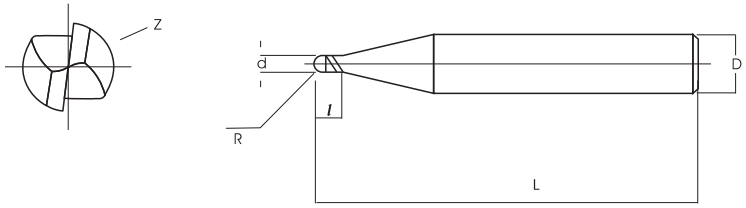
UMIB ▌Micro Diameters Ball Nose End Mills

Micro Diameters Cutter

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 A MODE B	Diameter d	Flute Length l	Full Length L(A)	Shank Diameter D(A)	Full Length L(B)	Shank Diameter D(B)	Packing Quantity	Price A / B
UMIB3032 / UMIB0032-πHSC	0.15R	0.6	38	3	50	4	6	
UMIB3042 / UMIB0042-πHSC	0.2R	0.7	38	3	50	4	6	
UMIB3052 / UMIB0052-πHSC	0.25R	0.8	38	3	50	4	6	
UMIB3062 / UMIB0062-πHSC	0.3R	0.9	38	3	50	4	6	
UMIB3072 / UMIB0072-πHSC	0.35R	1.4	38	3	50	4	6	
UMIB3082 / UMIB0082-πHSC	0.4R	1.6	38	3	50	4	6	
UMIB3092 / UMIB0092-πHSC	0.45R	1.8	38	3	50	4	6	
UMIB3102 / UMIB0102-πHSC	0.5R	2	38	3	50	4	6	
UMIB3112 / UMIB0112-πHSC	0.55R	2.2	38	3	50	4	6	
UMIB3122 / UMIB0122-πHSC	0.6R	2.4	38	3	50	4	6	
UMIB3132 / UMIB0132-πHSC	0.65R	2.6	38	3	50	4	6	
UMIB3142 / UMIB0142-πHSC	0.7R	2.8	38	3	50	4	6	
UMIB3152 / UMIB0152-πHSC	0.75R	3	38	3	50	4	6	
UMIB3162 / UMIB0162-πHSC	0.8R	3.2	38	3	50	4	6	
UMIB3172 / UMIB0172-πHSC	0.85R	3.4	38	3	50	4	6	
UMIB3182 / UMIB0182-πHSC	0.9R	3.6	38	3	50	4	6	
UMIB3192 / UMIB0192-πHSC	0.95R	3.8	38	3	50	4	6	
UMIB3202 / UMIB0202-πHSC	1R	4	38	3	50	4	6	
UMIB3212 / UMIB0212-πHSC	1.05R	4.2	38	3	50	4	6	
UMIB3222 / UMIB0222-πHSC	1.1R	4.4	38	3	50	4	6	
UMIB3232 / UMIB0232-πHSC	1.15R	4.6	38	3	50	4	6	
UMIB3242 / UMIB0242-πHSC	1.2R	4.8	38	3	50	4	6	
UMIB3252 / UMIB0252-πHSC	1.25R	5	38	3	50	4	6	
UMIB3262 / UMIB0262-πHSC	1.3R	5.2	38	3	50	4	6	
UMIB3272 / UMIB0272-πHSC	1.35R	5.4	38	3	50	4	6	
UMIB3282 / UMIB0282-πHSC	1.4R	5.6	38	3	50	4	6	
UMIB3292 / UMIB0292-πHSC	1.45R	5.8	38	3	50	4	6	
UMIB3302 / UMIB0302-πHSC	1.5R	6	38	3	50	4	6	

Unit : mm

400 nano series

UMG | HRC ▶ 60 | 30° | π-HSC

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.

UMIB Recommended Milling conditions

Working material hardness	HRC30°~50°		HRC50°~55°	
Radius of Ball Nose	Rotational speed RPM	Feeding speed mm/min.	Rotational speed RPM	Feeding speed mm/min.
0.15R	25000	200	25000	198
0.2R	25000	275	25000	248
0.25R	25000	330	25000	297
0.3R	25000	418	25000	376
0.35R	25000	495	25000	446
0.4R	25000	561	25000	505
0.45R	25000	638	25000	574