THE NEW VALUE FRONTIER

# 高效率可換鑽尖式鑽頭

# MagicDrill DRA

## 低切削阻力設計，實現卓越孔精度

刀桿剛性強化、抑制變形
切屑細碎、順暢的深孔加工
鑽尖更換簡單

NEW 铸铁加工用 KM

NEW 锪孔加工用 FTP

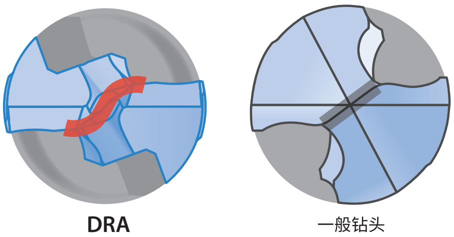
# MagicDrill DRA

低切削阻力設計提升鑽孔精度

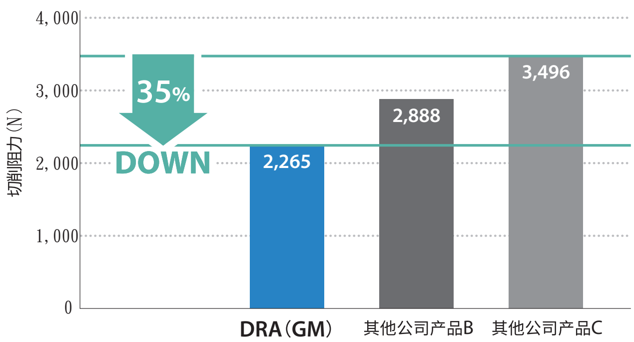
## 1 低切削阻力設計提升鑽孔精度

利用特殊 S 型鑿刀刀抑制進刀時的震動

切刃示意图




切削阻力比较 (本公司比较)

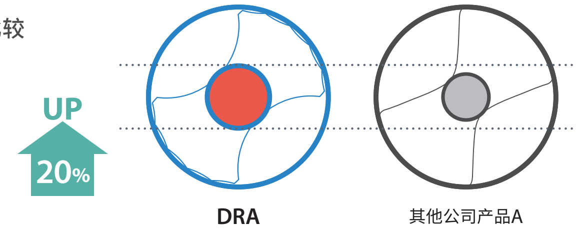



切削条件:Vc = 120 m/min, f = 0.25 mm/rev
加工径ø14,L/D = 5加工深度 45 mm, Wet被削材:S50C

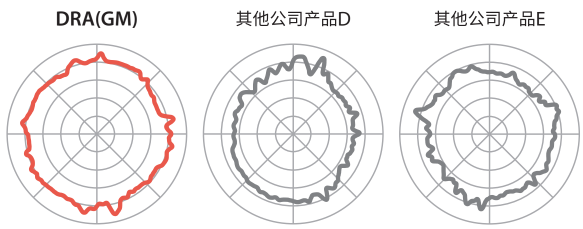
## 2 剛性提升，抑制變形

跟他社 A 相比，芯厚增加百分之二十 ，
能有效抑制變形並提升孔徑精度

芯厚比較




真圆度•圆柱度比较 (本公司比较)




| | DRA(GM) | 其他公司产品D | 其他公司产品E |
|---|---|---|---|
| 真圆度 | 18.7㎛ | 31.1 ㎛ | 27.3 ㎛ |
| 圆柱度 | 23.6㎛ | 34.3 ㎛ | 30.1 ㎛ |

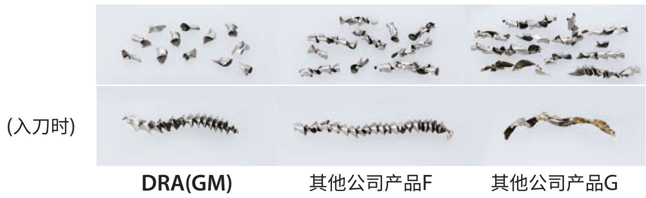
切削条件:Vc = 120 m/min, f = 0.3 mm/rev
加工径ø14,L/D = 5测定位置 55 mm, Wet被削材: S50C

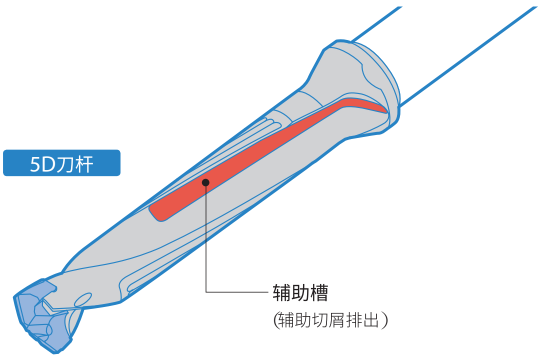
## 3 切屑細碎，深孔加工也有優越的切屑排出性能

最合適的修磨確保切屑排出穩定
增加刀桿後端的輔助槽（5D、8D ） 使切屑排出更為流暢

切屑比较
(本公司比较)

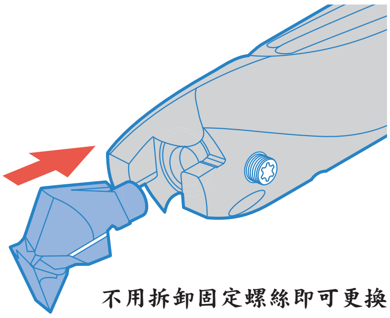
切削条件:Vc = 60 m/min, f = 0.2 mm/rev加工径ø14,L/D = 5
加工深度 70 mm, Wet被削材: SUS304



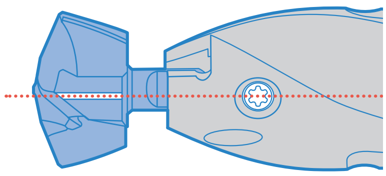



## 4 鑽尖更換簡單

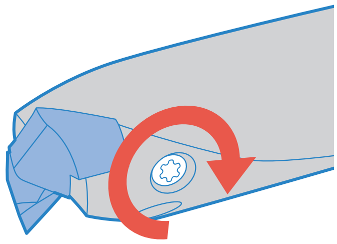
### 不必拆卸固定螺絲即可更換鑽尖



不用拆卸固定螺絲即可更換



將鑽尖白色部分對準螺釘位置後插入



用板手鎖緊螺絲釘固定即可

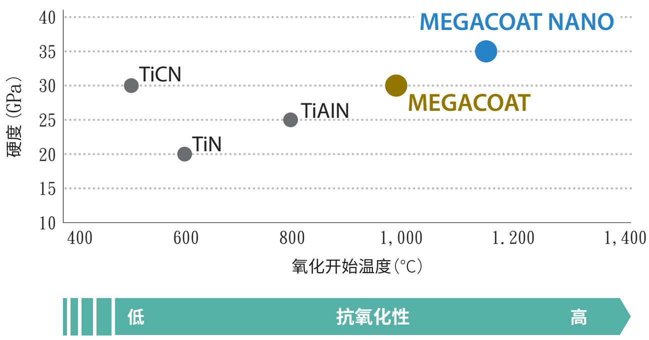
## 5 可對應多種加工材， 且工具壽命長、加工表現穩定

MEGACOAT NANO PR1535 是高韌性母材和特殊奈米塗層結合，
在多種加工，如鋼加工、不銹鋼加工等，皆能發揮其優越性能

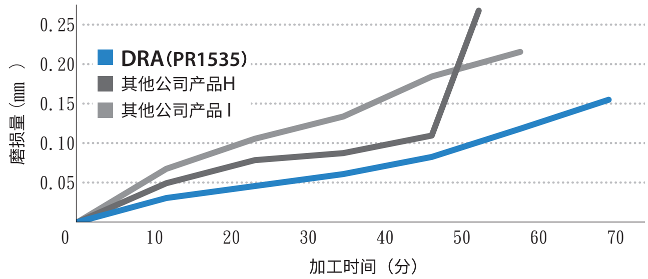
第1推荐材质

| 钢·SUS | 铸铁 |
|---|---|
| PR1535 | PR1525 |

涂层特性



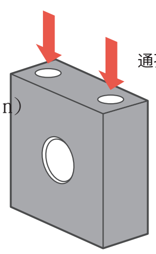

抗氧化性比较（本公司比较）




切削条件:Vc = 100 m/min, f = 0.25 mm/rev
加工径ø14,L/D = 5加工深度 45 mm, Wet 被削材:SCM440H

**配件 SS400**

Vc = 70 m/min (n = 1,240 min⁻¹)
f = 0.23 mm/rev (Vf = 285 mm/min)
加工深度 100 mm
Wet(内部给油)
有中心孔加工
SF25-DRA180M-8
DA1800M-GM PR1535




加工时间

**DRA** ø18-8D 45秒

其他公司产品
J ø18-7D（法兰径） 65秒

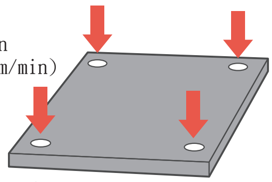
30% 加工时间

他社產品 J 為了避免纏屑狀況而採用了分段加工法，
但 DRA 不需使用分段加工也不會有纏屑

（基于用户评价）

**钢板 SUS304**

Vc = 60 m/min (n = 2,120 min⁻¹)
f = 0.12 mm/rev (Vf = 254 mm/min)
加工深度 15 mm
Wet(内部给油)
SS10-DRA090M-3
DA0900M-GM PR1535




加工孔数

**DRA** ø9-3D 500孔

K ø9-3D 100孔

寿命 5倍

與他社產品 相比， 壽命提高了五倍之多。
另外加工聲音小，加工完成面也精美，可實現安定加工

（基于用户评价）

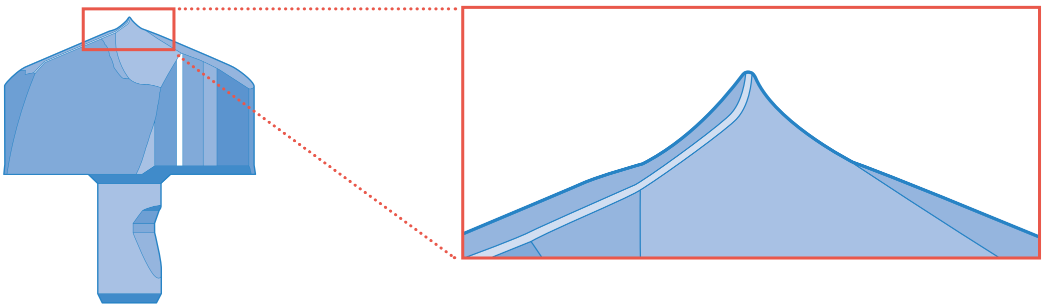
鑄鐵加工用

# KM

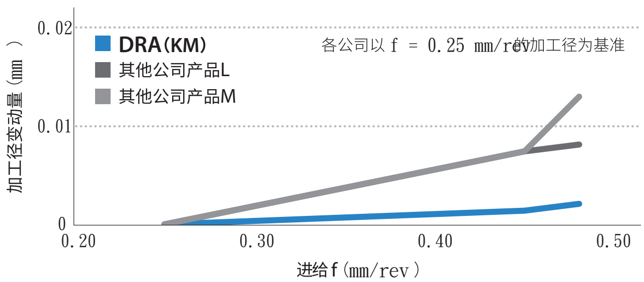
针對横刀及切刃形狀的加工提升孔精度及產品壽命

## 1 適合鑄鐵加工的横刃設計提高孔精度

**適合鑄鐵加工的横刃設計，提高離心力**
**高進給加工時能抑制孔徑位移**

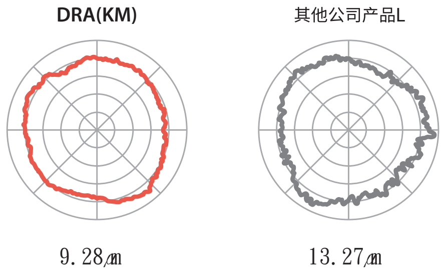


### 進給變動時加工徑的變化 (本公司比较)




切削条件:Vc = 100 m/min, f = 0.25～0.48 mm/rev
加工径ø14, L/D = 5, 测定位置 5 mm, Wet被削材:FCD600

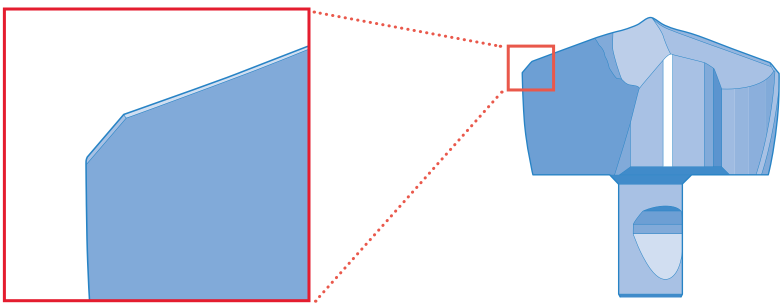
### 真圓度对比 (本公司比较)




切削条件:Vc = 100 m/min, f = 0.25 mm/rev
加工径ø14, L/D = 5, 测定位置 5 mm, Wet被削材: FCD600

## 2 抗崩損性

**大刃尖C面設計，在高進給加工時能抑制崩損，實現穩定加工**



锪孔加工用

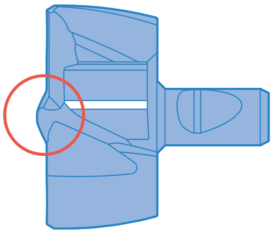
# FTP

**蠟燭形狀、雙刃設計提高孔精度**
**解決锪孔加工問題，實現高效率加工**

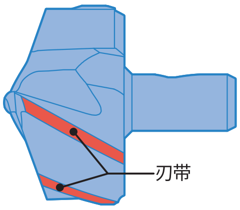
## 1 蠟燭形狀、雙刃設計提高孔精度

**蠟燭形狀提高離心力**
**雙刃設計抑制孔變形**

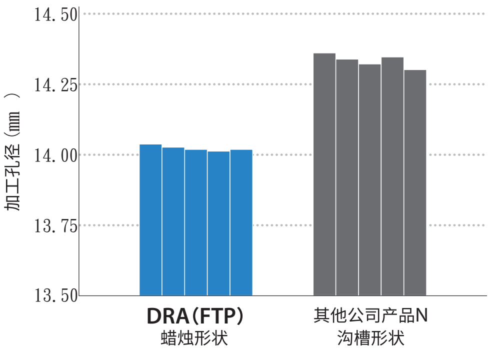
蠟燭形狀



雙刃設計



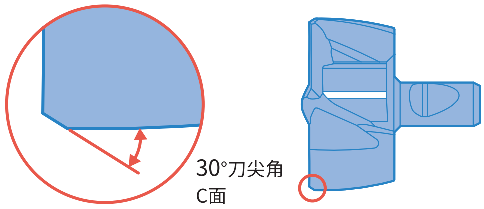

加工孔精度比较（本公司比较）



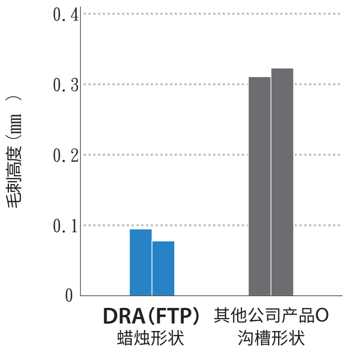

切削条件:Vc = 80 m/min, f = 0.25 mm/rev, 加工径ø14, L/D = 3
加工深度 20 mm, Wet被削材: S45C

## 2 刀尖C型設計提高抗崩損性 抑制毛邊產生

刀尖部形状

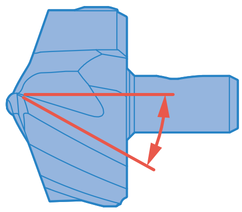



毛刺高度对比（本公司比较）




切削条件:Vc = 80 m/min, f = 0.25 mm/rev, 加工径ø14, L/D = 3
加工深度 20 mm, Wet被削材: S45C

螺旋角 30°

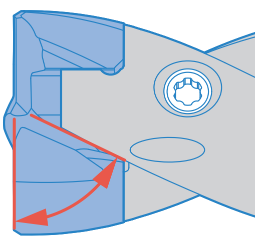


**大螺旋角提高切削效果**

## 3 大角度提升切屑排出性能

**提高切屑排出性,抑制阻屑**

大修磨角



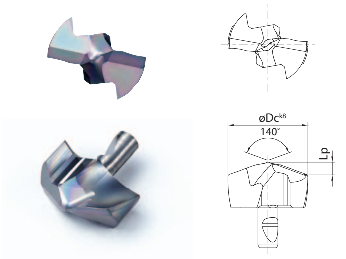
切屑比较（本公司比较）

切削条件:Vc = 55 m/min, f = 0.1 mm/rev, 加工径ø14, L/D = 3
加工深度 20 mm, Wet被削材: SUS304

(入刀时)

| DRA(FTP) 蜡烛形状 | 其他公司产品P 沟槽形状 |
|---|---|

## DRA用刀片(通用 GM) 加工径ø7.94～ø25.50




k8尺寸公差

| øDc | k8(mm) |
|---|---|
| 7.94 ～ 10.00 | +0.022 0 |
| 10.10 ～ 18.00 | +0.027 0 |
| 18.10 ～ 25.50 | +0.033 0 |

k8是刀片自身的尺寸公差
不是加工孔径的尺寸公差

第1推荐材质
钢·SUS PR1535
铸铁 PR1525

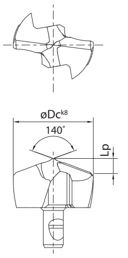
钻尖型号

| 型号 | 尺寸 (mm) | | 材质 | | 适用刀杆 |
|---|---|---|---|---|---|
| | øDc | Lp | PR1535 | PR1525 | |
| DA 0794M-GM | 7.94 | 1.34 | ● | ● | SS10-DRA080M-○<br>SF12-DRA080M-○ |
| 0800M-GM | 8.00 | 1.35 | ● | ● | |
| 0810M-GM | 8.10 | 1.37 | ● | ● | |
| 0820M-GM | 8.20 | 1.38 | ● | ● | |
| 0830M-GM | 8.30 | 1.40 | ● | ● | |
| 0840M-GM | 8.40 | 1.42 | ● | ● | |
| DA 0850M-GM | 8.50 | 1.44 | ● | ● | SS10-DRA085M-○<br>SF12-DRA085M-○ |
| 0860M-GM | 8.60 | 1.46 | ● | ● | |
| 0870M-GM | 8.70 | 1.48 | ● | ● | |
| 0880M-GM | 8.80 | 1.49 | ● | ● | |
| 0890M-GM | 8.90 | 1.51 | ● | ● | |
| DA 0900M-GM | 9.00 | 1.52 | ● | ● | SS10-DRA090M-○<br>SF12-DRA090M-○ |
| 0910M-GM | 9.10 | 1.54 | ● | ● | |
| 0920M-GM | 9.20 | 1.56 | ● | ● | |
| 0930M-GM | 9.30 | 1.58 | ● | ● | |
| 0940M-GM | 9.40 | 1.59 | ● | ● | |
| DA 0950M-GM | 9.50 | 1.61 | ● | ● | SS10-DRA095M-○<br>SF12-DRA095M-○ |
| 0960M-GM | 9.60 | 1.63 | ● | ● | |
| 0970M-GM | 9.70 | 1.65 | ● | ● | |
| 0980M-GM | 9.80 | 1.67 | ● | ● | |
| 0990M-GM | 9.90 | 1.68 | ● | ● | |
| DA 1000M-GM | 10.00 | 1.70 | ● | ● | SS12-DRA100M-○<br>SF16-DRA100M-○ |
| 1010M-GM | 10.10 | 1.72 | ● | ● | |
| 1020M-GM | 10.20 | 1.74 | ● | ● | |
| 1030M-GM | 10.30 | 1.75 | ● | ● | |
| 1040M-GM | 10.40 | 1.77 | ● | ● | |
| DA 1050M-GM | 10.50 | 1.79 | ● | ● | SS12-DRA105M-○<br>SF16-DRA105M-○ |
| 1060M-GM | 10.60 | 1.81 | ● | ● | |
| 1070M-GM | 10.70 | 1.83 | ● | ● | |
| 1080M-GM | 10.80 | 1.85 | ● | ● | |
| 1090M-GM | 10.90 | 1.86 | ● | ● | |
| DA 1100M-GM | 11.00 | 1.87 | ● | ● | SS12-DRA110M-○<br>SF16-DRA110M-○ |
| 1110M-GM | 11.10 | 1.89 | ● | ● | |
| 1120M-GM | 11.20 | 1.91 | ● | ● | |
| 1130M-GM | 11.30 | 1.92 | ● | ● | |
| 1140M-GM | 11.40 | 1.94 | ● | ● | |
| DA 1150M-GM | 11.50 | 1.96 | ● | ● | SS12-DRA115M-○<br>SF16-DRA115M-○ |
| 1160M-GM | 11.60 | 1.98 | ● | ● | |
| 1170M-GM | 11.70 | 2.00 | ● | ● | |
| 1180M-GM | 11.80 | 2.01 | ● | ● | |
| 1190M-GM | 11.90 | 2.03 | ● | ● | |
| DA 1200M-GM | 12.00 | 2.03 | ● | ● | SS14-DRA120M-○<br>SF16-DRA120M-○ |
| 1210M-GM | 12.10 | 2.05 | ● | ● | |
| 1220M-GM | 12.20 | 2.07 | ● | ● | |
| 1230M-GM | 12.30 | 2.08 | ● | ● | |
| 1240M-GM | 12.40 | 2.10 | ● | ● | |
| DA 1250M-GM | 12.50 | 2.12 | ● | ● | SS14-DRA125M-○<br>SF16-DRA125M-○ |
| 1260M-GM | 12.60 | 2.14 | ● | ● | |
| 1270M-GM | 12.70 | 2.16 | ● | ● | |
| 1280M-GM | 12.80 | 2.17 | ● | ● | |
| 1290M-GM | 12.90 | 2.19 | ● | ● | |
| DA 1300M-GM | 13.00 | 2.20 | ● | ● | SS14-DRA130M-○<br>SF16-DRA130M-○ |
| 1310M-GM | 13.10 | 2.22 | ● | ● | |
| 1320M-GM | 13.20 | 2.24 | ● | ● | |
| 1330M-GM | 13.30 | 2.25 | ● | ● | |
| 1340M-GM | 13.40 | 2.27 | ● | ● | |
| DA 1350M-GM | 13.50 | 2.29 | ● | ● | SS14-DRA135M-○<br>SF16-DRA135M-○ |
| 1360M-GM | 13.60 | 2.31 | ● | ● | |
| 1370M-GM | 13.70 | 2.33 | ● | ● | |
| 1380M-GM | 13.80 | 2.35 | ● | ● | |
| 1390M-GM | 13.90 | 2.36 | ● | ● | |
| DA 1400M-GM | 14.00 | 2.33 | ● | ● | SS16-DRA140M-○<br>SF16-DRA140M-○ |
| 1410M-GM | 14.10 | 2.34 | ● | ● | |
| 1420M-GM | 14.20 | 2.36 | ● | ● | |
| 1430M-GM | 14.30 | 2.38 | ● | ● | |
| 1440M-GM | 14.40 | 2.40 | ● | ● | |

| 型号 | 尺寸 (mm) | | 材质 | | 适用刀杆 |
|---|---|---|---|---|---|
| | øDc | Lp | PR1535 | PR1525 | |
| DA 1450M-GM | 14.50 | 2.42 | ● | ● | SS16-DRA145M-○<br>SF16-DRA145M-○ |
| 1460M-GM | 14.60 | 2.43 | ● | ● | |
| 1470M-GM | 14.70 | 2.45 | ● | ● | |
| 1480M-GM | 14.80 | 2.47 | ● | ● | |
| 1490M-GM | 14.90 | 2.49 | ● | ● | |
| DA 1500M-GM | 15.00 | 2.52 | ● | ● | SS16-DRA150M-○<br>SF20-DRA150M-○ |
| 1510M-GM | 15.10 | 2.54 | ● | ● | |
| 1520M-GM | 15.20 | 2.55 | ● | ● | |
| 1530M-GM | 15.30 | 2.57 | ● | ● | |
| 1540M-GM | 15.40 | 2.59 | ● | ● | |
| 1550M-GM | 15.50 | 2.61 | ● | ● | |
| 1560M-GM | 15.60 | 2.63 | ● | ● | |
| 1570M-GM | 15.70 | 2.65 | ● | ● | |
| 1580M-GM | 15.80 | 2.66 | ● | ● | |
| 1590M-GM | 15.90 | 2.68 | ● | ● | |
| DA 1600M-GM | 16.00 | 2.69 | ● | ● | SS18-DRA160M-○<br>SF20-DRA160M-○ |
| 1610M-GM | 16.10 | 2.71 | ● | ● | |
| 1620M-GM | 16.20 | 2.73 | ● | ● | |
| 1630M-GM | 16.30 | 2.75 | ● | ● | |
| 1640M-GM | 16.40 | 2.76 | ● | ● | |
| 1650M-GM | 16.50 | 2.78 | ● | ● | |
| 1660M-GM | 16.60 | 2.80 | ● | ● | |
| 1670M-GM | 16.70 | 2.82 | ● | ● | |
| 1680M-GM | 16.80 | 2.84 | ● | ● | |
| 1690M-GM | 16.90 | 2.86 | ● | ● | |
| DA 1700M-GM | 17.00 | 2.86 | ● | ● | SS18-DRA170M-○<br>SF20-DRA170M-○ |
| 1710M-GM | 17.10 | 2.88 | ● | ● | |
| 1720M-GM | 17.20 | 2.90 | ● | ● | |
| 1730M-GM | 17.30 | 2.92 | ● | ● | |
| 1740M-GM | 17.40 | 2.93 | ● | ● | |
| 1750M-GM | 17.50 | 2.95 | ● | ● | |
| 1760M-GM | 17.60 | 2.97 | ● | ● | |
| 1770M-GM | 17.70 | 2.99 | ● | ● | |
| 1780M-GM | 17.80 | 3.01 | ● | ● | |
| 1790M-GM | 17.90 | 3.03 | ● | ● | |
| DA 1800M-GM | 18.00 | 3.04 | ● | ● | SS20-DRA180M-○<br>SF25-DRA180M-○ |
| 1810M-GM | 18.10 | 3.06 | ● | ● | |
| 1820M-GM | 18.20 | 3.07 | ● | ● | |
| 1830M-GM | 18.30 | 3.09 | ● | ● | |
| 1840M-GM | 18.40 | 3.11 | ● | ● | |
| 1850M-GM | 18.50 | 3.13 | ● | ● | |
| 1860M-GM | 18.60 | 3.15 | ● | ● | |
| 1870M-GM | 18.70 | 3.17 | ● | ● | |
| 1880M-GM | 18.80 | 3.18 | ● | ● | |
| 1890M-GM | 18.90 | 3.20 | ● | ● | |
| DA 1900M-GM | 19.00 | 3.21 | ● | ● | SS20-DRA190M-○<br>SF25-DRA190M-○ |
| 1910M-GM | 19.10 | 3.23 | ● | ● | |
| 1920M-GM | 19.20 | 3.25 | ● | ● | |
| 1930M-GM | 19.30 | 3.27 | ● | ● | |
| 1940M-GM | 19.40 | 3.29 | ● | ● | |
| 1950M-GM | 19.50 | 3.30 | ● | ● | |
| 1960M-GM | 19.60 | 3.32 | ● | ● | |
| 1970M-GM | 19.70 | 3.34 | ● | ● | |
| 1980M-GM | 19.80 | 3.36 | ● | ● | |
| 1990M-GM | 19.90 | 3.38 | ● | ● | |
| DA 2000M-GM | 20.00 | 3.37 | ● | ● | SS25-DRA200M-○<br>SF25-DRA200M-○ |
| 2010M-GM | 20.10 | 3.39 | ● | ● | |
| 2020M-GM | 20.20 | 3.41 | ● | ● | |
| 2030M-GM | 20.30 | 3.43 | ● | ● | |
| 2040M-GM | 20.40 | 3.45 | ● | ● | |
| 2050M-GM | 20.50 | 3.46 | ● | ● | |
| 2060M-GM | 20.60 | 3.48 | ● | ● | |
| 2070M-GM | 20.70 | 3.50 | ● | ● | |
| 2080M-GM | 20.80 | 3.52 | ● | ● | |
| 2090M-GM | 20.90 | 3.54 | ● | ● | |
| DA 2100M-GM | 21.00 | 3.54 | ● | ● | SS25-DRA210M-○<br>SF25-DRA210M-○ |
| 2150M-GM | 21.50 | 3.63 | ● | ● | |
| DA 2200M-GM | 22.00 | 3.71 | ● | ● | SS25-DRA220M-○<br>SF25-DRA220M-○ |
| 2250M-GM | 22.50 | 3.80 | ● | ● | |
| DA 2300M-GM | 23.00 | 3.87 | ● | ● | SS25-DRA230M-○<br>SF25-DRA230M-○ |
| 2350M-GM | 23.50 | 3.96 | ● | ● | |
| DA 2400M-GM | 24.00 | 4.04 | ● | ● | SS25-DRA240M-○<br>SF25-DRA240M-○ |
| 2450M-GM | 24.50 | 4.13 | ● | ● | |
| DA 2500M-GM | 25.00 | 4.20 | ● | ● | SS32-DRA250M-○<br>SF25-DRA250M-○ |
| 2550M-GM | 25.50 | 4.29 | ● | ● | |

1盒1片装
●:标准库存

# DRA用刀片(铸铁加工用 KM) 加工径ø7.94～ø25.50




k8尺寸公差

| øDc | k8(mm) |
|---|---|
| 7.94 ~ 10.00 | +0.022 0 |
| 10.10 ~ 18.00 | +0.027 0 |
| 18.10 ~ 25.50 | +0.033 0 |

k8是刀片自身的尺寸公差
不是加工孔径的尺寸公差

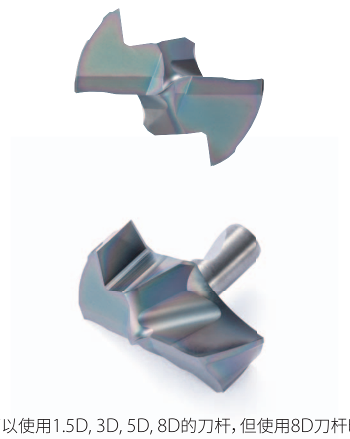
## 钻尖型号

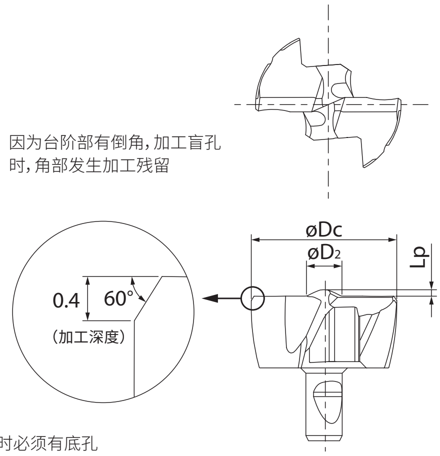
| 型号 | 尺寸 (mm) | | 材质 | 适用刀杆 |
|---|---|---|---|---|
| | øDc | Lp | PR1525 | |
| DA 0794M-KM | 7.94 | 1.82 | ● | SS10-DRA080M-○ SF12-DRA080M-○ |
| 0800M-KM | 8.00 | 1.85 | ● | |
| 0810M-KM | 8.10 | 1.89 | ● | |
| 0820M-KM | 8.20 | 1.93 | ● | |
| 0830M-KM | 8.30 | 1.98 | ● | |
| 0840M-KM | 8.40 | 2.02 | ● | |
| DA 0850M-KM | 8.50 | 2.06 | ● | SS10-DRA085M-○ SF12-DRA085M-○ |
| 0860M-KM | 8.60 | 2.10 | ● | |
| 0870M-KM | 8.70 | 2.14 | ● | |
| 0880M-KM | 8.80 | 2.19 | ● | |
| 0890M-KM | 8.90 | 2.23 | ● | |
| DA 0900M-KM | 9.00 | 2.02 | ● | SS10-DRA090M-○ SF12-DRA090M-○ |
| 0910M-KM | 9.10 | 2.06 | ● | |
| 0920M-KM | 9.20 | 2.11 | ● | |
| 0930M-KM | 9.30 | 2.15 | ● | |
| 0940M-KM | 9.40 | 2.19 | ● | |
| DA 0950M-KM | 9.50 | 2.23 | ● | SS10-DRA095M-○ SF12-DRA095M-○ |
| 0960M-KM | 9.60 | 2.27 | ● | |
| 0970M-KM | 9.70 | 2.32 | ● | |
| 0980M-KM | 9.80 | 2.36 | ● | |
| 0990M-KM | 9.90 | 2.40 | ● | |
| DA 1000M-KM | 10.00 | 2.20 | ● | SS12-DRA100M-○ SF16-DRA100M-○ |
| 1010M-KM | 10.10 | 2.24 | ● | |
| 1020M-KM | 10.20 | 2.28 | ● | |
| 1030M-KM | 10.30 | 2.32 | ● | |
| 1040M-KM | 10.40 | 2.37 | ● | |
| DA 1050M-KM | 10.50 | 2.41 | ● | SS12-DRA105M-○ SF16-DRA105M-○ |
| 1060M-KM | 10.60 | 2.45 | ● | |
| 1070M-KM | 10.70 | 2.49 | ● | |
| 1080M-KM | 10.80 | 2.53 | ● | |
| 1090M-KM | 10.90 | 2.57 | ● | |
| DA 1100M-KM | 11.00 | 2.50 | ● | SS12-DRA110M-○ SF16-DRA110M-○ |
| 1110M-KM | 11.10 | 2.54 | ● | |
| 1120M-KM | 11.20 | 2.59 | ● | |
| 1130M-KM | 11.30 | 2.63 | ● | |
| 1140M-KM | 11.40 | 2.67 | ● | |
| DA 1150M-KM | 11.50 | 2.71 | ● | SS12-DRA115M-○ SF16-DRA115M-○ |
| 1160M-KM | 11.60 | 2.75 | ● | |
| 1170M-KM | 11.70 | 2.80 | ● | |
| 1180M-KM | 11.80 | 2.84 | ● | |
| 1190M-KM | 11.90 | 2.88 | ● | |
| DA 1200M-KM | 12.00 | 2.68 | ● | SS14-DRA120M-○ SF16-DRA120M-○ |
| 1210M-KM | 12.10 | 2.72 | ● | |
| 1220M-KM | 12.20 | 2.76 | ● | |
| 1230M-KM | 12.30 | 2.80 | ● | |
| 1240M-KM | 12.40 | 2.85 | ● | |
| DA 1250M-KM | 12.50 | 2.89 | ● | SS14-DRA125M-○ SF16-DRA125M-○ |
| 1260M-KM | 12.60 | 2.93 | ● | |
| 1270M-KM | 12.70 | 2.97 | ● | |
| 1280M-KM | 12.80 | 3.01 | ● | |
| 1290M-KM | 12.90 | 3.06 | ● | |
| DA 1300M-KM | 13.00 | 2.83 | ● | SS14-DRA130M-○ SF16-DRA130M-○ |
| 1310M-KM | 13.10 | 2.87 | ● | |
| 1320M-KM | 13.20 | 2.92 | ● | |
| 1330M-KM | 13.30 | 2.96 | ● | |
| 1340M-KM | 13.40 | 3.00 | ● | |
| DA 1350M-KM | 13.50 | 3.04 | ● | SS14-DRA135M-○ SF16-DRA135M-○ |
| 1360M-KM | 13.60 | 3.08 | ● | |
| 1370M-KM | 13.70 | 3.13 | ● | |
| 1380M-KM | 13.80 | 3.17 | ● | |
| 1390M-KM | 13.90 | 3.21 | ● | |
| DA 1400M-KM | 14.00 | 3.04 | ● | SS16-DRA140M-○ SF16-DRA140M-○ |
| 1410M-KM | 14.10 | 3.09 | ● | |
| 1420M-KM | 14.20 | 3.13 | ● | |
| 1430M-KM | 14.30 | 3.17 | ● | |
| 1440M-KM | 14.40 | 3.21 | ● | |

| 型号 | 尺寸 (mm) | | 材质 | 适用刀杆 |
|---|---|---|---|---|
| | øDc | Lp | PR1525 | |
| DA 1450M-KM | 14.50 | 3.25 | ● | SS16-DRA145M-○ SF16-DRA145M-○ |
| 1460M-KM | 14.60 | 3.30 | ● | |
| 1470M-KM | 14.70 | 3.34 | ● | |
| 1480M-KM | 14.80 | 3.38 | ● | |
| 1490M-KM | 14.90 | 3.42 | ● | |
| DA 1500M-KM | 15.00 | 3.24 | ● | SS16-DRA150M-○ SF20-DRA150M-○ |
| 1510M-KM | 15.10 | 3.28 | ● | |
| 1520M-KM | 15.20 | 3.33 | ● | |
| 1530M-KM | 15.30 | 3.37 | ● | |
| 1540M-KM | 15.40 | 3.41 | ● | |
| 1550M-KM | 15.50 | 3.45 | ● | |
| 1560M-KM | 15.60 | 3.49 | ● | |
| 1570M-KM | 15.70 | 3.54 | ● | |
| 1580M-KM | 15.80 | 3.58 | ● | |
| 1590M-KM | 15.90 | 3.62 | ● | |
| DA 1600M-KM | 16.00 | 3.43 | ● | SS18-DRA160M-○ SF20-DRA160M-○ |
| 1610M-KM | 16.10 | 3.47 | ● | |
| 1620M-KM | 16.20 | 3.51 | ● | |
| 1630M-KM | 16.30 | 3.55 | ● | |
| 1640M-KM | 16.40 | 3.60 | ● | |
| 1650M-KM | 16.50 | 3.64 | ● | |
| 1660M-KM | 16.60 | 3.68 | ● | |
| 1670M-KM | 16.70 | 3.72 | ● | |
| 1680M-KM | 16.80 | 3.76 | ● | |
| 1690M-KM | 16.90 | 3.81 | ● | |
| DA 1700M-KM | 17.00 | 3.61 | ● | SS18-DRA170M-○ SF20-DRA170M-○ |
| 1710M-KM | 17.10 | 3.65 | ● | |
| 1720M-KM | 17.20 | 3.69 | ● | |
| 1730M-KM | 17.30 | 3.74 | ● | |
| 1740M-KM | 17.40 | 3.78 | ● | |
| 1750M-KM | 17.50 | 3.82 | ● | |
| 1760M-KM | 17.60 | 3.86 | ● | |
| 1770M-KM | 17.70 | 3.90 | ● | |
| 1780M-KM | 17.80 | 3.95 | ● | |
| 1790M-KM | 17.90 | 3.99 | ● | |
| DA 1800M-KM | 18.00 | 3.79 | ● | SS20-DRA180M-○ SF25-DRA180M-○ |
| 1810M-KM | 18.10 | 3.83 | ● | |
| 1820M-KM | 18.20 | 3.88 | ● | |
| 1830M-KM | 18.30 | 3.92 | ● | |
| 1840M-KM | 18.40 | 3.96 | ● | |
| 1850M-KM | 18.50 | 4.00 | ● | |
| 1860M-KM | 18.60 | 4.04 | ● | |
| 1870M-KM | 18.70 | 4.08 | ● | |
| 1880M-KM | 18.80 | 4.13 | ● | |
| 1890M-KM | 18.90 | 4.17 | ● | |
| DA 1900M-KM | 19.00 | 3.97 | ● | SS20-DRA190M-○ SF25-DRA190M-○ |
| 1910M-KM | 19.10 | 4.01 | ● | |
| 1920M-KM | 19.20 | 4.05 | ● | |
| 1930M-KM | 19.30 | 4.09 | ● | |
| 1940M-KM | 19.40 | 4.14 | ● | |
| 1950M-KM | 19.50 | 4.18 | ● | |
| 1960M-KM | 19.60 | 4.22 | ● | |
| 1970M-KM | 19.70 | 4.26 | ● | |
| 1980M-KM | 19.80 | 4.30 | ● | |
| 1990M-KM | 19.90 | 4.35 | ● | |
| DA 2000M-KM | 20.00 | 4.20 | ● | SS25-DRA200M-○ SF25-DRA200M-○ |
| 2010M-KM | 20.10 | 4.24 | ● | |
| 2020M-KM | 20.20 | 4.28 | ● | |
| 2030M-KM | 20.30 | 4.33 | ● | |
| 2040M-KM | 20.40 | 4.37 | ● | |
| 2050M-KM | 20.50 | 4.41 | ● | |
| 2060M-KM | 20.60 | 4.45 | ● | |
| 2070M-KM | 20.70 | 4.49 | ● | |
| 2080M-KM | 20.80 | 4.54 | ● | |
| 2090M-KM | 20.90 | 4.58 | ● | |
| DA 2100M-KM | 21.00 | 4.38 | ● | SS25-DRA210M-○ |
| 2150M-KM | 21.50 | 4.59 | ● | SF25-DRA210M-○ |
| DA 2200M-KM | 22.00 | 4.55 | ● | SS25-DRA220M-○ |
| 2250M-KM | 22.50 | 4.76 | ● | SF25-DRA220M-○ |
| DA 2300M-KM | 23.00 | 4.74 | ● | SS25-DRA230M-○ |
| 2350M-KM | 23.50 | 4.94 | ● | SF25-DRA230M-○ |
| DA 2400M-KM | 24.00 | 4.91 | ● | SS25-DRA240M-○ |
| 2450M-KM | 24.50 | 5.12 | ● | SF25-DRA240M-○ |
| DA 2500M-KM | 25.00 | 5.08 | ● | SS32-DRA250M-○ |
| 2550M-KM | 25.50 | 5.29 | ● | SF25-DRA250M-○ |

1盒1片装
●:标准库存

## DRA用刀片(锪孔加工用 FTP) 加工径 ø8.00~ø25.4






k8尺寸公差

| øDc | k8(mm) |
|---|---|
| 8.00 ~ 10.00 | +0.022 0 |
| 10.10 ~ 18.00 | +0.027 0 |
| 18.10 ~ 25.40 | +0.033 0 |

k8是刀片自身的尺寸公差
不是加工孔径的尺寸公差

注释
虽然可以使用1.5D, 3D, 5D, 8D的刀杆，但使用8D刀杆时必须有底孔

### 钻尖型号

第1推荐材质 钢·SUS PR1535 铸铁 PR1525

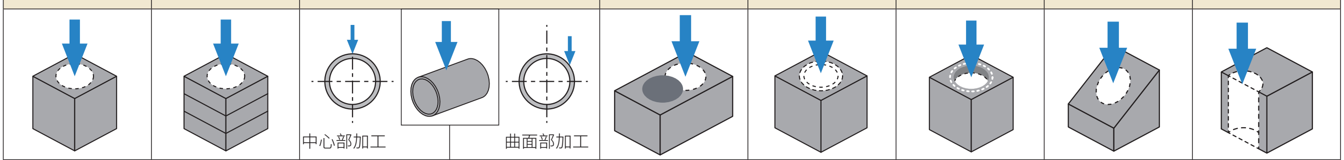
| 型号 | 尺寸 (mm) | | | 材质 | | 适用刀杆 |
|---|---|---|---|---|---|---|
| | øDc | øD2 | Lp | PR1535 | PR1525 | |
| DA0800M-FTP | 8.00 | 2.90 | 0.40 | ● | ● | SS10-DRA080M-○ SF12-DRA080M-○ |
| DA0830M-FTP | 8.30 | | | ● | ● | |
| DA0850M-FTP | 8.50 | | | ● | ● | SS10-DRA085M-○ SF12-DRA085M-○ |
| DA0880M-FTP | 8.80 | | | ● | ● | |
| DA0900M-FTP | 9.00 | 3.00 | 0.43 | ● | ● | SS10-DRA090M-○ SF12-DRA090M-○ |
| DA0930M-FTP | 9.30 | | | ● | ● | |
| DA0950M-FTP | 9.50 | | | ● | ● | SS10-DRA095M-○ SF12-DRA095M-○ |
| DA1000M-FTP | 10.00 | 3.30 | 0.46 | ● | ● | SS12-DRA100M-○ SF16-DRA100M-○ |
| DA1030M-FTP | 10.30 | | | ● | ● | |
| DA1050M-FTP | 10.50 | | | ● | ● | SS12-DRA105M-○ SF16-DRA105M-○ |
| DA1080M-FTP | 10.80 | | | ● | ● | |
| DA1100M-FTP | 11.00 | 3.40 | 0.50 | ● | ● | SS12-DRA110M-○ SF16-DRA110M-○ |
| DA1150M-FTP | 11.50 | | | ● | ● | SS12-DRA115M-○ SF16-DRA115M-○ |
| DA1200M-FTP | 12.00 | 3.70 | 0.53 | ● | ● | SS14-DRA120M-○ SF16-DRA120M-○ |
| DA1250M-FTP | 12.50 | | | ● | ● | SS14-DRA125M-○ SF16-DRA125M-○ |
| DA1270M-FTP | 12.70 | | | ● | ● | |
| DA1300M-FTP | 13.00 | 3.90 | 0.56 | ● | ● | SS14-DRA130M-○ SF16-DRA130M-○ |
| DA1350M-FTP | 13.50 | | | ● | ● | SS14-DRA135M-○ SF16-DRA135M-○ |
| DA1400M-FTP | 14.00 | 4.20 | 0.60 | ● | ● | SS16-DRA140M-○ SF16-DRA140M-○ |
| DA1450M-FTP | 14.50 | | | ● | ● | SS16-DRA145M-○ SF16-DRA145M-○ |
| DA1500M-FTP | 15.00 | 4.40 | 0.65 | ● | ● | SS16-DRA150M-○ SF20-DRA150M-○ |

| 型号 | 尺寸 (mm) | | | 材质 | | 适用刀杆 |
|---|---|---|---|---|---|---|
| | øDc | øD2 | Lp | PR1535 | PR1525 | |
| DA1550M-FTP | 15.50 | 4.40 | 0.65 | ● | ● | SS16-DRA150M-○ SF20-DRA150M-○ |
| DA1600M-FTP | 16.00 | 4.60 | 0.70 | ● | ● | SS18-DRA160M-○ SF20-DRA160M-○ |
| DA1650M-FTP | 16.50 | | | ● | ● | |
| DA1700M-FTP | 17.00 | 5.00 | 0.75 | ● | ● | SS18-DRA170M-○ SF20-DRA170M-○ |
| DA1750M-FTP | 17.50 | | | ● | ● | |
| DA1800M-FTP | 18.00 | 5.00 | 0.80 | ● | ● | SS20-DRA180M-○ SF25-DRA180M-○ |
| DA1850M-FTP | 18.50 | | | ● | ● | |
| DA1900M-FTP | 19.00 | 5.30 | 0.85 | ● | ● | SS20-DRA190M-○ SF25-DRA190M-○ |
| DA1950M-FTP | 19.50 | | | ● | ● | |
| DA2000M-FTP | 20.00 | 5.70 | 0.90 | ● | ● | SS25-DRA200M-○ SF25-DRA200M-○ |
| DA2050M-FTP | 20.50 | | | ● | ● | |
| DA2100M-FTP | 21.00 | 6.00 | 0.95 | ● | ● | SS25-DRA210M-○ SF25-DRA210M-○ |
| DA2150M-FTP | 21.50 | | | ● | ● | |
| DA2200M-FTP | 22.00 | 6.40 | 1.00 | ● | ● | SS25-DRA220M-○ SF25-DRA220M-○ |
| DA2250M-FTP | 22.50 | | | ● | ● | |
| DA2300M-FTP | 23.00 | 6.60 | 1.05 | ● | ● | SS25-DRA230M-○ SF25-DRA230M-○ |
| DA2350M-FTP | 23.50 | | | ● | ● | |
| DA2400M-FTP | 24.00 | 6.80 | 1.10 | ● | ● | SS25-DRA240M-○ SF25-DRA240M-○ |
| DA2450M-FTP | 24.50 | | | ● | ● | |
| DA2500M-FTP | 25.00 | 7.00 | 1.20 | ● | ● | SS25-DRA250M-○ SF25-DRA250M-○ |
| DA2540M-FTP | 25.40 | | | ● | ● | |

1盒1片装
●:标准库存

## 适用工件形状及不推荐工件形状

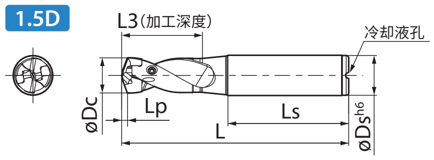
| 平面 | 重叠板 | 管外圆 | ※连续孔 | 有底孔 | 凹面 | 斜面 | 半圆面 |
|---|---|---|---|---|---|---|---|

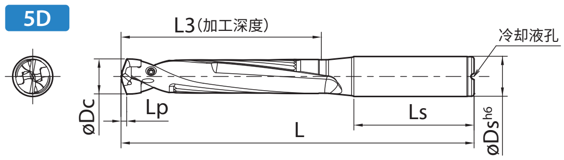


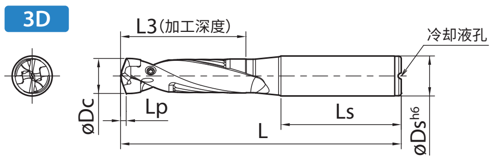

| 适用1.5D刀杆 | | 不推荐形状 |
|---|---|---|
| 适用3D以上刀杆 | 3D以上刀杆不推荐的形状 | |

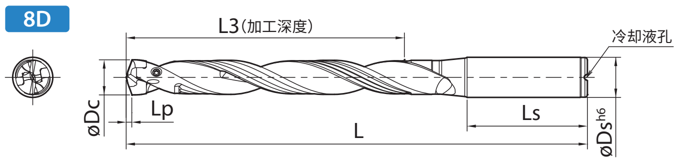
※1.5D刀杆进行连续孔加工时，请将重叠量设定为1/3×D以下

## DRA刀杆 (直柄型)




### 刀杆尺寸 1.5D

| 直柄 SS型<br>加工深度：1.5×D<br>型号 | 库存 | 尺寸(mm)<br>øDc<br>min. | <br><br>max. | <br>øDs<br>(刀杆直径) | <br>L<br>(全长) | <br>L3<br>(加工深度) | <br>Ls<br>(刀杆长度) | 适用刀片 | 零件<br>紧固螺丝 | <br>扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SS10-DRA080M-1.5 | ● | 7.94 | 8.49 | 10 | 66.2 | 12.8 | 40 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SS10-DRA085M-1.5 | ● | 8.50 | 8.99 | | 67.5 | 13.5 | | DA0850M-··· ～ DA0890M-··· | | |
| SS10-DRA090M-1.5 | ● | 9.00 | 9.49 | | 68.7 | 14.3 | | DA0900M-··· ～ DA0940M-··· | | |
| SS10-DRA095M-1.5 | ● | 9.50 | 9.99 | | 70.0 | 15.0 | | DA0950M-··· ～ DA0990M-··· | | |
| SS12-DRA100M-1.5 | ● | 10.00 | 10.49 | 12 | 76.2 | 15.8 | 45 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SS12-DRA105M-1.5 | ● | 10.50 | 10.99 | | 77.5 | 16.5 | | DA1050M-··· ～ DA1090M-··· | | |
| SS12-DRA110M-1.5 | ● | 11.00 | 11.49 | | 79.7 | 17.3 | | DA1100M-··· ～ DA1140M-··· | | |
| SS12-DRA115M-1.5 | ● | 11.50 | 11.99 | | 81.0 | 18.0 | | DA1150M-··· ～ DA1190M-··· | | |
| SS14-DRA120M-1.5 | ● | 12.00 | 12.49 | 14 | 82.2 | 18.8 | | DA1200M-··· ～ DA1240M-··· | | |
| SS14-DRA125M-1.5 | ● | 12.50 | 12.99 | | 83.5 | 19.5 | | DA1250M-··· ～ DA1290M-··· | | |
| SS14-DRA130M-1.5 | ● | 13.00 | 13.49 | | 84.7 | 20.3 | | DA1300M-··· ～ DA1340M-··· | | |
| SS14-DRA135M-1.5 | ● | 13.50 | 13.99 | | 86.0 | 21.0 | | DA1350M-··· ～ DA1390M-··· | | |
| SS16-DRA140M-1.5 | ● | 14.00 | 14.49 | 16 | 90.2 | 21.8 | 48 | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SS16-DRA145M-1.5 | ● | 14.50 | 14.99 | | 91.5 | 22.5 | | DA1450M-··· ～ DA1490M-··· | | |
| SS16-DRA150M-1.5 | ● | 15.00 | 15.99 | | 95.0 | 24.0 | | DA1500M-··· ～ DA1590M-··· | | |
| SS18-DRA160M-1.5 | ● | 16.00 | 16.99 | 18 | 98.5 | 25.5 | | DA1600M-··· ～ DA1690M-··· | | |
| SS18-DRA170M-1.5 | ● | 17.00 | 17.99 | | 101.0 | 27.0 | | DA1700M-··· ～ DA1790M-··· | | |
| SS20-DRA180M-1.5 | ● | 18.00 | 18.99 | 20 | 106.5 | 28.5 | 50 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SS20-DRA190M-1.5 | ● | 19.00 | 19.99 | | 109.0 | 30.0 | | DA1900M-··· ～ DA1990M-··· | | |
| SS25-DRA200M-1.5 | ● | 20.00 | 20.99 | 25 | 117.5 | 31.5 | 56 | DA2000M-··· ～ DA2090M-··· | | |
| SS25-DRA210M-1.5 | ● | 21.00 | 21.99 | | 120.0 | 33.0 | | DA2100M-··· ～ DA2150M-··· | | |
| SS25-DRA220M-1.5 | ● | 22.00 | 22.99 | | 123.5 | 34.5 | | DA2200M-··· ～ DA2250M-··· | | |
| SS25-DRA230M-1.5 | ● | 23.00 | 23.99 | | 126.0 | 36.0 | | DA2300M-··· ～ DA2350M-··· | | |
| SS25-DRA240M-1.5 | ● | 24.00 | 24.99 | | 128.5 | 37.5 | | DA2400M-··· ～ DA2450M-··· | | |
| SS32-DRA250M-1.5 | ● | 25.00 | 25.50 | 32 | 135.0 | 39.0 | 60 | DA2500M-··· ～ DA2550M-··· | | |

●：标准库存

## 刀杆尺寸 3D

| 直柄 SS型 / 加工深度：3×D / 型号 | 库存 | øDc min. | øDc max. | øDs (刀杆直径) | L (全长) | L3 (加工深度) | Ls (刀杆长度) | 适用刀片 | 零件 紧固螺丝 | 零件 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SS10-DRA080M-3 | ● | 7.94 | 8.49 | 10 | 79 | 25.5 | 40 | DA0794M-··· ~ DA0840M-··· | HS-2524TRP | FTP-5 |
| SS10-DRA085M-3 | ● | 8.50 | 8.99 | | 81 | 27.0 | | DA0850M-··· ~ DA0890M-··· | | |
| SS10-DRA090M-3 | ● | 9.00 | 9.49 | | 83 | 28.5 | | DA0900M-··· ~ DA0940M-··· | | |
| SS10-DRA095M-3 | ● | 9.50 | 9.99 | | 85 | 30.0 | | DA0950M-··· ~ DA0990M-··· | | |
| SS12-DRA100M-3 | ● | 10.00 | 10.49 | 12 | 92 | 31.5 | 45 | DA1000M-··· ~ DA1040M-··· | HS-2534TRP | |
| SS12-DRA105M-3 | ● | 10.50 | 10.99 | | 94 | 33.0 | | DA1050M-··· ~ DA1090M-··· | | |
| SS12-DRA110M-3 | ● | 11.00 | 11.49 | | 97 | 34.5 | | DA1100M-··· ~ DA1140M-··· | | |
| SS12-DRA115M-3 | ● | 11.50 | 11.99 | | 99 | 36.0 | | DA1150M-··· ~ DA1190M-··· | | |
| SS14-DRA120M-3 | ● | 12.00 | 12.49 | 14 | 101 | 37.5 | | DA1200M-··· ~ DA1240M-··· | | |
| SS14-DRA125M-3 | ● | 12.50 | 12.99 | | 103 | 39.0 | | DA1250M-··· ~ DA1290M-··· | | |
| SS14-DRA130M-3 | ● | 13.00 | 13.49 | | 105 | 40.5 | | DA1300M-··· ~ DA1340M-··· | | |
| SS14-DRA135M-3 | ● | 13.50 | 13.99 | | 107 | 42.0 | | DA1350M-··· ~ DA1390M-··· | | |
| SS16-DRA140M-3 | ● | 14.00 | 14.49 | 16 | 112 | 43.5 | 48 | DA1400M-··· ~ DA1440M-··· | HS-3048TRP | DTP-6 |
| SS16-DRA145M-3 | ● | 14.50 | 14.99 | | 114 | 45.0 | | DA1450M-··· ~ DA1490M-··· | | |
| SS16-DRA150M-3 | ● | 15.00 | 15.99 | | 119 | 48.0 | | DA1500M-··· ~ DA1590M-··· | | |
| SS18-DRA160M-3 | ● | 16.00 | 16.99 | 18 | 124 | 51.0 | | DA1600M-··· ~ DA1690M-··· | | |
| SS18-DRA170M-3 | ● | 17.00 | 17.99 | | 128 | 54.0 | | DA1700M-··· ~ DA1790M-··· | | |
| SS20-DRA180M-3 | ● | 18.00 | 18.99 | 20 | 135 | 57.0 | 50 | DA1800M-··· ~ DA1890M-··· | HS-4067TRP | DTP-7 |
| SS20-DRA190M-3 | ● | 19.00 | 19.99 | | 139 | 60.0 | | DA1900M-··· ~ DA1990M-··· | | |
| SS25-DRA200M-3 | ● | 20.00 | 20.99 | 25 | 149 | 63.0 | 56 | DA2000M-··· ~ DA2090M-··· | | |
| SS25-DRA210M-3 | ● | 21.00 | 21.99 | | 153 | 66.0 | | DA2100M-··· ~ DA2150M-··· | | |
| SS25-DRA220M-3 | ● | 22.00 | 22.99 | | 158 | 69.0 | | DA2200M-··· ~ DA2250M-··· | | |
| SS25-DRA230M-3 | ● | 23.00 | 23.99 | | 162 | 72.0 | | DA2300M-··· ~ DA2350M-··· | | |
| SS25-DRA240M-3 | ● | 24.00 | 24.99 | | 166 | 75.0 | | DA2400M-··· ~ DA2450M-··· | | |
| SS32-DRA250M-3 | ● | 25.00 | 25.50 | 32 | 174 | 78.0 | 60 | DA2500M-··· ~ DA2550M-··· | | |

●：标准库存

## 刀杆尺寸 5D

| 直柄 SS型 / 加工深度：5×D / 型号 | 库存 | øDc min. | øDc max. | øDs (刀杆直径) | L (全长) | L3 (加工深度) | Ls (刀杆长度) | 适用刀片 | 零件 紧固螺丝 | 零件 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SS10-DRA080M-5 | ● | 7.94 | 8.49 | 10 | 96 | 42.5 | 40 | DA0794M-··· ~ DA0840M-··· | HS-2524TRP | FTP-5 |
| SS10-DRA085M-5 | ● | 8.50 | 8.99 | | 99 | 45.0 | | DA0850M-··· ~ DA0890M-··· | | |
| SS10-DRA090M-5 | ● | 9.00 | 9.49 | | 102 | 47.5 | | DA0900M-··· ~ DA0940M-··· | | |
| SS10-DRA095M-5 | ● | 9.50 | 9.99 | | 105 | 50.0 | | DA0950M-··· ~ DA0990M-··· | | |
| SS12-DRA100M-5 | ● | 10.00 | 10.49 | 12 | 113 | 52.5 | 45 | DA1000M-··· ~ DA1040M-··· | HS-2534TRP | |
| SS12-DRA105M-5 | ● | 10.50 | 10.99 | | 116 | 55.0 | | DA1050M-··· ~ DA1090M-··· | | |
| SS12-DRA110M-5 | ● | 11.00 | 11.49 | | 120 | 57.5 | | DA1100M-··· ~ DA1140M-··· | | |
| SS12-DRA115M-5 | ● | 11.50 | 11.99 | | 123 | 60.0 | | DA1150M-··· ~ DA1190M-··· | | |
| SS14-DRA120M-5 | ● | 12.00 | 12.49 | 14 | 126 | 62.5 | | DA1200M-··· ~ DA1240M-··· | | |
| SS14-DRA125M-5 | ● | 12.50 | 12.99 | | 129 | 65.0 | | DA1250M-··· ~ DA1290M-··· | | |
| SS14-DRA130M-5 | ● | 13.00 | 13.49 | | 132 | 67.5 | | DA1300M-··· ~ DA1340M-··· | | |
| SS14-DRA135M-5 | ● | 13.50 | 13.99 | | 135 | 70.0 | | DA1350M-··· ~ DA1390M-··· | | |
| SS16-DRA140M-5 | ● | 14.00 | 14.49 | 16 | 141 | 72.5 | 48 | DA1400M-··· ~ DA1440M-··· | HS-3048TRP | DTP-6 |
| SS16-DRA145M-5 | ● | 14.50 | 14.99 | | 144 | 75.0 | | DA1450M-··· ~ DA1490M-··· | | |
| SS16-DRA150M-5 | ● | 15.00 | 15.99 | | 151 | 80.0 | | DA1500M-··· ~ DA1590M-··· | | |
| SS18-DRA160M-5 | ● | 16.00 | 16.99 | 18 | 158 | 85.0 | | DA1600M-··· ~ DA1690M-··· | | |
| SS18-DRA170M-5 | ● | 17.00 | 17.99 | | 164 | 90.0 | | DA1700M-··· ~ DA1790M-··· | | |
| SS20-DRA180M-5 | ● | 18.00 | 18.99 | 20 | 173 | 95.0 | 50 | DA1800M-··· ~ DA1890M-··· | HS-4067TRP | DTP-7 |
| SS20-DRA190M-5 | ● | 19.00 | 19.99 | | 179 | 100.0 | | DA1900M-··· ~ DA1990M-··· | | |
| SS25-DRA200M-5 | ● | 20.00 | 20.99 | 25 | 191 | 105.0 | 56 | DA2000M-··· ~ DA2090M-··· | | |
| SS25-DRA210M-5 | ● | 21.00 | 21.99 | | 197 | 110.0 | | DA2100M-··· ~ DA2150M-··· | | |
| SS25-DRA220M-5 | ● | 22.00 | 22.99 | | 204 | 115.0 | | DA2200M-··· ~ DA2250M-··· | | |
| SS25-DRA230M-5 | ● | 23.00 | 23.99 | | 210 | 120.0 | | DA2300M-··· ~ DA2350M-··· | | |
| SS25-DRA240M-5 | ● | 24.00 | 24.99 | | 216 | 125.0 | | DA2400M-··· ~ DA2450M-··· | | |
| SS32-DRA250M-5 | ● | 25.00 | 25.50 | 32 | 226 | 130.0 | 60 | DA2500M-··· ~ DA2550M-··· | | |

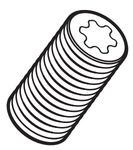
●：标准库存

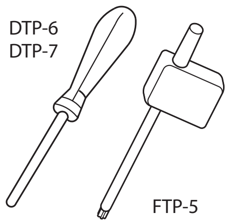
## 刀杆尺寸 8D

| 直柄 SS型<br>加工深度：8×D<br>型号 | 库存 | øDc min. | øDc max. | øDs (刀杆直径) | L (全长) | L3 (加工深度) | Ls (刀杆长度) | 适用刀片 | 零件 紧固螺丝 | 零件 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|
| SS10-DRA080M-8 | ● | 7.94 | 8.49 | 10 | 121 | 68.0 | 40 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SS10-DRA085M-8 | ● | 8.50 | 8.99 | | 126 | 72.0 | | DA0850M-··· ～ DA0890M-··· | | |
| SS10-DRA090M-8 | ● | 9.00 | 9.49 | | 130 | 76.0 | | DA0900M-··· ～ DA0940M-··· | | |
| SS10-DRA095M-8 | ● | 9.50 | 9.99 | | 135 | 80.0 | | DA0950M-··· ～ DA0990M-··· | | |
| SS12-DRA100M-8 | ● | 10.00 | 10.49 | 12 | 144 | 84.0 | 45 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SS12-DRA105M-8 | ● | 10.50 | 10.99 | | 149 | 88.0 | | DA1050M-··· ～ DA1090M-··· | | |
| SS12-DRA110M-8 | ● | 11.00 | 11.49 | | 154 | 92.0 | | DA1100M-··· ～ DA1140M-··· | | |
| SS12-DRA115M-8 | ● | 11.50 | 11.99 | | 159 | 96.0 | | DA1150M-··· ～ DA1190M-··· | | |
| SS14-DRA120M-8 | ● | 12.00 | 12.49 | 14 | 163 | 100.0 | | DA1200M-··· ～ DA1240M-··· | | |
| SS14-DRA125M-8 | ● | 12.50 | 12.99 | | 168 | 104.0 | | DA1250M-··· ～ DA1290M-··· | | |
| SS14-DRA130M-8 | ● | 13.00 | 13.49 | | 172 | 108.0 | | DA1300M-··· ～ DA1340M-··· | | |
| SS14-DRA135M-8 | ● | 13.50 | 13.99 | | 177 | 112.0 | | DA1350M-··· ～ DA1390M-··· | | |
| SS16-DRA140M-8 | ● | 14.00 | 14.49 | 16 | 184 | 116.0 | 48 | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SS16-DRA145M-8 | ● | 14.50 | 14.99 | | 189 | 120.0 | | DA1450M-··· ～ DA1490M-··· | | |
| SS16-DRA150M-8 | ● | 15.00 | 15.99 | | 199 | 128.0 | | DA1500M-··· ～ DA1590M-··· | | |
| SS18-DRA160M-8 | ● | 16.00 | 16.99 | 18 | 209 | 136.0 | | DA1600M-··· ～ DA1690M-··· | | |
| SS18-DRA170M-8 | ● | 17.00 | 17.99 | | 218 | 144.0 | | DA1700M-··· ～ DA1790M-··· | | |
| SS20-DRA180M-8 | ● | 18.00 | 18.99 | 20 | 230 | 152.0 | 50 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SS20-DRA190M-8 | ● | 19.00 | 19.99 | | 239 | 160.0 | | DA1900M-··· ～ DA1990M-··· | | |
| SS25-DRA200M-8 | ● | 20.00 | 20.99 | 25 | 254 | 168.0 | 56 | DA2000M-··· ～ DA2090M-··· | | |
| SS25-DRA210M-8 | ● | 21.00 | 21.99 | | 263 | 176.0 | | DA2100M-··· ～ DA2150M-··· | | |
| SS25-DRA220M-8 | ● | 22.00 | 22.99 | | 273 | 184.0 | | DA2200M-··· ～ DA2250M-··· | | |
| SS25-DRA230M-8 | ● | 23.00 | 23.99 | | 282 | 192.0 | | DA2300M-··· ～ DA2350M-··· | | |
| SS25-DRA240M-8 | ● | 24.00 | 24.99 | | 291 | 200.0 | | DA2400M-··· ～ DA2450M-··· | | |
| SS32-DRA250M-8 | ● | 25.00 | 25.50 | 32 | 304 | 208.0 | 60 | DA2500M-··· ～ DA2550M-··· | | |

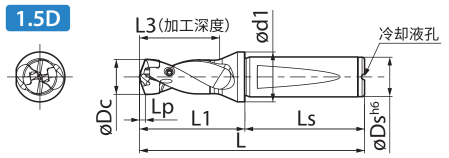
●：标准库存

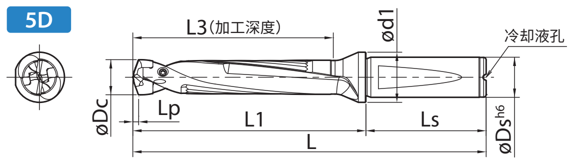
## 零件

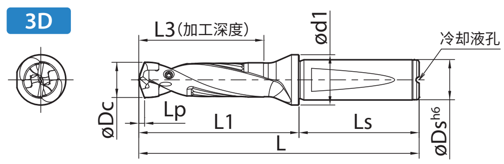
| 紧固螺丝 | 型号 |
|---|---|
|  | HS-2524TRP |
| | HS-2534TRP |
| | HS-3048TRP |
| | HS-4067TRP |

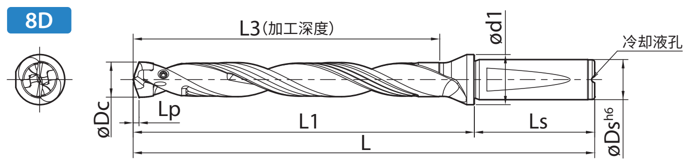
| 扳手 | 型号 | 紧固扭矩(N·m) |
|---|---|---|
|  | FTP-5 | 0.5 |
| | DTP-6 | 0.8 |
| | DTP-7 | 1.2 |

## DRA刀杆 (带法兰)




### 刀杆尺寸 1.5D

| 带法兰面刀柄SF型 加工深度：1.5×D 型号 | 库存 | øDc min. | øDc max. | øDs (刀杆直径) | L (全长) | L1 (悬伸量) | L3 (加工深度) | Ls (刀杆长度) | ød1 (法兰径) | 适用刀片 | 零件 紧固螺丝 | 零件 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SF12-DRA080M-1.5 | ● | 7.94 | 8.49 | 12 | 71.2 | 26.2 | 12.8 | 45 | 16 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SF12-DRA085M-1.5 | ● | 8.50 | 8.99 | | 72.5 | 27.5 | 13.5 | | | DA0850M-··· ～ DA0890M-··· | | |
| SF12-DRA090M-1.5 | ● | 9.00 | 9.49 | | 73.7 | 28.7 | 14.3 | | | DA0900M-··· ～ DA0940M-··· | | |
| SF12-DRA095M-1.5 | ● | 9.50 | 9.99 | | 75.0 | 30.0 | 15.0 | | | DA0950M-··· ～ DA0990M-··· | | |
| SF16-DRA100M-1.5 | ● | 10.00 | 10.49 | 16 | 79.2 | 31.2 | 15.8 | 48 | 20 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SF16-DRA105M-1.5 | ● | 10.50 | 10.99 | | 80.5 | 32.5 | 16.5 | | | DA1050M-··· ～ DA1090M-··· | | |
| SF16-DRA110M-1.5 | ● | 11.00 | 11.49 | | 82.7 | 34.7 | 17.3 | | | DA1100M-··· ～ DA1140M-··· | | |
| SF16-DRA115M-1.5 | ● | 11.50 | 11.99 | | 84.0 | 36.0 | 18.0 | | | DA1150M-··· ～ DA1190M-··· | | |
| SF16-DRA120M-1.5 | ● | 12.00 | 12.49 | | 85.2 | 37.2 | 18.8 | | | DA1200M-··· ～ DA1240M-··· | | |
| SF16-DRA125M-1.5 | ● | 12.50 | 12.99 | | 86.5 | 38.5 | 19.5 | | | DA1250M-··· ～ DA1290M-··· | | |
| SF16-DRA130M-1.5 | ● | 13.00 | 13.49 | | 87.7 | 39.7 | 20.3 | | | DA1300M-··· ～ DA1340M-··· | | |
| SF16-DRA135M-1.5 | ● | 13.50 | 13.99 | | 89.0 | 41.0 | 21.0 | | | DA1350M-··· ～ DA1390M-··· | | |
| SF16-DRA140M-1.5 | ● | 14.00 | 14.49 | | 90.2 | 42.2 | 21.8 | | | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SF16-DRA145M-1.5 | ● | 14.50 | 14.99 | | 91.5 | 43.5 | 22.5 | | | DA1450M-··· ～ DA1490M-··· | | |
| SF20-DRA150M-1.5 | ● | 15.00 | 15.99 | 20 | 97.0 | 47.0 | 24.0 | 50 | 25 | DA1500M-··· ～ DA1590M-··· | | |
| SF20-DRA160M-1.5 | ● | 16.00 | 16.99 | | 100.5 | 50.5 | 25.5 | | | DA1600M-··· ～ DA1690M-··· | | |
| SF20-DRA170M-1.5 | ● | 17.00 | 17.99 | | 103.0 | 53.0 | 27.0 | | | DA1700M-··· ～ DA1790M-··· | | |
| SF25-DRA180M-1.5 | ● | 18.00 | 18.99 | 25 | 112.5 | 56.5 | 28.5 | 56 | 32 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SF25-DRA190M-1.5 | ● | 19.00 | 19.99 | | 115.0 | 59.0 | 30.0 | | | DA1900M-··· ～ DA1990M-··· | | |
| SF25-DRA200M-1.5 | ● | 20.00 | 20.99 | | 117.5 | 61.5 | 31.5 | | | DA2000M-··· ～ DA2090M-··· | | |
| SF25-DRA210M-1.5 | ● | 21.00 | 21.99 | | 120.0 | 64.0 | 33.0 | | | DA2100M-··· ～ DA2150M-··· | | |
| SF25-DRA220M-1.5 | ● | 22.00 | 22.99 | | 123.5 | 67.5 | 34.5 | | | DA2200M-··· ～ DA2250M-··· | | |
| SF25-DRA230M-1.5 | ● | 23.00 | 23.99 | | 126.0 | 70.0 | 36.0 | | | DA2300M-··· ～ DA2350M-··· | | |
| SF25-DRA240M-1.5 | ● | 24.00 | 24.99 | | 128.5 | 72.5 | 37.5 | | | DA2400M-··· ～ DA2450M-··· | | |
| SF25-DRA250M-1.5 | ● | 25.00 | 25.50 | | 131.0 | 75.0 | 39.0 | | | DA2500M-··· ～ DA2550M-··· | | |

●：标准库存

## 刀杆尺寸 3D

| 带法兰面刀柄SF型 | 库存 | 尺寸(mm) | | | | | | | | 适用刀片 | 零件 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 加工深度：3×D | | øDc | | øDs (刀杆直径) | L (全长) | L1 (悬伸量) | L3 (加工深度) | Ls (刀杆长度) | ød1 (法兰径) | | 紧固螺丝 | 扳手 |
| 型号 | | min. | max. | | | | | | | | | |
| SF12-DRA080M-3 | ● | 7.94 | 8.49 | 12 | 84 | 39 | 25.5 | 45 | 16 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SF12-DRA085M-3 | ● | 8.50 | 8.99 | | 86 | 41 | 27.0 | | | DA0850M-··· ～ DA0890M-··· | | |
| SF12-DRA090M-3 | ● | 9.00 | 9.49 | | 88 | 43 | 28.5 | | | DA0900M-··· ～ DA0940M-··· | | |
| SF12-DRA095M-3 | ● | 9.50 | 9.99 | | 90 | 45 | 30.0 | | | DA0950M-··· ～ DA0990M-··· | | |
| SF16-DRA100M-3 | ● | 10.00 | 10.49 | 16 | 95 | 47 | 31.5 | 48 | 20 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SF16-DRA105M-3 | ● | 10.50 | 10.99 | | 97 | 49 | 33.0 | | | DA1050M-··· ～ DA1090M-··· | | |
| SF16-DRA110M-3 | ● | 11.00 | 11.49 | | 100 | 52 | 34.5 | | | DA1100M-··· ～ DA1140M-··· | | |
| SF16-DRA115M-3 | ● | 11.50 | 11.99 | | 102 | 54 | 36.0 | | | DA1150M-··· ～ DA1190M-··· | | |
| SF16-DRA120M-3 | ● | 12.00 | 12.49 | | 104 | 56 | 37.5 | | | DA1200M-··· ～ DA1240M-··· | | |
| SF16-DRA125M-3 | ● | 12.50 | 12.99 | | 106 | 58 | 39.0 | | | DA1250M-··· ～ DA1290M-··· | | |
| SF16-DRA130M-3 | ● | 13.00 | 13.49 | | 108 | 60 | 40.5 | | | DA1300M-··· ～ DA1340M-··· | | |
| SF16-DRA135M-3 | ● | 13.50 | 13.99 | | 110 | 62 | 42.0 | | | DA1350M-··· ～ DA1390M-··· | | |
| SF16-DRA140M-3 | ● | 14.00 | 14.49 | | 112 | 64 | 43.5 | | | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SF16-DRA145M-3 | ● | 14.50 | 14.99 | | 114 | 66 | 45.0 | | | DA1450M-··· ～ DA1490M-··· | | |
| SF20-DRA150M-3 | ● | 15.00 | 15.99 | 20 | 121 | 71 | 48.0 | 50 | 25 | DA1500M-··· ～ DA1590M-··· | | |
| SF20-DRA160M-3 | ● | 16.00 | 16.99 | | 126 | 76 | 51.0 | | | DA1600M-··· ～ DA1690M-··· | | |
| SF20-DRA170M-3 | ● | 17.00 | 17.99 | | 130 | 80 | 54.0 | | | DA1700M-··· ～ DA1790M-··· | | |
| SF25-DRA180M-3 | ● | 18.00 | 18.99 | 25 | 141 | 85 | 57.0 | 56 | 32 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SF25-DRA190M-3 | ● | 19.00 | 19.99 | | 145 | 89 | 60.0 | | | DA1900M-··· ～ DA1990M-··· | | |
| SF25-DRA200M-3 | ● | 20.00 | 20.99 | | 149 | 93 | 63.0 | | | DA2000M-··· ～ DA2090M-··· | | |
| SF25-DRA210M-3 | ● | 21.00 | 21.99 | | 153 | 97 | 66.0 | | | DA2100M-··· ～ DA2150M-··· | | |
| SF25-DRA220M-3 | ● | 22.00 | 22.99 | | 158 | 102 | 69.0 | | | DA2200M-··· ～ DA2250M-··· | | |
| SF25-DRA230M-3 | ● | 23.00 | 23.99 | | 162 | 106 | 72.0 | | | DA2300M-··· ～ DA2350M-··· | | |
| SF25-DRA240M-3 | ● | 24.00 | 24.99 | | 166 | 110 | 75.0 | | | DA2400M-··· ～ DA2450M-··· | | |
| SF25-DRA250M-3 | ● | 25.00 | 25.50 | | 170 | 114 | 78.0 | | | DA2500M-··· ～ DA2550M-··· | | |

●：标准库存

## 刀杆尺寸 5D

| 带法兰面刀柄SF型 | 库存 | 尺寸(mm) | | | | | | | | 适用刀片 | 零件 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 加工深度：5×D | | øDc | | øDs (刀杆直径) | L (全长) | L1 (悬伸量) | L3 (加工深度) | Ls (刀杆长度) | ød1 (法兰径) | | 紧固螺丝 | 扳手 |
| 型号 | | min. | max. | | | | | | | | | |
| SF12-DRA080M-5 | ● | 7.94 | 8.49 | 12 | 101 | 56 | 42.5 | 45 | 16 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SF12-DRA085M-5 | ● | 8.50 | 8.99 | | 104 | 59 | 45.0 | | | DA0850M-··· ～ DA0890M-··· | | |
| SF12-DRA090M-5 | ● | 9.00 | 9.49 | | 107 | 62 | 47.5 | | | DA0900M-··· ～ DA0940M-··· | | |
| SF12-DRA095M-5 | ● | 9.50 | 9.99 | | 110 | 65 | 50.0 | | | DA0950M-··· ～ DA0990M-··· | | |
| SF16-DRA100M-5 | ● | 10.00 | 10.49 | 16 | 116 | 68 | 52.5 | 48 | 20 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SF16-DRA105M-5 | ● | 10.50 | 10.99 | | 119 | 71 | 55.0 | | | DA1050M-··· ～ DA1090M-··· | | |
| SF16-DRA110M-5 | ● | 11.00 | 11.49 | | 123 | 75 | 57.5 | | | DA1100M-··· ～ DA1140M-··· | | |
| SF16-DRA115M-5 | ● | 11.50 | 11.99 | | 126 | 78 | 60.0 | | | DA1150M-··· ～ DA1190M-··· | | |
| SF16-DRA120M-5 | ● | 12.00 | 12.49 | | 129 | 81 | 62.5 | | | DA1200M-··· ～ DA1240M-··· | | |
| SF16-DRA125M-5 | ● | 12.50 | 12.99 | | 132 | 84 | 65.0 | | | DA1250M-··· ～ DA1290M-··· | | |
| SF16-DRA130M-5 | ● | 13.00 | 13.49 | | 135 | 87 | 67.5 | | | DA1300M-··· ～ DA1340M-··· | | |
| SF16-DRA135M-5 | ● | 13.50 | 13.99 | | 138 | 90 | 70.0 | | | DA1350M-··· ～ DA1390M-··· | | |
| SF16-DRA140M-5 | ● | 14.00 | 14.49 | | 141 | 93 | 72.5 | | | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SF16-DRA145M-5 | ● | 14.50 | 14.99 | | 144 | 96 | 75.0 | | | DA1450M-··· ～ DA1490M-··· | | |
| SF20-DRA150M-5 | ● | 15.00 | 15.99 | 20 | 153 | 103 | 80.0 | 50 | 25 | DA1500M-··· ～ DA1590M-··· | | |
| SF20-DRA160M-5 | ● | 16.00 | 16.99 | | 160 | 110 | 85.0 | | | DA1600M-··· ～ DA1690M-··· | | |
| SF20-DRA170M-5 | ● | 17.00 | 17.99 | | 166 | 116 | 90.0 | | | DA1700M-··· ～ DA1790M-··· | | |
| SF25-DRA180M-5 | ● | 18.00 | 18.99 | 25 | 179 | 123 | 95.0 | 56 | 32 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SF25-DRA190M-5 | ● | 19.00 | 19.99 | | 185 | 129 | 100.0 | | | DA1900M-··· ～ DA1990M-··· | | |
| SF25-DRA200M-5 | ● | 20.00 | 20.99 | | 191 | 135 | 105.0 | | | DA2000M-··· ～ DA2090M-··· | | |
| SF25-DRA210M-5 | ● | 21.00 | 21.99 | | 197 | 141 | 110.0 | | | DA2100M-··· ～ DA2150M-··· | | |
| SF25-DRA220M-5 | ● | 22.00 | 22.99 | | 204 | 148 | 115.0 | | | DA2200M-··· ～ DA2250M-··· | | |
| SF25-DRA230M-5 | ● | 23.00 | 23.99 | | 210 | 154 | 120.0 | | | DA2300M-··· ～ DA2350M-··· | | |
| SF25-DRA240M-5 | ● | 24.00 | 24.99 | | 216 | 160 | 125.0 | | | DA2400M-··· ～ DA2450M-··· | | |
| SF25-DRA250M-5 | ● | 25.00 | 25.50 | | 222 | 166 | 130.0 | | | DA2500M-··· ～ DA2550M-··· | | |

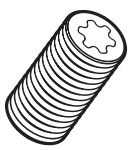
●：标准库存

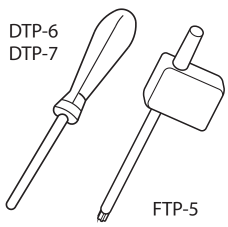
## 刀杆尺寸 8D

| 带法兰面刀柄SF型<br>加工深度：8×D<br>型号 | 库存 | øDc min. | øDc max. | øDs (刀杆直径) | L (全长) | L1 (悬伸量) | L3 (加工深度) | Ls (刀杆长度) | ød1 (法兰径) | 适用刀片 | 零件 紧固螺丝 | 零件 扳手 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SF12-DRA080M-8 | ● | 7.94 | 8.49 | 12 | 126 | 81 | 68.0 | 45 | 16 | DA0794M-··· ～ DA0840M-··· | HS-2524TRP | FTP-5 |
| SF12-DRA085M-8 | ● | 8.50 | 8.99 | | 131 | 86 | 72.0 | | | DA0850M-··· ～ DA0890M-··· | | |
| SF12-DRA090M-8 | ● | 9.00 | 9.49 | | 135 | 90 | 76.0 | | | DA0900M-··· ～ DA0940M-··· | | |
| SF12-DRA095M-8 | ● | 9.50 | 9.99 | | 140 | 95 | 80.0 | | | DA0950M-··· ～ DA0990M-··· | | |
| SF16-DRA100M-8 | ● | 10.00 | 10.49 | 16 | 147 | 99 | 84.0 | 48 | 20 | DA1000M-··· ～ DA1040M-··· | HS-2534TRP | |
| SF16-DRA105M-8 | ● | 10.50 | 10.99 | | 152 | 104 | 88.0 | | | DA1050M-··· ～ DA1090M-··· | | |
| SF16-DRA110M-8 | ● | 11.00 | 11.49 | | 157 | 109 | 92.0 | | | DA1100M-··· ～ DA1140M-··· | | |
| SF16-DRA115M-8 | ● | 11.50 | 11.99 | | 162 | 114 | 96.0 | | | DA1150M-··· ～ DA1190M-··· | | |
| SF16-DRA120M-8 | ● | 12.00 | 12.49 | | 166 | 118 | 100.0 | | | DA1200M-··· ～ DA1240M-··· | | |
| SF16-DRA125M-8 | ● | 12.50 | 12.99 | | 171 | 123 | 104.0 | | | DA1250M-··· ～ DA1290M-··· | | |
| SF16-DRA130M-8 | ● | 13.00 | 13.49 | | 175 | 127 | 108.0 | | | DA1300M-··· ～ DA1340M-··· | | |
| SF16-DRA135M-8 | ● | 13.50 | 13.99 | | 180 | 132 | 112.0 | | | DA1350M-··· ～ DA1390M-··· | | |
| SF16-DRA140M-8 | ● | 14.00 | 14.49 | | 184 | 136 | 116.0 | | | DA1400M-··· ～ DA1440M-··· | HS-3048TRP | DTP-6 |
| SF16-DRA145M-8 | ● | 14.50 | 14.99 | | 189 | 141 | 120.0 | | | DA1450M-··· ～ DA1490M-··· | | |
| SF20-DRA150M-8 | ● | 15.00 | 15.99 | 20 | 201 | 151 | 128.0 | 50 | 25 | DA1500M-··· ～ DA1590M-··· | | |
| SF20-DRA160M-8 | ● | 16.00 | 16.99 | | 211 | 161 | 136.0 | | | DA1600M-··· ～ DA1690M-··· | | |
| SF20-DRA170M-8 | ● | 17.00 | 17.99 | | 220 | 170 | 144.0 | | | DA1700M-··· ～ DA1790M-··· | | |
| SF25-DRA180M-8 | ● | 18.00 | 18.99 | 25 | 236 | 180 | 152.0 | 56 | 32 | DA1800M-··· ～ DA1890M-··· | HS-4067TRP | DTP-7 |
| SF25-DRA190M-8 | ● | 19.00 | 19.99 | | 245 | 189 | 160.0 | | | DA1900M-··· ～ DA1990M-··· | | |
| SF25-DRA200M-8 | ● | 20.00 | 20.99 | | 254 | 198 | 168.0 | | | DA2000M-··· ～ DA2090M-··· | | |
| SF25-DRA210M-8 | ● | 21.00 | 21.99 | | 263 | 207 | 176.0 | | | DA2100M-··· ～ DA2150M-··· | | |
| SF25-DRA220M-8 | ● | 22.00 | 22.99 | | 273 | 217 | 184.0 | | | DA2200M-··· ～ DA2250M-··· | | |
| SF25-DRA230M-8 | ● | 23.00 | 23.99 | | 282 | 226 | 192.0 | | | DA2300M-··· ～ DA2350M-··· | | |
| SF25-DRA240M-8 | ● | 24.00 | 24.99 | | 291 | 235 | 200.0 | | | DA2400M-··· ～ DA2450M-··· | | |
| SF25-DRA250M-8 | ● | 25.00 | 25.50 | | 300 | 244 | 208.0 | | | DA2500M-··· ～ DA2550M-··· | | |

●：标准库存

## 零件

| 紧固螺丝 | 型号 |
|---|---|
|  | HS-2524TRP |
| | HS-2534TRP |
| | HS-3048TRP |
| | HS-4067TRP |

| 扳手 | 型号 | 紧固扭矩(N･m) |
|---|---|---|
|  | FTP-5 | 0.5 |
| | DTP-6 | 0.8 |
| | DTP-7 | 1.2 |

# 推荐切削条件表 ★第1推荐 ☆第2推荐

## 通用 GM

| 被削材 | 推荐材质/切削速度 (m/min) | | 转数 (min$^{-1}$) | 加工径 øDc (mm) | | | | | | 备注 |
|---|---|---|---|---|---|---|---|---|---|---|
| | PR1535 | PR1525 | 进给(mm/rev) | ø8 | ø11 | ø14 | ø18 | ø22 | ø25 | |
| 低碳钢 (SS400, S15C等) | ★ 100 – 180 | ☆ 100 – 180 | 转数(min$^{-1}$) | 3,980 – 7,160 | 2,890 – 5,210 | 2,270 – 4,090 | 1,770 – 3,180 | 1,450 – 2,600 | 1,270 – 2,290 | 湿式 (请参考下页) |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.4 | 0.2 – 0.45 | 0.2 – 0.45 | |
| 碳钢 (S45C等) | ★ 100 – 150 | ☆ 100 – 150 | 转数(min$^{-1}$) | 3,980 – 5,970 | 2,890 – 4,340 | 2,270 – 3,410 | 1,770 – 2,650 | 1,450 – 2,170 | 1,270 – 1,910 | |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.4 | 0.2 – 0.45 | 0.2 – 0.45 | |
| 合金钢 (SCM, SCr等) | ★ 70 – 120 | ☆ 70 – 120 | 转数(min$^{-1}$) | 2,790 – 4,780 | 2,030 – 3,470 | 1,590 – 2,730 | 1,240 – 2,120 | 1,010 – 1,740 | 890 – 1,530 | |
| | | | 进给( mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.4 | 0.2 – 0.45 | 0.2 – 0.45 | |
| 模具钢 (SKD等) | ★ 50 – 90 | ☆ 50 – 90 | 转数(min$^{-1}$) | 1,990 – 3,580 | 1,450 – 2,600 | 1,140 – 2,050 | 880 – 1,590 | 720 – 1,300 | 640 – 1,150 | |
| | | | 进给(mm/rev) | 0.08 – 0.17 | 0.08 – 0.22 | 0.11 – 0.25 | 0.11 – 0.28 | 0.14 – 0.32 | 0.14 – 0.32 | |
| 不锈钢 (SUS304等) | ★ 40 – 70 | ☆ 40 – 70 | 转数(min$^{-1}$) | 1,590 – 2,790 | 1,160 – 2,030 | 910 – 1,590 | 710 – 1,240 | 580 – 1,010 | 510 – 890 | |
| | | | 进给(mm/rev) | 0.1 – 0.24 | 0.1 – 0.24 | 0.12 – 0.3 | 0.15 – 0.3 | 0.15 – 0.3 | 0.15 – 0.35 | |
| | | | | 从入口侧开始到孔深0.5Dmm，推荐进给在0.15mm/rev以下 | | | | | | |
| 灰口铸铁 (FC) | ☆ 90 – 170 | ★ 90 – 170 | 转数(min$^{-1}$) | 3,580 – 6,760 | 2,600 – 4,920 | 2,050 – 3,870 | 1,590 – 3,010 | 1,300 – 2,460 | 1,150 – 2,170 | |
| | | | 进给(mm/rev) | 0.14 – 0.29 | 0.14 – 0.37 | 0.19 – 0.43 | 0.19 – 0.45 | 0.24 – 0.45 | 0.24 – 0.45 | |
| 球墨铸铁 (FCD) | ☆ 40 – 120 | ★ 40 – 120 | 转数(min$^{-1}$) | 1,590 – 4,780 | 1,160 – 3,470 | 910 – 2,730 | 710 – 2,120 | 580 – 1,740 | 510 – 1,530 | |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.4 | 0.2 – 0.45 | 0.2 – 0.45 | |

注意：以上为1.5D･3D型的推荐切削条件。随着钻头长度的增加(1.5D･3D→5D→8D)，请将进给设定在推荐值以下
标准：相对于1.5D･3D型、5D型=80%以下、8D型=70%以下

## 铸铁加工用 KM

| 被削材 | 推荐材质/切削速度 (m/min) | 转数 (min$^{-1}$) | 加工径 øDc (mm) | | | | | | 备注 |
|---|---|---|---|---|---|---|---|---|---|
| | PR1525 | 进给(mm/rev) | ø8 | ø11 | ø14 | ø18 | ø22 | ø25 | |
| 灰口铸铁 (FC) | 90 – 170 | 转数(min$^{-1}$) | 3,580 – 6,760 | 2,600 – 4,920 | 2,050 – 3,870 | 1,590 – 3,010 | 1,300 – 2,460 | 1,150 – 2,170 | 湿式 (请参考下页) |
| | | 进给(mm/rev) | 0.17 – 0.35 | 0.19 – 0.42 | 0.23 – 0.53 | 0.25 – 0.60 | 0.32 – 0.60 | 0.32 – 0.60 | |
| 球墨铸铁 (FCD) | 40 – 120 | 转数(min$^{-1}$) | 1,590 – 4,780 | 1,160 – 3,470 | 910 – 2,730 | 710 – 2,120 | 580 – 1,740 | 510 – 1,530 | |
| | | 进给(mm/rev) | 0.12 – 0.24 | 0.17 – 0.36 | 0.21 – 0.48 | 0.24 – 0.60 | 0.27 – 0.60 | 0.27 – 0.60 | |

注意：以上为1.5D･3D型的推荐切削条件。随着钻头长度的增加(1.5D･3D→5D→8D)，请将进给设定在推荐值以下
标准：相对于1.5D･3D型、5D型=80%以下、8D型=70%以下

## 锪孔加工用 FTP

| 被削材 | 推荐材质/切削速度 (m/min) | | 转数 (min$^{-1}$) | 加工径 øDc (mm) | | | | | | 备注 |
|---|---|---|---|---|---|---|---|---|---|---|
| | PR1535 | PR1525 | 进给(mm/rev) | ø8 | ø11 | ø14 | ø18 | ø22 | ø25 | |
| 低碳钢 (SS400, S15C等) | ★ 80 – 150 | ☆ 80 – 150 | 转数(min$^{-1}$) | 3,150 – 6,000 | 2,300 – 4,350 | 1,800 – 3,400 | 1,400 – 2,650 | 1,150 – 2,200 | 1,000 – 1,900 | 湿式 (请参考下页) |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.40 | 0.20 – 0.45 | 0.20 – 0.45 | |
| 碳钢 (S45C等) | ★ 80 – 120 | ☆ 80 – 120 | 转数(min$^{-1}$) | 3,150 – 4,750 | 2,300 – 3,450 | 1,800 – 2,700 | 1,400 – 2,100 | 1,150 – 1,750 | 1,000 – 1,500 | |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.40 | 0.20 – 0.45 | 0.20 – 0.45 | |
| 合金钢 (SCM, SCr等) | ★ 70 – 120 | ☆ 70 – 120 | 转数(min$^{-1}$) | 2,800 – 4,750 | 2,000 – 3,450 | 1,600 – 2,700 | 1,250 – 2,100 | 1,000 – 1,750 | 900 – 1,500 | |
| | | | 进给( mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.40 | 0.20 – 0.40 | 0.20 – 0.45 | |
| 模具钢 (SKD等) | ★ 40 – 70 | ☆ 40 – 70 | 转数(min$^{-1}$) | 1,600 – 2,800 | 1,150 – 2,000 | 900 – 1,600 | 700 – 1,250 | 600 – 1,000 | 500 – 900 | |
| | | | 进给(mm/rev) | 0.08 – 0.17 | 0.08 – 0.22 | 0.11 – 0.25 | 0.11 – 0.28 | 0.14 – 0.30 | 0.14 – 0.32 | |
| 不锈钢 (SUS304等) | ★ 40 – 70 | ☆ 40 – 70 | 转数(min$^{-1}$) | 1,600 – 2,800 | 1,150 – 2,000 | 900 – 1,600 | 700 – 1,250 | 600 – 1,000 | 500 – 900 | |
| | | | 进给(mm/rev) | 0.10 – 0.20 | 0.10 – 0.20 | 0.10 – 0.24 | 0.15 – 0.24 | 0.15 – 0.24 | 0.15 – 0.28 | |
| | | | | 从入口侧开始到孔深0.5Dmm，推荐进给在0.15mm/rev以下 | | | | | | |
| 灰口铸铁 (FC) | ☆ 70 – 140 | ★ 70 – 140 | 转数(min$^{-1}$) | 2,800 – 5,600 | 2,000 – 4,050 | 1,600 – 3,200 | 1,250 – 2,500 | 1,000 – 2,000 | 900 – 1,800 | |
| | | | 进给(mm/rev) | 0.14 – 0.29 | 0.14 – 0.37 | 0.19 – 0.43 | 0.19 – 0.45 | 0.24 – 0.45 | 0.24 – 0.45 | |
| 球墨铸铁 (FCD) | ☆ 40 – 100 | ★ 40 – 100 | 转数(min$^{-1}$) | 1,600 – 4,000 | 1,150 – 2,900 | 900 – 2,750 | 700 – 1,750 | 600 – 1,450 | 500 – 1,250 | |
| | | | 进给(mm/rev) | 0.12 – 0.24 | 0.12 – 0.31 | 0.16 – 0.36 | 0.16 – 0.40 | 0.2 – 0.45 | 0.2 – 0.45 | |

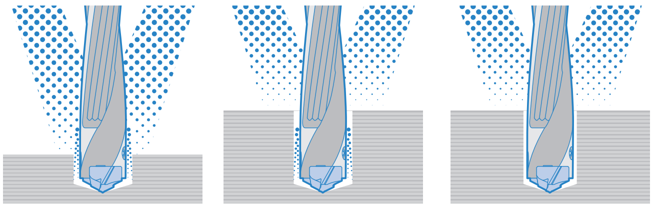
注意：切削条件为在平面开孔时的推荐值
斜面加工为从工件最上部开始的深度。针对倾斜面进行孔加工时请根据倾斜角度调整进给
请将标准设定为倾斜角度30°以下时进给设定为50%以下。倾斜角度超过30°时，进给设定为30%以下
无法进行横进给
虽然可以使用1.5D, 3D, 5D, 8D刀杆，但使用8D刀杆时必须有底孔(0.5D左右)

## 切削液の使用について　※乾式切削は推奨致しません

第1推奨

### 内部給油

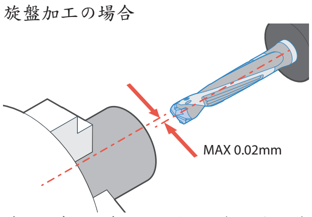
内部給油＋外部給油を推奨 ／ 外部給油のみの場合




旋盤：3D以内
マシニングセンタ：1.5D以内

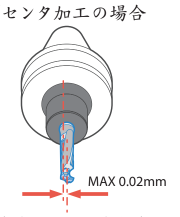
## 偏芯(芯ズレ)について

旋盤加工の場合




ボーリングスリーブ、コレットチャック共にご使用できますがワークとドリルの偏芯量は、0.02mm以内にセットしてください

マシニングセンタ加工の場合




ドリル取付面の変形したアーバは使用しないでください
工作機械とドリルの芯ズレは0.02mm以内にてご使用ください

## マシニングセンタへの取付時の注意点

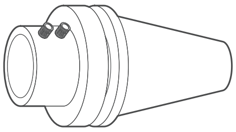
**DRA** の取付け

第1推奨
ハイドロチャック、パワーチャック、コレットチャック

- ハイドロチャック
- パワーチャック
- コレットチャック

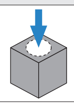
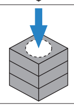
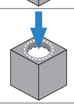
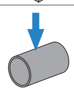
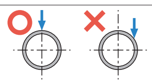
等にDRAを取付けてください

第2推奨
サイドロック方式アーバ



サイドロック方式アーバの例

### 適合ワーク形状(GM, KM)

| 加工内容 | ワーク形状 | 加工時の注意点 |
|---|---|---|
| 平面 |  | 1. ステンレス鋼加工時、入口から0.5D深さまでは推奨送りを0.15mm/rev以下で加工してください<br>2. スムーズに切りくず排出を行う為、内部給油を推奨します。また、ステンレス鋼では内部給油と外部給油の併用を推奨致します |
| 重ね板 |  | 1. 重ね板が加工中にズレない様に固定してください |
| くぼみ面 |  | 1. 断続加工になる可能性がある為、チップの外周刃が完全に穴に入り込むまでは、送りを推奨の半分以下に設定してください<br>2. 入口付近の切りくずが伸びる場合は、インチングを活用してください |
| パイプ外周 |  | 1. パイプのセンタライン上の穴加工は可能です<br>2. 曲面部分の加工には推奨致しません<br> センタ部加工　曲面部加工 |

※FTPはP.7に記載

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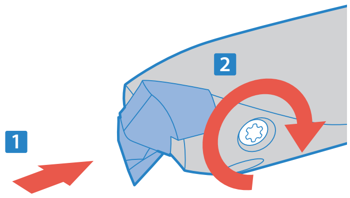
## チップ取付方法

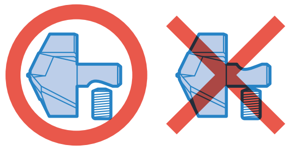
1 正しい向きでチップを差し込む

2 止めねじでチップを固定する
（締付トルクP.10、P.13参照）




※チップポケットは、エアーブローで毎回清掃してください
　チップ拘束面がホルダにしっかり接触しているか確認してください

チップの挿入方向にご注意ください



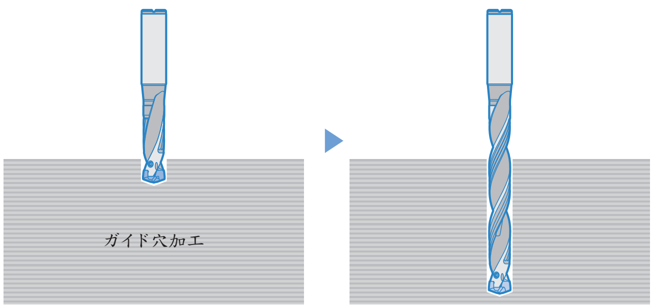
## その他の注意事項

### 8Dホルダ使用時の注意事項

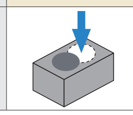
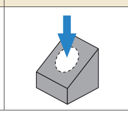
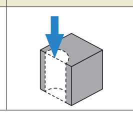
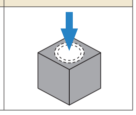
#### 推奨加工方法

1 DRA 1.5D/3D/5Dタイプでガイド穴をあける
（加工径の半分以上のガイド穴を加工してください）

2 その後、DRA 8Dタイプで加工する




### 推奨しないワーク形状(GM, KM)

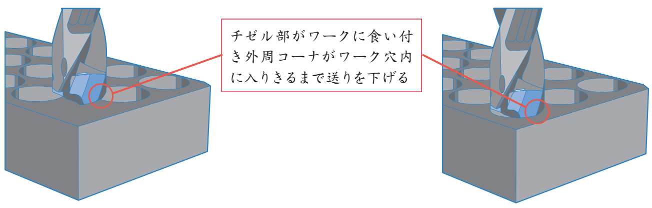
| 加工内容 | 連続穴 | 斜面 | 半割面 | 下穴付き |
|---|---|---|---|---|
| ワーク形状 |  |  |  |  |

※FTPはP.7に記載

### KM使用時の注意事項

#### 鋳肌面を加工する場合

外周コーナがワーク穴内に全て入りきるまで送りを0.15mm/revに下げてご使用ください





切削工具に関する技術的なご相談は（携帯・PHSからもご利用できます）

京セラ
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