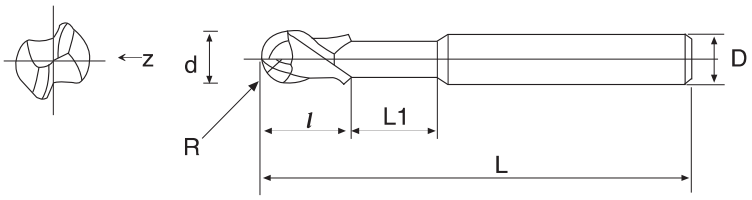
Ball Nose Short Flute End Mill - 2 flutes

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	Efficient Length L1	Radius of Ball Nose R	Packing Quantity	Price
SFUBTSX010-HSC	1	1	50	4	2.5	0.5R	6	
SFUBTSX015-HSC	1.5	1.5	50	4	4	0.75R	6	
SFUBTSX020-HSC	2	2	50	4	5	1R	6	
SFUBTSX025-HSC	2.5	2.5	50	4	6	1.25R	6	
SFUBTSX030-HSC	3	3	50	4/6	8	1.5R	6	
SFUBTSX035-HSC	3.5	3.5	50	4	8	1.75R	6	
SFUBTSX040-HSC	4	4	50	4/6	10	2R	6	
SFUBTSX045-HSC	4.5	4.5	50	6	11	2.25R	6	
SFUBTSX050-HSC	5	5	50	6	13	2.5R	6	
SFUBTSX055-HSC	5.5	5.5	50	6	14	2.75R	6	
SFUBTSX060-HSC	6	6	50	6	15	3R	6	
SFUBTSX070-HSC	7	7	60	8	16	3.5R	4	
SFUBTSX080-HSC	8	8	60	8	20	4R	4	
SFUBTSX090-HSC	9	9	75	10	22	4.5R	2	
SFUBTSX100-HSC	10	10	75	10	25	5R	2	
SFUBTSX120-HSC	12	12	75	12	30	6R	2	
SFUBTSX140-HSC	14	14	75	16	35	7R	1	
SFUBTSX160-HSC	16	16	100	16	40	8R	1	

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.

SFUBTSX 2 Flutes Recommended Milling conditions

Working material hardness	Below HRC30°		HRC30°~HRC45°		HRC45°~HRC65°	
Radius of Ball Nose	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.
R0.5	30720	1152	24960	768	20160	730
R1.0	28416	1344	21408	1113.6	17280	960
R1.5	23040	2112	17280	1536	14976	960
R2.0	22080	3072	16320	1440	13440	1305
R2.5	19200	3840	14976	1920	10560	1152
R3.0	19200	3840	14592	1824	9600	1056
R4.0	12480	4224	7680	2304	4800	1248
R5.0	7296	3648	3840	1728	3072	960
R6.0	6144	3456	3840	1920	2304	864