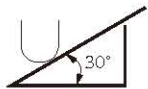


切削参数参考表 Recommended Milling Conditions

技术资料 K-008

加工材料 Work Material		调质钢·淬火钢 Prehardened Steels·Hardened Steels NAK80·STAVAX·SKD61 (~52HRC)				淬火钢 Hardened Steels SKD11 (~62HRC)				高速钢 High Speed Tool Steels SKH (~68HRC)			
(R) 球头半径 Radius	有效长 Effective Length	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed
		ap mm	ae mm	mm/min	min ⁻¹	ap mm	ae mm	mm/min	min ⁻¹	ap mm	ae mm	mm/min	min ⁻¹
0.05	0.3	0.005	0.005	200	50,000	0.003	0.005	150	50,000	0.002	0.003	120	50,000
	0.5	0.003	0.003	120	50,000	0.003	0.003	100	50,000	0.002	0.003	80	50,000
0.075	0.45	0.005	0.005	300	50,000	0.003	0.005	200	50,000	0.002	0.003	150	50,000
	0.75	0.003	0.003	200	50,000	0.003	0.003	150	50,000	0.002	0.003	100	50,000
0.1	0.6	0.005	0.005	500	50,000	0.005	0.005	380	50,000	0.003	0.003	280	50,000
	1	0.005	0.005	300	50,000	0.005	0.005	260	50,000	0.003	0.003	120	50,000
0.15	0.9	0.005	0.005	800	50,000	0.005	0.005	460	50,000	0.003	0.005	360	50,000
	1.5	0.005	0.005	480	50,000	0.005	0.005	320	50,000	0.003	0.005	280	50,000
0.2	1.2	0.005	0.01	1,200	50,000	0.005	0.01	820	50,000	0.005	0.005	580	50,000
	2	0.005	0.01	620	50,000	0.005	0.01	580	50,000	0.005	0.005	380	50,000
0.25	1.5	0.01	0.01	1,500	50,000	0.01	0.01	1,200	50,000	0.005	0.01	860	50,000
	2.5	0.01	0.01	800	50,000	0.01	0.01	680	50,000	0.005	0.01	540	50,000
0.3	3	0.01	0.02	1,600	40,000	0.01	0.02	1,200	40,000	0.01	0.01	920	40,000
	4	0.01	0.01	1,200	30,000	0.01	0.01	960	30,000	0.005	0.01	640	30,000
	5	0.01	0.01	800	30,000	0.005	0.01	680	30,000	0.005	0.005	480	30,000
0.4	4	0.01	0.03	1,500	30,000	0.01	0.02	1,200	30,000	0.01	0.01	920	30,000
	5	0.03	0.05	2,400	40,000	0.02	0.03	2,400	40,000	0.02	0.02	1,500	40,000
0.5	6	0.02	0.05	2,000	32,000	0.02	0.03	2,000	32,000	0.01	0.02	1,200	32,000
	8	0.02	0.03	1,500	25,000	0.01	0.02	1,500	25,000	0.01	0.01	1,000	25,000
	10	0.01	0.03	1,200	16,000	0.01	0.02	1,000	16,000	0.01	0.01	840	16,000
	10	0.01	0.02	800	12,000	0.005	0.01	720	12,000	0.005	0.005	620	12,000
0.75	7.5	0.02	0.03	2,000	32,000	0.01	0.03	1,800	32,000	0.01	0.01	1,200	32,000
1	6	0.05	0.05	4,000	40,000	0.03	0.03	4,000	40,000	0.02	0.03	2,600	40,000
	8	0.03	0.05	3,000	32,000	0.02	0.03	2,600	32,000	0.01	0.02	1,800	32,000
	10	0.02	0.03	2,000	24,000	0.01	0.03	1,600	24,000	0.01	0.02	1,200	24,000
备 注 Notes		※切深量为中精加工、精加工时的最大值。 ※切深量的ap表示轴向切入量，ae表示步距。 ※建议使用油雾冷却方式。 ※请以相同的比率调整主轴转速和进给速度。 ※加工参数会因切深量和机床刚性的状况而有所不同。请每次调整后在使用。 ※请根据需要控制刀具的伸出量。 ※Depth of Cut shows the maximum value for semi-finishing and finishing. ※Depth of Cut : ap = Axial Depth of Cut / ae = Radial Depth of Cut. ※We recommend using oil mist coolant. ※Adjust both spindle speed and feed at the same rate. ※Adjust milling conditions according to the volume of depth of cut and rigidity of machine. ※Length of tool overhang must be as short as possible. ※关于有效长5D以上的加工参数，作为参考基准，加工面的倾斜角度应该在30°以下。 ※Effective length is 5D or more : Values are reference as a target for milling surface inclined at less than 30 degree angle.											

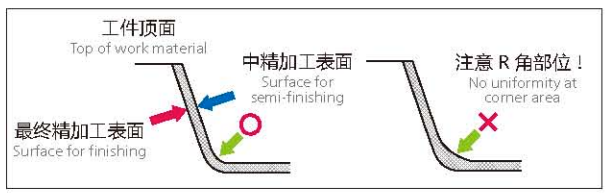


CBN 铣刀 使用注意事项

Main points to ensure an effective use of cBN End Mill

整个加工表面的加工余量必须保持均匀 (尤其须注意R角部位)。
否则，会影响加工精度和刀具寿命。

Uniforming removal stock is important for machining accuracy and tool life, especially at corner area.



CBN 铣刀
Cube Boron Nitride

钻石铣刀
Diamond

平底铣刀
Square

长颈平底铣刀
Long Neck Square

球头铣刀
Ball

长颈球头铣刀
Long Neck Ball

圆鼻铣刀
Radius

长颈圆鼻铣刀
Long Neck Radius

锥形铣刀
Taper

锥形球头铣刀
Taper Ball

锥形圆鼻铣刀
Taper Radius

钻头
Drilling

螺纹铣刀
Thread milling

倒角刀
Chamfering