

PRODUCT TYPE

钻针 DRILL

UC型
Undercut Type

UCK、UCN、UCT、UCW、
UCNY、UCJ、UC、USC

ST型
Straight Type

ST、STJ

ID型
Inverse Drill

ID、LDC

SD型
Slot Drill

SD、UCSD

铣刀 ROUTER

菱齿型
Diamond Cut

RCF、RHF、LUF、LCF

断屑型
Chip Breaker

CBF

螺旋型
Spiral Endmill

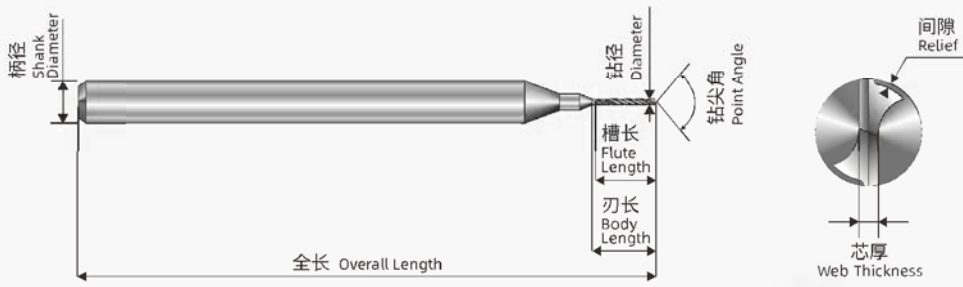
ETR、ZSP、LZZ、RFF、
LOP、REP、DSDX

其它
Other Type

RYF、RKZ、RJZ、RNP、
RDZ、RJP

▼ 钻头结构图

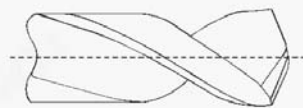
DRILL GEOMETRY ATTRIBUTE DIAGRAM



▼ 类型

DRILL SHAPE TYPE

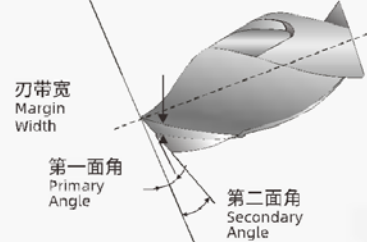
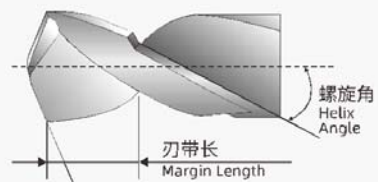
UC型钻头 (UCTYPE)



ST型 (Straight Type)



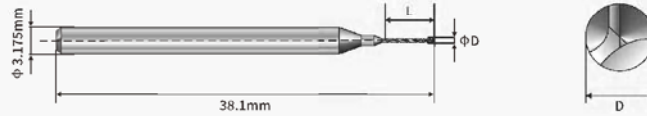
UC型 (Under-Cut Type)



▼UCK钻头 UCK SERIES DRILL

◎单刃单槽微钻，主要应用于HDI等场合，提升孔位精度、加工寿命。

Single edge micro drill bit, main used for HDI, improved hole location accuracy and increase service life.

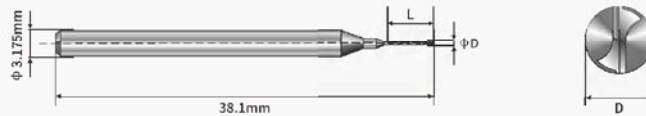


d [mm]	0.175	0.20	0.225	0.25	0.275	0.30	0.325	0.35	0.375	0.40	0.45
	3.0 ○	3.8 ●	4.0 ○	4.5 ●	5.0 ○	5.0 ●	5.5 ○	5.5 ●	6.5 ○	6.5 ●	7.0 ●
	3.5 ○	4.0 ●	4.5 ○	4.8 ●	5.5 ○	5.5 ●	6.2 ○	6.5 ●		7.0 ●	7.5 ●
L [mm]		4.5 ●		5.0 ●		6.2 ●					
				5.5 ●							
				6.2 ○							

▼UCN钻头 UCN SERIES DRILL

◎双刃单槽微钻，主要应用于Server等场合，提升孔壁质量。

Single flute micro drill bit, main used for Server, improved inner hole wall quality.



d [mm]	0.09	0.10	0.11	0.12	0.15	0.175	0.20	0.225	0.25	0.275	0.30	0.325	0.35	0.375	0.40-0.45	0.50-0.60
	1.5 ○	1.8 ●	1.8 ●	2.0 ●	2.5 ●	3.0 ○	3.8 ●	4.0 ○	4.5 ●	5.0 ○	5.0 ●	5.5 ○	5.5 ●	6.0 ○	6.5 ●	7.5 ●
			2.2 ●		3.0 ●	3.5 ○	4.0 ●	4.5 ○	4.8 ●	5.5 ○	5.5 ●	6.2 ○	6.5 ●	7.0 ○	7.0 ●	
L [mm]							4.5 ●		5.0 ●		6.0 ●				7.5 ●	
									5.5 ●		6.2 ○					
									6.2 ○							

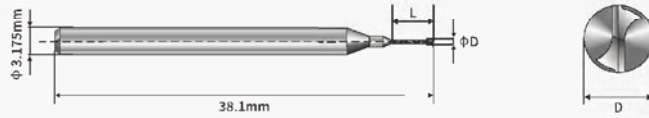
● 常规库存产品 Stock Products

○ 按订单生产 Non-stock Products

▼UCT钻头 UCT SERIES DRILL

◎双刃双槽微钻, 排屑性能优秀, 保证良好的孔壁品质。

UC drill bit, Excellent chip removal capability, Ensure well inner hole wall quality.

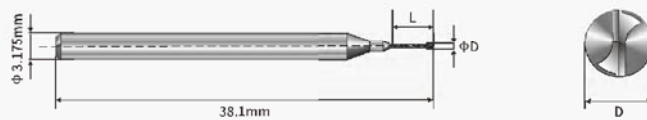


d [mm]	0.20	0.25	0.275	0.30	0.35	0.40	0.45
L [mm]	0.35	4.5	5.0	5.5	5.5	7.0	7.0
	●	●	○	●	●	●	●

▼UCW钻头 UCW SERIES DRILL

◎双刃双槽中钻, 排屑性能优秀, 保证良好的孔壁品质。

UC drill bit, Excellent chip removal capability, Ensure well inner hole wall quality.



d [mm]	0.45	0.50-0.75	0.80-1.15	1.20-1.50
L [mm]	6.5 ●	8.5 ●	9.5 ●	10.5 ●

● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼UCNY钻头 UCNY SERIES DRILL

◎双刃双槽微钻, 预钻孔专用, 高刚性设计, 保证良好的孔位精度。

UC micro bit is special for prebored drill. High-rigidity design, Ensure well hole location accuracy.

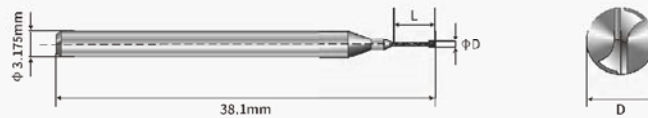


d [mm]	0.20-0.275	0.30	0.35	0.40	0.45	0.50-0.65
L [mm]	1.9 ●	2.3 ●	2.3 ●	3.0 ●	3.0 ●	4.5 ●

▼UCJ钻头 UCJ SERIES DRILL

◎UC型背钻专用钻针, 解决背钻塞孔、铜屑残留, 保证良好的孔壁品质。

UC type back drill bit, can solve the problem of back drill bit plug hole, and there have no copper scrap stay, and ensure well inner hole wall quality.



d [mm]	0.35	0.40	0.45	0.50	0.55
L [mm]	4.0 ●	5.5 ●	5.5 ●	5.5 ●	5.5 ●
			7.0 ●	7.0 ●	

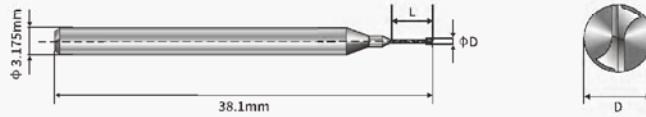
● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼UC钻头

UC SERIES DRILL

◎双刃双槽大钻, 排屑性能优秀, 保证良好的孔壁品质。

UC drill bit, Excellent chip removal capability, Ensure well inner hole wall quality.



d [mm]	0.70	0.75	0.80	0.85	0.9-1.20	1.25-3.15
L [mm]	7.0 ●	7.0 ●	7.0 ●	7.0 ●	7.0 ●	10.5
	10.0 ●	10.0 ●	10.0 ●	10.0 ●	10.0 ●	●

▼USC钻头

USC SERIES DRILL

◎UC型钻针, 特别应用于汽车板, 可有效解决缠丝、改善中钻孔壁粗糙度。

UC type back drill bit is especial used for automotive PCB. It can solve the problem of metal twine drill bit. Improved inner hole wall quality.



d [mm]	0.60-1.80	1.85-3.175
L [mm]	7.0 ●	7.0 ●

● 常规库存产品 Stock Products

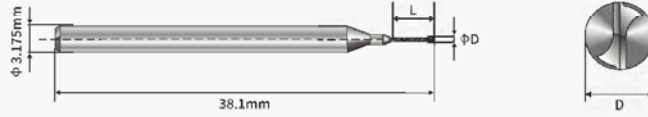
○ 按订单生产 Non-stock Products

▼ST钻头

ST SERIES DRILL

◎ST型双刃双槽钻头,主要用于软板、特氟龙板等场合,可有效解决缠丝。

ST type standrad drill bit, main used for FPC, PTFE etc. It solve the problem of metal twine drill bit effectively.



d [mm]	0.10	0.12	0.15	0.17	0.20	0.25	0.30	0.35	0.40-0.45	0.50-0.65	0.70-0.75	0.80-1.00	1.05-3.175
L [mm]	1.5 ●	2.0 ○	2.5 ●	3.0 ○	3.5 ●	4.0 ●	5.5 ●	6.5 ●	7.0 ●	8.5 ●	9.5 ●	10.0 ●	10.5 ●
	1.8 ●				4.0 ●								

▼STJ钻头

STJ SERIES DRILL

◎ST型背钻专用钻针,解决背钻塞孔、铜屑残留,保证良好的孔壁品质。

ST tpe back drill bit, can solve the problem of back drill bit plug hole, and there have no copper scrap stay, and ensure well iner hole wall quality.



d [mm]	0.30	0.35	0.40	0.45-0.75	0.8	0.85	0.90	0.95	1.00
L [mm]	4.5 ●	4.0 ●	4.5 ●	5.0 ●	5.0 ●	5.0 ●	5.0 ●	7.0 ●	7.0 ●
	5.0 ●	4.5 ●	5.0 ●		7.0 ●	7.0 ●	7.0 ●		
		5.0 ●							

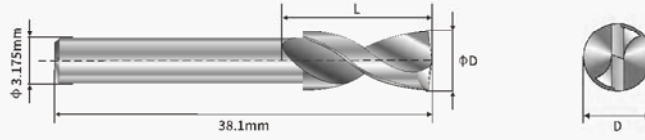
● 常规库存产品 Stock Products

○ 按订单生产 Non-stock Products

▼ID钻头 ID SERIES DRILL

◎通用型大钻, 重叠的主刀面设计, 缓解大钻高速给下的切削阻力。

Standard drill bit, special edge face design that can ease the resistance when high feed cutting.

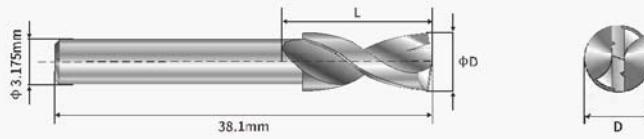


d [mm]	3.20-6.50			
L [mm]	12.0 ●			

▼LDF钻头 LDC SERIES DRILL

◎断屑型大钻, 增加断屑槽和横刃修磨设计, 可有效减少加工后钻头的缠丝现象, 提升孔壁质量。

Chip breaker type. These drill reduce metal twine, improved inner hole wall quality.



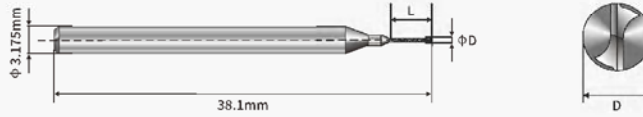
d [mm]	2.20-3.175	3.20-6.50		
L [mm]	10.5 ●	12.0 ●		

● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼SD钻头 SD SERIES DRILL

◎ST型槽刀, 适用于常规的槽孔加工。

ST type slot drill used for slot drilling.



d [mm]	0.25-0.30	0.35-0.55	0.60-0.65	0.70	0.75-2.50
L [mm]	3.5 ●	3.8 ●	6.0 ●	7.0 ●	8.7 ●
		4.7 ●	6.7 ●	8.7 ●	

▼UCSD钻头 UCSD SERIES DRILL

◎UC型槽刀, 有效提升孔壁质量, 改善短槽孔变形。

UC type slot drill improved inner hole wall quality and short slot hole deformation.



d [mm]	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70-1.05	1.10-1.65
L [mm]	3.5 ●	3.5 ●	4.0 ●	4.0 ●	4.5 ●	4.5 ●	4.5 ●	4.5 ●	4.5 ●	6.7 ●	6.7 ●
	●	●	●	4.5 ●	5.0 ●	5.5 ●	5.5 ●	6.7 ●	6.7 ●	●	●

● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼ 铣刀刀尖分类 ROUTER END TYPE



- ◎平底型：刀刃没有后刃它用于不钻孔的外围铣刀
Flat bottom type: no rear blade which is suitable for periphery routers that not used for drilling.



- ◎鱼尾型：刀刃形状最标准，也称之为标准型铣刀，它用于钻孔型的铣刀
Fishtale type: the most standard blade tip, it is also known as standard routers, which is suitable for drilling routers.



- ◎钻尖型：刀刃可以防止在钻孔时出现的切割的阻力，因此它适用于需要频繁下刀的铣刀
Drilling tip type: it can prevent the resistance brought by drilling, so it is suitable for the routers that needs drilling.

试样及下单无特别说明供货为鱼尾型，若需平底型、钻尖型，下单时请标明
Sample order or the official order will be fishtale type if there is no special instruction, please remark when placing order if you need flat bottom type, drilling tip type.

▼ 类型 DRILL SHAPE TYPE



右旋

- ◎Ru型：在右边的切割凹槽上粉屑被上释放也称之为上排屑型，它适合于配备真空设备的NC成型机器。
Ru type: It is suitable for NC shaping machines which is used for vacuum devices equipment since the powder in the right cutting notch will be discharged upwards



左旋

- ◎Rd型：在左边的切割凹槽上粉屑被上释放也称之为下排屑型，它适合于手动成型机器。
Rd type: It is suitable for manual shaping machines since in the left cutting notch will be discharged downwards

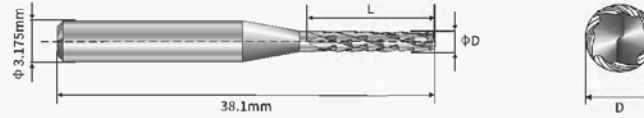
试样及下单无特别说明供货为右旋，若需左旋。下单时请标明
Sample order or official order will be "revolving in right" type, if you need "revolving in left" type, please specially point out.

▼RCF铣刀

RCF ROUTER

◎稀齿铣刀, 通用型, 排屑性能优, 切削锋利, 板边质量佳, 综合性能优。

Standrad router, Excellent scrap removal capability, cutting sharp, good board edge, Excellent comprehensive performance.



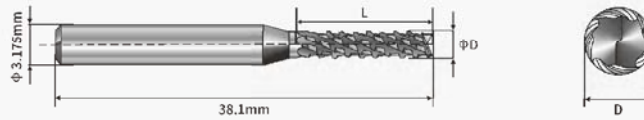
d [mm]	0.5-0.7	0.8	0.9	1.0-1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0-2.5	3.175
L [mm]	4.0	5.0	6.0	7.0	8.0	8.0	8.5	8.5 ● 8.5 ●	9.0	9.0	10.5	12	
	●	●	●	●	●	●	●	9.0 ○ 9.0 ○	●	●	●	●	●

▼RHF铣刀

RHF ROUTER

◎密齿铣刀, 适合于含中、高TG板材, 切削锋利, 排屑性能优, 使用寿命长。

These router used for middle or High Tg board, cutting sharp, excellent scrap removal capability, and have long service life.



d [mm]	0.5	0.6	0.7	0.8-1.1	1.2	1.3	1.4	1.5-1.9	2.0-2.5	3.175
L [mm]	3.0 ● 4.0	4.5	7.0 ● 7.0 ● 8.0 ● 8.0 ●	8.5 ●	10.5	12				
	4.0 ○ ●	●	8.0 ○ 8.5 ○ 8.5 ○ 8.5 ○	9.0 ○	●	●				

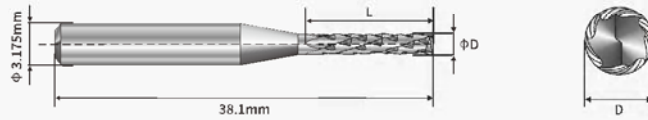
● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼UCF铣刀(原LUF铣刀)

UCF ROUTER

◎反转铣刀,适用于半圆孔加工,解决正切铣刀加工易产生铜皮卷起。

These router used for semicircle hole milling. It can solve the problem of face milling cause cooper sheet rolled up.



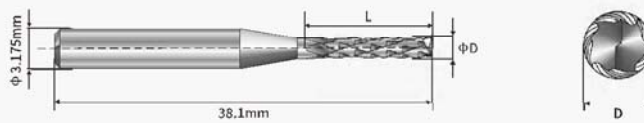
d [mm]	0.8	1.0	1.2	1.3	1.4	1.5	1.8	2.0
L [mm]	7.0	7.0 ●	7.0	8.0	8.5	8.5	9.0	10.5
	●	8.0 ○	●	●	●	●	●	●

▼LCF铣刀

LCF ROUTER

◎左旋铣刀,适用于SMT分板机等加工,下排屑,表面毛刺小。

These router used for SMT plate splitting machine milling, under chip remove, surface chipping small.



d [mm]	0.8	1.2
L [mm]	6.0	8.0
	●	●

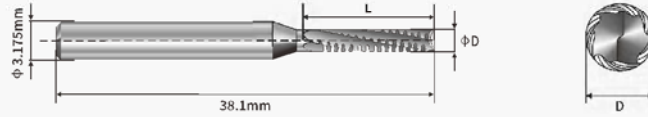
● 常规库存产品 Stock Products

○ 按订单生产 Non-stock Products

▼RBF铣刀(原CBF铣刀)
RBF ROUTER

◎断屑刃型,具有良好的板边品质,适合于对板品质要求高场合。

These router used for highly demand board, it can achieve high board edge quality.

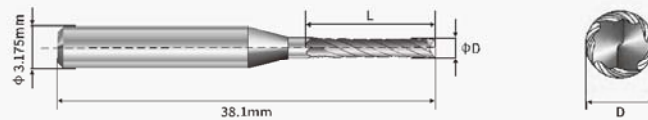


d [mm]	1.5	1.6	2.0	2.4	2.5
L [mm]	9.0	9.0	10.5	12.0	12.0
	●	●	●	●	●

▼RTF铣刀(原ETR铣刀)
RTF ROUTER

◎修边型铣刀,适用于金手指板、特氟龙板等精修,提供完美板边品质及良好的尺寸精度。

These router used for Gold Finger PCB, TFFE board fine milling and can achieve perfect board edge and well size accuracy.



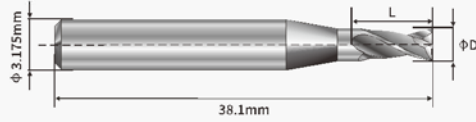
d [mm]	0.5	0.8	1.0	1.2	1.4	1.5	1.6
L [mm]	3.0 ●	6.0	7.0	7.0	7.0	8.5	8.5
	4.0 ○	●	●	●	●	●	●

● 常规库存产品 Stock Products ○ 按订单生产 Non-stock Products

▼ZSP铣刀 ZSP ROUTER

◎特别是铝基板的成型加工.用于控深铣削盲槽,底面平整、光洁度高。

These router is especially used for MCPCB milling. It can control the milling blind slot deepness, bottom surface level and the surface perfection well.



d [mm]	0.30-1.20	1.30-1.90	2.0-3.175
L [mm]	2.0-4.0	4.0-6.0	4.0-8.0

▼LZZ铣刀 LZZ ROUTER

◎用于铝基、铜基等金属基板的铣削加工,可有效改善披锋。

These router is used for MCPCB and cooper PCB etc. MPCB milling, improved milling flashing effectivity.

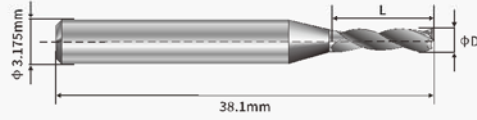


d [mm]	0.60-1.0	1.10-1.40	1.50-2.40
L [mm]	3.0-6.0	5.0-7.0	7.0-9.0

▼RFF铣刀 RFF ROUTER

◎用于软性材料的铣削加工。

These routers is used for flexible material milling .

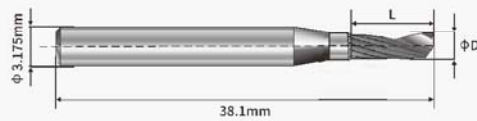


d [mm]	0.40-1.0	1.10-1.90	2.0-2.40
L [mm]	1.50-5.0	5.0-9.0	6.0-10.0

▼LOP铣刀 LOP ROUTER

◎用于PTFE和软板等难切断材料加工,解决披锋毛刺问题。

These router is more suitable for difficult milling materials of PTEE and Flexible. And it can solve flashing and chip problem.

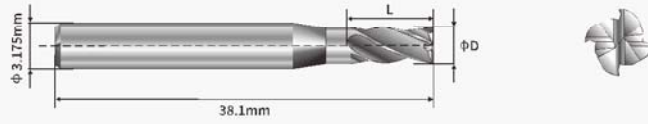


d [mm]	0.60-0.90	1.0-2.0	2.10-2.90	3.0-3.175
L [mm]	3.0-5.0	5.0-8.0	6.0-10.0	12.0

▼REP铣刀 REP ROUTER

◎平底盲孔成型加工专用刀具。

Four flute flat router is suitable for milling flat blind hole on the end process of PCB.

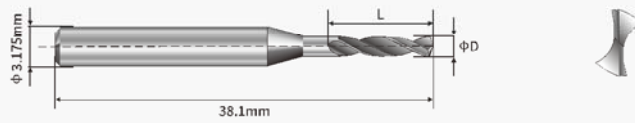


d [mm]	1.0-3.0	4.0-8.0	9.0-10.0
L [mm]	3.0-5.0	7.0	7.0-10.0

▼SDX槽刀 SDX SLOT DRILL

◎硬质合金槽刀,高刚性设计,适用于各种长短槽孔加工。

High rigidity design slot, more suitable for short/long slot turning.

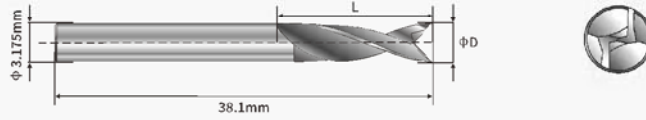


d [mm]	0.40	0.45	0.50	0.55	0.60-0.65	0.70-1.00	1.05-1.20	1.25-3.0
L [mm]	4.0	4.5	5.0	5.0	5.5	5.5	6.5	6.5
				5.5	6.0	7.0	7.5	8.5

▼RYF钻头
RYF DRILL

◎用于加工0.8mm以内PCB厚板定位孔,抑制孔口毛刺效果好。

Fish drill bit is used for 0.8mm PCB pilot hole. reduce the hole port chip effectivity.

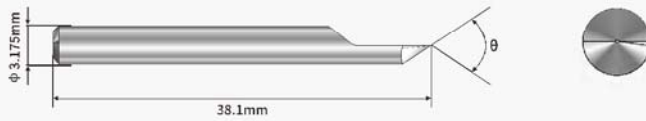


d [mm]	1.50-2.0	2.1-2.9	3.0-3.175
L [mm]	8.0-11.0	8.0-11.0	8.0-11.0

▼RKZ铣刀
RKZ ROUTER

◎适用于V槽加工。

RKZ especial used for V-groove milling.

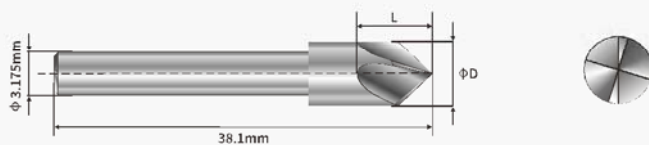


d [mm]	3.175			
黏尖角 [°C]	30	60	90	120

▼RJZ沉头钻 RJZ Drill

◎锥形沉头孔专用刀具。

Especially used for counterboring .

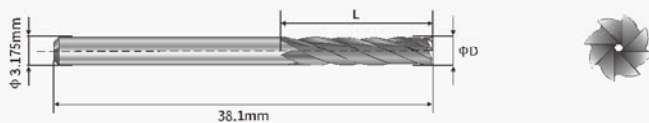


d [mm]	2.0	5.0-7.0	8.0-12.0
L [mm]	5.0	7.0	10.0-12.0

▼RNP铣刀 RNP ROUTER

◎用于PCB板金手指斜边加工。

Especially used for terminal chaffering machines.

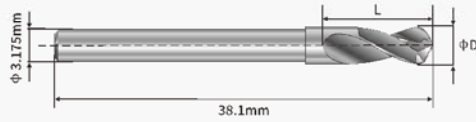


φ [mm]	2.0	3.0	3.175	6.0
D [mm]	3.175	3.175	3.175	6.0
L [mm]	12.0	12.0	12.0	18.0

▼RDZ钻头

RDZ DRILL

◎用于加工1.5mm以上PCB厚板定位孔, 抑制孔口毛刺效果好。
Suitable for 1.5mm PCB pilot hole, reduce the hole port chip effectively.

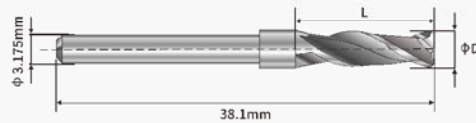


d [mm]	2.0	3.0	3.175	3.2
L [mm]	6.0-11.0	6.0-11.0	6.0-11.0	6.0-11.0

▼RJP铣刀

RJP ROUTER

◎槽内倒角面成型专用铣刀, 加工直径较小的倒角面, 形状尺寸精度高。
These router is used for slot inner small circle surface turning, high size accuracy.



φ [mm]	2.0	3.0
L [mm]	4.0-6.0	4.0-6.0

▼槽钻使用参数推荐表

SLOT DRILL BITS CUTTING PARAMETERS

直径 Drill Size	转速 Spindle Speed	Double Sides Board			Multilayer Sides Board		
		进给量 Chip Load	落速 Infeed Rate		进给量 Chip Load	落速 Infeed Rate	
mm	krpm	um/rev	m/min	ipm	um/rev	m/min	ipm
0.5	85	6.0	0.5	20	9.0	0.8	30
0.6	85	9.0	0.8	30	10.5	0.9	35
0.8	70	14.5	1.0	40	16.3	1.1	45
1.0	55	18.5	1.0	40	20.8	1.1	45
1.2	45	22.6	1.0	40	25.4	1.1	45
1.4	40	25.4	1.0	40	28.6	1.1	45
1.6	35	29.0	1.0	40	32.7	1.1	45
1.8	31	32.8	1.0	40	36.9	1.1	45
2.0	31	24.6	0.8	30	28.7	0.9	35

▼ 铣刀使用参数推荐表

ROUTERS CUTTING PARAMETERS

直径 Drill Size	转速 Spindle Speed	切削速 Table Speed		回刀速 Retract Rate	
		m/min	ipm	m/min	ipm
0.50	40	0.3	10	0.2	8
0.60	40	0.3	10	0.2	6
0.70	40	0.3	10	0.2	6
0.80	35	0.4	16	0.2	8
0.90	35	0.4	16	0.2	8
1.00	35	0.4	16	0.2	8
1.10	30	0.4	16	0.2	8
1.20	30	0.4	16	0.2	8
1.30	30	0.4	16	0.2	8
1.40	30	0.6	24	0.2	8
1.50	30	0.6	24	0.2	9
1.60	30	0.6	24	0.2	9
1.70	30	0.6	24	0.2	9
1.80	32	0.8	32	0.2	9
1.90	32	0.8	32	0.2	9
2.00	32	0.8	32	0.2	9
2.10	28	0.9	34	0.2	9
2.20	28	0.9	34	0.2	9
2.30	28	0.9	34	0.2	9
2.40	24	0.9	36	0.2	9
2.50	23	0.9	36	0.2	9
2.60	22	0.7	28	0.2	9
2.70	22	0.7	28	0.2	9
2.80	21	0.7	28	0.2	9
2.90	21	0.7	28	0.2	9
3.00	20	0.7	28	0.2	9
3.175	20	0.7	28	0.2	9

▼钻头使用参数推荐表-I

DRILL BITS CUTTING PARAMETERS-I

(FOR 125K\160K\180K\200K DRILLING M/C)

直径 Drill Size	转速 Spindle Speed	Double Sides Board				Multilayer Sides Board			
		进给量 Chip Load		转速 Infeed Rate		进给量 Chip Load		转速 Infeed Rate	
mm	krpm	um/rev	mil/rev	m/min	ipm	um/rev	mil/rev	m/min	ipm
0.10	160	5	0.18	0.74	29	4	0.15	0.61	24
	200	5	0.19	0.97	38	4	0.15	0.76	30
0.15	160	7	0.27	1.09	43	6	0.23	0.94	37
	200	7	0.26	1.32	52	5	0.21	1.07	42
0.20	125	11	0.44	1.4	55	9	0.36	1.1	45
	160	10	0.41	1.7	65	8	0.34	1.4	55
	200	12	0.48	2.4	95	10	0.40	2.0	80
0.25	125	16	0.64	2.0	80	13	0.52	1.7	65
	155	15	0.58	2.3	90	12	0.48	1.9	75
	180	16	0.61	2.8	110	12	0.47	2.2	85
0.30	110	16	0.64	1.8	70	15	0.55	1.5	60
	145	17	0.66	2.4	95	14	0.55	2.0	80
	170	18	0.71	3.0	120	14	0.56	2.4	96
0.35	105	22	0.86	2.3	90	18	0.71	1.9	75
	140	20	0.79	2.8	110	16	0.68	2.4	95
0.40	160	19	0.75	3.0	120	16	0.69	2.8	110
	100	24	0.95	2.4	95	20	0.80	2.0	80
	130	21	0.85	2.8	110	18	0.73	2.4	95
0.45	160	21	0.84	3.4	135	18	0.75	3.0	120
	95	27	1.05	2.5	100	22	0.89	2.2	85
	125	22	0.88	2.8	110	19	0.76	2.4	95
0.50	160	23	0.91	3.7	145	18	0.73	2.9	116
	90	30	1.18	2.69	106	25	0.98	2.26	89
0.55	85	34	1.32	2.84	112	28	1.10	2.3	94
0.60	80	40	1.56	3.18	125	33	1.30	2.64	104
0.65	75	44	1.75	3.33	131	37	1.46	2.77	109
0.70	70	48	1.89	3.35	132	40	1.57	2.79	110
0.75	70	50	1.98	3.53	139	42	1.65	2.95	116
0.85	65	53	2.08	3.43	135	44	1.73	2.87	113
0.95	65	55	2.17	3.58	141	46	1.81	3.00	118
0.90	60	58	2.27	3.45	136	48	1.89	2.87	113
0.95	60	60	2.36	3.58	141	50	1.97	3.00	118
1.00	55	62	2.46	3.43	135	52	2.05	2.87	113
1.05	50	65	2.55	3.25	128	54	2.13	2.69	106
1.10	50	67	2.65	3.35	132	56	2.20	2.79	110
1.15	48	70	2.74	3.35	132	58	2.28	2.79	110
1.20	45	72	2.83	3.25	128	60	2.36	2.69	106
1.25	45	74	2.93	3.35	132	62	2.44	2.79	110
1.30	42	77	3.02	3.23	127	64	2.52	2.69	106
1.35	42	79	3.12	3.33	131	66	2.60	2.77	109
1.40	40	82	3.21	3.28	129	68	2.68	2.72	107
1.45	38	84	3.32	3.2	126	70	2.76	2.7	105
1.50	38	86	3.39	3.3	129	72	2.84	2.7	108
1.55	38	86	3.39	3.3	129	72	2.84	2.7	108
1.60	36	86	3.39	3.1	122	72	2.83	2.6	102
1.65	36	89	3.50	3.2	126	74	2.92	2.7	105

▼ 钻头使用参数推荐表-II

DRILL BITS CUTTING PARAMETERS-II

(FOR 125K\160K\180K\200K DRILLING M/C)

直径 Drill Size	转速 Spindle Speed	Double Sides Board				Multilayer Sides Board			
		进给量 Chip Load		落速 Infeed Rate		进给量 Chip Load		落速 Infeed Rate	
mm	krpm	um/rev	mil/rev	m/min	ipm	um/rev	mil/rev	m/min	ipm
1.70	35	89	3.49	3.1	122	74	2.91	2.6	102
1.75	35	90	3.54	3.1	124	75	2.94	2.6	103
1.80	33	90	3.55	3.0	117	75	2.94	2.5	97
1.85	33	89	3.48	2.9	115	74	2.91	2.4	96
1.90	32	89	3.50	2.8	112	74	2.91	2.4	93
1.95	32	87	3.41	2.8	109	72	2.84	2.3	91
2.00	30	89	3.50	2.7	105	72	3.33	2.5	100
2.05	30	76	3.00	2.3	90	70	2.83	2.2	85
2.10	28	82	3.21	2.3	90	70	2.68	1.9	75
2.15	28	82	3.21	2.3	90	68	2.50	1.8	70
2.20	26	82	3.23	2.1	84	68	2.69	1.8	70
2.25	26	78	3.08	2.0	80	66	2.62	1.7	68
2.30	24	79	3.13	1.9	75	66	2.58	1.6	62
2.35	24	77	3.04	1.9	73	64	2.50	1.5	60
2.40	24	77	3.04	1.9	73	64	2.50	1.5	60
2.45	24	74	2.92	1.8	70	62	2.46	1.5	59
2.50	22	75	2.95	1.7	65	62	2.50	1.4	55
2.55	22	75	2.95	1.7	65	60	2.50	1.4	55
2.60	22	75	2.95	1.7	65	60	2.50	1.4	55
2.65	22	69	2.73	1.5	60	58	2.27	1.3	50
2.70	20	76	3.00	1.5	60	58	2.30	1.2	46
2.75	20	64	2.50	1.3	50	56	2.25	1.1	45
2.80	20	64	2.50	1.3	50	56	2.25	1.1	45
2.85	20	70	2.75	1.4	55	55	2.25	1.1	45
2.90	20	70	2.75	1.4	55	55	2.25	1.1	45
2.95	20	64	2.50	1.3	50	52	2.00	1.0	40
3.00	20	64	2.50	1.3	50	52	2.00	1.0	40
3.05-3.15	20	57	2.25	1.1	45	50	1.75	0.9	35
3.20-3.55	20	57	2.25	1.1	45	50	1.75	0.9	35
3.60-3.85	20	57	2.25	1.1	45	48	1.90	1.0	38
3.90-4.15	20	51	2.00	1.0	40	46	1.75	0.9	35
4.20-4.35	20	51	2.00	1.0	40	45	1.75	0.9	35
4.40-4.55	20	44	1.75	0.9	35	38	1.50	0.8	30
4.60-4.70	20	43	1.70	0.9	34	36	1.40	0.7	28
4.75-4.90	20	39	1.55	0.8	31	33	1.30	0.7	26
4.95-5.05	20	37	1.45	0.7	29	31	1.20	0.6	24
5.10-5.20	20	25	1.00	0.5	20	29	1.15	0.6	23
5.25-5.40	20	25	1.00	0.5	20	27	1.05	0.5	21
5.45-5.55	20	25	1.00	0.5	20	24	0.95	0.5	19
5.60-5.75	20	25	1.00	0.5	20	23	0.90	0.5	18
5.80-5.95	20	24	0.95	0.5	19	20	0.80	0.4	16
6.00-6.30	20	22	0.85	0.4	17	18	0.70	0.4	14
6.35-6.50	20	18	0.70	0.4	14	15	0.60	0.3	12

▼公英制转换表
CONVERSION TABLE

尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch	尺寸 Size	英寸 Inch
0.05mm	0.0020"	58	0.0420"	2.80mm	0.1102"	13	0.1850"	0.50mm	0.0197"	47	0.0785"	3.80mm	0.1496"	5.60mm	0.2205"
0.10mm	0.0040"	57	0.0430"	34	0.1110"	4.70mm	0.1850"	76	0.0200"	2.00mm	0.0787"	3.85mm	0.1516"	2	0.2210"
0.13mm	0.0050"	1.10mm	0.0433"	2.85mm	0.1122"	4.75mm	0.1870"	75	0.0210"	2.05mm	0.0807"	24	0.1520"	5.65mm	0.2224"
0.15mm	0.0059"	1.15mm	0.0453"	33	0.1130"	3/16"	0.1875"	0.55mm	0.0217"	46	0.0810"	3.90mm	0.1535"	5.70mm	0.2244"
97	0.0059"	56	0.0465"	2.90mm	0.1142"	4.80mm	0.1890"	74	0.0225"	45	0.0820"	23	0.1540"	5.75mm	0.2264"
96	0.0063"	3/64"	0.0469"	32	0.1160"	12	0.1890"	0.60mm	0.0236"	2.10mm	0.0827"	3.95mm	0.1555"	1	0.2280"
95	0.0067"	1.20mm	0.0472"	2.95mm	0.1161"	4.85mm	0.1909"	73	0.0240"	2.15mm	0.0846"	5/32"	0.1562"	5.80mm	0.2283"
94	0.0071"	1.25mm	0.0492"	3.00mm	0.1181"	11	0.1910"	72	0.0250"	44	0.0860"	22	0.1570"	5.85mm	0.2302"
93	0.0075"	1.30mm	0.0512"	31	0.1200"	4.90mm	0.1929"	0.65mm	0.0256"	2.20mm	0.0866"	4.00mm	0.1575"	5.90mm	0.2323"
92	0.0079"	55	0.0520"	3.05mm	0.1201"	10	0.1935"	71	0.0260"	2.25 mm	0.0886"	21	0.1590"	A	0.2340"
0.20mm	0.0079"	1.35mm	0.0531"	3.10mm	0.1220"	4.95mm	0.1949"	0.70mm	0.0276"	43	0.0890"	4.05mm	0.1594"	5.95mm	0.2343"
91	0.0083"	54	0.0550"	3.15mm	0.1240"	9	0.1960"	70	0.0280"	2.30mm	0.0906"	20	0.1610"	1 5/64"	0.2344"
90	0.0087"	1.40mm	0.0551"	1/8"	0.1250"	5.00mm	0.1968"	69	0.0292"	2.35mm	0.0925"	4.10mm	0.1614"	6.00mm	0.2362"
89	0.0091"	1.45mm	0.0571"	3.20mm	0.1260"	5.05mm	0.1986"	0.75mm	0.0295"	42	0.0935"	4.15mm	0.1634"	B	0.2380"
88	0.0095"	1.50mm	0.0591"	3.25mm	0.1280"	8	0.1990"	68	0.0310"	3/32"	0.0938"	4.20mm	0.1654"	6.05mm	0.2382"
0.25 mm	0.0098"	53	0.0595"	30	0.1285"	5.10mm	0.2008"	1/32"	0.0312"	2.40mm	0.0945"	19	0.1660"	6.10mm	0.2402"
0.05mm	0.0100"	1.55mm	0.0610"	3.30mm	0.1299"	7	0.2010"	0.80mm	0.0315"	41	0.0960"	4.25 mm	0.1673"	C	0.2420"
0.10mm	0.0105"	1/16"	0.0623"	3.3 5mm	0.1319"	5.1 5mm	0.2028"	67	0.0320"	2.45 mm	0.0965"	4.30mm	0.1693"	6.15mm	0.2421"
0.13mm	0.0110"	1.60mm	0.0630"	3.40mm	0.1339"	13/64"	0.2031"	66	0.0330"	40	0.0980"	18	0.1695"	6.20mm	0.2441"
0.15mm	0.0115"	52	0.0635"	3.4 5mm	0.1358"	6	0.2040"	0.85mm	0.0335"	2.50mm	0.0984"	4.35 mm	0.1713"	D	0.2460"
97	0.0118"	1.65mm	0.0650"	29	0.1360"	5.20mm	0.2047"	65	0.0350"	39	0.0995"	1 1/64"	0.1719"	6.25mm	0.2461"
96	0.0120"	1.70mm	0.0669"	3.50mm	0.1378"	5	0.2055"	0.90mm	0.0354"	2.55mm	0.1004"	17	0.1730"	6.30mm	0.2480"
95	0.0125"	51	0.0670"	3.55mm	0.1398"	5.25mm	0.2067"	64	0.0360"	38	0.1015"	4.40mm	0.1732"	6.35mm	0.2500"
94	0.0130"	1.75 mm	0.0689"	28	0.1405"	5.30mm	0.2087"	63	0.0370"	2.60mm	0.1024"	4.45mm	0.1752"	E	0.2500"
93	0.0135"	50	0.0700"	9/64"	0.1406"	4	0.2090"	0.95 mm	0.0374"	37	0.1040"	16	0.1770"	1/4"	0.2500"
92	0.0138"	1.80mm	0.0709"	3.60mm	0.1417"	5.35mm	0.2106"	62	0.0380"	2.65mm	0.1043"	4.50mm	0.1772"	6.40mm	0.2520"
0.20mm	0.0145"	1.85mm	0.0728"	3.65mm	0.1437"	5.40mm	0.2126"	61	0.0390"	2.70mm	0.1063"	4.55mm	0.1791"	6.50mm	0.2559"
91	0.0156"	49	0.0730"	27	0.1440"	3	0.2130"	1.00mm	0.0394"	36	0.1065"	15	0.1800"	F	0.2570"
90	0.0157"	1.90mm	0.0748"	3.70mm	0.1457"	5.45mm	0.2146"	60	0.0400"	2.75mm	0.1083"	4.60mm	0.1811"	6.60mm	0.2598"
89	0.0160"	48	0.0760"	26	0.1470"	5.50mm	0.2165"	59	0.0410"	7/64"	0.1094"	14	0.1820"	G	0.2160"
88	0.0177"	1.95mm	0.0768"	3.75mm	0.1476"	5.55mm	0.2185"	1.05mm	0.0413"	35	0.1100"	4.65mm	0.1831"	6.70mm	0.2638"
0.25mm	0.0180"	5/64"	0.0781"	25	0.1495"	7/32"	0.2188"								