

PULCUT™

PROFESSIONAL CARBIDE CUTTING TOOLS MANUFACTURER

整体硬质合金铣刀 2018

Solid carbide milling cutter 2018

КОРУН
CORUN


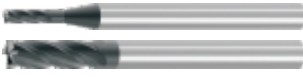












坚韧之邦 普惠天下

Tenacious state, widely benefit the world

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XTD4系列 XTD4 series

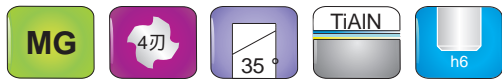
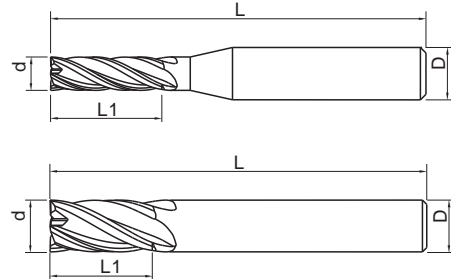
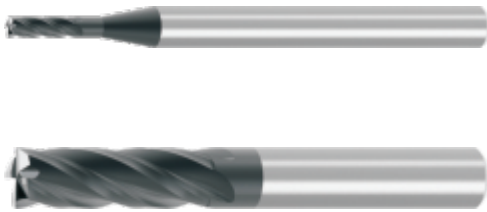
可用于加工碳钢、工具钢、合金钢、不锈钢。Can be used for machining carbon steel, tool steel, alloy steel and stainless steel.

适合于高速加工，冷却液及干式切削条件。Suitable for high-speed machine with coolant or dry cutting.

4刃设计可得到较好的表面粗糙度。Four edges design can get better surface roughness.

新型的TiAlN纳米涂层，具有很好的耐磨性。New TiAlN nano-coating type, with good wear resistance.

超细颗粒基体材质，具有很好的韧性。Matrix material is ultra-fine particles, have good toughness.



刃径公差表示	
d	公差
3	0/-0.015
> 3 -10	0/-0.02
> 10	0/-0.03

型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XTD4010	1.0	3.0	50	4.0	○
XTD4015	1.5	4.0	50	4.0	○
XTD4020	2.0	6.0	50	4.0	○
XTD4025	2.5	8.0	50	4.0	○
XTD4030	3.0	8.0	50	4.0	●
XTD4035	3.5	10.0	50	4.0	○
XTD4040	4.0	11.0	50	4.0	●
XTD4030D06	3.0	8.0	50	6.0	○
XTD4040D06	4.0	11.0	50	6.0	○
XTD4045	4.5	11.0	50	6.0	○
XTD4050	5.0	13.0	50	6.0	○
XTD4055	5.5	13.0	50	6.0	○
XTD4060	6.0	16.0	50	6.0	●
XTD4070	7.0	20.0	60	8.0	○
XTD4080	8.0	20.0	60	8.0	●
XTD4090	9.0	20.0	75	10.0	○
XTD4100	10.0	25.0	75	10.0	●
XTD4110	11.0	30.0	75	12.0	○
XTD4120	12.0	32.0	75	12.0	●
XTD4140	14.0	40.0	100	14.0	○
XTD4160	16.0	40.0	100	16.0	○
XTD4180	18.0	40.0	100	18.0	○
XTD4200	20.0	45.0	100	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XTCD4系列 XTCD4 series

可用于加工碳钢、工具钢、合金钢、不锈钢，刃长加长有利于加工深槽。

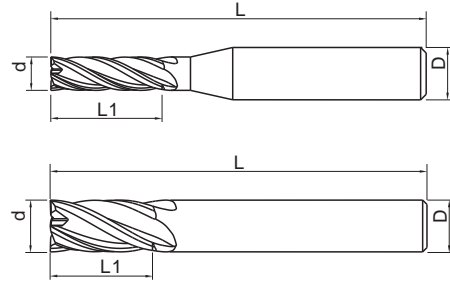
Can be used for machining carbon steel, tool steel, alloy steel and stainless steel. Longer edge length is good for processing deep grooves.

适合于高速加工，冷却液及干式切削条件。Suitable for high-speed machine with coolant or dry cutting.

4刃设计可得到较好的表面粗糙度。Four blades design can get better surface roughness.

新型的TiAlN纳米涂层，具有很好的耐磨性。New TiAlN nano-coating type, with good wear resistance.

超细颗粒基体材质，具有很好的韧性。Matrix material is ultra-fine particles, have good toughness.



刃径公差表示	
d	公差
3	0/-0.015
> 3 -10	0/-0.02
> 10	0/-0.03

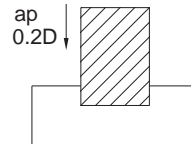
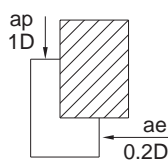
型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XTCD4030	3.0	15.0	60	6.0	●
XTCD4040	4.0	20.0	60	6.0	●
XTCD4050	5.0	25.0	75	6.0	○
XTCD4060	6.0	30.0	75	6.0	●
XTCD4080	8.0	35.0	100	8.0	●
XTCD4100	10.0	45.0	100	10.0	●
XTCD4120	12.0	45.0	100	12.0	●
XTCD4140	14.0	70.0	150	14.0	○
XTCD4160	16.0	70.0	150	16.0	○
XTCD4200	20.0	75.0	150	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XTD4&XTCD4系列切削参数推荐表

XTD4&XTCD4Series cutting recommend parameters table

被加工材质 Machined Material	碳素钢 Carbon Steel		合金钢 Alloy Steel		工具钢 Tool Steel		调质钢 Quenched And Tempered Steel		不锈钢 Stainless Steel		铸铁 Cast Iron	
刃径d Edge Diameter	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
1.0	32,000	760	25,400	500	16,000	170	19,100	150	12,700	200	24,000	550
1.5	22,000	760	17,000	480	10,000	200	12,700	200	8,500	200	16,000	560
2.0	16,000	760	12,700	500	8,000	180	9,600	190	6,400	180	12,000	560
2.5	13,000	760	10,200	400	6,500	190	8,000	180	5,100	200	10,000	560
3.0	11,000	800	8,500	500	4,700	170	6,500	180	4,200	170	8,500	560
3.5	9,200	800	7,300	500	4,200	170	5,500	190	3,700	180	7,200	560
4.0	8,000	900	6,400	500	3,600	170	5,000	190	3,200	190	6,200	660
4.5	7,000	900	5,800	500	3,300	170	4,500	160	2,800	200	5,500	660
5.0	6,500	900	5,100	500	2,900	170	4,000	150	2,500	200	5,000	660
5.5	6,000	900	4,600	500	2,700	170	3,800	160	2,300	200	4,700	660
6.0	5,500	900	4,300	500	2,400	170	3,500	190	2,200	210	4,200	660
7.0	4,600	900	3,800	500	2,000	170	3,000	190	1,800	200	3,700	660
8.0	4,000	900	3,200	550	1,800	180	2,500	190	1,600	190	3,200	660
9.0	3,600	900	3,000	550	1,600	180	2,300	190	1,500	200	2,700	660
10.0	3,200	900	2,600	550	1,400	180	2,000	190	1,300	200	2,500	660
11.0	3,000	900	2,400	500	1,300	180	1,800	200	1,200	190	2,300	660
12.0	2,700	900	2,200	500	1,200	180	1,600	200	1,100	190	2,200	660
14.0	2,300	1,000	1,900	550	1,100	190	1,400	200	1,000	210	1,800	660
16.0	2,000	1,000	1,600	550	1,000	200	1,200	200	800	200	1,600	660
18.0	1,800	1,000	1,500	550	880	200	1,100	200	700	200	1,400	660
20.0	1,600	1,000	1,300	550	800	200	900	200	650	200	1,200	680



以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具悬长。

Minimize tool leakage without interference.

在切削高硬度材料或切削量较大时采用较低的切削速度。

The larger amount of cutting, the lower cutting velocity.

XTR4系列 XTR4 series

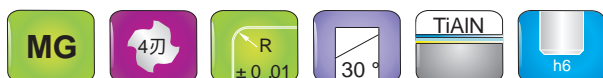
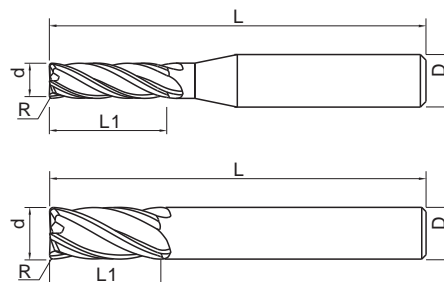
可用于加工碳钢、工具钢、合金钢、不锈钢。Can be used for machining carbon steel, tool steel, alloy steel and stainless steel.

适合于高速加工，冷却液及干式切削条件。Suitable for high-speed machine with coolant or dry cutting.

4刃设计可得到较好的表面粗糙度。Four edges design can get better surface roughness.

新型的TiAlN纳米涂层，具有很好的耐磨性。New TiAlN nano-coating type, with good wear resistance.

圆弧形角可防止高速切削时崩刃。The round arc shape can prevent cutting edge breaking when high speed cutting.



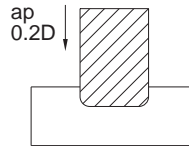
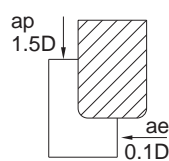
刃径公差表示	
d	公差
3	0/-0.015
> 3 -10	0/-0.02
> 10	0/-0.03

型号 Type	刃径 Edge Diameter	刀尖圆弧 Radius	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	R	L1	L	D	
XTR4030R02	3.0	0.2	10.0	70	6.0	●
XTR4040R02	4.0	0.2	12.0	70	6.0	●
XTR4040R05	4.0	0.5	12.0	70	6.0	○
XTR4050R05	5.0	0.5	15.0	80	6.0	○
XTR4050R10	5.0	1.0	15.0	80	6.0	○
XTR4060R05	6.0	0.5	15.0	90	6.0	●
XTR4060R10	6.0	1.0	15.0	90	6.0	○
XTR4080R05	8.0	0.5	20.0	100	8.0	●
XTR4080R10	8.0	1.0	20.0	100	8.0	○
XTR4100R05	10.0	0.5	25.0	100	10.0	●
XTR4100R10	10.0	1.0	25.0	100	10.0	○
XTR4100R20	10.0	2.0	25.0	100	10.0	○
XTR4120R05	12.0	0.5	30.0	110	12.0	○
XTR4120R10	12.0	1.0	30.0	110	12.0	●
XTR4120R20	12.0	2.0	30.0	110	12.0	○
XTR4120R30	12.0	3.0	30.0	110	12.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XTR4系列切削参数推荐表 XTR4Series cutting recommend parameters table

被加工材质 Machined Material	碳素钢 Carbon Steel		合金钢 Alloy Steel		工具钢 Tool Steel		调质钢 Quenched And Tempered Steel		不锈钢 Stainless Steel		铸铁 Cast Iron	
刃径d Edge Diameter	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
3.0	8,500	400	6,000	300	5,240	180	5,000	200	3,700	150	6,000	300
4.0	7,200	400	5,600	300	4,030	180	4,000	200	2,800	150	5,500	300
5.0	6,000	420	4,000	330	3,220	180	3,000	200	2,200	150	4,000	300
6.0	5,300	450	3,800	350	2,620	180	2,600	220	1,900	150	3,800	300
8.0	4,000	480	2,800	400	2,020	200	2,000	250	1,400	180	3,000	400
10.0	3,200	450	2,300	350	1,620	200	1,600	230	1,100	180	2,200	360
12.0	2,700	400	1,900	350	1,340	200	1,300	210	900	180	1,800	320



以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具悬长。

Minimize tool leakage without interference.

在切削高硬度材料或切削量较大时采用较低的切削速度。

The larger amount of cutting, the lower cutting velocity.

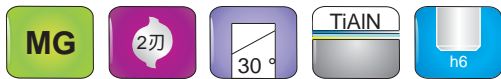
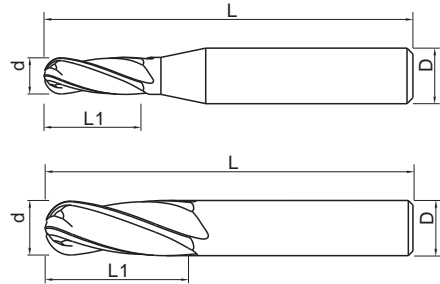
XTB2系列 XTB2 series

设计用于加工碳钢、工具钢、合金钢、不锈钢。Designed for machining carbon steel, tool steel, alloy steel and stainless steel.

高耐磨性。High wear resistance.

设计用于铣削圆形底部的槽，和特殊的轮廓。Designed for milling circular bottom grooves and special contours.

2刃设计可得到较好的表面粗糙度。Two edges design can get better surface roughness.



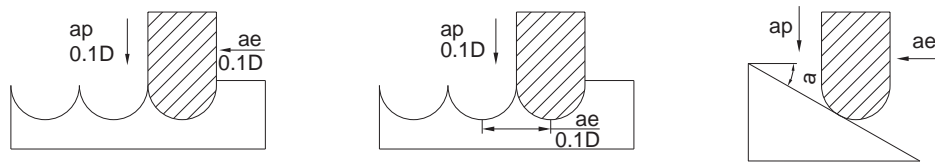
刃径公差表示	
d	公差
3	0/-0.015
> 3 -10	0/-0.02
> 10	0/-0.03

型号 Type	刃径 Edge Diameter	球头半径 Ball Radius	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	R	L1	L	D	
XTB2010	1.0	0.5	2.0	50	4.0	○
XTB2015	1.5	0.75	4.0	50	4.0	○
XTB2020	2.0	1.0	5.0	50	4.0	○
XTB2025	2.5	1.25	6.0	50	4.0	○
XTB2030	3.0	1.5	6.0	50	4.0	●
XTB2040	4.0	2.0	8.0	50	4.0	●
XTB2050	5.0	2.5	10.0	50	6.0	○
XTB2060	6.0	3.0	12.0	50	6.0	●
XTB2080	8.0	4.0	14.0	60	8.0	●
XTB2100	10.0	5.0	20.0	75	10.0	●
XTB2120	12.0	6.0	24.0	75	12.0	●
XTB2160	16.0	8.0	32.0	100	16.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XTB2系列切削参数推荐表 XTB2Series cutting recommend parameters table

被加工材质 Machined Material	碳素钢 Carbon Steel		合金钢 Alloy Steel		工具钢 Tool Steel		调质钢 Quenched And Tempered Steel		不锈钢 Stainless Steel		铸铁 Cast Iron	
刃径d Edge Diameter	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
1.0	32,000	1,400	31,000	900	7,000	150	25,000	770	19,000	630	32,000	1,300
1.5	21,000	1,400	21,000	1,100	6,500	150	17,000	900	13,000	700	25,000	1,800
2.0	16,000	1,400	16,000	1,500	6,000	160	13,000	1,000	9,500	840	19,000	2,100
2.5	13,000	1,500	13,000	1,500	5,300	160	10,000	1,050	7,600	900	15,000	2,100
3.0	10,000	1,400	10,000	1,500	4,700	165	8,500	1,050	6,300	900	12,800	2,100
4.0	8,000	1,460	8,000	1,500	3,600	165	6,500	1,050	4,800	900	9,500	2,100
5.0	6,500	1,400	6,500	1,400	2,900	165	5,100	1,000	3,800	840	7,600	2,000
6.0	5,300	1,400	5,500	1,400	2,400	165	4,300	900	3,200	840	6,300	1,900
8.0	4,000	1,400	4,000	1,100	1,800	175	3,100	900	2,400	770	4,700	1,800
10.0	3,200	1,200	3,200	1,100	1,500	175	2,500	840	2,000	770	3,800	1,700
12.0	2,600	1,100	2,600	1,000	1,200	175	2,000	770	1,600	660	3,200	1,500
14.0	2,200	1,050	2,300	900	1,200	190	1,800	700	1,400	600	2,800	1,400
16.0	2,000	1,050	2,000	900	1,000	200	1,600	630	1,200	560	2,300	1,300
20.0	1,600	840	1,600	840	800	200	1,300	520	950	500	2,000	1,200



以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

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在不干涉的情况下尽可能减小刀具外漏长度。

Minimize tool leakage without interference.

在切削高硬度材料或切削量较大时采用较低的切削速度。

The larger amount of cutting, the lower cutting velocity.

斜角 超过15°时，转速、进给下调30%~50%。

When bevel angle over than 15°, the rotating velocity and feed rate need to be reduced by 30% to 50%.

XMD4系列 XMD4 series

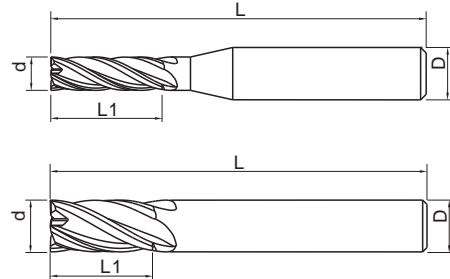
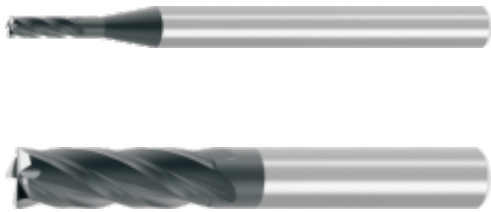
可用于加工不锈钢，钛合金。Can be used for machining stainless steel and titanium alloy.

适合于高速加工，冷却液及干式切削条件。Suitable for high-speed machine with coolant or dry cutting.

4刃设计可得到较好的表面粗糙度。Four edges design can get better surface roughness.

新型的TiAlN纳米涂层，具有很好的耐磨性。New TiAlN nano-coating type, with good wear resistance.

超细颗粒基体材质，具有很好的韧性。Matrix material is ultra-fine particles, have good toughness.



刃径公差表示	
d	公差
10	0/-0.02
> 10	0/-0.03

型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XMD4060	6.0	16.0	50	6.0	●
XMD4070	7.0	20.0	60	8.0	○
XMD4080	8.0	20.0	60	8.0	●
XMD4090	9.0	20.0	75	10.0	○
XMD4100	10.0	25.0	75	10.0	●
XMD4110	11.0	30.0	75	12.0	○
XMD4120	12.0	32.0	75	12.0	●
XMD4140	14.0	40.0	100	14.0	○
XMD4160	16.0	40.0	100	16.0	○
XMD4180	18.0	40.0	100	18.0	○
XMD4200	20.0	45.0	100	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XMD4系列切削参数推荐表 XMD4Series cutting recommend parameters table

被加工材质 Machined Material	不锈钢 Stainless Steel		钛合金 Alloy Steel	
	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
6.0	4,200	340	3,800	300
7.0	3,600	380	3,200	340
8.0	3,200	420	2,800	380
9.0	3,000	460	2,700	420
10.0	2,800	500	2,500	450
11.0	2,500	500	2,200	450
12.0	2,200	520	2,000	460
14.0	2,000	460	1,800	420
16.0	1,800	420	1,600	380
18.0	1,600	420	1,400	380
20.0	1,400	400	1,200	360

ap 1.0D
ae 0.2D

ap 0.5D

ap 1.0D
ae 0.15D

ap 0.5D

以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具外漏长度。

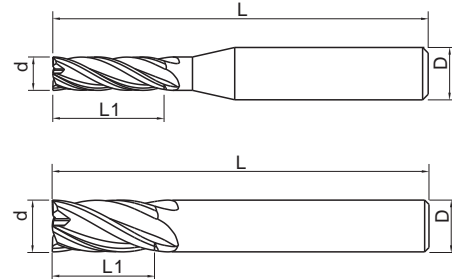
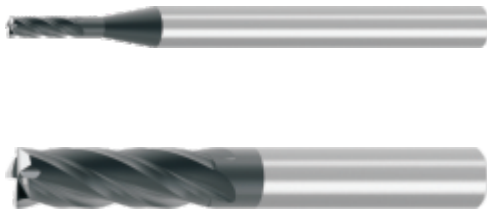
Minimize tool leakage without interference.

在切削量较大时采用较低的切削速度。

The larger amount of cutting, the lower cutting velocity.

XHD4系列 XHD4 series

可用于加工硬度高达HRC65的合金钢。Can be used for machining HRC65 alloy steel
 适合于高速加工，冷却液及干式切削条件。Suitable for high-speed machine with coolant or dry cutting.
 4刃设计可得到较好的表面粗糙度。Four edges design can get better surface roughness.
 新型的TiAlN纳米涂层，具有很好的耐磨性。New TiAlN nano-coating type, with good wear resistance.
 超细颗粒基体材质，具有很好的韧性。Matrix material is ultra-fine particles, have good toughness.



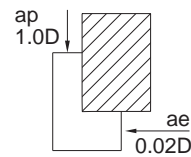
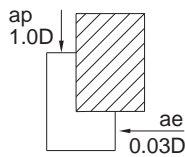
刃径公差表示	
d	公差
6	0/-0.015
> 6	0/-0.02

型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XHD4030	3.0	8.0	50	4.0	●
XHD4040	4.0	11.0	50	4.0	●
XHD4030D06	3.0	8.0	50	6.0	○
XHD4040D06	4.0	11.0	50	6.0	○
XHD4050	5.0	13.0	50	6.0	○
XHD4060	6.0	16.0	50	6.0	●
XHD4070	7.0	20.0	60	8.0	○
XHD4080	8.0	20.0	60	8.0	●
XHD4090	9.0	20.0	75	10.0	○
XHD4100	10.0	25.0	75	10.0	●
XHD4110	11.0	30.0	75	12.0	○
XHD4120	12.0	32.0	75	12.0	●
XHD4140	14.0	40.0	100	14.0	○
XHD4160	16.0	40.0	100	16.0	○
XHD4180	18.0	40.0	100	18.0	○
XHD4200	20.0	45.0	100	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XHD4系列切削参数推荐表 XHD4Series cutting recommend parameters table

被加工材质 Machined Material	硬化钢, 耐热钢 HARDENED STEELS/HEATRESISTANT STEELS		硬化钢 HARDENED STEELS							
	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
3.0	11,000	960	8,700	690	5,800	460	4,800	290	3,800	180
4.0	8,400	990	6,600	710	4,400	480	3,600	300	2,800	180
5.0	7,900	1,100	6,300	820	4,200	550	3,200	320	2,600	200
6.0	6,600	1,100	5,200	770	3,500	520	2,700	310	2,100	190
7.0	5,600	1,100	4,400	750	3,000	500	2,300	300	1,800	180
8.0	4,900	1,000	3,900	740	2,600	500	2,000	290	1,600	180
9.0	4,400	960	3,500	700	2,300	480	1,800	280	1,400	170
10.0	3,900	960	3,100	690	2,100	460	1,600	260	1,300	170
11.0	3,600	960	2,800	690	1,900	460	1,500	260	1,200	170
12.0	3,300	960	2,600	690	1,700	460	1,400	260	1,100	160
14.0	2,800	960	2,200	690	1,500	460	1,200	220	900	150
16.0	2,500	820	1,900	600	1,300	400	1,000	230	800	150
18.0	2,200	750	1,700	620	1,200	380	900	220	700	150
20.0	2,000	700	1,500	620	1,000	360	800	210	650	150



以上数据为建议值, 适用的参数根据机台状况, 夹具质量, 润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具外漏长度。

Minimize tool leakage without interference.

在切削量较大时采用较低的切削速度。

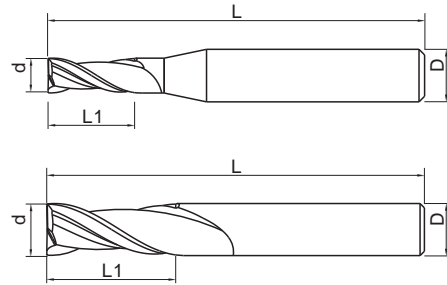
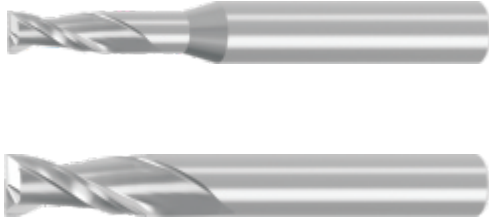
The larger amount of cutting, the lower cutting velocity.

XND2系列 XND2 series

用于加工铝及铝合金，并能得到良好的光洁度。Can be used for machining aluminum and aluminum alloy, with good surface illumination.

提高光洁度的独特设计。Unique design to improve surface illumination.

2刃设计加大排屑效果，提高加工效率。Two edges design to increase chip removal effect and improve processing efficiency.



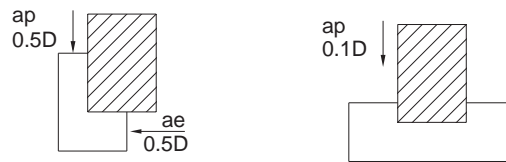
刃径公差表示	
刃径	公差
d	0/-0.02

型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XND2010	1.0	3.0	50	4.0	○
XND2015	1.5	5.0	50	4.0	○
XND2020	2.0	6.0	50	4.0	○
XND2025	2.5	8.0	50	4.0	○
XND2030	3.0	11.0	50	4.0	●
XND2040	4.0	13.0	50	4.0	●
XND2030D06	3.0	11.0	50	6.0	○
XND2040D06	4.0	13.0	50	6.0	○
XND2050	5.0	17.0	50	6.0	○
XND2060	6.0	17.0	50	6.0	●
XND2080	8.0	22.0	60	8.0	●
XND2100	10.0	27.0	75	10.0	●
XND2120	12.0	32.0	75	12.0	●
XND2160	16.0	42.0	100	16.0	○
XND2200	20.0	48.0	100	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XND2系列切削参数推荐表 XND2Series cutting recommend parameters table

被加工材质 Machined Material	铝合金，其它有色金属 Aluminum and Other Non-ferrous Metals	
刃径d Edge Diameter	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
1.0	32,000	1,300
1.5	32,000	1,400
2.0	30,000	1,800
2.5	26,000	1,800
3.0	20,000	1,600
4.0	16,000	1,400
5.0	13,000	1,400
6.0	11,000	1,400
8.0	8,000	1,500
10.0	6,500	1,500
12.0	5,500	1,500
16.0	4,200	1,400
20.0	3,500	1,450



以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具外漏长度。

Minimize tool leakage without interference.

在切削量较大时采用较低的切削速度。

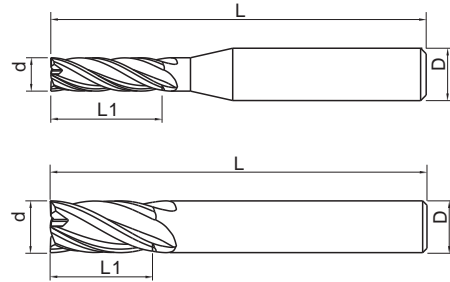
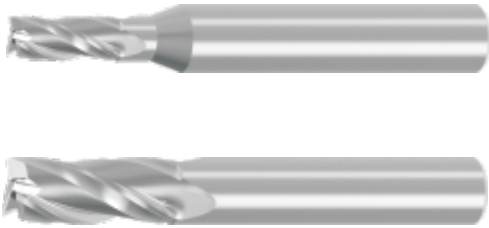
The larger amount of cutting, the lower cutting velocity.

XND3系列 XND3 series

用于加工铝及铝合金，并能得到良好的光洁度。Can be used for machining aluminum and aluminum alloy, with good surface illumination.

提高光洁度的独特设计。Unique design to improve surface illumination.

3刃设计提高刀具强度，延长使用寿命。Three edges design to improve tool strength and extend service life.



刃径公差表示	
刃径	公差
d	0/-0.02

型号 Type	刃径 Edge Diameter	刃长 Edge Length	总长 Over Length	柄径 Handle Diameter	库存 Stock
	d	L1	L	D	
XND3010	1.0	3.0	50	4.0	○
XND3015	1.5	5.0	50	4.0	○
XND3020	2.0	6.0	50	4.0	○
XND3025	2.5	8.0	50	4.0	○
XND3030	3.0	11.0	50	4.0	●
XND3040	4.0	13.0	50	4.0	●
XND3030D06	3.0	11.0	50	6.0	○
XND3040D06	4.0	13.0	50	6.0	○
XND3050	5.0	17.0	50	6.0	○
XND3060	6.0	17.0	50	6.0	●
XND3080	8.0	22.0	60	8.0	●
XND3100	10.0	27.0	75	10.0	●
XND3120	12.0	32.0	75	12.0	●
XND3160	16.0	42.0	100	16.0	○
XND3200	20.0	48.0	100	20.0	○

常备库存 regular stock 按订单生产 order for manufacturing

XND3系列切削参数推荐表 XND3Series cutting recommend parameters table

被加工材质 Machined Material	铝合金，其它有色金属 Aluminum and Other Non-ferrous Metals	
刃径d Edge Diameter	转速Sr/min Rotating Velocity	进给速度Fmm/min Feed Rate
1.0	32,000	1,000
1.5	32,000	1,000
2.0	30,000	900
2.5	26,000	800
3.0	20,000	1,200
4.0	16,000	1,200
5.0	13,000	1,200
6.0	11,000	1,200
8.0	8,000	1,000
10.0	6,500	1,100
12.0	5,500	1,200
16.0	4,200	1,200
20.0	3,500	1,200



以上数据为建议值，适用的参数根据机台状况，夹具质量，润滑冷却系统等而改变。

The above data is the recommended value. Applicable parameters are changed according to the condition of the machine, the quality of the fixture, the lubrication cooling system, etc.

在不干涉的情况下尽可能减小刀具外漏长度。

Minimize tool leakage without interference.

在切削量较大时采用较低的切削速度。

The larger amount of cutting, the lower cutting velocity.

轮槽铣刀 Wheel Groove Mill

特殊的粗加工轮槽铣刀后刀面分屑槽设计使刀具在切削过程中减少与工件的接触面积，达到了减小切削力，降低切削热，提高了刀具的切削效率和使用寿命。

Special roughing groove cutter rear rake chip design allows the tool to reduce the close area with the workpiece in the cutting process, to reduce the cutting force, reduce cutting heat and improve the cutting tool cutting efficiency and service life.

特殊的精加工轮槽铣刀涂层设计使刀具超硬，耐磨损，耐高温，涂层处理后，膜层表面高度细腻光滑，使刀具在切削过程中切削阻力减小，增强了排屑能力，延长了刀具寿命。

Special finishing wheel groove cutter coating design so that the tool is super-hard, wear-resistant, high temperature, coating treatment, the film surface is smooth and delicate, cutting tool to reduce cutting resistance, enhanced row Cutting capacity, extending tool life.

特殊的半精加工刃口位置螺旋线设计，有效的控制了排屑方向。

Special semi-finishing blade position spiral design, effective control of chip removal direction.



3C刀具非标定制刀具 3C Tool Non-standard Custom Cutter

独特的前角和后角设计使刀具更锋利，在切削过程中不粘刀、不崩刃。

Special rake and corner design to make the tool more sharp, no sticky inserts in the cutting process, no chipping.

独特的螺旋角设计使切削更好的排出，有利于降低切削温度，减轻刀具磨损，大大提高刀具使用寿命。

Special helix angle design makes the cutting better discharge, which will help reduce the cutting temperature, reduce tool wear and greatly improve tool life.

独特的钝化、抛光工艺使被加工面呈镜面。

Special passivation, polishing process to be machined surface mirror.

刀具材质采耐高温的独特配方，使刀具具有很高的耐热性，在高温下能够保持良好的耐磨性和韧性。

The material of inserts adopts the unique formula of high temperature resistance, which makes the tool have high heat resistance, good wear resistance and toughness working in high temperature.

各种类型的“T型刀”“燕尾刀”“轮廓刀”及其他非标成型刀具都可以定制。

Various types of "T-Cutters", "Dovetail Cutters", "Contour Cutters" and other non-standard tools can be customized.



技术资料 Technical Data

铣削加工问题常见问题及解决发案 Common problems and solutions in milling

故障内容 Fault content	故障分析 Fault analysis	对策与检查要点 Countermeasures and inspection points																	
		刀具材料选择 Higher hardness material		切削条件 Cutting condition						刀具形状 Cutter's shape						机床装夹 Machine tool clamping			
		硬度更高的材料 Higher hardness material	韧性好的材料 Ductile material	切削速度 Cutting speed	进给 Feed	切深 Cutting depth	改变铣刀直径与宽度 Change cutter's diameter and width	切削液 Cutting fluid	前角 Rake angle	倒锥 Inverted cone	切削刃强度 Cutting edge strength	齿数 Number of Teeth	增大容屑空间 Increasing chip space	检查副切削刃几何形状 Check the side-cutting edge geometry	检查端面跳动 Check end runout	提高刀具刚性 Improve tool rigidity	工件刀柄夹紧 Workpiece clamping	刀柄悬伸 Tool overhang	动力、机床间隙 Power, Machine gap
刀尖的损伤 Cutter tip damage	后刀面磨损大 The flankwear			↓				✓											
	前刀面磨损大 Large wear on the rake face	✓		↓	↓	↓		✓											
	切削刃破损 Cutting edge damage	✓			↓	↓			↑	↓	↓								
	热冲击破损 Thermal shock damage			↓	↓	↓		✓		↑	↓								
	积屑瘤粘结 Chip bonding			↑	↑			✓		↑	↓								
	表面粗糙度大 Large surface roughness	✓		↑	↓	↓		✓			↓				✓				
加工精度 Machining accuracy	产生毛刺 Being Bur			↓	↓	↓	✓								✓				
	产生塌边 Collapse edge				↓	↓			↑	↓	↓			✓		✓			
	平面度平 Flatness				↓	↓			↑	↑		↓		✓	✓	✓	✓	✓	✓
	行度恶化 Degree of deterioration				↓	↓			↑	↑		↓		✓	✓	✓	✓	✓	✓
振动大 Large vibration			↓	↓	↓	✓		↑	↑	↓					✓	✓	✓	✓	
其他 Others	切削缠绕堵塞 Cutting wound			↑	↑	↓	✓	✓				↓							
									↑			↓	✓						



图标标识指南

Icon identification guide

材质 MATERIALS	涂层类别 COATING types
-----------------	-----------------------

MG 超微粒硬质合金
Micro Grain Carbide

TiAlN 涂层
TiAlN Coating

UMG 极细超微粒硬质合金
Ultra Micro Grain Carbide

AlTiN 涂层
AlTiN Coating

切削刃 NUMBER OF FLATES	螺旋角 HELIX ANGLE
-------------------------	--------------------

2刃
2 flutes

30° 螺旋角
30° Helix angle

3刃
3 flutes

35° 螺旋角
35° Helix angle

4刃
4 flutes

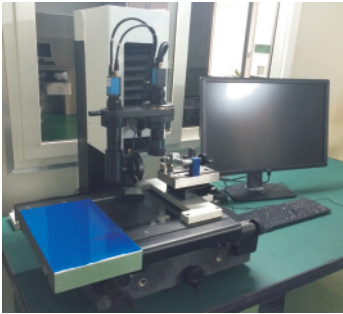
45° 螺旋角
45° Helix angle

圆角半径公差 CORNER RADIUS TOLERANCE	刀柄公差 HANDLE OF THE HANDLE
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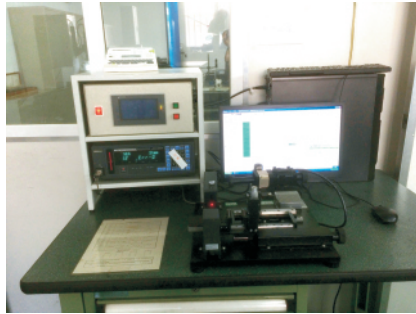
R ±0.01
圆角半径公差 ±0.01
The tolerance of the radius of the circle is 0.01

h6
柄径公差 h6
Stem diameter tolerance H6

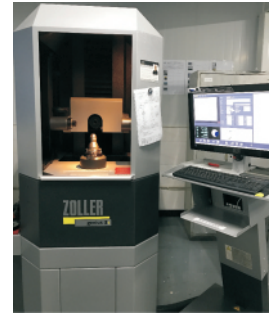
生产设备 Equipment



双镜头刀具检测仪



外径激光检测仪



高端ZOLLER卓勒刀具检测仪



徕卡金相显微镜



德克五轴工具磨



WALTER HP



ANCA TX7+



涂层前处理设备



瑞士PVD涂层炉

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