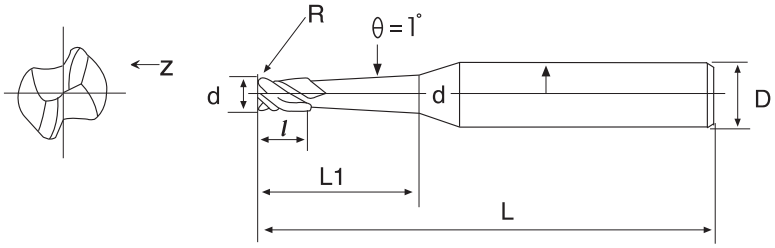
UCRS ▌Corner Radius Short Flute End Mills-2 flutes

Ultra Fine Micro Grain Carbide

WC = 87 Co = 12 HRA = 92.1 Rupture = 3800N/mm² Grain size = 0.4μm

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

Main Character 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	Corner Radius R	Packing Quantity	Price
UCRS010022-HSC	1	1	50	4	3	0.2R	6	
UCRS015022-HSC	1.5	1.5	50	4	4.5	0.2R	6	
UCRS015032-HSC	1.5	1.5	50	4	4.5	0.3R	6	
UCRS020022-HSC	2	2	50	4	6	0.2R	6	
UCRS020032-HSC	2	2	50	4	6	0.3R	6	
UCRS020052-HSC	2	2	50	4	6	0.5R	6	
UCRS030022-HSC	3	3	50	6	9	0.2R	6	
UCRS030032-HSC	3	3	50	6	9	0.3R	6	
UCRS030052-HSC	3	3	50	6	9	0.5R	6	
UCRS030102-HSC	3	3	50	6	9	1.0R	6	
UCRS040022-HSC	4	4	50	6	12	0.2R	6	
UCRS040032-HSC	4	4	50	6	12	0.3R	6	
UCRS040052-HSC	4	4	50	6	12	0.5R	6	
UCRS040102-HSC	4	4	50	6	12	1R	6	
UCRS050032-HSC	5	5	50	6	15	0.3R	6	
UCRS050052-HSC	5	5	50	6	15	0.5R	6	
UCRS050102-HSC	5	5	50	6	15	1R	6	
UCRS060022-HSC	6	6	50	6	18	0.2R	6	
UCRS060032-HSC	6	6	50	6	18	0.3R	6	
UCRS060052-HSC	6	6	50	6	18	0.5R	6	
UCRS060102-HSC	6	6	50	6	18	1.0R	6	
UCRS060202-HSC	6	6	50	6	18	2.0R	6	
UCRS080032-HSC	8	8	60	8	20	0.3R	4	
UCRS080052-HSC	8	8	60	8	20	0.5R	4	
UCRS080102-HSC	8	8	60	8	20	1.0R	4	
UCRS080202-HSC	8	8	60	8	20	2.0R	4	
UCRS100052-HSC	10	10	75	10	25	0.5R	2	
UCRS100102-HSC	10	10	75	10	25	1.0R	2	
UCRS100152-HSC	10	10	75	10	25	1.5R	2	
UCRS100202-HSC	10	10	75	10	25	2.0R	2	
UCRS100302-HSC	10	10	75	10	25	3.0R	2	
UCRS120052-HSC	12	12	75	12	30	0.5R	2	
UCRS120102-HSC	12	12	75	12	30	1.0R	2	
UCRS120152-HSC	12	12	75	12	30	1.5R	2	
UCRS120202-HSC	12	12	75	12	30	2.0R	2	
UCRS120302-HSC	12	12	75	12	30	3.0R	2	

Unit：mm

400 nano series

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.

UCRS Recommended Milling conditions

Working material hardness / Corner Radius	HRC30°		HRC50°		HRC60°	
	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.
D1.0 x 0.1R	15840	784	11600	520	7840	360
D1.0 x 0.2R	15840	784	11600	520	7840	360
D1.0 x 0.3R	15840	784	11600	520	7840	360
D1.5 x 0.2R	14000	960	11040	560	6800	400
D1.5 x 0.3R	14000	960	11040	560	6800	400
D2.0 x 0.1R	12800	1200	10080	720	4760	400
D2.0 x 0.2R	12800	1200	10080	720	5760	400
D2.0 x 0.3R	12800	1200	10080	720	5760	400
D3.0 x 0.1R	9100	1260	6860	840	5250	350
D3.0 x 0.2R	9100	1260	6860	840	5250	350
D3.0 x 0.3R	9100	1260	6860	840	5250	350
D4.0 x 0.2R	8750	1400	6860	735	4760	350
D4.0 x 0.3R	8750	1400	6510	735	4760	350
D2.0 x 0.5R	11200	840	9100	630	6440	420
D3.0 x 0.5R	9100	1400	6860	1050	5250	350
D4.0 x 0.5R	8750	1400	6510	735	4760	350
D6.0 x 0.5R	8050	2100	6160	1400	3220	525
D8.0 x 0.5R	6055	2380	3745	1190	2695	574
D10.0 x 0.5R	3850	1960	2240	770	1155	406
D12.0 x 0.5R	3255	2030	1540	665	910	371
D3.0 x 1R	10465	1610	7889	1208	6038	403
D4.0 x 1R	10063	1610	7487	846	5474	403
D6.0 x 1R	9258	2415	7084	1610	3703	604
D8.0 x 1R	6964	2737	4307	1369	3100	660
D10.0 x 1R	4428	2240	2576	886	1329	467
D12.0 x 1R	3744	2335	1771	998	1047	427
D6.0 x 1.5R	9660	2520	7392	1680	3864	630
D8.0 x 1.5R	7266	2856	4494	1428	3234	689
D10.0 x 1.5R	4620	2352	2688	924	1386	487
D12.0 x 1.5R	3906	2436	1848	798	1092	445
D6.0 x 2R	10465	2730	8008	1820	4186	683
D8.0 x 2R	7872	3094	4869	1547	3504	746
D10.0 x 2R	5005	2548	2945	1001	1502	528
D12.0 x 2R	4232	2639	5005	865	1183	482
D8.0 x 3R	8175	3213	5056	1607	3640	775
D10.0 x 3R	5198	2646	3024	1040	1560	548
D12.0 x 3R	4395	2741	2079	898	1229	501