

ST[®] 200NaNo Series



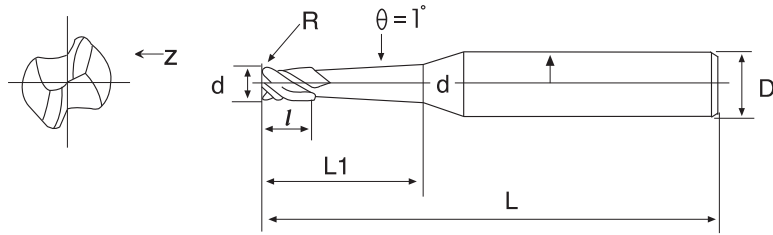
Corner Radius Short Flute & Taper Neck End Mill - 2 flutes

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
SFUCRS010022-HSC	1	1	50	4	3	0.2R	6	
SFUCRS015022-HSC	1.5	1.5	50	4	4.5	0.2R	6	
SFUCRS015032-HSC	1.5	1.5	50	4	4.5	0.3R	6	
SFUCRS020022-HSC	2	2	50	4	6	0.2R	6	
SFUCRS020032-HSC	2	2	50	4	6	0.3R	6	
SFUCRS020052-HSC	2	2	50	4	6	0.5R	6	
SFUCRS030022-HSC	3	3	50	6	9	0.2R	6	
SFUCRS030032-HSC	3	3	50	6	9	0.3R	6	
SFUCRS030052-HSC	3	3	50	6	9	0.5R	6	
SFUCRS030102-HSC	3	3	50	6	9	1.0R	6	
SFUCRS040022-HSC	4	4	50	6	12	0.2R	6	
SFUCRS040032-HSC	4	4	50	6	12	0.3R	6	
SFUCRS040052-HSC	4	4	50	6	12	0.5R	6	
SFUCRS040102-HSC	4	4	50	6	12	1.0R	6	
SFUCRS050032-HSC	5	5	50	6	15	0.3R	6	
SFUCRS050052-HSC	5	5	50	6	15	0.5R	6	
SFUCRS050102-HSC	5	5	50	6	15	1.0R	6	
SFUCRS060022-HSC	6	6	50	6	18	0.2R	6	
SFUCRS060032-HSC	6	6	50	6	18	0.3R	6	
SFUCRS060052-HSC	6	6	50	6	18	0.5R	6	
SFUCRS060102-HSC	6	6	50	6	18	1.0R	6	
SFUCRS060202-HSC	6	6	50	6	18	2.0R	6	
SFUCRS080032-HSC	8	8	60	8	20	0.3R	4	
SFUCRS080052-HSC	8	8	60	8	20	0.5R	4	
SFUCRS080102-HSC	8	8	60	8	20	1.0R	4	
SFUCRS080202-HSC	8	8	60	8	20	2.0R	4	
SFUCRS100052-HSC	10	10	75	10	25	0.5R	2	
SFUCRS100102-HSC	10	10	75	10	25	1.0R	2	
SFUCRS100152-HSC	10	10	75	10	25	1.5R	2	
SFUCRS100202-HSC	10	10	75	10	25	2.0R	2	
SFUCRS100302-HSC	10	10	75	10	25	3.0R	2	
SFUCRS120052-HSC	12	12	75	12	30	0.5R	2	
SFUCRS120102-HSC	12	12	75	12	30	1.0R	2	
SFUCRS120152-HSC	12	12	75	12	30	1.5R	2	
SFUCRS120202-HSC	12	12	75	12	30	2.0R	2	
SFUCRS120302-HSC	12	12	75	12	30	3.0R	2	



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.

SFUCRS 2 Flutes Recommended Milling conditions

Working material hardness	HRC30°		HRC40°		HRC50°		HRC55°		HRC60°	
	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.
D2.0 x 0.1R	11200	1050	9240	770	8820	630	6860	525	5040	350
D2.0 x 0.2R	11200	1050	9240	770	8820	630	6860	525	5040	350
D2.0 x 0.3R	11200	1050	9240	770	8820	630	6860	525	5040	350
D3.0 x 0.1R	9100	1260	7700	1050	6860	840	5740	735	5250	350
D3.0 x 0.2R	9100	1260	7700	1050	6860	840	5740	735	5250	350
D3.0 x 0.3R	9100	1260	7700	1050	6860	840	5740	735	5250	350
D4.0 x 0.2R	8750	1400	7350	1260	6510	735	5495	595	4760	350
D4.0 x 0.3R	8750	1400	7350	1260	6510	735	5495	595	4760	350
D2.0 x 0.5R	11200	840	10150	770	9100	630	7700	525	6440	420
D3.0 x 0.5R	9100	1400	7700	1260	6860	1050	5740	770	5250	350
D4.0 x 0.5R	8750	1400	7350	1260	6510	735	5495	595	4760	350
D6.0 x 0.5R	8050	2100	7000	1820	6160	1400	5040	1050	3220	525
D8.0 x 0.5R	6055	2380	5565	1890	3745	1190	3255	840	2695	574
D10.0 x 0.5R	3850	1960	2940	1330	2240	770	1890	665	1155	406
D12.0 x 0.5R	3255	2030	2415	1190	1540	665	1260	560	910	371
D3.0 x 1R	10465	1610	8855	1449	7889	1208	6601	886	6038	403
D4.0 x 1R	10063	1610	8453	1450	7487	846	6320	685	5474	403
D6.0 x 1R	9258	2415	8050	2093	7084	1610	5796	1208	3703	604
D8.0 x 1R	6964	2737	6400	2174	4307	1369	3744	966	3100	660
D10.0 x 1R	4428	2240	3381	1530	2576	886	2174	765	1329	467
D12.0 x 1R	3744	2335	2778	1369	1771	998	1449	644	1047	427
D6.0 x 1.5R	9660	2520	8400	2184	7392	1680	6048	1260	3864	630
D8.0 x 1.5R	7266	2856	6778	2268	4494	1428	3906	1008	3234	689
D10.0 x 1.5R	4620	2352	3528	1596	2688	924	2268	798	1386	487
D12.0 x 1.5R	3906	2436	2898	1428	1848	798	1512	672	1092	445
D6.0 x 2R	10465	2730	9100	2366	8088	1820	6552	1365	4186	683
D8.0 x 2R	7872	3094	7235	2457	4869	1547	4232	3504	3504	746
D10.0 x 2R	5005	2548	3822	1729	2912	1001	2457	1502	1502	528
D12.0 x 2R	4232	2639	3140	1547	2002	865	1638	1183	1183	482
D8.0 x 3R	8175	3213	7513	2552	5056	1607	4395	1134	3640	775
D10.0 x 3R	5198	2646	3969	1796	3024	1040	2552	898	1560	548
D12.0 x 3R	4395	2741	3261	1607	2079	898	1701	756	1229	501