NEW

新型HPC整体硬质合金铣刀

用HORN DS系统进行动态HPC铣削

NEW HPC SOLID CARBIDE END MILLS

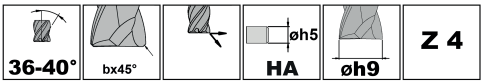
Dynamic HPC milling with the HORN DS system

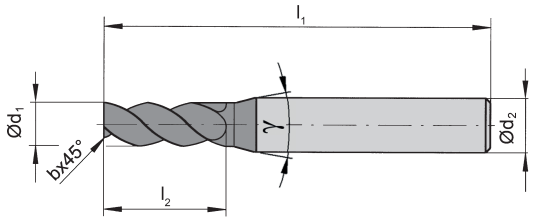
不同之处:
更多可能
THE DIFFERENCE:
MORE POSSIBILITIES

- **由于匹配的螺旋角和齿距,运行平稳性高**
  Quiet operation due to matched helix angle and tooth pitch
- **由于特殊的HPC槽型,金属去除率高**
  High metal removal rates due to special HPC geometry
- **优化槽型适用于圆弧破走铣**
  Optimised geometry for circular ramp milling

立铣刀 HPC, 刀尖斜角
End Mill HPC, corner bevel

DSHPC





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	0.10	7	6	50	4	40°	▲
DSHPC.4.040.010.22	4	0.10	9	6	50	4	40°	▲
DSHPC.4.050.010.22	5	0.10	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	0.20	21	10	66	4	-	▲
DSHPC.4.120.030.21	12	0.30	26	12	83	4	-	▲
DSHPC.4.160.050.21	16	0.50	34	16	92	4	-	▲
DSHPC.4.200.050.21	20	0.50	42	20	104	4	-	▲

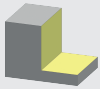
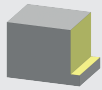
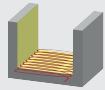
▲ 库存 / on stock　Δ 4周 / 4 weeks　x 根据要求 / upon request
● 推荐 / recommended
o 次推荐 / alternative recommendation
- 不合适 / not suitable
非涂层 / uncoated grades
涂层 / coated grades
钎焊/金属陶瓷 / brazed/Cermet

尺寸单位：mm
Dimensions in mm

	ES3P
P	●
M	●
K	●
N	-
S	o
H	-

硬质合金牌号
Carbide grades

切削参数 DPSG Ø 2.0 - 20.0 mm
Cutting Data DPSG Ø 2.0 - 20.0 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

尺寸单位：mm
Dimensions in mm

材料概述
Material Overview

	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	灰口铸铁	Grey cast iron	低强度	low tensile strength	180 HB
K1.2	灰口铸铁	Grey cast iron	高强度	high tensile strength	250 HB
K2.1	球墨铸铁	Spheroidal graphite cast iron	铁素体	ferritic	160 HB
K2.2	球墨铸铁	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	有机材料	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	超硬钢件	hardened steels			50-55 HRC
H1.2	超硬钢件	hardened steels			56-59 HRC
H1.3	超硬钢件	hardened steels			60-63 HRC
H1.4	超硬钢件	hardened steels			> 63 HRC

应用概述
Overview Application

刃口过中心切削
Centre cutting

齿数
Number of teeth

动平衡
Balance quality

螺旋角
Helix angle

刀尖圆角
Corner radius

理论圆角
Radius theoretic

刀尖倒角
Corner chamfer

球头铣刀
Full radius

平头铣刀
Sharp

槽铣削
Slot milling

方肩铣削
Corner milling

仿形铣削
Copy milling

水平铣削
Diving horizontal

水平铣削，坡走铣，螺旋插补铣
Diving, ramping, helical,

水平铣削，坡走铣，螺旋插补铣，插铣
Diving, ramping, helical, vertical

轮廓公差
Form tolerance

公差
Tolerance

刀柄按 DIN 6535 HA
Shank DIN 6535 HA

刀柄按 DIN 6535 HB
Shank DIN 6535 HB

跳动
Run-out

内冷
Internal cooling

摆线铣削
Trochoidal milling

坡走铣
Diving

有效颈部长度
Effective neck length

找到您合适的刀具解决方案.
FIND YOUR RIGHT
TOOLING SOLUTION NOW.

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