

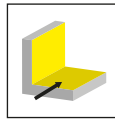


全新HPC整体硬质合金立铣刀
使用HORN的DS系列产品进
行动态HPC铣削

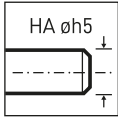
NEW HPC SOLID CARBIDE END MILLS
DYNAMIC HPC MILLING WITH THE HORN
SYSTEM DS



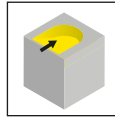
齿数
Number of teeth



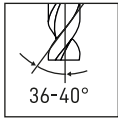
圆角铣削
Corner milling



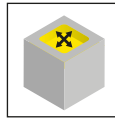
柄部 DIN 6535 HA
Shank DIN 6535 HA



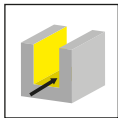
斜坡铣
Ramping



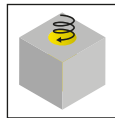
螺旋角
Helix angle



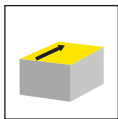
型腔铣削
Pocket milling



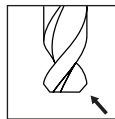
槽铣削
Slot milling



圆形切入
Circular diving



平面铣削
Face milling



倒角
Chamfer

除非另有说明，所有尺寸的单位是毫米。

All dimensions are in mm,
unless otherwise stated.

交货期：

▲ 库存产品
Δ 4周

用于材料组：

● 推荐
○ 选择性推荐
- 不适合

Delivery times:

▲ on stock
Δ 4 weeks

Use for material groups:

● recommended
○ alternative recommendation
- not suitable

不同之处： 更多可能

THE DIFFERENCE: MORE POSSIBILITIES

- **契合的螺旋角和齿距带来安静的运行**

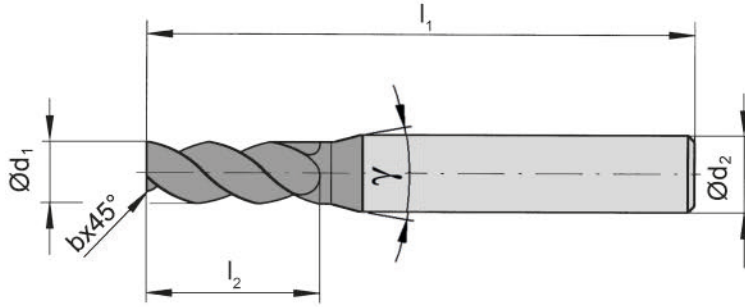
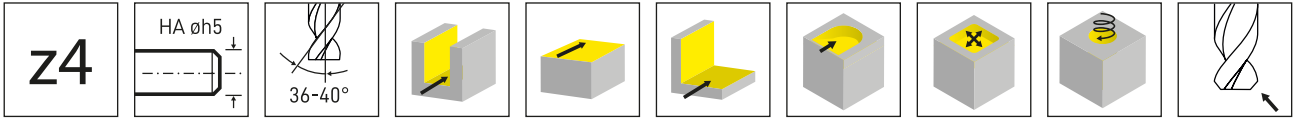
Quiet operation due to matched helix angle and tooth pitch

- **特殊的HPC几何角度带来高金属去除率**

High metal removal rates due to special HPC geometry

- **优化的几何角度针对于线性斜坡铣削**

Optimised geometry for circular ramp milling



硬质合金牌号
Carbide grades

▲ 库存
on stock

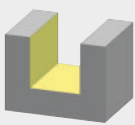
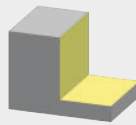
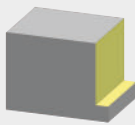
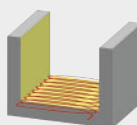
Δ 4 周
4 weeks






产品型号 Part number	d ₁	b	l ₂	d ₂	l ₁	Z	γ	ES3P
DSHPC.4.020.008.25	2	0,07	5	6	50	4	40°	▲
DSHPC.4.030.010.23	3	0,1	7	6	50	4	40°	▲
DSHPC.4.040.010.22	4	0,1	9	6	50	4	40°	▲
DSHPC.4.050.010.22	5	0,1	11	6	54	4	40°	▲
DSHPC.4.060.015.21	6	0,15	13	6	54	4	-	▲
DSHPC.4.080.015.21	8	0,15	17	8	63	4	-	▲
DSHPC.4.100.020.21	10	0,2	21	10	66	4	-	▲
DSHPC.4.120.030.21	12	0,3	26	12	83	4	-	▲
DSHPC.4.160.050.21	16	0,5	34	16	92	4	-	▲
DSHPC.4.200.050.21	20	0,5	42	20	104	4	-	▲
								P ●
								M ●
								K ●
								N -
								S o
								H -

切削参数 DSHPC Ø 2 - 20 mm

Cutting Data DSHPC Ø 2 - 20 mm



	 vc = m/min	 vc = m/min	 vc = m/min	 vc = m/min
P1.1	130	160	180	210
P1.2	130	160	180	210
P1.3	120	150	170	200
P2.1	110	140	150	180
P2.2	110	140	150	180
P2.3	110	140	150	180
P3.1	100	120	130	160
P3.2	100	120	130	160
M1.1	80	100	110	130
M2.1	70	90	100	120
M3.1	60	80	90	100
K1.1	110	140	150	180
K1.2	100	130	140	170
K2.1	100	120	130	160
K2.2	90	110	120	140
K3.1	70	90	100	120
K3.2	60	80	90	100
S1.1	50	60	70	80
S2.1	40	50	60	70
S3.1	30	40	40	50

d ₁	l ₂													
			fz	ae	ap	fz	ae	ap	fz	ae	ap	fz	ae	ap
2	5	3°	0,010	2	2	0,013	0,50	4	0,008	0,05	5	0,019	0,26	5
3	7	3°	0,016	3	3	0,022	0,75	6	0,011	0,08	7	0,03	0,39	7
4	9	3°	0,022	4	4	0,030	1,00	8	0,015	0,10	9	0,041	0,52	9
5	11	4°	0,029	5	5	0,038	1,25	10	0,019	0,13	11	0,053	0,65	11
6	13	4°	0,035	6	6	0,047	1,50	12	0,023	0,15	13	0,065	0,78	13
8	17	5°	0,047	8	8	0,063	2,00	16	0,030	0,20	17	0,088	1,04	17
10	21	5°	0,060	10	10	0,080	2,50	20	0,038	0,25	21	0,111	1,30	21
12	26	5°	0,070	12	12	0,093	3,00	24	0,046	0,30	26	0,129	1,56	26
16	34	5°	0,095	16	16	0,126	4,00	32	0,061	0,40	34	0,175	2,08	34
20	42	5°	0,120	20	20	0,160	5,00	40	0,076	0,50	42	0,222	2,60	42

尺寸用毫米表示
Dimensions in mm

	材料	Material			硬度 / Hardness
P1.1	碳钢	Carbon steel	0,2% C		140 HB
P1.2	碳钢	Carbon steel	0,4% C		180 HB
P1.3	碳钢	Carbon steel	0,6% C		200 HB
P2.1	合金钢	Alloyed steel	退火	annealed	180 HB
P2.2	合金钢	Alloyed steel	淬火	quenched	280 HB
P2.3	合金钢	Alloyed steel	淬火	quenched	350 HB
P3.1	高合金钢	High alloyed steel	退火	annealed	200 HB
P3.2	高合金钢	High alloyed steel	淬火	quenched	325 HB
M1.1	不锈钢	Stainless steel	马氏体、铁素体	martensitic, ferritic	200 HB
M2.1	不锈钢	Stainless steel	奥氏体	austenitic	180 HB
M3.1	不锈钢	Stainless steel	奥氏体、铁素体	austenitic, ferritic	260 HB
K1.1	灰铸铁	Grey cast iron	低抗拉强度	low tensile strength	180 HB
K1.2	灰铸铁	Grey cast iron	高抗拉强度	high tensile strength	250 HB
K2.1	球状石墨铸铁	Spheroidal graphite cast iron	铁素体	ferritic	160 HB
K2.2	球状石墨铸铁	Spheroidal graphite cast iron	珠光体	perlitic	250 HB
K3.1	可锻铸铁	Malleable cast iron	铁素体	ferritic	125 HB
K3.2	可锻铸铁	Malleable cast iron	珠光体	perlitic	225 HB
N1.1	铝合金	Aluminum alloys	不可热处理	not heat treatable	80 HB
N1.2	铝合金	Aluminum alloys	可热处理	heat treatable	120 HB
N2.1	铸铝	Cast Aluminum	< 6% Si	< 6% Si	
N2.2	铸铝	Cast Aluminum	6 - 10% Si	6 - 10% Si	
N2.3	铸铝	Cast Aluminum	10 - 15% Si	10 - 15% Si	
N3.1	铜合金	Copper alloys	不可热处理	not heat treatable	90 HB
N3.2	铜合金	Copper alloys	可热处理	heat treatable	100 HB
N4.1	合成材料	Synthetics			
S1.1	钛合金	Titanium alloys			280 HB
S2.1	镍基合金	Nickel-base alloys			450 HB
S3.1	钴基合金	Cobalt-base alloys			450 HB
H1.1	硬化钢	Hardened steels			50-55 HRC
H1.2	硬化钢	Hardened steels			56-59 HRC
H1.3	硬化钢	Hardened steels			60-63 HRC
H1.4	硬化钢	Hardened steels			> 63 HRC





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