

N620 NANO CARBIDE END MILLS- Corner Radius- Short Flute- 4F

▪ **NECD4000000A**



超精銑 Bright Finishing	○
精銑 Finishing	◎
中銑 Semi Finishing	○
粗銑 Roughing	○



→ 切削條件表 P.553
Cutting Condition

→ 技術資料
Technical Data

Table 37

N620 奈米鎢鋼高導短刃型銑刀- 6刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels	
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD	
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63	
切削速度 Vc	178m/min		150m/min		117m/min		89m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
6mm	9,600	3,630	7,950	1,875	6,300	1,305	4,800	900
8mm	7,200	3,630	6,000	1,890	4,800	1,335	3,600	900
10mm	5,700	3,450	4,800	1,815	3,750	1,245	2,850	855
12mm	4,800	3,225	4,050	1,695	3,150	1,170	2,400	810
16mm	3,600	3,105	3,000	1,620	2,400	1,140	1,800	780
20mm	2,850	2,880	2,400	1,515	1,950	1,080	1,500	750
切削量 Cutting Amount (mm)	Ap=1.5D Ae=0.1D 		Ap=1.5D Ae=0.1D 		Ap=1.5D Ae=0.06D 		Ap=1.5D Ae=0.04D 	

※ 切削公式 Cutting Formula : $S(\text{主軸轉速}) = Vc(\text{切削速度}) \times 1000 / D(\text{外徑}) / \pi (3.14)$ $F(\text{進給速度}) = fz(\text{每刃進給量}) \times Z(\text{刃數}) \times S(\text{主軸轉速})$

Table 38

N620 奈米鎢鋼短刃型圓鼻銑刀- 4刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

加工材質 Material	合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		鑄鐵 Cast Iron	
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		FC,FCD	
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63		HRC<30	
切削速度 Vc	161m/min		135m/min		81m/min		61m/min		237m/min	
外徑 Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	17,280	775	14,040	370	9,060	450	6,900	337	25,920	2,025
4mm	12,960	775	10,800	370	6,480	450	4,860	337	19,440	2,430
5mm	10,260	775	8,640	370	5,400	450	4,050	337	15,120	2,430
6mm	8,640	775	7,020	370	4,320	450	3,240	337	12,960	2,430
8mm	6,480	775	5,400	393	3,240	450	2,430	337	9,720	2,430
10mm	5,130	810	4,320	393	2,580	472	1,950	348	7,560	2,630
12mm	4,320	810	3,600	393	2,160	472	1,620	348	6,480	2,835
14mm	4,080	900	3,420	427	2,160	517	1,620	382	6,000	3,150
16mm	3,600	945	3,000	450	1,860	540	1,410	405	5,400	3,375
18mm	3,180	945	2,640	450	1,680	540	1,410	405	4,800	3,375
20mm	2,880	945	2,400	450	1,440	540	1,080	405	4,200	3,600
切削量 Cutting Amount (mm)	Ap=1D Ae=0.06D 		Ap=1D Ae=0.03D 		Ap=1D Ae=0.06D 					

※ 切削公式 Cutting Formula : $S(\text{主軸轉速}) = Vc(\text{切削速度}) \times 1000 / D(\text{外徑}) / \pi (3.14)$ $F(\text{進給速度}) = fz(\text{每刃進給量}) \times Z(\text{刃數}) \times S(\text{主軸轉速})$

- 當加工聲音尖銳時，請調降主軸轉速(S) (10~40%)。When the sound is piercing, please lower the spindle speed(S) (10~40%).
- 當機台震動太大時，請調降進給速度(F) (10~40%)。When the machine is vibrating, please decrease the feed rate(F) (10~40%).
- 當主軸負載太大時，請調降進給速度(F) (10~40%)。When the spindle load is high, please decrease the feed rate(F) (10~40%).
- 以上數據為建議值，適當的條件仍需視機台狀況，夾治具品質，潤滑冷卻系統...等而改變。

These are recommended values which depend on the condition of the machine, fixture, lubricating & cooling systems... etc. They may have to be adapted.