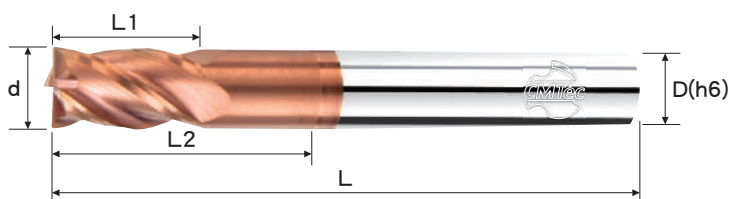


N620 NANO CARBIDE END MILLS- Square Type- Short Flute- High R Tolerance Type- 4F

- **NEDY40000A**



刃徑 d	公差 Tolerance
$\phi \leq 5$	0 ~ -0.01
$6 \leq \phi \leq 12$	-0.01 ~ -0.025
$13 \leq \phi \leq 20$	-0.015 ~ -0.03



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

[illegible]

→ 切削條件表 P.552
Cutting Condition

→ 技術資料
Technical Data

Table 35

N620 奈米鎢鋼短刃型銑刀- 3刃(鍍膜) 切削條件表

SOLID CARBIDE END MILLS- CUTTING CONDITION TABLE

側銑加工 Side Milling

溝銑加工 Slot Milling

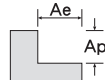
加工材質 Material	合金鋼 Alloy Steels		合金鋼 Alloy Steels		調質鋼 Hardened Steels		調質鋼 Hardened Steels		鑄鐵 Cast Iron		合金鋼 Alloy Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		鑄鐵 Cast Iron		
工件料號 Material Code	SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SKT,SKD		FC,FCD		SCM,SKT,SKD	SCM,SKT,SKD		SKT,SKD		FC,FCD		
硬度 Hardness	HRC20~30		HRC30~45		HRC45~55		HRC55~63		HRC<30		HRC20~30	HRC30~45		HRC45~55		HRC<30		
切削速度 Vc	179m/min		179m/min		134m/min		90m/min		179m/min		90m/min	89m/min		58m/min		107m/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)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	19,080	1,260	19,080	790	14,310	480	9,540	310	19,080	1,575	9,540	625	8,595	355	6,210	256	11,430	945
4mm	14,310	1,305	14,310	820	10,710	520	7,160	330	14,310	1,620	7,155	652	6,435	373	4,635	270	8,595	990
6mm	9,540	1,440	9,540	945	7,155	550	4,770	360	9,540	1,800	4,770	747	4,275	409	3,105	297	5,715	1,080
8mm	7,155	1,305	7,155	895	5,355	500	3,600	330	7,155	1,620	3,600	729	3,240	396	2,340	270	4,275	945
10mm	5,715	1,170	5,715	880	4,275	480	2,880	280	5,715	1,440	3,600	706	2,565	378	1,845	234	3,420	855
12mm	4,770	1,170	4,770	860	3,600	450	2,385	280	4,770	1,440	2,385	661	2,160	364	1,530	234	2,880	855
切削量 Cutting Amount (mm)	D≤6, Ap=1D, Ae=0.02D D>6, Ap=1D, Ae=0.05D 										Ap=0.3D Ap(Max)=3mm 							

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

Table 36

N620 奈米鎢鋼短刃型銑刀- 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	139m/min		139m/min		118m/min		98m/min		158m/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	14,750	1,580	14,750	1,440	12,570	1,040	10,490	630	16,830	1,935
4mm	10,990	1,485	10,990	1,340	9,460	980	7,875	570	12,570	1,840
5mm	8,810	1,440	8,810	1,240	7,580	910	6,290	530	10,100	1,640
6mm	7,380	1,340	7,380	1,140	6,290	830	5,250	500	8,415	1,540
8mm	5,500	1,240	5,500	1,040	4,750	760	3,960	500	6,290	1,440
10mm	4,410	1,240	4,410	1,040	3,760	760	3,170	500	5,050	1,440
12mm	3,660	1,240	3,660	1,040	3,170	760	2,630	500	4,210	1,440
切削量 Cutting Amount (mm)	$D \leq 6, A_p = 1D, A_e = 0.02D$ $D > 6, A_p = 1D, A_e = 0.05D$ 									

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

- 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.