



ULPBT ■ Long Taper Neck Ball Nose End Mills

Ultra Fine Micro Grain Carbide

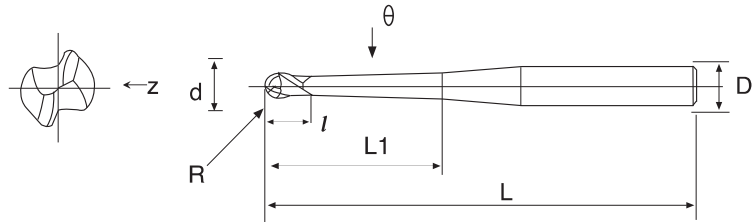
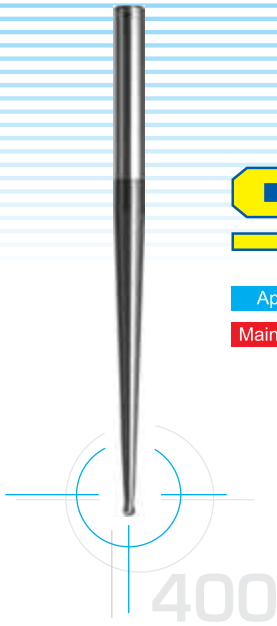
WC = 87 Co = 12 HRA = 92.1 Rupture = 3800N/mm² Grain Size = 0.4μm

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	Radius of Ball Nose R	Flute Length l	Full Length L	Shank Diameter D	Efficient Length L1	Bevel θ	Packing Quantity	Price
ULPBT200560-X TREME	1R	3	100	6	60	0.5°	2	
ULPBT201060-X TREME	1R	3	100	6	60	1°	2	
ULPBT201560-X TREME	1R	3	100	6	60	1.5°	2	
ULPBT202057-X TREME	1R	3	100	6	57	2°	2	
ULPBT300560-X TREME	1.5R	4	100	6	60	0.5°	2	
ULPBT301060-X TREME	1.5R	4	100	6	60	1°	2	
ULPBT301557-X TREME	1.5R	4	100	6	57	1.5°	2	
ULPBT302043-X TREME	1.5R	4	100	6	43	2°	2	
ULPBT400560-X TREME	2R	5	100	6	60	0.5°	2	
ULPBT401057-X TREME	2R	5	100	6	57	1°	2	
ULPBT401538-X TREME	2R	5	100	6	38	1.5°	2	
ULPBT402029-X TREME	2R	5	100	6	29	2°	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 TiAIN 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.

ULPBT Recommended Milling conditions

Working material hardness	HRC45°~52°		HRC52°~62°	
	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.
MODE				
ULPBT200560	4800	300	4320	270
ULPBT201060	4800	300	4320	270
ULPBT201560	4800	300	4320	270
ULPBT202057	4800	300	4320	270
ULPBT300560	7200	380	6480	342
ULPBT301060	7200	380	6480	342
ULPBT301557	7200	380	6480	342
ULPBT302043	7200	380	6480	342
ULPBT400560	5400	300	4860	270
ULPBT401507	5400	300	4860	270
ULPBT401538	5400	300	4860	270
ULPBT402029	5400	300	4860	270

