

# SSPBL220

## 切削参数参考表 Recommended Milling Conditions

技术资料

K-011

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·ELMAX (~62HRC)				高速钢 High Speed Tool Steels SKH·HAP (~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 <sup>-1</sup>	ap mm	ae mm	mm/min	min <sup>-1</sup>	ap mm	ae mm	mm/min	min <sup>-1</sup>
0.1	1	0.005	0.005	200	40,000	0.005	0.005	150	40,000	0.003	0.003	100	40,000
0.15	0.9	0.005	0.005	600	40,000	0.005	0.005	400	40,000	0.003	0.005	300	40,000
	1.5	0.005	0.005	320	40,000	0.005	0.005	240	40,000	0.003	0.005	160	40,000
0.2	2	0.005	0.01	500	40,000	0.005	0.01	400	40,000	0.005	0.005	320	40,000
	3	0.005	0.005	250	40,000	0.005	0.005	200	40,000	0.003	0.005	120	40,000
0.25	1.5	0.01	0.01	1,200	40,000	0.01	0.01	1,000	40,000	0.005	0.01	600	40,000
	2.5	0.01	0.01	720	40,000	0.01	0.01	600	40,000	0.005	0.01	480	40,000
	3.5	0.01	0.01	400	36,000	0.005	0.01	320	36,000	0.005	0.005	240	36,000
0.3	3	0.01	0.02	1,200	40,000	0.01	0.02	800	40,000	0.01	0.01	600	40,000
	4	0.01	0.01	540	36,000	0.01	0.01	400	36,000	0.005	0.01	320	36,000
	5	0.01	0.01	360	30,000	0.005	0.01	320	30,000	0.005	0.005	240	30,000
	6	0.005	0.005	240	24,000	0.005	0.005	200	24,000	0.003	0.003	160	24,000
0.4	4	0.01	0.015	1,000	40,000	0.01	0.015	800	40,000	0.005	0.01	600	40,000
	6	0.005	0.01	720	30,000	0.005	0.01	540	30,000	0.005	0.005	400	30,000
0.5	4	0.02	0.03	1,600	40,000	0.02	0.02	1,200	40,000	0.01	0.015	800	40,000
	6	0.015	0.02	1,200	30,000	0.015	0.015	900	30,000	0.01	0.01	600	30,000
	8	0.01	0.015	720	20,000	0.01	0.01	540	20,000	0.005	0.01	400	20,000
	10	0.01	0.01	540	16,000	0.005	0.01	400	16,000	0.005	0.005	300	16,000
0.6	6	0.02	0.02	1,400	32,000	0.015	0.02	1,000	32,000	0.01	0.015	720	32,000
0.75	7.5	0.02	0.03	1,600	32,000	0.015	0.03	1,400	32,000	0.01	0.01	1,000	32,000
	10	0.015	0.02	900	20,000	0.01	0.02	720	20,000	0.01	0.01	540	20,000
	15	0.01	0.02	480	12,000	0.01	0.01	400	12,000	0.005	0.01	300	12,000
1	6	0.03	0.05	2,400	40,000	0.03	0.03	2,000	40,000	0.02	0.02	1,600	40,000
	8	0.03	0.03	2,000	36,000	0.02	0.03	1,400	36,000	0.01	0.02	1,000	36,000
	10	0.02	0.03	1,600	32,000	0.015	0.03	800	32,000	0.01	0.015	600	32,000
	14	0.02	0.02	900	20,000	0.01	0.02	720	20,000	0.01	0.01	540	20,000
	20	0.02	0.02	360	8,000	0.01	0.02	320	8,000	0.01	0.01	240	8,000

备注  
Notes

- ※切深量为中精加工、精加工时的最大值。请根据机床刚性和要求精度进行调整。
- ※预加工（中精加工）时请注意使精加工余量相对于加工面保持均匀。
- ※发生振刀时，请以相同的比率降低主轴转速和进给速度。此外，主轴转速过低时，也以相同的比率降低。
- ※R角等负载大的加工部位，请特别注意参数设定和刀路轨迹等。
- ※加工深沟时，请充分注意冷却液的供油及排屑是否顺畅。
- ※建议使用油雾冷却方式。
- ※Max. depth of cut for semi-finishing and finishing. Adjust milling conditions depending on the rigidity of the machine and desired accuracy.
- ※Obtain uniform stock amount on the cutting surface in the pre-stage cutting (semi-finishing).
- ※Reduce both spindle speed and feed at same rate for chattering and also for insufficient spindle speed of a machine.
- ※Required careful set up of milling conditions, tool path and etc. at cutting parts, such as corners where will become overloaded.
- ※Coolant supply and chip disposal in the deep portion are very important.
- ※Oil mist coolant is recommended.

CBN铣刀  
Cubic Boron Nitride

PCD·涂层  
PCD-Monocrystal  
Coating

涂层  
Coating

涂层  
Coating

长涂层  
Long-Track  
Non-Coating

涂层  
Coating

无涂层  
Non-Coating

涂层  
Coating

无涂层  
Non-Coating

涂层  
Coating

无涂层  
Non-Coating

涂层  
Coating

钻头  
Drilling

螺纹铣刀  
Thread milling

倒角刀  
Chamfering