



• **SULPE 4 Flutes Standard Cutting Conditions** 切削條件表

Work Material 被削材	Carbon Steels, Alloy Steels S50C, SCM, 鑄鐵FC250等 AISI 1049, Cast iron 碳素鋼, 合金鋼(~30HRC)			(30~45HRC) Alloy Steels, Tool Steels 調質鋼, SKD61, NAK等 Prehardened Steels, AISI H13 合金鋼, 工具鋼			Austenitic stainless Steels SUS304, SUS316等 AISI 304, AISI 316 沃斯田鐵系列不銹鋼			Hardened Steels SKD61, SKD11, NAK, STAVAX等 AISI H13 熱處理鋼(45~50HRC)			Non is essential please don't attempt Hardened Steels SKD11等 AISI D2 [非必要請勿嘗試] 熱處理鋼(50~60HRC)		
Cutting Speed 切削速度	35~50m/min			30~40m/min			20~30m/min			15~25m/min			15~20m/min		
Diameter 直徑(mm)	Speed (min ⁻¹) 迴轉數	Feed Rate (mm/min) 進給速度		Speed (min ⁻¹) 迴轉數	Feed Rate (mm/min) 進給速度		Speed (min ⁻¹) 迴轉數	Feed Rate (mm/min) 進給速度		Speed (min ⁻¹) 迴轉數	Feed Rate (mm/min) 進給速度		Speed (min ⁻¹) 迴轉數	Feed Rate (mm/min) 進給速度	
		Side Milling 側面	Slotting 溝		Side Milling 側面	Slotting 溝		Side Milling 側面	Slotting 溝		Side Milling 側面	Slotting 溝		Side Milling 側面	Slotting 溝
1	11,000	85	40	9,500	65	30	8,000	50		6,400	35	17	4,800	20	10
							6,400		20						
1.5	7,400	85	40	6,400	90	45	5,300	50		4,200	35	17	3,200	20	10
							4,240		20						
2	5,600	85	40	4,800	90	45	4,000	50		3,200	35	17	2,400	20	10
							3,200		20						
2.5	4,500	85	40	3,800	90	45	3,200	55		2,500	35	17	2,100	20	10
							2,560		22						
3	4,200	100	50	3,400	90	45	2,600	60		2,100	35	17	1,800	25	12
							2,080		24						
4	3,400	125	60	2,700	90	45	2,100	70		1,700	50	25	1,400	30	15
							1,680		28						
5	2,900	155	75	2,300	110	55	1,800	85		1,500	55	27	1,200	35	17
							1,440		34						
6	2,500	180	90	2,000	140	70	1,500	110		1,300	70	35	1,000	40	20
							1,200		44						
8	1,900	200	100	1,500	140	70	1,200	110		1,000	70	35	800	40	20
							960		44						
10	1,600	205	100	1,300	140	70	950	110		800	70	35	650	40	20
							760		44						
12	1,300	180	90	1,100	140	70	800	110		670	70	35	530	40	20
							640		44						
16	1,000	120	60	820	100	50	600	80		500	50	25	400	30	15
							480		32						
20	800	95	45	650	75	35	480	70		400	40	20	320	25	12
							384		28						
25	650	75	35	520	60	30	380	50		320	35	17	250	20	10
							280		20						

Depth of cut (D:直徑Dia) 切削量基準		$\leq 0.05D$ (Max 0.5mm)		$\leq 0.1D$ (D < Ø2) $\leq 0.2D$ (D ≥ Ø2) (Max 3mm)		$\leq 0.02D$ (Max 0.3mm)		$\leq 0.05D$ (Max 0.5mm)
		$\leq 2.5D$				$\leq 2D$		

- In cutting Austenitic stainless steels, the use of non-water-soluble cutting fluid is especially effective.
- If the rigidity of the machine or the work material installation is very low, or chattering is generated, please reduce the revolution and the feed rate proportionately.
- When drilling, please set the feed rate at 1/3 or below of the above value.

- 切削沃斯田鐵系列不銹鋼以及耐熱合金時，請使用非水溶性切削油效果較好。
- 機械設備或工件的夾持剛性不足、出現震動時，請以相同比例按上表降低迴轉數及進給速度。
- 縱向進給時，進給速度請設定為上表之1/3以下。