

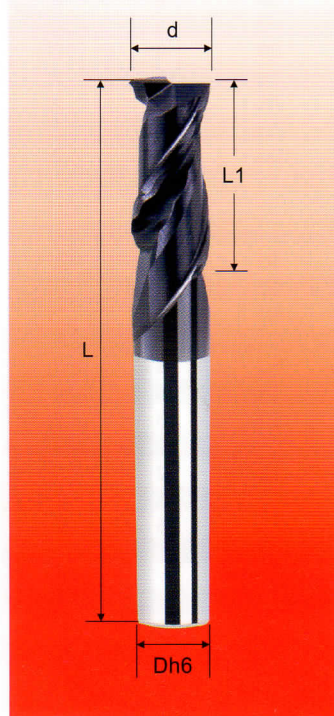
ULTRA MICRO GRAIN CARBIDE END MILLS - Sinus Edge (Wave) Type - 2F/3F/4F

極細鑄鋼平銑刀-波浪型

ESSSW2

ESSSW3

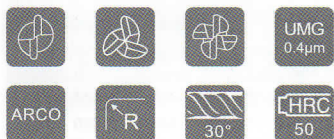
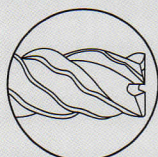
ESSSW4



Order No. 訂單編號	Dia. 刃徑 (d)	CL 刃長 (L1)	OAL 全長 (L)	Shank 柄徑 (D)	Flutes 刃數 (F)
Sinus Edge (Wave) Type - 2F					
ESSSW206000A	6	15	50	6	2
ESSSW208000A	8	20	60	8	2
ESSSW210000A	10	25	75	10	2
ESSSW212000A	12	30	75	12	2

Sinus Edge (Wave) Type - 3F					
ESSSW306000A	6	15	50	6	3
ESSSW308000A	8	20	60	8	3
ESSSW310000A	10	25	75	10	3
ESSSW312000A	12	30	75	12	3
ESSSW316000A	16	40	100	16	3
ESSSW320000A	20	45	100	20	3

Sinus Edge (Wave) Type - 4F					
ESSSW406000A	6	15	50	6	4
ESSSW408000A	8	20	60	8	4
ESSSW410000A	10	25	75	10	4
ESSSW412000A	12	30	75	12	4
ESSSW416000A	16	40	100	16	4
ESSSW420000A	20	45	100	20	4



d	Tolerance
$\varnothing \leq 12$	0 ~ -0.02
$\varnothing > 12$	0 ~ -0.03

R	Tolerance
R	$R \pm 0.015$

Bright Finishing (超精銑)	
Finishing (精銑)	◎
Semi-Finishing (中銑)	◎
Roughing (粗銑)	◎

WORKING MATERIAL	ALLOY STEEL /TOOL STEEL		ALLOY STEEL /TOOL STEEL		ALLOY STEEL /TOOL STEEL		HARDENED STEEL		STAINLESS STEEL		CAST IRON	
MATERIAL CODE	45C,S50C,SCM		SCM,SKT,SKD		SCM,SKT,SKD		SKT,SKD		SUS304		FC/PCD	
HARDNESS GRADE	HRC <20		HRC 20~30		HRC 30~40		HRC 45~55		—		—	
Vc	68M/min		54M/min		45M/min		27M/min		54M/min		79M/min	
DIAMETER	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)
1MM	20,000	190	17,100	140	14,400	100	8,000	40	17,100	165	25,200	240
2MM	10,800	235	8,640	160	7,200	110	4,320	45	8,640	185	12,600	270
3MM	7,560	270	5,760	175	4,680	120	3,000	55	5,760	205	8,640	310
4MM	5,400	260	4,320	175	3,600	120	2,160	50	4,320	205	6,480	310
5MM	4,500	270	3,420	175	2,880	120	1,800	55	3,420	205	5,040	300
6MM	3,600	260	2,880	175	2,340	120	1,440	50	2,880	205	4,320	310
8MM	2,700	260	2,160	175	1,800	120	1,080	50	2,160	205	3,240	310
10MM	2,160	260	1,710	175	1,440	120	870	50	1,710	205	2,520	300
12MM	1,800	260	1,440	175	1,200	120	720	50	1,440	205	2,160	310
14MM	1,800	300	1,360	195	1,140	135	720	60	1,360	230	2,000	335
16MM	1,560	300	2,100	345	1,000	135	630	60	2,100	400	1,800	345
18MM	1,560	305	1,060	175	880	120	630	60	1,060	205	1,600	310
20MM	1,200	260	960	175	800	120	480	50	960	205	1,400	300

Milling Amount (mm)

	aa	ar
$D < \varnothing 6$	1.0D	0.02D
$\varnothing 6 \leq D$	1.0D	0.05D



	aa	ar
$D < \varnothing 6$	1.0D	0.01D
$\varnothing 6 \leq D$	1.0D	0.02D

The Feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.