



UVT I Square Type End Mills For Hard Steel

Ultra Fine Micro Grain Carbide

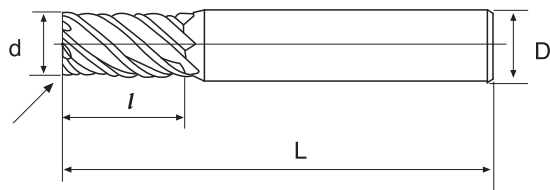
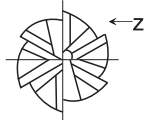
WC = 87 Co = 12 HRA = 92.1 Rupture = 3800N/mm² Grain Size = 0.4μm

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	Packing Quantity	Price
UVT0204 π -HSC	2.0	4	50	4	2	
UVT0304 π -HSC	3.0	6	50	6	2	
UVT0404 π -HSC	4.0	8	50	6	2	
UVT0506 π -HSC	5.0	13	50	6	2	
UVT0606 π -HSC	6.0	15	50	6	2	
UVT0806 π -HSC	8.0	20	60	8	2	
UVT1006 π -HSC	10.0	30	75	10	2	
UVT1206 π -HSC	12.0	32	75	12	2	
UVT1606 π -HSC	16.0	40	100	16	1	
UVT2008 π -HSC	20.0	45	100	20	1	
UVT2508 π -HSC	25.0	45	100	25	1	
ULVT0606 π -HSC	6.0	25	75	6	2	
ULVT0806 π -HSC	8.0	30	75	8	2	
ULVT1006 π -HSC	10.0	40	100	10	2	
ULVT1206 π -HSC	12.0	45	100	12	2	
ULVT1606 π -HSC	16.0	65	150	16	1	
ULVT2008 π -HSC	20.0	75	150	20	1	
ULVT2508 π -HSC	25.0	80	150	25	1	

! 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.

UVT Recommended Milling conditions

Working material hardness	HRC45°~52°		HRC52°~62°	
	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.
Shank Diameter				
D3.0	14040	1498	6760	749
D4.0	10920	1778	5200	842
D5.0	9360	2013	4628	983
D6.0	8320	2714	4160	1358
D8.0	4640	2714	2400	1358
D10.0	3360	2668	2000	1358
D12.0	2480	2246	1520	1123
D16.0	1440	1685	1080	842
D20.0	612	576	504	456
D25.0	468	360	342	216

UVT Lone Flute Recommended Milling conditions

Working material hardness	HRC45°~52°		HRC52°~62°	
	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.
Shank Diameter				
D3.0	5200	599	62704	300
D4.0	4640	711	2080	337
D5.0	3360	805	1851	393
D6.0	3080	1086	1664	543
D8.0	2240	1086	1248	543
D10.0	1800	1067	998	543
D12.0	1320	899	832	449
D16.0	680	570	624	337
D20.0	510	480	420	380
D25.0	390	300	285	180