



UCR ■ Corner Radius Short Flute&Long shank-4 flutes

Ultra Fine Micro Grain Carbide

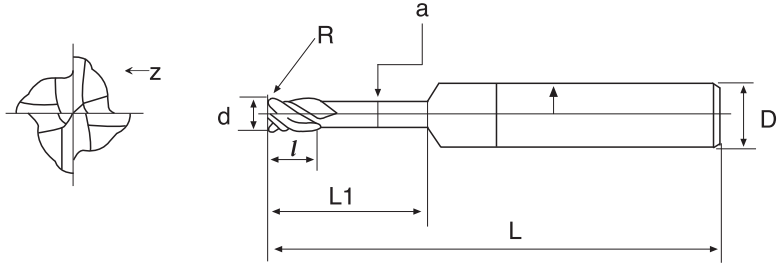
WC = 87 Co = 12 HRA = 92.1 Rupture = 3800N/mm² Grain size = 0.4μm

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 (TiAIN) 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
UCR06034-π HSC	6	7	75	6	16	0.3R	2	
UCR06054-π HSC	6	7	75	6	16	0.5R	2	
UCR06104-π HSC	6	7	75	6	16	1.0R	2	
UCR08034-π HSC	8	9	100	8	20	0.3R	2	
UCR08054-π HSC	8	9	100	8	20	0.5R	2	
UCR08104-π HSC	8	9	100	8	20	1.0R	2	
UCR10054-π HSC	10	10	100	10	25	0.5R	2	
UCR10104-π HSC	10	10	100	10	25	1.0R	2	
UCR10154-π HSC	10	10	100	10	25	1.5R	2	
UCR10204-π HSC	10	10	100	10	25	2.0R	2	
UCR12054-π HSC	12	12	100	12	30	0.5R	2	
UCR12104-π HSC	12	12	100	12	30	1.0R	2	
UCR12154-π HSC	12	12	100	12	30	1.5R	2	
UCR12204-π HSC	12	12	100	12	30	2.0R	2	

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.

UCR Recommended Milling conditions

Working material hardness	HRC30°		HRC50°		HRC60°	
	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.
MODE						
UCR0603- π HSC	7360	1920	5700	1280	3130	510
UCR0605- π HSC	8280	2160	6340	1440	3310	540
UCR0610- π HSC	9520	2484	7290	1660	3810	620
UCR0803- π HSC	6230	2448	3850	1225	2780	590
UCR0805- π HSC	6574	2580	4066	1290	2930	623
UCR0810- π HSC	7560	2972	4676	1485	3365	716
UCR1005- π HSC	4810	2128	2432	836	1254	440
UCR1010- π HSC	4810	2432	2797	960	1442	507
UCR1015- π HSC	5020	2553	2918	1003	1505	530
UCR1020- π HSC	5434	2766	3162	1088	1630	573
UCR1205- π HSC	3534	2205	1675	722	990	403
UCR1210- π HSC	4064	2535	1923	1083	1136	464
UCR1215- π HSC	4240	2645	2006	1085	1186	484
UCR1220- π HSC	4594	2865	2174	1087	1284	524

