

THE NEW VALUE FRONTIER

京瓷 创造新价值



高效率模块式钻头 | **DRA**

高效率模块式钻头

MagicDrill **DRA**



低阻力设计实现优质的孔精度

刀杆芯厚大、抑制挠曲变形

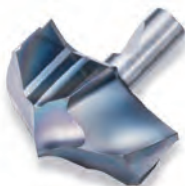
细碎的切断切屑、实现顺畅的深孔加工

简单钻尖更换



高精度 钢加工用

HQP



DRA刀杆(法兰型)

产品阵容新增大直径系列

ø26~ø33
(3D、5D、8D)



MagicDrill DRA

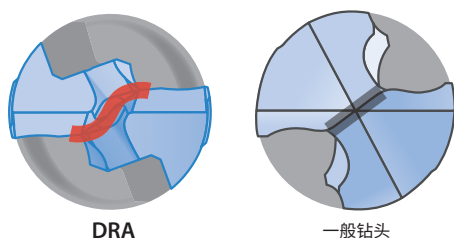
低阻力设计实现优质的孔加工精度

5大特点解决孔加工问题, 实现高效率加工

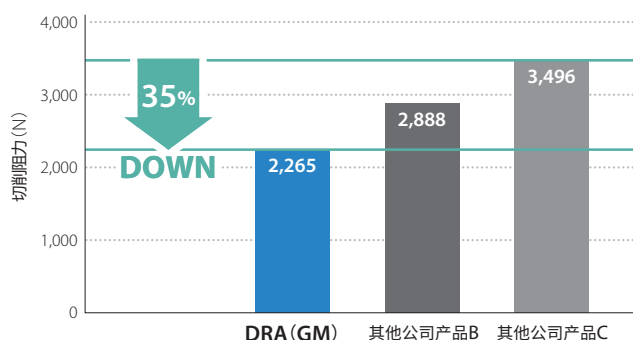
1 低阻力设计保证孔精度提高

通过采用特殊的S曲线切刃, 降低切削阻力、抑制入刀时的振动

切刃示意图



切削阻力比较 (本公司对比)

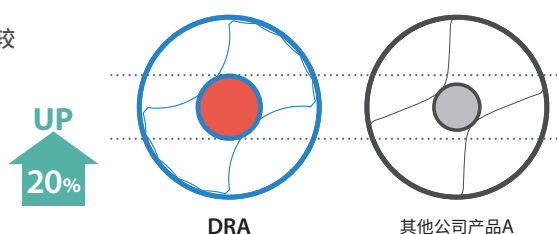


切削参数: $V_c = 120 \text{ m/min}$, $f = 0.25 \text{ mm/rev}$
加工径 $\phi 14$, $L/D = 5$, 加工深度 45 mm, Wet 加工材料: 50#

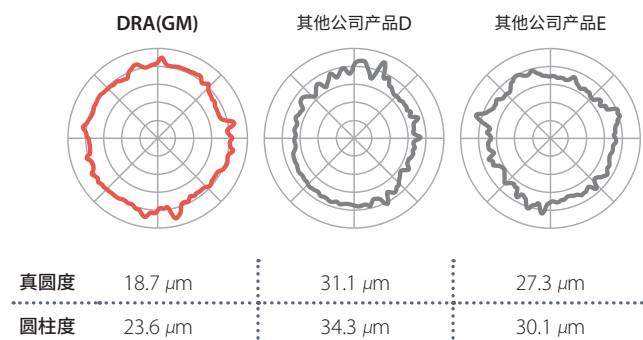
2 刀杆芯厚大、抑制挠曲变形

与其他公司产品A比较芯厚增厚约20%, 抑制挠曲变形、提高孔径精度

芯厚比较



真圆度·圆柱度比较 (本公司对比)



切削参数: $V_c = 120 \text{ m/min}$, $f = 0.3 \text{ mm/rev}$
加工径 $\phi 14$, $L/D = 5$, 测定位置 55 mm, Wet 加工材料: 50#

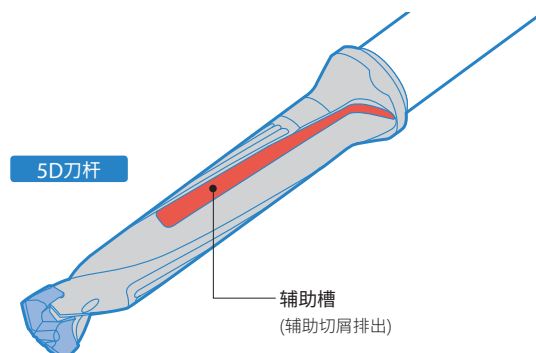
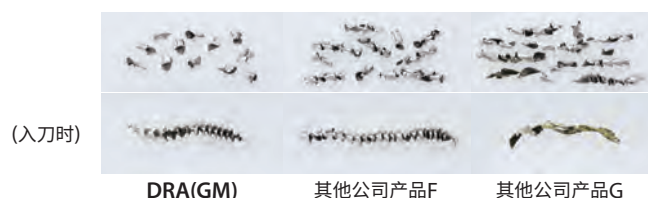
3 细碎的切断切屑。即使在深孔加工上也能实现优质的切屑排出

优化修磨保证稳定的切屑排出

扩展了刀杆后端面的辅助槽(5D、8D)保证切屑顺畅排出

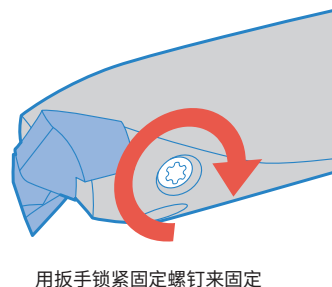
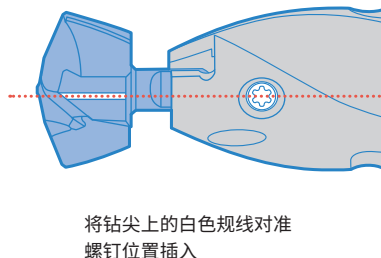
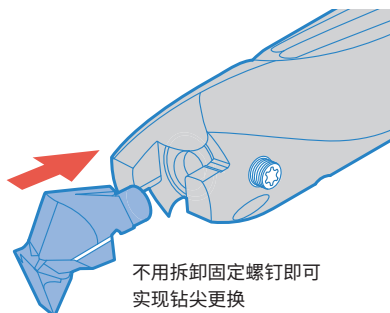
切屑比较
(本公司对比)

切削参数: $V_c = 60 \text{ m/min}$, $f = 0.2 \text{ mm/rev}$, 加工径 $\phi 14$, $L/D = 5$
加工深度 70 mm, Wet 加工材料: 0Cr18Ni9



4 简单钻尖更换

不用拆卸固定螺钉即可实现钻尖更换



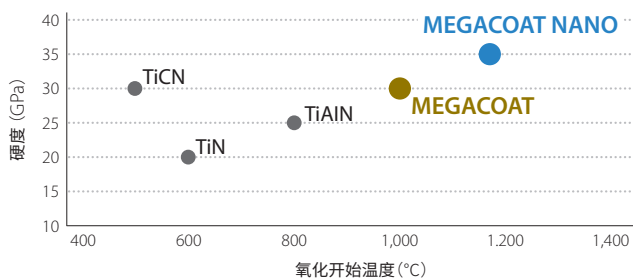
5 在多种加工材料上实现长寿命·稳定加工

MEGACOAT NANO PR1535 将高韧性母材与特殊纳米涂层相结合，在钢至不锈钢的加工中发挥出优质性能

第1推荐材质

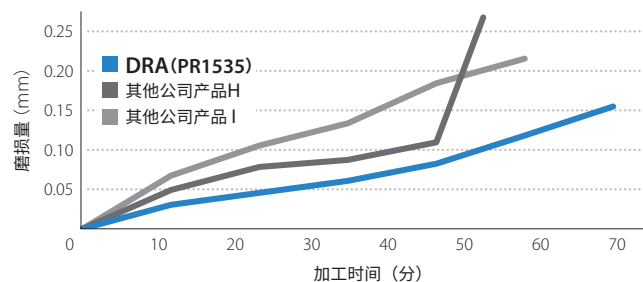
钢·SUS PR1535 铸铁 PR1525

涂层特性



低 抗氧化性 高

抗氧化性比较 (本公司对比)

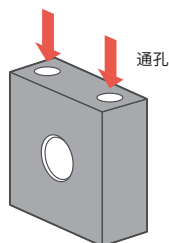


切削参数: $V_c = 100$ m/min, $f = 0.25$ mm/rev
加工径 $\phi 14$, $L/D = 5$, 加工深度 45 mm, Wet 加工材料: 42CrMoH

加工案例

配件 Q235

$V_c = 70$ m/min ($n = 1,240$ min⁻¹)
 $f = 0.23$ mm/rev ($V_f = 285$ mm/min)
加工深度 100 mm
Wet(内冷)
有中心孔加工
SF25-DRA180M-8
DA1800M-GM PR1535



加工时间

DRA $\phi 18-8D$

45 秒

30%
加工时间

其他公司产品
J $\phi 18-7D$ (法兰径)

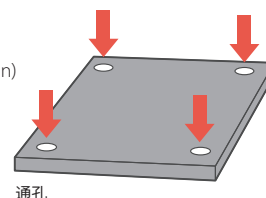
65 秒

其他公司产品J发生了切屑阻塞,所以采取了分段加工, DRA即使不采用分段加工依然切屑排出良好

(基于用户评价)

钢板 0Cr18Ni9

$V_c = 60$ m/min ($n = 2,120$ min⁻¹)
 $f = 0.12$ mm/rev ($V_f = 254$ mm/min)
加工深度 15 mm
Wet(内冷)
SS10-DRA090M-3
DA0900M-GM PR1535



加工孔数

DRA $\phi 9-3D$

500 孔

寿命
5 倍

其他公司产品
K $\phi 9-3D$ (法兰径)

100 孔

与其他公司产品K相比DRA寿命提高5倍。另外切削音小、加工面也良好,可实现稳定加工

(基于用户评价)

高效率模块式钻头

MagicDrill DRA 高精度 钢加工用刀尖

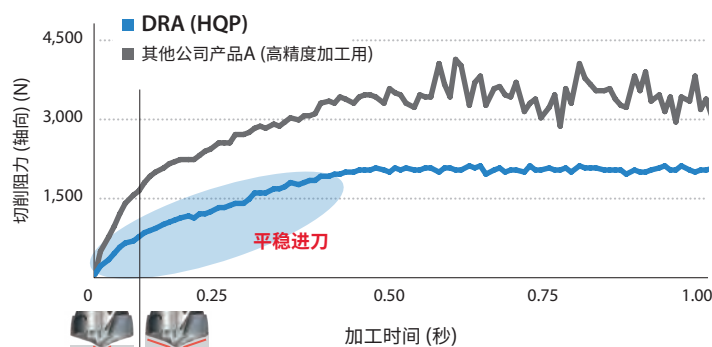
特殊2段钻尖角 向心性高

实现圆柱度·真圆度·表面粗糙度优良的钢加工

1 实现加工中心车床高向心性高精度加工

特殊2段钻尖角、大前角、双重刃带抑制刀具振动，实现高精度加工

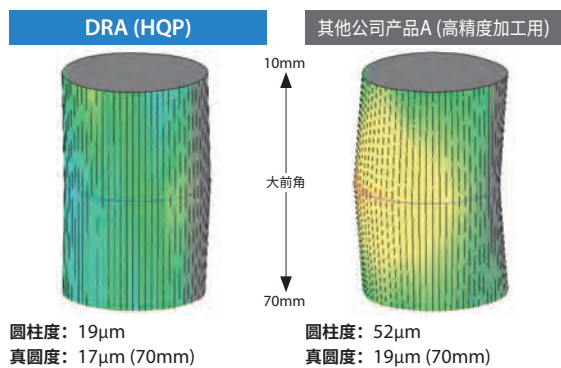
进刀时的切削阻力对比 (本公司对比)



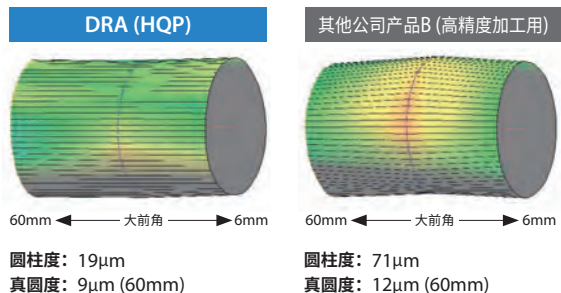
切削参数: $V_c = 100 \text{ m/min}$, $f = 0.25 \text{ mm/rev}$, $H = 30 \text{ mm}$, Wet 加工材料: 50# $\phi 16$ (3D)

圆柱度·真圆度对比 (本公司对比)

加工中心[BT50]



车床



特殊2段钻尖角



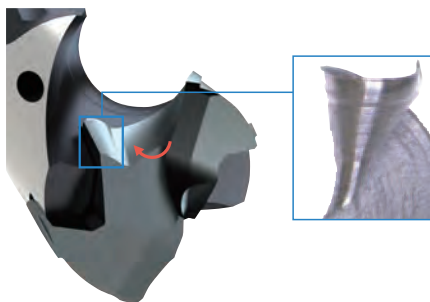
大前角



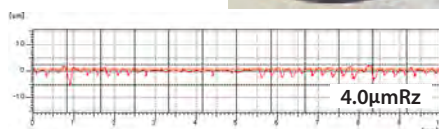
双重刃带

2 特殊螺旋槽形状 实现精美的加工面品质

控制切屑、抑制对孔壁的损伤

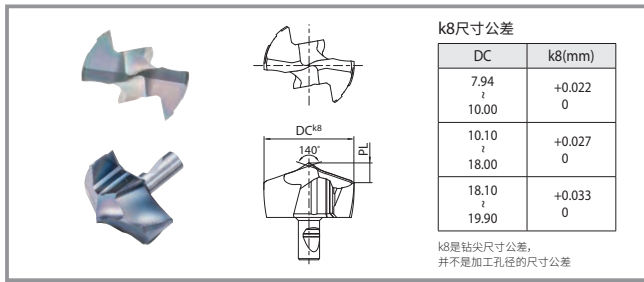


孔壁 表面粗糙度对比 (本公司对比)



切削参数: $V_c = 100 \text{ m/min}$, $f = 0.25 \text{ mm/rev}$, $H = 80 \text{ mm}$, Wet 加工材料: 50# $\phi 16$ (5D)

DRA用钻头(高精度 钢加工用HQP) 加工直径φ7.94~φ19.90

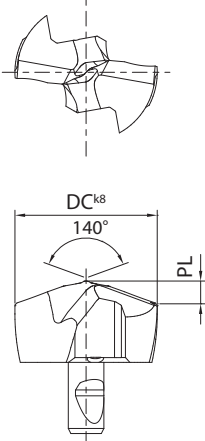


钻头型号

型号	尺寸(mm)		材质	适用刀杆
	DC	PL	PR1525	
DA 0794M-HQP	7.94	1.90	●	SS10-DRA080M-○ SF12-DRA080M-○
0800M-HQP	8.00	1.91	●	
0810M-HQP	8.10	1.93	●	
0820M-HQP	8.20	1.94	●	
0830M-HQP	8.30	1.96	●	
0840M-HQP	8.40	1.98	●	SS10-DRA085M-○ SF12-DRA085M-○
DA 0850M-HQP	8.50	1.99	●	
0860M-HQP	8.60	2.01	●	
0870M-HQP	8.70	2.03	●	
0880M-HQP	8.80	2.05	●	
0890M-HQP	8.90	2.06	●	SS10-DRA090M-○ SF12-DRA090M-○
DA 0900M-HQP	9.00	2.19	●	
0910M-HQP	9.10	2.21	●	
0920M-HQP	9.20	2.22	●	
0930M-HQP	9.30	2.24	●	
0940M-HQP	9.40	2.26	●	SS10-DRA095M-○ SF12-DRA095M-○
DA 0950M-HQP	9.50	2.27	●	
0960M-HQP	9.60	2.29	●	
0970M-HQP	9.70	2.31	●	
0980M-HQP	9.80	2.32	●	
0990M-HQP	9.90	2.34	●	SS12-DRA100M-○ SF16-DRA100M-○
DA 1000M-HQP	10.00	2.35	●	
1010M-HQP	10.10	2.36	●	
1020M-HQP	10.20	2.38	●	
1030M-HQP	10.30	2.40	●	
1040M-HQP	10.40	2.41	●	SS12-DRA105M-○ SF16-DRA105M-○
DA 1050M-HQP	10.50	2.43	●	
1060M-HQP	10.60	2.44	●	
1070M-HQP	10.70	2.46	●	
1080M-HQP	10.80	2.47	●	
1090M-HQP	10.90	2.49	●	SS12-DRA110M-○ SF16-DRA110M-○
DA 1100M-HQP	11.00	2.65	●	
1110M-HQP	11.10	2.67	●	
1120M-HQP	11.20	2.68	●	
1130M-HQP	11.30	2.70	●	
1140M-HQP	11.40	2.72	●	SS12-DRA115M-○ SF16-DRA115M-○
DA 1150M-HQP	11.50	2.73	●	
1160M-HQP	11.60	2.75	●	
1170M-HQP	11.70	2.76	●	
1180M-HQP	11.80	2.78	●	
1190M-HQP	11.90	2.80	●	SS14-DRA120M-○ SF16-DRA120M-○
DA 1200M-HQP	12.00	2.79	●	
1210M-HQP	12.10	2.81	●	
1220M-HQP	12.20	2.82	●	
1230M-HQP	12.30	2.84	●	
1240M-HQP	12.40	2.86	●	SS14-DRA125M-○ SF16-DRA125M-○
DA 1250M-HQP	12.50	2.87	●	
1260M-HQP	12.60	2.89	●	
1270M-HQP	12.70	2.91	●	
1280M-HQP	12.80	2.92	●	
1290M-HQP	12.90	2.94	●	SS14-DRA130M-○ SF16-DRA130M-○
DA 1300M-HQP	13.00	2.98	●	
1310M-HQP	13.10	2.99	●	
1320M-HQP	13.20	3.01	●	
1330M-HQP	13.30	3.02	●	
1340M-HQP	13.40	3.04	●	SS14-DRA135M-○ SF16-DRA135M-○
DA 1350M-HQP	13.50	3.06	●	
1360M-HQP	13.60	3.07	●	
1370M-HQP	13.70	3.09	●	
1380M-HQP	13.80	3.10	●	
1390M-HQP	13.90	3.12	●	

型号	尺寸(mm)		材质	适用刀杆
	DC	PL	PR1525	
DA 1400M-HQP	14.00	3.11	●	SS16-DRA140M-○ SF16-DRA140M-○
1410M-HQP	14.10	3.12	●	
1420M-HQP	14.20	3.14	●	
1430M-HQP	14.30	3.16	●	
1440M-HQP	14.40	3.17	●	
DA 1450M-HQP	14.50	3.19	●	SS16-DRA145M-○ SF16-DRA145M-○
1460M-HQP	14.60	3.21	●	
1470M-HQP	14.70	3.22	●	
1480M-HQP	14.80	3.24	●	
1490M-HQP	14.90	3.25	●	
DA 1500M-HQP	15.00	3.33	●	SS16-DRA150M-○ SF20-DRA150M-○
1510M-HQP	15.10	3.35	●	
1520M-HQP	15.20	3.36	●	
1530M-HQP	15.30	3.38	●	
1540M-HQP	15.40	3.39	●	
1550M-HQP	15.50	3.41	●	
1560M-HQP	15.60	3.42	●	
1570M-HQP	15.70	3.44	●	
1580M-HQP	15.80	3.46	●	
1590M-HQP	15.90	3.47	●	
DA 1600M-HQP	16.00	3.55	●	SS18-DRA160M-○ SF20-DRA160M-○
1610M-HQP	16.10	3.57	●	
1620M-HQP	16.20	3.58	●	
1630M-HQP	16.30	3.60	●	
1640M-HQP	16.40	3.62	●	
1650M-HQP	16.50	3.63	●	
1660M-HQP	16.60	3.65	●	
1670M-HQP	16.70	3.66	●	
1680M-HQP	16.80	3.68	●	
1690M-HQP	16.90	3.69	●	
DA 1700M-HQP	17.00	3.73	●	SS18-DRA170M-○ SF20-DRA170M-○
1710M-HQP	17.10	3.75	●	
1720M-HQP	17.20	3.77	●	
1730M-HQP	17.30	3.78	●	
1740M-HQP	17.40	3.80	●	
1750M-HQP	17.50	3.81	●	
1760M-HQP	17.60	3.83	●	
1770M-HQP	17.70	3.84	●	
1780M-HQP	17.80	3.86	●	
1790M-HQP	17.90	3.88	●	
DA 1800M-HQP	18.00	3.97	●	SS20-DRA180M-○ SF25-DRA180M-○
1810M-HQP	18.10	3.98	●	
1820M-HQP	18.20	4.00	●	
1830M-HQP	18.30	4.02	●	
1840M-HQP	18.40	4.03	●	
1850M-HQP	18.50	4.05	●	
1860M-HQP	18.60	4.06	●	
1870M-HQP	18.70	4.08	●	
1880M-HQP	18.80	4.09	●	
1890M-HQP	18.90	4.11	●	
DA 1900M-HQP	19.00	4.20	●	SS20-DRA190M-○ SF25-DRA190M-○
1910M-HQP	19.10	4.22	●	
1920M-HQP	19.20	4.23	●	
1930M-HQP	19.30	4.25	●	
1940M-HQP	19.40	4.26	●	
1950M-HQP	19.50	4.28	●	
1960M-HQP	19.60	4.29	●	
1970M-HQP	19.70	4.31	●	
1980M-HQP	19.80	4.33	●	
1990M-HQP	19.90	4.34	●	

钻头为1盒1片装
●:标准库存



k8尺寸公差

DC	k8(mm)
7.94 ┆ 10.00	+0.022 0
10.10 ┆ 18.00	+0.027 0
18.10 ┆ 30.00	+0.033 0
30.10 ┆ 33.00	+0.039 0

k8是钻尖自身的尺寸公差
不是加工孔径的尺寸公差

钻尖型号

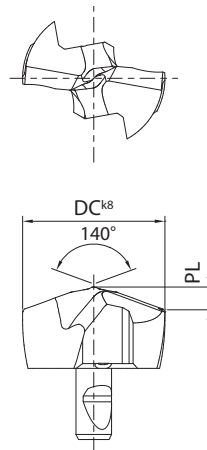
第1推荐材质
钢・SUS PR1535 铸铁 PR1525

型号	尺寸(mm)		材质		适用刀杆
	DC	PL	PR1535	PR1525	
DA 0794M-GM	7.94	1.34	●	●	SS10-DRA080M-○ 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-○ 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-○ 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-○ 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-○ 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-○ 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-○ 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-○ 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-○ 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-○ 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	●	●	

型号	尺寸(mm)		材质		适用刀杆
	DC	PL	PR1535	PR1525	
DA 1300M-GM	13.00	2.20	●	●	SS14-DRA130M-○ 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-○ 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-○ 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	●	●	
DA 1450M-GM	14.50	2.42	●	●	SS16-DRA145M-○ 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-○ 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-○ 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-○ 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	●	●	

钻尖为1盒1片装
●:标准库存

DRA用钻尖(通用GM) 加工直径 $\phi 7.94 \sim \phi 33.00$



k8尺寸公差

DC	k8(mm)
7.94 ~ 10.00	+0.022 0
10.10 ~ 18.00	+0.027 0
18.10 ~ 30.00	+0.033 0
30.10 ~ 33.00	+0.039 0

k8是钻尖自身的尺寸公差
不是加工孔径的尺寸公差

钻尖型号

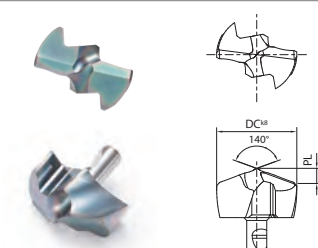
第1推荐材质
钢・SUS PR1535 铸铁 PR1525

型号	尺寸(mm)		材质		适用刀杆
	DC	PL	PR1535	PR1525	
DA 1800M-GM	18.00	3.04	●	●	SS20-DRA180M-○ 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-○ 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-○ 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-○
2150M-GM	21.50	3.63	●	●	SF25-DRA210M-○
DA 2200M-GM	22.00	3.71	●	●	SS25-DRA220M-○
2250M-GM	22.50	3.80	●	●	SF25-DRA220M-○
DA 2300M-GM	23.00	3.87	●	●	SS25-DRA230M-○
2350M-GM	23.50	3.96	●	●	SF25-DRA230M-○
DA 2400M-GM	24.00	4.04	●	●	SS25-DRA240M-○
2450M-GM	24.50	4.13	●	●	SF25-DRA240M-○
DA 2500M-GM	25.00	4.20	●	●	SS32-DRA250M-○
2550M-GM	25.50	4.29	●	●	SF25-DRA250M-○

型号	尺寸(mm)		材质		适用刀杆
	DC	PL	PR1535	PR1525	
NEW DA 2600M-GM	26.00	4.80	●	●	SF32-DRA260M-○
NEW 2650M-GM	26.50	4.90	●	●	
NEW DA 2700M-GM	27.00	4.99	●	●	SF32-DRA270M-○
NEW 2750M-GM	27.50	5.09	●	●	
NEW DA 2800M-GM	28.00	4.73	●	●	SF32-DRA280M-○
NEW 2850M-GM	28.50	4.83	●	●	
NEW DA 2900M-GM	29.00	4.90	●	●	SF32-DRA290M-○
NEW 2950M-GM	29.50	5.01	●	●	
NEW DA 3000M-GM	30.00	5.07	●	●	SF32-DRA300M-○
NEW 3050M-GM	30.50	5.17	●	●	
NEW DA 3100M-GM	31.00	5.26	●	●	SF32-DRA310M-○
NEW 3150M-GM	31.50	5.37	●	●	
NEW DA 3200M-GM	32.00	5.41	●	●	SF32-DRA320M-○
NEW 3250M-GM	32.50	5.51	●	●	
NEW 3300M-GM	33.00	5.62	●	●	

钻尖为1盒1片装
●:标准库存

DRA用钻尖(铸铁加工用 KM) 加工径φ7.94~φ25.50



k8尺寸公差

DC	k8(mm)
7.94 ± 10.00	+0.022 0
10.10 ± 18.00	+0.027 0
18.10 ± 25.50	+0.033 0

k8是钻尖自身的尺寸公差
不是加工孔径的尺寸公差

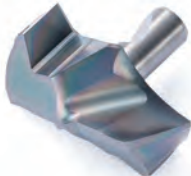
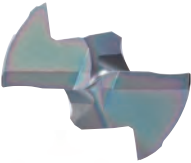
钻尖型号

型号	尺寸 (mm)		材质	适用刀杆
	DC	PL	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	●	

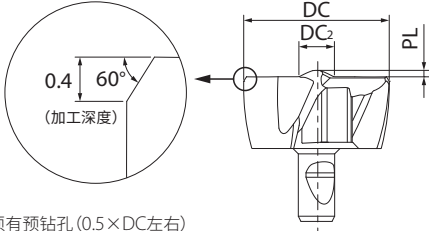
型号	尺寸 (mm)		材质	适用刀杆
	DC	PL	PR1525	
DA 1450M-KM	14.50	3.25	●	SS16-DRA145M-○ SF16-DRA145M-○
1460M-KM	14.60	3.30	●	
1470M-KM	14.70	3.34	●	
1480M-KM	14.80	3.38	●	
1490M-KM	14.90	3.42	●	
DA 1500M-KM	15.00	3.24	●	SS16-DRA150M-○ SF20-DRA150M-○
1510M-KM	15.10	3.28	●	
1520M-KM	15.20	3.33	●	
1530M-KM	15.30	3.37	●	
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-○ SF25-DRA210M-○
2150M-KM	21.50	4.59	●	
DA 2200M-KM	22.00	4.55	●	SS25-DRA220M-○ SF25-DRA220M-○
2250M-KM	22.50	4.76	●	
DA 2300M-KM	23.00	4.74	●	SS25-DRA230M-○ SF25-DRA230M-○
2350M-KM	23.50	4.94	●	
DA 2400M-KM	24.00	4.91	●	SS25-DRA240M-○ SF25-DRA240M-○
2450M-KM	24.50	5.12	●	
DA 2500M-KM	25.00	5.08	●	SS32-DRA250M-○ SF25-DRA250M-○
2550M-KM	25.50	5.29	●	

1盒1片装
●:标准库存

DRA用钻尖(镗孔加工用 FTP) 加工径 $\phi 8.00 \sim \phi 25.4$



因为台阶部有倒角, 加工盲孔时, 角部发生加工残留



k8尺寸公差

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

注释
虽然可以使用1.5D, 3D, 5D, 8D刀杆, 使用8D刀杆时必须有预钻孔(0.5×DC左右)

k8是钻尖自身的尺寸公差
不是加工孔径的尺寸公差

钻尖型号

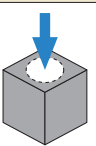
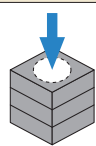
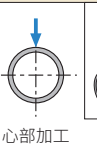
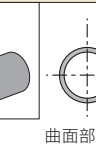
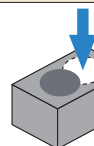
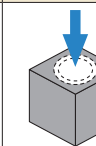
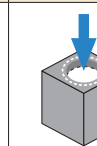
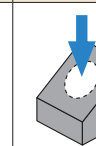
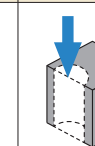
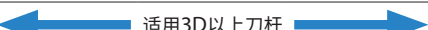
第1推荐材质
钢・SUS PR1535 铸铁 PR1525

型号	尺寸 (mm)			材质		适用刀杆
	DC	DC ₂	PL	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	3.30	0.46	●	●	SS10-DRA095M-○ SF12-DRA095M-○
DA1000M-FTP	10.00			●	●	SS12-DRA100M-○ SF16-DRA100M-○
DA1030M-FTP	10.30			●	●	
DA1050M-FTP	10.50			●	●	SS12-DRA105M-○ SF16-DRA105M-○
DA1080M-FTP	10.80	3.40	0.50	●	●	SS12-DRA110M-○ SF16-DRA110M-○
DA1100M-FTP	11.00			●	●	SS12-DRA115M-○ SF16-DRA115M-○
DA1150M-FTP	11.50	3.70	0.53	●	●	SS14-DRA120M-○ SF16-DRA120M-○
DA1200M-FTP	12.00			●	●	SS14-DRA125M-○ SF16-DRA125M-○
DA1250M-FTP	12.50			●	●	
DA1270M-FTP	12.70			●	●	SS14-DRA130M-○ SF16-DRA130M-○
DA1300M-FTP	13.00	3.90	0.56	●	●	SS14-DRA135M-○ SF16-DRA135M-○
DA1350M-FTP	13.50			●	●	SS16-DRA140M-○ SF16-DRA140M-○
DA1400M-FTP	14.00	4.20	0.60	●	●	SS16-DRA145M-○ SF16-DRA145M-○
DA1450M-FTP	14.50			●	●	SS16-DRA150M-○ SF20-DRA150M-○
DA1500M-FTP	15.00	4.40	0.65	●	●	

型号	尺寸 (mm)			材质		适用刀杆
	DC	DC ₂	PL	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

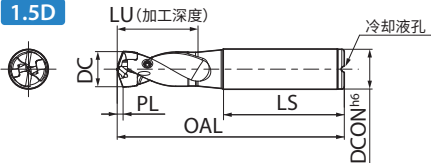
平面	重叠板	管外圆		※连续孔	有底孔	凹面	斜面	半圆面	
									
 适用1.5D刀杆									不推荐形状
 适用3D以上刀杆				3D以上刀杆不推荐的形状					

※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

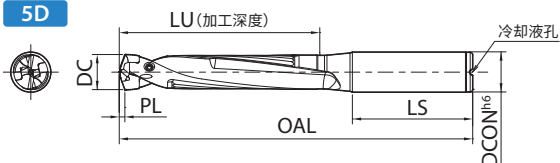
DRA刀杆 (直柄型)



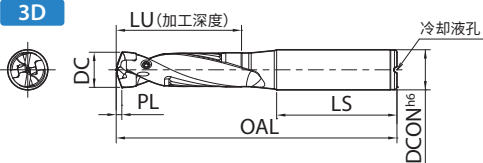
1.5D



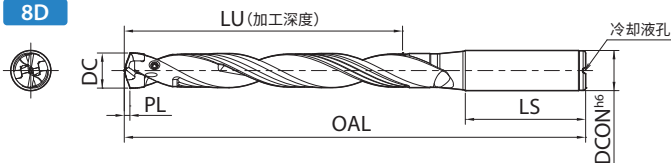
5D



3D



8D



刀杆尺寸 1.5D

直柄 SS型	库存	尺寸(mm)					适用钻头	零件		
加工深度：1.5×DC		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LU (加工深度)		LS (刀杆长度)	紧固螺丝	扳手
型号		min.	max.							
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	
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	
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

●：标准库存

刀杆尺寸 **3D**

直柄 SS型	库存	尺寸(mm)						适用钻头	零件	
加工深度：3×DC		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LU (加工深度)	LS (刀杆长度)		紧固螺丝	扳手
型号		min.	max.							
SS10-DRA080M-3	●	7.94	8.49	10	79	25.5	40	DA0794M-…～DA0840M-…	HS-2524TRP	
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	FTP-5
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	库存	尺寸(mm)						适用钻头	零件		
加工深度：5×DC		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LU (加工深度)	LS (刀杆长度)		紧固螺丝	扳手	
型号		min.	max.								
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	48	DA1200M-…～DA1240M-…	HS-3048TRP		
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	50	DA1400M-…～DA1440M-…	HS-4067TRP		DTP-7
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	56	DA1800M-…～DA1890M-…	HS-4067TRP		
SS20-DRA190M-5	●	19.00	19.99		179	100.0		DA1900M-…～DA1990M-…			
SS25-DRA200M-5	●	20.00	20.99	25	191	105.0	60	DA2000M-…～DA2090M-…	HS-4067TRP		
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-…			

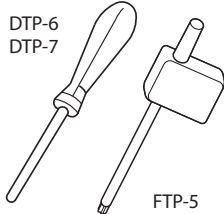
●：标准库存

刀杆尺寸 **8D**

直柄 SS型	库存	尺寸(mm)					适用钻头	零件		
加工深度：8×DC		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LU (加工深度)		LS (刀杆长度)	紧固螺丝	扳手
型号		min.	max.							
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	45	DA1200M-… ～ DA1240M-…	HS-2534TRP	
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	扳手	型号	紧固扭矩(N・m)
	HS-2524TRP		FTP-5	0.5
	HS-2534TRP		DTP-6	0.8
	HS-3048TRP		DTP-7	1.2
	HS-4067TRP			

高效率模块式钻头

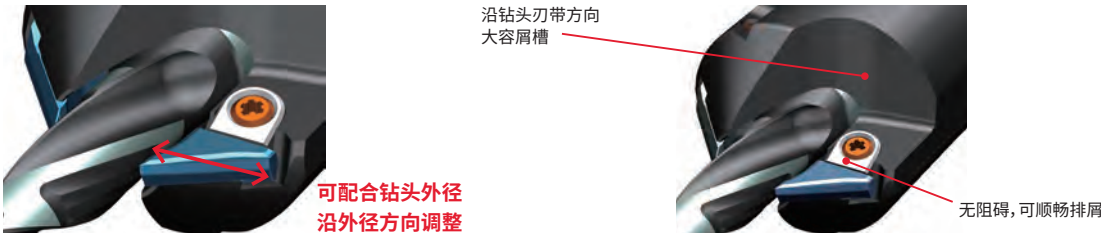
MagicDrill DRA 倒角附件

DRA(SS刀杆)用倒角附件新发售

可广泛对应加工深度, 拥有良好排屑性能

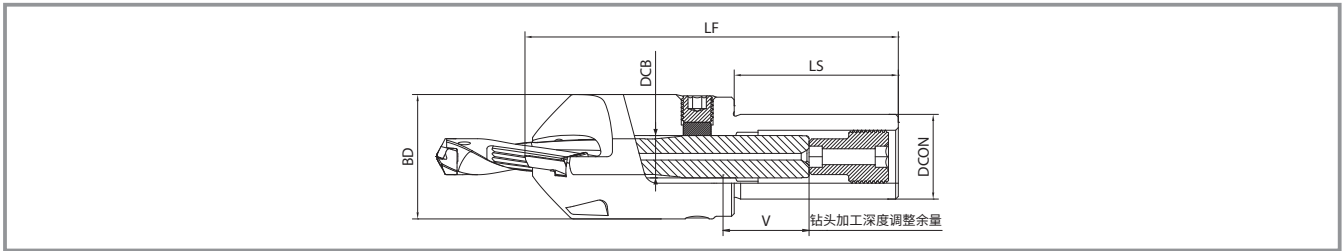
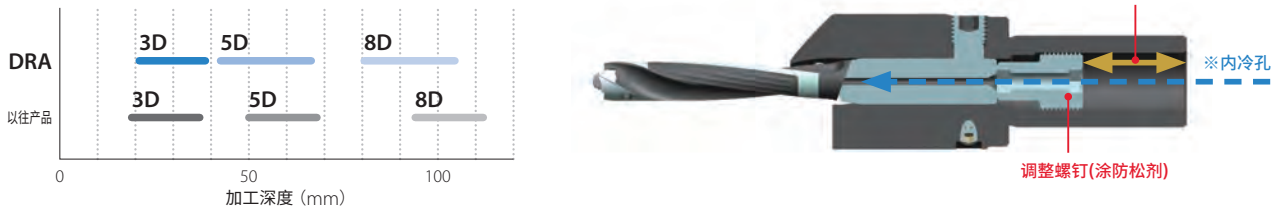
1 易于使用, 排屑性能优质

倒角附件可沿外径方向调整、特殊紧固结构不影响排屑



2 调整幅度大, 可广泛对应加工深度

加工直径 $\phi 14$ 钻头的加工深度可调整范围



刀杆

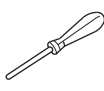
型号	库存	适用柄径 DCB	尺寸(mm)					适用刀片
			DCON	BD	LF	LS	V(Max)	
S20-CH10-DRA	●	10	20	39	110	52	18	CT12T3-45DA
S32-CH12-DRA	●	12	32	43	130	62	24	
S32-CH14-DRA	●	14	32	45	130	62	24	
S32-CH16-DRA	●	16	32	47	141	62	24	
S32-CH18-DRA	●	18	32	49	145	62	24	
S32-CH20-DRA	●	20	32	53	150	62	24.5	

●：标准库存

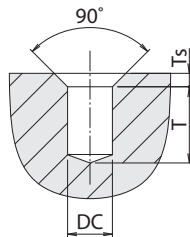
适用刀片

形状	型号	MEGACOAT NANO	尺寸(mm)	
		PR1535	W1	S
	CT12T3-45DA	●	13.54	3.97

●：标准库存

倒角刀杆	调整螺钉		固定钻头用					固定钻尖用		
			压板	紧固螺钉			柱塞	压板	紧固螺钉	扳手
型号		六角 两面宽度 (mm)			六角 两面宽度 (mm)	紧固扭矩 [N·m]				
S20-CH10-DRA	AJ-12X22	6	CP-CH10	HS8X8	4	12	BNP6	C09N	W6X18N	DTM-15
S32-CH12-DRA	AJ-16X30		CP-CH12			15				
S32-CH14-DRA	AJ-20X30	8	CP-CH14	HS10X10	5	20				
S32-CH16-DRA			CP-CH16			30				
S32-CH18-DRA	AJ-22x35	10	CP-CH18	HS12X10	6	30				
S32-CH20-DRA			CP-CH20			45				

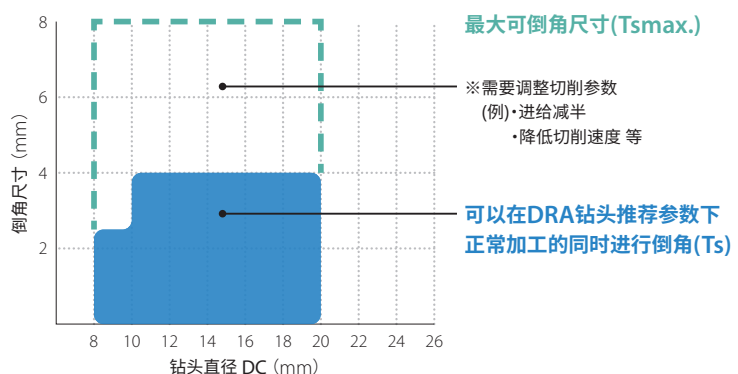
钻头加工深度・倒角尺寸



加工直径(mm) DC		钻头加工深度(mm)						倒角尺寸(mm)		适用倒角刀杆
		T(3D钻头)		T(5D钻头)		T(8D钻头)				
min.	max.	min.	max.	min.	max.	min.	max.	Ts	Tsmax.	
7.94	8.49	12.5	20	18	36	43	60	2.5	8	S20-CH10-DRA
8.50	8.99	12.5	21.5	21.5	38.5	48	64			
9.00	9.49	12.5	23	24	41	52	68			
9.50	9.99	12.5	24.5	27.5	43.5	57.5	72.5			
10.00	10.49	15.5	26	22	46	52	76	4	8	S32-CH12-DRA
10.50	10.99	16	27.5	24.5	48.5	56	80			
11.00	11.49	16.5	29	27	51	60	84			
11.50	11.99	17.5	30.5	29.5	53.5	64	88			
12.00	12.49	18	32	32	56	68	92	4	8	S32-CH14-DRA
12.50	12.99	19	34	35	59	72.5	96.5			
13.00	13.49	19.5	35.5	37.5	61.5	76	100			
13.50	13.99	20	36.5	39.5	63.5	80	104			
14.00	14.49	21	38.5	42.5	66.5	84.5	108.5	4	8	S32-CH16-DRA
14.50	14.99	21.5	40	45	69	88.5	112.5			
15.00	15.99	22.5	41.5	47.5	71.5	92.5	116.5			
16.00	16.99	24	44.5	52.5	76.5	100.5	124.5	4	8	S32-CH18-DRA
17.00	17.99	25.5	47.5	57.5	81.5	108.5	132.5			
18.00	18.99	27.5	51	64	87	121	141	4	8	S32-CH20-DRA
19.00	19.99	29.5	54	69	92	129	149			



推荐切削参数(50#)



安装方法

〈步骤〉

1 将DRA钻头插入倒角附件(Fig. 1)



Fig. 1 插入DRA钻头

2 安装刀片后, 在保持刀片前端与钻头外围有一定间隙的情况下用扳手暂时紧固(Fig. 2)

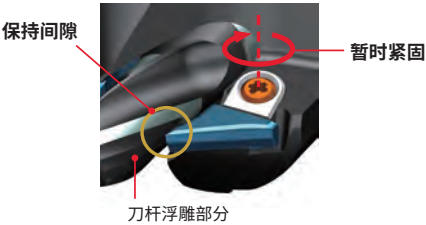


Fig. 2 插入刀片

3 用六角扳手旋转调整螺钉, 调整钻头加工深度(Fig. 3)

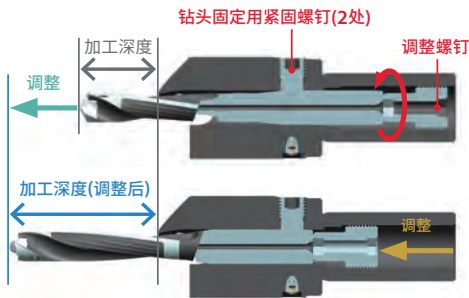


Fig. 3 加工深度的调整

4 旋转钻头, 直至刃带与刀杆浮雕部分(黑色部分)位置如图Fig. 4后定位(Fig. 4)

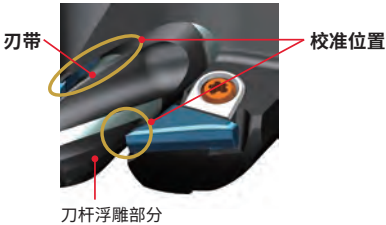


Fig. 4 钻头定位

5 拧紧2处固定钻头用的紧固螺钉 (推荐紧固扭矩请参考Table 1)

Table 1 推荐紧固扭矩

倒角附件 型号	紧固螺钉	
	推荐紧固扭矩 (N·m)	六角 两面宽度 (mm)
S20-CH10-DRA	12	4
S32-CH12-DRA	15	
S32-CH14-DRA	20	5
S32-CH16-DRA	30	6
S32-CH18-DRA	30	
S32-CH20-DRA	45	8

6 将刀片前端轻轻按压在刀杆浮雕部分, 同时彻底紧固刀片(Fig. 5)
(推荐紧固扭矩3.5N·m)



Fig. 5 正式固定刀片

注意事项

- 此倒角附件为直柄型SS-DRA专用
法兰型SF-DRA无法使用
- 需要2枚倒角刀片。不推荐只使用1枚
- 除更换新品, 请不要完全拆下各紧固螺钉
- 请定期更换安装刀片用压板、紧固螺钉
- 调节螺钉涂有防松剂。长期使用防松效果可能会变差。推荐定期更换新品。
- 请不要操作柱塞

DRA刀杆 (法兰型)



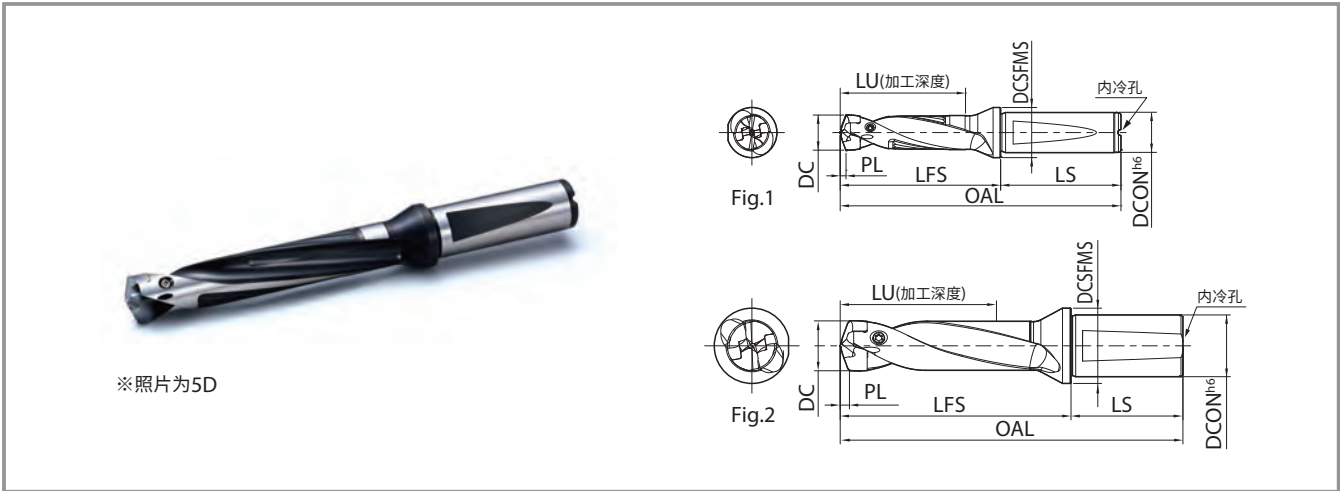
※照片为5D

刀杆尺寸 **1.5D**

带法兰面刀柄SF型	库存	尺寸(mm)							适用钻头	零件		
加工深度：1.5×DC		适用钻头尺寸DC		DCON (h6) (刀杆直径)	OAL (全长)	LFS (悬伸量)	LU (加工深度)	LS (刀杆长度)		DCSFMS (法兰径)	紧固螺丝	扳手
		min.	max.									
型号												
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-…		
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-…	HS-3048TRP	
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

DRA刀杆 (法兰型)



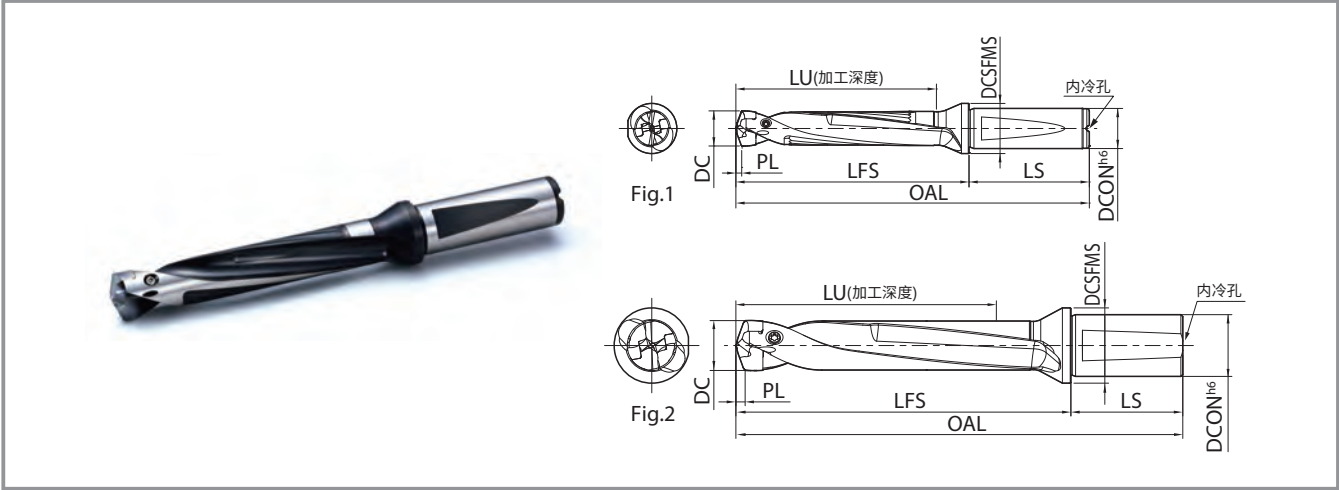
刀杆尺寸

3D

带法兰面刀柄SF型	库存	尺寸(mm)							形状	适用钻头	零件								
加工深度：3×DC 型号		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LFS (悬伸 量)	LU (加工深度)	LS (刀杆长度)			DCSFMS (法兰径)	紧固螺丝	扳手						
		min.	max.																
SF12-DRA080M-3	●	7.94	8.49	12	84	39	25.5	45	16	Fig.1	DA0794M-... ~ DA0840M-...	HS-2524TRP							
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	Fig.1	DA1000M-... ~ DA1040M-...	HS-2534TRP	FTP-5						
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-...								
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	Fig.1	DA1500M-... ~ DA1590M-...	HS-3048TRP	DTP-6
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	Fig.1	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-...								
SF32-DRA260M-3	●	26.00	26.99	32	178	120	81.0	58	39	Fig.2	DA2600M-... ~ DA2650M-...	HS-50100TRP	DTPM-15						
SF32-DRA270M-3	●	27.00	27.99		181	123	84.0				DA2700M-... ~ DA2750M-...								
SF32-DRA280M-3	●	28.00	28.99		185	127	87.0				DA2800M-... ~ DA2850M-...								
SF32-DRA290M-3	●	29.00	29.99		189	131	90.0				DA2900M-... ~ DA2950M-...								
SF32-DRA300M-3	●	30.00	30.99		193	135	93.0				DA3000M-... ~ DA3050M-...								
SF32-DRA310M-3	●	31.00	31.99		196	138	96.0				DA3100M-... ~ DA3150M-...								
SF32-DRA320M-3	●	32.00	33.00		200	142	99.0				DA3200M-... ~ DA3300M-...								

●：标准库存

DRA刀杆 (法兰型)

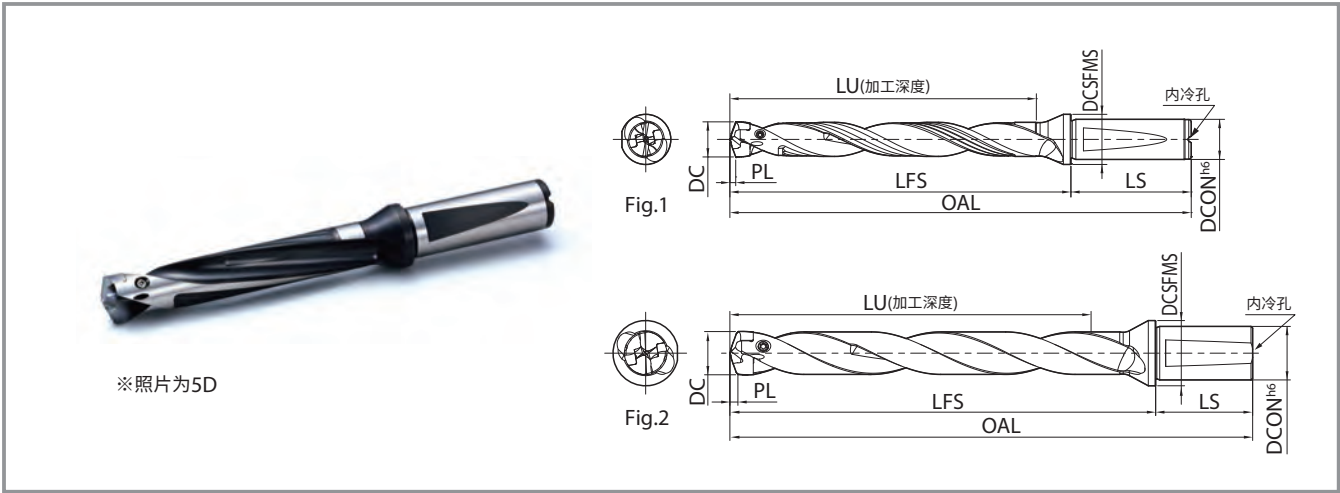


刀杆尺寸 5D

带法兰面刀柄SF型	库存	尺寸(mm)								形状	适用钻头	零件	
加工深度：5×DC		适用钻头尺寸DC		DCON(h6) (刀杆直径)	OAL(全长)	LFS(悬伸量)	LU(加工深度)	LS(刀杆长度)	DCSFMS(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	Fig.1	DA0794M-····~ DA0840M-····	HS-2524TRP	
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	Fig.1	DA1000M-····~ DA1040M-····	HS-2534TRP	FTP-5
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-····		
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	Fig.1	DA1500M-····~ DA1590M-····	HS-3048TRP	DTP-6
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	Fig.1	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-····		
SF32-DRA260M-5	●	26.00	26.99	32	232	174	135.0	58	39	Fig.2	DA2600M-····~DA2650M-····	HS-50100TRP	DTPM-15
SF32-DRA270M-5	●	27.00	27.99		237	179	140.0				DA2700M-····~DA2750M-····		
SF32-DRA280M-5	●	28.00	28.99		243	185	145.0				DA2800M-····~DA2850M-····		
SF32-DRA290M-5	●	29.00	29.99		249	191	150.0				DA2900M-····~DA2950M-····		
SF32-DRA300M-5	●	30.00	30.99		255	197	155.0				DA3000M-····~DA3050M-····		
SF32-DRA310M-5	●	31.00	31.99		260	202	160.0				DA3100M-····~DA3150M-····		
SF32-DRA320M-5	●	32.00	33.00		266	208	165.0				DA3200M-····~DA3300M-····		

●：标准库存

DRA刀杆 (法兰型)

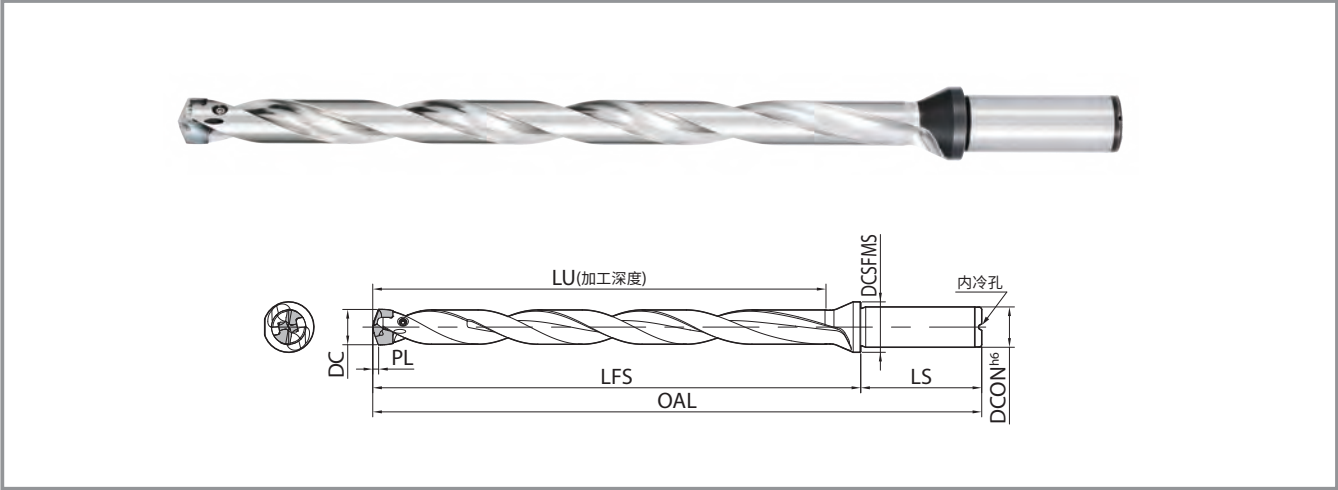


刀杆尺寸 8D

带法兰面刀柄SF型	库存	尺寸(mm)								形状	适用钻尖	零件						
加工深度：8×DC		适用钻尖尺寸DC		DCON (h6) (刀杆直径)	OAL (全长)	LFS (悬伸量)	LU (加工深度)	LS (刀杆长度)	DCSFMS (法兰径)			紧固螺丝	扳手					
型号		min.	max.															
SF12-DRA080M-8	●	7.94	8.49	12	126	81	68.0	45	16	Fig.1	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	Fig.1	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-····							
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	Fig.1	DA1500M-····~ DA1590M-····	HS-3048TRP	DTP-6
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	Fig.1	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-····							
SF32-DRA260M-8	●	26.00	26.99	32	313	255	216.0	58	39	Fig.2	DA2600M-····~DA2650M-····	HS-50100TRP	DTPM-15					
SF32-DRA270M-8	●	27.00	27.99		321	263	224.0				DA2700M-····~DA2750M-····							
SF32-DRA280M-8	●	28.00	28.99		330	272	232.0				DA2800M-····~DA2850M-····							
SF32-DRA290M-8	●	29.00	29.99		339	281	240.0				DA2900M-····~DA2950M-····							
SF32-DRA300M-8	●	30.00	30.99		348	290	248.0				DA3000M-····~DA3050M-····							
SF32-DRA310M-8	●	31.00	31.99		356	298	256.0				DA3100M-····~DA3150M-····							
SF32-DRA320M-8	●	32.00	33.00		365	307	264.0				DA3200M-····~DA3300M-····							

●：标准库存

DRA刀杆 (法兰型)

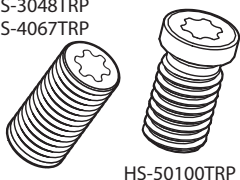


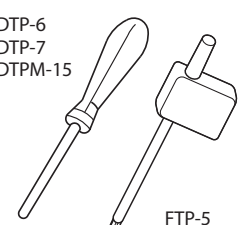
刀杆尺寸 12D

带法兰面刀柄SF型	库存	尺寸(mm)								适用钻头	零件	
加工深度：12×DC		适用钻头尺寸 DC		DCON (h6) (刀杆直径)	OAL (全长)	LFS (悬伸量)	LU (加工深度)	LS (刀杆长度)	DCSFMS (法兰径)		紧固螺丝	扳手
型号		min.	max.									
SF16-DRA120M-12	●	12.00	12.49	16	216	168	150.0	48	20	DA1200M-····~DA1240M-····	HS-2534TRP	FTP-5
SF16-DRA125M-12	●	12.50	12.99		223	175	156.0			DA1250M-····~DA1290M-····		
SF16-DRA130M-12	●	13.00	13.49		229	181	162.0			DA1300M-····~DA1340M-····		
SF16-DRA135M-12	●	13.50	13.99		236	188	168.0			DA1350M-····~DA1390M-····		
SF16-DRA140M-12	●	14.00	14.49		242	194	174.0			DA1400M-····~DA1440M-····		
SF16-DRA145M-12	●	14.50	14.99		249	201	180.0			DA1450M-····~DA1490M-····		
SF20-DRA150M-12	●	15.00	15.99	20	265	215	192.0	50	25	DA1500M-····~DA1590M-····	HS-3048TRP	DTP-6
SF20-DRA160M-12	●	16.00	16.99		279	229	204.0			DA1600M-····~DA1690M-····		
SF20-DRA170M-12	●	17.00	17.99		292	242	216.0			DA1700M-····~DA1790M-····		
SF25-DRA180M-12	●	18.00	18.99	25	312	256	228.0	56	32	DA1800M-····~DA1890M-····	HS-4067TRP	DTP-7
SF25-DRA190M-12	●	19.00	19.99		325	269	240.0			DA1900M-····~DA1990M-····		
SF25-DRA200M-12	●	20.00	20.99		338	282	252.0			DA2000M-····~DA2090M-····		
SF25-DRA210M-12	●	21.00	21.99		351	295	264.0			DA2100M-····~DA2150M-····		
SF25-DRA220M-12	●	22.00	22.99		365	309	276.0			DA2200M-····~DA2250M-····		
SF25-DRA230M-12	●	23.00	23.99		378	322	288.0			DA2300M-····~DA2350M-····		
SF25-DRA240M-12	●	24.00	24.99		391	335	300.0			DA2400M-····~DA2450M-····		
SF25-DRA250M-12	●	25.00	25.50		404	348	312.0			DA2500M-····~DA2550M-····		

●：标准库存

零件

紧固螺丝	型号
 HS-2524TRP HS-2534TRP HS-3048TRP HS-4067TRP HS-50100TRP	HS-2524TRP
	HS-2534TRP
	HS-3048TRP
	HS-4067TRP
	HS-50100TRP

扳手	型号	紧固扭矩(N·m)
 DTP-6 DTP-7 DTPM-15 FTP-5	FTP-5	0.5
	DTP-6	0.8
	DTP-7	1.2
	DTPM-15	3.5

推荐切削条件表 ★第1推荐 ☆第2推荐

通用 GM

加工材料	推荐材质/切削速度(m/min)		转数(min ⁻¹)	加工直径 DC (mm)				备注
	PR1535	PR1525	进给(mm/rev)	ø8	ø11	ø14	ø18	
低碳钢	★ 100 – 180	☆ 100 – 180	转数(min ⁻¹)	3,980 – 7,160	2,890 – 5,210	2,270 – 4,090	1,770 – 3,180	湿式 (参考 P22)
			进给(mm/rev)	0.12 – 0.24	0.12 – 0.31	0.16 – 0.36	0.16 – 0.4	
碳钢	★ 100 – 150	☆ 100 – 150	转数(min ⁻¹)	3,980 – 5,970	2,890 – 4,340	2,270 – 3,410	1,770 – 2,650	
			进给(mm/rev)	0.12 – 0.24	0.12 – 0.31	0.16 – 0.36	0.16 – 0.4	
合金钢	★ 70 – 120	☆ 70 – 120	转数(min ⁻¹)	2,790 – 4,780	2,030 – 3,470	1,590 – 2,730	1,240 – 2,120	
			进给(mm/rev)	0.12 – 0.24	0.12 – 0.31	0.16 – 0.36	0.16 – 0.4	
模具钢	★ 50 – 90	☆ 50 – 90	转数(min ⁻¹)	1,990 – 3,580	1,450 – 2,600	1,140 – 2,050	880 – 1,590	
			进给(mm/rev)	0.08 – 0.17	0.08 – 0.22	0.11 – 0.25	0.11 – 0.28	
不锈钢	★ 40 – 70	☆ 40 – 70	转数(min ⁻¹)	1,590 – 2,790	1,160 – 2,030	910 – 1,590	710 – 1,240	
			进给(mm/rev)	0.1 – 0.24	0.1 – 0.24	0.12 – 0.3	0.15 – 0.3	
灰口铸铁	☆ 90 – 170	★ 90 – 170	转数(min ⁻¹)	3,580 – 6,760	2,600 – 4,920	2,050 – 3,870	1,590 – 3,010	
			进给(mm/rev)	0.14 – 0.29	0.14 – 0.37	0.19 – 0.43	0.19 – 0.45	
球墨铸铁	☆ 40 – 120	★ 40 – 120	转数(min ⁻¹)	1,590 – 4,780	1,160 – 3,470	910 – 2,730	710 – 2,120	
			进给(mm/rev)	0.12 – 0.24	0.12 – 0.31	0.16 – 0.36	0.16 – 0.4	

加工材料	推荐材质/切削速度(m/min)		转数(min ⁻¹)	加工直径 DC (mm)				备注
	PR1535	PR1525	进给(mm/rev)	ø22	ø25	ø29	ø33	
低碳钢	★ 100 – 180	☆ 100 – 180	转数(min ⁻¹)	1,450 – 2,600	1,270 – 2,290	1,100 – 1,980	970 – 1,740	湿式 (参考 P22)
			进给(mm/rev)	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	
碳钢	★ 100 – 150	☆ 100 – 150	转数(min ⁻¹)	1,450 – 2,170	1,270 – 1,910	1,100 – 1,650	970 – 1,450	
			进给(mm/rev)	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	
合金钢	★ 70 – 120	☆ 70 – 120	转数(min ⁻¹)	1,010 – 1,740	890 – 1,530	770 – 1,320	680 – 1,160	
			进给(mm/rev)	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	
模具钢	★ 50 – 90	☆ 50 – 90	转数(min ⁻¹)	720 – 1,300	640 – 1,150	550 – 990	490 – 870	
			进给(mm/rev)	0.14 – 0.32	0.14 – 0.32	0.14 – 0.32	0.14 – 0.32	
不锈钢	★ 40 – 70	☆ 40 – 70	转数(min ⁻¹)	580 – 1,010	510 – 890	440 – 770	390 – 680	
			进给(mm/rev)	0.15 – 0.3	0.15 – 0.35	0.15 – 0.35	0.15 – 0.35	
灰口铸铁	☆ 90 – 170	★ 90 – 170	转数(min ⁻¹)	1,300 – 2,460	1,150 – 2,170	990 – 1,870	870 – 1,640	
			进给(mm/rev)	0.24 – 0.45	0.24 – 0.45	0.24 – 0.45	0.24 – 0.45	
球墨铸铁	☆ 40 – 120	★ 40 – 120	转数(min ⁻¹)	580 – 1,740	510 – 1,530	440 – 1,320	390 – 1,160	
			进给(mm/rev)	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	0.2 – 0.45	

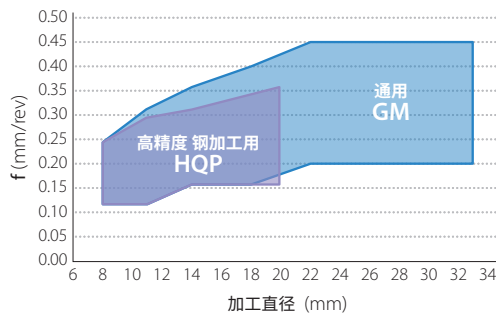
注意: 上述为 1.5D・3D 的推荐切削参数。钻头全长变长(1.5D・3D→5D→8D→12D)时, 进给值请设定为推荐值以下。
标准: 关于进给, 以 1.5D・3D 为基准, 5D = 80% 以下, 8D、12D = 70% 以下

高精度 钢加工用 HQP

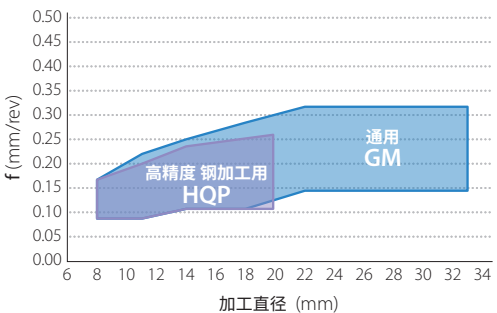
加工材料	切削速度 Vc(m/min)	转数(min ⁻¹)	加工直径 øDC(mm)				备注
	PR1525	进给(mm/rev)	ø8	ø11	ø14	ø19	
低碳钢	★ 80 – 180	转数(min ⁻¹)	3,180 – 7,160	2,310 – 5,210	1,810 – 4,090	1,410 – 3,180	湿式 (参考 P22)
		进给(mm/rev)	0.12 – 0.24	0.12 – 0.28	0.16 – 0.32	0.16 – 0.36	
碳钢	★ 80 – 150	转数(min ⁻¹)	3,180 – 7,160	2,310 – 5,210	1,810 – 4,090	1,410 – 3,180	
		进给(mm/rev)	0.12 – 0.24	0.12 – 0.28	0.16 – 0.32	0.16 – 0.36	
合金钢	★ 70 – 120	转数(min ⁻¹)	2,790 – 4,780	2,030 – 3,470	1,590 – 2,730	1,240 – 2,120	
		进给(mm/rev)	0.12 – 0.24	0.12 – 0.28	0.16 – 0.32	0.16 – 0.36	
模具钢	★ 50 – 90	转数(min ⁻¹)	1,990 – 3,580	1,450 – 2,600	1,140 – 2,050	880 – 1,590	
		进给(mm/rev)	0.08 – 0.17	0.08 – 0.2	0.11 – 0.23	0.11 – 0.26	

注意: 上述为 1.5D・3D 的推荐切削参数。钻头全长变长(1.5D・3D→5D→8D→12D)时, 进给值请设定为推荐值以下。
标准: 关于进给, 以 1.5D・3D 为基准, 5D = 80% 以下, 8D、12D = 70% 以下

低碳钢 / 碳钢 / 合金钢



金型鋼



推荐切削条件表 ★第1推荐 ☆第2推荐

铸铁加工用 KM

加工材料	推荐材质/切削速度 (m/min)	转数 (min ⁻¹)	加工径 DC (mm)						备注
	PR1525	进给(mm/rev)	ø8	ø11	ø14	ø18	ø22	ø25	
灰口铸铁	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 (参考 P22)
		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	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→12D)，请将进给设定在推荐值以下
标准：1.5D・3D型的情况，进给 5D型 = 80%以下、切削速度・进给 8D型 = 80%以下、12D型 = 70%以下

铰孔加工用 FTP

加工材料	推荐材质/切削速度 (m/min)		转数 (min ⁻¹)	加工径 DC (mm)						备注
	PR1535	PR1525	进给(mm/rev)	ø8	ø11	ø14	ø18	ø22	ø25	
低碳钢	★ 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 (参考 P22)
			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	★ 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	★ 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	★ 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	★ 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	
			入口至孔深0.5×DC位置, 推荐进给调整至0.15mm/rev以下							
灰口铸铁	☆ 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	☆ 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, 12D刀杆，但使用8D/12D刀杆时必须预钻孔(0.5×DC左右)
标准：1.5D・3D型的情况，进给 5D型 = 80%以下、切削速度・进给 8D型 = 80%以下、12D型 = 70%以下

第1推荐

内冷

推荐内冷+外冷

加工深度不足1DC

不锈钢加工、高进给加工

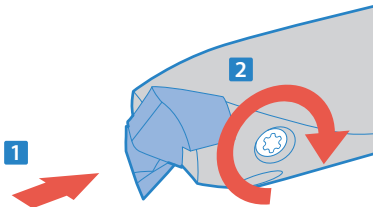
只采用外冷的情况

车床:3DC以内
加工中心:1.5DC以内

钻尖安装方法

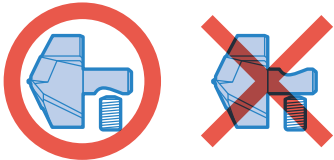
1 将钻尖朝着正确方向插入

2 用紧固螺钉固定钻尖
(紧固扭矩参照P.11、P.19)



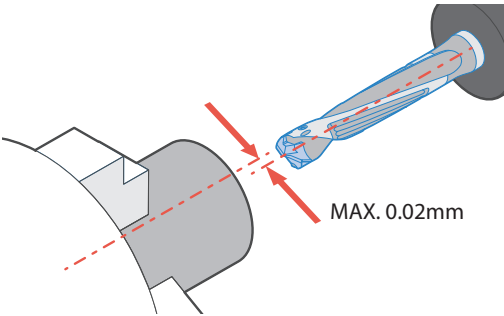
※1 请用气枪每次对钻尖槽中进行清扫
※2 请确认钻尖锁紧面是否完全与刀杆贴紧

请注意钻尖的插入方向



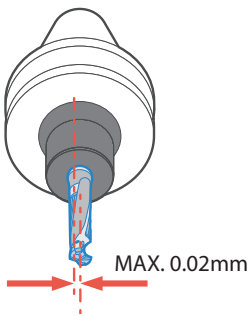
关于偏芯

车床加工时



镗孔套筒和弹簧筒夹可共同使用,但要将工件与钻头的偏芯量设定在0.02mm以内

加工中心上加工时



禁止使用钻尖安装面变形的刀柄
请将机床与钻头的偏芯量设定在0.02mm以内

在加工中心上安装时的注意点

DRA的安装

第1推荐

液压夹头、强力夹头、弹簧夹头

液压夹头

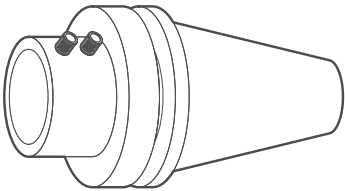
强力夹头

弹簧夹头

等安装DRA

第2推荐

侧固式刀柄



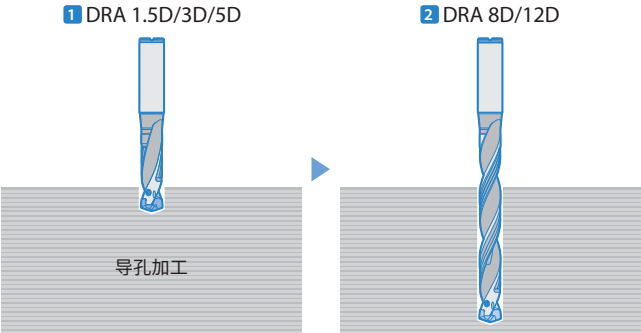
使用侧固式刀柄例

其他的注意事项

8D/12D刀杆使用时的注意事项

推荐加工方法

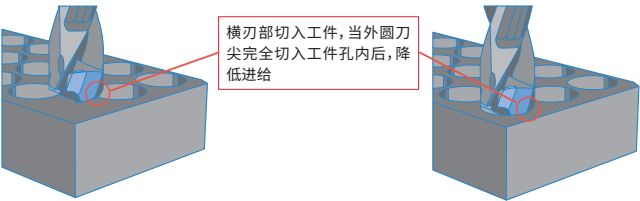
- 1 用DRA 1.5D/3D/5D型加工导孔
(请加工加工径一半以上的导孔)
- 2 然后用DRA 8D型/12D型进行加工



使用KM时的注意事项

黑皮加工时

外周刀尖完全进入工件孔内为止, 请将进给降低至0.15mm/rev使用



适合工件形状(GM, HQP, KM)

加工内容	工件形状	加工时的注意点
平面		1. 不锈钢加工时, 推荐从入口到0.5 DC深度进给设置在0.15mm/rev以下 2. 为顺利的排出切屑, 推荐内部给油。另外推荐不锈钢加工并用内部给油和外部给油
重叠板		1. 为了防止错位, 在重叠板加工时需加强固定
凹面孔		1. 可能会有断续加工, 在钻尖的外周刃完全进入孔之前, 请将进给设定在推荐值的一半以下 2. 在入口附近有长切屑时, 请活用微调
管外圆孔		1. 可用于泵的中轴线上的孔加工 2. 不推荐曲面部分加工

※FTP记载于P.8

不推荐的工件形状(GM, HQP, KM)

加工内容	工件形状	加工内容	工件形状
连续孔		斜面	
半圆面		有底孔	

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