200NaNo Series

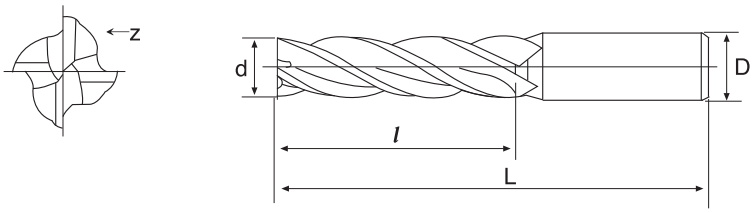
Square Long Flute End Mill - 4 flutes

Super Ultra Fine Micro Grain Carbide

WC = 91 Co = 9 HRA = 93.2 Rupture = 4000N/mm² Grain Size = 0.2μm

Application Iron, Carbon steel, Cast Iron, Alloy Steel, Tool Steel, Heat treatment Steel, Welding Steel

Main Character Super Ultra Fine Micro Grain Carbide that has high toughness, coating ALTIN (TiAlN) and wear-resisting, non-general titanium aluminium is specialized in milling on M/C high hardness at a high speed and can carry on rough machining get to detailed process directly for heat treatment mould to reduce change times, improve machine flexible rate and shorten producing time.



MODE	Diameter d	Flute Length l	Full Length L	Shank Diameter D	Flute No. Z	Packing Quantity	Price
SFULET0104-HSC	1	4.0	50	4.0	4 Z	6	
SFULET0154-HSC	1.5	6.0	50	4.0	4 Z	6	
SFULET0204-HSC	2	8.0	50	4.0	4 Z	6	
SFULET0304-HSC	3	12.0	60	6.0	4 Z	4	
SFULET0404-HSC	4	16.0	60	6.0	4 Z	4	
SFULET0504-HSC	5	20.0	75	6.0	4 Z	2	
SFULET0604-HSC	6	25.0	75	6.0	4 Z	2	
SFULET0704-HSC	7	30.0	75	8.0	4 Z	2	
SFULET0804-HSC	8	30.0	75	8.0	4 Z	2	
SFULET1004-HSC	10	40.0	100	10.0	4 Z	2	
SFULET1204-HSC	12	45.0	100	12.0	4 Z	2	
SFULET1404-HSC	14	45.0	100	16.0	4 Z	1	
SFULET1604-HSC	16	65.0	150	16.0	4 Z	1	
SFULET2004-HSC	20	75.0	150	20.0	4 Z	1	
SFULET2504-HSC	25	80.0	150	25.0	4 Z	1	

單位/Unit：mm

Attention : In order to get better cutting surface and lengthen the life-time of the end mill, please use high accuracy, high rigidity and dynamic equilibrium of holder.

1. Before using the end mill, please examine the end mill to lean towards and put, when the precision of the leaning towards of end mill exceeds 0.01mm, please cut after correcting.
2. It is better that end mill stretches out shorter from chuck, when the end mill stretches out longer, please adjust the rotational speed, feeding speed or cutting amount.
3. Unusual vibrations or sound happen when cutting, please adjust and lower the rotational speed of the main shaft one by one, feeding speed and cutting amount until improving the situation, or change the high-quality end mill.
4. It is the best way to cool steel material by spraying or air in order to make TiAlN efficiently; we commend to adopt non-water cutting liquid to cool the stainless steel, titanium alloy or heat-resisting alloy liquid.
5. Cutting will be influenced by work piece, machine and software; the above-mentioned data are only for reference, please improve feeding speed by 30%~50% up after cutting situation steadily.

SFULET 4 Flutes Recommended Milling conditions

Working material hardness	Below HRC30°		HRC30°~HRC35°		HRC35°~HRC40°		HRC40°~HRC45°		HRC45°~HRC65°	
Shank Diameter	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.
∮ 1.0	8000	300	7400	250	6950	225	6500	200	5250	190
∮ 2.0	7400	350	6950	325	6400	300	5575	290	4500	250
∮ 3.0	6000	550	5500	500	4900	450	4500	400	3900	250
∮ 4.0	5750	800	4900	675	4500	475	4250	375	3500	340
∮ 5.0	5000	1000	4750	850	4450	650	3900	500	2750	300
∮ 6.0	5000	1000	4500	825	4100	600	3800	475	2500	275
∮ 8.0	3250	1100	3000	1000	2250	750	2000	600	1250	325
∮ 10.0	1900	950	1500	750	1250	550	1000	450	800	250
∮ 12.0	1600	900	1350	750	1250	600	1000	500	600	225