250mm》




### 特　点

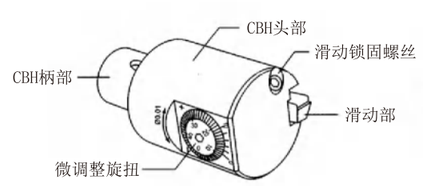
1. CBH精搪刀适用于精切削搪孔，各种范围φ20~φ1250mm均可搭配选用
2. 调整刻度为圆周50等分，每格调整尺寸为直径0.01mm,另有副尺可作更精细之调整。
3. 精密导程螺丝位于内部，不受切削、磨耗、生锈等影响，具有内部润滑精准耐用。
4. 内藏式水孔，刀尖直接冷却，刀片寿命长。
5. 调整伸缩部为方型结构，双支撑面固定，所以切削稳定且刚性大。

| 搪头规格 | 组合刀柄 | 加工直径D | 搪头长度L | 刀片F规格/螺丝/扳手 | 重量(KGS) |
|---|---|---|---|---|---|
| CBH20-TP08 | SCK1 | 20～26 | 35 | TPGH0802 M2.5-5.0-2.7-60 T6 | 0.1 |
| CBH25-TP08 | SCK2 | 25～33 | 40 | | 0.2 |
| CBH32-TP08 | SCK3 | 32～42 | 40 | | 0.3 |
| CBH40-TP08 | SCK4 | 40～55 | 50 | | 0.5 |
| CBH52-TP09 | SCK5 | 52～75 | 60 | TPGH0902 M2.5-6.0-3.5-60 T8 | 1 |
| CBH68-TP09 | SCK6 | 68～102 | 72 | | 2 |
| CBH100-TP09 | SCK6 | 100～152 | 72 | | 2.9 |
| CBH150-TP09 | SCK6 | 150～202 | 72 | | 4.2 |
| CBH200-TP09 | BST | 200～310 | 130 | | 9.7 |
| CBH300-TP09 | BST | 300～410 | 130 | | 11.7 |
| CBH400-TP09 | BST | 400～510 | 130 | | 13.7 |
| CBH500-TP09 | BST | 500～610 | 130 | | 15.7 |
| CBH600-TP09 | FMA47.625 | 600～950 | 150 | | 26 |
| CBH900-TP09 | FMA47.625 | 900～1250 | 150 | | 34 |

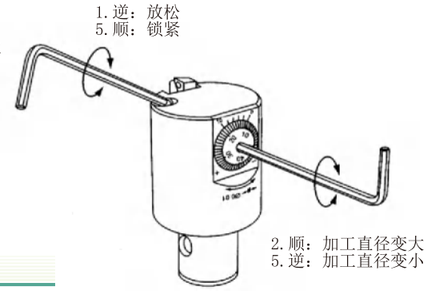


## CBH微调搪孔头使用说明

**产品主要部位名称：**




**操作说明：**




### 使用顺序

请参照图面，依照下列1～5之顺序来操作

- 松开润滑动部锁固螺丝.
- 顺时针方向旋转微调整旋扭，使加工直径变大，微调整旋扭1刻度为φ0.01mm.
- 逆时针方向旋转微调整旋扭，使加工直径变小.
- 调整加工尺寸时，请依同方向定位微调，以确保微调精度.
- 请以适当扭力锁紧滑动部锁固螺丝.

## 使用者注意事项

- 请于滑动部锁固螺丝已经锁紧之状态下，请勿旋转为调整旋扭，否则会导致本体内部破坏及滑动部破坏.
- 滑动部之固定，请使用既定扳手以适当扭力来确保锁紧滑动部锁固螺丝。过度锁紧会导致本体龟裂，过松会导致精度不良或滑动部飞出.
- 本制品为精密螺丝移动滑动部。旋转为调整旋扭，在阻力很大或无法旋动时，请停止旋转。请确认以下事项：滑动部锁固螺丝是否未放松？是否超出了行程范围？当过度旋转为调整旋转时，会导致本体内部及滑动部之破损.

## SMB 精搪头特点介绍




微调单位：**E** 每刻度移动量为0.01mm。

**A** 搭配SCK系列刀杆并可与CK系统刀杆相容。

**B** 采用特殊表面处理，加强防锈效果。

**C** 内藏式水孔，易于排屑与冷却。

**D** 替换式刀座设计，可模组化组合使用。




**F** 替换式刀座反装，可作背搪加工。（参考规格表）



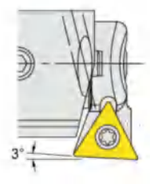

SIB-1号刀座



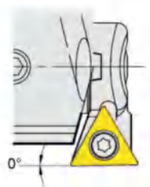

SIB-2号刀座




SIB-3号刀座




标准刀座：3°




E型刀座：0°

1.SIB刀座，可完全包覆住心轴，提升稳固性。
2.三种尺寸刀座，可加大搪孔范围，搪孔范围∅25~∅203。
3.2号及3号刀座，皆能做背搪加工，1号刀座仅SMB53/SMB68/SMB100才能做背搪加工。
4.标准刀座为3° 切让角，另有E型刀座为0° 切让角，可供客户选择。



## SMB 超微米替换式精搪头



Fig1 組合刀柄號數

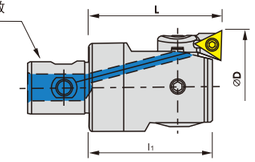
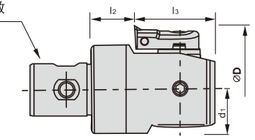



Fig2 組合刀柄號數



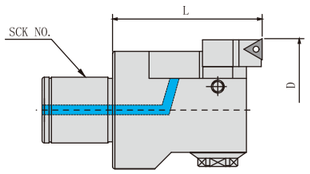

◎精搪孔专用，加工直径∅25~∅150。
◎微调单位：每刻度移动量为0.01mm。
◎刀座附侧边出水孔，可以有效冲刷削片，提高加工效果。
◎替换式刀座设计，可模组化组合使用。
◎组合搭配SCK系列刀杆或是共容与CK系列刀杆。

| 型号 Model | 组合刀柄 | 刀片座 | 刀片 | 搪孔范围Dmm(正面) 搪孔范围 | L | L1 | 搪孔范围Dmm(背搪) 搪孔范围 | I2 | I3 | d1 | 重量 kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SMB25 | SCK2 | SIB25-1 | TB06 TP08 | 25~33 | 35.5 | 32.5 | - | 11.5 | 21 | 12.5 | 0.12 |
| | | SIB25-2 | | 32~40 | | | 36~40 | | | | |
| | | SIB25-3 | | 39~47 | | | 39~47 | | | | |
| SMB32 | SCK3 | SIB32-1 | | 32~42 | 40 | 35 | - | 10 | 25 | 16 | 0.21 |
| | | SIB32-2 | | 41~51 | | | 46~51 | | | | |
| | | SIB32-3 | | 50~60 | | | 50~60 | | | | |
| SMB41 | SCK4 | SIB41-1 | TP09 TC11 | 41~54 | 47 | 43 | - | 14 | 29 | 20 | 0.40 |
| | | SIB41-2 | | 50~63 | | | 53~63 | | | | |
| | | SIB41-3 | | 61~74 | | | 61~74 | | | | |
| SMB53 | SCK5 | SIB53-1 | | 53~70 | 57 | 53 | 62~70 | 19 | 34 | 25.5 | 1.10 |
| | | SIB53-2 | | 65~82 | | | 65~82 | | | | |
| | | SIB53-3 | | 78~95 | | | 78~95 | | | | |
| SMB68 | SCK6 | SIB68-1 | | 68~100 | 71 | 67.2 | 80~100 | 22 | 45.2 | 32.5 | 1.74 |
| | | SIB68-2 | | 94~126 | | | 94~126 | | | | |
| | | SIB68-3 | | 118~150 | | | 118~150 | | | | |
| SMB100 | SCK6 | SIB68-1 | | 100~153 | 71 | 67.2 | 112~153 | 22 | 45.2 | 45.5 | 2.46 |
| | | SIB68-2 | | 126~179 | | | 126~179 | | | | |
| | | SIB68-3 | | 150~203 | | | 150~203 | | | | |

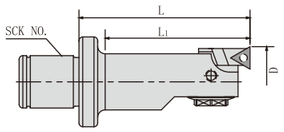
| 型号 Model | 刀座形状 | 组合搪头 | 螺丝 | 扳手 | 规格 | 刀座形状 | 组合搪头 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|
| SIB25-1 |  适用刀片 TB06 TP08 | SMB25 | M2-5.0-2.7-60 | T6 | SIB53-1 |  适用刀片 TP09 TC11 | SMB53 | M2.5-6.0-3.5-60 | T8 |
| SIB25-2 | | | | | SIB53-2 | | | | |
| SIB25-3 | | | | | SIB53-3 | | | | |
| SIB32-1 | | | | | SIB68-1 | | | | |
| SIB32-2 | | SMB32 | | | SIB68-2 | | SMB68 | | |
| SIB32-3 | | | | | SIB68-3 | | | | |
| SIB41-1 | 适用刀片 TP09 TC11 | SMB41 | M2.5-6.0-3.5-60 | T8 | | | | | |
| SIB41-2 | | | | | | | | | |
| SIB41-3 | | | | | | | | | |

# MBH 微调精搪刀






图一




图二

| 型　号 Model | 组合刀柄 | D | | L | L1 | 使用刀片 | 螺丝 | 板手 | 样式 | 重量 |
|---|---|---|---|---|---|---|---|---|---|---|
| MBH16A | SCK2 | 16～20 | | 55 | 50 | WCGT02... | M2.0-5.0-2.7-60 | T6 | 2 | 0.09 |
| MBH16B | SCK2 | 16～20 | | 80 | 75 | WCGT02... | M2.0-5.0-2.7-60 | T6 | 2 | 0.12 |
| MBH20 | SCK1 | 20～26 | | 35 | | WCGT02... | M2.0-5.0-2.7-60 | T6 | 1 | 0.07 |
| MBH25 | SCK2 | 25～32 | | 40 | | WCGT02... | M2.0-5.0-2.7-60 | T6 | 1 | 0.12 |
| MBH32 | SCK3 | 32～42 | | 40 | | TP09 | M2.5-6.0-3.5-60 | T8 | 1 | 0.23 |
| | | | | | | TC09 | M2.2-6.0-3.1-60 | T7 | | |
| MBH40 | SCK4 | A | 40～55 | 50 | | TP11 | M3-8.0-4.0-43 | T9 | 1 | 0.43 |
| | | B | 55～70 | | | TC11 | M2.5-6.0-3.5-60 | T8 | | |
| MBH52 | SCK5 | A | 52～70 | 60 | | TP11 | M3-8.0-4.0-43 | T9 | 1 | 0.9 |
| | | B | 67～85 | | | TC11 | M2.5-6.0-3.5-60 | T8 | | |
| MBH68 | SCK6 | A | 68～88 | 75 | | TP11 | M3-8.0-4.0-43 | T9 | 1 | 1.86 |
| | | B | 85～105 | | | TC11 | M2.5-6.0-3.5-60 | T8 | | |
| MBH100 | BST | A | 100～140 | 105 | | TP11 | M3-8.0-4.0-43 | T9 | 1 | 4.08 |
| | | B | 120～160 | | | TC11 | M2.5-6.0-3.5-60 | T8 | | |
| MBH140 | BST | A | 140～180 | 105 | | TP11 | M3-8.0-4.0-43 | T9 | 1 | 5.45 |
| | | B | 160～200 | | | TC11 | M2.5-6.0-3.5-60 | T8 | | |

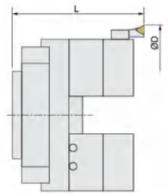
- MBH精搪刀使用于精切削搪孔，搪孔范围16~200mm均可搭配选用。
- 调整刻度每格调整尺寸为直径0.01mm。
- 精密导程螺丝与螺帽均经硬化处理，坚固耐用。
- 除MBH16外，其余规格均可使用中心出水。
- 刀片座为两面固定无振动产生，可增加刀片寿命与加工面光滑度。
- MBH40及以上，可更换小刀夹



# CBH 新型大孔径微调精镗头






| 型　号 Model | 搪孔范围 | | L | 组合型式 | | | | | | | 重量 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | Max. | | 组合刀柄 | | 连接盘 | | 横向滑板 | | 微调滑块 | 刀片 | |
| CBH200 | 200 | 310 | 130 | BST | 合金钢 | BR200 | 合金钢 | RST200 | RBN200 | CB200 | TP..0802 TP..0902 TC..1102 (三选一) | 7.40 |
| CBH300 | 300 | 410 | 130 | | | BR200 | | RST300 | | | | 8.20 |
| CBH400 | 400 | 510 | 130 | | | BR200 | | RST400 | | | | 9.00 |
| CBH500 | 500 | 610 | 130 | | | BR200 | | RST500 | | | | 9.80 |
| CBH600 | 600 | 900 | 150 | FMA 47.625 | 铝合金 | BR600 | | RST300×2只 | | | | 16.20 |
| CBH900 | 900 | 1200 | 150 | | | BR900 | | RST400×2只 | | | | 21.40 |
| CBH1200 | 1200 | 1600 | 180 | | | BR1200 | | RST500×2只 | | | | 35.00 |
| CBH1600 | 1600 | 2000 | 180 | | | BR1600 | | RST500×2只 | | | | 40.20 |

◎ CBH600以下加工调整范围为直径110mm；

◎ CBH600LA~CBH900调整范围为300mm；

◎ CBH1200以上调整范围为400mm。

☆刀片座可换

## 配件表

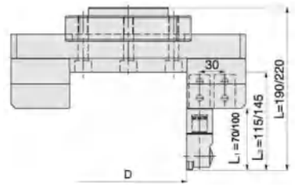
| 刀片 | 螺丝 | 扳手 | 扭力值 |
|---|---|---|---|
| TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 |
| TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 |

☆有三种刀片座可供选择

## CBR 组合式外圆微调精镗刀系列





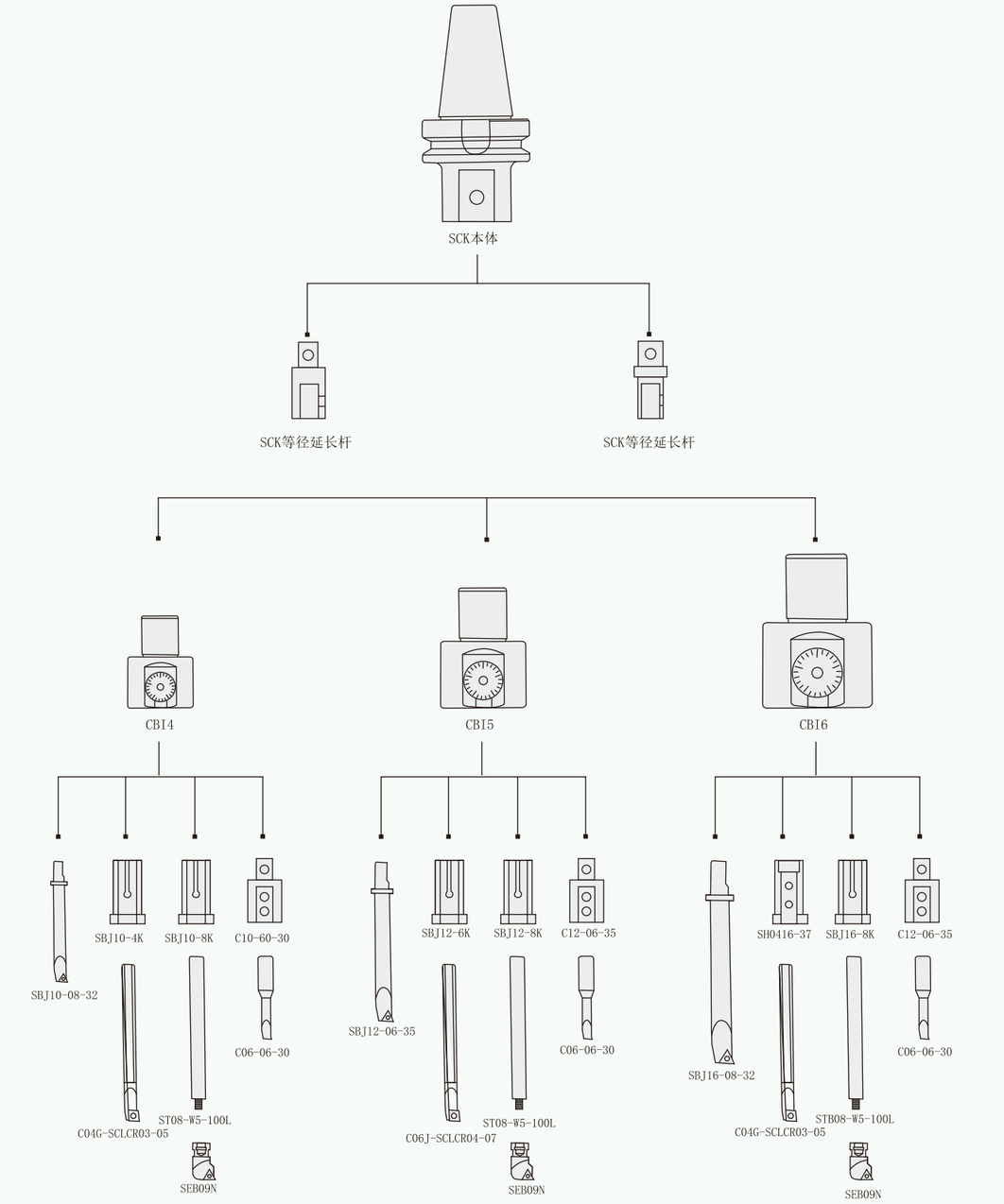

| 型号 Model | 搪孔范围 Min. | 搪孔范围 Max. | L | $L_2$ | 组合型式 组合刀柄 | 连接盘 | | 横向滑板 | 平衡滑块 | 外圆滑块 | 外圆用接杆 | 组合刀头 | 重量 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CBR200 | 10 | 150 | 190/220 | 115/145 | BST | 合金钢 | BR200 | RST200 | RBN200 | HBR200 | C25-SCK3-30<br>C25-SCK3-60<br>(二选一) | SMB32 | 9.70 |
| CBR300 | 10 | 250 | | | | | | RST300 | | | | | 7.40 |
| CBR400 | 10 | 350 | | | | | | RST400 | | | | | 11.70 |
| CBR500 | 10 | 450 | | | | | | RST500 | | | | | 8.20 |
| CBR600 | 10 | 550 | | | FMA 47.625 | 铝合金 | BR600 | RST300×2只 | | | | | 13.70 |
| CBR900 | 10 | 850 | | | | | BR900 | RST400×2只 | | | | | 9.00 |
| | | | | | | | | | | | | | 15.70 |
| | | | | | | | | | | | | | 9.80 |
| | | | | | | | | | | | | | 19.60 |
| | | | | | | | | | | | | | 16.20 |
| | | | | | | | | | | | | | 30.80 |
| | | | | | | | | | | | | | 21.40 |

☆规格型号不包括接杆与精镗头。

☆配合刀柄

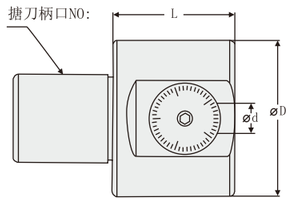


## CBI搪孔组合图示



## CBI小径微调搪刀系列《加工直径φ3-φ50mm》



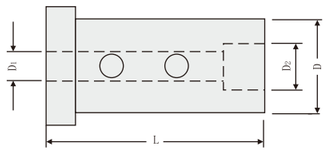



**特　点**

1. CBI小径精搪刀有三种选择，通用于φ8-φ50(8-50)mm小孔径使用，如使用全钨钢小径刀杆加工φ3-φ10mm小孔。
2. 调整刻度为圆周50等分，每格调整尺寸为直径0.01mm,另有副尺可作更精细之调整。
3. 精密导程螺丝位于内部，不受切削、磨耗、生锈等影响，具有内部润滑，精准耐用。

| 型　号 Model | 搪孔能力 | 接合规格 | 内置刀杆 φdmm | 外径 φdmm | L | 移动量 mm | 重量 kg |
|---|---|---|---|---|---|---|---|
| CBI4 | 8-24mm | SCK-4 | 10 | 39 | 32 | 0-2.0 | 0.4 |
| CBI5 | 8-27mm | SCK-5 | 12 | 50 | 40 | 0-3.5 | 0.8 |
| CBI6 | 6-50mm | SCK-6 | 16 | 64 | 50 | 0-5.0 | 1.4 |



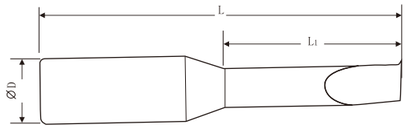



| 型　号 Model | D mm | D1 mm | D2 mm | L mm | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|
| SH-0416-37 | 16 | 4 | 8 | 37 | M4-0.7P | P2.0 |
| SH-0516-37 | 16 | 5 | 8 | 37 | M4-0.7P | P2.0 |
| SH-0616-37 | 16 | 6 | 8 | 37 | M4-0.7P | P2.0 |
| SH-0716-37 | 16 | 7 | 8 | 37 | M4-0.7P | P2.0 |



## CBI系列专用超小径碳化钨搪孔刀

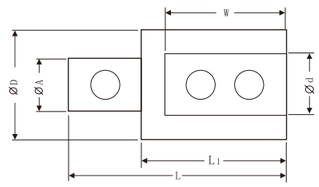





| 型　号 Model | φdmim | 搪孔直径 φdmm | | CBI6 | 有效长 L1 | 总长 L |
|---|---|---|---|---|---|---|
| | | CBI4 | CBI5 | | | |
| C06-03-15 | 3 | 7 | 10 | 13 | 15 | 50 |
| C06-04-20 | 4 | 8 | 11 | 14 | 20 | 50 |
| C06-05-25 | 5 | 9 | 12 | 15 | 25 | 60 |
| C06-06-30 | 6 | 10 | 13 | 16 | 30 | 60 |
| C10-08-35 | 8 | 12 | 15 | 18 | 35 | 75 |
| C10-10-40 | 10 | 14 | 17 | 20 | 40 | 75 |

## CBI系列专用小径孔刀延长杆






| 型　号 Model | A mm | D mm | d mm | L1 mm | W mm | L mm |
|---|---|---|---|---|---|---|
| C10-06-30 | 10 | 18 | 06 | 30 | 25 | 55 |
| C12-06-35 | 12 | 22 | 06 | 35 | 25 | 65 |
| C12-10-35 | 12 | 22 | 10 | 35 | 30 | 65 |
| C16-06-35 | 16 | 22 | 06 | 35 | 25 | 85 |
| C16-10-35 | 16 | 22 | 10 | 35 | 30 | 85 |

## CBI专用小径搪刀杆SBJ型

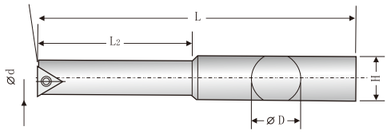



Fig.1

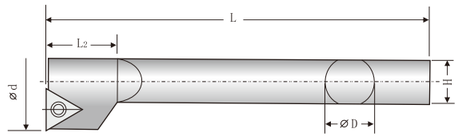



Fig.2

### CBI4 专用小径搪刀杆SBJ型《搪孔范围φ8-φ22mm》

| 型　号 Model | Fig | ØD | Ød | L | L2 | H | 搪孔范围 | 刀片规格 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SBJ-1008-32 | 1 | 10 | 8 | 64 | 32 | 9 | 8-10 | TB..0601.. | M2-3.5-2.7 | T6 |
| SBJ-1010-40 | 1 | 10 | 10 | 72 | 40 | 9 | 10-12 | TB..0601.. | M2-3.5-2.7 | T6 |
| SBJ-1012-45 | 2 | 10 | 12 | 77 | 22 | 9 | 12-16 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ-1016-45 | 2 | 10 | 16 | 77 | 20 | 9 | 16-20 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ-1020-45 | 2 | 10 | 20 | 77 | 22.7 | 9 | 20-25 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ10-5PCS | SBJ1008-32　SBJ1010-40　SBJ1012-45　SBJ1016-45　SBJ1020-45 | | | | | | | | | |

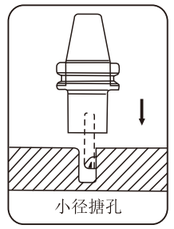
### CBI5 专用小径搪刀杆SBJ型《搪孔范围φ8-φ25mm》

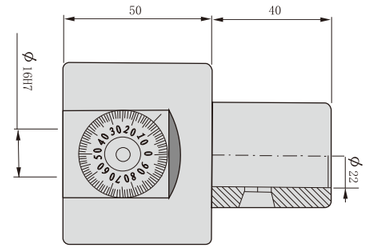
| 型　号 Model | Fig | ØD | Ød | L | L2 | H | 搪孔范围 | 刀片规格 | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SBJ-1208-32 | 1 | 12 | 8 | 64 | 32 | 9 | 8-10 | TB..0601.. | M2-3.5-2.7 | T6 |
| SBJ-1210-40 | 1 | 12 | 10 | 72 | 40 | 9 | 10-12 | TB..0601.. | M2-3.5-2.7 | T6 |
| SBJ-1212-45 | 2 | 12 | 12 | 77 | 45 | 9 | 12-16 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ-1216-45 | 2 | 12 | 16 | 77 | 20 | 9 | 16-20 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ-1220-45 | 2 | 12 | 20 | 77 | 23 | 9 | 20-25 | TP..0902.. | M2.5-6.0-3.5-60 | T9 |
| SBJ12-5PCS | SBJ1208-32　SBJ1210-40　SBJ1212-45　SBJ1216-45　SBJ1220-45 | | | | | | | | | |



## SBJ-16 精搪头



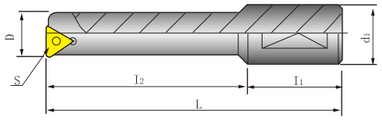



| 型　号 Model | 搪孔能力 | 本体外径 | 微调行程 | 微调精度 | 孔径 | 本体长度 | 组合刀柄 | 重量（KGS） |
|---|---|---|---|---|---|---|---|---|
| SBJ-16 | 6-50MM | 63.5 | 6 | 0.01 | φ16 | 45 | SCK6 | 1.60 |

## SBJ-16 精搪刀杆



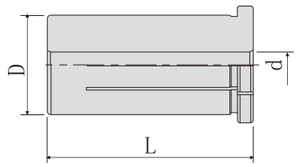



● 材质为高抗震性工具钢。

| 型　号 Model | 范围 MIN NAX | 深度 | Insert/radius 搪刀片NO. | 搪孔量 ap | 进给量 mm/rve | 切削速度 m/min | 螺丝 | 扳手 |
|---|---|---|---|---|---|---|---|---|
| SBJ-1606-24 | 6-9 | 24 | WB..060102L | 0.05-0.15 | 0.05-0.10 | | M2-3.8-2.68-43 | T6 |
| SBJ-1608-32 | 8-11 | 32 | TBGT060102L | 0.05-0.15 | 0.05-0.10 | | M2-5.0-2.7-60 | T6 |
| SBJ-1608-40 | 8-11 | 40 | TBGT060102L | 0.05-0.15 | 0.05-0.10 | | M2-5.0-2.7-60 | T6 |
| SBJ-1610-40 | 10-13 | 40 | TBGT060102L | 0.05-0.15 | 0.05-0.15 | 碳钢 100-200 | M2-5.0-2.7-60 | T6 |
| SBJ-1610-50 | 10-13 | 50 | TBGT060102L | 0.05-0.15 | 0.05-0.15 | | M2-5.0-2.7-60 | T6 |
| SBJ-1612-53 | 12-17 | 53 | TBGT090204L | 0.05-0.20 | 0.05-0.15 | 不锈钢 70-140 | M2.5-6.0-3.5-60 | T8 |
| SBJ-1612-65 | 12-17 | 65 | TBGT090204L | 0.05-0.20 | 0.05-0.15 | | M2.5-6.0-3.5-60 | T8 |
| SBJ-1616-68 | 16-21 | 68 | TBGT090204L | 0.05-0.20 | 0.05-0.15 | 铸铁 70-140 | M2.5-6.0-3.5-60 | T8 |
| SBJ-1616-85 | 16-21 | 85 | TBGT090204L | 0.05-0.20 | 0.05-0.15 | | M2.5-6.0-3.5-60 | T8 |
| SBJ-1620-83 | 20-26 | 83 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 |
| SBJ-1620-105 | 20-26 | 105 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | 铝 150-300 | M3-8.0-4.0-43 | T9 |
| SBJ-1625-90 | 25-32 | 90 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 |
| SBJ-1625-120 | 25-32 | 120 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 |
| SBJ-1630-90 | 30-40 | 90 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 |
| SBJ-1640-90 | 40-50 | 90 | TBGT110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 |

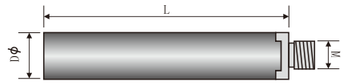
## 钨钢刀柄专用套筒




| 型　号 Model | D mm | d mm | L mm | 重量 kg |
|---|---|---|---|---|
| SBJ-10-4K | 10 | 4 | 30 | 0.01 |
| SBJ-10-6K | 10 | 6 | 30 | 0.01 |
| SBJ-10-8K | 10 | 8 | 30 | 0.01 |
| SBJ-12-4K | 12 | 4 | 35 | 0.01 |
| SBJ-12-6K | 12 | 6 | 35 | 0.01 |
| SBJ-12-8K | 12 | 8 | 35 | 0.01 |
| SBJ-12-10K | 12 | 10 | 35 | 0.01 |
| SBJ-16-8K | 16 | 8 | 37 | 0.08 |
| SBJ-16-10K | 16 | 10 | 37 | 0.04 |
| SBJ-16-12K | 16 | 12 | 37 | 0.02 |
| SBJ-16-14K | 16 | 14 | 37 | 0.01 |

## ST抗震钨钢刀杆



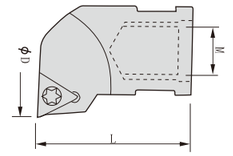

- 采用整体硬质合金料

| 型　号 Model | D | L | M | 组合搪头 | 搪孔能力 | 重量 (KGS) |
|---|---|---|---|---|---|---|
| ST08-W5-100L | 8 | 100 | M5 | SEB09N | 9mm～13mm | |
| ST10-W6-110L | 10 | 110 | M6 | SEB12N | 12mm～15mm | |
| ST12-W6-120L | 12 | 120 | M6 | SEB14N | 14mm～17mm | |
| ST14-W6-160L | 14 | 160 | M6 | SEB16N | 16mm～20mm | |
| ST16-W10-160L | 16 | 160 | M10 | SEB18N-SEB40N | 18mm～42mm | |



## SEB 舍弃式搪头

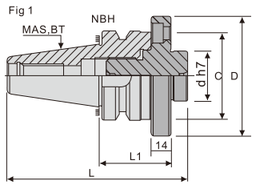


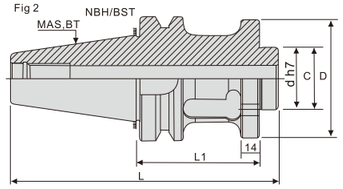




| 型　号 Model | 搪孔能力 | D | L | M | 使用刀片 | 螺丝 | 扳手 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| SEB09N | 9mm-10.5mm | 9 | 18 | M5 | TPGT080202 | M2-5.0-2.7-60 | T6 | |
| SEB10.5N | 10.5mm-12mm | 10.5 | 18 | M5 | TPGT080202 | | T6 | |
| SEB12N | 12mm-14mm | 12 | 23 | M6 | TPGT080202 | | T6 | |
| SEB14N | 14mm-16mm | 14 | 23 | M6 | TPGT080202 | | T6 | |
| SEB16N | 16mm-18mm | 16 | 23 | M6 | TPGT080202 | | T6 | |
| SEB18N | 18mm-20mm | 18 | 27 | M10 | TPGT080202 | | T6 | |
| SEB20N | 20mm-22mm | 20 | 27 | M10 | TPGT080202 | | T6 | |
| SEB22N | 22mm-24mm | 22 | 27 | M10 | TPGT080202 | | T6 | |
| SEB24N | 24mm-26mm | 24 | 27 | M10 | TPGT080202 | | T6 | |
| SEB26N | 26mm-28mm | 26 | 27 | M10 | TPGT080202 | | T6 | |
| SEB28N | 28mm-30mm | 28 | 27 | M10 | TPGT080202 | | T6 | |
| SEB30N | 30mm-32mm | 30 | 27 | M10 | TPGT080202 | | T6 | |
| SEB32N | 32mm-34mm | 32 | 27 | M10 | TPGT080202 | | T6 | |
| SEB34N | 34mm-36mm | 34 | 27 | M10 | TPGT080202 | | T6 | |
| SEB36N | 36mm-38mm | 36 | 27 | M10 | TPGT080202 | | T6 | |
| SEB38N | 38mm-40mm | 38 | 27 | M10 | TPGT080202 | | T6 | |
| SEB40N | 40mm-42mm | 40 | 27 | M10 | TPGT080202 | | T6 | |

# 粗/精搪孔头刀柄（RBH、NBH、BST）





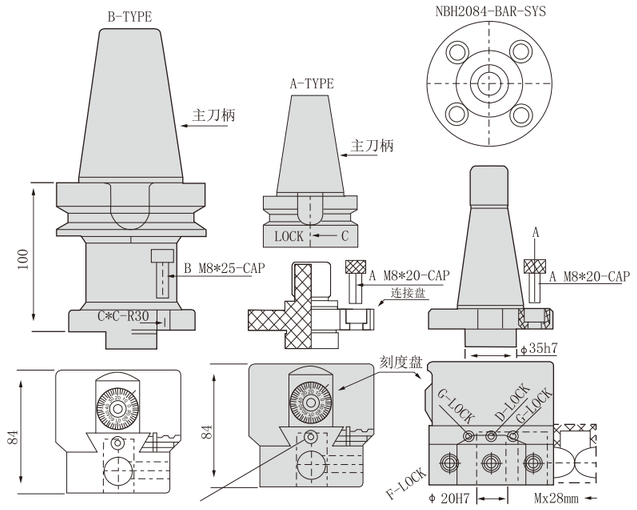




| 型　号 Model | L1 mm | L mm | D mm | d mm | C mm | 图形 Fig | 重量 KGS | 库存 Stock |
|---|---|---|---|---|---|---|---|---|
| NBH-BT40A | 51 | 125 | 84 | 35 | PCD.Ø60 4-M8×1.25P | 1 | 2.07 | ▲ |
| NBH-BT50A | 57 | 172.4 | 84 | 35 | | 1 | 4.82 | ▲ |
| NBH-NT50A | 57 | 171.4 | 84 | 35 | | 1 | 3.98 | |
| NBH-BT40B-100L | 100 | 204.4 | 84 | 35 | PCD. Ø60 4-M8×1.25P | 2 | 2.42 | ▲ |
| NBH-BT50B-100L | 100 | 213.8 | 84 | 35 | | 2 | 5.22 | ▲ |
| NBH-BT50B-165L | 165 | 278.8 | 84 | 35 | | 2 | - | ▲ |
| NBH-BT50B-200L | 200 | 313.8 | 84 | 35 | | 2 | - | ▲ |
| NBH-BT50B-250L | 250 | 363.8 | 84 | 35 | | 2 | 8.50 | ▲ |
| NBH-BT50B-300L | 300 | 413.8 | 84 | 35 | | 2 | 9.67 | ▲ |
| NBH-NT50B-50L | 50 | 188.8 | 84 | 35 | | 1 | - | |
| NBH-NT50B-100L | 100 | 238.8 | 84 | 35 | | 2 | 5.30 | |
| NBH-NT50B-150L | 150 | 288.8 | 84 | 35 | | 2 | - | |
| NBH-NT30 | 14 | 109 | 84 | 35 | PCD. Ø60 4-M8×1.25P | 2 | - | |
| NBH-NT40 | 14 | 136 | 84 | 35 | | 2 | 1.39 | |
| NBH-MT3 | 14 | 131.6 | 84 | 35 | | 2 | - | |
| NBH-MT4 | 14 | 156.6 | 84 | 35 | | 2 | 1.24 | |
| NBH-MT5 | 14 | 188.6 | 84 | 35 | | 2 | - | |
| NBH-R8 | 14 | - | 84 | 35 | | 2 | - | |
| NBH-C32 | 14 | - | 84 | 35 | | 2 | - | |
| BST-BT40-70L | 70 | 131 | 95 | 50 | PCD.Ø72 4-13 | 2 | - | |
| BST-BT50-100L | 100 | 208.8 | 95 | 50 | | 2 | 5.65 | ▲ |
| BST-BT50-150L | 150 | 258.8 | 95 | 50 | | 2 | 7.09 | ▲ |
| BST-BT50-200L | 200 | 308.8 | 95 | 50 | | 2 | 8.57 | ▲ |
| BST-BT50-250L | 250 | 358.8 | 95 | 50 | | 2 | 9.96 | ▲ |
| BST-BT50-300L | 300 | 408.8 | 95 | 50 | | 2 | 11.5 | ▲ |
| BST-BT50-350L | 350 | 458.8 | 95 | 50 | | 2 | 12.8 | ▲ |
| BST-BT50-400L | 400 | 508.8 | 95 | 50 | | 2 | - | |



# NBH2084・RBH2084~RBH20110 组合方式

**NBH2084**

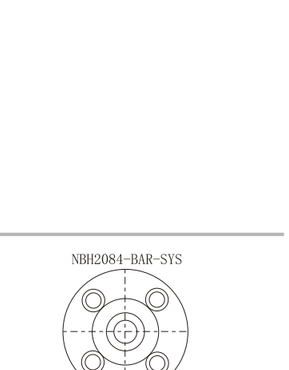



$N=\frac{Vcx1000}{\Pi(3.14)xD}$　Vc切削速度n/min　F　进给速度mm/min

D 搪孔径　$f_z$ 进给量 mm/rev

$F=Nxf_z$　N 回转数 rpm　Ap 搪孔量 mm



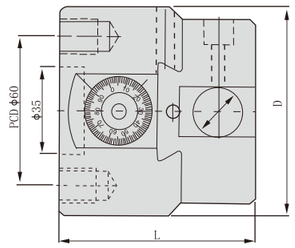

| 型　号 Model | 范围 MIN NAX | 深度 | Insert/radius 搪刀片NO. | 搪孔量 ap | 进给量 mm/rve | 切削速度 m/min | 螺丝 | 扳手 | 搪孔刀杆 |
|---|---|---|---|---|---|---|---|---|---|
| SBJ-2008-32 | 8-11 | 44 | TBGT060102L | 0.05-0.20 | 0.05-0.10 | 碳钢 100-200 不锈钢 70-140 铸铁 70-140 铝 150-300 | M2-5.0-2.7-60 | T6 | SBJ2008-32 |
| SBJ-2010-40 | 10-13 | 44 | TBGT060104L | 0.10-0.25 | 0.07-0.15 | | M2-5.0-2.7-60 | T6 | SBJ2010-40 |
| SBJ-2012-53 | 12-17 | 53 | TPGH090202L | 0.05-0.20 | 0.05-0.10 | | M2-6.0-3.5-60 | T8 | SBJ2012-53 |
| SBJ-2016-68 | 16-21 | 68 | TPGH090204L | 0.10-0.25 | 0.07-0.15 | | M2-6.0-3.5-60 | T8 | SBJ2016-68 |
| SBJ-2020-83 | 20-26 | 83 | TPGH110302L | 0.05-0.20 | 0.05-0.10 | | M3-8.0-4.0-43 | T9 | SBJ2020-83 |
| SBJ-2025-96 | 25-135 | 96 | TPGH110302L | 0.05-0.20 | 0.05-0.10 | | M3-8.0-4.0-43 | T9 | SBJ2025-96 |
| SBJ-2030-115 | 30-140 | 115 | TPGH110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 | SBJ2030-115 |
| SBJ-L20-20 | 110-280 | 13.5 | TPGH110304L | 0.10-0.25 | 0.07-0.15 | | M3-8.0-4.0-43 | T9 | SBJ-L20-20 |

## NBH2084使用说明

1. 请确认MC机器，搪孔程式，主轴定位，(使主轴定位，配合搪孔刀方向)
2. 组合搪孔器
   - 2.1 B-TYPE搪孔刀柄直接将4只"8"M8*25CAP螺丝锁紧。拆卸则将“A”螺丝松脱。
   - 2.2 A-TYPE先将介面盘用4只"8"M8*20CAP螺丝锁紧，再将主轴柄往“C”方向(顺时方向)旋紧拆卸则将方轴柘往反向(“C”相反方向，反时方向)旋松脱，再将“B”螺丝松脱。
3. 因搪孔孔径选择合适孔刀，装入刀片，放入φ20H7孔内共3孔，再将“F”螺丝锁紧。
4. 调整刻度环微调搪孔尺寸
   - A.先注意“G”调整螺丝，锁于合适紧度，使位移滑座，位移顺畅即可.
   - B."D"螺丝则旋松，调整刻度环微调搪孔尺寸(反时方向)，再将"D"螺丝锁紧。
   - C.刻度环每刻度一位移精度0.005mm搪孔直径Φ0.01mm
   - D."H"螺丝，必须锁紧，不可松脱.
5. 本搪孔器在位移量少时，其最高转速不超1600rpm为宜。

## NBH 精密精搪头



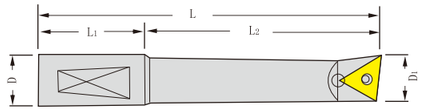



| 型　号 Model | 搪孔范围 | 行程 | 微调 | 搪孔直径 | 组合刀柄 | L | D | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| NBH2084S | Φ8～Φ280 配合搪刀柄 | 28 | 0.01 | Φ20 | NBH | 83 | 84 | |

## NBH/SBJ 精搪刀杆




SBJ-L20-20

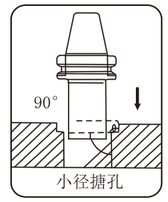



| 型号 | 规　格 | D | $D_1$ | L | $L_1$ | $L_2$ | 搪孔范围 | 刀片规格 | 螺丝 | 扳手 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SBJ-20 | SBJ-2008-32 | 20 | 8 | 76 | 32 | 44 | 8-11 | TBGT060102L | M2-5.0-2.7-60 | T6 | 0.09 |
| SBJ-20 | SBJ-2010-40 | 20 | 10 | 76 | 32 | 44 | 10-13 | TBGT060102L | M2-5.0-2.7-60 | T6 | 0.10 |
| SBJ-20 | SBJ-2012-53 | 20 | 12 | 85 | 32 | 53 | 12-17 | TPGH090204L | M2.5-6.0-3.5-60 | T8 | 0.11 |
| SBJ-20 | SBJ-2016-68 | 20 | 16 | 100 | 32 | 68 | 16-21 | TPGH090204L | M2.5-6.0-3.5-60 | T8 | 0.15 |
| SBJ-20 | SBJ-2020-83 | 20 | 20 | 115 | 32 | 83 | 20-26 | TPGH110304L | M3-8.0-4.0-43 | T9 | 0.20 |
| SBJ-20 | SBJ-2025-96 | 20 | 25 | 135 | 32 | 96 | 25-135 | TPGH110304L | M3-8.0-4.0-43 | T9 | 0.30 |
| SBJ-20 | SBJ-2030-115 | 20 | 30 | 158 | 32 | 115 | 30-140 | TPGH110304L | M3-8.0-4.0-43 | T9 | 0.50 |
| SBJ-20 | SBJ-L20-20 | 20 | 28 | 97 | 83.5 | 13.5 | 280 | TPGH110304L | M3-8.0-4.0-43 | T9 | 0.25 |



## NBH精密搪孔组(套装三支组)




- 搪孔能力Φ8～Φ280其他刀杆尺寸须另外购买
- 加工孔径Φ100～Φ280需指定使用SBJ-L2020搪刀干

| 型　号 Model | 内附零件 | 搪孔能力 | 重量 (KGS) |
|---|---|---|---|
| NT30-NBH2084-3P | 1.刀柄1支<br>2.精搪头1只<br>3.舍弃搪刀3只<br>4.星形扳手2支 | Φ8～Φ280 | |
| NT40-NBH2084-3P | | Φ8～Φ280 | |
| NT50-NBH2084-3P | | Φ8～Φ280 | |
| BT40-NBH2084-3P | | Φ8～Φ280 | 7.00 |
| BT50-NBH2084-3P | | Φ8～Φ280 | 9.70 |

## NBH精密搪孔组(套装八支组) Φ8~Φ280



| SBJ-20 系列-8P |
|---|
| SBJ-2008-32 |
| SBJ-2010-40 |
| SBJ-2012-53 |
| SBJ-2016-68 |
| SBJ-2020-83 |
| SBJ-2025-96 |
| SBJ-2030-115 |
| SBJ-L2020 |

| 型　号 Model | 内附零件 | 搪孔能力 | 重量 (KGS) |
|---|---|---|---|
| NT30-NBH2084-8P | 1.刀柄1支<br>2.精搪头1只<br>3.舍弃搪刀8只<br>4.星形扳手3支 | Φ8～Φ280 | |
| NT40-NBH2084-8P | | Φ8～Φ280 | |
| NT50-NBH2084-8P | | Φ8～Φ280 | |
| BT40-NBH2084-8P | | Φ8～Φ280 | |
| BT50-NBH2084-8P | | Φ8～Φ280 | |

## 刀片型号及材质

| 规格 | 刀片材质 | P | M | K | N | S |
|---|---|---|---|---|---|---|
| TBGH060102L | N030 | ● | ● | | | |
| TBGH060102L | FP-7015 | ● | ● | | | ◎ |
| TBGH060104L | N030 | ● | ● | | | |
| TBGH060104L | FP-7015 | ● | ● | | | ◎ |
| TPGH090202L | N030 | ● | ● | | | |
| TPGH090202L | FP-7015 | ● | ● | | | ◎ |
| TPGH090204L | N030 | ● | ● | | | |
| TPGH090204L | FP-7015 | ● | ● | | | ◎ |
| TPGW090204 | NK01 | | | ◎ | ● | ◎ |
| TPGH110302L | N030 | ● | ● | | | |
| TPGH110302L | FP-7015 | ● | ● | | | ◎ |
| TPGH110304L | N030 | ● | ● | | | |
| TPGH110304L | FP-7015 | ● | ● | | | ◎ |
| TPGW110304 | NK01 | | | ◎ | ● | ◎ |

| 刀片形状 | 刀片型号 | 刀片材质 | 库存 | P | M | K | N | S | H |
|---|---|---|---|---|---|---|---|---|---|
|  | TBGH060102L | N820 | ▲ | ● | | ● | | | |
| | TPGH080202L | N820 | ▲ | ● | | ● | | | |
| | TPGH080204L | N820 | ▲ | ● | | ● | | | |
| | TPGH090202L | N820 | ▲ | ● | | ● | | | |
| | TPGH090204L | N820 | ▲ | ● | | ● | | | |
| | TPGH110304L | N820 | ▲ | ● | | ● | | | |
| | TCGT110202L | N820 | ▲ | ● | | ● | | | |
| | TCGT110204L | N820 | ▲ | ● | | ● | | | |

备注：▲表示常备库存　　●表示适用于加工材料　　◎表示可用于加工材料



# 刀柄系统



# 角度头系列

∅1~20
钻头、立铣刀用

M1-20
丝锥用



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## 袖珍型角度头

主要以钻孔和攻丝为目的之最佳设计
实现以低成本附加一轴。

角度头加工的80%为钻孔和攻丝加工。因此，针对这两种加工所需必要刚性和精度进行最佳设计，实现轻量且小巧的本体。

▷ 价格，交期，重量为原有的一半（袖珍型角度头）
▷ 自己可拆解•修理
▷ 也最适合于小型加工中心

便宜 1.8万元~　快速 交货迅速　轻便 小巧 1.8kg~　自己可修理

迷你型
极细头部
HFCS




万向型
可自由设定加工角度
HUD
HUA
HUT

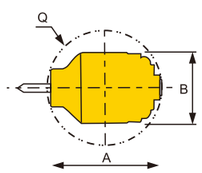





90° 型
HFD
HFA
HFT

### 超小巧设计

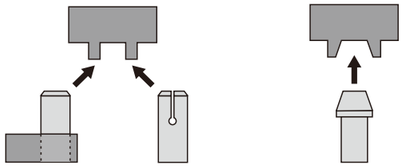
最适合于内面加工




| 型 | 型号 | Q | A | B |
|---|---|---|---|---|
| 90° 型 | HFD 7 | 72 | 68 | 38 |
| | HFD 12 | 98 | 93 | 58 |
| | HFT 4 | 75 | 73 | 38 |
| | HFT 6 | 97 | 92 | 58 |
| | HFA 10 | 90 | 87 | 38 |
| | HFA 20 | 119 | 111 | 64 |
| | HFT 12 | 97 | 96 | 64 |
| | | 116 | 115 | |
| mini型 | HFCS6 | 36 | 31.5 | 31 |

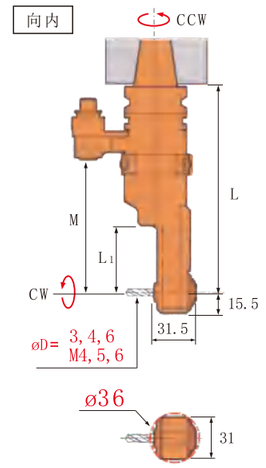
### 简单安装至机床

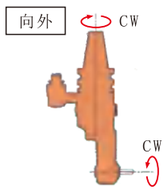
通过固定座驾和定位栓调整组合，对应所有定位块。也可直接使用现有的定位块



## 迷你型角度头

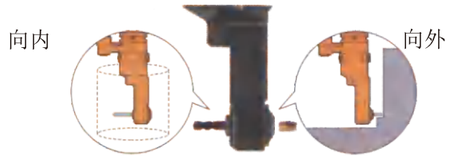


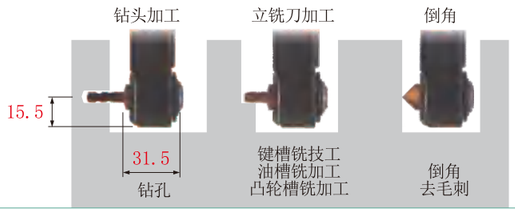




### 刀具安装方向自由

内外两个方向都可安装热装式筒夹。



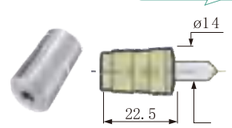

### 超轻巧




| 编码（本体） | ØD | L | L1 | M | kg | 最高转数（min⁻¹）［主轴：角轴］ |
|---|---|---|---|---|---|---|
| BT30-HFCS6-155 | 钻孔加工 铣加工 ø3, 4, 6 | 155 | 50 | 100 | 1.8 | 5600：5000 [1:0.88] |
| BT40-HFCS6-160 | | 160 | | 110 | 2.8 | |
| -205 | | 205 | 95 | 155 | 3.0 | |
| BT50-HFCS6-175 | 丝锥加工 M4，5，6 | 175 | 50 | 110 | 5.6 | |
| -220 | | 220 | 95 | 155 | 5.8 | |

■ 选　购　品　●热装筒夹　●丝锥筒夹　●拉钉　●组装专用工具
■ 标准附属品　●辅助扳手　●六角扳手套装
■ 备　　考　●出货时刀具向内。如若换装成向外，需要另购组装专用工具（固定头部工具）
　　●请确认定位栓和定位块的组合
　　●HSK柄锥等上述规格以外锥柄也可制作。详细请咨询。
■ 注 意 事 项　●刀具向内和向外时主轴的旋转方向不同

### 热装筒夹



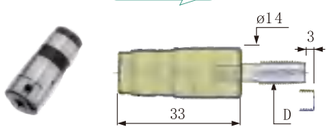

| 编码 | øD | 把持长 |
|---|---|---|
| FCS6-3 | 3 | 11~13 |
| -4 | 4 | 11~13 |
| -6 | 6 | 12~13 |

■注意事项　●硬质合金刀具专用

夹持刀具需要使用加热器。
请向我司垂询



### 丝锥筒夹




| 编码 | øD | 把持长 |
|---|---|---|
| FCS6-M4 | M4 | 16 |
| -M5 | M5 | |
| -M6 | M6 | |

■ 备　　考　●上述为JIS规格。也制作ANSI规格
　　请向弊司垂询

# 袖珍型角度头（90°型）

钻头•铣加工用

Fig. 1
**HFD7**
( )…HFD7L

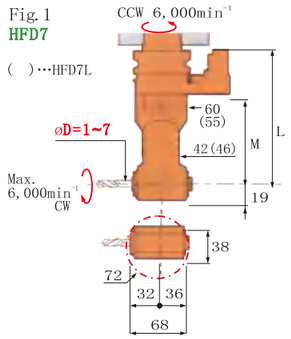



Fig. 3
**HFA10**

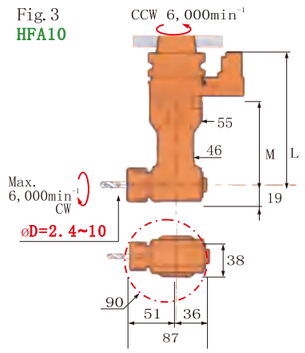



Fig. 5
**HFT4**
( )…HFT4L

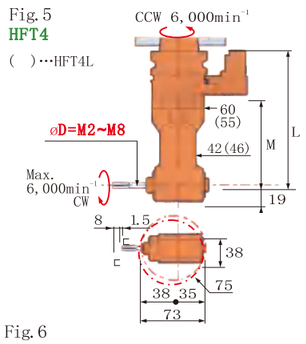



Fig. 2
**HFD12**

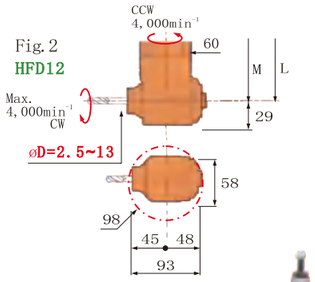



Fig. 4
**HFA20**

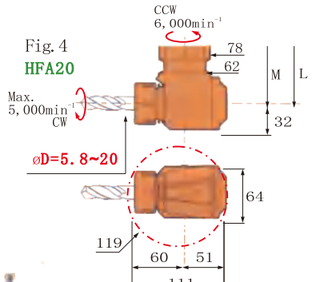



Fig. 6
**HFT6**

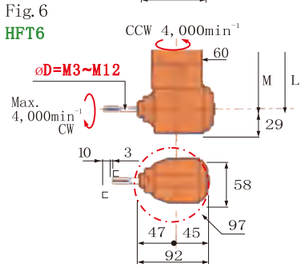
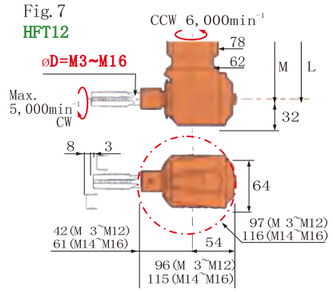


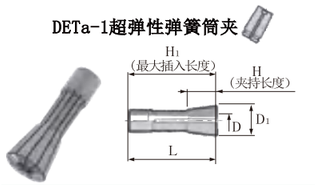

Fig. 7
**HFT12**





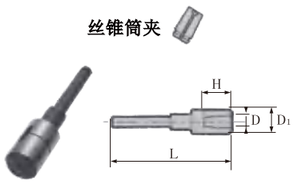


## DETa-1超弹性弹簧筒夹




| 编码 | øD | øD1 | L | H | H1 | 适用本体 |
|---|---|---|---|---|---|---|
| D 7- 1.5 | 1~1.5 | 17 | 50 | 7 | 36 | HFD 7<br>HUD 7 |
| - 2 | 1.5~2 | | | 10 | | |
| - 2.5 | 2~2.5 | | | 12 | | |
| - 3 | 2.5~3 | | | | | |
| - 4 | 3~4 | | | 14 | | |
| - 5 | 4~5 | | | 16 | | |
| - 6 | 5~6 | | | | | |
| - 7 | 6~7 | | | | | |
| D12- 4 | 2.5~4 | 26 | 70 | 16 | 50 | HFD 12 |
| - 6 | 4~6 | | | 20 | | |
| - 8 | 6~8 | | | 22 | | |
| -10 | 8~10 | | | | | |
| -12 | 10~12 | | | | | |
| -13 | 11~13 | | | | | |

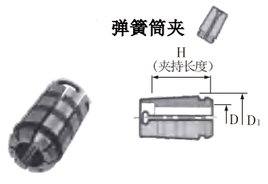
## 丝锥筒夹




| 编码 | øD | L | ØD1 | H | 适用本体 |
|---|---|---|---|---|---|
| TA 4- M 2 | M 2 | 67.5 | 16 | 19 | HFT 4<br>HUT 4 |
| - M 3 | M 3 | | | 20 | |
| - M 4 | M 4 | | | 21 | |
| - M 5 | M 5 | | | | |
| - M 6 | M 6 | | | | |
| - M 8 | M 8 | | | | |
| TA 6- M 3 | M 3 | 92 | 19 | 21 | HFT 6<br>HUT 6<br>HFT 12 |
| - M 4 | M 4 | | | 22 | |
| - M 5 | M 5 | | | | |
| - M 6 | M 6 | | | | |
| - M 8 | M 8 | | | 23 | |
| - M 10 | M10 | | | | |
| - M 12 | M12 | | | 24 | |
| TA12- M 14 | M14 | 111.5 | 25 | 33 | HFT 12 |
| - M 16 | M16 | | | 35 | |

■ 备　　考　●上述为JIS规格。也制作ANSI规格

## 弹簧筒夹




| 编码 | øD | øD1 | L | H | 适用本体 |
|---|---|---|---|---|---|
| C10-D | 2.6 2.8 3<br>··(0.2间隔)··<br>9.6 9.8 10 | 17.2 | 26 | 16<br>(øD=2.6~5)<br>18<br>(øD=5.2~5.8)<br>20<br>(øD=6~10) | HFA10<br>HUA10 |
| C20-D | 6 6.2 6.4 6.6<br>··(0.2间隔)··<br>19.8 20 | 29.5 | 50 | 29<br>(øD=6~9.8)<br>33<br>(øD=10~15.8)<br>40<br>(øD=16~20) | HFA20<br>HUA20 |

编码例　øD C10-6



RECK

BT

| 编码（本体） | Fig. | øD | L | M | kg |
|---|---|---|---|---|---|
| Bt30 -HFD 7 -122 | 1 | 1 ~ 7 | 122 | 70 | 2.3 |
| -182 | | | 182 | 130 | 3.0 |
| -HFD 7L -120 | | | 120 | 57 | 1.8 |
| -HFD 12 -122 | 2 | 2.5 ~ 13 | 122 | 70 | 2.9 |
| -HFA 10 -120 | 3 | 2.4 ~ 10 | 120 | 65 | 1.8 |
| -HFT 4 -122 | 5 | M2 ~ M8 | 122 | 70 | 2.3 |
| -182 | | | 182 | 130 | 3.0 |
| -HFT 4L -120 | | | 120 | 57 | 1.8 |
| -HFT 6 -122 | 6 | M3 ~ M12 | 122 | 70 | 2.9 |
| Bt40 -HFD 7 -120 | 1 | 1 ~ 7 | 120 | 70 | 3.0 |
| -180 | | | 180 | 130 | 3.3 |
| -HFD 12 -120 | 2 | 2.5 ~ 13 | 120 | 70 | 3.6 |
| -180 | | | 180 | 130 | 4.9 |
| -HFA 20 -135 | 4 | 5.8 ~ 20 | 135 | 77 | 4.4 |
| -195 | | | 195 | 137 | 5.6 |
| -HFT 4 -120 | 5 | M2 ~ M8 | 120 | 70 | 3.0 |
| -180 | | | 180 | 130 | 3.3 |
| -HFT 6 -120 | 6 | M3 ~ M12 | 120 | 70 | 3.6 |
| -180 | | | 180 | 130 | 4.9 |
| -HFT 12 -135 | 7 | M3 ~ M16 | 135 | 77 | 4.4 |
| -195 | | | 195 | 137 | 5.6 |
| BT50 -HFD 7 -195 | 1 | 1 ~ 7 | 195 | 130 | 6.4 |
| -255 | | | 255 | 190 | 6.8 |
| -HFD 12 -135 | 2 | 2.5 ~ 13 | 135 | 70 | 6.3 |
| -195 | | | 195 | 130 | 7.6 |
| -255 | | | 255 | 190 | 8.9 |
| -HFA 20 -150 | 4 | 5.8 ~ 20 | 150 | 77 | 7.1 |
| -210 | | | 210 | 137 | 8.3 |
| -270 | | | 270 | 197 | 9.4 |
| -HFT 4 -195 | 5 | M2 ~ M8 | 195 | 130 | 6.4 |
| -255 | | | 255 | 190 | 6.8 |
| -HFT 6 -135 | 6 | M3 ~ M12 | 135 | 70 | 6.3 |
| -195 | | | 195 | 130 | 7.6 |
| -255 | | | 255 | 190 | 8.9 |
| -HFT12 -150 | 7 | M3 ~ M16 | 150 | 77 | 7.1 |
| -210 | | | 210 | 137 | 8.3 |
| -270 | | | 270 | 197 | 9.4 |

HSK

| 编码（本体） | Fig. | øD | L | M | kg |
|---|---|---|---|---|---|
| A 63 -HFD 7 -183 | 1 | 1 ~ 7 | 183 | 130 | 3.5 |
| -243 | | | 243 | 190 | 3.9 |
| -HFD 12 -123 | 2 | 2.5 ~ 13 | 123 | 70 | 3.3 |
| -183 | | | 183 | 130 | 4.7 |
| -243 | | | 243 | 190 | 6.0 |
| -HFA 20 -198 | 4 | 5.8 ~ 20 | 198 | 137 | 5.4 |
| -258 | | | 258 | 197 | 6.5 |
| -HFT 4 -183 | 5 | M2 ~ M8 | 183 | 130 | 3.5 |
| -243 | | | 243 | 190 | 3.9 |
| -HFT 6 -123 | 6 | M3 ~ M12 | 123 | 70 | 3.3 |
| -183 | | | 183 | 130 | 4.7 |
| -243 | | | 243 | 190 | 6.0 |
| -HFT 12 -198 | 7 | M3 ~ M16 | 198 | 137 | 5.4 |
| -258 | | | 258 | 197 | 6.5 |

DIN

| 编码（本体） | Fig. | øD | L | M | kg |
|---|---|---|---|---|---|
| DN40A -HFD 7 -135 | 1 | 1 ~ 7 | 135 | 70 | 3.1 |
| -195 | | | 195 | 130 | 3.4 |
| -HFD 12 -135 | 2 | 2.5 ~ 13 | 135 | 70 | 3.7 |
| -195 | | | 195 | 130 | 5.0 |
| -HFA 20 -150 | 4 | 5.8 ~ 20 | 150 | 77 | 4.7 |
| -210 | | | 210 | 137 | 5.8 |
| -HFT 4 -135 | 5 | M2 ~ M8 | 135 | 70 | 3.1 |
| -195 | | | 195 | 130 | 3.4 |
| -HFT 6 -135 | 6 | M3 ~ M12 | 135 | 70 | 3.7 |
| -195 | | | 195 | 130 | 5.0 |
| -HFT 12-150 | 7 | M3 ~ M16 | 150 | 77 | 4.7 |
| -210 | | | 210 | 137 | 5.8 |
| DN50A -HFD 7-195 | 1 | 1 ~ 7 | 195 | 130 | 5.9 |
| -255 | | | 255 | 190 | 6.3 |
| -HFD 12 -135 | 2 | 2.5 ~ 13 | 135 | 70 | 5.8 |
| -195 | | | 195 | 130 | 7.1 |
| -255 | | | 255 | 190 | 8.4 |
| -HFA 20 -150 | 4 | 5.8 ~ 20 | 150 | 77 | 6.6 |
| -210 | | | 210 | 137 | 7.8 |
| -270 | | | 270 | 197 | 8.9 |
| -HFT 4 -195 | 5 | M2 ~ M8 | 195 | 130 | 5.9 |
| -255 | | | 255 | 190 | 6.3 |
| -HFT 6 -135 | 6 | M3 ~ M12 | 135 | 70 | 5.8 |
| -195 | | | 195 | 130 | 7.1 |
| -255 | | | 255 | 190 | 8.4 |
| -HFT 12 -150 | 7 | M3 ~ M16 | 150 | 77 | 6.6 |
| -210 | | | 210 | 137 | 7.8 |
| -270 | | | 270 | 197 | 8.9 |

■ 选　购　品　● DETa-1超弹性弹簧筒夹（HFD）●弹簧筒夹（HFA）
●丝锥筒套（HFT） ● 拉钉(BT) ● 辅助扳手

■ 标准附属品　●冷却液导管（HSK-A）● 辅助扳手(HFA10/HFT4L以外)
●六角扳手套装　●扳手（HFA20）
●单口扳手（HFD7L/HFA10） ●带挂钩扳手（HFA10）

■ 备　　考　●订购时请指定本体和固定座驾套装的型号。
●也制作上述以外的柄锥，请咨询。
●请确认定位栓和定位块的组合



RECK

# 袖珍型角度头（0°～120°型）

钻头·铣加工用

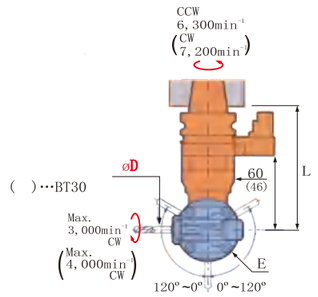
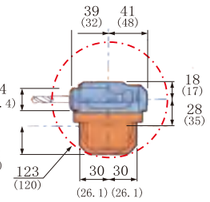



Fig. 1
HUD 7







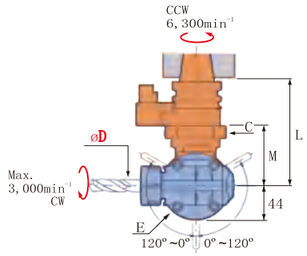



Fig. 2
HUA 10

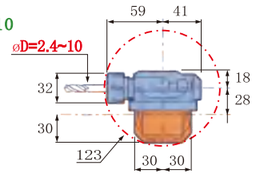
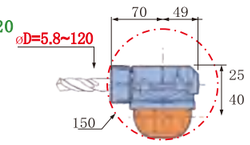



Fig. 3
HUA 20




丝锥加工用

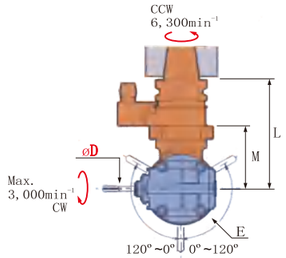



Fig. 4
HUT 4

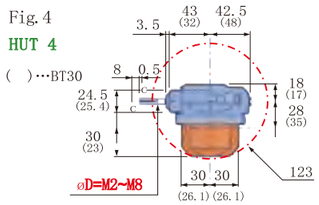
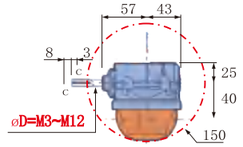



Fig. 5
HUT 6




| 编码(本体) | Fig. | D | L | M | øC | øE | kg | 力矩 kgf•mm |
|---|---|---|---|---|---|---|---|---|
| BT30 -HUD 7-102 | 1 | 1 ~ 7 | 102 | 39 | 46 | 64 | 1.8 | 1.16 |
| -HUT 4-102 | 4 | M2 ~ M8 | | | | | | |
| BT40 -HUD 7-135 | 1 | 1 ~ 7 | 135 | 85 | 60 | 72 | 3.8 | 251 |
| -HUA10-135 | 2 | 2.4 ~ 10 | | | | | 3.9 | 268 |
| -HUA20-135 | 3 | 5.8 ~ 20 | | 77 | 78 | 88 | 4.8 | 392 |
| -HUT 4-135 | 4 | M2 ~ M8 | | 85 | 60 | 72 | 3.8 | 251 |
| -HUT 6-135 | 5 | M3 ~ M12 | | 77 | 78 | 88 | 4.8 | 392 |
| BT50-HUD 7-150 | 1 | 1 ~ 7 | 150 | 85 | 60 | 72 | 6.6 | 277 |
| -HUA 10-150 | 2 | 2.4 ~ 10 | | | | | 6.7 | 295 |
| -HUA 20-150 | 3 | 5.8 ~ 20 | | 77 | 78 | 88 | 7.5 | 440 |
| -HUT 4-150 | 4 | M2 ~ M8 | | 85 | 60 | 72 | 6.6 | 277 |
| -HUT 6-150 | 5 | M3 ~ M12 | | 77 | 78 | 88 | 7.5 | 440 |
| DN40A-HUD 7-150 | 1 | 1 ~ 7 | 150 | 85 | 60 | 72 | 3.8 | 251 |
| -HUA 10-150 | 2 | 2.4 ~ 10 | | | | | 3.9 | 268 |
| -HUA 20-150 | 3 | 5.8 ~ 20 | | 77 | 78 | 88 | 5.0 | 392 |
| -HUT 4-150 | 4 | M2 ~ M8 | | 85 | 60 | 72 | | |
| -HUT 6-150 | 5 | M3 ~ M12 | | 77 | 78 | 88 | | |
| DN50A-HUD 7-150 | 1 | 1 ~ 7 | 150 | 85 | 60 | 72 | 6.6 | 277 |
| -HUA 10-150 | 2 | 2.4 ~ 10 | | | | | 6.7 | 295 |
| -HUA 20-150 | 3 | 5.8 ~ 20 | | 77 | 78 | 88 | 7.0 | 440 |
| -HUT 4-150 | 4 | M2 ~ M8 | | 85 | 60 | 72 | 6.6 | 277 |
| -HUT 6-150 | 5 | M3 ~ M12 | | 77 | 78 | 88 | 7.0 | 440 |

BT / DIN

■ 备　　考　●上述为JIS规格。也制作ANSI规格

■ 选　购　品 ● DETa-1超弹性弹簧筒夹（HUD）
● 弹簧筒夹（HUA） ●丝锥筒套（HUT）
● 拉钉(BT) ● 辅助扳手

■ 标准附属品 ● 辅助扳手 ●六角扳手套装 ●扳手（HUA）

■ 备　　考 ● 订购时请指定本体和固定座驾套装的型号。
● 也制作上述以外的柄锥，请咨询。
● 请确认定位栓和定位块的组合



# 加热器

## 温风式 热装装置

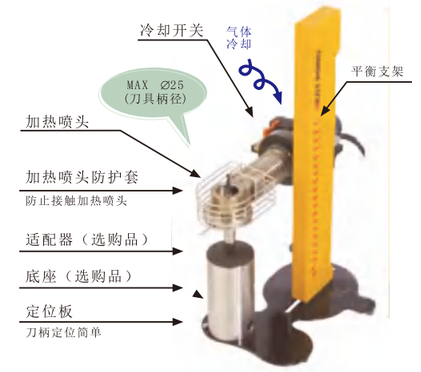
★无过度加热　★不限定刀柄的形状
★不用交换加热喷头　★合理的

HEAT ROBO
Baby 3000s

★一个加热喷头可对应所有
RINECK热装刀柄

| 编码 | HRB-03S |
|---|---|
| 尺寸（W×D×H） | 430×330×600 |

■标准附属品 ●耐热手套 ●装卸用镊子 ●计时器
■备　　考 ●需要(5kgf/cm²)工厂气体.
(消费气体量:245)ℓ/min)
●请准备连接用气管(外径φ8)和接头.
■注意事项 ●RINECK制热装式刀柄专用。




## 电磁感应加热方式 热装装置

★瞬间热装
★轻巧台式

HEAT ROBO
电磁 1200S

| 编码 | HRD-01S |
|---|---|
| 尺寸（W×D×H） | 270×410×550 |

■标准附属品 ●耐热手套 ●装卸用镊子
●加热线圈 ●圈保护套
■备　　考 ●需要(5kgf/cm²)工厂气体.
(消费气体量:245)ℓ/min)
●请准备连接用气管(外径φ8)和接头.
●也可单售本体.
■注意事项 ●刀具防脱套请选择HSB/HSC型
●RINECK制热装式刀柄专用。
●HeatRobo电磁1200是100v规格.
120v和230v的电源需要变压器.
(RINEC可以供给)请参考下表.

| 输　出 | 100V |
|---|---|
| 频　率 | 50/60Hz |
| 能　力 | 1500W |
| 输　入 | 120V　230V |
| 输入插头 | A型　SE型 |




| | 编码 | 刃物直径 | 加热时间 | ΦC |
|---|---|---|---|---|
| 线圈 1 | HRD-CL1-01 | φ3~6 | 18秒 | 18 |
| 线圈 2 | -CL2-01 | φ7~12 | 33秒 | 28 |

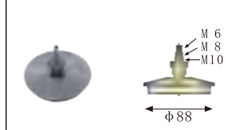
■标准附属品 ●加热线圈



## 加热备件

### 2体型

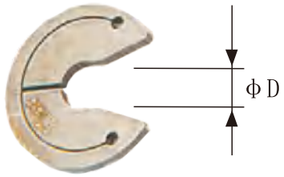


| 筒 夹1<br>形 式 | 适配器 | | 底座 | 可以使用的热装装置种类 | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | HRD-01S | HRD-02 | HRB-02S | HRB-03S | HRB-01 |
| CS(细长)型<br>CR(标准)型 | ADH-SLK |  | BAA-01 | ○ | ○ | ○ | ○ | ○ *适配器(ADH-SLK)为标准附属品，12型不用，底座BAA-01 |

### HSB型（弹簧片型）

| 编码 | φD |
|---|---|
| HSB-D | 4，6，10,12 |

编码例 HSB-5









### 防脱套夹钳

| 编码 |
|---|
| SPY-01 |

轻松安装HSB型防脱套！






### 刀具托盘

放置加热后取出的热刀具，冷却用

| 编码 |
|---|
| SDH-01 |

尺寸：170×170



- 用于冷却刀具。
- 冷却效果优异的铝制品。



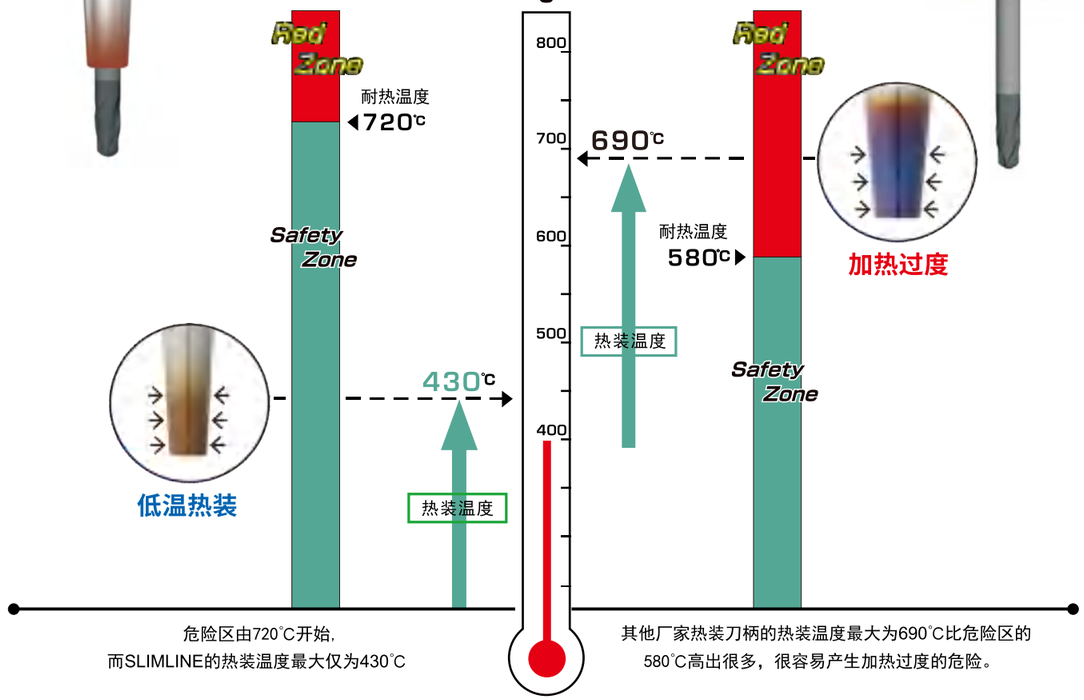
## SLIMLINE 材料的这里不一般

和其他品牌热装刀柄相比较，MST 热装式刀柄Slimline 的热膨胀系数高，可实现低温热装夹，热取出。因而，无论进行多少次热装夹，热取出操作，材质不会发生变化，刀柄精度不会劣化。




| | SLIMLINE ZHD | | 其他公司产品 SKD61 |
|---|---|---|---|
| 热膨胀率 | 1.6 (17×10-6/c) | | 1.0 (11×10-6/c) |
| 耐热温度 | 720℃ | | 580℃ |
| 热装温度 | 430℃ | | 690℃ |




危险区由720℃开始，
而SLIMLINE的热装温度最大仅为430℃

其他厂家热装刀柄的热装温度最大为690℃比危险区的580℃高出很多，很容易产生加热过度的危险。

## 热装刀柄-分体式



BT40-SLK12-75

图1

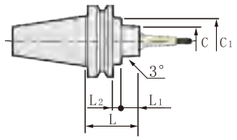



图2

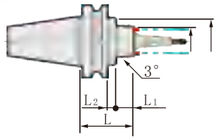
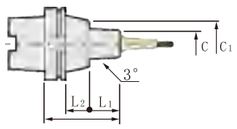


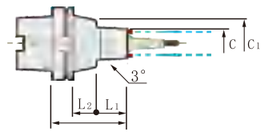

图3

图4



A63-SLK12-75F



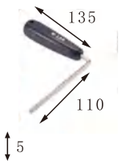

| 编码 | 图 | L | ΦC | L1 | L2 | ΦC1 | Kg |
|---|---|---|---|---|---|---|---|
| BT30-SLK12-35-MAS1 | 1 | 35 | 38 | 13 | – | – | 0.4 |
| -MAS2 | | | | | | | |
| BT40-SLK12-45 | 1 | 45 | | 18 | | | 1.1 |
| -45F | 2 | | 41 | | | | |
| -75 | 1 | 75 | 38 | 48 | – | – | 1.4 |
| -75F | 2 | | 41 | | | | |
| -135F | | 135 | | 108 | | | 2.2 |
| BT50-SLK12-75 | 1 | 75 | 38 | 25 | 12 | 65 | 4.0 |
| -75F | 2 | | 41 | | | | |
| -105F | | 105 | | 55 | | | 4.4 |
| -135F | | 135 | | 85 | | | 4.7 |
| -225 | 1 | 225 | 38 | 175 | | | 6.4 |
| -315 | | 315 | | 225 | 52 | | 11.0 |
| A 50-SLK12-75 | 3 | 75 | 38 | 49 | – | – | 0.8 |
| A 63-SLK12-75 | | | | | | | 1.0 |
| -75F | 4 | | 41 | | | | 1.1 |
| -135 | 3 | 135 | 38 | 109 | | | 1.7 |
| -135F | 4 | | 41 | | | | 1.9 |
| A100-SLK12-105 | 3 | 105 | 38 | 43 | 33 | 65 | 3.4 |
| -105F | 4 | | 41 | | | | 3.5 |
| -135F | | 135 | | 73 | | | 3.8 |
| -225 | 3 | 225 | 38 | 163 | | | 5.4 |
| -315 | | 315 | | 253 | | | 6.4 |
| E 50-SLK12-75 | | 75 | | 49 | – | – | 0.8 |
| F63M-SLK12-75 | | | | | | | 1.0 |
| DN40AD-SLK12-45 | 1 | 45 | 38 | 13.8 | 12.1 | 45 | 1.0 |
| -45F | 2 | | 41 | 7.9 | 18 | | |
| -75 | 1 | 75 | 38 | 43.8 | 12.1 | | 1.3 |
| -75F | 2 | | 41 | 55.9 | – | | |
| DN50AD-SLK12-75 | 1 | 75 | 38 | 40 | 15.9 | 70 | 3.4 |
| -75F | 2 | | 41 | | | | 3.5 |
| -135F | | 135 | | 100 | | | 4.3 |

■标准附属品 ●冷却液导管（HSK） ●拉钉（BT30）
●HSK-E型刀柄无附属冷却液导管。

### 六角扳手

用于拧紧本体和筒夹

| 编码 |
|---|
| W-135 |

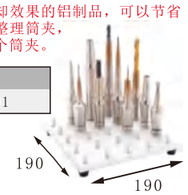



■补充说明： 请使用市售的14mm单头六角扳手拧紧BT30的拉钉。

### 筒夹台

具有优秀冷却效果的铝制品，可以节省空间的有效整理筒夹，可以收纳25个筒夹。

| 编码 |
|---|
| SDK-01 |

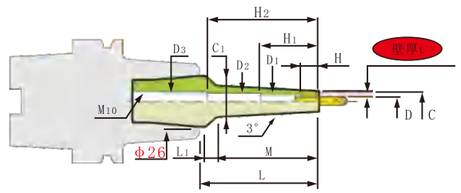





## 热装筒夹-细长型CS

壁厚t=1.5

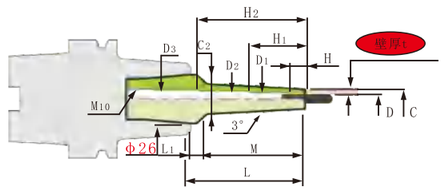





| 编码 | ΦD | ΦC | t | L | M | L1 | ΦC1 | H | Kg | 最大夹持长度 | ΦD1 | ΦD2 | H1 | H2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CS12-4-35 | 4 | 7 | 1.5 | 35 | 22 | 9.5 | 9.4 | 12 | 0.2 | 60 | 5 | – | – | – |
| -55 | | | | 55 | 42 | | 11.5 | | | 80 | | | | |
| -80 | | | | 80 | 67 | | 14.1 | | | 105 | | 7 | 39.4 | 74.6 |
| -110 | | | | 110 | 97 | | 17.2 | | | 135 | | | | 104.6 |
| CS12-6-35 | 6 | 9 | 1.5 | 35 | 22 | 9.5 | 11.4 | 18 | 0.2 | 60 | 7 | – | – | – |
| -55 | | | | 55 | 42 | | 13.5 | | | 80 | | – | 49.6 | |
| -80 | | | | 80 | 67 | | 16.1 | | | 105 | | | | |
| -110 | | | | 110 | 97 | | 19.2 | | | 135 | | | 69.6 | |
| CS12-8-35 | 8 | 11 | 1.5 | 35 | 22 | 9.5 | 13.4 | 25 | 0.2 | 60 | – | – | – | – |
| -55 | | | | 55 | 42 | | 15.5 | | | 80 | | | | |
| -80 | | | | 80 | 67 | | 18.1 | | | 105 | | | | |
| -110 | | | | 110 | 97 | | 21.2 | | 0.3 | 135 | | | | |
| CS12-10-35 | 10 | 13 | 1.5 | 35 | 22 | 9.5 | 15.4 | 30 | 0.2 | 60 | – | – | – | – |
| -55 | | | | 55 | 42 | | 17.5 | | | | | | | |
| -80 | | | | 80 | 67 | | 20.1 | | | | | | | |
| -110 | | | | 110 | 97 | | 23.2 | | 0.3 | | | | | |
| CS12-12-35 | 12 | 15 | 1.5 | 35 | 22 | 9.5 | 17.4 | 30 | 0.2 | 60 | – | – | – | – |
| -55 | | | | 55 | 42 | | 19.5 | | | | | | | |
| -80 | | | | 80 | 67 | | 22.1 | | | | | | | |
| -110 | | | | 110 | – | – | – | | 0.3 | | | | | |

## 热装筒夹-标准型CR




| 编码 | ΦD | ΦC | t | L | M | $L_1$ | $ΦC_1$ | H | Kg | 最大夹持长度 | $ΦD_1$ | $ΦD_2$ | $H_1$ | $H_2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR12-4-35 | 4 | 10 | 3 | 35 | 22 | 9.5 | 12.4 | 12 | 0.2 | 60 | 5 | – | 38.9 | – |
| -55 | | | | 55 | 42 | | 14.5 | | | 80 | | | 58.9 | |
| -80 | | | | 80 | 67 | | 17.1 | | | 105 | | 7 | 39.4 | 74.6 |
| -110 | | | | 110 | 97 | | 20.17 | | | 105 | | 7 | 39.4 | 74.6 |
| CR12-6-35 | 6 | 12 | 3 | 35 | 22 | 9.5 | 14.4 | 18 | 0.2 | 60 | 7 | – | 39.5 | – |
| -55 | | | | 55 | 42 | | 16.5 | | | 80 | | | 49.5 | |
| -80 | | | | 80 | 67 | | 19.1 | | | 105 | | | | |
| -110 | | | | 110 | 97 | | 22.17 | | | 105 | | | | |
| CR12-8-35 | 8 | 14 | 3 | 35 | 22 | 9.5 | 16.4 | 25 | 0.2 | 60 | – | – | – | – |
| -55 | | | | 55 | 42 | | 18.5 | | | 80 | | | | |
| -80 | | | | 80 | 67 | | 21.1 | | 0.3 | 105 | | | | |
| -110 | | | | 110 | 97 | | 24.17 | | | 105 | | | | |
| CR12-10-35 | 10 | 16 | 3 | 35 | 22 | 9.5 | 18.4 | 30 | 0.2 | 60 | 10.6 | – | – | – |
| -55 | | | | 55 | 42 | | 20.5 | | | | | | | |
| -80 | | | | 80 | 67 | | 23.1 | | 0.3 | | | | | |
| -110 | | | | 110 | 97 | | 25.5 | | | | | | | |
| CR12-12-35 | 12 | 20 | 4 | 35 | 22 | 9.5 | 22.4 | 30 | 0.2 | 60 | 12.6 | – | – | – |
| -55 | | | | 55 | 42 | | 24.5 | | | | | | | |
| -80 | | | | 80 | – | – | 25.5 | | 0.3 | | | | | |



# PNER 立刀夹头系列

## 偏摆精度 < 3μm

PNER刀杆及筒夹可提升加工精度，减少昂贵的再加工时间;延长刀具寿命，使械台主轴精度能维持更久；降低整体生产成本，提高生产效益。其产品特色如下:

- 优化设计使PNER刀杆拥有高精度等级(偏摆精度<3μm)，实践证明刀杆偏摆精度每提升10μm，刀具使用寿命能延长25%。
- 高强度高刚性结构源于PNER系列严谨的生产过程，使用高端生产设备与更精准的量具，确保了卓越品质。
- PNER刀杆针对夹持力进行设计提升，筒夹更合理化精进增加本身强度，且与刀杆和螺帽接触更稳定且扎实，螺帽经过特殊镀层，强化挟持力，较市场上常见螺帽夹持力提升30%以上。
- 在动平衡方面，除刀杆本身对称设计搭配无风阻螺帽，还标配含G2.5精密动平衡等级，使其转速在25000rpm时都能轻松应对。





PNER螺帽无风阻设计，在高速加工下，减少风切产生之振刀现象，改善工件表面精度

PNER刀杆本体于螺纹上、下端各设计有一直部.与螺帽内部对应锁固结合后.公差更为精准，提升刀杆整体同心度及加工稳定性。

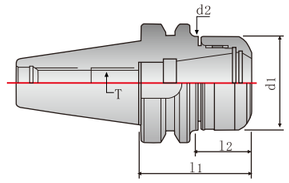

BT


SBT


HSK

## BT/PNER 立铣刀夹头





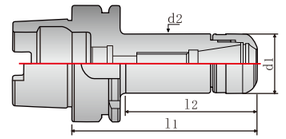

- 标准动平衡：G2.5　25000rpm
- 偏摆精度：≤3mm

| 型　号 Model | l1 | l2 | d1 | d2 | T | 夹持范围 | 重量 Weight |
|---|---|---|---|---|---|---|---|
| BT30×PNER20-60 | 60 | 37 | 32 | 32 | M12×1.75P | 3.0～13 | 0.80 |
| BT30×PNER20-100 | 100 | 77 | 32 | 32 | M12×1.75P | 3.0～13 | 0.80 |
| BT30×PNER25-60 | 60 | 37 | 40 | 40 | M16×2.0P | 3.0～16 | 0.90 |
| BT30×PNER25-100 | 100 | 77 | 40 | 40 | M16×2.0P | 3.0～16 | 0.90 |
| BT30×PNER32-60 | 60 | 33 | 50 | 50 | - | 3.0～20 | 1.00 |
| BT30×PNER32-100 | 100 | 73 | 50 | 50 | M16×2.0P | 3.0～20 | 1.00 |
| BT40×PNER16-70 | 70 | 40 | 30 | 30 | M10×1.5P | 3.0～10 | 1.12 |
| BT40×PNER16-100 | 100 | 70 | 30 | 30 | M10×1.5P | 3.0～10 | 1.12 |
| BT40×PNER16-130 | 130 | 100 | 30 | 30 | M10×1.5P | 3.0～10 | 1.14 |
| BT40×PNER16-160 | 160 | 130 | 30 | 30 | M10×1.5P | 3.0～10 | 1.14 |
| BT40×PNER20-70 | 70 | 40 | 32 | 32 | M12×1.75P | 3.0～13 | 1.14 |
| BT40×PNER20-100 | 100 | 70 | 32 | 32 | M12×1.75P | 3.0～13 | 1.14 |
| BT40×PNER20-130 | 130 | 100 | 32 | 32 | M12×1.75P | 3.0～13 | 1.16 |
| BT40×PNER20-160 | 160 | 130 | 32 | 32 | M12×1.75P | 3.0～13 | 1.16 |
| BT40×PNER25-70 | 70 | 40 | 40 | 40 | M16×2.0P | 3.0～16 | 1.19 |
| BT40×PNER25-100 | 100 | 70 | 40 | 40 | M16×2.0P | 3.0～16 | 1.54 |
| BT40×PNER25-130 | 130 | 100 | 40 | 40 | M16×2.0P | 3.0～16 | 2.00 |
| BT40×PNER25-160 | 160 | 130 | 40 | 40 | M16×2.0P | 3.0～16 | 2.00 |
| BT40×PNER32-70 | 70 | 40 | 50 | 50 | M16×2.0P | 3.0～20 | 1.20 |
| BT40×PNER32-100 | 100 | 70 | 50 | 50 | M16×2.0P | 3.0～20 | 1.80 |
| BT40×PNER32-130 | 130 | 100 | 50 | 50 | M16×2.0P | 3.0～20 | 1.40 |
| BT40×PNER32-160 | 160 | 130 | 50 | 50 | M16×2.0P | 3.0～20 | 1.40 |
| BT50×PNER16-100 | 100 | 59 | 30 | 30 | M10×1.5P | 3.0～10 | 4.28 |
| BT50×PNER16-130 | 130 | 82 | 30 | 30 | M10×1.5P | 3.0～10 | 4.40 |
| BT50×PNER16-160 | 160 | 112 | 30 | 30 | M10×1.5P | 3.0～10 | 4.52 |
| BT50×PNER20-100 | 100 | 59 | 32 | 32 | M12×1.75P | 3.0～13 | 4.42 |
| BT50×PNER20-130 | 130 | 82 | 32 | 32 | M12×1.75P | 3.0～13 | 4.60 |
| BT50×PNER20-160 | 160 | 112 | 32 | 32 | M12×1.75P | 3.0～13 | 4.14 |
| BT50×PNER25-100 | 100 | 59 | 40 | 40 | M16×2.0P | 3.0～16 | 4.36 |
| BT50×PNER25-130 | 130 | 82 | 40 | 40 | M16×2.0P | 3.0～16 | 4.64 |
| BT50×PNER25-160 | 160 | 112 | 40 | 40 | M16×2.0P | 3.0～16 | 4.84 |
| BT50×PNER32-100 | 100 | 61 | 50 | 50 | M16×2.0P | 3.0～20 | 5.00 |
| BT50×PNER32-130 | 130 | 82 | 50 | 50 | M16×2.0P | 3.0～20 | 5.02 |
| BT50×PNER32-160 | 160 | 112 | 50 | 50 | M16×2.0P | 3.0～20 | 5.40 |
| BT50×PNER40-100 | 100 | 59 | 63 | 63 | M20×2.0P | 6.0～26 | 4.88 |
| BT50×PNER40-130 | 130 | 82 | 63 | 63 | M20×2.0P | 6.0～26 | 5.56 |
| BT50×PNER40-160 | 160 | 112 | 63 | 63 | M20×2.0P | 6.0～26 | 6.22 |



## HSK/PNER 立铣刀夹头



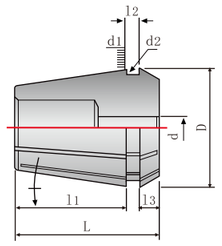



- 标准动平衡：G2.5　25000rpm
- 偏摆精度：≤3mm

| 型　号 Model | l1 | l2 | d1 | d2 | T | 夹持范围 | 重量 Weight |
|---|---|---|---|---|---|---|---|
| HSK32A×PNER16-50 | 50 | 29 | 30 | 26 | - | 3.0～10 | 0.14 |
| HSK32A×PNER20-60 | 60 | 39 | 32 | - | - | 3.0～13 | 0.24 |
| HSK40A×PNER16-60 | 60 | 37 | 30 | 26 | - | 3.0～10 | 0.36 |
| HSK40A×PNER20-60 | 60 | 38 | 32 | 32 | - | 3.0～13 | 0.37 |
| HSK40A×PNER25-60 | 60 | 38 | 40 | - | - | 3.0～16 | 0.47 |
| HSK40A×PNER32-70 | 70 | 35 | 50 | 40.5 | - | 3.0～20 | 0.57 |
| HSK50A×PNER16-60 | 60 | 31 | 30 | 26 | - | 3.0～10 | 0.54 |
| HSK50A×PNER20-60 | 60 | 31 | 32 | 32 | - | 3.0～13 | 0.55 |
| HSK50A×PNER25-60 | 60 | 32 | 40 | 32.5 | - | 3.0～16 | 0.65 |
| HSK50A×PNER32-70 | 70 | 42 | 50 | - | - | 3.0～20 | 0.75 |
| HSK50A×PNER40-80 | 80 | 38 | 63 | - | - | 6.0～26 | 0.85 |
| HSK63A×PNER16-60 | 60 | 31 | 30 | 26 | - | 3.0～10 | 1.00 |
| HSK63A×PNER16-100 | 100 | 64 | 30 | 26 | M10×1.5P | 3.0～10 | 1.10 |
| HSK63A×PNER16-130 | 130 | 94 | 30 | 26 | M10×1.5P | 3.0～10 | 1.20 |
| HSK63A×PNER16-160 | 160 | 124 | 30 | 26 | M10×1.5P | 3.0～10 | 1.30 |
| HSK63A×PNER20-60 | 60 | 31 | 32 | 32 | - | 3.0～13 | 1.60 |
| HSK63A×PNER20-100 | 100 | 71 | 32 | 32 | M12×1.75P | 3.0～13 | 1.70 |
| HSK63A×PNER20-130 | 130 | 99 | 32 | 32 | M12×1.75P | 3.0～13 | 1.80 |
| HSK63A×PNER20-160 | 160 | 129 | 32 | 32 | M12×1.75P | 3.0～13 | 1.90 |
| HSK63A×PNER25-100 | 100 | 71 | 40 | 40 | M16×2.0P | 3.0～16 | 1.8 |
| HSK63A×PNER25-130 | 130 | 101 | 40 | 40 | M16×2.0P | 3.0～16 | 1.90 |
| HSK63A×PNER25-160 | 160 | 131 | 40 | 40 | M16×2.0P | 3.0～16 | 2.00 |
| HSK63A×PNER32-100 | 100 | 71 | 50 | 50 | - | 3.0～20 | 2.55 |
| HSK63A×PNER32-130 | 130 | 101 | 50 | 50 | M16×2.0P | 3.0～20 | 2.65 |
| HSK63A×PNER32-160 | 160 | 131 | 50 | 50 | M16×2.0P | 3.0～20 | 2.75 |
| HSK63A×PNER40-100 | 100 | 71 | 63 | - | M20×2.0P | 6.0～26 | 2.65 |
| HSK63A×PNER40-130 | 130 | 101 | 63 | - | M20×2.0P | 6.0～26 | 2.75 |
| HSK63A×PNER40-160 | 160 | 131 | 63 | - | M20×2.0P | 6.0～26 | 2.85 |
| HSK80A×PNER32-100 | 100 | 69 | 50 | 50 | - | 3.0～20 | 3.10 |
| HSK80A×PNER40-120 | 120 | 91 | 63 | 63 | M20×2.0P | 6.0～26 | 3.20 |
| HSK100A×PNER16-100 | 100 | 61 | 30 | 26 | M10×1.5P | 3.0～10 | 2.90 |
| HSK100A×PNER16-100 | 100 | 61 | 32 | 32 | M12×1.75P | 3.0～13 | 3.00 |
| HSK100A×PNER20-100 | 100 | 61 | 40 | 40 | M16×2.0P | 3.0～16 | 3.10 |
| HSK100A×PNER25-100 | 100 | 61 | 50 | 50 | - | 3.0～20 | 3.20 |
| HSK100A×PNER32-100 | 100 | 61 | 63 | 63 | - | 6.0～26 | 3.30 |

## PNER 筒夹






• 偏摆精度：≤3mm

| 型　号 Model | L | $l_1$ | $l_2$ | $l_3$ | D | $d_1$ | $d_2$ | 夹持范围 Size Range | 重量 Weight |
|---|---|---|---|---|---|---|---|---|---|
| PNER16 | 27.5 | 20.8 | 3.4 | 4 | 16.8 | 16 | 13.8 | 3.0～10 | 0.03 |
| PNER20 | 31.5 | 23.9 | 3.4 | 4.8 | 20.8 | 20 | 17.4 | 3.0～13 | 0.04 |
| PNER25 | 34 | 25.9 | 3.6 | 5 | 25.8 | 25 | 21.9 | 3.0～16 | 0.06 |
| PNER32 | 40 | 30.9 | 4.1 | 5.5 | 32.7 | 32 | 29.2 | 3.0～20 | 0.10 |
| PNER40 | 46 | 34.5 | 4.5 | 7 | 40.85 | 40 | 36.2 | 6.0～26 | 0.25 |

备注：需止水筒夹时，标准型号+CO　例：PNER16-6-CO

| 型　号 Model | 夹持范围 Size Range |
|---|---|
| PNER16-03 | 3 |
| PNER16-04 | 4 |
| PNER16-05 | 5 |
| PNER16-06 | 6 |
| PNER16-07 | 7 |
| PNER16-08 | 8 |
| PNER16-09 | 9 |
| PNER16-10 | 10 |
| PNER20-03 | 3 |
| PNER20-04 | 4 |
| PNER20-05 | 5 |
| PNER20-06 | 6 |
| PNER20-07 | 7 |
| PNER20-08 | 8 |
| PNER20-09 | 9 |
| PNER20-10 | 10 |
| PNER20-11 | 11 |
| PNER20-12 | 12 |
| PNER20-13 | 13 |
| PNER25-03 | 3 |
| PNER25-04 | 4 |
| PNER25-05 | 5 |
| PNER25-06 | 6 |
| PNER25-07 | 7 |
| PNER25-08 | 8 |
| PNER25-09 | 9 |
| PNER25-10 | 10 |

| 型　号 Model | 夹持范围 Size Range |
|---|---|
| PNER25-11 | 11 |
| PNER25-12 | 12 |
| PNER25-13 | 13 |
| PNER25-14 | 14 |
| PNER25-15 | 15 |
| PNER25-16 | 16 |
| PNER32-03 | 3 |
| PNER32-04 | 4 |
| PNER32-05 | 5 |
| PNER32-06 | 6 |
| PNER32-07 | 7 |
| PNER32-08 | 8 |
| PNER32-09 | 9 |
| PNER32-10 | 10 |
| PNER32-11 | 11 |
| PNER32-12 | 12 |
| PNER32-13 | 13 |
| PNER32-14 | 14 |
| PNER32-15 | 15 |
| PNER32-16 | 16 |
| PNER32-17 | 17 |
| PNER32-18 | 18 |
| PNER32-19 | 19 |
| PNER32-20 | 20 |

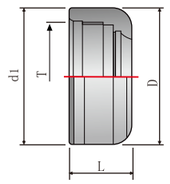
| 型　号 Model | 夹持范围 Size Range |
|---|---|
| PNER40-06 | 6 |
| PNER40-07 | 7 |
| PNER40-08 | 8 |
| PNER40-09 | 9 |
| PNER40-10 | 10 |
| PNER40-11 | 11 |
| PNER40-12 | 12 |
| PNER40-13 | 13 |
| PNER40-14 | 14 |
| PNER40-15 | 15 |
| PNER40-16 | 16 |
| PNER40-17 | 17 |
| PNER40-18 | 18 |
| PNER40-19 | 19 |
| PNER40-20 | 20 |
| PNER40-21 | 21 |
| PNER40-22 | 22 |
| PNER40-23 | 23 |
| PNER40-24 | 24 |
| PNER40-25 | 25 |
| PNER40-26 | 26 |





## PNER 螺帽

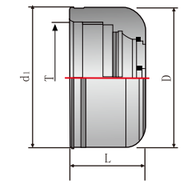





| 型　号 Model | L | D | $d_1$ | T | 重量 Weight |
|---|---|---|---|---|---|
| PNER16-NUT | 23 | 30 | 30.5 | M22×1.5P | 0.03 |
| PNER20-NUT | 24 | 32 | 32.5 | M25×1.5P | 0.04 |
| PNER25-NUT | 24 | 40 | 40.5 | M32×1.5P | 0.06 |
| PNER32-NUT | 27 | 50 | 50.5 | M40×1.5P | 0.10 |
| PNER40-NUT | 30 | 63 | 63.5 | M50×1.5P | 0.25 |

## PNER 偏心螺帽



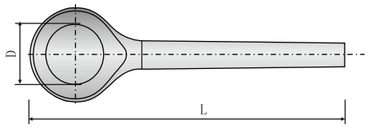



| 型　号 Model | L | D | $d_1$ | T | 重量 Weight |
|---|---|---|---|---|---|
| PNER16-A | 27 | 30 | 30.5 | M22×1.5P | 0.08 |
| PNER20-A | 29 | 32 | 32.5 | M25×1.5P | 0.08 |
| PNER25-A | 29 | 40 | 40.5 | M32×1.5P | 0.14 |
| PNER32-A | 32 | 50 | 50.5 | M40×1.5P | 0.22 |
| PNER40-A | 35 | 63 | 63.5 | M50×1.5P | 0.40 |

备注：使用止水筒夹时，需配合偏心螺帽使用

## PNER轴承扳手






| 型　号 Model | 适用规格 Applicable Spec. | L | D | 重量 Weight |
|---|---|---|---|---|
| PNER16-RDQ | ER16W-RDQ, SKS10W-RDQ. UTER16, SKX10-CO | 170 | 30 | - |
| PNER20-RDQ | PNER20 | 195 | 32 | 0.44 |
| PNER25-RDQ | PNER25, SK316, SKX16-CO | 175 | 40 | 0.66 |
| PNER32-RDQ | PNER32, ER32W-RDQ | 235 | 50 | - |
| PNER40-RDQ | PNER40, PRO32 | 250 | 63 | 1.14 |



## BT/SBL 后拉式刀杆



Fig.1

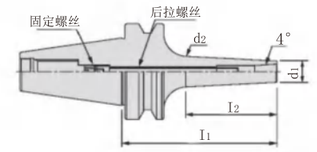
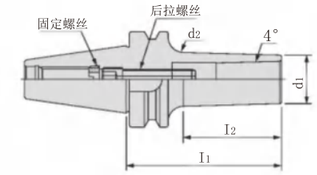



Fig.2




●偏摆精度：5μ(4D)
●标准动平衡G2.5 36000rpm

| 型　号 Model | 夹持范围 Gripping Range | 筒夹 Collet | $I_1$ | $I_2$ | $d_1$ | $d_2$ | 后拉螺丝 Slim-Fit Screw | 固定螺丝 Fixed Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BT30×SBL6-70 | 2~6 | SLC6 | 70 | 38 | 14 | 18.1 | SBL6-M6-40L | SBL6-M12 | PT5 | 6.0 | 1 | 1.00 |
| BT30×SBL6-100 | | | 100 | 68 | | 21.2 | SBL6-M6-70L | | | | | 1.25 |
| BT30×SBL12-70 | 3~12 | SLC12 | 70 | 47 | 26 | 33.4 | SBL12-M10-25L | SBL12-M15 | PT6 | 10.0 | 2 | 1.20 |
| BT30×SBL12-100 | | | 100 | 77 | | 38.1 | | | | | | 1.45 |
| BT30×SBL20-80 | 3~20 | SLC20 | 80 | 55 | 34 | 37.7 | SBL20-M12-30L | SBL20-M18 | PT8-S | 12.0 | | 1.20 |
| BT30×SBL20-100 | | | 100 | 77 | | 39.2 | | | | | | 1.45 |
| BT40×SBL6-70 | 2~6 | SLC6 | 70 | 28 | 14 | 17.1 | SBL6-M6-50L | SBL6-M16 | PT5 | 6.0 | 1 | 1.20 |
| BT40×SBL6-100 | | | 100 | 58 | | 20.1 | SBL6-M6-75L | | | | | 1.60 |
| BT40×SBL12-70 | 3~12 | SLC12 | 70 | 33 | 26 | 31 | SBL12-M10-25L | SBL12-M16 | PT6 | 10.0 | 2 | 1.50 |
| BT40×SBL12-100 | | | 100 | 63 | | 31.6 | SBL12-M10-55L | | | | | 1.70 |
| BT40×SBL20-70 | 3~20 | SLC20 | 70 | 33 | 35 | 38.1 | SBL20-M12-30L | SBL20-M16 | PT8-S | 12.0 | | 1.50 |
| BT40×SBL20-100 | | | 100 | 68 | | 41 | SBL20-M12-52L | | | | | 1.70 |
| BT50×SBL6-70 | 2~6 | SLC6 | 70 | 17 | 14 | 15.9 | SBL6-M6-50L | SBL6-M16 | PT5-S | 6.0 | 1 | 4.00 |
| BT50×SBL6-100 | | | 100 | 47 | | 19.1 | SBL6-M6-40L | | | | | 4.10 |
| BT50×SBL12-70 | 3~12 | SLC12 | 70 | 22 | 26 | 28.1 | SBL12-M10-25L | SBL12-M16 | PT6-S | 10.0 | 2 | 4.20 |
| BT50×SBL12-100 | | | 100 | 52 | | 30.6 | SBL12-M10-55L | | | | | 4.30 |
| BT50×SBL20-70 | 3~20 | SLC20 | 70 | 22 | 35 | 36.9 | SBL20-M12-30L | SBL20-M16 | PT8-S | 12.0 | | 4.60 |
| BT50×SBL20-100 | | | 100 | 52 | | 39.6 | SBL20-M12-52L | | | | | 4.70 |

## BT/SBL 后拉式刀杆配件表

PT 型扳手



| 规格 Spec. | Ⓢ | L | 扭力值 (N.m) Torque |
|---|---|---|---|
| PT5 | 5 | 70 | 6.0 |
| PT5-S | | 130 | |
| PT6 | 6 | 70 | 10.0 |
| PT6-S | | 130 | |
| PT8-S | 8 | 140 | 12.0 |

后拉螺丝



| 规格 Spec. | L | 规格 Spec. | L |
|---|---|---|---|
| SBL6-M6-30L | 30 | SBL6-M6-80L | 80 |
| SBL6-M6-35L | 35 | SBL6-M6-95L | 95 |
| SBL6-M6-40L | 40 | SBL6-M6-127L | 127 |
| SBL6-M6-50L | 50 | SBL12-M10-25L | 25 |
| SBL6-M6-65L | 65 | SBL12-M10-55L | 55 |
| SBL6-M6-70L | 70 | SBL20-M12-30L | 30 |
| SBL6-M6-72L | 72 | SBL20-M12-52L | 52 |
| SBL6-M6-75 | 75 | | |

止动螺帽



| 规格 Spec. | L |
|---|---|
| SBL6-SN | 17 |

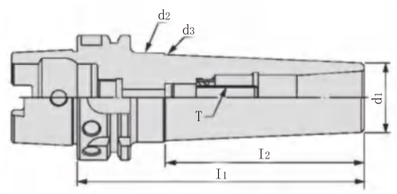
固定螺丝



| 规格 Spec. | 规格 Spec. |
|---|---|
| SBL6-M12 | SBL12-M16 |
| SBL6-M16 | SBL20-M16 |
| SBL12-M15 | SBL20-M18 |

## HSK(A)/SBL 后拉式刀杆






●标准动平衡 G2.5 36000rpm

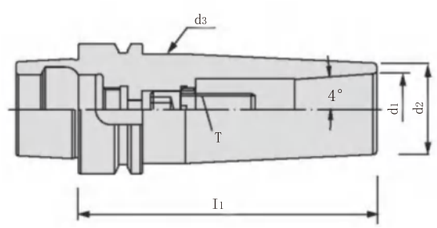
| 型　号 Model | I1 | I2 | d1 | d2 | d3 | T | 夹持范围 Gripping Range | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|
| HSK50A×SBL6-80 | 80 | 44 | 14 | 18 | - | M6×1.0P | 2～6 | 1.40 |
| HSK50A×SBL6-120 | 120 | 84 | | 22 | | | | 1.50 |
| HSK50A×SBL12-110 | 110 | 65 | 26 | 42 | 36 | M10×1.5P | 3～12 | 1.50 |
| HSK50A×SBL12-130 | 130 | 86 | | | 39 | | | 1.85 |
| HSK50A×SBL20-120 | 120 | 93 | 35 | 42 | - | M12×1.75P | 3～20 | 1.80 |
| HSK50A×SBL20-150 | 150 | 123 | | | | | | 2.00 |
| HSK63A×SBL6-80 | 80 | 39 | 14 | 18 | - | M6×1.0P | 2～6 | 1.70 |
| HSK63A×SBL6-120 | 120 | 79 | | 22 | | | | 1.90 |
| HSK63A×SBL12-110 | 110 | 79 | 26 | 37 | - | M10×1.5P | 3～12 | 1.80 |
| HSK63A×SBL12-150 | 150 | 119 | | 42 | | | | 2.00 |
| HSK63A×SBL20-120 | 120 | 89 | 35 | 42 | - | M12×1.75P | 3～20 | 2.00 |
| HSK63A×SBL20-140 | 140 | 97 | | 45 | 43 | | | 2.45 |
| HSK100A×SBL12-120 | 120 | 81 | 26 | 37 | - | M10×1.5P | 3～12 | 2.40 |
| HSK100A×SBL20-135 | 135 | 88 | 35 | 45 | 42 | M12×1.75P | 3～20 | 2.74 |

◎附扳手
◎HSK25E-32E-40E-50E-63E-63F 可接受订制



## HSK(E)/SBL 后拉式刀杆






●标准动平衡 G2.5 36000rpm

| 型　号 Model | I1 | d1 | d2 | d3 | T | 夹持范围 Gripping Range | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|
| HSK50E×SBL6-80 | 80 | 9.93 | 14 | 19.188 | M6×1.0P | 2～6 | - |
| HSK50E×SBL12-110 | 110 | 18 | 26 | 42 | M10×1.5P | 3～12 | 1.50 |
| HSK50E×SBL20-110 | | 27 | 35 | | M12×1.75P | 3～20 | 1.80 |
| HSK50E×SBL20-120 | 120 | | | | | | - |

◎附扳手

## SBL 直柄后拉式小径延长杆



Fig.1 止动螺帽

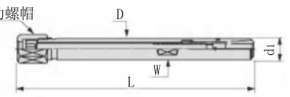
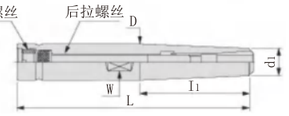



Fig.2 固定螺丝 后拉螺丝

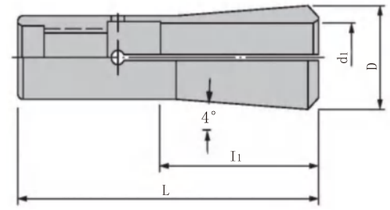



| 型 号 Model | L | l1 | D | d1 | W | 后拉螺丝 Slim-Fit Screw | 固定螺丝 Fixed Screw | 止动螺帽 Stop Nut | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C12×SBL6-120 | 120 | - | 12 | 9.93 | 10 | SBL6-M6-95 | - | SBL6-SN | PT5 | 6.0 | 1 | 0.16 |
| C12×SBL6-150 | 150 | | | | | SBL6-M6-127 | | | | | | 0.18 |
| C16×SBL6-120 | 120 | 48 | 16 | 9.93 | 14 | SBL6-M6-70 | M11×1.0P | - | PT5 | | 2 | 0.21 |
| C16×SBL6-150 | 150 | | | | | SBL6-M6-40 | | | PT5-S | | | 0.22 |
| C16×SBL6-200 | 200 | | | | | SBL6-M6-80 | | | | | | 0.24 |
| C20×SBL6-120 | 120 | 76.5 | 20 | 9.93 | 17 | SBL6-M6-70 | | | PT5 | | | 0.36 |
| C20×SBL6-150 | 150 | 86 | | | | SBL6-M6-40 | | | PT5-S | | | 0.23 |
| C20×SBL6-200 | 200 | 76.5 | | | | SBL6-M6-72 | | | | | | 0.25 |
| C25×SBL6-120 | 120 | 60 | 25 | 9.93 | 22 | SBL6-M6-30 | | | PT5 | | | 0.33 |
| C25×SBL6-150 | 150 | | | | | SBL6-M6-35 | | | PT5-S | | | 0.34 |
| C25×SBL6-200 | 200 | | | | | SBL6-M6-75 | | | | | | 0.36 |
| C25×SBL12-120 | 120 | 50 | 25 | 18 | 22 | SBL12-M10-25 | M16×2.0P | | PT6 | 10.0 | | 0.34 |
| C25×SBL12-150 | 150 | | | | | SBL12-M10-55 | | | | | | 0.35 |
| C25×SBL12-200 | 200 | | | | | | 5/8"-11UNC | | PT6-S | | | 0.37 |



## SLC 筒夹






| 型 号 Model | 夹持范围 d1 Clamping Range | D | L | 刀具最小夹持长度 l1 Min | 重量 (KGS) Weight |
|---|---|---|---|---|---|
| SLC-6-2 | 2.0 | 10 | 36 | 16 | 0.02 |
| SLC-6-2.25 | 2.25 | | | | 0.02 |
| SLC-6-2.5 | 2.5 | | | | 0.02 |
| SLC-6-2.75 | 2.75 | | | | 0.02 |
| SLC-6-3 | 3.0 | | | | 0.02 |
| SLC-6-3.25 | 3.25 | | | | 0.02 |
| SLC-6-3.5 | 3.5 | | | | 0.02 |
| SLC-6-3.75 | 3.75 | | | | 0.02 |
| SLC-6-4 | 4.0 | | | | 0.02 |
| SLC-6-4.25 | 4.25 | | | | 0.02 |
| SLC-6-4.5 | 4.5 | | | | 0.02 |
| SLC-6-4.75 | 4.75 | | | | 0.02 |
| SLC-6-5 | 5.0 | | | | 0.02 |
| SLC-6-5.25 | 5.25 | | | | 0.02 |
| SLC-6-5.5 | 5.5 | | | | 0.02 |
| SLC-6-5.75 | 5.75 | | | | 0.02 |
| SLC-6-6 | 6.0 | | | | 0.02 |
| SLC-12-3 | 3.0 | 18 | 57 | 20 | 0.18 |
| SLC-12-4 | 4.0 | | | 22 | 0.18 |
| SLC-12-5 | 5.0 | | | | 0.18 |
| SLC-12-6 | 6.0 | | | | 0.18 |
| SLC-12-8 | 8.0 | | | 30 | 0.18 |
| SLC-12-10 | 10.0 | | | | 0.18 |
| SLC-12-12 | 12.0 | | | 22 | 0.18 |
| SLC-20-3 | 3.0 | 27 | 70 | 20 | 0.20 |
| SLC-20-4 | 4.0 | | | 22 | 0.20 |
| SLC-20-5 | 5.0 | | | | 0.20 |
| SLC-20-6 | 6.0 | | | | 0.20 |
| SLC-20-8 | 8.0 | | | 32 | 0.20 |
| SLC-20-10 | 10.0 | | | | 0.20 |
| SLC-20-12 | 12.0 | | | | 0.20 |
| SLC-20-16 | 16.0 | | | | 0.20 |
| SLC-20-20 | 20 | | | 26 | 0.20 |

# SBT/SKS 高速机专用刀柄



Fig.1

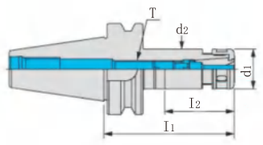
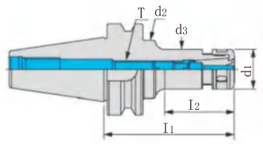



Fig.2




●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型号 Model | l1 | l2 | d1 | d2 | d3 | T | 螺帽 Nut | 扳手 spanner | Fig. | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| SBT30×SKS6-45 | 45 | 22 | 18 | 18 | - | M8×1.25P | SKS6-P | SKS6-W | 1 | 0.80 |
| SBT30×SKS6-60 | 60 | 33 | | | | | | | | 0.90 |
| SBT30×SKS6-90 | 90 | 55 | | | | | | | | 0.52 |
| SBT30×SKS10-45 | 45 | 22 | 30 | 27.6 | | M12×1.75P | SKS10-P | SKS10-W | | 0.80 |
| SBT30×SKS10-60 | 60 | 33 | | | | | | | | 0.90 |
| SBT30×SKS10-90 | 90 | 63 | | | | | | | | 1.00 |
| SBT30×SKS13-60 | 60 | 35 | 35 | 33 | | | SKS13-P | SKS13-W | | 1.10 |
| SBT30×SKS13-90 | 90 | 65 | | | | | | | | 1.10 |
| SBT30×SKS13-120 | 120 | 95 | | | | | | | | 1.20 |
| SBT30×SKS16-60 | 60 | 36 | 40 | 40 | | M18×1.5P | SKS16-P | SKS16-W | | 1.20 |
| SBT30×SKS16-90 | 90 | 66 | | | | | | | | 1.20 |
| SBT30×SKS20-60 | 60 | 37 | 48.5 | 48.5 | 45 | M22×1.5P | SKS20-P | SKS20-W | 2 | 0.70 |
| SBT30×SKS20-90 | 90 | 67 | | | | | | | | 1.20 |
| SBT40×SKS6-90 | 90 | 44 | 18 | 18 | 32 | M8×1.25P | SKS6-P | SKS6-W | | 1.20 |
| SBT40×SKS6-120 | 120 | 74 | | | | | | | | 1.40 |
| SBT40×SKS10-60 | 60 | 55 | 30 | 27.6 | - | M12×1.75P | SKS10-P | SKS10-W | 1 | - |
| SBT40×SKS10-90 | 90 | 45 | | | 40 | | | | 2 | 1.50 |
| SBT40×SKS10-120 | 120 | 74 | | | | | | | | 1.60 |
| SBT40×SKS13-60 | 60 | 30 | 35 | 33 | - | M12×1.75P | SKS13-P | SKS13-W | 1 | 1.20 |
| SBT40×SKS13-90 | 90 | 60 | | | | | | | | 1.40 |
| SBT40×SKS13-120 | 120 | 90 | | | | | | | | 1.60 |
| SBT40×SKS16-60 | 60 | 23.2 | 40 | 40 | | M18×1.5P | SKS16-P | SKS16-W | | - |
| SBT40×SKS16-90 | 90 | 58 | | | | | | | | 1.60 |
| SBT40×SKS16-120 | 120 | 90 | | | | | | | | 1.70 |
| SBT40×SKS20-60 | 60 | 32 | 48.5 | 48.5 | | M22×1.5P | SKS20-P | SKS20-W | | 1.30 |
| SBT40×SKS20-90 | 90 | 60 | | | | | | | | 1.60 |
| SBT40×SKS20-120 | 120 | 88 | | | | | | | | 2.00 |
| SBT40×SKS25-90 | 90 | 61 | 55.1 | 55 | | M28×2.0P | SKS25-P | SKS25-W | | 1.70 |
| SBT40×SKS25-120 | 120 | 91 | | | | | | | | 1.80 |



SBT/SKS 高速机专用刀柄



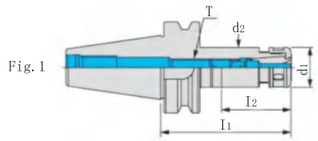
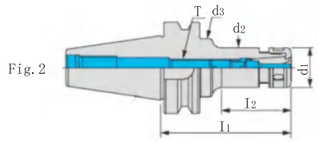



Fig.1

Fig.2




●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型 号 Model | l1 | l2 | d1 | d2 | d3 | T | 螺帽 Nut | 扳手 spanner | Fig. | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| SBT50×SKS6-90 | 90 | 42 | 18 | 18 | - | M8×1.25P | SKS6-P | SKS6-W | 1 | 4.00 |
| SBT50×SKS6-120 | 120 | 59 | | 18 | 32 | | | | 2 | 4.20 |
| SBT50×SKS10-105 | 105 | 57 | 30 | 27.6 | - | M12×1.75P | SKS10-P | SKS10-W | 1 | 4.50 |
| SBT50×SKS10-150 | 135 | 94 | | 27 | 40 | | | | 2 | 4.60 |
| SBT50×SKS10-165 | 165 | 108 | | | | | | | | 4.30 |
| SBT50×SKS10-200 | 200 | 143 | | | 36 | | | | | 5.20 |
| SBT50×SKS10-250 | 250 | 193 | | | 40 | | | | | 5.60 |
| SBT50×SKS13-105 | 105 | 62 | 35 | 33 | - | | SKS13-P | SKS13-W | 1 | 4.50 |
| SBT50×SKS13-135 | 135 | 92 | | | | | | | | 4.70 |
| SBT50×SKS13-165 | 165 | | | | | | | | 2 | 4.90 |
| SBT50×SKS13-200 | 200 | 157 | | | 45 | | | | | 5.20 |
| SBT50×SKS13-250 | 250 | 207 | | | | | | | | 5.70 |
| SBT50×SKS16-105 | 105 | 57 | 40 | 40 | - | M18×1.5P | SKS16-P | SKS16-W | 1 | 4.50 |
| SBT50×SKS16-150 | 150 | 93 | | | | | | | 2 | 4.70 |
| SBT50×SKS16-165 | 165 | 108 | | | 52 | | | | | 4.50 |
| SBT50×SKS16-200 | 200 | 157 | | | | | | | | 5.50 |
| SBT50×SKS16-250 | 250 | 207 | | | | | | | | 6.00 |
| SBT50×SKS20-105 | 105 | 62 | 48.5 | 48.5 | - | M22×1.5P | SKS20-P | SKS20-W | 1 | 4.30 |
| SBT50×SKS20-135 | 135 | 92 | | | | | | | | 4.60 |
| SBT50×SKS20-165 | 165 | 122 | | | | | | | | 5.00 |
| SBT50×SKS20-200 | 200 | 157 | | | | | | | | 5.40 |
| SBT50×SKS20-250 | 250 | 207 | | | | | | | | 6.10 |
| SBT50×SKS25-105 | 105 | 62 | 55.1 | 55 | | M28×2.0P | SKS25-P | SKS25-W | 1 | 4.50 |
| SBT50×SKS25-150 | 150 | 107 | | | | | | | | 4.80 |
| SBT50×SKS25-200 | 200 | 157 | | | | | | | | 6.00 |
| SBT50×SKS25-250 | 250 | 207 | | | | | | | | 6.70 |

## SBT/SKS 高速机专用刀柄(无风阻)



Fig.1

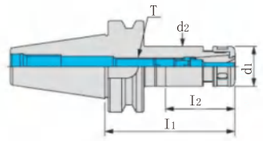
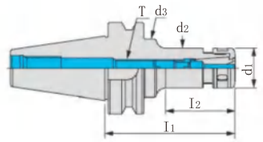



Fig.2




●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型　号 Model | I1 | I2 | d1 | d2 | d3 | T | 螺帽 Nut | 扳手 spanner | Fig. | 重量(KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| SBT30×SKS6-45-HS | 45 | 14.5 | 18 | 20 | – | M8×1.25P | SKS6-HS | SKS6W-HS | 1 | 0.80 |
| SBT30×SKS6-60-HS | 60 | 25 | | | | | | | | 0.90 |
| SBT30×SKS10-45-HS | 45 | 14.5 | 30 | 27.6 | | M12×1.75P | SKS10-HS | SKS10W-HS | | 0.80 |
| SBT30×SKS10-60-HS | 60 | 25 | | | | | | | | 0.90 |
| SBT30×SKS10-90-HS | 90 | 55 | | | | | | | | 1.00 |
| SBT30×SKS13-60-HS | 60 | 35 | 35 | 33 | | M12×1.75P | SKS13-HS | SKS13W-HS | | – |
| SBT30×SKS13-90-HS | 90 | 65 | | | | | | | | – |
| SBT30×SKS16-60-HS | 60 | 27.7 | 40 | 40 | | M18×1.5P | SKS16-HS | SKS16W-HS | | 1.20 |
| SBT30×SKS16-90-HS | 90 | 57.7 | | | | | | | | 1.00 |
| SBT30×SKS20-60-HS | 60 | 37 | 48.5 | 48.5 | | M22×1.5P | SKS20-HS | SKS20W-HS | | – |
| SBT30×SKS20-90-HS | 90 | 67 | | | | | | | | – |
| SBT30×SKS25-90-HS | | 57.2 | 55.1 | 45 | | M28×2.0P | SKS25-HS | SKS25W-HS | | – |
| SBT40×SKS6-90-HS | | 36.4 | 18 | 18 | 32 | M8×1.25P | SKS6-HS | SKS6W-HS | 2 | 1.20 |
| SBT40×SKS6-120-HS | 120 | 68.5 | | | | | | | | 1.40 |
| SBT40×SKS10-60-HS | 60 | 22 | 30 | 27.6 | – | M12×1.75P | SKS10-HS | SKS10W-HS | 1 | – |
| SBT40×SKS10-90-HS | 90 | 37.7 | | | 40 | | | | 2 | 1.50 |
| SBT40×SKS10-120-HS | 120 | 68.5 | | | | | | | | 1.60 |
| SBT40×SKS13-60-HS | 60 | 28 | 35 | 33 | – | M12×1.75P | SKS13-HS | SKS13W-HS | 1 | – |
| SBT40×SKS13-90-HS | 90 | 58 | | | | | | | | – |
| SBT40×SKS13-120-HS | 120 | 88 | | | | | | | | – |
| SBT40×SKS16-60-HS | 60 | 23.2 | 40 | 40 | | M18×1.5P | SKS16-HS | SKS16W-HS | | – |
| SBT40×SKS16-90-HS | 90 | 48.7 | | | | | | | | 1.60 |
| SBT40×SKS16-120-HS | 120 | 78.9 | | | | | | | | 1.70 |
| SBT40×SKS20-60-HS | 60 | 32 | 48.5 | 48.5 | | M22×1.5P | SKS20-HS | SKS20W-HS | | – |
| SBT40×SKS20-90-HS | 90 | 60 | | | | | | | | – |
| SBT40×SKS20-120-HS | 120 | 90 | | | | | | | | – |
| SBT40×SKS25-90-HS | 90 | 50.7 | 55.1 | 55 | | M28×2.0P | SKS25-HS | SKS25W-HS | | 1.70 |
| SBT40×SKS25-120-HS | 120 | 80.7 | | | | | | | | 1.80 |



SBT/SKS 高速机专用刀柄(无风阻)



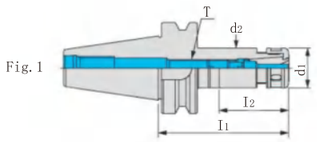
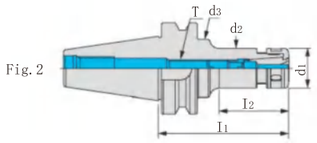



Fig.1

Fig.2

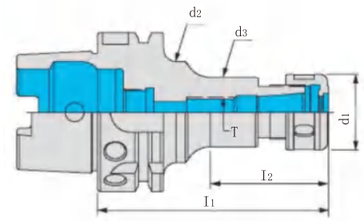



●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型　号 Model | I1 | I2 | d1 | d2 | d3 | T | 螺帽 Nut | 扳手 spanner | Fig. | 重量(KGS) Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| SBT50×SKS6-90-HS | 90 | 42 | 18 | 18 | – | M8×1.25P | SKS6-P | SKS6-W | 1 | 4.00 |
| SBT50×SKS6-120-HS | 120 | 59 | | 18 | 32 | | | | 2 | 4.20 |
| SBT50×SKS10-105-HS | 105 | 57 | 30 | 27.6 | – | M12×1.75P | SKS10-P | SKS10-W | 1 | 4.50 |
| SBT50×SKS10-150-HS | 150 | 94 | | 27 | 40 | | | | 2 | 4.60 |
| SBT50×SKS10-165-HS | 165 | 108 | | | | | | | | 4.30 |
| SBT50×SKS10-200-HS | 200 | 143 | | | 36 | | | | | 5.20 |
| SBT50×SKS10-250-HS | 250 | 193 | | | 40 | | | | | 5.60 |
| SBT50×SKS13-105-HS | 105 | 62 | 35 | 33 | – | M12×1.75P | SKS13-P | SKS13-W | 1 | 4.50 |
| SBT50×SKS13-135-HS | 135 | 92 | | | | | | | | 4.70 |
| SBT50×SKS13-165-HS | 165 | 92 | 35 | 33 | 45 | M12×1.75P | SKS13-P | SKS13-W | 2 | 4.90 |
| SBT50×SKS13-200-HS | 200 | 157 | | | | | | | | 5.20 |
| SBT50×SKS13-250-HS | 250 | 207 | | | | | | | | 5.70 |
| SBT50×SKS16-105-HS | 105 | 57 | 40 | 40 | – | M18×1.5P | SKS16-P | SKS16-W | 1 | 4.50 |
| SBT50×SKS16-150-HS | 150 | 93 | | | | | | | 2 | 4.70 |
| SBT50×SKS16-165-HS | 165 | 108 | | 40 | 52 | | | | | 4.50 |
| SBT50×SKS16-200-HS | 200 | 157 | | | | | | | | 5.50 |
| SBT50×SKS16-250-HS | 250 | 207 | | | | | | | | 6.00 |
| SBT50×SKS20-105-HS | 105 | 62 | 48.5 | 48.5 | – | M22×1.5P | SKS20-P | SKS20-W | 1 | 4.30 |
| SBT50×SKS20-135-HS | 135 | 92 | | | | | | | | 4.60 |
| SBT50×SKS20-165-HS | 165 | 122 | | | | | | | | 5.00 |
| SBT50×SKS20-200-HS | 200 | 157 | | | | | | | | 5.40 |
| SBT50×SKS20-250-HS | 250 | 207 | | | | | | | | 6.10 |
| SBT50×SKS25-105-HS | 105 | 62 | 55.1 | 55 | – | M28×2.0P | SKS25-P | SKS25-W | 1 | 4.50 |
| SBT50×SKS25-150-HS | 150 | 107 | | | | | | | | 4.80 |
| SBT50×SKS25-200-HS | 200 | 157 | | | | | | | | 6.00 |
| SBT50×SKS25-250-HS | 250 | 207 | | | | | | | | 6.70 |

## HSK(A)/SKS 高速机专用刀柄





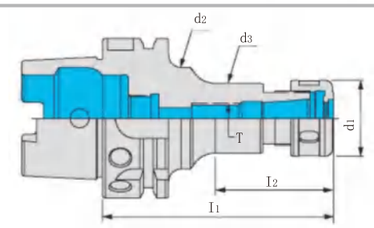

●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型号 Model | l1 | l2 | d1 | d2 | d3 | T | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|
| HSK50A×SKS10-90 | 90 | 45 | 30 | 40 | 27.6 | M12×1.75P | 0.80 |
| HSK50A×SKS10-120 | 120 | 75 | | | | | 1.00 |
| HSK50A×SKS16-90 | 90 | 63 | 40 | 40 | - | M18×1.5P | 1.00 |
| HSK50A×SKS16-120 | 120 | 93 | | | | | 1.20 |
| HSK63A×SKS6-90 | 90 | 44 | 18 | 32 | 18 | M8×1.25P | 1.00 |
| HSK63A×SKS10-90 | 90 | 45 | 30 | 40 | 27.6 | M12×1.75P | 1.00 |
| HSK63A×SKS10-120 | 120 | 75 | | | | | 1.80 |
| HSK63A×SKS16-90 | 90 | 59 | 40 | 40 | - | M18×1.5P | 2.00 |
| HSK63A×SKS16-120 | 120 | 89 | | | | | 2.20 |
| HSK63A×SKS25-90 | 90 | 63 | 55 | 52 | - | M28×2.0P | 2.20 |
| HSK100A×SKS10-100 | 100 | 45 | 30 | 40 | 27.6 | M12×1.75P | 2.60 |
| HSK100A×SKS16-105 | 105 | 66 | 40 | 40 | - | M18×1.5P | 2.70 |
| HSK100A×SKS25-120 | 120 | 81 | 55 | 55 | | M28×2.0P | 3.40 |

◎ 扳手另外购买.

## HSK(A)/SKS 高速机专用刀柄(无风阻)






●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

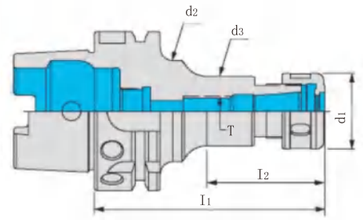
| 型号 Model | l1 | l2 | d1 | d2 | d3 | T | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|
| HSK32A×SKS10-60-HS | 60 | - | 30 | 40 | - | M12～1.75P | 0.26 |
| HSK40A×SKS10-60-HS | | | | | | | - |

◎扳手另外购买 .



## HSK(E)/SKS 高速机专用刀柄





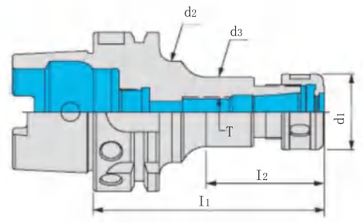

●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型号 Model | l1 | l2 | d1 | d2 | d3 | T | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|
| HSK50E×SKS10-90 | 90 | 45 | 30 | 40 | 27.6 | M12×1.75P | 0.83 |
| HSK50E×SKS10-120 | 120 | 75 | | | | | 0.93 |
| HSK50E×SKS16-90 | 90 | 63 | 40 | | - | M18×1.5P | 0.90 |
| HSK50E×SKS16-120 | 120 | 93 | | | | | 1.13 |

◎ 扳手另外购买 .

## HSK(E)/SKS 高速机专用刀柄(无风阻)





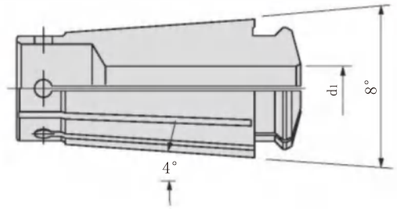

●偏摆精度：5μ以下(延伸4D长度处)
●SKS筒夹锥度：4°、增加夹持力、提高稳定性
●标准动平衡：G2.5 36000rpm

| 型号 Model | l1 | l2 | d1 | d2 | d3 | T | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|
| HSK40E×SKS6-60-HS | 60 | 44 | 18 | 32 | 18 | M8～1.25P | - |
| HSK40E×SKS10-60-HS | | 45 | 30 | 40 | 27.6 | M12～1.75P | - |
| HSK40E×SKS16-90-HS | 90 | 59 | 40 | | - | M18～1.5P | - |
| HSK50E×SKS10-90-HS | | 45 | 30 | | 27.6 | M12～1.75P | 0.8 |
| HSK50E×SKS10-120-HS | 120 | 75 | | | | | 1.00 |
| HSK50E×SKS16-90-HS | 90 | 63 | 40 | | - | M18～1.5P | 1.00 |
| HSK50E×SKS16-120-HS | 120 | 93 | | | | | 1.2 |

◎ 扳手另外购买 .

# SKS/UP 系列筒夹






- ●偏摆精度：5μ以下(延伸4D长度处)
- ●可夹持钻头、铣刀、铰刀
- ●所夹持刀具柄径公差限定h7以内
- ●孔径3mm以下弹性收缩0.25mm
- ●孔径3mm以上弹性收缩0.5mm

▶SKS6-UP

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS6-3-UP | 2.75～3.0 |
| SKS6-3.5-UP | 3.0～3.5 |
| SKS6-4-UP | 3.5～4.0 |
| SKS6-4.5-UP | 4.0～4.5 |
| SKS6-5-UP | 4.5～5.0 |
| SKS6-5.5-UP | 5.0～5.5 |
| SKS6-6-UP | 5.5～6.0 |

▶SKS10-UP

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS10-2-UP | 1.75～2.0 |
| SKS10-2.25-UP | 2.0～2.25 |
| SKS10-2.5-UP | 2.25～2.5 |
| SKS10-2.75-UP | 2.5～2.75 |
| SKS10-3-UP | 2.75～3.0 |
| SKS10-3.5-UP | 3.0～3.5 |
| SKS10-4-UP | 3.5～4.0 |
| SKS10-4.5-UP | 4.0～4.5 |
| SKS10-5-UP | 4.5～5.0 |
| SKS10-5.5-UP | 5.0～5.5 |
| SKS10-6-UP | 5.5～6.0 |
| SKS10-6.5-UP | 6.0～6.5 |
| SKS10-7-UP | 6.5～7.0 |
| SKS10-7.5-UP | 7.0～7.5 |
| SKS10-8-UP | 7.5～8.0 |
| SKS10-8.5-UP | 8.0～8.5 |
| SKS10-9-UP | 8.5～9.0 |
| SKS10-9.5-UP | 9.0～9.5 |
| SKS10-10-UP | 9.5～10.0 |

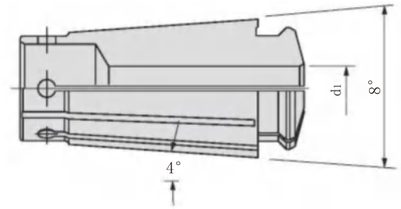
▶SKS13-UP

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS13-3-UP | 2.75～3.0 |
| SKS13-3.5-UP | 3.0～3.5 |
| SKS13-4-UP | 3.5～4.0 |
| SKS13-4.5-UP | 4.0～4.5 |
| SKS13-5-UP | 4.5～5.0 |
| SKS13-5.5-UP | 5.0～5.5 |
| SKS13-6-UP | 5.5～6.0 |
| SKS13-6.5-UP | 6.0～6.5 |
| SKS13-7-UP | 6.5～7.0 |
| SKS13-7.5-UP | 7.0～7.5 |
| SKS13-8-UP | 7.5～8.0 |
| SKS13-8.5-UP | 8.0～8.5 |
| SKS13-9-UP | 8.5～9.0 |
| SKS13-9.5-UP | 9.0～9.5 |
| SKS13-10-UP | 9.5～10.0 |
| SKS13-10.5-UP | 10.0～10.5 |
| SKS13-11-UP | 10.5～11.0 |
| SKS13-11.5-UP | 11.0～11.5 |
| SKS13-12-UP | 11.5～12.0 |
| SKS13-12.5-UP | 12.0～12.5 |
| SKS13-13-UP | 12.5～13.0 |



# SKS/UP 系列筒夹






- ●偏摆精度：5μ以下(延伸4D长度处)
- ●可夹持钻头、铣刀、铰刀
- ●所夹持刀具柄径公差限定h7以内
- ●孔径3mm以下弹性收缩0.25mm
- ●孔径3mm以上弹性收缩0.5mm

▶SKS16-UP

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS16-3-UP | 2.75～3.0 |
| SKS16-3.5-UP | 3.0～3.5 |
| SKS16-4-UP | 3.5～4.0 |
| SKS16-4.5-UP | 4.0～4.5 |
| SKS16-5-UP | 4.5～5.0 |
| SKS16-5.5-UP | 5.0～5.5 |
| SKS16-6-UP | 5.5～6.0 |
| SKS16-6.5-UP | 6.0～6.5 |
| SKS16-7-UP | 6.5～7.0 |
| SKS16-7.5-UP | 7.0～7.5 |
| SKS16-8-UP | 7.5～8.0 |
| SKS16-8.5-UP | 8.0～8.5 |
| SKS16-9-UP | 8.5～9.0 |
| SKS16-9.5-UP | 9.0～9.5 |
| SKS16-10-UP | 9.5～10.0 |
| SKS16-10.5-UP | 10.0～10.5 |
| SKS16-11-UP | 10.5～11.0 |
| SKS16-11.5-UP | 11.0～11.5 |
| SKS16-12-UP | 11.5～12.0 |
| SKS16-12.5-UP | 12.0～12.5 |
| SKS16-13-UP | 12.5～13.0 |
| SKS16-13.5-UP | 13.0～13.5 |
| SKS16-14-UP | 13.5～14.0 |
| SKS16-14.5-UP | 14.0～14.5 |
| SKS16-15-UP | 14.5～15.0 |
| SKS16-15.5-UP | 15.0～15.5 |
| SKS16-16-UP | 15.5～16.0 |

▶SKS20-UP

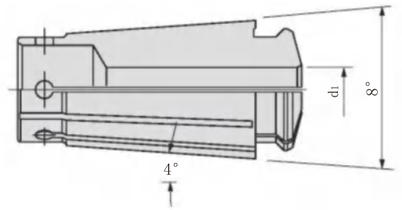
| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS20-4-UP | 3.5～4.0 |
| SKS20-4.5-UP | 4.0～4.5 |
| SKS20-5-UP | 4.5～5.0 |
| SKS20-5.5-UP | 5.0～5.5 |
| SKS20-6-UP | 5.5～6.0 |
| SKS20-6.5-UP | 6.0～6.5 |
| SKS20-7-UP | 6.5～7.0 |
| SKS20-7.5-UP | 7.0～7.5 |
| SKS20-8-UP | 7.5～8.0 |
| SKS20-8.5-UP | 8.0～8.5 |
| SKS20-9-UP | 8.5～9.0 |
| SKS20-9.5-UP | 9.0～9.5 |
| SKS20-10-UP | 9.5～10.0 |
| SKS20-10.5-UP | 10.0～10.5 |
| SKS20-11-UP | 10.5～11.0 |
| SKS20-11.5-UP | 11.0～11.5 |
| SKS20-12-UP | 11.5～12.0 |
| SKS20-12.5-UP | 12.0～12.5 |
| SKS20-13-UP | 12.5～13.0 |
| SKS20-13.5-UP | 13.0～13.5 |
| SKS20-14-UP | 13.5～14.0 |
| SKS20-14.5-UP | 14.0～14.5 |
| SKS20-15-UP | 14.5～15.0 |
| SKS20-15.5-UP | 15.0～15.5 |
| SKS20-16-UP | 15.5～16.0 |
| SKS20-16.5-UP | 16.0～16.5 |
| SKS20-17-UP | 16.5～17.0 |
| SKS20-17.5-UP | 17.0～17.5 |
| SKS20-18-UP | 17.5～18.0 |
| SKS20-18.5-UP | 18.0～18.5 |
| SKS20-19-UP | 18.5～19.0 |
| SKS20-19.5-UP | 19.0～19.5 |
| SKS20-20-UP | 19.5～20.0 |

▶SKS25-UP

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS25-3-UP | 2.75～3.0 |
| SKS25-4-UP | 3.5～4.0 |
| SKS25-6-UP | 5.5～6.0 |
| SKS25-8-UP | 7.5～8.0 |
| SKS25-10-UP | 9.5～10.0 |
| SKS25-12-UP | 11.5～12.0 |
| SKS25-16-UP | 15.5～16.0 |
| SKS25-16.5-UP | 16.0～16.5 |
| SKS25-17-UP | 16.5～17.0 |
| SKS25-17.5-UP | 17.0～17.5 |
| SKS25-18-UP | 17.5～18.0 |
| SKS25-18.5-UP | 18.0～18.5 |
| SKS25-19-UP | 18.5～19.0 |
| SKS25-19.5-UP | 19.0～19.5 |
| SKS25-20-UP | 19.5～20.0 |
| SKS25-20.5-UP | 20.0～20.5 |
| SKS25-21-UP | 20.5～21.0 |
| SKS25-21.5-UP | 21.0～21.5 |
| SKS25-22-UP | 21.5～22.0 |
| SKS25-22.5-UP | 22.0～22.5 |
| SKS25-23-UP | 22.5～23.0 |
| SKS25-23.5-UP | 23.0～23.5 |
| SKS25-24-UP | 23.5～24.0 |
| SKS25-24.5-UP | 24.0～24.5 |
| SKS25-25-UP | 24.5～25.0 |
| SKS25-25.4-UP | 25.0～25.4 |

## SKS/E..CO 止水筒夹






- ●偏摆精度：5μ
- ●可承受水压：21kgf/cm²
- ●具有更好的夹持力和刚性

▶SKS6E..CO

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS6E-3-CO | 3 |
| SKS6E-4-CO | 4 |
| SKS6E-6-CO | 6 |

▶SKS10E..CO

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS10E-3-CO | 3 |
| SKS10E-3.175-CO | 3.175 |
| SKS10E-4-CO | 4 |
| SKS10E-5-CO | 5 |
| SKS10E-6-CO | 6 |
| SKS10E-8-CO | 8 |
| SKS10E-10-CO | 10 |

▶SKS13E..CO

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS13E-3-CO | 3 |
| SKS13E-4-CO | 4 |
| SKS13E-5-CO | 5 |
| SKS13E-6-CO | 6 |
| SKS13E-8-CO | 8 |
| SKS13E-10-CO | 10 |
| SKS13E-12-CO | 12 |
| SKS13E-13-CO | 13 |

▶SKS16E..CO

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS16E-3-CO | 3 |
| SKS16E-3.175-CO | 3.175 |
| SKS16E-4-CO | 4 |
| SKS16E-5-CO | 5 |
| SKS16E-6-CO | 6 |
| SKS16E-8-CO | 8 |
| SKS16E-10-CO | 10 |
| SKS16E-12-CO | 12 |
| SKS16E-16-CO | 16 |

▶SKS20E..CO

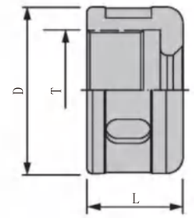
| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS20E-3-CO | 3 |
| SKS20E-4-CO | 4 |
| SKS20E-5-CO | 5 |
| SKS20E-6-CO | 6 |
| SKS20E-8-CO | 8 |
| SKS20E-10-CO | 10 |
| SKS20E-12-CO | 12 |
| SKS20E-16-CO | 16 |
| SKS20E-20-CO | 20 |

▶SKS25E..CO

| 型　号 Model | 夹持范围 $d_1$ Clamping Range |
|---|---|
| SKS25E-6-CO | 6 |
| SKS25E-8-CO | 8 |
| SKS25E-10-CO | 10 |
| SKS25E-12-CO | 12 |
| SKS25E-16-CO | 16 |
| SKS25E-20-CO | 20 |
| SKS25E-25-CO | 25 |
| SKS25E-25.4-CO | 25.4 |

## SKS 高速刀柄专用螺帽

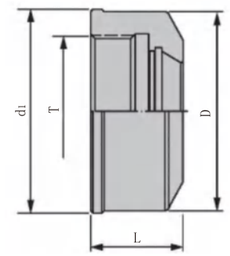





| 型　号 Model | L | D | T | 重量 (KGS) Weight |
|---|---|---|---|---|
| SKS6-P | 15 | 18 | M14×1.0P | 0.02 |
| SKS10-P | 17 | 30 | M21.5×1.0P | 0.04 |
| SKS13-P | 21 | 33 | M27×1.0P | 0.06 |
| SKS16-P | 24.5 | 40 | M32×1.0P | 0.06 |
| SKS20-P | 24 | 48.5 | M40×1.0P | 0.14 |
| SKS25-P | 30.5 | 55 | M45×1.0P | 0.1 |

## SKS/HS 高速刀柄专用螺帽

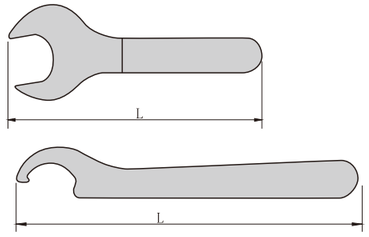





| 型　号 Model | L | D | $d_1$ | T | 重量 (KGS) Weight |
|---|---|---|---|---|---|
| SKS6-HS | 15 | 18 | 19 | M14×1.0P | 0.02 |
| SKS10-HS | 17 | 30 | 31 | M21.5×1.0P | 0.04 |
| SKS13-HS | 21 | 34 | 35 | M27×1.0P | 0.06 |
| SKS16-HS | 24.5 | 40 | 41 | M32×1.0P | 0.06 |
| SKS20-HS | 24 | 48 | 48.5 | M40×1.0P | 0.14 |
| SKS25-HS | 30.5 | 55 | 56 | M45×1.0P | 0.10 |

## SKS 扳手



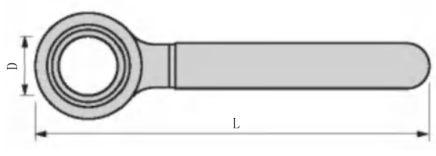



- ER16-HSP-W与SKS10-W共用
- ER25-HSP-W与SKS16-W、MLD-12、SLP-W共用
- MLD16-W与SKS20-W共用

| 型号 Model | L | Fig. | 重量 (KGS) Weight |
|---|---|---|---|
| SKS6-W | 120 | 1 | 0.22 |
| SKS10-W | 200 | 2 | 0.25 |
| SKS13-W | 220 | | 0.25 |
| SKS16-W | | | 0.30 |
| SKS20-W | | | 0.32 |
| SKS25-W | 235 | | 0.40 |

## SKS/WH 轴承扳手(无风阻)





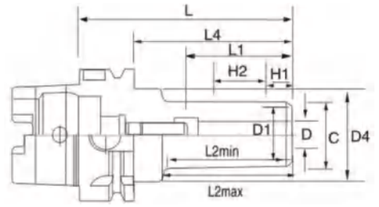

| 型号 Model | L | D | 重量 (KGS) Weight |
|---|---|---|---|
| SKS6-WH | 125 | 18 | 0.14 |
| SKS10-WH | 160 | 30 | 0.23 |
| SKS13-WH | 172 | 34 | 0.44 |
| SKS16-WH | 200 | 40 | 0.37 |
| SKS20-WH | 198 | 48 | 0.44 |
| SKS25-WH | 216 | 55 | 0.39 |



## HSK/HCG液压刀柄



- 跳动精度3um
- 力矩450NM
- 孔加工利器




| 型号 Model | D mm | D1 mm | C mm | D4 mm | L mm | L2max mm | L2min mm | L4 mm | 筒夹 | G | 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HSK63A×HCG6-70 | 6 | 25 | 28 | 50 | 70 | 37.5 | 27.5 | 44 | - | M5×0.8 | T4 |
| HSK63A×HCG8-70 | 8 | 27 | 30 | 50 | 70 | 37.5 | 27.5 | 44 | - | M6×1.0 | T4 |
| HSK63A×HCG10-80 | 10 | 29 | 32 | 50 | 80 | 42.5 | 32.5 | 54 | - | M8×1.0 | T4 |
| HSK63A×HCG12-85 | 12 | 31 | 34 | 50 | 85 | 47.5 | 37.5 | 59 | OHC12 | M8×1.0 | T4 |
| HSK63A×HCG14-85 | 14 | 33 | 36 | 50 | 85 | 47.5 | 37.5 | 64 | - | M8×1.0 | T4 |
| HSK63A×HCG16-90 | 16 | 35 | 38 | 50 | 90 | 52.5 | 42.5 | 64 | - | M8×1.0 | T4 |
| HSK63A×HCG18-90 | 18 | 38 | 41 | 50 | 90 | 52.5 | 42.5 | 64 | - | M8×1.0 | T4 |
| HSK63A×HCG20-90 | 20 | 40 | 43 | 50 | 90 | 52.5 | 42.5 | 64 | OHC20 | M10×1.0 | T4 |
| HSK63A×HCG25-120 | 25 | 53 | 57 | 63 | 120 | 57 | 47 | 94 | - | M16×1.0 | T5 |
| HSK63A×HCG32-125 | 32 | 60 | 64 | 75 | 125 | 61 | 51 | 99 | OHC32 | M16×1.0 | T5 |
| HSK100A×HCG12-95 | 12 | 31 | 34 | 50 | 95 | 47.5 | 37.5 | 33 | OHC12 | M8×1.0 | T4 |
| HSK100A×HCG20-105 | 20 | 40 | 43 | 50 | 105 | 52.5 | 42.5 | 76 | OHC20 | M10×1.0 | T4 |
| HSK100A×HCG25-110 | 25 | 53 | 57 | 63 | 110 | 61 | 51 | 81 | - | M16×1.0 | T5 |
| HSK100A×HCG32-110 | 32 | 60 | 63 | 75 | 110 | 65 | 55 | 81 | OHC32 | M16×1.0 | T5 |

◎ 液压系统应用刀具柄标准性

| 精　度 | 3-6 | 6.1-10 | 10.1-14 | 14.1-18 | 18.1-24 | 24.1-30 | 30.1-40 |
|---|---|---|---|---|---|---|---|
| H6 | 0-8UM | 0-9UM | 0-11UM | 0-11UM | 0-13UM | 0-13UM | 0-16UM |



# BT/HCG液压刀柄



◎ 跳动精度3um
◎ 力矩450NM
◎ 孔加工利器

Fig1.

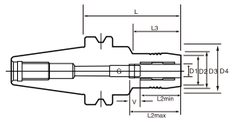
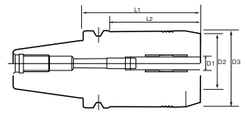



Fig2.




| 型号 Model | D1 mm | D2 mm | D3 mm | D4 mm | L mm | L2max mm | L2min mm | V | L3 mm | 筒夹 | G | 扳手 | Fig |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BT30×HCG6-70 | 6 | 25 | 28 | 45 | 70 | 37.5 | 27.5 | 10 | 28 | - | M5X0.8 | T4 | 1 |
| BT30×HCG8-70 | 8 | 27 | 30 | 45 | 70 | 37.5 | 27.5 | 10 | 28 | - | M6X1.0 | T4 | 1 |
| BT30×HCG10-75 | 10 | 29 | 32 | 45 | 75 | 42.5 | 32.5 | 10 | 38 | - | M8X1.0 | T4 | 1 |
| BT30×HCG12-75 | 12 | 31 | 34 | 45 | 75 | 47.5 | 37.5 | 10 | 34 | HCG12 | M8X1.0 | T4 | 1 |
| BT30×HCG14-85 | 14 | 33 | 36 | 45 | 85 | 47.5 | 37.5 | 10 | 44 | - | M8X1.0 | T4 | 1 |
| BT30×HCG16-90 | 16 | 35 | 38 | 45 | 90 | 52.5 | 42.5 | 10 | 46 | - | M10X1.0 | T4 | 1 |
| BT30×HCG18-90 | 18 | 38 | 41 | 45 | 90 | 52.5 | 42.5 | 10 | 48 | - | M10X1.0 | T4 | 1 |
| BT30×HCG20-90 | 20 | 40 | 43 | 45 | 90 | 52.5 | 42.5 | 10 | 46 | HCG20 | M10X1.0 | T4 | 1 |
| BT40×HCG6-90 | 6 | 25 | 28 | 50 | 90 | 37.5 | 27.5 | 10 | 44.5 | - | M5X0.8 | T4 | 1 |
| BT40×HCG8-90 | 8 | 27 | 30 | 50 | 90 | 37.5 | 27.5 | 10 | 44.5 | - | M6X1.0 | T4 | 1 |
| BT40×HCG10-90 | 10 | 29 | 32 | 50 | 90 | 42.5 | 32.5 | 10 | 44.5 | - | M8X1.0 | T4 | 1 |
| BT40×HCG12-90 | 12 | 31 | 34 | 50 | 90 | 47.5 | 37.5 | 10 | 44.5 | HCG12 | M8X1.0 | T4 | 1 |
| BT40×HCG14-90 | 14 | 33 | 36 | 50 | 90 | 47.5 | 37.5 | 10 | 44 | - | M8X1.0 | T4 | 1 |
| BT40×HCG16-90 | 16 | 35 | 38 | 50 | 90 | 52.5 | 42.5 | 10 | 48 | - | M10X1.0 | T4 | 1 |
| BT40×HCG18-95 | 18 | 38 | 41 | 50 | 95 | 52.5 | 42.5 | 10 | 48 | - | M10X1.0 | T4 | 1 |
| BT40×HCG20-90 | 20 | 40 | 43 | 50 | 90 | 52.5 | 42.5 | 10 | 48 | OHC20 | M10X1.0 | T4 | 1 |
| BT40×HCG25-100 | 25 | 53 | 57 | 50 | 100 | 61.0 | 51 | - | 73 | - | M16X1.0 | T5 | 2 |
| BT40×HCG32-105 | 32 | 60 | 63 | 50 | 105 | 65.0 | 55 | - | 78 | HCG32 | M16X1.0 | T5 | 2 |
| BT50×HCG6-90 | 6 | 25 | 28 | 50 | 90 | 37.5 | 27.5 | 10 | 32 | - | M5X0.8 | T4 | 1 |
| BT50×HCG8-90 | 8 | 27 | 30 | 50 | 90 | 37.5 | 27.5 | 10 | 32 | - | M6X1.0 | T4 | 1 |
| BT50×HCG10-90 | 10 | 29 | 32 | 50 | 90 | 42.5 | 32.5 | 10 | 32 | - | M6X1.0 | T4 | 1 |
| BT50×HCG12-90 | 12 | 31 | 34 | 50 | 90 | 47.5 | 37.5 | 10 | 32 | HCG12 | M8X1.0 | T4 | 1 |
| BT50×HCG14-90 | 14 | 33 | 36 | 50 | 90 | 47.5 | 37.5 | 10 | 32 | - | M8X1.0 | T4 | 1 |
| BT50×HCG16-90 | 16 | 35 | 38 | 50 | 90 | 52.5 | 42.5 | 10 | 32 | - | M10X1.0 | T4 | 1 |
| BT50×HCG18-90 | 18 | 38 | 41 | 50 | 90 | 52.5 | 42.5 | 10 | 32 | - | M10X1.0 | T4 | 1 |
| BT50×HCG20-90 | 20 | 40 | 43 | 50 | 90 | 52.5 | 42.5 | 10 | 32 | HCG20 | M10X1.0 | T4 | 1 |
| BT50×HCG25-105 | 25 | 53 | 57 | - | 105 | 61 | 51 | 10 | 67 | - | M16X1.0 | T5 | 2 |
| BT50×HCG32-115 | 32 | 60 | 63 | - | 115 | 65 | 55 | 10 | 77 | HCG32 | M16X1.0 | T5 | 2 |

☆刀柄附扳手，筒夹另购。

◎ 液压系统应用刀具柄标准性

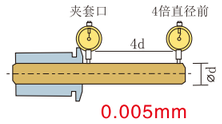
| 精　度 | 3-6 | 6.1-10 | 10.1-14 | 14.1-18 | 18.1-24 | 24.1-30 | 30.1-40 |
|---|---|---|---|---|---|---|---|
| H6 | 0-8UM | 0-9UM | 0-11UM | 0-11UM | 0-13UM | 0-13UM | 0-16UM |

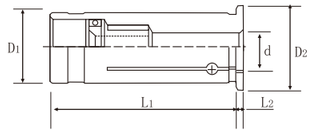


# HC 液压筒夹



◎ 高精度0.005mm
◎ 采用直身设计
◎ 适用于液压刀柄



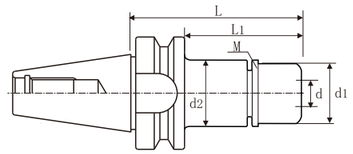




| 型号 Model | D1 mm | D2 mm | L1 mm | L2 mm | d mm |
|---|---|---|---|---|---|
| HCG12-3 | 12 | 16 | 44.5 | 2 | 3 |
| HCG12-4 | 12 | 16 | 44.5 | 2 | 4 |
| HCG12-5 | 12 | 16 | 44.5 | 2 | 5 |
| HCG12-6 | 12 | 16 | 44.5 | 2 | 6 |
| HCG12-7 | 12 | 16 | 44.5 | 2 | 7 |
| HCG12-8 | 12 | 16 | 44.5 | 2 | 8 |
| HCG20-3 | 20 | 24 | 50.5 | 2 | 3 |
| HCG20-4 | 20 | 24 | 50.5 | 2 | 4 |
| HCG20-5 | 20 | 24 | 50.5 | 2 | 5 |
| HCG20-6 | 20 | 24 | 50.5 | 2 | 6 |
| HCG20-7 | 20 | 24 | 50.5 | 2 | 7 |
| HCG20-8 | 20 | 24 | 50.5 | 2 | 8 |
| HCG20-9 | 20 | 24 | 50.5 | 2 | 9 |
| HCG20-10 | 20 | 24 | 50.5 | 2 | 10 |
| HCG20-11 | 20 | 24 | 50.5 | 2 | 11 |
| HCG20-12 | 20 | 24 | 50.5 | 2 | 12 |
| HCG20-13 | 20 | 24 | 50.5 | 2 | 13 |
| HCG20-14 | 20 | 24 | 50.5 | 2 | 14 |
| HCG20-15 | 20 | 24 | 50.5 | 2 | 15 |
| HCG20-16 | 20 | 24 | 50.5 | 2 | 16 |
| HCG32-6 | 32 | 36 | 60.5 | 3 | 6 |
| HCG32-8 | 32 | 36 | 60.5 | 3 | 8 |
| HCG32-10 | 32 | 36 | 60.5 | 3 | 10 |
| HCG32-12 | 32 | 36 | 60.5 | 3 | 12 |
| HCG32-14 | 32 | 36 | 60.5 | 3 | 14 |
| HCG32-16 | 32 | 36 | 60.5 | 3 | 16 |
| HCG32-18 | 32 | 36 | 60.5 | 3 | 18 |
| HCG32-20 | 32 | 36 | 60.5 | 3 | 20 |
| HCG32-25 | 32 | 36 | 60.5 | 3 | 25 |

## BT/SKP 高速刀柄



G2.5 40000RPM




◎SK筒夹（4°），重复装夹精度更高
◎全圆螺帽，噪音低、风阻小

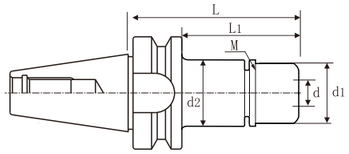
| 型号 Model | 把握直径 d mm | d1 mm | d2 mm | L mm | L1 mm | M | 螺帽 Nut | 筒夹 Collet | 筒夹拆卸器 Collet Puller | 扳手 Wrench | 重量 KGS | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BT30×SKP6-60 | 2.0-6.0 | 19.5 | 20.0 | 60 | 38 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 0.7 | ▲ |
| BT30×SKP6-75 | 2.0-6.0 | 19.5 | 20.0 | 75 | 53 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 0.8 | ▲ |
| BT30×SKP6-90 | 2.0-6.0 | 19.5 | 20.0 | 90 | 68 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 0.7 | ▲ |
| BT30×SKP10-60 | 3.0-10.0 | 27.1 | 27.6 | 60 | 38 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 0.9 | ▲ |
| BT30×SKP10-75 | 3.0-10.0 | 27.1 | 27.6 | 75 | 53 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 0.9 | ▲ |
| BT30×SKP10-90 | 3.0-10.0 | 27.1 | 27.6 | 90 | 68 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.0 | ▲ |
| BT30×SKP10-120 | 3.0-10.0 | 27.1 | 27.6 | 120 | 98 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.1 | ▲ |
| BT30×SKP13-60 | 3.0-13.0 | 33 | 33.5 | 60 | 38 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.15 | ▲ |
| BT30×SKP13-75 | 3.0-13.0 | 33 | 33.5 | 75 | 53 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.2 | ▲ |
| BT30×SKP13-90 | 3.0-13.0 | 33 | 33.5 | 90 | 68 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.25 | ▲ |
| BT30×SKP13-120 | 3.0-13.0 | 33 | 33.5 | 120 | 98 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.35 | ▲ |
| BT30×SKP16-60 | 3.0-16.0 | 40 | 40.5 | 60 | 38 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.1 | ▲ |
| BT30×SKP16-75 | 3.0-16.0 | 40 | 40.5 | 75 | 53 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.1 | ▲ |
| BT30×SKP16-90 | 3.0-16.0 | 40 | 40.5 | 90 | 68 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.2 | ▲ |
| BT30×SKP16-120 | 3.0-16.0 | 40 | 40.5 | 120 | 98 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.5 | ▲ |
| BT30×SKP20-60 | 4.0-20.0 | 48 | 48.5 | 60 | 38 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.5 | ▲ |
| BT30×SKP20-75 | 4.0-20.0 | 48 | 48.5 | 75 | 53 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.25 | ▲ |
| BT30×SKP20-90 | 4.0-20.0 | 48 | 48.5 | 90 | 68 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.3 | ▲ |
| BT30×SKP20-120 | 4.0-20.0 | 48 | 48.5 | 120 | 98 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.45 | ▲ |



BT/SKP 高速刀柄



G2.5 40000RPM



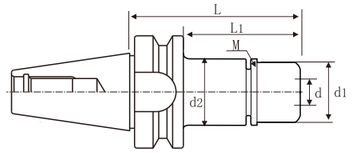

◎SK筒夹（4°），重复装夹精度更高
◎全圆螺帽，噪音低、风阻小

| 型号 Model | 把握直径 d mm | d1 mm | d2 mm | L mm | L1 mm | M | 螺帽 Nut | 筒夹 Collet | 筒夹拆卸器 Collet Puller | 扳手 Wrench | 重量 KGS | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BT40×SKP6-60 | 2.0-6.0 | 19.5 | 20.0 | 60 | 33 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 0.9 | ▲ |
| BT40×SKP6-75 | 2.0-6.0 | 19.5 | 20.0 | 75 | 48 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 1.0 | ▲ |
| BT40×SKP6-90 | 2.0-6.0 | 19.5 | 20.0 | 90 | 63 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 1.1 | ▲ |
| BT40×SKP6-120 | 2.0-6.0 | 19.5 | 20.0 | 120 | 93 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 1.3 | ▲ |
| BT40×SKP10-60 | 3.0-10.0 | 27.1 | 27.6 | 60 | 33 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.1 | ▲ |
| BT40×SKP6-120 | 2.0-6.0 | 19.5 | 20.0 | 120 | 93 | M15.5X1.0 | HN-SKP6 | SK6 | CX6 | GH19 | 1.3 | ▲ |
| BT40×SKP10-60 | 3.0-10.0 | 27.1 | 27.6 | 60 | 33 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.1 | ▲ |
| BT40×SKP10-75 | 3.0-10.0 | 27.1 | 27.6 | 75 | 48 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.2 | ▲ |
| BT40×SKP10-90 | 3.0-10.0 | 27.1 | 27.6 | 90 | 63 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.2 | ▲ |
| BT40×SKP10-120 | 3.0-10.0 | 27.1 | 27.6 | 120 | 93 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.4 | ▲ |
| BT40×SKP10-150 | 3.0-10.0 | 27.1 | 27.6 | 150 | 123 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 1.4 | ▲ |
| BT40×SKP13-60 | 3.0-13.0 | 33 | 33.5 | 60 | 33 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.3 | ▲ |
| BT40×SKP13-75 | 3.0-13.0 | 33 | 33.5 | 75 | 48 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.5 | ▲ |
| BT40×SKP13-90 | 3.0-13.0 | 33 | 33.5 | 90 | 63 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.5 | ▲ |
| BT40×SKP13-150 | 3.0-13.0 | 33 | 33.5 | 150 | 123 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 1.6 | ▲ |
| BT40×SKP16-60 | 3.0-16.0 | 40 | 40.5 | 60 | 33 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.35 | ▲ |
| BT40×SKP16-75 | 3.0-16.0 | 40 | 40.5 | 75 | 48 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.4 | ▲ |
| BT40×SKP16-90 | 3.0-16.0 | 40 | 40.5 | 90 | 63 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.5 | ▲ |
| BT40×SKP16-120 | 3.0-16.0 | 40 | 40.5 | 120 | 93 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.7 | ▲ |
| BT40×SKP16-150 | 3.0-16.0 | 40 | 40.5 | 150 | 123 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 1.8 | ▲ |
| BT40×SKP20-75 | 4.0-20.0 | 48 | 48.5 | 75 | 48 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.8 | ▲ |
| BT40×SKP20-90 | 4.0-20.0 | 48 | 48.5 | 90 | 63 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.8 | ▲ |
| BT40×SKP20-120 | 4.0-20.0 | 48 | 48.5 | 120 | 93 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 1.8 | ▲ |
| BT40×SKP25-90 | 6.0-25.0 | 55 | 55.5 | 90 | 63 | M45X1.5 | HN-SKP25 | SK25 | CX25 | GH55 | 1.8 | ▲ |
| BT40×SKP25-120 | 6.0-25.0 | 55 | 55.5 | 120 | 93 | M45X1.5 | HN-SKP25 | SK25 | CX25 | GH55 | 2.0 | ▲ |

## BT/SKP 高速刀柄



G2.5 20000RPM



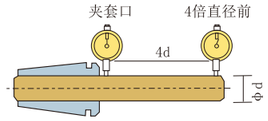

◎SK筒夹（4°），重复装夹精度更高
◎全圆螺帽，噪音低、风阻小

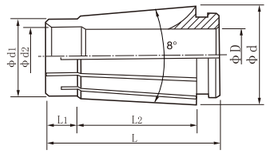
| 型号 Model | 把握直径 d mm | d1 mm | d2 mm | L mm | L1 mm | M | 螺帽 Nut | 筒夹 Collet | 筒夹拆卸器 Collet Puller | 扳手 Wrench | 重量 KGS | 库存 Stock |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BT50×SKP10-105 | 3.0-10.0 | 27.1 | 27.6 | 105 | 67 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 4.2 | ▲ |
| BT50×SKP10-135 | 3.0-10.0 | 27.1 | 27.6 | 135 | 97 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 4.4 | ▲ |
| BT50×SKP10-165 | 3.0-10.0 | 27.1 | 27.6 | 165 | 127 | M21.5X1.0 | HN-SKP10 | SK10 | CX10 | GH27 | 4.6 | ▲ |
| BT50×SKP13-105 | 3.0-13.0 | 33 | 33.5 | 105 | 67 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 4.5 | ▲ |
| BT50×SKP13-135 | 3.0-13.0 | 33 | 33.5 | 135 | 97 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 4.6 | ▲ |
| BT50×SKP13-165 | 3.0-13.0 | 33 | 33.5 | 165 | 127 | M27X1.0 | HN-SKP13 | SK13 | CX13 | GH33 | 4.6 | ▲ |
| BT50×SKP16-105 | 3.0-16.0 | 40 | 40.5 | 105 | 67 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 4.7 | ▲ |
| BT50×SKP16-135 | 3.0-16.0 | 40 | 40.5 | 135 | 97 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 4.9 | ▲ |
| BT50×SKP16-165 | 3.0-16.0 | 40 | 40.5 | 165 | 127 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 4.9 | ▲ |
| BT50×SKP16-200 | 3.0-16.0 | 40 | 40.5 | 200 | 162 | M32X1.5 | HN-SKP16 | SK16 | CX16 | GH40 | 5.0 | ▲ |
| BT50×SKP20-105 | 4.0-20.0 | 48 | 48.5 | 105 | 67 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 5.1 | ▲ |
| BT50×SKP20-135 | 4.0-20.0 | 48 | 48.5 | 135 | 97 | M40X1.5 | HN-SKP20 | Sk20 | CX20 | GH48 | 5.1 | ▲ |
| BT50×SKP20-165 | 4.0-20.0 | 48 | 48.5 | 165 | 127 | M40X1.5 | HN-SKP20 | Sk20 | CX20 | GH48 | 5.2 | ▲ |
| BT50×SKP20-200 | 4.0-20.0 | 48 | 48.5 | 200 | 162 | M40X1.5 | HN-SKP20 | SK20 | CX20 | GH48 | 5.2 | ▲ |
| BT50×SKP25-105 | 6.0-25.0 | 55 | 55.5 | 105 | 67 | M45X1.5 | HN-SKP25 | SK25 | CX25 | GH55 | 5.2 | ▲ |
| BT50×SKP25-135 | 6.0-25.0 | 55 | 55.5 | 135 | 97 | M45X1.5 | HN-SKP25 | Sk25 | CX25 | GH55 | 5.5 | ▲ |
| BT50×SKP25-165 | 6.0-25.0 | 55 | 55.5 | 165 | 127 | M45X1.5 | HN-SKP25 | SK25 | CX25 | GH55 | 5.6 | ▲ |
| BT50×SKP25-200 | 6.0-25.0 | 55 | 55.5 | 200 | 162 | M45X1.5 | HN-SKP25 | SK25 | CX25 | GH55 | 5.8 | ▲ |

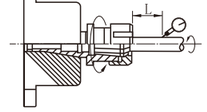


## SK 弹性筒夹






| 型 号 Model | d mm | d1 mm | L mm | L1 mm | L2 mm |
|---|---|---|---|---|---|
| SK6 | 10.4 | 7.5 | 25 | 3.8 | 17.4 |
| SK10 | 15.5 | 12 | 30.5 | 5.0 | 21.3 |
| SK13 | - | - | - | - | - |
| SK16 | 24.6 | 18.8 | 45 | 8.0 | 32 |
| SK20 | - | - | - | - | - |
| SK25 | 35.6 | 28.9 | 57 | 8.5 | 43 |

| 型 号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK6-0.8 | 0.75~0.8 | ▲ |
| SK6-1 | 0.9~1.0 | ▲ |
| SK6-1.25 | 1.15~1.25 | ▲ |
| SK6-1.5 | 1.3~1.5 | ▲ |
| SK6-1.75 | 1.55~1.75 | ▲ |
| SK6-2 | 1.8~2.0 | ▲ |
| SK6-2.25 | 2.05~2.25 | ▲ |
| SK6-2.5 | 2.3~2.5 | ▲ |
| SK6-2.75 | 2.55~2.75 | ▲ |
| SK6-3 | 2.8~3.0 | ▲ |
| SK6-3.5 | 3.0~3.5 | ▲ |
| SK6-4 | 3.5~4.0 | ▲ |
| SK6-4.5 | 4.0~4.5 | ▲ |
| SK6-5 | 4.5~5.0 | ▲ |
| SK6-5.5 | 5.0~5.5 | ▲ |
| SK6-6 | 5.5~6.0 | ▲ |

| 型 号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK10-2 | 1.75~2.0 | ▲ |
| SK10-2.25 | 2.0~2.25 | ▲ |
| SK10-2.5 | 2.25~2.5 | ▲ |
| SK10-2.75 | 2.5~2.75 | ▲ |
| SK10-3 | 2.75~3.0 | ▲ |
| SK10-3.5 | 3.0~3.5 | ▲ |
| SK10-4 | 3.5~4.0 | ▲ |
| SK10-4.5 | 4.0~4.5 | ▲ |
| SK10-5 | 4.5~5.0 | ▲ |
| SK10-5.5 | 5.0~5.5 | ▲ |
| SK10-6 | 5.5~6.0 | ▲ |
| SK10-6.5 | 6.0~6.5 | ▲ |
| SK10-7 | 6.5~7.0 | ▲ |
| SK10-7.5 | 7.0~7.5 | ▲ |
| SK10-8 | 7.5~8.0 | ▲ |
| SK10-8.5 | 8.0~8.5 | ▲ |
| SK10-9 | 8.5~9.0 | ▲ |
| SK10-9.5 | 9.0~9.5 | ▲ |
| SK10-10 | 9.5~10.0 | ▲ |

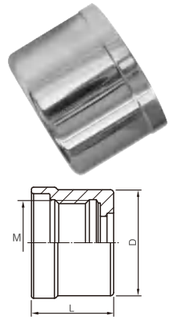
| 型 号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK13-3 | 2.5~3.0 | ▲ |
| SK13-4 | 3.5~4.0 | ▲ |
| SK13-5 | 4.5~5.0 | ▲ |
| SK13-6 | 5.5~6.0 | ▲ |
| SK13-7 | 6.5~7.0 | ▲ |
| SK13-8 | 7.5~8.0 | ▲ |
| SK13-9 | 8.5~9.0 | ▲ |
| SK13-10 | 9.5~10.0 | ▲ |
| SK13-11 | 10.5~11.0 | ▲ |
| SK13-12 | 11.5~12.0 | ▲ |
| SK13-13 | 12.5~13.0 | ▲ |

| 型　号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK16-3 | 2.75~3.0 | ▲ |
| SK16-3.5 | 3.0~3.5 | ▲ |
| SK16-4 | 3.5~4.0 | ▲ |
| SK16-4.5 | 4.0~4.5 | ▲ |
| SK16-5 | 4.5~5.0 | ▲ |
| SK16-5.5 | 5.0~5.5 | ▲ |
| SK16-6 | 5.5~6.0 | ▲ |
| SK16-6.5 | 6.0~6.5 | ▲ |
| SK16-7 | 6.5~7.0 | ▲ |
| SK16-7.5 | 7.0~7.5 | ▲ |
| SK16-8 | 7.5~8.0 | ▲ |
| SK16-8.5 | 8.0~8.5 | ▲ |
| SK16-9 | 8.5~9.0 | ▲ |
| SK16-9.5 | 9.0~9.5 | ▲ |
| SK16-10 | 9.5~10.0 | ▲ |
| SK16-10.5 | 10.0~10.5 | ▲ |
| SK16-11 | 10.5~11.0 | ▲ |
| SK16-11.5 | 11.0~11.5 | ▲ |
| SK16-12 | 11.5~12.0 | ▲ |
| SK16-12.5 | 12.0~12.5 | ▲ |
| SK16-13 | 125~13.0 | ▲ |
| SK16-13.5 | 13.0~13.5 | ▲ |
| SK16-14 | 13.5~14.0 | ▲ |
| SK16-14.5 | 14.0~14.5 | ▲ |
| SK16-15 | 14.5~15.0 | ▲ |
| SK16-15.5 | 15.0~15.5 | ▲ |
| SK16-16 | 15.5~16.0 | ▲ |

| 型　号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK20-4 | 3.5~4.0 | ▲ |
| SK20-5 | 4.5~5.5 | ▲ |
| SK20-6 | 5.5~6.0 | ▲ |
| SK20-7 | 6.5~7.0 | ▲ |
| SK20-8 | 7.5~8.0 | ▲ |
| SK20-9 | 8.5~9.0 | ▲ |
| SK20-10 | 9.5~10.0 | ▲ |
| SK20-11 | 10.5~11.0 | ▲ |
| SK20-12 | 11.5~12.0 | ▲ |
| SK20-13 | 125~13.0 | ▲ |
| SK20-14 | 13.5~14.0 | ▲ |
| SK20-15 | 14.5~15.0 | ▲ |
| SK20-16 | 15.5~16.0 | ▲ |
| SK20-17 | 16.5~17.0 | ▲ |
| SK20-18 | 17.5~18.0 | ▲ |
| SK20-19 | 18.5~19.0 | ▲ |
| SK20-20 | 19.5~20.0 | ▲ |

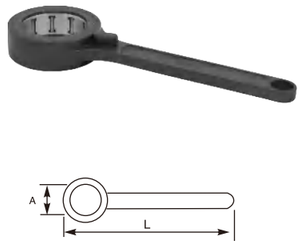
| 型　号 Model | 把握直径 Chucking Dia | 库存 Stock |
|---|---|---|
| SK25-6 | 5.5~6.0 | ▲ |
| SK25-8 | 7.5~8.0 | ▲ |
| SK25-10 | 9.5~10.0 | ▲ |
| SK25-12 | 11.5~12.0 | ▲ |
| SK25-16 | 15.5~16.0 | ▲ |
| SK25-16.5 | 16.0~16.5 | ▲ |
| SK25-17 | 16.5~17.0 | ▲ |
| SK25-17.5 | 17.0~17.5 | ▲ |
| SK25-18 | 17.5~18.0 | ▲ |
| SK25-18.5 | 18.0~18.5 | ▲ |
| SK25-19 | 18.5~19.0 | ▲ |
| SK25-19.5 | 19.0~19.5 | ▲ |
| SK25-20 | 19.5~20.0 | ▲ |
| SK25-20.5 | 20.0~20.5 | ▲ |
| SK25-21 | 20.5~21.0 | ▲ |
| SK25-21.5 | 21.0~21.5 | ▲ |
| SK25-22 | 21.5~22.0 | ▲ |
| SK25-22.5 | 22.0~22.5 | ▲ |
| SK25-23 | 22.5~23.0 | ▲ |
| SK25-23.5 | 23.0~23.5 | ▲ |
| SK25-24 | 23.5~24.0 | ▲ |
| SK25-24.5 | 24.0~24.5 | ▲ |
| SK25-25 | 24.5~25.0 | ▲ |
| SK25-25.4 | 25.0~25.4 | ▲ |

## SKP 高速螺帽




| 型　号 Model | D mm | L mm | M | 锁紧扳手 Wrench | 库存 Stock |
|---|---|---|---|---|---|
| HN-SKP6 | 19.5 | 21.3 | M15.5X1.0 | SKP6 | ▲ |
| HN-SKP10 | 27.1 | 24 | M21.5X1.0 | SKP10 | ▲ |
| HN-SKP13 | 33 | 24 | M27X1.0 | SKP13 | ▲ |
| HN-SKP16 | 40 | 31 | M32X1.5 | SKP16 | ▲ |
| HN-SKP20 | 48 | 50 | M40X1.0 | SKP20 | ▲ |
| HN-SKP25 | 55 | 37.5 | M45X1.5 | SKP25 | ▲ |

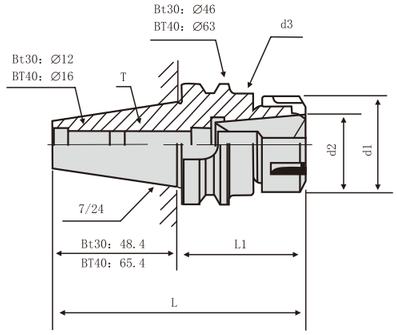
## G型扳手




| 型　号 Model | A mm | L mm | 重量 KGS | 库存 Stock |
|---|---|---|---|---|
| GH19 | 19.5 | 120 | 0.24 | ▲ |
| GH25 | 25 | 135 | 0.30 | ▲ |
| GH27 | 27.1 | 135 | 0.35 | ▲ |
| GH30 | 30 | 150 | 0.70 | ▲ |
| GH33 | 33 | 160 | 0.75 | ▲ |
| GH35 | 35 | 170 | 0.11 | ▲ |
| GH40 | 40 | 180 | 0.29 | ▲ |
| GH48 | 48 | 210 | 0.39 | ▲ |
| GH55 | 55 | 300 | 0.38 | ▲ |

# BT/ER弹性夹头






●螺帽动平衡设计，可在RPM10,000下使用。
●筒夹样式有弹性、止水、刚性攻牙、伸缩攻牙、极小内孔可供选择。
弹性筒夹偏摆精度有A级（0.02mm以内），AA级（0.01mm以内），
AAA（0.05mm以内）。
●装置时必须先把筒夹置入螺帽，再装入刀具，接着一起放入本体。
●刀具置入筒夹内孔，必须超出有效夹持长度，避免不当锁固，造成损坏。

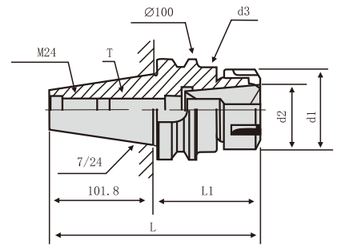
扳手另外购买

| 型　号<br>Model | $l_1$<br>mm | L<br>mm | $d_1$<br>mm | $d_2$<br>ER | $d_3$<br>mm | T | 重量<br>(KGS) |
|---|---|---|---|---|---|---|---|
| BT30×ER16-70 | 70 | 118.4 | 28 | 16 | 28 | M10×1.5P | 0.55 |
| BT30×ER16-100 | 100 | 148.4 | 28 | 16 | 28 | M10×1.5P | 0.70 |
| BT30×ER20-70 | 70 | 118.4 | 34 | 20 | 34 | M12×1.75P | 0.62 |
| BT30×ER20-100 | 100 | 148.4 | 34 | 20 | 34 | M12×1.75P | 0.80 |
| BT30×ER25-70 | 70 | 118.4 | 42 | 25 | 42 | M16×2.0P | 0.70 |
| BT30×ER32-70 | 70 | 118.4 | 50 | 32 | 45 | M16×2.0P | 0.70 |
| BT30×ER32-100 | 100 | 148.4 | 50 | 32 | 45 | M16×2.0P | 1.00 |
| BT30×ER40-80 | 80 | 128.4 | 63 | 40 | 53 | M16×2.0P | 1.10 |
| BT40×ER16-70 | 70 | 135.4 | 28 | 16 | 28 | M10×1.5P | 1.20 |
| BT40×ER16-100 | 100 | 165.4 | 28 | 16 | 28 | M10×1.5P | 1.30 |
| BT40×ER16-150 | 150 | 215.4 | 28 | 16 | 28 | M10×1.5P | 1.54 |
| BT40×ER20-70 | 70 | 135.4 | 34 | 20 | 34 | M12×1.75P | 1.20 |
| BT40×ER20-100 | 100 | 170.4 | 34 | 20 | 34 | M12×1.75P | 1.80 |
| BT40×ER20-135 | 135 | 200.4 | 34 | 20 | 34 | M12×1.75P | 1.70 |
| BT40×ER20-150 | 150 | 215.4 | 34 | 20 | 34 | M12×1.75P | 1.80 |
| BT40×ER25-70 | 70 | 135.4 | 42 | 25 | 42 | M16×2.0P | 1.30 |
| BT40×ER25-100 | 100 | 155.4 | 42 | 25 | 42 | M16×2.0P | 1.50 |
| BT40×ER25-150 | 150 | 215.4 | 42 | 25 | 42 | M16×2.0P | 2.10 |
| BT40×ER32-70 | 70 | 135.4 | 50 | 32 | 50 | M16×2.0P | 1.30 |
| BT40×ER32-100 | 100 | 165.4 | 50 | 32 | 50 | M16×2.0P | 1.70 |
| BT40×ER32-150 | 150 | 215.4 | 50 | 32 | 50 | M16×2.0P | 2.50 |
| BT40×ER40-80 | 80 | 145.4 | 63 | 40 | 63 | M20×2.0P | 1.50 |
| BT40×ER40-100 | 100 | 165.4 | 63 | 40 | 63 | M20×2.0P | 2.00 |
| BT40×ER40-150 | 150 | 215.4 | 63 | 40 | 63 | M20×2.0P | 3.10 |



# BT/ER 弹性夹头



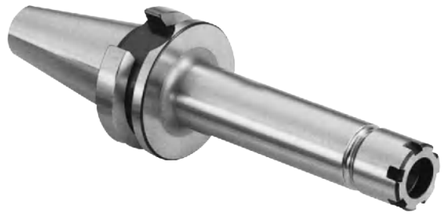


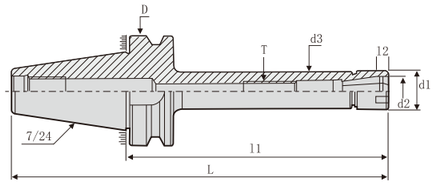

●螺帽动平衡设计,可在RPM10,000下使用。
●筒夹样式有弹性、止水、刚性攻牙、伸缩攻牙、极小内孔可供选择。
弹性筒夹偏摆精度有A级（0.02mm以内），AA级（0.01mm以内），
AAA（0.005mm以内）。
●装置时必须先把筒夹置入螺帽，再装入刀具，接着一起放入本体。
●刀具置入筒夹内孔，必需超出有效夹持长度，避免不当锁固，造成
损坏。

扳手另外购买

| 型号<br>Model | $l_1$<br>mm | L<br>mm | $d_1$<br>mm | $d_2$<br>ER | $d_3$<br>mm | T | 重量<br>(KGS) |
|---|---|---|---|---|---|---|---|
| BT50×ER16-90 | 90 | 191.8 | 28 | 16 | 28 | M10×1.5P | 4.20 |
| BT50×ER16-105 | 105 | 206.8 | 28 | 16 | 28 | M10×1.5P | 4.30 |
| BT50×ER16-135 | 135 | 236.8 | 28 | 16 | 28 | M10×1.5P | 4.40 |
| BT50×ER16-165 | 165 | 266.8 | 28 | 16 | 28 | M10×1.5P | 4.50 |
| BT50×ER20-90 | 90 | 191.8 | 34 | 20 | 34 | M12×1.75P | 4.25 |
| BT50×ER20-105 | 105 | 206.8 | 34 | 20 | 34 | M12×1.75P | 4.30 |
| BT50×ER20-135 | 135 | 236.8 | 34 | 20 | 34 | M12×1.75P | 4.55 |
| BT50×ER20-165 | 165 | 266.8 | 34 | 20 | 34 | M12×1.75P | 4.80 |
| BT50×ER20-200 | 200 | 301.8 | 34 | 20 | 34 | M12×1.75P | 4.90 |
| BT50×ER25-105 | 105 | 206.8 | 42 | 25 | 42 | M16×2.0P | 4.40 |
| BT50×ER25-135 | 135 | 236.8 | 42 | 25 | 42 | M16×2.0P | 4.70 |
| BT50×ER25-165 | 165 | 266.8 | 42 | 25 | 42 | M16×2.0P | 5.00 |
| BT50×ER25-200 | 200 | 301.8 | 42 | 25 | 42 | M16×2.0P | - |
| BT50×ER25-250 | 250 | 351.8 | 42 | 25 | 42 | M16×2.0P | - |
| BT50×ER25-300 | 300 | 401.8 | 42 | 25 | 42 | M16×2.0P | - |
| BT50×ER32-80 | 80 | 181.8 | 50 | 32 | 50 | M16×2.0P | 4.70 |
| BT50×ER32-100 | 100 | 201.8 | 50 | 32 | 50 | M16×2.0P | 4.80 |
| BT50×ER32-150 | 150 | 251.8 | 50 | 32 | 50 | M16×2.0P | 5.30 |
| BT50×ER32-200 | 200 | 301.8 | 50 | 32 | 50 | M16×2.0P | 5.50 |
| BT50×ER32-250 | 250 | 351.8 | 50 | 32 | 50 | M16×2.0P | - |
| BT50×ER32-300 | 300 | 401.8 | 50 | 32 | 50 | M16×2.0P | - |
| BT50×ER40-100 | 100 | 201.8 | 63 | 40 | 63 | M20×2.0P | 4.64 |
| BT50×ER40-150 | 150 | 251.8 | 63 | 40 | 63 | M20×2.0P | 5.68 |
| BT50×ER40-200 | 200 | 301.8 | 63 | 40 | 63 | M20×2.0P | - |

## M型 BT/ER 弹性夹头






- 前端采用小径螺帽，避免干涉。
- 本体与螺帽皆为标准平衡G 6.3 8000rpm(全研磨)

| 型号 Model | L mm | $l_2$ mm | D mm | $d_1$ mm | $d_2$ ER | $d_3$ mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| BT30×ER11M-70 | 118.4 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 0.50 |
| BT30×ER11M-100 | 148.4 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 0.60 |
| BT30×ER16M-70 | 118.4 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 0.55 |
| BT30×ER16M-100 | 148.4 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 0.65 |
| BT30×ER20M-100 | 148.4 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 0.70 |
| BT40×ER11M-70 | 135.4 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 1.10 |
| BT40×ER11M-100 | 165.4 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 1.20 |
| BT40×ER11M-150 | 215.4 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 1.50 |
| BT40×ER16M-70 | 135.4 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 1.20 |
| BT40×ER16M-100 | 165.4 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 1.30 |
| BT40×ER16M-150 | 215.4 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 1.60 |
| BT40×ER20M-70 | 135.4 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 1.20 |
| BT40×ER20M-100 | 165.4 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 1.55 |
| BT40×ER20M-150 | 215.4 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 1.80 |
| BT50×ER11M-105 | 206.8 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 4.00 |
| BT50×ER11M-165 | 266.8 | 6.6 | 46 | 16 | 11 | 15 | M6×1.0P | 4.20 |
| BT50×ER16M-105 | 206.8 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 4.10 |
| BT50×ER16M-165 | 266.8 | 10.6 | 46 | 22 | 16 | 21 | M10×1.5P | 4.30 |
| BT50×ER20M-105 | 206.8 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 4.20 |
| BT50×ER20M-165 | 266.8 | 11.5 | 46 | 28 | 20 | 27 | M12×1.75P | 4.60 |

## 单项型 强力扳手（ER/M型螺帽专用）



**特 点**

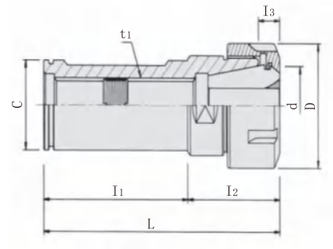
适用ER8\ER11螺帽
螺帽锁紧及关起可达百分之百轻松及不易脱落

| 规 格 | 重量 (KGS) |
|---|---|
| SP-ER8M | |
| SP-ER11M | |



## NC/ER夹头柄(车床用)



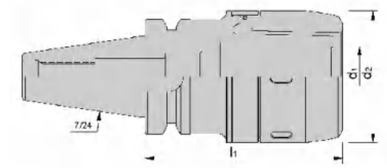



- CNC车床用夹头柄-NC型式。
- 搭配筒夹或止水螺帽加止水环，用于附水孔刀具夹持。

| 型号 Model Cxd-$l_1$ | L mm | $l_2$ mm | $l_3$ mm | D mm | $t_1$ | 重量 (KGS) |
|---|---|---|---|---|---|---|
| C32×NC/ER25-60 | 97 | 37 | 12 | 42 | M18×1.5P | 0.70 |
| C32×NC/ER32-60 | 103 | 43 | 13 | 50 | M22×1.5P | 0.75 |
| C40×NC/ER32-80 | 118 | 38 | 13 | 50 | M22×1.5P | 1.25 |
| C40×NC/ER40-75 | 135 | 60 | 15 | 63 | M28×1.5P | 1.30 |
| C45×NC/ER32-120 | 178 | 58 | 13 | 50 | M22×1.5P | 1.60 |
| C45×NC/ER40-120 | 180 | 60 | 15 | 63 | M28×1.5P | 1.65 |
| 1-1/4" ×NC/ER25-60 | 97 | 37 | 12 | 42 | M18×1.5P | 0.70 |
| 1-1/4" ×NC/ER32-60 | 103 | 43 | 13 | 50 | M22×1.5P | 0.75 |
| 1-1/4" ×NC/ER40-60 | 120 | 60 | 15 | 63 | M28×1.5P | 0.84 |
| 1-1/4" ×NC/ER32-80 | 118 | 38 | 13 | 50 | M22×1.5P | 1.25 |
| 1-1/4" ×NC/ER40-75 | 135 | 60 | 15 | 63 | M28×1.5P | 1.30 |

## BT/MLK强力铣削夹头



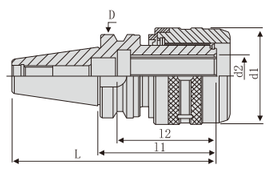


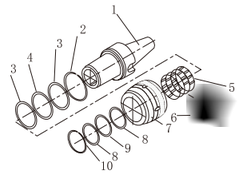

- 强大的夹持力保证新型强力铣削夹头刀柄可被用于重型切削，加工精度高。
- 通过吸收加工过程中产生的震动，夹持力得到了改善。
- 通过防止灰尘，切屑和冷却液的进入，刀具的耐用性得到了改善。
- 装卸平滑。

| 型号 Model Cxd-$l_1$ | $d_1$ mm | $d_2$ mm | $l_1$ mm | 筒夹 mm | 重量 (KGS) |
|---|---|---|---|---|---|
| BT40-MLK32-105 | 32 | 32 | 105 | SSC32 | - |
| BT50-MLK32-110 | 32 | 32 | 110 | SSC32 | - |

## BT/MLC直筒式强力型夹头






| 订购编号 | NO | 零件名称 |
|---|---|---|
| 15950-01 | 1 | 本体 |
| 15936-02 | 2 | 同心扣环 |
| 15936-03 | 3 | 垫片 |
| 15936-04 | 4 | 平面油封 |
| 15936-05 | 5 | 轴承钢 |
| 15936-06 | 6 | 滚针 |
| 15936-07 | 7 | 螺帽 |
| 15936-08 | 8 | 垫片 |
| 15936-09 | 9 | 平面油封 |
| 15936-10 | 10 | 同心扣环 |

●开槽

此款锻铣刀柄及筒夹含油及切削，分割6槽以防止滑动及精确的夹持。

●滚针轴承

此采用两线装置为使当滑动至针锥面时滚动摩擦及脱落减至最小。

●可套装选购

| 型号 Model | L mm | $I_1$ mm | D mm | $d_2$ mm | $d_1$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|
| BT30×MLC20-75 | 123.4 | 75 | 46 | 20 | 55 | 1.18 |
| BT40×MLC20-80 | 155.4 | 80 | 63 | 20 | 55 | 1.78 |
| BT40×MLC32-90 | 155.4 | 90 | 63 | 32 | 73 | 2.6 |
| BT40×MLC32-105 | 170.4 | 105 | 63 | 32 | 73 | 2.8 |
| BT50×MLC20-105 | 206.8 | 105 | 100 | 20 | 55 | 4.5 |
| BT50×MLC20-150 | 251.8 | 150 | 100 | 20 | 73 | 4.9 |
| BT50×MLC32-110 | 211.8 | 110 | 100 | 32 | 73 | 5.17 |
| BT50×MLC32-135 | 236.8 | 135 | 100 | 32 | 73 | 5.64 |
| BT50×MLC32-165 | 266.8 | 165 | 100 | 32 | 95 | 6.26 |
| BT50×MLC32-200 | 301.8 | 200 | 100 | 32 | 73 | 6.98 |
| BT50×MLC42-110 | 211.8 | 110 | 100 | 42 | 95 | 5.74 |
| BT50×MLC42-130 | 238.8 | 130 | 100 | 42 | 95 | 6.3 |
| BT50×MLC42-165 | 273.8 | 165 | 100 | 42 | 95 | 7.3 |

注意：铣刀装置入筒夹需超出筒夹有效挟持长度，以避免因非完全夹持，导致筒夹损坏、变形或脱刀情形发生！

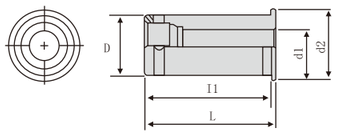
## 直筒式弹性筒夹



●材质：SUJ2

●剖沟数为三·兼具弹性及稳定性。

●刀具置入筒夹必须超过内孔有效夹持长度，以达到有效夹持。

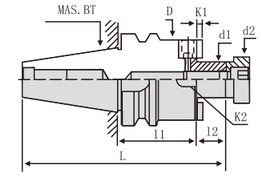


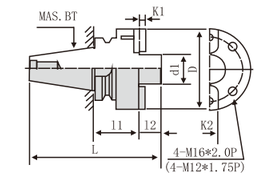

| 型号 Model | D mm | 夹持柄径 | $d_2$ mm | L mm | $I_1$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|
| SSC20 | 20 | 6, 8, 10, 12, 16 | 25 | 52.50 | 49 | |
| SSC32 | 32 | 3, 4, 5, 6, 8, 10, 12, 14, 15.6, 16, 18, 19, 20, 24, 25 | 37.50 | 65 | 67.4 | |
| SSC42 | 42 | 6, 8, 10, 12, 16, 20, 25, 32 | 47 | 80 | 76 | |



## BT/FMA平面铣刀柄（直式柄）






●平面铣刀配合部位（d1）轴系公差h7

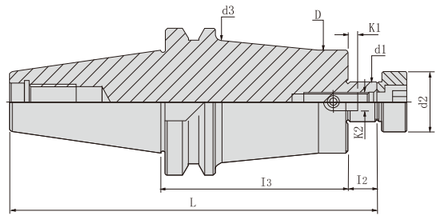
●整支通孔，利于出水及抗震。

FMA为英制规格

| 型号 Model | $d_1$ mm | $I_1$ mm | D mm | $d_2$ mm | L mm | $I_2$ mm | $K_1$ mm | $K_2$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT30×FMA25.4-45 | 25.40 | 45 | 50 | 31.5 | 113.4 | 20 | 4.52 | 9.52 | 1.00 |
| BT30×FMA31.75-45 | 31.75 | 45 | 60 | 41 | 115.4 | 22 | 6.70 | 12.70 | 1.20 |
| BT40×FMA25.4-45 | 25.40 | 45 | 50 | 31.5 | 130.4 | 20 | 4.52 | 9.52 | 1.80 |
| BT40×FMA25.4-60 | 25.40 | 60 | 50 | 31.5 | 145.4 | 20 | 4.52 | 9.52 | 1.45 |
| BT40×FMA25.4-90 | 25.40 | 90 | 50 | 31.5 | 175.4 | 20 | 4.52 | 9.52 | 2.10 |
| BT40×FMA31.75-45 | 31.75 | 45 | 60 | 41 | 132.4 | 22 | 6.70 | 12.70 | 1.70 |
| BT40×FMA31.75-75 | 31.75 | 75 | 60 | 41 | 162.4 | 22 | 6.70 | 12.70 | 2.70 |
| BT40×FMA38.10-60 | 38.10 | 60 | 75 | 44.5 | 150.4 | 25 | 8.87 | 15.87 | 2.25 |
| BT40×FMA50.80-60 | 50.80 | 60 | 98 | 68 | 161.4 | 36 | 9.75 | 19.05 | 2.25 |
| BT50×FMA25.4-45 | 25.40 | 45 | 50 | 31.5 | 166.8 | 20 | 4.52 | 9.52 | 4.40 |
| BT50×FMA25.4-90 | 25.40 | 90 | 50 | 31.5 | 211.8 | 20 | 4.52 | 9.52 | 5.10 |
| BT50×FMA25.4-150 | 25.40 | 150 | 50 | 31.5 | 271.8 | 20 | 4.52 | 9.52 | 6.10 |
| BT50×FMA31.75-45 | 31.75 | 45 | 60 | 41 | 168.8 | 22 | 6.20 | 12.70 | 4.50 |
| BT50×FMA31.75-75 | 31.75 | 75 | 60 | 41 | 198.8 | 22 | 6.70 | 12.70 | 5.70 |
| BT50×FMA31.75-105 | 31.75 | 105 | 60 | 41 | 228.8 | 22 | 6.70 | 12.70 | 5.70 |
| BT50×FMA38.10-45 | 38.10 | 45 | 80 | 44.5 | 171.8 | 25 | 8.87 | 15.87 | 5.20 |
| BT50×FMA38.10-75 | 38.10 | 75 | 80 | 44.5 | 201.8 | 25 | 8.87 | 15.87 | 6.00 |
| BT50×FMA50.80-45 | 50.80 | 45 | 98 | 65 | 182.8 | 36 | 9.75 | 19.05 | 5.70 |
| BT50×FMA50.80-75 | 50.80 | 75 | 98 | 65 | 212.8 | 36 | 9.75 | 19.05 | 6.80 |
| BT50×FMA47.62-75 | 47.62 | 75 | 128.75 | - | 208.8 | 32 | 12.50 | 25.40 | 7.90 |

## BT/FMA平面铣刀（加长斜度柄）






●平面铣刀配合部位（d1）轴系公差h7

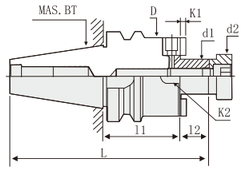
●中心通孔，利于抗震。

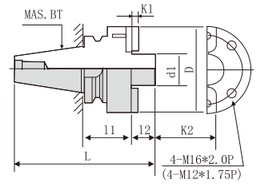
| 型号 Model | L mm | I1 mm | I2 mm | D mm | d1 mm | d2 mm | d3 mm | K1 mm | K2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| BT50×FMA25.4-125BG | 225 | 125 | 20 | 48 | 25.4 | 31.5 | 60 | 4.25 | 9.52 | 5.30 |
| BT50×FMA25.4-150BG | 250 | 150 | 20 | 48 | 25.4 | 31.5 | 60 | 4.25 | 9.52 | 6.40 |
| BT50×FMA25.4-200BG | 300 | 200 | 20 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 7.50 |
| BT50×FMA25.4-250BG | 350 | 250 | 20 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 8.60 |
| BT50×FMA25.4-300BG | 400 | 300 | 20 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 9.70 |
| BT50×FMA25.4-350BG | 450 | 350 | 20 | 58 | 25.4 | 31.5 | 66 | 4.25 | 9.52 | 10.8 |
| BT50×FMA25.4-400BG | 500 | 400 | 20 | 58 | 25.4 | 31.5 | 66 | 4.25 | 9.52 | 11.9 |
| BT50×FMA31.75-125BG | 225 | 125 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 5.60 |
| BT50×FMA31.75-150BG | 250 | 150 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 6.30 |
| BT50×FMA31.75-175BG | 275 | 175 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 8.30 |
| BT50×FMA31.75-200BG | 300 | 200 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 9.10 |
| BT50×FMA31.75-250BG | 350 | 250 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 10.6 |
| BT50×FMA31.75-300BG | 400 | 300 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 12.1 |
| BT50×FMA31.75-350BG | 450 | 350 | 22 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 13.6 |



## BT/FMB平面铣刀柄（直式柄）





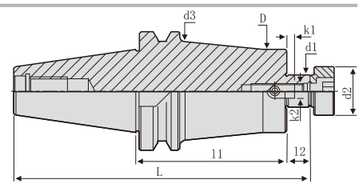




FMB为公制规格

| 型号 Model | d1 mm | I1 mm | D mm | d2 mm | L mm | I2 mm | K1 mm | K2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT30×FMB22-45 | 22 | 45 | 48 | 26 | 114.4 | 19 | 4.8 | 10 | 0.82 |
| BT30×FMB27-45 | 27 | 45 | 60 | 31.5 | 113.4 | 20 | 5.8 | 12 | 1.06 |
| BT30×FMB32-45 | 32 | 45 | 78 | 41 | 115.4 | 22 | 6.8 | 14 | 1.46 |
| BT40×FMB22-45 | 22 | 45 | 48 | 26 | 128.4 | 19 | 4.8 | 10 | 1.34 |
| BT40×FMB22-60 | 22 | 60 | 48 | 26 | 143.4 | 19 | 4.8 | 10 | 1.54 |
| BT40×FMB22-100 | 22 | 100 | 48 | 26 | 183.4 | 19 | 4.8 | 10 | 2.08 |
| BT40×FMB27-45 | 27 | 45 | 60 | 31.5 | 130.4 | 20 | 5.8 | 12 | 1.56 |
| BT40×FMB27-60 | 27 | 60 | 60 | 31.5 | 145.4 | 20 | 5.8 | 12 | 1.88 |
| BT40×FMB27-105 | 27 | 105 | 60 | 31.5 | 190.4 | 20 | 5.8 | 12 | 2.08 |
| BT40×FMB32-45 | 32 | 45 | 78 | 41 | 132.4 | 22 | 6.8 | 14 | 1.96 |
| BT40×FMB32-60 | 32 | 60 | 78 | 41 | 147.4 | 22 | 6.8 | 14 | 2.34 |
| BT40×FMB40-60 | 40 | 60 | 80 | 48 | 150.4 | 25 | 8.3 | 16 | 2.70 |
| BT50×FMB22-45 | 22 | 45 | 48 | 26 | 164.8 | 19 | 4.8 | 10 | 4.10 |
| BT50×FMB22-90 | 22 | 90 | 48 | 26 | 200.8 | 19 | 4.8 | 10 | 4.80 |
| BT50×FMB22-100 | 22 | 100 | 48 | 26 | 210.8 | 19 | 4.8 | 10 | 5.10 |
| BT50×FMB22-150 | 22 | 150 | 48 | 26 | 269.8 | 19 | 4.8 | 10 | 6.80 |
| BT50×FMB22-200 | 22 | 200 | 48 | 26 | 319.8 | 19 | 4.8 | 10 | 7.00 |
| BT50×FMB22-250 | 22 | 250 | 48 | 26 | 369.8 | 19 | 4.8 | 10 | 8.00 |
| BT50×FMB22-300 | 22 | 300 | 48 | 26 | 400.0 | 19 | 4.8 | 10 | 10.00 |
| BT50×FMB27-50 | 27 | 50 | 60 | 31.5 | 171.8 | 20 | 5.8 | 12 | 4.30 |
| BT50×FMB27-90 | 27 | 90 | 60 | 31.5 | 211.8 | 20 | 5.8 | 12 | 5.40 |
| BT50×FMB27-150 | 27 | 150 | 60 | 31.5 | 271.8 | 20 | 5.8 | 12 | 6.50 |
| BT50×FMB27-200 | 27 | 200 | 60 | 31.5 | 321.8 | 20 | 5.8 | 12 | 9.50 |
| BT50×FMB27-250 | 27 | 250 | 60 | 31.5 | 371.8 | 20 | 5.8 | 12 | 11.0 |
| BT50×FMB32-50 | 32 | 50 | 78 | 41 | 173.8 | 22 | 6.8 | 14 | 4.60 |
| BT50×FMB32-90 | 32 | 90 | 78 | 41 | 213.8 | 22 | 6.8 | 14 | 5.80 |
| BT50×FMB40-50 | 40 | 50 | 89 | 48 | 176.8 | 25 | 8.3 | 16 | 5.20 |
| BT50×FMB40-90 | 40 | 90 | 89 | 48 | 216.8 | 25 | 8.3 | 16 | 6.00 |
| BT50×FS40F-75 | 40 | 75 | 110 | - | 202.8 | 26 | 8.3 | 16 | 6.00 |
| BT50×FS60F-75 | 60 | 75 | 138 | - | 201.8 | 25 | 12.5 | 25.4 | 8.50 |

## BT/FMB平面铣刀柄（加长斜度柄）






●平面铣刀配合部位（d1）轴系公差h7

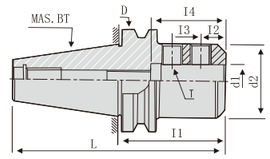
●中心通孔，利于抗震。

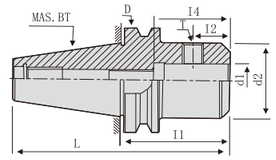
| 型号 Model | L mm | $l_1$ mm | $l_2$ mm | D mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | $K_1$ mm | $K_2$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| BT40-FMB22-150BG | 233.4 | 150 | 19 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 2.90 |
| BT40-FMB22-200BG | 283.4 | 200 | 19 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 3.60 |
| BT40-FMB22-250BG | 333.4 | 250 | 19 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 4.40 |
| BT40-FMB22-300BG | 383.4 | 300 | 19 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 5.40 |
| BT50-FMB22-150BG | 250 | 150 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 6.17 |
| BT50-FMB22-200BG | 300 | 200 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 6.80 |
| BT50-FMB22-250BG | 350 | 250 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 8.40 |
| BT50-FMB22-300BG | 400 | 300 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 9.40 |
| BT50-FMB22-350BG | 450 | 350 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 10.4 |
| BT50-FMB22-400BG | 500 | 400 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 11.4 |
| BT50-FMB22-450BG | 550 | 450 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 12.4 |
| BT50-FMB22-500BG | 600 | 500 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 13.4 |
| BT50-FMB22-600BG | 700 | 600 | 19 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 14.4 |



## BT/SLN 侧固式铣刀柄





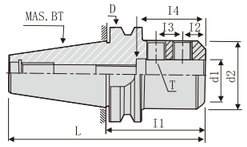

●孔麽公差H5

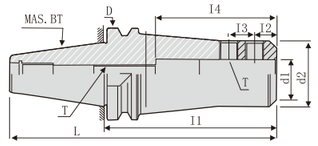
●∅20以内一只锁固螺丝,∅25以上二只锁固螺丝。

| 型号 Model | $d_1$ mm | $l_1$ mm | L mm | $l_2$ mm | $l_3$ mm | D mm | $d_2$ mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT30×SLN12-60 | 12 | 60 | 108.4 | 22.5 | — | 46 | 42 | M12×1.75P | 0.75 |
| BT40×SLN12-63 | 12 | 63 | 128.4 | 22.5 | — | 63 | 42 | M12×1.75P | 1.30 |
| BT40×SLN16-63 | 16 | 63 | 128.4 | 24 | — | 63 | 48 | M14×2.0P | 1.40 |
| BT40×SLN20-63 | 20 | 63 | 128.4 | 25 | — | 63 | 52 | M16×2.0P | 1.40 |
| BT40×SLN25-100 | 25 | 100 | 165.4 | 24 | 25 | 63 | 65 | M18×2.0P | 2.50 |
| BT40×SLN32-100 | 32 | 100 | 165.4 | 24 | 28 | 63 | 72 | M20×2.0P | 2.75 |
| BT50×SLN12-80 | 12 | 80 | 181.8 | 22.5 | — | 100 | 42 | M12×1.75P | 4.00 |
| BT50×SLN16-80 | 16 | 80 | 181.8 | 24 | — | 100 | 48 | M14×2.0P | 4.40 |
| BT50×SLN20-80 | 20 | 80 | 181.8 | 25 | — | 100 | 52 | M16×2.0P | 4.40 |
| BT50×SLN25-100 | 25 | 100 | 201.8 | 24 | 25 | 100 | 65 | M18×2.0P | 5.10 |
| BT50×SLN32-105 | 32 | 105 | 206.8 | 24 | 28 | 100 | 72 | M20×2.0P | 5.20 |
| BT50×SLN40-115 | 40 | 115 | 216.8 | 30 | 32 | 100 | 90 | M20×2.0P | 6.70 |
| BT50×SLN42-120 | 42 | 120 | 221.8 | 30 | 32 | 100 | 90 | M20×2.0P | 6.70 |

## BT/SLN 侧固式铣刀柄(JIS)






⊖ 标準平衡G 6.38000rpm

⊖ 不分孔径皆为二纸锁固螺丝

●孔径公差H5

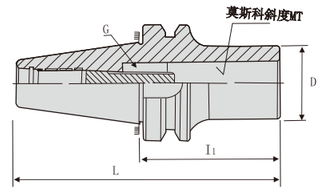
●二只锁固螺丝。

| 型号 Model | L mm | I2 mm | I3 mm | I4 mm | D mm | d2 mm | D3 mm | T | 重量 (KGS) | Fig |
|---|---|---|---|---|---|---|---|---|---|---|
| BT40×SLN12-75JIS | 140.4 | 20 | 16 | 54 | 63 | 42 | - | M10×1.5P | 1.50 | 1 |
| BT40×SLN12-150JIS | 215.4 | 20 | 16 | 54 | 63 | 42 | 47 | M10×1.5P | 1.70 | 2 |
| BT40×SLN16-75JIS | 140.4 | 22 | 18 | 57 | 63 | 48 | - | M10×1.5P | 1.50 | 1 |
| BT40×SLN16-150JIS | 215.4 | 22 | 18 | 57 | 63 | 48 | 53 | M10×1.5P | 1.60 | 2 |
| BT40×SLN20-90JIS | 155.4 | 25 | 20 | 65 | 63 | 52 | - | M12×1.75P | 1.70 | 1 |
| BT40×SLN20-150JIS | 215.4 | 25 | 20 | 65 | 63 | 52 | 57 | M12×1.75P | 1.80 | 2 |
| BT40×SLN25-90JIS | 155.4 | 24 | 25 | 68 | 63 | 50 | - | M12×1.75P | 1.70 | 1 |
| BT40×SLN32-100JIS | 165.4 | 24 | 28 | 73 | 63 | 60 | - | M16×2.0P | 2.10 | 1 |
| BT50×SLN12-90JIS | 191.8 | 20 | 16 | 54 | 100 | 42 | - | M10×1.5P | 3.90 | 2 |
| BT50×SLN12-165JIS | 266.8 | 20 | 16 | 54 | 100 | 42 | 47 | M10×1.5P | 5.00 | 1 |
| BT50×SLN16-90JIS | 191.8 | 22 | 18 | 57 | 100 | 48 | - | M10×1.5P | 3.90 | 2 |
| BT50×SLN16-165JIS | 266.8 | 22 | 18 | 57 | 100 | 48 | 53 | M10×1.5P | 5.00 | 1 |
| BT50×SLN20-90JIS | 191.8 | 25 | 20 | 65 | 100 | 50 | - | M12×1.75P | 4.50 | 5 |
| BT50×SLN20-165JIS | 266.8 | 25 | 20 | 65 | 100 | 50 | 57 | M12×1.75P | 6.00 | 5 |
| BT50×SLN20-210JIS | 311.8 | 25 | 20 | 65 | 100 |  | 57 | M12×1.75P | 7.00 | 1 |
| BT50×SLN25-100JIS | 201.8 | 24 | 25 | 68 | 100 | 50 | - | M12×1.75P | 4.58 | 2 |
| BT50×SLN25-165JIS | 266.8 | 24 | 25 | 68 | 100 | 50 | 57 | M12×1.75P | 5.50 | 2 |
| BT50×SLN25-210JIS | 311.8 | 24 | 25 | 68 | 100 | 50 | 57 | M12×1.75P | 6.00 | 2 |
| BT50×SLN25-250JIS | 251.8 | 24 | 25 | 68 | 100 | 50 | 57 | M12×1.75P | 7.00 | 1 |
| BT50×SLN32-105JIS | 206.8 | 24 | 28 | 73 | 100 | 60 | - | M16×2.0P | 4.89 | 2 |
| BT50×SLN32-165JIS | 266.8 | 24 | 28 | 73 | 100 | 60 | 65 | M16×2.0P | 6.22 | 2 |
| BT50×SLN32-210JIS | 311.8 | 24 | 28 | 73 | 100 | 60 | 65 | M16×2.0P | 6.34 | 2 |
| BT50×SLN32-250JIS | 350 | 24 | 28 | 73 | 100 | 50 | 50 | M16×2.0P | 7.50 | 2 |
| BT50×SLN32-300JIS | 401.8 | 24 | 28 | 73 | 100 | 60 | 65 | M16×2.0P | 8.00 | 2 |
| BT50×SLN42-210JIS | 311.8 | 30 | 32 | 85 | 100 | 70 | 75 | M20×2.0P | 7.80 | 2 |
| BT50×SLN50-120JIS | 221.8 | 35 | 35 | 90 | 100 | 90 | - | M20×2.0P | 5.28 | 1 |
| BT50×SLN50.8-120JIS | 221.8 | 33.9 | 35.78 | 90 | 100 | 90 | - | M20×2.0P | 6.61 | 1 |



## BT/MTB铣刀套筒（螺丝锁紧）



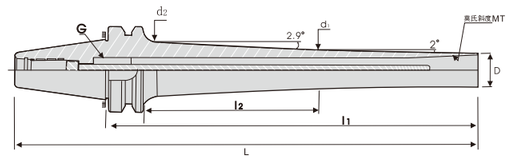



●用于夹持莫氏锥度尾端有内螺纹的工具，本体内附有拉杆螺丝。

| 型号 Model | 莫氏斜度 MT | I1 mm | L mm | D mm | G mm |
|---|---|---|---|---|---|
| BT40×MTB1-45 | 1 | 45 | 110.4 | 25 | M6 |
| BT40×MTB2-45 | 2 | 45 | 110.4 | 32 | M10 |
| BT40×MTB3-75 | 3 | 75 | 140.4 | 40 | M12 |
| BT40×MTB4-90 | 4 | 90 | 155.4 | 48 | M16 |
| BT50×MTB1-45 | 1 | 45 | 146.8 | 25 | M6 |
| BT50×MTB2-45 | 2 | 45 | 146.8 | 32 | M10 |
| BT50×MTB3-60 | 3 | 60 | 161.8 | 40 | M12 |
| BT50×MTB4-75 | 4 | 75 | 176.8 | 50 | M16 |
| BT50×MTB5-120 | 5 | 120 | 221.8 | 70 | M24 |

## BT/MTB加长铣刀套柄（螺丝锁紧）



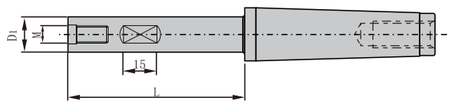



●用于夹持莫氏锥度尾端有内螺纹的工具，本体内附有拉杆螺丝。

| 型号 Model | I1 | I2 | L | D | d1 | d2 | 莫氏斜度 MT | G |
|---|---|---|---|---|---|---|---|---|
| BT50×MTB3-250 | 250 | 50 | 351.8 | 33.7 | 57.5 | 38 | 3 | M12 |
| BT50×MTB3-300 | 300 | 92 | 401.8 | 33.7 | 60.0 | 40 | 3 | M12 |
| BT50×MTB3-350 | 350 | 125 | 451.8 | 33.7 | 62.5 | 42 | 3 | M12 |
| BT50×MTB3-400 | 400 | 150 | 501.8 | 33.7 | 65.0 | 44 | 3 | M12 |

## 莫式螺纹头接杆



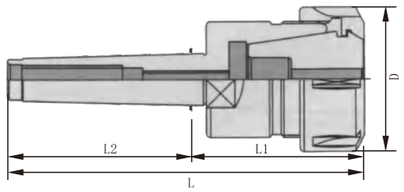



●与MTB莫式铣刀柄配合使用，模具深腔加工

| 型号 Model | 直径D mm | 有效长度L mm | M mm | 锥柄 mm |
|---|---|---|---|---|
| MTB3-15.5-M8-80L | 15.5 | 80 | M8 | MTB3 |
| MTB3-15.5-M8-120L | 15.5 | 120 | M8 | |
| MTB3-19.5-M10-80L | 19.5 | 80 | M10 | |
| MTB3-19.5-M10-120L | 19.5 | 120 | M10 | |
| MTB3-24.5-M12-120L | 24.5 | 120 | M12 | |
| MTB3-24.5-M12-160L | 24.5 | 160 | M12 | |

## 莫式ER铣夹头





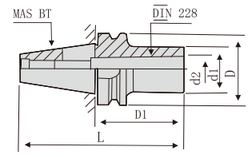

●与MTB莫式铣刀柄配合使用，模具深腔加工

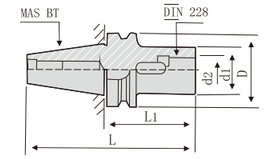
| 型号 Model | L mm | L1 mm | L2 mm | D mm | T | 重量 |
|---|---|---|---|---|---|---|
| MTB2×ER20A-52 | 116 | 52 | 64 | 35 | M10×1.5P,3/8″W16 | 0.45 |
| MTB2×ER25-55 | 119 | 55 | 64 | 42 | M10×1.5P,3/8″W16 | 0.50 |
| MTB3×ER25-55 | 136 | 55 | 81 | 42 | M12×1.75P,1/2″W12 | 0.60 |
| MTB3×ER32-60 | 141 | 60 | 81 | 50 | M12×1.75P,1/2″W12 | 0.80 |
| MTB3×ER40-70 | 151 | 70 | 81 | 63 | M12×1.75P,1/2″W12 | 1.30 |
| MTB4×ER32-60 | 162.5 | 60 | 102.5 | 50 | M16×2.0P,5/8″W11 | 0.95 |
| MTB4×ER40-70 | 172.5 | 70 | 102.5 | 63 | M16×2.0P,5/8″W11 | 1.50 |



## BT/MTA斜柄钻头套



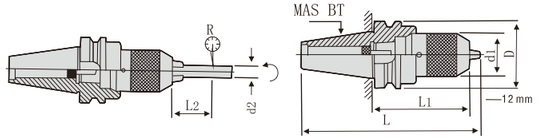



| 型号 Model | L mm | I1 mm | D mm | d1 mm | d2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|
| BT30×MTA1-45 | 93.4 | 45 | 46 | 25 | 12.065 | 0.55 |
| BT30×MTA2-60 | 108.4 | 60 | 46 | 32 | 17.780 | 0.60 |
| BT30×MTA3-80 | 128.4 | 80 | 46 | 40 | 23.825 | 0.80 |
| BT40×MTA1-45 | 110.4 | 45 | 63 | 25 | 12.065 | 1.05 |
| BT40×MTA1-120 | 185.4 | 120 | 63 | 25 | 12.065 | 1.40 |
| BT40×MTA2-50 | 115.4 | 50 | 63 | 32 | 17.780 | 1.10 |
| BT40×MTA2-120 | 185.4 | 120 | 63 | 32 | 17.780 | 1.85 |
| BT40×MTA3-70 | 135.4 | 70 | 63 | 40 | 23.825 | 1.20 |
| BT40×MTA3-135 | 200.4 | 135 | 63 | 40 | 23.825 | 1.90 |
| BT40×MTA4-95 | 160.4 | 95 | 63 | 48 | 31.267 | 1.40 |
| BT40×MTA4-165 | 230.4 | 165 | 63 | 48 | 31.267 | 2.50 |
| BT50×MTA1-45 | 146.8 | 45 | 100 | 25 | 12.065 | 3.80 |
| BT50×MTA1-120 | 221.8 | 120 | 100 | 25 | 12.065 | 4.30 |
| BT50×MTA1-180 | 281.8 | 180 | 100 | 25 | 12.065 | 5.00 |
| BT50×MTA2-60 | 161.8 | 60 | 100 | 32 | 17.780 | 4.00 |
| BT50×MTA2-135 | 236.8 | 135 | 100 | 32 | 17.780 | 4.70 |
| BT50×MTA2-180 | 281.8 | 180 | 100 | 32 | 17.780 | 5.00 |
| BT50×MTA3-65 | 166.8 | 65 | 100 | 40 | 23.825 | 3.90 |
| BT50×MTA3-150 | 251.8 | 150 | 100 | 40 | 23.825 | 5.00 |
| BT50×MTA3-180 | 281.8 | 180 | 100 | 40 | 23.825 | 5.50 |
| BT50×MTA4-95 | 196.8 | 95 | 100 | 48 | 31.267 | 4.20 |
| BT50×MTA4-180 | 281.8 | 180 | 100 | 48 | 31.267 | 5.50 |
| BT50×MTA5-105 | 206.8 | 105 | 100 | 63 | 44.399 | 4.30 |

退钻器另购！  KP-1

## BT/SPU直结式钻头刀柄





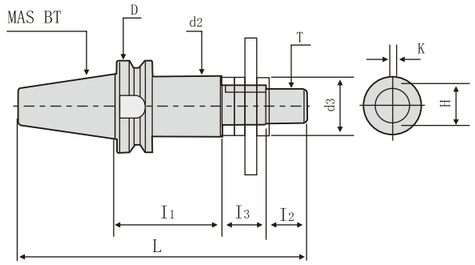

●本产品因为增加了多层安全性设计，能提供给综合切削中心机使用，在电脑操控的全自动作业中，以及无人化的管理的整个流程，都能够安全及顺利地进行。

| 型号 Model (d1-I1) | I1 mm | L mm | I2 mm | D mm | d1 mm | d2 mm | R mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| BT30×SPU8-80 | 80 | 137.4 | 55 | 46 | 37 | 6 | 0.04 | 0.72 |
| BT30×SPU13-110 | 110 | 170.4 | 75 | 46 | 50 | 13 | 0.04 | 1.85 |
| BT40×SPU8-85 | 85 | 159.4 | 55 | 63 | 37 | 6 | 0.04 | 1.46 |
| BT40×SPU13-100 | 100 | 177.4 | 75 | 63 | 50 | 13 | 0.04 | 2.00 |
| BT40×SPU13-130 | 130 | 207.4 | 75 | 63 | 50 | 13 | 0.04 | 3.2 |
| BT40×SPU16-105 | 105 | 187.4 | 80 | 63 | 57 | 16 | 0.04 | 2.33 |
| BT50×SPU13-100 | 100 | 213.8 | 75 | 100 | 50 | 13 | 0.04 | 4.70 |
| BT50×SPU13-180 | 180 | 293.8 | 75 | 100 | 50 | 13 | 0.04 | 5.80 |
| BT50×SPU16-105 | 105 | 218.8 | 80 | 100 | 57 | 16 | 0.04 | 5.03 |
| BT50×SPU16-130 | 130 | 248.8 | 80 | 100 | 57 | 16 | 0.04 | 4.8 |
| BT50×SPU16-190 | 190 | 303.8 | 80 | 100 | 57 | 16 | 0.04 | 6.00 |



## BT/SCA 侧銑刀柄






● 螺帽类型 DIN-2082-I
● 轴襯类型 DIN-2084-B

| 型号 Model (d1-I1) | L mm | I2 mm | I3 mm | D mm | d2 mm | d3 mm | K mm | H mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| BT40×SCA22-75 | 192.4 | 22 | 30 | 63 | 34 | 34 | 6 | 24.3 | M20×1.5P | 1.7 |
| BT40×SCA22-120 | 237.4 | 22 | 30 | 63 | 34 | 34 | 6 | 24.3 | M20×1.5P | 2.0 |
| BT40×SCA27-75 | 198.4 | 28 | 30 | 63 | 41 | 40 | 7 | 30 | M24×1.5P | 2.1 |
| BT40×SCA27-120 | 243.4 | 28 | 30 | 63 | 41 | 40 | 7 | 30 | M24×1.5P | 2.5 |
| BT40×SCA32-90 | 217.4 | 32 | 30 | 63 | 47 | 47 | 8 | 35.5 | M30×1.75P | 2.6 |
| BT40×SCA22.22-75 | 192.4 | 22 | 30 | 63 | 34 | 34 | 3.18 | 24.6 | M20×1.75P | 1.7 |
| BT40×SCA22.22-120 | 237.4 | 22 | 30 | 63 | 34 | 34 | 3.18 | 24.6 | M20×1.75P | 2.0 |
| BT40×SCA25.40-75 | 198.4 | 28 | 30 | 63 | 41 | 40 | 6.35 | 28.4 | M24×1.15P | 2.0 |
| BT40×SCA25.40-120 | 243.4 | 28 | 30 | 63 | 41 | 40 | 6.35 | 28.4 | M24×1.15P | 2.4 |
| BT40×SCA31.75-90 | 217.4 | 32 | 30 | 63 | 47 | 47 | 7.93 | 34.8 | M30×1.15P | 2.6 |
| BT50×SCA22-90 | 243.8 | 22 | 30 | 100 | 34 | 34 | 6 | 24.3 | M20×1.15P | 4.4 |
| BT50×SCA22-135 | 288.8 | 22 | 30 | 100 | 34 | 34 | 6 | 24.3 | M20×1.15P | 4.7 |
| BT50×SCA27-90 | 249.8 | 28 | 30 | 100 | 41 | 40 | 7 | 30 | M24×1.75P | 4.6 |
| BT50×SCA27-135 | 294.8 | 28 | 30 | 100 | 41 | 40 | 7 | 30 | M24×1.75P | 5.0 |
| BT50×SCA32-90 | 253.8 | 32 | 30 | 100 | 47 | 47 | 8 | 35.5 | M30×1.75P | 4.7 |
| BT50×SCA32-135 | 298.8 | 32 | 30 | 100 | 47 | 47 | 8 | 35.5 | M30×1.75P | 5.2 |
| BT50×SCA40-90 | 261.8 | 40 | 30 | 100 | 55 | 55 | 10 | 43.7 | M36×1.75P | 5.0 |
| BT50×SCA40-135 | 306.8 | 40 | 30 | 100 | 55 | 55 | 10 | 43.7 | M36×1.75P | 6.0 |
| BT50×SCA25.40-90 | 249.8 | 28 | 30 | 100 | 41 | 40 | 6.35 | 28.4 | M24×1.75P | 4.5 |
| BT50×SCA25.40-135 | 294.8 | 28 | 30 | 100 | 41 | 40 | 6.35 | 28.4 | M24×2.0P | 4.9 |
| BT50×SCA31.75-90 | 253.8 | 32 | 30 | 100 | 47 | 47 | 7.93 | 34.8 | M30×2.0P | 4.7 |
| BT50×SCA31.75-135 | 298.8 | 32 | 30 | 100 | 47 | 47 | 7.93 | 34.8 | M30×2.0P | 5.2 |
| BT50×SCA38.10-90 | 261.8 | 40 | 30 | 100 | 55 | 55 | 9.52 | 42.4 | M36×2.0P | 4.9 |
| BT50×SCA38.10-135 | 306.8 | 40 | 30 | 100 | 55 | 55 | 9.52 | 42.4 | M36×2.0P | 5.9 |

# VER分体式微补偿攻牙刀柄

主轴的旋转与实际丝锥进给之间有微小的同步误差是难以避免的。使用刚性攻丝刀柄意味着任何一点微小的偏差都会大大增加丝锥所受到的力，使得丝锥寿命大大缩短。采用带有微量补偿(例如+0.2mm，-1mm)能有效地充分缓冲丝锥在正转及反转时受到的压力，使丝锥的微量损伤减少到最低，从而有效延长丝锥寿命100% 以上，使螺纹精度更高。
这对于脆性相对较大的硬质合金丝锥意义更大。

独特的分体式设计，只需替换易损的前端，保留高价值本体，使本体更具经济型。

刀柄中心通冷却液，可以对刀具充分润滑及排屑，最大压力可达2Mpa。

可配延长丝锥夹头，满足不同加工深度的要求。(填补了世面上普通微补偿ER刀柄长度单一的问题）。

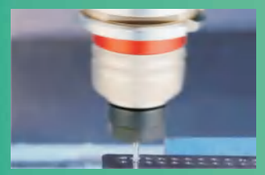
攻丝能力
M3-M12 M6-M20 M14-M33.

可匹配机床主轴
HSK BT SK





普通ER刀柄刚性攻牙



VER分体式微补偿刀柄攻牙



普通ER刀柄攻牙加工效果



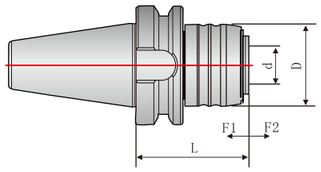
VER分体式微补偿刀柄攻牙
加工效果





## BT/V 分体式微补偿攻牙刀柄





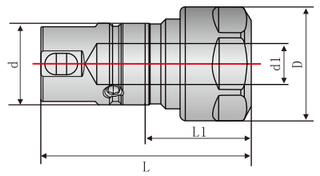

| 型 号 Model | D | d | L | F1 | F2 | 攻牙能力 Tapping capacity | 适用延长杆 Suit extender | 重量 Weight |
|---|---|---|---|---|---|---|---|---|
| BT30-V16-57 | 43.5 | 20 | 57 | 0.2 | 1 | M3-M12 | V16-M24/L55 | 0.65 |
| BT30-V20-72 | 52 | 25 | 72 | 0.2 | 1 | M5-M16 | V20-M26/L75 | 0.75 |
| BT40-V16-61 | 43.5 | 20 | 61 | 0.2 | 1 | M3-M12 | V16-M24/L55 | 1.05 |
| BT40-V20-72 | 52 | 25 | 72 | 0.2 | 1 | M5-M16 | V20-M26/L75 | 1.2 |
| BT40-V25-82 | 60 | 32 | 82 | 0.2 | 1 | M6-M20 | V25-M28/L86 | 1.35 |
| BT40-V32-98 | 72 | 40 | 98 | 0.2 | 1 | M10-M24 | V32-M30/L90 | 1.68 |
| BT40-V40-107 | 87 | 50 | 107 | 0.2 | 1 | M14-M33 | V40-M32/L95 | 1.95 |
| BT50-V16-72 | 43.5 | 20 | 72 | 0.2 | 1 | M3-M12 | V16-M24/L55 | 3.55 |
| BT50-V20-83 | 52 | 25 | 83 | 0.2 | 1 | M5-M16 | V20-M26/L75 | 3.45 |
| BT50-V25-93 | 60 | 32 | 93 | 0.2 | 1 | M6-M20 | V25-M28/L86 | 3.88 |
| BT50-V32-109 | 72 | 40 | 109 | 0.2 | 1 | M10-M24 | V32-M30/L90 | 4.22 |
| BT50-V40-124 | 87 | 50 | 124 | 0.2 | 1 | M14-M33 | V40-M32/L95 | 4.65 |

**特点:**

- 显著提高丝锥使用寿命80%以上
- 有效提高加工生产效率2-4倍
- 明显提高表面加工质量与精度
- 选用ER攻丝专用筒夹夹持
- 无需依赖设备精度
- 挤压丝锥首选

## V 分体式微补偿攻牙延长杆

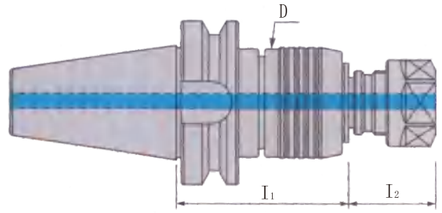





| 型　号 Model | 夹持范围 Clamping range | D | d | L | L1 | 定位螺丝 Locking screw | 攻牙能力 Tapping capacity | 重量 Weight |
|---|---|---|---|---|---|---|---|---|
| V-16-M24 | 2-10 | 28 | 20 | 41 | 24 | M050U050 | M3-M12 | 0.15 |
| V-16-L55 | 2-10 | 28 | 20 | 72 | 55 | M050U050 | M3-M12 | 0.22 |
| V-20-M26 | 2-13 | 34 | 25 | 51.5 | 26 | M060U060 | M5-M16 | 0.20 |
| V-20-L75 | 2-13 | 34 | 25 | 100.5 | 75 | M060U060 | M5-M16 | 0.29 |
| V-25-M28 | 2-16 | 42 | 32 | 58 | 28 | M080U080 | M6-M20 | 0.35 |
| V-25-L86 | 2-16 | 42 | 32 | 116 | 86 | M080U080 | M6-M20 | 0.54 |
| V-32-M30 | 4-20 | 50 | 40 | 69 | 30 | M080U0100 | M10-M24 | 0.50 |
| V-32-L90 | 4-20 | 50 | 40 | 129 | 90 | M080U0100 | M10-M24 | 0.81 |
| V-40-M32 | 6-26 | 63 | 50 | 82 | 32 | M100U140 | M14-M33 | 0.65 |
| V-40-L95 | 6-26 | 63 | 50 | 145 | 95 | M100U140 | M14-M33 | 0.98 |

## SBT/STH 同步补偿刚性攻牙器





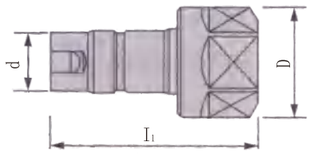

- ●有效消除背隙与过大扭力
- ●具有中心出水
- ●提升攻牙质量
- ●延长丝锥寿命

| 型号 Model | $I_1$ | $I_2$ | D | 攻牙能力 Capacity | 伸缩长度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|
| | | | | | 缩 (-) Comp | 伸 (+) Tens | | |
| SBT30×STH16 | 60 | 24 | 43.4 | M3~M12 | - | 1 | ER16 | 0.82 |
| SBT30×STH16-70 | | 70 | | | | | | - |
| SBT40×STH16-70 | 70 | | | | | | | - |
| SBT40×STH20 | | 34 | | M3~M16 | | | ER20 | 1.52 |
| SBT40×STH20-70 | | 70 | | | | | | - |
| SBT50×STH32 | 93 | 45.5 | 60 | M3~M27 | | | ER32 | 4.9 |
| SBT50×STH32-70 | | 70 | | | | | | - |



## STH-ER 替换夹头柄

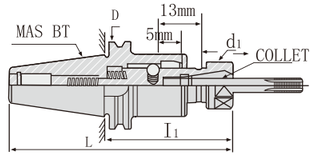





| 型号 Model | $I_1$ | D | d | 攻牙能力 Capacity | 重量 (KGS) Weight |
|---|---|---|---|---|---|
| STH-ER16 | 47 | 28 | 20 | M3~M12 | 0.10 |
| STH-ER20 | 57 | 34 | | M3~M16 | 0.14 |
| STH-ER32 | 78 | 50 | 32 | M3~M27 | 0.44 |

## BT伸缩ETP功牙刀柄





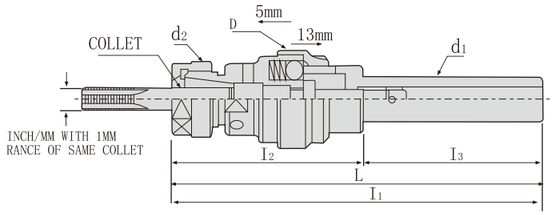

- ●伸缩13mm,收缩5mm
- ●搭配刚性攻牙筒夹，效果最好。

| 型号 Model | L mm | $I_1$ mm | D mm | $d_1$ mm | 使用筒夹 | 攻牙能力 丝攻柄尺寸 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| BT40×ETP16A-120 | 185.4 | 120 | 63 | 28 | ER16 | M3-M10 | 1.65 |
| BT40×ETP16A-150 | 215.4 | 150 | 63 | 28 | ER16 | M3-M10 | 1.85 |
| BT40×ETP20A-100 | 165.4 | 100 | 63 | 34 | ER20 | M3-M17 | 1.65 |
| BT40×ETP20A-150 | 215.4 | 150 | 63 | 34 | ER20 | M3-M17 | 1.90 |
| BT40×ETP32-120 | 185.4 | 120 | 63 | 50 | ER32 | M3-M17 | 2.10 |
| BT50×ETP16A-120 | 221.4 | 120 | 100 | 28 | ER16 | M3-M10 | 4.30 |
| BT50×ETP16A-150 | 251.4 | 150 | 100 | 28 | ER16 | M3-M10 | 4.50 |
| BT50×ETP20A-100 | 201.4 | 100 | 100 | 34 | ER20 | M3-M17 | 4.30 |
| BT50×ETP20A-150 | 251.4 | 150 | 100 | 34 | ER20 | M3-M17 | 4.60 |
| BT50×ETP32-120 | 221.4 | 120 | 100 | 50 | ER32 | M3-M27 | 4.65 |

# ER直柄伸缩攻牙器（CNC车床专用）



● 搭配套筒请参照137~139页及145页




## 特　点

- 材质为SCM，外部螺纹公差一级牙4H
- 使用ER筒夹夹持螺丝攻，配合刚性攻牙筒夹则效果倍增。
- 可建议使用HSP螺帽，以增加夹持力。
- 内建浮动装置使工作重复定位可自动修正偏差。
- 用于刀具不旋转的场合（如：车床、专用机械等）。
- 内附产品使用说明书。

## 注　译

- 如加工材料较硬，则M/MIN应同时变得较慢。
- 在使用直柄伸缩ER攻牙器，请先确定车床主轴运转速度，否则将会因速度太快或太慢而造成柄及攻牙器损坏或破裂。

| 型号 Model | D mm | d1 mm | d2 mm | L mm | I1 mm | I2 mm | I3 mm | 筒夹 | 攻牙能力 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| TP-ER20 | 44 | 20 | 34 | 159 | 172 | 79 | 80 | ER20 | M3-M16 | 0.5 |
| TP-ER32 | 56 | 32 | 50 | 174.5 | 190 | 94.5 | 80 | ER32 | M3-M27 | 1.6 |
| TPM-320 | 44 | MT3 | 34 | 165 | 178 | 79 | 86 | ER20 | M3-M16 | 1.4 |
| TPM-420 | 44 | MT4 | 34 | 165 | 178 | 79 | 86 | ER20 | M3-M16 | 1.6 |
| TPM-432 | 56 | MT4 | 50 | 203.5 | 216.5 | 94.5 | 109 | ER32 | M3-M27 | 1.8 |



# ER刚性攻牙筒夹

## 刚性攻牙筒夹特色說明：

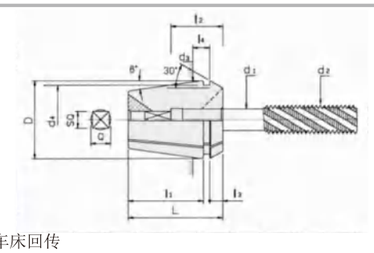
- 订购前请详细核对d1(丝攻柄径与筒夹内径)
- SQ（丝攻四角对边与筒夹内接圆尺寸）尺寸

## 直柄伸縮攻牙器特色說明：

- 不适合于任何旋转场合（如銑床、M.C）
- 衹于工件旋转下使用（如车床）

## 注意事項：

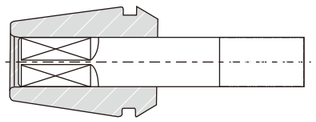
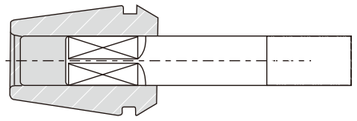
- 刀具置入筒夹内的长度，至少需达到筒夹有效夹持长度的2/3刀具装置、伸入长度不足，易导致筒夹与刀具的损坏！
- 各式筒夹的有效夹持长度请详阅型录所示！




※ 请填丝攻正确车床回传

### 丝攻尺寸

| SQ四角对边 | d1(柄径) | 购买价格 |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

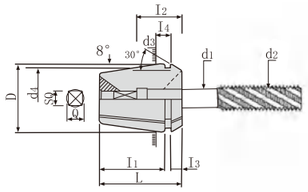
| ○ Good | × Bad |
|---|---|
| 完整伸入 | 不完整伸入 |
|  |  |

**PS. 如需订购请按照此格式传真**

公司：＿＿＿＿＿＿　电话：＿＿＿＿＿＿　联络人：＿＿＿＿＿＿　日期：＿＿＿＿＿＿

# ER刚性攻牙筒夹






- 材料：SUJ-2
- 硬度：HRC46°
- 斜度：8°
- 表面粗糙度RZ2.5以内

**特　点**

- 利用满槽的差异，有效而稳固地夹住螺丝攻，决不打滑！
- 适合切削中心机的刚性攻牙加工，或是其他攻牙机械。
- 适用于各种ER标准本体。
- 搭配HSR螺帽可以增加夹持力。
- 当订JIS、DIN、ISO或其他尺寸，订购前请校对四角孔需合对d1，SQ，而圆孔则需对d1。
- 可降低适用攻牙器的成本。

| 型号 Model | D | $d_3$ | $d_4$ | L | $I_1$ | $I_3$ | $I_4$ | 攻牙能力 |
|---|---|---|---|---|---|---|---|---|
| ER16-TP | 16.17 | 16 | 13.8 | 27.5 | 21.2 | 4.0 | 2.3 | M3~M10 |
| ER20-TP | 20.74 | 20 | 17.4 | 31.5 | 24.3 | 4.8 | 2.4 | M3~M12 |
| ER25-TP | 25.74 | 25 | 22 | 34 | 26.5 | 5.0 | 2.5 | M3~M16 |
| ER32-TP | 32.74 | 32 | 29.2 | 40 | 31.8 | 5.5 | 2.7 | M3~M20 |
| ER40-TP | 40.74 | 40 | 36.2 | 46 | 35.5 | 7 | 3.5 | M3~M26 |

| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER16-2.24TP | 2.24 | M3 | ISO-529 |
| ER16-2.5TP | 2.5 | M3.5 | DIN-376 |
| ER16-2.5TP | 2.5 | M3.5 | ISO-529 |
| ER16-2.8TP | 2.8 | M4 | DIN-376 |
| ER16-3.15TP | 3.15 | M3 | ISO-529 |
| ER16-3.15TP | 3.15 | M4 | ISO-529 |
| ER16-3.5TP | 3.5 | M3 | DIN-352 |
| ER16-3.5TP | 3.5 | M3 | DIN-371 |
| ER16-3.5TP | 3.5 | M5 | DIN-376 |
| ER16-3.55TP | 3.55 | M3.5 | ISO-529 |
| ER16-3.55TP | 3.55 | M4.5 | ISO-529 |
| ER16-4TP | 4 | M3 | JIS |
| ER16-4TP | 4 | M3.5 | DIN-352 |
| ER16-4TP | 4 | M3.5 | DIN-371 |
| ER16-4TP | 4 | M4 | ISO-529 |
| ER16-4TP | 4 | M5 | ISO-529 |
| ER16-4.5TP | 4.5 | M4 | DIN-362 |
| ER16-4.5TP | 4.5 | M4 | DIN-371 |
| ER16-4.5TP | 4.5 | M6 | DIN-376 |
| ER16-4.5TP | 4.5 | M6 | ISO-529 |
| ER16-5TP | 5 | M4 | JIS |
| ER16-5TP | 5 | M4.5 | JIS |
| ER16-5TP | 5 | M5 | ISO-529 |
| ER16-5.5TP | 5.5 | M5 | JIS |
| ER16-5.5TP | 5.5 | M5.5 | JIS |
| ER16-6TP | 6 | M5 | DIN-352 |
| ER16-6TP | 6 | M5 | DIN-371 |
| ER16-6TP | 6 | M6 | JIS |
| ER16-6TP | 6 | M6 | DIN-352 |
| ER16-6TP | 6 | M6 | DIN-371 |
| ER16-6TP | 6 | M8 | DIN-352 |
| ER16-6TP | 6 | M8 | DIN-376 |
| ER16-6.2TP | 6.2 | M7 | JIS |
| ER16-6.2TP | 6.2 | M8 | JIS |
| ER16-6.3TP | 6.3 | M6 | ISO-529 |
| ER16-6.3TP | 6.3 | M8 | ISO-529 |
| ER16-7TP | 7 | M9 | JIS |
| ER16-7TP | 7 | M10 | JIS |
| ER16-7TP | 7 | M10 | DIN-352 |
| ER16-7TP | 7 | M10 | DIN-376 |
| ER16-8TP | 8 | M8 | DIN-371 |
| ER16-8TP | 8 | M8 | ISO-529 |
| ER16-8TP | 8 | M10 | ISO-529 |
| ER16-8TP | 8 | M11 | JIS |
| ER16-8.5TP | 8.5 | M12 | JIS |
| ER16-9TP | 9 | M12 | DIN-352 |
| ER16-9TP | 9 | M12 | DIN-376 |
| ER16-9TP | 9 | M12 | ISO-529 |
| ER16-10TP | 10 | M10 | DIN-371 |
| ER16-10TP | 10 | M10 | ISO-529 |

| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER20-2.24TP | 2.24 | M3 | ISO-529 |
| ER20-2.5TP | 2.5 | M3.5 | DIN-376 |
| ER20-2.5TP | 2.5 | M3.5 | ISO-529 |
| ER20-2.8TP | 2.8 | M4 | DIN-376 |
| ER20-3.15TP | 3.15 | M3 | ISO-529 |
| ER20-3.15TP | 3.15 | M4 | ISO-529 |
| ER20-3.5TP | 3.5 | M3 | DIN-352 |
| ER20-3.5TP | 3.5 | M3 | DIN-371 |
| ER20-3.5TP | 3.5 | M5 | DIN-376 |
| ER20-3.55TP | 3.55 | M3.5 | ISO-529 |
| ER20-3.55TP | 3.55 | M4.5 | ISO-529 |
| ER20-4TP | 4 | M3 | JIS |
| ER20-4TP | 4 | M3.5 | DIN-352 |
| ER20-4TP | 4 | M3.5 | DIN-371 |
| ER20-4TP | 4 | M4 | ISO-529 |
| ER20-4TP | 4 | M5 | ISO-529 |
| ER20-4.5TP | 4.5 | M4 | DIN-362 |
| ER20-4.5TP | 4.5 | M4 | DIN-371 |
| ER20-4.5TP | 4.5 | M6 | DIN-376 |
| ER20-4.5TP | 4.5 | M6 | ISO-529 |
| ER20-5TP | 5 | M4 | JIS |
| ER20-5TP | 5 | M4.5 | JIS |
| ER20-5TP | 5 | M5 | ISO-529 |
| ER20-5.5TP | 5.5 | M5 | JIS |
| ER20-5.5TP | 5.5 | M5.5 | JIS |
| ER20-6TP | 6 | M5 | DIN-352 |
| ER20-6TP | 6 | M5 | DIN-371 |
| ER20-6TP | 6 | M6 | JIS |
| ER20-6TP | 6 | M6 | DIN-352 |
| ER20-6TP | 6 | M6 | DIN-371 |
| ER20-6TP | 6 | M8 | DIN-352 |
| ER20-6TP | 6 | M8 | DIN-376 |
| ER20-6.2TP | 6.2 | M7 | JIS |
| ER20-6.2TP | 6.2 | M8 | JIS |
| ER20-6.3TP | 6.3 | M6 | ISO-529 |
| ER20-6.3TP | 6.3 | M8 | ISO-529 |
| ER20-7TP | 7 | M9 | JIS |
| ER20-7TP | 7 | M10 | JIS |
| ER20-7TP | 7 | M10 | DIN-352 |
| ER20-7TP | 7 | M10 | DIN-376 |
| ER20-8TP | 8 | M8 | DIN-371 |
| ER20-8TP | 8 | M8 | ISO-529 |
| ER20-8TP | 8 | M10 | ISO-529 |
| ER20-8TP | 8 | M11 | JIS |
| ER20-8.5TP | 8.5 | M12 | JIS |
| ER20-9TP | 9 | M12 | DIN-352 |
| ER20-9TP | 9 | M12 | DIN-376 |
| ER20-9TP | 9 | M12 | ISO-529 |
| ER20-10TP | 10 | M10 | DIN-371 |
| ER20-10TP | 10 | M10 | ISO-529 |
| ER20-10.5TP | 10.5 | M14 | JIS |
| ER20-10.5TP | 10.5 | M15 | JIS |
| ER20-11TP | 11 | M14 | DIN-352 |
| ER20-11TP | 11 | M14 | DIN-376 |
| ER20-11.2TP | 11.2 | M14 | DIN-529 |
| ER20-12TP | 12 | M16 | DIN-352 |
| ER20-12TP | 12 | M16 | DIN-376 |
| ER20-12.5TP | 12.5 | M16 | JIS |
| ER20-12.5TP | 12.5 | M16 | ISO-529 |
| ER20-13TP | 13 | M17 | JIS |



| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER25-2.24TP | 2.24 | M3 | ISO-529 |
| ER25-2.5TP | 2.5 | M3.5 | DIN-376 |
| ER25-2.5TP | 2.5 | M3.5 | ISO-529 |
| ER25-2.8TP | 2.8 | M4 | DIN-376 |
| ER25-3.15TP | 3.15 | M3 | ISO-529 |
| ER25-3.15TP | 3.15 | M4 | ISO-529 |
| ER25-3.5TP | 3.5 | M3 | DIN-352 |
| ER25-3.5TP | 3.5 | M3 | DIN-371 |
| ER25-3.5TP | 3.5 | M5 | DIN-376 |
| ER25-3.55TP | 3.55 | M3.5 | ISO-529 |
| ER25-3.55TP | 3.55 | M4.5 | ISO-529 |
| ER25-4TP | 4 | M3 | JIS |
| ER25-4TP | 4 | M3.5 | DIN-352 |
| ER25-4TP | 4 | M3.5 | DIN-371 |
| ER25-4TP | 4 | M4 | ISO-529 |
| ER25-4TP | 4 | M5 | ISO-529 |
| ER25-4.5TP | 4.5 | M4 | DIN-362 |
| ER25-4.5TP | 4.5 | M4 | DIN-371 |
| ER25-4.5TP | 4.5 | M6 | DIN-376 |
| ER25-4.5TP | 4.5 | M6 | ISO-529 |
| ER25-5TP | 5 | M4 | JIS |
| ER25-5TP | 5 | M4.5 | JIS |
| ER25-5TP | 5 | M5 | ISO-529 |
| ER25-5.5TP | 5.5 | M5 | JIS |
| ER25-5.5TP | 5.5 | M5.5 | JIS |
| ER25-6TP | 6 | M5 | DIN-352 |
| ER25-6TP | 6 | M5 | DIN-371 |
| ER25-6TP | 6 | M6 | JIS |
| ER25-6TP | 6 | M6 | DIN-352 |
| ER25-6TP | 6 | M6 | DIN-371 |
| ER25-6TP | 6 | M8 | DIN-352 |
| ER25-6TP | 6 | M8 | DIN-376 |
| ER25-6.2TP | 6.2 | M7 | JIS |
| ER25-6.2TP | 5.2 | M8 | JIS |
| ER25-6.3TP | 6.3 | M6 | ISO-529 |
| ER25-6.3TP | 6.3 | M8 | ISO-529 |
| ER25-7TP | 7 | M9 | JIS |
| ER25-7TP | 7 | M10 | JIS |
| ER25-7TP | 7 | M10 | DIN-352 |
| ER25-7TP | 7 | M10 | DIN-376 |
| ER25-8TP | 8 | M8 | DIN-371 |
| ER25-8TP | 8 | M8 | ISO-529 |
| ER25-8TP | 8 | M10 | ISO-529 |
| ER25-8TP | 8 | M11 | JIS |
| ER25-8.5TP | 8.5 | M12 | JIS |
| ER25-9TP | 9 | M12 | DIN-352 |
| ER25-9TP | 9 | M12 | DIN-376 |
| ER25-9TP | 9 | M12 | ISO-529 |
| ER25-10TP | 10 | M10 | DIN-371 |
| ER25-10TP | 10 | M10 | ISO-529 |
| ER25-10.5TP | 10.5 | M14 | JIS |
| ER25-10.5TP | 10.5 | M15 | JIS |
| ER25-11TP | 11 | M14 | DIN-352 |
| ER25-11TP | 11 | M14 | DIN-376 |
| ER25-11.2TP | 11.2 | M14 | DIN-529 |
| ER25-12TP | 12 | M16 | DIN-352 |
| ER25-12TP | 12 | M16 | DIN-376 |
| ER25-12.5TP | 12.5 | M16 | JIS |
| ER25-12.5TP | 12.5 | M16 | ISO-529 |
| ER25-13TP | 13 | M17 | JIS |
| ER25-14TP | 14 | M18 | JIS |
| ER25-14TP | 14 | M18 | DIN-352 |
| ER25-14TP | 14 | M18 | DIN-376 |
| ER25-14TP | 14 | M18 | DIN-529 |
| ER25-14TP | 14 | M20 | DIN-529 |
| ER25-15TP | 15 | M20 | JIS |
| ER25-16TP | 16 | M20 | DIN-352 |
| ER25-16TP | 16 | M20 | DIN-376 |
| ER25-16TP | 16 | M22 | DIN-529 |

| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER32-2.24TP | 2.24 | M3 | ISO-529 |
| ER32-2.5TP | 2.5 | M3.5 | DIN-376 |
| ER32-2.5TP | 2.5 | M3.5 | ISO-529 |
| ER32-2.8TP | 2.8 | M4 | DIN-376 |
| ER32-3.15TP | 3.15 | M3 | ISO-529 |
| ER32-3.15TP | 3.15 | M4 | ISO-529 |
| ER32-3.5TP | 3.5 | M3 | DIN-352 |
| ER32-3.5TP | 3.5 | M3 | DIN-371 |
| ER32-3.5TP | 3.5 | M5 | DIN-376 |
| ER32-3.55TP | 3.55 | M3.5 | ISO-529 |
| ER32-3.55TP | 3.55 | M4.5 | ISO-529 |
| ER32-4TP | 4 | M3 | JIS |
| ER32-4TP | 4 | M3.5 | DIN-352 |
| ER32-4TP | 4 | M3.5 | DIN-371 |
| ER32-4TP | 4 | M4 | ISO-529 |
| ER32-4TP | 4 | M5 | ISO-529 |
| ER32-4.5TP | 4.5 | M4 | DIN-362 |
| ER32-4.5TP | 4.5 | M4 | DIN-371 |
| ER32-4.5TP | 4.5 | M6 | DIN-376 |
| ER32-4.5TP | 4.5 | M6 | ISO-529 |
| ER32-5TP | 5 | M4 | JIS |
| ER32-5TP | 5 | M4.5 | JIS |
| ER32-5TP | 5 | M5 | ISO-529 |
| ER32-5.5TP | 5.5 | M5 | JIS |
| ER32-5.5TP | 5.5 | M5.5 | JIS |
| ER32-5.5TP | 5.5 | M5 | DIN-352 |
| ER32-6TP | 6 | M5 | DIN-371 |
| ER32-6TP | 6 | M6 | JIS |
| ER32-6TP | 6 | M6 | DIN-352 |
| ER32-6TP | 6 | M6 | DIN-371 |
| ER32-6TP | 6 | M8 | DIN-352 |
| ER32-6TP | 6 | M8 | DIN-376 |
| ER32-6.2TP | 6.2 | M7 | JIS |
| ER32-6.2TP | 5.2 | M8 | JIS |
| ER32-6.3TP | 6.3 | M6 | ISO-529 |
| ER32-6.3TP | 6.3 | M8 | ISO-529 |
| ER32-7TP | 7 | M9 | JIS |
| ER32-7TP | 7 | M10 | JIS |
| ER32-7TP | 7 | M10 | DIN-352 |
| ER32-7TP | 7 | M10 | DIN-352 |
| ER32-7TP | 7 | M10 | DIN-376 |
| ER32-8TP | 8 | M8 | DIN-371 |
| ER32-8TP | 8 | M8 | ISO-529 |
| ER32-8TP | 8 | M10 | ISO-529 |
| ER32-8TP | 8 | M11 | JIS |
| ER32-8.5TP | 8.5 | M12 | JIS |

| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER32-19TP | 9 | M12 | DIN-352 |
| ER32-19TP | 9 | M12 | DIN-376 |
| ER32-19TP | 9 | M12 | ISO-529 |
| ER32-10TP | 10 | M10 | DIN-371 |
| ER32-10TP | 10 | M10 | ISO-529 |
| ER32-10.5TP | 10.5 | M14 | JIS |
| ER32-10.5TP | 10.5 | M15 | JIS |
| ER32-11TP | 11 | M14 | DIN-352 |
| ER32-11TP | 11 | M14 | DIN-376 |
| ER32-11.2TP | 11.2 | M14 | ISO-529 |
| ER32-12TP | 12 | M16 | DIN-352 |
| ER32-12TP | 12 | M16 | DIN-376 |
| ER32-12.5TP | 12.5 | M16 | JIS |
| ER32-12.5TP | 12.5 | M16 | ISO-529 |
| ER32-13TP | 13 | M17 | JIS |
| ER32-14TP | 14 | M18 | JIS |
| ER32-14TP | 14 | M18 | DIN-352 |
| ER32-14TP | 14 | M18 | DIN-376 |
| ER32-14TP | 14 | M18 | ISO-529 |
| ER32-14TP | 14 | M20 | ISO-529 |
| ER32-15TP | 15 | M20 | JIS |
| ER32-16TP | 16 | M20 | DIN-352 |
| ER32-16TP | 16 | M20 | DIN-376 |
| ER32-16TP | 16 | M22 | ISO-529 |
| ER32-17TP | 17 | M22 | JIS |
| ER32-18TP | 18 | M22 | DIN-352 |
| ER32-18TP | 18 | M22 | DIN-376 |
| ER32-18TP | 18 | M24 | DIN-352 |
| ER32-18TP | 18 | M24 | DIN-736 |
| ER32-18TP | 18 | M24 | ISO-529 |
| ER32-19TP | 19 | M24 | JIS |
| ER32-19TP | 19 | M25 | JIS |
| ER32-20TP | 20 | M26 | JIS |
| ER32-20TP | 20 | M27 | JIS |

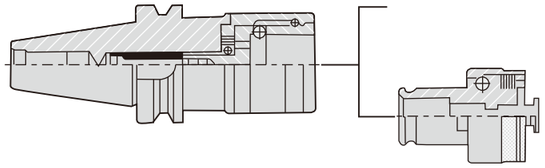
| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER40-2.24TP | 2.24 | M3 | ISO-529 |
| ER40-2.5TP | 2.5 | M3.5 | DIN-376 |
| ER40-2.5TP | 2.5 | M3.5 | ISO-529 |
| ER40-2.8TP | 2.8 | M4 | DIN-376 |
| ER40-3.15TP | 3.15 | M3 | ISO-529 |
| ER40-3.15TP | 3.15 | M4 | ISO-529 |
| ER40-3.5TP | 3.5 | M3 | DIN-352 |
| ER40-3.5TP | 3.5 | M3 | DIN-371 |
| ER40-3.5TP | 3.5 | M5 | DIN-376 |
| ER40-3.55TP | 3.55 | M3.5 | ISO-529 |
| ER40-3.55TP | 3.55 | M4.5 | ISO-529 |
| ER40-4TP | 4 | M3 | JIS |
| ER40-4TP | 4 | M3.5 | DIN-352 |
| ER40-4TP | 4 | M3.5 | DIN-371 |
| ER40-4TP | 4 | M4 | ISO-529 |
| ER40-4TP | 4 | M5 | ISO-529 |
| ER40-4.5TP | 4.5 | M4 | DIN-352 |
| ER40-4.5TP | 4.5 | M4 | DIN-371 |
| ER40-4.5TP | 4.5 | M6 | DIN-376 |
| ER40-4.5TP | 4.5 | M6 | ISO-529 |
| ER40-5TP | 5 | M4 | JIS |
| ER40-5TP | 5 | M4.5 | JIS |
| ER40-5TP | 5 | M5 | ISO-529 |

| 型号 Model | 丝攻柄径$d_1$ | 使用丝攻范围 | $d_2$ |
|---|---|---|---|
| ER40-5.5TP | 5.5 | M5 | JIS |
| ER40-5.5TP | 5.5 | M5.5 | JIS |
| ER40-6TP | 6 | M5 | DIN-352 |
| ER40-6TP | 6 | M5 | DIN-371 |
| ER40-6TP | 6 | M6 | JIS |
| ER40-6TP | 6 | M6 | DIN-352 |
| ER40-6TP | 6 | M6 | DIN-371 |
| ER40-6TP | 6 | M8 | DIN-352 |
| ER40-6TP | 6 | M8 | DIN-376 |
| ER40-6.2TP | 6.2 | M7 | JIS |
| ER40-6.2TP | 6.2 | M8 | JIS |
| ER40-6.3TP | 6.3 | M6 | ISO-529 |
| ER40-6.3TP | 6.3 | M8 | ISO-529 |
| ER40-7TP | 7 | M9 | JIS |
| ER40-7TP | 7 | M10 | JIS |
| ER40-7TP | 7 | M10 | DIN-352 |
| ER40-7TP | 7 | M10 | DIN-352 |
| ER40-7TP | 7 | M10 | DIN-376 |
| ER40-8TP | 8 | M8 | DIN-371 |
| ER40-8TP | 8 | M8 | ISO-529 |
| ER40-8TP | 8 | M10 | ISO-529 |
| ER40-8TP | 8 | M11 | JIS |
| ER40-8.5TP | 8.5 | M12 | JIS |
| ER40-9TP | 9 | M12 | DIN-352 |
| ER40-9TP | 9 | M12 | DIN-376 |
| ER40-9TP | 9 | M12 | ISO-529 |
| ER40-10TP | 10 | M10 | DIN-371 |
| ER40-10TP | 10 | M10 | ISO-529 |
| ER40-10.5TP | 10.5 | M14 | JIS |
| ER40-10.5TP | 10.5 | M15 | JIS |
| ER40-11TP | 11 | M14 | DIN-352 |
| ER40-11TP | 11 | M14 | DIN-376 |
| ER40-11.2TP | 11.2 | M14 | ISO-529 |
| ER40-12TP | 12 | M16 | DIN-352 |
| ER40-12TP | 12 | M16 | DIN-376 |
| ER40-12.5TP | 12.5 | M16 | JIS |
| ER40-12.5TP | 12.5 | M16 | ISO-529 |
| ER40-13TP | 13 | M17 | JIS |
| ER40-14TP | 14 | M18 | JIS |
| ER40-14TP | 14 | M18 | DIN-352 |
| ER40-14TP | 14 | M18 | DIN-376 |
| ER40-14TP | 14 | M18 | ISO-529 |
| ER40-14TP | 14 | M20 | ISO-529 |
| ER40-15TP | 15 | M20 | JIS |
| ER40-16TP | 16 | M20 | DIN-352 |
| ER40-16TP | 16 | M20 | DIN-376 |
| ER40-16TP | 16 | M22 | ISO-529 |
| ER40-17TP | 17 | M22 | JIS |
| ER40-18TP | 18 | M22 | DIN-352 |
| ER40-18TP | 18 | M22 | DIN-376 |
| ER40-18TP | 18 | M24 | DIN-352 |
| ER40-18TP | 18 | M24 | DIN-376 |
| ER40-18TP | 18 | M24 | ISO-529 |
| ER40-19TP | 19 | M24 | JIS |
| ER40-19TP | 19 | M25 | JIS |
| ER40-20TP | 20 | M26 | JIS |
| ER40-20TP | 20 | M27 | JIS |



## 快速式伸缩/扭力攻牙刀柄



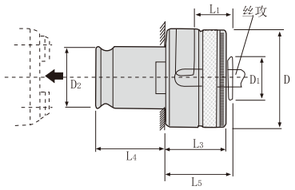


●丝攻筒夹另购

| 型号 Model | 攻牙能力 | 丝攻夹头形式 | 辅向辅正 缩 | 辅向辅正 伸 | 本体外径 D | 长度 L | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| BT30×312-57 | M3～M12 | TCS-1B | 6 | 12 | 36 | 57 | |
| BT40×312-62 | M3～M12 | TCS-1B | 6 | 12 | 36 | 62 | |
| BT40×312-120 | M3～M12 | TCS-1B | 6 | 12 | 46 | 120 | |
| BT40×822-94 | M8～M22 | TCS-2B | 12.5 | 12.5 | 53 | 94 | |
| BT40×822-166 | M8～M22 | TCS-2B | 12.5 | 12.5 | 53 | 166 | |
| BT40×1638-164 | M16～M38 | TCS-3B | 20 | 20 | 78 | 164 | |
| BT40×1638-201 | M16～M38 | TCS-3B | 20 | 20 | 78 | 201 | |
| BT50×312-81 | M3～M12 | TCS-1B | 6 | 12 | 36 | 81 | |
| BT50×312-126 | M3～M12 | TCS-1B | 6 | 12 | 46 | 126 | |
| BT50×822-102 | M8～M22 | TCS-2B | 8.7 | 11.3 | 68 | 102 | |
| BT50×822-166 | M8～M22 | TCS-2B | 8.7 | 11.3 | 68 | 166 | |
| BT50×1638-142 | M16～M38 | TCS-3B | 20 | 20 | 78 | 142 | |
| BT50×1638-201 | M16～M38 | TCS-3B | 20 | 20 | 78 | 201 | |

## 扭力丝攻筒夹



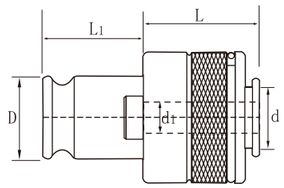



●订购时请确认并告知丝攻柄径及四角削平尺寸。

| 型号 Model | 攻牙能力 | D | $D_1$ | $D_2$ | $L_1$ | $L_3$ | $L_4$ | $L_5$ | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| TCS-1B | M3～M12(M14) | 32 | 19 | 19 | 17 | 25 | 21.5 | 25 | |
| TCS-2B | M8～M22 | 50 | 30 | 31 | 30 | 31 | 35.5 | 33 | |
| TCS-3B | M14～M38 | 72 | 47 | 48 | 44 | 41 | 55.5 | 45 | |

## TCS 扭力攻牙刀柄筒夹






| 型号 Model | Tap Shaink ØD | Tap Shaink L | C mm | L1 mm | L2 mm |
|---|---|---|---|---|---|
| TCS3B-M14 | 10.5 | 8.0 | | | |
| TCS3B-M15 | 10.5 | 8.0 | | | |
| TCS3B-M16 | 12.5 | 10.0 | | | |
| TCS3B-M17 | 13.0 | 10.0 | | | |
| TCS3B-M18 | 14.0 | 11.0 | | | |
| TCS3B-M20 | 15.0 | 12.0 | | | |
| TCS3B-M22 | 17.0 | 13.0 | | | |
| TCS3B-M24 | 19.0 | 15.0 | | | |
| TCS3B-M25 | 19.0 | 15.0 | | | |
| TCS3B-M26 | 20.0 | 15.0 | | | |
| TCS3B-M27 | 20.0 | 15.0 | | | |
| TCS3B-M28 | 21.0 | 17.0 | | | |
| TCS3B-M30 | 23.0 | 17.0 | | | |
| TCS3B-M32 | 24.0 | 19.0 | | | |
| TCS3B-M33 | 25.0 | 19.0 | | | |
| TCS3B-M34 | 26.0 | 21.0 | | | |
| TCS3B-M35 | 26.0 | 21.0 | 48 | 55.5 | 45 |
| TCS3B-M36 | 28.0 | 21.0 | | | |
| TCS3B-UNC9/16 | 10.5 | 8.0 | | | |
| TCS3B-UNC5/8 | 12.0 | 9.0 | | | |
| TCS3B-UNC3/4 | 14.0 | 11.0 | | | |
| TCS3B-UNC7/8 | 17.0 | 13.0 | | | |
| TCS3B-UNC1 | 20.0 | 15.0 | | | |
| TCS3B-UNC1/8 | 22.0 | 17.0 | | | |
| TCS3B-UNC1/4 | 24.0 | 19.0 | | | |
| TCS3B-UNC3/8 | 26.0 | 21.0 | | | |
| TCS3B-PT1/4 | 11.0 | 9.0 | | | |
| TCS3B-PT3/8 | 14.0 | 11.0 | | | |
| TCS3B-PT1/2 | 18.0 | 14.0 | | | |
| TCS3B-PT3/4 | 23.0 | 17.0 | | | |
| TCS3B-PT1 | 26.0 | 21.0 | | | |

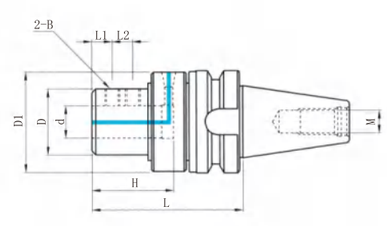
| 型号 Model | Tap Shaink ØD | Tap Shaink L | C mm | L1 mm | L2 mm |
|---|---|---|---|---|---|
| TCS2B-M7 | 6.2 | 5.0 | | | |
| TCS2B-M8 | 6.2 | 5.0 | | | |
| TCS2B-M9 | 7.0 | 5.5 | | | |
| TCS2B-M10 | 7.0 | 5.5 | | | |
| TCS2B-M11 | 8.0 | 6.0 | | | |
| TCS2B-M12 | 8.5 | 6.5 | | | |
| TCS2B-M14 | 10.5 | 8.0 | | | |
| TCS2B-M15 | 10.5 | 8.0 | | | |
| TCS2B-M16 | 12.5 | 10.0 | | | |
| TCS2B-M17 | 13.0 | 10.0 | | | |
| TCS2B-M18 | 14.0 | 11.0 | | | |
| TCS2B-M20 | 15.0 | 12.0 | 31 | 35 | 34 |
| TCS2B-M22 | 17.0 | 13.0 | | | |
| TCS2B-UNC3/8 | 7.0 | 5.5 | | | |
| TCS2B-UNC7/16 | 8.0 | 6.0 | | | |
| TCS2B-UNC1/2 | 9.0 | 7.0 | | | |
| TCS2B-UNC9/16 | 10.5 | 8.0 | | | |
| TCS2B-UNC5/8 | 12.5 | 9.0 | | | |
| TCS2B-UNC3/4 | 14.0 | 11.0 | | | |
| TCS2B-UNC7/8 | 17.0 | 13.0 | | | |
| TCS2B-PT1/8 | 8.0 | 6.0 | | | |
| TCS2B-PT1/4 | 11.0 | 9.0 | | | |
| TCS2B-PT3/8 | 14.0 | 11.0 | | | |
| TCS2B-PT1/2 | 18.0 | 14.0 | | | |

| 型号 Model | Tap Shaink ØD | Tap Shaink L | C mm | L1 mm | L2 mm |
|---|---|---|---|---|---|
| TCS1B-M3 | 4.0 | 3.2 | | | |
| TCS1B-M4 | 5.0 | 4.0 | | | |
| TCS1B-M5 | 5.5 | 4.5 | | | |
| TCS1B-M6 | 6.0 | 4.5 | | | |
| TCS1B-M7 | 6.2 | 5.0 | | | |
| TCS1B-M8 | 6.2 | 5.0 | | | |
| TCS1B-M9 | 7.0 | 5.5 | | | |
| TCS1B-M10 | 7.0 | 5.5 | | | |
| TCS1B-M11 | 8.0 | 6.0 | | | |
| TCS1B-M12 | 8.5 | 6.5 | | | |
| TCS1B-M14 | 10.5 | 8.0 | 19 | 21.5 | 25 |
| TCS1B-M15 | 10.5 | 8.0 | | | |
| TCS1B-UNC1/4 | 6.0 | 4.5 | | | |
| TCS1B-UNC5/16 | 6.1 | 5.0 | | | |
| TCS1B-UNC3/8 | 7.0 | 5.5 | | | |
| TCS1B-UNC7/16 | 8.0 | 6.0 | | | |
| TCS1B-UNC1/2 | 9.0 | 7.0 | | | |
| TCS1B-UNC9/16 | 10.5 | 8.0 | | | |
| TCS1B-PT1/8 | 8.0 | 6.0 | | | |
| TCS1B-PT1/4 | 11.0 | 9.0 | | | |



## BT/OSM 油路刀柄



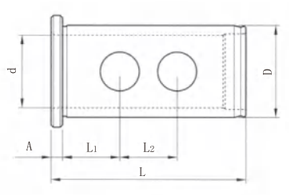



- 设计灵巧、装夹方便、安装不需定位块、通用性高。
- 本体有效长度短、刚性强。
- 使用寿命长。

| 型号 Model | d mm | L mm | D mm | D1 mm | H mm | L1 mm | L2 mm | B | M |
|---|---|---|---|---|---|---|---|---|---|
| BT40-OSM20-105 | 20 | 105 | 50 | 78 | 50 | 20 | - | M12 | M16 |
| BT40-OSM25-120 | 25 | 120 | 50 | 78 | 60 | 20 | 20 | M12 | M16 |
| BT40-OSM32-125 | 32 | 125 | 65 | 88 | 70 | 20 | 20 | M14 | M16 |
| BT50-OSM20-120 | 20 | 120 | 50 | 78 | 50 | 20 | - | M12 | M24 |
| BT50-OSM25-125 | 25 | 125 | 50 | 78 | 60 | 20 | 20 | M12 | M24 |
| BT50-OSM32-135 | 32 | 135 | 65 | 98 | 70 | 20 | 20 | M14 | M24 |
| BT50-OSM40-145 | 40 | 145 | 65 | 98 | 80 | 20 | 25 | M16 | M24 |
| BT50-OSM50-170 | 50 | 170 | 90 | 123 | 90 | 35 | 35 | M20 | M24 |

## OSM 油路刀柄套筒

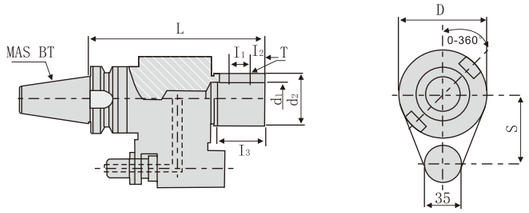





| 型号 Model | D mm | d mm | L mm | L1 mm | L2 mm | B mm |
|---|---|---|---|---|---|---|
| OSM32-20 | 32 | 20 | 65 | 20 | - | 5 |
| OSM32-25 | 32 | 25 | 65 | 20 | 20 | 5 |
| OSM40-20 | 40 | 20 | 75 | 20 | - | 5 |
| OSM40-25 | 40 | 25 | 75 | 20 | 25 | 5 |
| OSM40-32 | 40 | 32 | 75 | 20 | 25 | 5 |
| OSM50-20 | 50 | 20 | 95 | 35 | - | 5 |
| OSM50-25 | 50 | 25 | 95 | 35 | - | 5 |
| OSM50-32 | 50 | 32 | 95 | 35 | 35 | 5 |
| OSM50-40 | 50 | 40 | 95 | 35 | 35 | 5 |

## BT/OSL侧固式油路刀柄



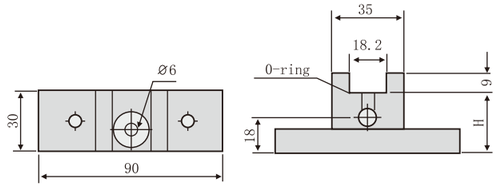



- ●订购前请确认“S”尺寸（中心距离）。
- ●使用前请确认中心切削机的高压装置。
- ●承受15Kgf/cm² 水压。
- ●最高转速了限制：3000rpm。
- ●内附安装说明书

| 型号 Model (d1-I1) | I1 mm | I2 mm | I3 mm | D mm | d2 mm | S mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| BT40×OSL20-165 | 50 | 25 | | 82 | 48 | 65 | M12×1.75P | 3.5 |
| BT40×OSL25-165 | 56 | 15 | 20 | 82 | 48 | 65 | M16×2.0P | 3.5 |
| BT40×OSL32-165 | 56 | 15 | 20 | 82 | 49.5 | 65 | M16×2.0P | 3.5 |
| BT40×OSL20-165S | 50 | 25 | | 82 | 48 | 60 | M12×1.75P | 3.5 |
| BT40×OSL25-165S | 56 | 15 | 20 | 82 | 48 | 60 | M16×2.0P | 3.5 |
| BT40×OSL32-165S | 60 | 15 | 20 | 82 | 49.5 | 60 | M16×2.0P | 3.8 |
| BT50×OSL20-165 | 50 | 25 | | 98 | 58 | 80 | M12×1.75P | 7.5 |
| BT50×OSL25-165 | 56 | 15 | 20 | 98 | 58 | 80 | M16×2.0P | 7.5 |
| BT50×OSL32-165 | 60 | 15 | 20 | 98 | 58 | 80 | M16×2.0P | 7.8 |
| BT50×OSL40-170 | 62 | 15 | 25 | 105 | 56 | 80 | M14×2.0P | 8.5 |
| BT50×OSL20-165M | 50 | 25 | | 98 | 58 | 82 | M12×1.75P | 7.6 |
| BT50×OSL25-165M | 56 | 15 | 20 | 98 | 58 | 82 | M16×2.0P | 7.7 |
| BT50×OSL32-165M | 60 | 15 | 25 | 98 | 58 | 82 | M16×2.0P | 7.8 |
| BT50×OSL40-170M | 62 | 25 | | 105 | 56 | 82 | M14×2.0P | 8.5 |
| BT50×OSL20-165L | 50 | 25 | | 98 | 58 | 85 | M12×1.75P | 7.8 |
| BT50×OSL25-165L | 56 | 15 | 20 | 98 | 58 | 85 | M16×2.0P | 7.8 |
| BT50×OSL32-165L | 60 | 15 | 20 | 98 | 58 | 85 | M16×2.0P | 8.0 |
| BT50×OSL40-170L | 62 | 15 | 25 | 105 | 56 | 85 | M14×2.0P | 8.7 |

## ST-18油路刀把定位块

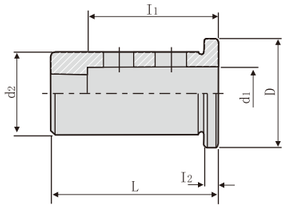





使用[油路刀把定位块]时，须依图解说明：
定位块可以装置在轴上，但要固定于机器上，才不会妨碍到ATC臂等，
固定方法因机器而异，因此，装置前应询问机器制造商其适合的定位块装置方法。

## BT-OSL侧固油路刀把套筒

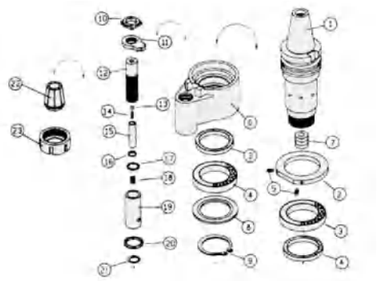


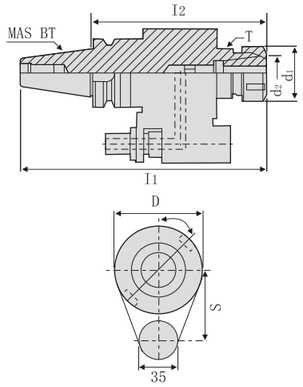



| 型号 Model (d2-I1) | D mm | L mm | I1 mm | I2 mm | 重量 (KGS) |
|---|---|---|---|---|---|
| OSL-20-16 | 30 | 54 | 44 | 5.5 | 0.07 |
| OSL-25-16 | 35 | 60 | 48 | 5.5 | 0.19 |
| OSL-25-20 | 35 | 60 | 50 | 5.5 | 0.15 |
| OSL-32-16 | 42 | 64 | 48 | 5.5 | 0.35 |
| OSL-32-20 | 42 | 64 | 50 | 5.5 | 0.32 |
| OSL-32-25 | 42 | 64 | 56 | 5.5 | 0.22 |
| OSL-40-16 | 50 | 74 | 44 | 5.5 | 0.57 |
| OSL-40-20 | 50 | 74 | 48 | 5.5 | 0.54 |
| OSL-40-25 | 50 | 74 | 50 | 5.5 | 0.45 |
| OSL-40-32 | 50 | 74 | 56 | 5.5 | 0.30 |

## BT/OHER油路刀柄








| 型号 Model | I2 mm | L mm | D mm | d1 mm | d2 mm | S mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| BT40-OHER16-160 | 160 | 225.4 | 82 | 28 | 16 | 65 | M10 | 3.80 |
| BT40-OHER20-160 | 160 | 225.4 | 82 | 34 | 20 | 65 | M12 | 4.10 |
| BT40-OHER25-160 | 160 | 225.4 | 82 | 42 | 25 | 65 | M16 | 4.30 |
| BT40-OHER32-160 | 160 | 225.4 | 82 | 50 | 32 | 65 | M16 | 4.50 |
| BT50-OHER16-160 | 160 | 261.8 | 98 | 28 | 16 | 80 | M10 | 7.00 |
| BT50-OHER20-160 | 160 | 261.8 | 98 | 34 | 20 | 80 | M12 | 7.10 |
| BT50-OHER25-160 | 160 | 261.8 | 98 | 42 | 25 | 80 | M16 | 7.20 |
| BT50-OHER32-160 | 160 | 261.8 | 98 | 50 | 32 | 80 | M16 | 7.30 |
| BT50-OHER40-160 | 160 | 261.8 | 98 | 63 | 40 | 80 | M20 | 7.50 |



## ER止水筒夹



材质：SUJ-2
斜度：8度
硬度：HRC46
表面粗糙度：RZ2.5以内
偏摆精度<0.01mm

●利用沟槽的差异以及垫圈（Sealed ring封环）的应用，达到周围止水，仅中心的出水的功能
●适用于夹持有出水孔的刀具
●可承受水压达21Kgf/cm²
●无弹性（没有弹性夹持范围，需看最大夹持范围）
●非标准孔径如英制尺寸或是点数规格可接受订制
●此产品ER部分依据DIN6499，可搭配合适的（无）刀杆

| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER16-3.0 | 3 | 0.03 |
| BT-SOER16-4.0 | 4 | 0.03 |
| BT-SOER16-5.0 | 5 | 0.03 |
| BT-SOER16-6.0 | 6 | 0.03 |
| BT-SOER16-7.0 | 7 | 0.03 |
| BT-SOER16-8.0 | 8 | 0.03 |
| BT-SOER16-9.0 | 9 | 0.03 |
| BT-SOER16-10.0 | 10 | 0.03 |

| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER20-3.0 | 3 | 0.04 |
| BT-SOER20-4.0 | 4 | 0.04 |
| BT-SOER20-5.0 | 5 | 0.04 |
| BT-SOER20-6.0 | 6 | 0.04 |
| BT-SOER20-7.0 | 7 | 0.04 |
| BT-SOER20-8.0 | 8 | 0.04 |
| BT-SOER20-9.0 | 9 | 0.04 |
| BT-SOER20-10.0 | 10 | 0.04 |
| BT-SOER20-11.0 | 11 | 0.04 |
| BT-SOER20-12.0 | 12 | 0.04 |
| BT-SOER20-13.0 | 13 | 0.04 |

| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER25-3.0 | 3 | 0.06 |
| BT-SOER25-4.0 | 4 | 0.06 |
| BT-SOER25-5.0 | 5 | 0.06 |
| BT-SOER25-6.0 | 6 | 0.06 |
| BT-SOER25-7.0 | 7 | 0.06 |
| BT-SOER25-8.0 | 8 | 0.06 |
| BT-SOER25-9.0 | 9 | 0.06 |
| BT-SOER25-10.0 | 10 | 0.06 |

| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER25-11.0 | 11 | 0.06 |
| BT-SOER25-12.0 | 12 | 0.06 |
| BT-SOER25-13.0 | 13 | 0.06 |
| BT-SOER25-14.0 | 14 | 0.06 |
| BT-SOER25-15.0 | 15 | 0.06 |
| BT-SOER25-16.0 | 16 | 0.06 |

## ER止水筒夹



材质：SUJ-2
斜度：8度
硬度：HRC46
表面粗糙度：RZ2.5以内
偏摆精度<0.01mm

●利用沟槽的差异以及垫圈（Sealed ring封环）的应用，达到周围止水，仅中心的出水的功能
●适用于夹持有出水孔的刀具
●可承受水压达21Kgf/cm²
●无弹性（没有弹性夹持范围，需看最大夹持范围）
●非标准孔径如英制尺寸或是点数规格可接受订制
●此产品ER部分依据DIN6499，可搭配合适的（无）刀杆

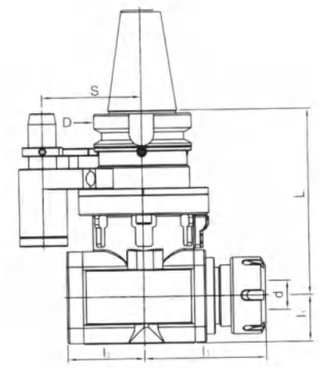
| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER32-3.0 | 3 | 0.10 |
| BT-SOER32-4.0 | 4 | 0.10 |
| BT-SOER32-5.0 | 5 | 0.10 |
| BT-SOER32-6.0 | 6 | 0.10 |
| BT-SOER32-7.0 | 7 | 0.10 |
| BT-SOER32-8.0 | 8 | 0.10 |
| BT-SOER32-9.0 | 9 | 0.10 |
| BT-SOER32-10.0 | 10 | 0.10 |
| BT-SOER32-11.0 | 11 | 0.10 |
| BT-SOER32-12.0 | 12 | 0.10 |
| BT-SOER32-13.0 | 13 | 0.10 |
| BT-SOER32-14.0 | 14 | 0.10 |
| BT-SOER32-15.0 | 15 | 0.10 |
| BT-SOER32-16.0 | 16 | 0.10 |
| BT-SOER32-17.0 | 17 | 0.10 |
| BT-SOER32-18.0 | 18 | 0.10 |
| BT-SOER32-19.0 | 19 | 0.10 |
| BT-SOER32-20.0 | 20 | 0.10 |

| 型号 Model | 夹持范围 | 重量 (KGS) |
|---|---|---|
| BT-SOER40-3.0 | 3 | 0.25 |
| BT-SOER40-4.0 | 4 | 0.25 |
| BT-SOER40-5.0 | 5 | 0.25 |
| BT-SOER40-6.0 | 6 | 0.25 |
| BT-SOER40-7.0 | 7 | 0.25 |
| BT-SOER40-8.0 | 8 | 0.25 |
| BT-SOER40-9.0 | 9 | 0.25 |
| BT-SOER40-10.0 | 10 | 0.25 |
| BT-SOER40-11.0 | 11 | 0.25 |
| BT-SOER40-12.0 | 12 | 0.25 |
| BT-SOER40-13.0 | 13 | 0.25 |
| BT-SOER40-14.0 | 14 | 0.25 |
| BT-SOER40-15.0 | 15 | 0.25 |
| BT-SOER40-16.0 | 16 | 0.25 |
| BT-SOER40-17.0 | 17 | 0.25 |
| BT-SOER40-18.0 | 18 | 0.25 |
| BT-SOER40-19.0 | 19 | 0.25 |
| BT-SOER40-20.0 | 20 | 0.25 |
| BT-SOER40-21.0 | 21 | 0.25 |
| BT-SOER40-22.0 | 22 | 0.25 |
| BT-SOER40-23.0 | 23 | 0.25 |
| BT-SOER40-24.0 | 24 | 0.25 |
| BT-SOER40-25.0 | 25 | 0.25 |
| BT-SOER40-26.0 | 26 | 0.25 |



## BT/SAM90° 角度头






| 型号 Model | L mm | l1 mm | l2 mm | l3 mm | D mm | d mm | S mm | COLLET | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| BT40×SAM10S-120 | 120 | 30.5 | 50.3 | 77 | 63 | Φ2～Φ10 | 65 | SKS10 | 5.20 |
| BT40×SAM16S-120 | 120 | 30.5 | 50.3 | 85 | 63 | Φ3～Φ16 | 65 | SKS16 | 5.20 |
| BT40×SAM16E-120 | 120 | 30.5 | 50.3 | 85 | 63 | Φ1～Φ10 | 65 | ER16 | 5.20 |
| BT40×SAM32E-120 | 120 | 30.5 | 50.3 | 78 | 63 | Φ3～Φ16 | 65 | ER32 | 5.20 |
| BT50×SAM10S-130 | 130 | 30.5 | 50.3 | 77 | 100 | Φ2～Φ10 | 65 | SKS10 | 6.30 |
| BT50×SAM16S-130 | 130 | 30.5 | 50.3 | 85 | 100 | Φ3～Φ16 | 80 | SKS16 | 6.30 |
| BT50×SAM16E-130 | 130 | 30.5 | 50.3 | 85 | 100 | Φ1～Φ10 | 80 | ER16 | 6.30 |
| BT50×SAM32E-130 | 130 | 30.5 | 50.3 | 78 | 100 | Φ3～Φ16 | 80 | ER32 | 8.86 |

1.先将90°角度头下本体座（26）上4颗固定螺丝（25）转松开约1/4圈，使90°角度本体做能转动任何角度。

2.把六角螺帽（18）上3颗固定螺丝松开（17）。

3.将机床主轴定位。

4.将90°角度头调整螺丝（19）对准机床之定位块，并且把90°角度头装置于机床主轴上。

5.转动六角螺帽（18），使离合块（10）与定凸环套(03)上凹槽完全脱离,后将六角螺帽(18)上3颗固定螺丝锁紧固定。

6.将下本体座（26)转向欲加工之方向面；校正平行度后，再将（25）4颗M6x1.0P螺丝固定。

7.解除机床主轴定位，后用于手转主轴，测试主轴是否能转动及离合块（10)与定凸套环(03)上凹槽是否有完全脱离,如未脱离请重复步骤5。

8.再将机床主轴测试田运转(逆转)速度请先勿太快,约100~200RPM。

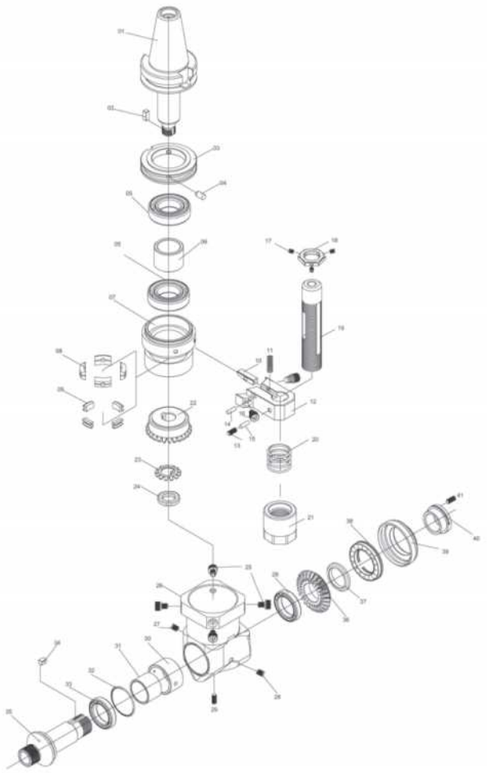
9.停止主轴，测试换道具以确认刀把是否完成主轴定位安装。

## 注意事项

A.使用90°角度头,机台主轴为逆转(M04)
B.90°角度头最高转速3000RPM

## 优　点

1.NO29心轴零件可弹性更换（SKS10、ER16、FMA25.4、SCA25.4、MLC20）

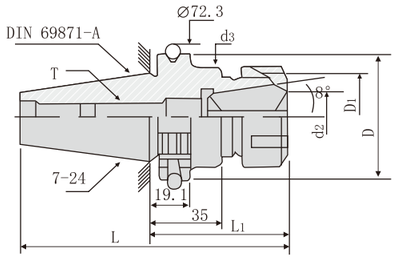


| NO | 零件名称 | NO | 零件名称 |
|---|---|---|---|
| 01 | 本体 | 22 | 伞形齿轮 |
| 02 | Key | 23 | Sun-ring |
| 03 | 定凸套环 | 24 | Nut |
| 04 | 螺丝 | 25 | 螺丝 |
| 05 | 滚珠轴承 | 26 | 下本体座 |
| 06 | Sa开隔环 | 27 | 螺丝 |
| 07 | 上本体座 | 28 | 螺丝 |
| 08 | 滑动锁固块 | 29 | 心轴 |
| 09 | 开隔块 | 30 | St开隔环 |
| 10 | 离合块 | 30 | St开隔环 |
| 11 | 弹簧 | 32 | Spring |
| 12 | 接合块 | 33 | 滚珠轴承 |
| 13 | 螺丝 | 34 | Key |
| 14 | pin | 35 | 心轴 |
| 15 | pin | 36 | 伞形齿轮 |
| 16 | 螺丝 | 37 | Sc开隔环 |
| 17 | 螺丝 | 38 | 滚珠轴承 |
| 18 | 六角螺帽 | 39 | 大螺帽 |
| 19 | 调整螺丝 | 40 | 弹性固定螺帽 |
| 20 | 弹簧 | 41 | 螺丝 |
| 21 | 固定螺帽 | | |



# DAT/ER夹头

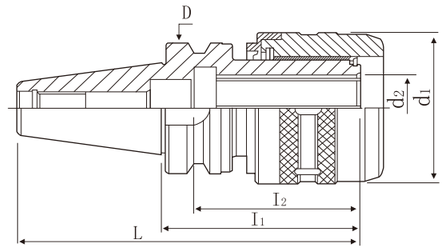





| 型号 Model | L mm | D mm | d1 mm | d2 mm | d3 MAX | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| DAT40×ER11-80 | 148.4 | 63.55 | 19 | 11 | 50 | M6×1.0P | 1.05 |
| DAT40×ER11-125 | 193.4 | 63.55 | 19 | 11 | 50 | M6×1.0P | 1.15 |
| DAT40×ER16-70 | 138.4 | 63.55 | 28 | 16 | 50 | M10×1.5P | 1.30 |
| DAT40×ER16-100 | 168.4 | 63.55 | 28 | 16 | 50 | M10×1.5P | 1.40 |
| DAT40×ER16-150 | 218.4 | 63.55 | 28 | 16 | 50 | M10×1.5P | 1.65 |
| DAT40×ER20-70 | 138.4 | 63.55 | 34 | 20 | 50 | M12×1.75P | 1.40 |
| DAT40×ER20-100 | 168.4 | 63.55 | 34 | 20 | 50 | M12×1.75P | 1.50 |
| DAT40×ER20-160 | 228.4 | 63.55 | 34 | 20 | 50 | M12×1.75P | 2.20 |
| DAT40×ER25-70 | 138.4 | 63.55 | 42 | 25 | 50 | M16×2.0P | 1.60 |
| DAT40×ER25-100 | 168.4 | 63.55 | 42 | 25 | 50 | M16×2.0P | 1.85 |
| DAT40×ER25-150 | 218.4 | 63.55 | 42 | 25 | 50 | M16×2.0P | 2.25 |
| DAT40×ER25-200 | 268.4 | 63.55 | 42 | 25 | 50 | M16×2.0P | 2.55 |
| DAT40×ER32-70 | 138.4 | 63.55 | 50 | 32 | 50 | M16×2.0P | 1.60 |
| DAT40×ER32-100 | 168.4 | 63.55 | 50 | 32 | 50 | M16×2.0P | 2.00 |
| DAT40×ER32-150 | 218.4 | 63.55 | 50 | 32 | 50 | M16×2.0P | 2.65 |
| DAT40×ER40-70 | 138.4 | 63.55 | 63 | 40 | 50 | M20×2.0P | 1.50 |
| DAT40×ER40-100 | 168.4 | 63.55 | 63 | 40 | 50 | M20×2.0P | 2.00 |
| DAT50×ER16-100 | 201.75 | 63.55 | 28 | 16 | 97.5 | M10×1.5P | 3.20 |
| DAT50×ER16-135 | 236.75 | 63.55 | 28 | 16 | 97.5 | M10×1.5P | 4.30 |
| DAT50×ER16-160 | 261.75 | 63.55 | 28 | 16 | 97.5 | M10×1.5P | 4.50 |
| DAT50×ER20-100 | 201.75 | 63.55 | 34 | 20 | 97.5 | M12×1.75P | 3.40 |
| DAT50×ER20-135 | 236.75 | 63.55 | 34 | 20 | 97.5 | M12×1.75P | 3.60 |
| DAT50×ER20-160 | 261.75 | 63.55 | 34 | 20 | 97.5 | M12×1.75P | 3.80 |
| DAT50×ER25-70 | 171.75 | 63.55 | 42 | 25 | 97.5 | M16×2.0P | 3.40 |
| DAT50×ER25-100 | 201.75 | 63.55 | 42 | 25 | 97.5 | M16×2.0P | 4.15 |
| DAT50×ER25-150 | 251.75 | 63.55 | 42 | 25 | 97.5 | M16×2.0P | 4.50 |
| DAT50×ER32-80 | 181.75 | 63.55 | 50 | 32 | 97.5 | M16×2.0P | 3.60 |
| DAT50×ER32-120 | 221.75 | 63.55 | 50 | 32 | 97.5 | M16×2.0P | 4.60 |
| DAT50×ER32-160 | 261.75 | 63.55 | 50 | 32 | 97.5 | M16×2.0P | 4.75 |
| DAT50×ER32-200 | 301.75 | 63.55 | 50 | 32 | 97.5 | M16×2.0P | 4.90 |
| DAT50×ER40-80 | 181.75 | 63.55 | 63 | 40 | 97.5 | M20×2.0P | 3.65 |
| DAT50×ER40-120 | 221.75 | 63.55 | 63 | 40 | 97.5 | M20×2.0P | 4.80 |
| DAT50×ER40-160 | 261.75 | 63.55 | 63 | 40 | 97.5 | M20×2.0P | 5.20 |
| DAT50×ER40-200 | 301.75 | 63.55 | 63 | 40 | 97.5 | M20×2.0P | 5.40 |

## DAT直筒式强力型刀柄



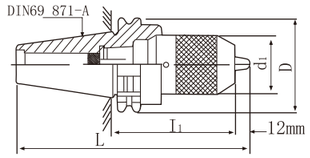


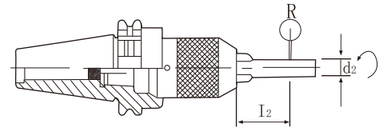

| 型号 Model | L mm | I1 mm | I2 mm | D mm | d1 mm | d2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| DAT30×MLC20-85 | 132.80 | 85 | 70 | 50 | 56.5 | 20 | 1.9 |
| DAT40×MLC20-85 | 153.40 | 85 | 70 | 63.55 | 56.5 | 20 | 2.4 |
| DAT40×MLC32-105 | 173.40 | 105 | 70 | 63.55 | 71 | 32 | 2.7 |
| DAT50×MLC20-105 | 206.75 | 105 | 75 | 97.50 | 56.5 | 20 | 4.5 |
| DAT50×MLC32-110 | 211.75 | 110 | 70 | 97.50 | 71 | 32 | 4.9 |
| DAT50×MLC32-135 | 236.75 | 135 | 75 | 97.50 | 71 | 32 | 5.2 |
| DAT50×MLC42-110 | 211.75 | 110 | 90 | 97.50 | 95 | 42 | 6.0 |



## DAT/SPU直结式钻头刀柄





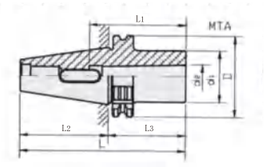



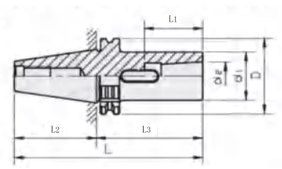

●直结式设计,提高使用效果

| 型号 Model | L mm | I1 mm | I2 mm | D mm | d1 mm | d2 mm | R mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| DAT30×SPU8-80 | 136.8 | 80 | 55 | 50 | 37 | 6 | 0.04 | 0.60 |
| DAT30×SPU13-120 | 179.8 | 120 | 75 | 50 | 50 | 13 | 0.04 | 1.45 |
| DAT30×SPU16-125 | 189.8 | 125 | 80 | 50 | 57 | 16 | 0.04 | 1.78 |
| DAT40×SPU8-75 | 152.4 | 75 | 55 | 63.55 | 37 | 6 | 0.04 | 1.32 |
| DAT40×SPU13-100 | 180.4 | 100 | 75 | 63.55 | 50 | 13 | 0.04 | 1.92 |
| DAT40×SPU16-115 | 190.4 | 115 | 80 | 63.55 | 57 | 16 | 0.04 | 2.28 |
| DAT50×SPU8-75 | 185.75 | 75 | 55 | 97.50 | 37 | 6 | 0.04 | 3.86 |
| DAT50×SPU13-100 | 213.75 | 100 | 75 | 97.50 | 50 | 13 | 0.04 | 4.40 |
| DAT50×SPU16-105 | 218.75 | 105 | 80 | 97.50 | 57 | 16 | 0.04 | 4.48 |

## DAT/MTA斜柄钻头刀柄DIN228





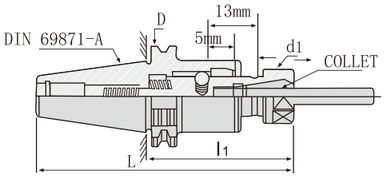




| 型号 Model | L mm | $L_1$ mm | D mm | $d_1$ mm | $d_2$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|
| DAT30×MTA1-50 | 97.8 | 56 | 50 | 25 | 12.065 | 0.55 |
| DAT30×MTA2-60 | 117.8 | 67 | 50 | 32 | 17.780 | 0.80 |
| DAT30×MTA3-75 | 122.8 | 84 | 50 | 40 | 23.825 | 1.00 |
| DAT40×MTA1-50 | 118.4 | 56 | 63.55 | 25 | 12.065 | 1.20 |
| DAT40×MTA2-60 | 118.4 | 67 | 63.55 | 32 | 17.780 | 1.00 |
| DAT40×MTA3-70 | 138.4 | 84 | 63.55 | 40 | 23.825 | 1.10 |
| DAT40×MTA4-95 | 163.4 | 107 | 63.55 | 48 | 31.267 | 1.35 |
| DAT50×MTA1-45 | 146.75 | 56 | 97.50 | 25 | 12.065 | 3.00 |
| DAT50×MTA2-60 | 161.75 | 67 | 97.50 | 32 | 17.780 | 3.10 |
| DAT50×MTA3-65 | 166.75 | 84 | 97.50 | 40 | 23.825 | 3.20 |
| DAT50×MTA4-95 | 196.75 | 107 | 97.50 | 48 | 31.267 | 3.40 |
| DAT50×MTA5-105 | 206.75 | 133 | 97.50 | 63 | 44.399 | 3.60 |



## DAT/ETP伸缩攻牙刀柄



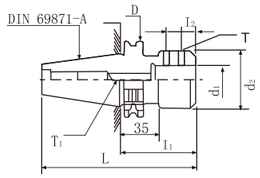


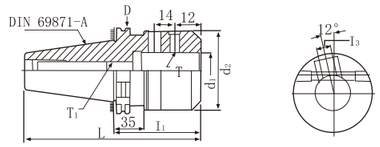

- 伸长13mm，收缩5mm。
- 搭配刚性攻牙筒夹,使用效果最好。

| 型号 Model | L mm | $l_1$ mm | D mm | $d_1$ mm | 使用筒夹 | 攻牙能力 | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| DAT40×ETP16A-120 | 188.4 | 120 | 63.55 | 28 | ER16 | M3-M10 | 1.65 |
| DAT40×ETP16A-150 | 218.4 | 150 | 63.55 | 28 | ER16 | M3-M10 | 1.85 |
| DAT40×ETP20A-100 | 168.4 | 100 | 63.55 | 34 | ER20 | M3-M16 | 1.65 |
| DAT40×ETP20A-150 | 218.4 | 150 | 63.55 | 34 | ER20 | M3-M16 | 1.90 |
| DAT40×ETP20M-200 | 268.4 | 200 | 63.55 | 28 | ER20 | M3-M16 | 2.15 |
| DAT40×ETP32-120 | 188.4 | 120 | 63.55 | 50 | ER32 | M3-M27 | 2.10 |
| DAT50×ETP16A-120 | 221.75 | 120 | 97.5 | 28 | ER16 | M3-M10 | 4.30 |
| DAT50×ETP16A-150 | 251.75 | 150 | 97.5 | 28 | ER16 | M3-M10 | 4.50 |
| DAT50×ETP20A-100 | 201.75 | 100 | 97.5 | 34 | ER20 | M3-M16 | 4.30 |
| DAT50×ETP20A-150 | 251.75 | 150 | 97.5 | 34 | ER20 | M3-M16 | 4.60 |
| DAT50×ETP20M-200 | 301.75 | 200 | 97.5 | 28 | ER20 | M3-M16 | 4.70 |
| DAT50×ETP32-120 | 221.75 | 120 | 97.5 | 50 | ER32 | M3-M27 | 4.65 |

## DAT/SLN侧固式刀柄









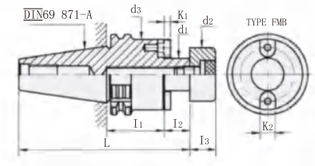
●孔径公差H5

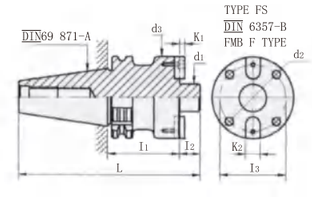
| 型号 Model | L mm | $I_2$ mm | $I_3$ mm | $T_1$ mm | $d_2$ mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|
| DAT40×SLN12-50 | 118.4 | 22.5 | - | M10 | 42 | M12×1.75P | 1.15 |
| DAT40×SLN16-63 | 131.4 | 24 | - | M12 | 48 | M14×2.0P | 1.40 |
| DAT40×SLN20-63 | 131.4 | 25 | - | M16 | 52 | M16×2.0P | 1.30 |
| DAT40×SLN25-100 | 168.4 | 24 | 25 | M20 | 65 | M18×2.0P | 2.40 |
| DAT40×SLN32-100 | 168.4 | 24 | 28 | M20 | 72 | M20×2.0P | 2.70 |
| DAT50×SLN16-63 | 164.75 | 24 | - | M12 | 48 | M14×2.0P | 3.45 |
| DAT50×SLN20-63 | 164.75 | 25 | - | M16 | 52 | M16×2.0P | 3.50 |
| DAT50×SLN25-80 | 164.75 | 24 | 25 | M20 | 65 | M18×2.0P | 4.20 |
| DAT50×SLN32-100 | 201.75 | 24 | 28 | M20 | 72 | M20×2.0P | 5.00 |
| DAT50×SLN40-100 | 201.75 | 30 | 32 | M20 | 90 | M20×2.0P | 5.60 |
| DAT50×SLN42-100 | 201.75 | 30 | 32 | M20 | 90 | M20×2.0P | 5.70 |
| DAT50×SLN50-125 | 226.75 | 35 | 35 | M20 | 100 | M24×2.0P | 5.90 |



## DAT平面铣刀柄



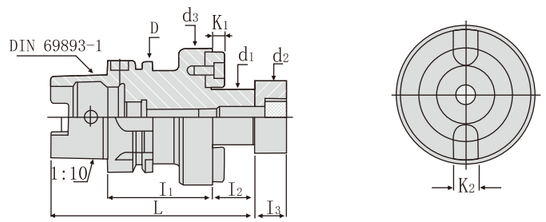



| 型号 Model | L mm | $I_2$ mm | $I_3$ mm | $d_2$ mm | $d_3$ mm | $K_1$ mm | $K_2$ mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| DAT40×FMB22-35 | 121.4 | 19 | 14 | 26 | 48 | 4.8 | 10 | 1.20 |
| DAT40×FMB27-60 | 148.4 | 20 | 16 | 31.5 | 58 | 5.8 | 12 | 1.80 |
| DAT40×FMB32-60 | 150.4 | 22 | 16 | 41 | 66 | 6.8 | 14 | 2.00 |
| DAT40×FMB40-60 | 153.4 | 25 | 20.5 | 48 | 80 | 8.3 | 16 | 2.60 |
| DAT50×FMB22-35 | 154.75 | 19 | 14 | 26 | 48 | 4.8 | 10 | 3.40 |
| DAT50×FMB27-35 | 156.75 | 20 | 16 | 31.5 | 60 | 5.8 | 12 | 3.50 |
| DAT50×FMB32-35 | 158.75 | 22 | 16 | 41 | 66 | 6.8 | 14 | 3.70 |
| DAT50×FMB40-50 | 189.75 | 25 | 20.5 | 48 | 80 | 8.3 | 16 | 4.70 |

## HSK/FMB平面铣刀柄









| 型号 Model | L mm | l2 mm | l3 mm | Dh10 mm | d2 mm | d3 mm | K1 mm | K2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|
| HSK40A×FMB16-50 | 87 | 17 | - | 40 | - | 40 | 3.8 | 8 | 0.70 |
| HSK40A×FMB22-60 | 99 | 19 | 14 | 40 | 26 | 50 | 4.8 | 10 | 0.80 |
| HSK40A×FMB27-60 | 101 | 21 | 16 | 40 | 31.5 | 60 | 5.8 | 12 | 1.00 |
| HSK40A×FMB32-60 | 104 | 24 | 16 | 40 | 41 | 78 | 6.8 | 14 | 1.10 |
| HSK50A×FMB16-50 | 92 | 17 | - | 50 | - | 40 | 3.8 | 8 | 1.10 |
| HSK50A×FMB22-60 | 104 | 19 | 14 | 50 | 26 | 50 | 4.8 | 10 | 1.20 |
| HSK50A×FMB27-60 | 106 | 21 | 16 | 50 | 31.5 | 60 | 5.8 | 12 | 1.30 |
| HSK50A×FMB32-60 | 109 | 24 | 16 | 50 | 41 | 78 | 6.8 | 14 | 1.50 |
| HSK63A×FMB16-50 | 99 | 17 | - | 63 | - | 40 | 3.8 | 8 | 1.20 |
| HSK63A×FMB22-50 | 101 | 19 | 14 | 63 | 26 | 50 | 4.8 | 10 | 1.30 |
| HSK63A×FMB27-60 | 113 | 21 | 16 | 63 | 31.5 | 60 | 5.8 | 12 | 1.50 |
| HSK63A×FMB32-60 | 116 | 24 | 16 | 63 | 41 | 78 | 6.8 | 14 | 1.60 |
| HSK63A×FMB40-60 | 119 | 25 | 20.5 | 63 | 48 | 89 | 8.3 | 16 | 2.10 |



RECK

# 辅助工具



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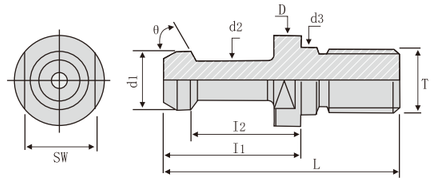
| 标准型注油式顶尖 | 516 |




## BT螺栓拉钉



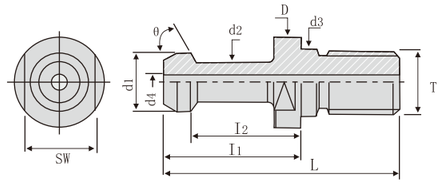



● 特殊规格可定做

| 型号 Model | D mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $I_1$ mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| BT30-45° | 16.5 | 11 | 7 | 12.5 | 43 | 23 | M12 | 0.04 |
| BT40-45° | 23 | 15 | 10 | 17 | 60 | 35 | M16 | 0.10 |
| BT50-45° | 38 | 23 | 17 | 25 | 85 | 45 | M24 | 0.30 |
| BT30-60° | 16.5 | 11 | 7 | 12.5 | 43 | 23 | M12 | 0.04 |
| BT40-60° | 23 | 15 | 10 | 17 | 60 | 35 | M16 | 0.10 |
| BT50-60° | 38 | 23 | 17 | 25 | 85 | 45 | M24 | 0.30 |
| BT30-90° | 16.5 | 11 | 7 | 12.5 | 43 | 23 | M12 | 0.04 |
| BT40-90° | 23 | 15 | 10 | 17 | 60 | 35 | M16 | 0.10 |
| BT50-90° | 38 | 23 | 17 | 2 | 85 | 45 | M24 | 0.30 |

## BT给水型螺栓拉钉



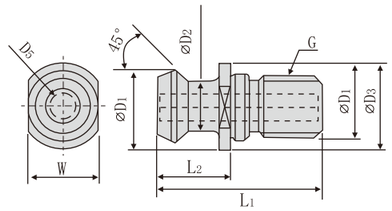



● 中心出水

| 型号 Model | D mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | $d_4$ mm | L mm | $I_1$ mm | $I_2$ mm | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| BT40-45W | 23 | 15 | 10 | 17 | 4 | 60 | 35 | 28 | M16 | 0.10 |
| BT40-60W | 23 | 15 | 10 | 17 | 4 | 60 | 35 | 28 | M16 | 0.10 |
| BT40-90W | 23 | 15 | 10 | 17 | 4 | 60 | 35 | 28 | M16 | 0.10 |
| BT50-45W | 38 | 23 | 17 | 25 | 5 | 85 | 45 | 35 | M24 | 0.30 |
| BT50-60W | 38 | 23 | 17 | 25 | 5 | 85 | 45 | 35 | M24 | 0.30 |
| BT50-90W | 38 | 23 | 17 | 25 | 5 | 85 | 45 | 35 | M24 | 0.30 |

## MAZAK/BT螺栓拉钉



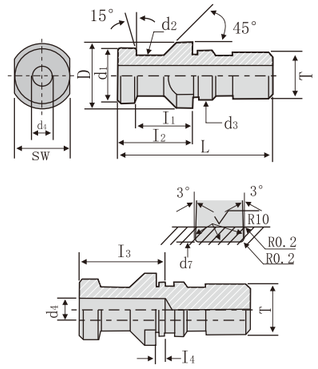



● 中心出水

| 型号 Model | $L_1$ mm | $L_2$ mm | $ØD_1$ mm | $ØD_2$ mm | $ØD_3$ mm | $ØD_4$ mm | $ØD_5$ mm | W mm | G |
|---|---|---|---|---|---|---|---|---|---|
| MAZAK-BT40 | 44.1 | 19.1 | 18.8 | 12.45 | 22 | 17 | 7 | 19 | M16 |
| MAZAK-BT50 | 65.2 | 25.2 | 29 | 20.83 | 37 | 25 | 10 | 30 | M24 |

## DAT螺栓拉钉






● Pull studs also can use for
DAT shank (DIN 69 871-A)
DBT shank (DIK 69-871-A)
DCT shank (DIF 69-873)

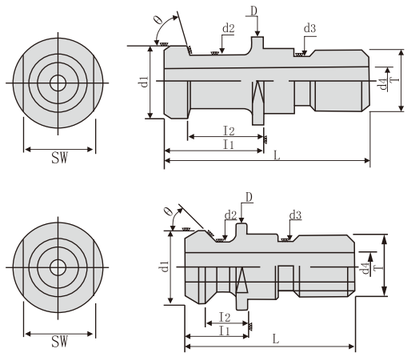
● A为通孔，利于出水。

| 型号 Model | D mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | $d_4$ mm | L mm | $I_1$ mm | $I_2$ mm | $I_3$ mm | $I_4$ mm | SW | T | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAT30-A | 17 | 13 | 9 | 13 | - | 44 | 19 | 24 | - | - | 14 | M12 | 0.03 |
| DAT40-A | 23 | 19 | 14 | 17 | 7 | 54 | 20 | 26 | - | - | 19 | M16 | 0.06 |
| DAT50-A | 36 | 28 | 21 | 25 | 11.5 | 74 | 25 | 34 | - | - | 30 | M24 | 0.25 |
| DAT30-B | 17 | 13 | 9 | 13 | - | 44 | 19 | 24 | - | 2.3 | 14 | M12 | 0.03 |
| DAT40-B | 23 | 19 | 14 | 17 | 7 | 54 | 20 | 26 | 27 | 3.0 | 19 | M16 | 0.09 |
| DAT50-B | 36 | 28 | 21 | 23 | 11.5 | 74 | 25 | 34 | 37 | 4.5 | 30 | M24 | 0.25 |



## ISO研磨螺栓拉头



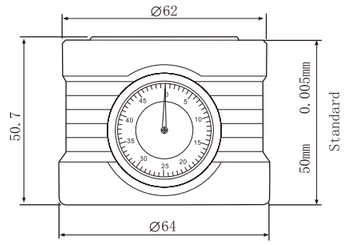



| 型号 Model | L mm | $I_1$ mm | $I_2$ mm | D mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | $d_4$ mm | SW | T | 重量 KGS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO40-A-G | 54 | 26 | 20 | 23 | 19 | 14 | 17 | 7 | 19 | M16×2.0P | 0.07 |
| ISO40-B-G | 44.5 | 16.4 | 11.15 | 22.5 | 18.95 | 12.95 | | 11.5 | | | 0.05 |
| ISO50-A-G | 74 | 34 | 25 | 36 | 28 | 21 | 25 | 7 | 30 | M24×3.0P | 0.20 |
| ISO50-B-G | 65.5 | 25.5 | 17.95 | 37 | 29.1 | 19.6 | | 11.5 | | | 0.08 |

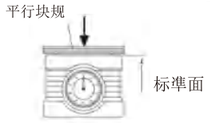
# ZDS-50 Z轴设定器(有磁性) (MAGENTIC)
# ZDS-50N Z轴设定器(无磁性) 内藏量表式



- ZD-50
- ZD-50N




1.



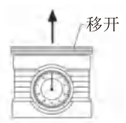

请将平行块规置于标准面上

2.




转动百分表，使长针归零

3.



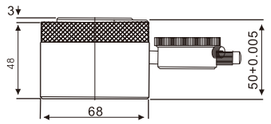

将平行块规移开

4.




将Z轴设定器置于工件上，刀具术触操作面，请慢速进刀至秒针指在“0”，则刀具与工件的距离是50mm。




| Order code | Hight |
|---|---|
| ZDS-50 | $50^{+0.005}_{0}$ |



# ZOP-50光电式Z轴设定器

**特 点**

- 高度50mm容易计算。
- 精度0.005mm每只产品都附有精度检验报告表。
- 磁性底座设计，可供侧面探测。
- 红灯亮时，四周都可看见，没有死角。

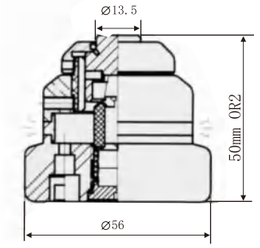
**注 意 事 项**

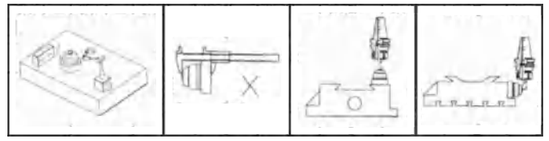
- 使用AG13水银电池2枚。
- 磁性底座请勿接近1000以上热气或火气，以防消磁。

**使 用 方 法**

- 探测面下方有微调机构。调整高度请用平行块对比侧。
- 高精度产品，不适合有游标尺检测精度。
- 快速进刀至灯亮时，请轻微后退至灯熄，再慢速进至灯亮，以利确保掌握精度。
  侧面探测时，请用刀刃之最高点拉触探测面。





| 型号 Model | 型式 | 总高度 | 伸缩距离 | 重量 (KGS) |
|---|---|---|---|---|
| ZDS-50 | 光电式 | 50 | 3 | 0.5 |

## ZDI-100量表式Z轴设定器

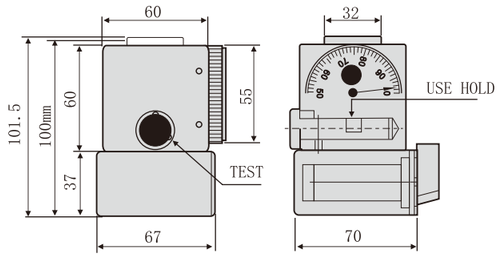
**特　　点**

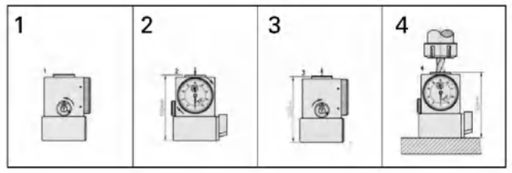
- 高度100mm，计算容易
- 探测面椭圆形，加大且更稳当。
- 0.01mm大表设计，视觉轻松。
- 磁座吸力80kg，并且设计ON-OFF开关。
- 到达定位点时，大表，小表同时显示“0”。
- 表面显示游走数据和实际游走数据完全一致。
- 每个产品都附有精度检验报告表。

**使 用 方 法**

- 将归零杆转至TEST。
- 用手下压至尽头，小表会显示“0”请将大表“0”旋转至对准大指针。
- 使用前请将归零杆旋转至USE。
- 置于工件上，将磁性座旋转钮转至“ON”，刀具接触探测面，请慢速进刀至大表，小表指针同时到“0”时，则刀具与工作的距离是100mm。



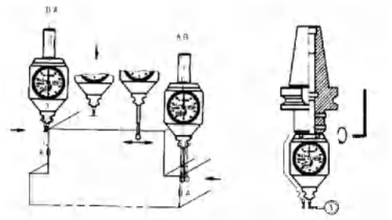



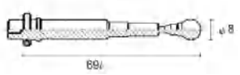

| 型号 Model | 型式 | 总高度 | 伸缩距离 | 重量 (KGS) |
|---|---|---|---|---|
| ZDI-100 | 量表式 | 100 | 3 | 1.9 |

## 三次元探测器（德制）



(ZD-3D)



| 型号 Model | 3D探测灯 | 重量 (KGS) |
|---|---|---|
| 3D-S 短针 |  | |
| 3D-L 簪针 |  | |



## 整体硬质合金后拉刀杆

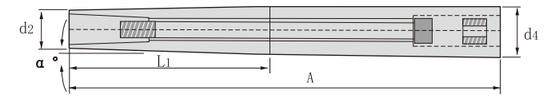
特点：
使用全碳化钨材质，刚性强，降低刀具成本，有效延伸加工深度。



Fig 1




Fig 2




| 型号 Model | Fig | A mm | $d_4$ mm | $d_2$ mm | $L_1$ mm | α ° |
|---|---|---|---|---|---|---|
| 980HM4-08-C08-100L | 1 | 100 | 8 | 8 | | |
| 980HM4-9.3-C10-150L-Y45 | 2 | 150 | 10 | 9.3 | 45 | 0.5° |
| 980HM6-12-C12-150L | 1 | 150 | 12 | 12 | | |
| 980HM6-12.5-C16-200L-Y90 | 2 | 200 | 16 | 12.5 | 90 | 1.2° |
| 980HM10-23-C25-250L-Y120 | 2 | 250 | 25 | 23 | 120 | 0.5° |

## 精密筒夹



Fig 1　988HM Collet

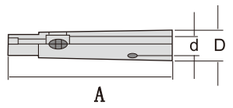
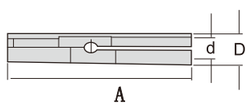



Fig 2　980HM Collet




| 型号 Model | | A mm | D mm | d mm | Fig |
|---|---|---|---|---|---|
| 980HM4-3 | 980HM4 | 31 | 7 | Φ3 | 2 |
| 980HM4-4 | 980HM4 | 31 | 7 | Φ4 | 2 |
| 980HM6-3 | 980HM6 | 36 | 9.6 | Φ3 | 2 |
| 980HM6-4 | 980HM6 | 36 | 9.6 | Φ4 | 2 |
| 980HM6-6 | 980HM6 | 36 | 9.6 | Φ6 | 2 |
| 988HM10-3 | 988HM10 | 56.5 | 15 | Φ3 | 1 |
| 988HM10-4 | 988HM10 | 56.5 | 15 | Φ4 | 1 |
| 988HM10-6 | 988HM10 | 56.5 | 15 | Φ6 | 1 |
| 988HM10-8 | 988HM10 | 56.5 | 15 | Φ8 | 1 |
| 988HM10-10 | 988HM10 | 56.5 | 15 | Φ10 | 1 |

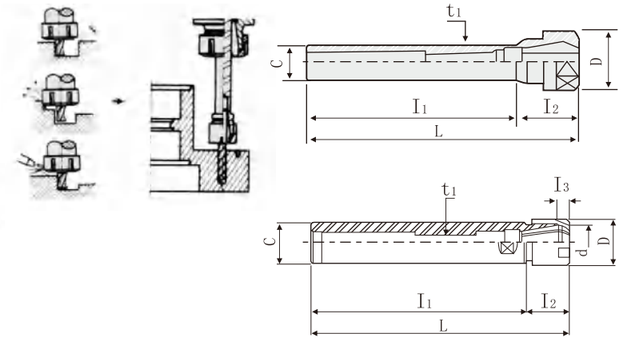
## C/ER直柄延长刀柄




图1



图2




- 照明点及切削液的供给可以到达加工部位。
- 本体采用SNCM-220钢材制成，抗震性极佳。

| 型号 Model C×D×I1 | 圆 | L mm | I2 mm | t1 mm | 重量 (KGS) |
|---|---|---|---|---|---|
| C16×ER11A-140 | 1 | 156.5 | 16.6 | M6-1.0P | 0.23 |
| C16×ER16A-100 | 1 | 140 | 40 | M10-1.5P | 0.20 |
| C20×ER16A-100 | 1 | 140 | 40 | M12-1.75P | 0.35 |
| C20×ER16A-150 | 1 | 190 | 40 | M12-1.75P | 0.40 |
| C20×ER20A-180 | 1 | 220.5 | 40.5 | M12-1.75P | 0.43 |
| C20×ER20A-140 | 1 | 180.5 | 40.5 | M12-1.75P | 0.34 |
| C20×ER25-100 | 1 | 151 | 51 | M12-1.75P | 0.41 |
| C25×ER16A-150 | 1 | 185.1 | 35.1 | M10-1.5P | 0.55 |
| C25×ER20A-140 | 1 | 175.1 | 40.5 | M12-1.75P | 0.45 |
| C25×ER25-100 | 1 | 101 | 51 | M16-2.0P | 0.50 |

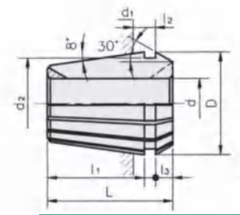
- 使用抗震能力优越的镍格合金钢

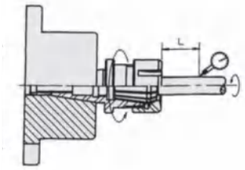
| 型号 Model C×D×I1 | 圆 | L mm | I2 mm | I3 mm | D mm | t1 |
|---|---|---|---|---|---|---|
| C8×ER8M-55 | 2 | 79 | 24 | 6 | 12 | - |
| C10×ER8M-100 | 2 | 117 | 17 | 6 | 12 | - |
| C10×ER8M-150 | 2 | 167 | 17 | 6 | 12 | - |
| C12×ER8M-120 | 2 | 137 | 17 | 6 | 12 | - |
| C12×ER11M-80 | 2 | 96.6 | 16.6 | 6.6 | 16 | M5×0.8P |
| C16×ER11M-100 | 2 | 116.6 | 16.6 | 6.6 | 16 | M5×0.8P |
| C16×ER11M-140 | 2 | 156.6 | 16.6 | 6.6 | 16 | M5×0.8P |
| C20×ER16M-100 | 2 | 125 | 26.6 | 10.6 | 22 | M10×1.5P |
| C20×ER16M-140 | 2 | 165 | 26.6 | 10.6 | 22 | M10×1.5P |
| C20×ER20M-120 | 2 | 160 | 40 | 11.5 | 28 | M12×1.75P |
| C20×ER20M-150 | 2 | 190 | 40 | 11.5 | 28 | M12×1.75P |
| C20×ER20M-180 | 2 | 220 | 40 | 11.5 | 28 | M12×1.75P |
| C25×ER20M-140 | 2 | 168 | 28 | 11.5 | 28 | M12×1.75P |
| C20×ER25M-100 | 2 | 150 | 50 | 12 | 35 | M12×1.75P |



## ER弹性筒夹






- 材质:SUJ2(高端轴承钢:在热处理后,具有坚韧的硬度与韧性,更好的耐磨性,且弹性佳使用寿命更长)
- 硬度HRC46°，斜度8°，内孔经过精密搪磨加工。
- 表面粗糙度RZ2.5以内。夹持范围度ER8、ER11=0.5mm ER16、20、25、32、40=11mm,但孔径2.5mm以下，夹持范围为0.5mm。
- 同心度按DIN标准规范全数检验，共计有三种精度等级，A级0.02mm、AA0.01mm及AAA级0.005mm。
- 用于夹持钻头、螺丝攻、铣刀、铰刀等工具。
- 订购时请告知所需精度。

| L mm | D mm | 规 格 | AA级 | AAA级 |
|---|---|---|---|---|
| 6 | 1.0-1.4 | 6 | 0.01 | 5 μ |
| 10 | 1.5-2.9 | 10 | 0.01 | 5 μ |
| 16 | 3.0-5.9 | 16 | 0.01 | 5 μ |
| 25 | 6.0-9.9 | 25 | 0.01 | 5 μ |
| 40 | 10.0-17.9 | 40 | 0.01 | 5 μ |
| 50 | 18.0-26.9 | 50 | 0.01 | 5 μ |
| 60 | 27.0-34.0 | 60 | 0.01 | 5 μ |

| 型号 Model | 夹持能力 | D mm | d1 mm | d2 mm | L mm | I1 mm | I2 mm | I3 mm | 孔径尺寸 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|
| ER8 | 0.5-5.0 | 8.5 | 8 | 6.5 | 13.5 | 10.8 | 2.98 | 1.5 | 0.5-5 | 0.005 |
| ER11 | 0.5-7.0 | 11.5 | 11 | 9.5 | 18.0 | 13.5 | 3.80 | 2.5 | 1-5<br>6-7 | 0.01 |
| ER16 | 0.5-10.0 | 17.0 | 16 | 13.8 | 27.5 | 20.8 | 6.26 | 4.0 | 1-5<br>6-10 | 0.03 |
| ER20 | 1.0-13.0 | 21.0 | 20 | 17.4 | 31.5 | 23.9 | 6.36 | 4.8 | 1-5<br>6-13 | 0.04 |
| ER25 | 1.0-16.0 | 26 | 25 | 22 | 34 | 25.9 | 6.66 | 5.0 | 1-5<br>6-16 | 0.06 |
| ER32 | 2.0-20.0 | 33.0 | 32 | 29.2 | 40.0 | 30.9 | 7.16 | 5.5 | 2-5<br>6-20 | 0.10 |
| ER40 | 3.0-26.0 | 41.0 | 40 | 36.2 | 46.0 | 34.9 | 7.66 | 7.0 | 3-5<br>6-26 | 0.25 |
| ER11 | 3.175 | | | | | | | | | |
| ER16 | 3.175/1.5/2.5/3.5/4.5/5.5/6.5/7.5/8.5/9.5/10.5 | | | | | | | | | |
| ER20 | 3.175/1.5/2.5/3.5/4.5/5.5/6.5/7.5/8.5/9.5/10.5/11.5/12.5/13.5/14 | | | | | | | | | |

## ER直柄延长刀杆组

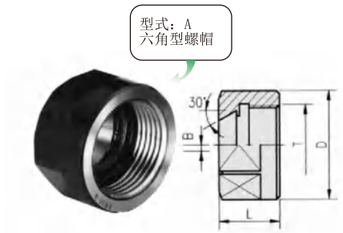


套装价格小径筒夹不另加价
套装价格=（筒夹X数量）+包装盒+扳手+本体
下订单前请先决定拉钉规格及筒夹数量。

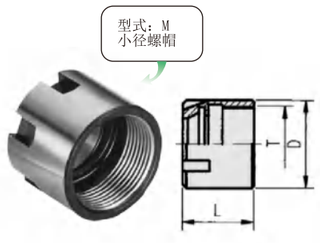
## ER刀柄组



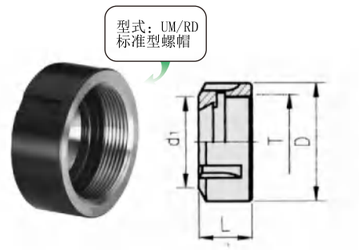
## ER 螺帽




- 材质：SNCM-220，硬度HRC52°螺丝及30°斜度一次成型加工,确保精度、螺纹公差一级牙4H。
- 使用时,应先将筒夹置入螺帽,再一并置入本体。
- 已预设平衡、适于R.P.M8000使用。
- 旋紧作业请使用ER-A扳手,不可任意改变扳手长度,以免造成人为因素损坏。




- 材质：SNCM-220，硬度HRC52°
- 30°斜度一次成型加工,确保精度、螺纹公差为一级牙4H。
- 使用时，应先将筒夹置入螺帽，再一并置入本体。
- M型螺帽的螺纹和A型不一样，本体不能共用。
- 已预设平衡、适于R.P.M8000使用。




- 材质：SNCM-220，硬度HRC52°
- 30°斜度一次成型加工,确保精度、螺纹公差为一级牙4H。
- 使用时，应先将筒夹置入螺帽，再一并置入本体。
- M型螺帽的螺纹和A型不一样，本体不能共用。
- 已预设平衡、适于R.P.M8000使用。

| 型式 | 型号 Model | D mm | d mm | L mm | T mm | 重量 (KGS) |
|---|---|---|---|---|---|---|
| A | ER11 | 19 | 17 | 11.3 | M14×0.75P | 0.02 |
| | ER16 | 28 | 25 | 17.5 | M22×1.5P | 0.05 |
| | ER20 | 34 | 28.5 | 19 | M25×1.5P | 0.10 |
| M | ER8 | 12 | - | 10.8 | M10×0.75P | 0.005 |
| | ER11 | 16 | - | 12 | M13×0.75P | 0.010 |
| | ER16 | 22 | - | 18 | M19×1.0P | 0.050 |
| | ER20 | 28 | - | 19 | M24×1.0P | 0.050 |
| | ER25 | 35 | - | 20 | M30×1.0P | 0.080 |
| UM/RD | ER25 | 42 | 29 | 20 | M32×1.5P | 0.14 |
| | ER32 | 50 | 38.5 | 22.5 | M40×1.5P | 0.20 |
| | ER40 | 63 | 48.3 | 25.5 | M50×1.5P | 0.30 |
| KM/RD | ER25 | 42 | 29 | 22.5 | M32×1.5P | 0.13 |
| | ER32 | 50 | 38.5 | 26 | M40×1.5P | 0.18 |
| | ER40 | 63 | 48.3 | 29 | M50×1.5P | 0.30 |

## ER高速型强力螺帽

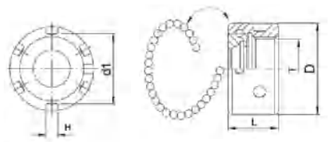
高刚性 高精度



- 无偏心设计，筒夹弹性收缩范围0.3mm以内。
- 材质：SNCM-220，硬度：HRC52°
- 螺纹及30°斜度一次成型加工，确保精度、螺丝公差为一级牙AH。
- 使用时，首先将筒夹置入螺帽，再一并置入本体。

特点

- 夹持力比一般螺帽提高约30~200%。
- 无偏心设计，筒夹弹性收缩范围0.3mm以内。
- 外径经过精密研磨，并经过动平衡检验仪测试。可供20,000rpm使用。




| 型号 Model | D mm | L mm | T mm | 扳手 | 重量 (KGS) | 库存 (Stock) |
|---|---|---|---|---|---|---|
| ER16-HSP | 32 | 18 | M22×1.5P | ER16×HSP-W | 0.08 | ▲ |
| ER20-HSP | 36 | 20 | M25×1.5P | ER20×HSP-W | 0.10 | ▲ |
| ER25-HSP | 42 | 22.5 | M32×1.5P | ER25×HSP-W | 0.10 | ▲ |
| ER32-HSP | 50 | 25 | M40×1.5P | ER32×HSP-W | 0.15 | ▲ |



## ER 扳手




特 点
材质SCM-440钳口经过热处理
扳手可以单独订购

| 型号 Model | 螺帽外径 | L mm | B mm | I mm | 重量 (KGS) |
|---|---|---|---|---|---|
| ER11-A | 19 | 120 | 40 | 17 | 0.10 |
| ER16-A | 28 | 140 | 53 | 25 | 0.15 |
| ER20-A | 34 | 160 | 60 | 30 | 0.20 |
| ER8-M | 12 | 75 | 13 | 8 | 0.05 |
| ER11-M | 16 | 95 | 17 | 11.5 | 0.04 |
| ER20-M | 28 | 129 | 28.5 | 19.5 | 0.07 |
| ER25-M | 35 | 143 | 36 | 25 | 0.09 |
| ER25UM.KM/RD | 42 | 206 | 75 | 37 | 0.22 |
| ER32UM.KM/RD | 50 | 253 | 90 | 46.5 | 0.30 |
| ER40UM.KM/RD | 63 | 289 | | 58 | 0.50 |

## 主轴清洁棒

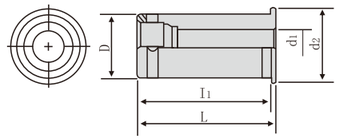


塑料手把，把握轻松

| 型 号（棉质） Model | 斜度 Rake | 重量 KGS | 库存 stock |
|---|---|---|---|
| W30 | # 30 | 0.07 | |
| W40 | # 40 | 0.08 | ▲ |
| W50 | # 50 | 0.19 | ▲ |
| HSK-W63 | HSK63 | - | |

## 直筒式弹性筒夹






| 型号 Model | D mm | 夹持范围（标准规格） mm | d2 mm | L mm | l1 mm | 重量 KGS | 库存 stock |
|---|---|---|---|---|---|---|---|
| SSC20 | 20 | 6,8,10,12,16 | 25 | 52.50 | 49 | - | ▲ |
| SSC32 | 32 | 6,8,10,12,16,20,25 | 37.50 | 65 | 67.4 | - | ▲ |
| SSC32 | 32 | 3,4,5,14,15.16,18,19,24 | 37.50 | 65 | 67.4 | - | ▲ |
| SSC42 | 42 | 6,8,10,12,16,20,25,32 | 47 | 80 | 76 | - | ▲ |

## ES警示鸣音光电寻边器



**特　　点**

- 使用2枚UM5#1.5V碱性干电池。
- 每支产品都附有精度检验报告书。
- 红灯亮起同时发出电子音 哔！哔！声音。
- 无法目视深孔探测，可由声音得知探测结果。

| 型号 Model | 柄径 mm | 长度 mm | 测头 mm | 重量 (KGS) |
|---|---|---|---|---|
| ES-20 | Φ20 | 160 | Φ10 | 0.35 |
| ES-32 | Φ32 | 160 | Φ10 | 0.60 |

## OP光电寻边器



**特　　点**

- 不可回转量测。
- 精确度0.005m/m。
- 接触时红光闪耀，降低视觉误差。
- 附精度检验表及使用说明。
- 附2枚UM5#1.5V碱性干电池。

| 型号 Model | 柄径 mm | 长度 mm | 测头 mm | 重量 (KGS) |
|---|---|---|---|---|
| OP-20 | Φ20 | 160 | Φ10 | 0.30 |
| OP-32 | Φ32 | 160 | Φ10 | 0.60 |

## ME偏心式寻边器

**特　　点**

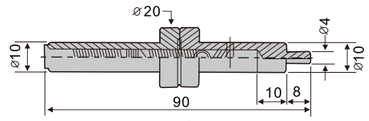
- ME420特别设计4mm测头，提供小孔径及偏窄薄槽量测使用。
- 机械式转动量测，没有夹持误差，精度可达2μ内。
- 配合转速400~600RPM。



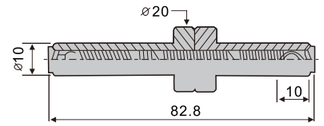

| 型号 Model | 测径 mm | 柄径 mm | 长度 mm | 测头 mm | 重量 (KGS) |
|---|---|---|---|---|---|
| ME-420 | Φ4 | 10 | 90 | ±0.002 | 0.06 |
| ME-1020 | Φ10 | 10 | 82.8 | ±0.002 | 0.06 |

## HME 超硬膜偏心式寻边器



HME420



HME1020

**特　　点**

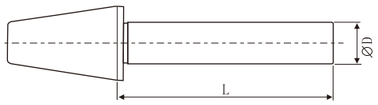
- 绝不产生磁性
- 探测端硬度>HRC60°

| 型号 Model | 柄径 mm | 总长 mm | 精度 mm | 重量 (KGS) |
|---|---|---|---|---|
| HME-420 | ϕ4 | 90 | ±0.002 | 0.04 |
| HME-1020 | ϕ10 | 82.8 | ±0.002 | 0.04 |

## 标准测试棒



- 均通过真图圆度测试机，精确检验通过。
- 附精度检验表。



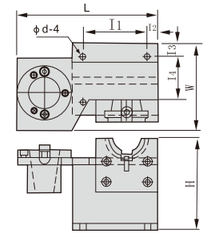

| 型号 Model | L mm | D mm | 同心圆 | 真圆度 | 重量 (KGS) |
|---|---|---|---|---|---|
| BT30-TS250L | 250 | 32 | 0.005 | 0.003 | - |
| BT40-TS300L | 300 | 40 | 0.005 | 0.003 | 3.64 |
| BT50-TS300L | 300 | 40 | 0.005 | 0.003 | 5.44 |
| DAT30-TS250L | 250 | 32 | 0.005 | 0.003 | - |
| DAT40-TS300L | 300 | 40 | 0.005 | 0.003 | 3.00 |
| DAT50-TS300L | 300 | 40 | 0.005 | 0.003 | - |
| CAT30-TS250L | 250 | 32 | 0.005 | 0.003 | - |
| CAT40-TS300L | 300 | 40 | 0.005 | 0.003 | - |
| CAT50-TS300L | 300 | 40 | 0.005 | 0.003 | - |
| HSK63A-TS300L | 300 | 40 | 0.005 | 0.003 | 3.66 |



## BT/DAT锁刀座


- 不可敲击






※ 主题为铸铁

| 型号 Model | L mm | $I_1$ mm | $I_2$ mm | $I_3$ mm | $I_4$ mm | H mm | W mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|
| LD-BT30 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 4.47 |
| LD-BT40 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 3.94 |
| LD-BT50 | 275 | 113 | 20 | 24 | 105 | 200 | 150 | 7.06 |
| LD-DAT30 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 3.70 |
| LD-DAT40 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | - |
| LD-DAT50 | 275 | 113 | 20 | 24 | 105 | 200 | 150 | - |

## HSK锁刀座




| 型号 Model |
|---|
| HSK40 |
| HSK50 |
| HSK63 |
| HSK100 |

## 万向磁性表座(全新系列)

LM-H100



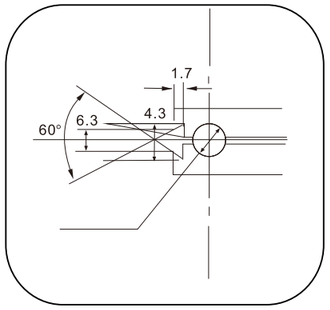
油压式精密型

LM-M120



机械式精密型

适用各型校表




| 型号 Model | 磁力 | 臂长 | 磁性尺寸 | | | 重量 (KGS) |
|---|---|---|---|---|---|---|
| | | | L | W | H | |
| LM-H100 | 100kgf | 310mm | 75mm | 50mm | 55mm | 2.0kg |
| LM-M120 | 120kgf | 340mm | 85mm | 50mm | 55mm | 2.2kg |

## 磁性V型座



| 型号 Model | 长×宽×高 | 吸力 | 重量 (KGS) |
|---|---|---|---|
| ECE-208 | 80×56×72 | 72 | 3 |
| ECE-212 | 115×75×100 | 100 | 5.1 |

## 磁性座系列

● 机械式万向磁性表座



| 型号 Model | 磁力 | 臂长 | 重量 (KGS) |
|---|---|---|---|
| LM-M080 | 80kg | 340mm | 1.50 |



## 刀具管理车



| 型号 Model | 每排数 | 重量 (KGS) |
|---|---|---|
| BT-30 | 4×7=28 | 50.5 |
| BT-35 | 4×7=28 | 50.5 |
| BT-40 | 4×7=28 | 50.5 |
| BT-45 | 4×6=24 | 50.5 |
| BT-50 | 4×5=20 | 51.0 |
| BT-HSK63 | 4×7=28 | 50.5 |

## 万能夹具组(公制)



| 型号 Model | 尺寸 | 级枕厚度 | 重量 (KGS) |
|---|---|---|---|
| CK-10 | 10m/m | 1″ | 10.2 |
| CK-12A | 12m/m | 1″ | 10.5 |
| CK-12B | 12m/m | 11/4″ | 11.4 |
| CK-16A | 16m/m | 1″ | 13.4 |
| CK-16B | 16m/m | 11/4″ | 14.3 |
| CK-20 | 20m/m | 11/2″ | 29.0 |
| CK-24 | 24m/m | 11/2″ | 63.0 |

## 精密套筒



全支热处理研磨

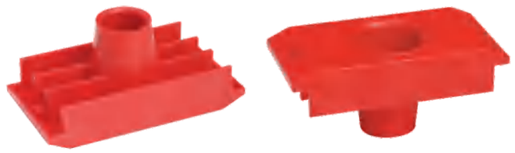
| 型号 Model (内径×外径) | 重量 (KGS) |
|---|---|
| DS-MT1×MT2 | 0.10 |
| DS-MT2×MT3 | 0.19 |
| DS-MT2×MT4 | 0.45 |
| DS-MT3×MT4 | 0.40 |
| DS-MT4×MT5 | 0.96 |
| DS-MT5×MT6 | 2.80 |

## 虎钳平行板



| 型号 Model | 重量 (KGS) |
|---|---|
| GP-18 | 1.00 |

## 铣刀刀柄座



| 型号 Model | 重量 (KGS) |
|---|---|
| TC-30S | 0.07 |
| TC-40S | 0.07 |
| TC-50S | 0.10 |
| TC-HSK63S | 0.04 |

## 喷雾式切削冷却器



| 型号 Model | 长度 | 重量 (KGS) |
|---|---|---|
| MCS-B | 500m/m | 0.72 |

## 快速退钻器



| 型号 Model | 通用主轴斜度 | 冲刀长度 |
|---|---|---|
| KP-1 | #2, #3, #4, #5 | 380 |



## 刀具设定器



LM-DH3300R



LM-DH4400R



LM-DH6600R

### 操作注意事项

- 全系列立柱(Z轴)采用超耐磨铝合金，经特殊处理不易变形，搭配精密线性滑轨，操作简便，精度更佳
- 全系列立柱(Z轴)配备快速移动装置，便捷性更加提升
- 全系列X轴、Z轴皆装置精密光学尺，屏幕显示精确、易读

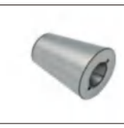
### Operation instruction

- Made of super wear resistant aluminum alloy,Z-axis column is specially treated and free of deformation Equipped with high precision linear scale,the column is easy to operate with higher accuracy.
- Z-axis column is equipped with rapid traverse for higher moving efficiency
- Both X-axis and Z-axis are equipped with high precision D.R.O.Values shown on the monitor are more accurate and easy to read.

| 型号 Model | 测量范围 Measurement range 直径D | 高度L | 数显解析度 Resolution | 仪器外型尺寸 Machine size (L×W×H) | 工具柜尺寸 (选配) Cabinet size (Optional) | 工具柜重量 Cabinet weight | 电源 Power supply | 仪器重量 (KGS) Weight |
|---|---|---|---|---|---|---|---|---|
| LM-DH3300R | ⌀300 | 30～300 | 0.005 | 650×320×730 | 700×570×800 | 60 | AC 110V/220V 50Hz/60Hz | 49 |
| LM-DH4400R | ⌀400 | 40～400 | 0.005 | 760×360×860 | | | | 75 |
| LM-DH6600R | ⌀600 | 60～600 | 0.005 | 860×360×1060 | 800×570×650 | | | 85 |

### 标准配件 Standard accessories

| 图示 Fig |  |  |  |  |
|---|---|---|---|---|
| 名称 Name | 测试棒 BT50 (∅40mm, 长200mm)×1支 | 百分表×2只 | 六角扳手×1组 | 光学尺(X轴、Y轴)各一组 |

| 图示 Fig |  |  |
|---|---|---|
| 名称 Name | 工具柜 | #50～#30 转换套筒 |

## LM-DH 刀具设定仪工具柜



▶LM-DH4400-C

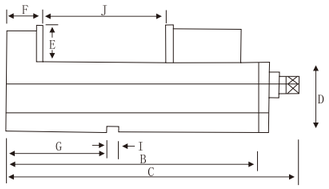


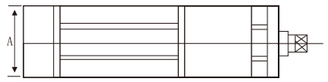
▶LM-DH4400-C

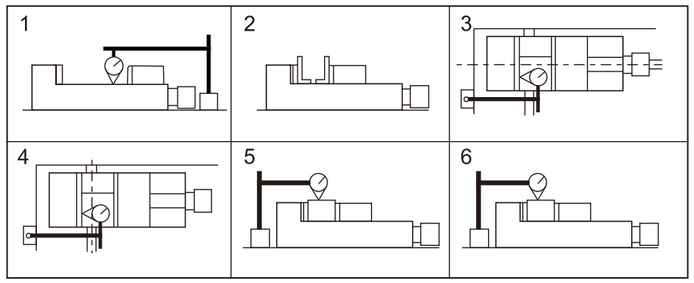
| 型号 Model | 工具柜适用机型 Cabinet For Type | 尺寸(长×宽×高) Size(L×W×H) | 重量 (KGS) Weight |
|---|---|---|---|
| LM-DH4400-C | LM-DH3300、LM-DH4400 | 700×570×800 | 60.0 |
| LM-DH6600-C | LM-DH6600 | 800×570×650 | 60.0 |

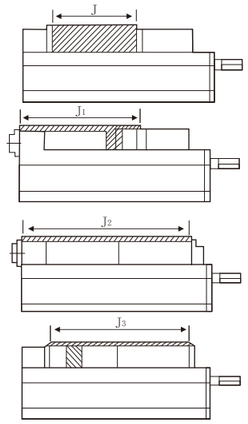
## MC越精密油压虎钳/MC越精密倍力式虎钳





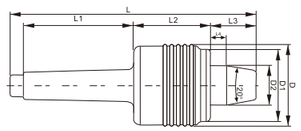



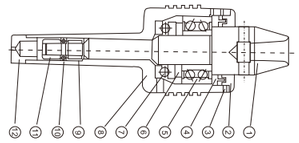

| | 型号 Model | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | I mm | J mm | J1 mm | J2 mm | J3 mm | NW | 重量 (KGS) | 夹持力 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 油压式 | CHW-110M | 100 | 400 | 535 | 85 | 45 | 80 | 110 | 23 | 18 | 200 | 230 | 26 | 340 | 32kg | 35kg | 4000kgf |
| | CHW-130M | 130 | 450 | 550 | 95 | 50 | 85 | 135 | 23 | 18 | 240 | 285 | 320 | 405 | 45kg | 48kg | 4500kgf |
| | CHW-160M | 160 | 550 | 650 | 105 | 60 | 100 | 200 | 23 | 18 | 300 | 380 | 400 | 500 | 63kg | 66kg | 5000kgf |
| | CHW-200M | 200 | 600 | 700 | 105 | 70 | 108 | 220 | 23 | 18 | 340 | 438 | 470 | 578 | 92kg | 104kg | 5500kgf |

| | 型号 Model | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | I mm | J mm | J1 mm | J2 mm | J3 mm | NW | 重量 (KGS) | 夹持力 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 倍力式 | CHW-100P | 100 | 400 | 535 | 85 | 45 | 80 | 110 | 23 | 18 | 200 | 230 | 26 | 340 | 32kg | 35kg | 4000kgf |
| | CHW-130P | 130 | 450 | 580 | 95 | 50 | 85 | 135 | 23 | 18 | 240 | 285 | 320 | 405 | 45kg | 48kg | 4500kgf |
| | CHW-160P | 160 | 550 | 680 | 100 | 60 | 103 | 200 | 23 | 18 | 300 | 380 | 400 | 500 | 63kg | 66kg | 5000kgf |
| | CHW-200P | 200 | 600 | 730 | 110 | 60 | 108 | 220 | 23 | 18 | 340 | 438 | 470 | 578 | 92kg | 104kg | 5500kgf |



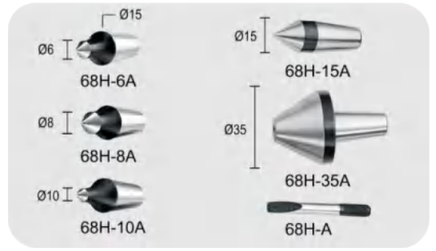
## 标准型注油式替换顶尖





零件图G组（顶尖中型）



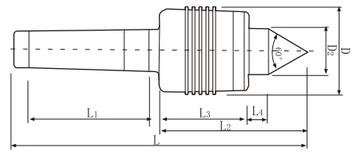

**特　　点**

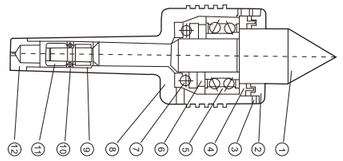
- 有防水功能，本体易散热。
- 可定期注油增加使用寿命。
- 顶尖心轴及顶尖采用SKS2（刀具钢）
- 静态精度：<5μ

| 型号 Model | 柄径 | 内附零件 | 转速 | L mm | L1 mm | L2 mm | L3 mm | L4 mm | D mm | D1 mm | D2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC-68H-MT3 | MT3 | G组 | 5000 | 189 | 82 | 64 | 34 | 12 | 64 | 53 | 34 | |
| SC-68H-MT4 | MT4 | G组 | 5000 | 207 | 90 | 65.5 | 34 | 13 | 64 | 58 | 34 | |
| SC-68H-MT5 | MT5 | G组 | 5000 | 250 | 125 | 65.5 | 34 | 13 | 64 | 58 | 34 | |

## 标准型注油式顶尖





**特　　点**

- 有防水功能，本体易散热。
- 可定期注油增加使用寿命。
- 顶尖心轴及顶尖采用SKS2（刀具钢）
- 静态精度：<5μ

| 型号 Model | 柄径 | 转速 | L mm | L1 mm | L2 mm | L3 mm | L4 mm | D mm | D1 mm | D2 mm | 重量 (KGS) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SC-69M-MT3 | MT3 | 5000 | 200 | 82 | 64 | 43.5 | 14.5 | 64 | 53 | 34 | |
| SC-69M-MT4 | MT4 | 5000 | 217 | 90 | 65.5 | 43.5 | 14.5 | 64 | 58 | 34 | |
| SC-69M-MT5 | MT5 | 5000 | 260 | 125 | 65.5 | 43.5 | 14.5 | 64 | 58 | 34 | |

## 根据螺纹尺寸推介的钻头直径

| 螺纹直径 | 钻头直径 mm | 螺距 mm |
|---|---|---|
| M 公制粗牙螺纹 | | |
| M4 | 3.30 | 0.7 |
| M4.5 | 3.70 | 0.75 |
| M5 | 4.20 | 0.8 |
| M6 | 5.00 | 1 |
| M7 | 6.00 | 1 |
| M8 | 6.80 | 1.25 |
| M9 | 7.80 | 1.25 |
| M10 | 8.50 | 1.5 |
| M11 | 9.50 | 1.5 |
| M12 | 10.20 | 1.75 |
| M14 | 12.00 | 2 |
| M16 | 14.00 | 2 |
| M18 | 15.50 | 2.5 |
| M20 | 17.50 | 2.5 |
| M22 | 19.50 | 2.5 |
| M24 | 21.00 | 3 |
| M27 | 24.00 | 3 |
| M30 | 26.50 | 3.5 |
| M33 | 29.50 | 3.5 |
| M36 | 32.00 | 4 |
| M39 | 35.00 | 4 |
| M42 | 37.50 | 4.5 |
| M45 | 40.50 | 4.5 |
| M48 | 43.00 | 5 |
| M52 | 47.00 | 5 |
| M 公制挤压螺纹 | | |
| M4 | 3.70 | 0.7 |
| M5 | 4.63 | 0.8 |
| M6 | 5.50 | 1 |
| M7 | 6.51 | 1 |
| M8 | 7.40 | 1.25 |
| M10 | 9.25 | 1.5 |
| M12 | 11.12 | 1.75 |
| M14 | 13.00 | 2 |
| M16 | 15.00 | 2 |
| M 公制细牙螺纹 | | |
| 钻头直径 = 丝锥直径 - 螺距 | | |

| 螺纹直径 | 钻头直径 mm | 螺距 TPI* |
|---|---|---|
| UNF 美制统一细牙螺纹 | | |
| UNF NO.6 | 2.90 | 40 |
| UNF NO.8 | 3.50 | 36 |
| UNF NO.10 | 4.10 | 32 |
| UNF NO.12 | 4.65 | 28 |
| UNF 1/4″ | 5.50 | 28 |
| UNF 5/16″ | 6.90 | 24 |
| UNF 3/8″ | 8.50 | 24 |
| UNF 7/16″ | 9.90 | 20 |
| UNF 1/2″ | 11.50 | 20 |
| UNF 9/16″ | 12.90 | 18 |
| UNF 5/8″ | 14.50 | 18 |
| UNF 3/4″ | 17.50 | 16 |
| UNF 7/8″ | 20.50 | 14 |
| UNF 1″ | 23.25 | 12 |
| UNF 1 1/8″ | 26.50 | 12 |
| UNF 1 1/4″ | 29.75 | 12 |
| UNF 1 3/8″ | 32.80 | 12 |
| UNF 1 1/2″ | 36.00 | 12 |
| UNC 美制统一粗牙螺纹 | | |
| UNC NO.6 | 2.80 | 32 |
| UNC NO.8 | 3.40 | 32 |
| UNC NO.10 | 3.90 | 24 |
| UNC NO.12 | 4.50 | 24 |
| UNC 1/4″ | 5.10 | 20 |
| UNC 5/16″ | 6.60 | 18 |
| UNC 3/8″ | 8.00 | 16 |
| UNC 7/16″ | 9.40 | 14 |
| UNC 1/2″ | 10.75 | 13 |
| UNC 9/16″ | 12.25 | 12 |
| UNC 5/8″ | 13.50 | 11 |
| UNC 3/4″ | 16.50 | 10 |
| UNC 7/8″ | 19.50 | 9 |
| UNC 1″ | 22.25 | 8 |
| UNC 1 1/8″ | 25.00 | 7 |
| UNC 1 1/4″ | 28.25 | 7 |
| UNC 1 3/8″ | 30.80 | 6 |
| UNC 1 1/2″ | 34.00 | 6 |
| UNC 1 3/4″ | 39.50 | 5 |
| UNC 2″ | 45.25 | 4 1/2 |

| 螺纹直径 | 钻头直径 mm | 螺距 TPI* |
|---|---|---|
| Rc 英制圆锥管螺纹 | | |
| Rc 1/8″ | 8.40 | 28 |
| Rc 1/4″ | 11.20 | 19 |
| Rc 3/8″ | 14.75 | 19 |
| Rc 1/2″ | 18.25 | 14 |
| Rc 3/4″ | 23.75 | 14 |
| Rc 1″ | 30.00 | 11 |
| G 英制圆柱管螺纹 | | |
| G 1/8″ | 8.80 | 28 |
| G 1/4″ | 11.80 | 19 |
| G 3/8″ | 15.25 | 19 |
| G 1/2″ | 19.00 | 14 |
| G 5/8″ | 21.00 | 14 |
| G 3/4″ | 24.50 | 14 |
| G 7/8″ | 28.25 | 14 |
| G 1″ | 30.75 | 11 |
| G 11/4″ | 39.50 | 11 |
| G 11/2″ | 45.50 | 11 |
| G 13/4″ | 51.40 | 11 |
| G 2″ | 57.20 | 11 |
| NPT 60° 全牙形锥管螺纹 | | |
| NPT 1/16″ | 6.10 | 27 |
| NPT 1/8″ | 8.50 | 27 |
| NPT 1/4″ | 11.00 | 18 |
| NPT 3/8″ | 14.30 | 18 |
| NPT 1/2″ | 17.80 | 14 |
| NPT 3/4″ | 23.00 | 14 |
| NPT 1″ | 29.00 | 11 1/2 |
| NPT 11/4″ | 37.50 | 11 1/2 |
| NPT 11/2″ | 43.70 | 11 1/2 |
| NPT 2″ | 55.60 | 11 1/2 |
| NPTF 60° 全牙形锥管螺纹 | | |
| NPTF 1/16″ | 6.00 | 27 |
| NPTF 1/8″ | 8.40 | 27 |
| NPTF 1/4″ | 10.90 | 18 |
| NPTF 3/8″ | 14.25 | 18 |
| NPTF 1/2″ | 17.75 | 14 |
| NPTF 3/4″ | 23.00 | 14 |
| NPTF 1″ | 29.00 | 11 1/2 |
| NPTF 1 1/4″ | 37.75 | 11 1/2 |
| NPTF 1 1/2″ | 43.75 | 11 1/2 |
| NPTF 2″ | 55.75 | 11 1/2 |

* TPI = 每英寸螺纹扣数



## 丝锥柄部方头尺寸




| ISO 柄部尺寸 d | ISO 柄部尺寸 a | ISO 柄部尺寸 l | ISO 丝锥型号 ISO529(1) | ISO 丝锥型号 ISO529(2) ISO2283 | JIS a 柄部尺寸 d | JIS a 柄部尺寸 a | JIS a 柄部尺寸 l | JIS 丝锥型号 JISB4430(3) | DIN 柄部尺寸 d | DIN 柄部尺寸 a | DIN 柄部尺寸 l | DIN 丝锥型号 DIN371(4) | DIN 丝锥型号 DIN374(5) DIN376 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.24 | 1.80 | 4 | | M3.0 | 3.00 | 2.50 | 5 | M1.0-M2.6 | 2.50 | 2.10 | 5 | M1-M1.8 | M3.5 |
| 2.50 | 2.00 | 4 | M1-M2 | M3.5 | 4.00 | 3.20 | 6 | M3.0-M3.5 | 2.80 | 2.10 | 5 | M2-M2.5 | M4.0 |
| 2.80 | 2.24 | 5 | M2.2-M2.6 | | 5.00 | 4.00 | 7 | M4.0-M4.5 | 3.50 | 2.70 | 6 | M3 | M4.5-M5 |
| 3.15 | 2.50 | 5 | M3.0 | M4.0 | 5.50 | 4.50 | 7 | M5.0 | 4.00 | 3.00 | 6 | M3.5 | |
| 3.55 | 2.80 | 5 | M3.5 | M4.5 | 6.00 | 4.50 | 7 | M6.0 | 4.50 | 3.40 | 6 | M4.0 | M6.0 |
| 4.00 | 3.15 | 6 | M4.0 | M5.0 | 6.20 | 5.00 | 8 | M7.0-M8.0 | 6.00 | 4.90 | 8 | M4.5-M6 | M8.0 |
| 4.50 | 3.55 | 6 | M4.5 | M6.0 | 7.00 | 5.50 | 8 | M9.0-M10 | 7.00 | 5.50 | 8 | M7.0 | M10 |
| 5.00 | 4.00 | 7 | M5.0 | | 8.00 | 6.00 | 9 | M11 | 8.00 | 6.20 | 9 | M8.0 | |
| 5.60 | 4.50 | 7 | | M7.0 | 8.50 | 6.50 | 9 | M12 | 9.00 | 7.00 | 10 | | M12 |
| 6.30 | 5.00 | 8 | M6.0 | M8.0 | 9.50 | 7.00 | 10 | M10-M11 | 10.00 | 8.00 | 11 | M10 | |
| 7.10 | 5.60 | 8 | M7.0 | M9.0 | 10.5 | 8.00 | 11 | M14 | 11.00 | 9.00 | 12 | | M14 |
| 8.00 | 6.30 | 9 | M8.0 | M10-M11 | 12.50 | 10.00 | 13 | M16 | 12.00 | 9.00 | 12 | | M16 |
| 9.00 | 7.10 | 10 | M9.0 | M12 | 14.00 | 11.00 | 14 | M18 | 14.00 | 11.00 | 14 | | M18 |
| 10.00 | 8.00 | 11 | M10 | | 15.00 | 12.00 | 15 | M20 | 16.00 | 12.00 | 15 | | M20 |
| 11.20 | 9.00 | 12 | | M13-M15 | 17.00 | 13.00 | 16 | M22 | 18.00 | 14.50 | 17 | | M22-M26 |
| 12.50 | 10.00 | 13 | | M16-M17 | 19.00 | 15.00 | 18 | M24 | 20.00 | 16.00 | 19 | | M27 |
| 14.00 | 11.20 | 14 | | M18-M21 | 20.00 | 15.00 | 18 | M27 | 22.00 | 18.00 | 21 | | M29-M32 |
| 16.00 | 12.50 | 16 | | M22-M23 | 23.00 | 17.00 | 20 | M30 | 25.00 | 20.00 | 23 | | M33 |
| 18.00 | 14.00 | 18 | | M24-M26 | 25.00 | 19.00 | 22 | M33 | 28.00 | 22.00 | 25 | | M34-M38 |
| 20.00 | 16.00 | 20 | | M27-M30 | 28.00 | 21.00 | 24 | M36 | 32.00 | 24.00 | 27 | | M39-M42 |
| 22.40 | 18.00 | 22 | | M31-M33 | 30.00 | 23.00 | 26 | M39 | 36.00 | 29.00 | 32 | | M44-M50 |
| 25.00 | 20.00 | 24 | | M36 | 32.00 | 26.00 | 30 | M42 | 40.00 | 32.00 | 35 | | M52 |
| 28.00 | 22.40 | 26 | | M37-M42 | | | | | 45.00 | 35.00 | 38 | | M55-M60 |
| 31.50 | 25.00 | 28 | | M44-M50 | | | | | | | | | |
| 35.50 | 28.00 | 31 | | M52-M56 | | | | | | | | | |
| 40.00 | 31.50 | 34 | | M58-M65 | | | | | | | | | |
| 45.00 | 35.50 | 38 | | M66-M75 | | | | | | | | | |

注：(1)、(4) 为粗柄普通粗牙螺纹丝锥
(2)、(5) 为细柄普通粗牙螺纹丝锥
(3) 为等径普通粗牙螺纹丝锥

## 刀具磨损与各类损伤

| 刀具损伤类型 | 现象 | 原因 | 对策 |
|---|---|---|---|
| 后刀面磨损 | 切削阻力增加在后<br>刀面逐渐形成沟槽磨损 | 刀具材料过软<br>切削速度过高<br>后角过小<br>进给量太小 | ◆选用高耐磨性刀具材料<br>◆降低切削速度<br>◆增大后角<br>◆加大进给量 |
| 前刀面磨损<br>（月牙洼磨损） | 切削控制不好<br>精加工表面恶化 | 刀具材料过软<br>切削速度过高<br>进给量太大 | ◆选用耐磨性高的刀具材料<br>◆降低切削速度<br>◆降低进给量 |
| 崩刃 | 突发性崩刃<br>刀具寿命不稳定 | 刀具材料过硬<br>进给量大<br>切削强度不足<br>刀杆、刀柄刚性不足 | ◆选用韧性好的刀具材料<br>◆降低进给量<br>◆加大刃口修磨量<br>（若是倒圆改为倒棱）<br>◆加大刀杆尺寸 |
| 破损 | 切削阻力增加<br>表面粗糙度恶化 | 刀具材料过硬<br>进给量大<br>切削强度不足<br>刀杆、刀柄刚性不足 | ◆选用韧性好的刀具材料<br>◆降低进给量<br>◆加大刃口修磨量<br>（若是倒圆改为倒棱）<br>◆加大刀杆尺寸 |
| 塑性变形<br>（刀刃塌下） | 工件尺寸变化<br>先端磨损 | 刀具材料过软<br>切削速度过高<br>切削深度、进给量太大<br>切削刃温度过高 | ◆选用高耐磨性刀具材料<br>◆降低切削速度<br>◆减小切削深度、进给量<br>◆选用导热系数高的刀具材料 |
| 积屑瘤<br>（粘结） | 精加工表面恶化<br>切削阻力增加 | 切削速度低<br>切削刃不锋利<br>刀具材料不适合 | ◆提高切削速度<br>◆增大前角<br>◆选用亲和力小的刀具材料<br>（涂层、金属陶瓷等） |
| 热龟裂 | 由于热循环而崩损<br>多出现在断续切削 | 切削热引起的膨胀<br>与收缩刀具材料过硬 | ◆干式切削<br>◆选用韧性好的刀具材料 |
| 边界磨损 | 产生毛刺<br>切削阻力增加 | 进刀量过大、<br>切削速度过高 | ◆选用高耐磨性刀具材料<br>◆增大前角使切削刃锋利<br>◆降低切削速度 |
| 剥落 | 多出现在高硬度材料、<br>有振动的切削 | 切削刃上粘结<br>切削排除不畅 | ◆增大前角使切削刃锋利<br>◆增大刀片容屑槽 |



## 车削加工常见问题及对策

| 常见问题 \ 解决方法 | | 原因 | 刀具材料 | | 切削条件 | | | | 刀具形状 | | | | | | | 机床装夹 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 硬度更高的材料 | 韧度更好的材料 | 切削速度 | 进给 | 切深 | 切削液 | 改变刀片槽型 | 前角 | 刀尖圆弧半径 | 主偏角 | 切削刃强度 | 提高刀片精度 | 提高刀柄刚性 | 工件刀柄装夹 | 刀柄悬伸 | 动力、机床间隙 |
| 刀尖磨损过大 | 加工精度超标 | 后刀面磨损增大 | ✓ | | | | | | | | ↑ | | | | | | | |
| | | 切削条件不适合 | | | ↓ | ↑ | | | | | | | | | | | | |
| 表面精度恶化 | 表面质量差 | 刀具磨损增大、刀刃不够锋利 | ✓ | | ↓ | | | ✓ | | ↑ | ↑ | | ↓ | ✓ | | | | |
| | | 切削刃缺损 | | ✓ | | ↓ | ↓ | | ✓ | | ↑ | | ↑ | | | ✓ | ✓ | ✓ |
| | | 切削刃几何形状不合适 | | | | | | | ✓ | | ↑ | | ↓ | ✓ | | | | |
| | | 切削条件不适合 | | | ↑ | ↓ | ↓ | ✓ | | | | | | | | | | |
| | | 振动，发颤 | | ✓ | ↕ | ↓ | ↓ | ✓ | ✓ | ↑ | ↓ | ↑ | ↓ | | ✓ | ✓ | ✓ | ✓ |
| | | 积屑瘤 | | | ↑ | ↑ | | ✓ | ✓ | ↑ | | | ↓ | ✓ | | | | |
| 发热 | 切削热的影响 | 切屑条件不适合 | | | ↓ | ↓ | ↓ | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | ✓ | | | | | | ✓ | ↑ | | | ↓ | | | | | |
| 尺寸精度差 | 加工尺寸波动 | 刀片精度不合适 | | | | | | | | | | | | ✓ | | | | |
| | | 工件、刀具位置偏移 | | | | | | | ✓ | ↑ | ↓ | ↑ | | | ✓ | ✓ | ✓ | ✓ |
| 刀具切削刃损伤 | 后刀面、前刀面磨损增大 | 后刀面磨损 | ✓ | | ↓ | | | | ✓ | ↑ | ↑ | | ↓ | | | | | |
| | | 前刀面磨损 | ✓ | | ↓ | ↓ | ↓ | | ✓ | ↑ | | ↓ | | | | | | |
| | 微崩 | 振动、冲击 | | ✓ | | ↓ | ↓ | | ✓ | | | ↓ | ↑ | | ✓ | ✓ | ✓ | ✓ |
| | 积屑瘤 | 工件硬度与刀具切削条件不适合 | | | ↑ | ↑ | | ✓ | ✓ | ↑ | | | ↓ | ✓ | | | | |
| | 热龟裂 | 工件材料的硬度与刀具材料和切削条件不适应 | | | ↓ | ↓ | ↓ | ✓ | ✓ | ↑ | | | ↓ | | | | | |
| | 切削刃刀尖部分变形 | 在断续切削大进给时发生 | ✓ | | ↑ | ↓ | ↓ | ✓ | ✓ | ↑ | ↑ | ↓ | ↓ | | | | | |
| | 刀具寿命 | 材料、切削条件不适合 | | ✓ | | ↓ | ↓ | | ✓ | | ↑ | ↓ | ↑ | | ✓ | ✓ | ✓ | ✓ |
| 切屑控制 | 长切屑缠绕 | 切削条件不适合 | | | ↓ | ↑ | ↑ | ✓ | | | | | | | | | | |
| | | 刀刃几何形状不合适 | | | | | | | ✓ | | ↓ | ↑ | | | | | | |
| | 切屑太短，导致飞溅 | 切削条件不合适 | | | | ↓ | ↓ | ✓ | | | | | | | | | | |
| | | 刀刃几何形状不合适 | | | | | | | ✓ | | ↑ | ↓ | | | | | | |
| 毛刺、塌边 | 钢、铝，产生毛刺 | 切削条件不合适 | | | ↑ | ↓ | | ✓ | | | | | | | | | | |
| | | 刀具磨损、几何形状不合适 | ✓ | | | | | | ✓ | ↑ | ↓ | ↑ | ↓ | | | | | |
| | 铸铁，塌边 | 切削条件不合适 | | | ↓ | ↑ | | ✓ | | | | | | | | | | |
| | | 刀具磨损、几何形状不合适 | ✓ | | | | | | ✓ | ✓ | ↓ | ↓ | ↓ | | | | | |
| | 软钢，毛边 | 切削条件不适何 | | | | ↓ | ↓ | | | | | | | | | | | |
| | | 刀具磨损、几何形状不合适 | ✓ | | | | | | ✓ | ↑ | ↑ | | ↑ | | ✓ | ✓ | ✓ | ✓ |

## 铣削加工常见问题及对策

| 常见问题 | | 解决方法 | 刀具材料 | | 切削条件 | | | | | 刀具形状 | | | | | | | | 机床装夹 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 硬度更高的材料 | 韧性更好的材料 | 切削速度 | 进给 | 切深 | 改变铣刀直径与宽度 | 切削液 | 前角 | 主偏角 | 切削刃强度 | 齿数 | 增大容屑空间 | 检查副切削刃几何形状 | 检查端面跳动 | 提高刀具钢性 | 工件刀柄装夹 | 刀柄悬伸 | 动力、机床间隙 |
| 刀尖的损伤 | 后刀面磨损大 | 切削条件不合适 | | | ↓ | | | | ✓ | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | ✓ | | | | | | | ↑ | | ↓ | | | | | | | | |
| | 前刀面磨损大 | 切削条件不合适 | | | ↓ | ↓ | ↓ | | ✓ | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | ✓ | | | | | | | ↑ | ↓ | ↓ | | | | | | | | |
| | 切削刃破损 | 切削条件不合适 | | | | ↓ | ↓ | | | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | | ✓ | | | | | | | ↓ | ↑ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 热冲击破损 | 切削条件不合适 | | | ↓ | ↓ | ↓ | | ✓ | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | | | | | | | | ↑ | | ↓ | | | | | | | | |
| | 积屑瘤粘结 | 切削条件不合适 | | | ↑ | ↑ | | | ✓ | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | | | | | | | | ↑ | | ↓ | | | | | | | | |
| 加工精度 | 表面粗糙度大 | 刀具磨损铣刀振摆大 | ✓ | | ↑ | ↓ | ↓ | | ✓ | | | ↓ | | | 修光刃 | ✓ | | | | |
| | 产生毛刺 | 切削条件不合适 | | | ↓ | ↓ | ↓ | ✓ | | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | | | | | | | | ↑ | ↑ | ↓ | | | ✓ | | | | | |
| | 产生塌边 | 切削条件不合适 | | | | ↓ | ↓ | | | | | | | | | | | | | |
| | | 切削刃几何形状不合适 | | | | | | | | ↑ | ↓ | ↓ | ↑ | | ✓ | | ✓ | | | |
| | 平面度、平行度恶化 | 切削刃几何形状不合适 | | | | ↓ | ↓ | | | ↑ | ↑ | | ↓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 其他 | 振动大 | 切削条件工艺不合适 | | | ↓ | ↓ | ↓ | ✓ | | ↑ | ↑ | ↓ | | | | | ✓ | ✓ | ✓ | ✓ |
| | 切屑缠绕堵塞 | 切削条件不合适 | | | ↑ | ↕ | | ✓ | ✓ | | | | ↓ | | | | | | | |
| | | 切削刃几何形状不合适 | | | | | | | | ↑ | | | ↓ | ✓ | | | | | | |



## 硬 度 换 算 表

| Rockwell C scale hardness HRC | Vickers hardness HV | Brinell hardness 10mm ball29.42KN HB | Rock hardness A scale HRA | Rock hardness B scale HRB | Shore hardness HS | Tensile Strenght (Approx.Value) Mpa |
|---|---|---|---|---|---|---|
| 20 | 238 | 226 | 60.5 | 97.8 | 34 | 760 |
| 21 | 243 | 231 | 61.0 | 98.5 | 35 | 770 |
| 22 | 248 | 237 | 61.5 | 99.0 | 35 | 785 |
| 23 | 254 | 243 | 62.0 | 100.0 | 36 | 805 |
| 24 | 260 | 247 | 62.4 | 101.0 | 37 | 825 |
| 25 | 266 | 253 | 62.8 | 101.5 | 38 | 840 |
| 26 | 272 | 258 | 63.3 | 102.5 | 38 | 860 |
| 27 | 279 | 264 | 63.8 | 103.0 | 40 | 880 |
| 28 | 286 | 271 | 64.3 | 104.0 | 41 | 910 |
| 29 | 294 | 279 | 64.7 | 104.5 | 41 | 930 |
| 30 | 302 | 286 | 65.3 | 105.5 | 42 | 950 |
| 31 | 310 | 294 | 65.8 | 106.0 | 43 | 980 |
| 32 | 318 | 301 | 66.3 | 107.0 | 44 | 1000 |
| 33 | 327 | 311 | 66.8 | 107.5 | 46 | 1025 |
| 34 | 336 | 319 | 67.4 | 108.0 | 47 | 1055 |
| 35 | 345 | 327 | 67..9 | 108.5 | 48 | 1080 |
| 36 | 354 | 336 | 68.4 | 109.0 | 49 | 1115 |
| 37 | 363 | 344 | 68.9 | - | 50 | 1160 |
| 38 | 372 | 353 | 69.4 | - | 51 | 1180 |
| 39 | 382 | 362 | 69.9 | - | 52 | 1215 |
| 40 | 392 | 371 | 70.4 | - | 54 | 1250 |
| 41 | 402 | 381 | 70.9 | - | 55 | 1295 |
| 42 | 412 | 390 | 71.5 | - | 56 | 1340 |
| 43 | 423 | 400 | 72.0 | - | 57 | 1385 |
| 44 | 434 | 409 | 72.5 | - | 58 | 1435 |
| 45 | 446 | 421 | 73.1 | - | 60 | 1480 |
| 46 | 458 | 432 | 73.6 | - | 62 | 1530 |
| 47 | 471 | 443 | 74.1 | - | 63 | 1580 |
| 48 | 484 | 455 | 74.7 | - | 64 | 1635 |
| 49 | 498 | 469 | 75.2 | - | 66 | 1695 |
| 50 | 513 | 481 | 75.9 | - | 67 | 1760 |
| 51 | 528 | 496 | 76.3 | - | 68 | 1820 |
| 52 | 544 | 512 | 76.8 | - | 69 | 1880 |
| 53 | 560 | 525 | 77.4 | - | 71 | 1950 |
| 54 | 577 | 543 | 78.0 | - | 72 | 2015 |
| 55 | 595 | 560 | 78.5 | - | 74 | 2075 |
| 56 | 613 | 577 | 79.0 | - | 75 | - |
| 57 | 633 | 595 | 79.6 | - | 76 | - |
| 58 | 653 | 615 | 80.1 | - | 78 | - |
| 59 | 674 | 634 | 80.7 | - | 80 | - |
| 60 | 697 | 654 | 81.2 | - | 81 | - |
| 61 | 720 | 670 | 81.8 | - | 83 | - |
| 62 | 746 | 688 | 82.3 | - | 85 | - |
| 63 | 772 | 705 | 82.8 | - | 87 | - |
| 64 | 800 | 722 | 83.4 | - | 88 | - |
| 65 | 832 | 739 | 83.9 | - | 91 | - |
| 66 | 865 | - | 84.5 | - | 92 | - |
| 67 | 900 | - | 85.0 | - | 95 | - |
| 68 | 940 | - | 85.6 | - | 97 | - |

In above chart,figures with()are not commonly used.

## 切 削 参 数 计 算 公 式

### 切削速度（周转）Velocity:V(m/min)

$$V=\frac{\pi \times D\times N}{1000}$$

π=3.14(圆周率)
D=铣刀直径(mm)
N=回转数（r.p.m)

π=3.14(the circular constant)
D=Outside Diameter
N=Spindle Speed

### 回转数周转Spindle speed:N(r.p.m)

$$N=\frac{1000\times V}{\pi D}$$

V=切削速度(n/min)
π=3.14(圆周率)
D=铣刀直径(mm)

V=Velocity
π=3.14(the circular constant)
D=Outside Diameter

### 进给速度 Feed：F（mm/min）

$$F=N\times Z\times Sz$$

N=回转数(r.p.m)
Z=刃数
Fz=每一刃的进给量(mm/刃)

N=Spindle speed
Z=Numbefr of flutes
Sz=Feed per tooth

### 每一刃的进给量 Feed per tooth:Sz(mm/刃)

$$Fz=\frac{F}{N\times Z}$$

F=进给速度(mm/min)
N=回转数(r.p.m)
Z=刃数

F=Feed
N=Spindle Speed
Z=Numbefr of flutes



# Notes