



CHANGZHOU TIANZHAO CUTTER CO.,LTD



Changzhou Tianzhao Cutter Co.,Ltd is located in Xixiashu Town, Changzhou High-tech Zone, Jiangsu Province, 5 km from Changzhou airport, 3 km from Shanghai-Nanjing Expressway and 16 km from Changzhou North Station of Shanghai-Nanjing High-speed Railway, with very convenient transportation.

The company has five-axis automatic CNC grinding machines and other world-class imported equipment, the team has 15 years of technical personnel engaged in the tool industry, the use of international high-quality materials, tool quality to achieve international advanced level, to provide customers with high-precision standard tools and non-standard tools, the main production of integral carbide: drill, milling cutter, reamer, etc., and for customers to design and produce a variety of non-standard tools.

The company takes "customer first, quality first" as its business philosophy, and strives to provide customers with optimized services such as "cost improvement in the production process and shortening of the ordering cycle", and is now a member of the Changzhou Mechanical Engineering Society. The company is constantly innovating and striving to provide more customers with better products.



## Milling

1	Carbide 4 Flutes Square End Mill	Page 4~11
2	Carbide Ball Nose End Mill	Page 12~19
3	Carbide 2 Flutes Square End Mill	Page 20~23
4	Carbide 4 Flutes Corner Radius End Mill	Page 24~29
5	Carbide End Mill for Aluminum	Page 30~36
6	Carbide 2 Flutes Micro Square End Mill	Page 37
7	Carbide 2 Flutes Micro Ball Nose End Mill	Page 38
8	Carbide 4 Flutes Roughing End Mill	Page 39~40
9	Carbide 3 Flutes Roughing End Mill for Aluminum	Page 41~42
10	Carbide 2 Flutes Long Neck Short Flutes End Mill	Page 43~51

## Drilling

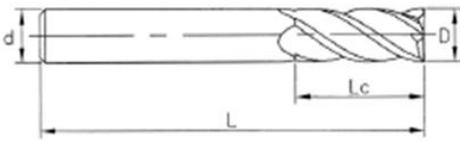
10	NC Spotting Drills	Page 52~53
11	Solid Carbide Drills (3D)	Page 54~61
12	Solid Carbide Drills (5D)	Page 62~69
	Carbide Step Drill Bits	Page 70

## Other Products

	Chamfer End Mill	Page 71~72
13	Carbide Rod	Page 73~76
14	Customized Cutter	Page 77
15	Carbide Saw Blade	Page 78
16	Carbide Inserts	Page 79~83

# 65度平底4刃钨钢铣刀

## HRC65 Carbide 4 Flutes Standard Length End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

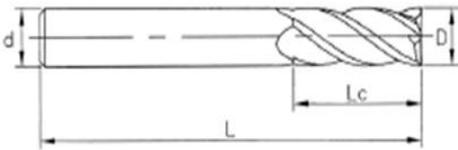
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM6503008030504F	3	8	3	50	4
EM6501003040504F	1	3	4	50	4
EM6501504040504F	1.5	4	4	50	4
EM6502006040504F	2	6	4	50	4
EM6502507040504F	2.5	7	4	50	4
EM6503008040504F	3	8	4	50	4
EM6504010040504F	4	10	4	50	4
EM6505013050504F	5	13	5	50	4
EM6505013060504F	5	13	6	50	4
EM6506015060504F	6	15	6	50	4
EM6507018080604F	7	18	8	60	4
EM6508020080604F	8	20	8	60	4
EM6510025100754F	10	25	10	75	4
EM6512030120754F	12	30	12	75	4
EM6514035140804F	14	35	14	80	4
EM6514045141004F	14	45	14	100	4
EM6516045161004F	16	45	16	100	4
EM6518045181004F	18	45	18	100	4
EM6520045201004F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 65度长柄平底4刃钨钢铣刀

## HRC65 Carbide Long Shank 4 Flutes Square End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, **respectively**

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

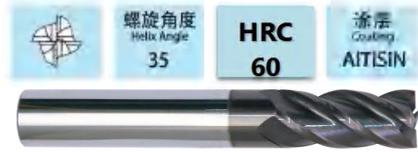
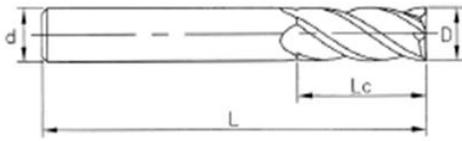
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM6504016040754F	4	16	4	75	4
EM6504020041004F	4	20	4	100	4
EM6505020050754F	5	20	5	75	4
EM6505025051004F	5	25	5	100	4
EM6506020060754F	6	20	6	75	4
EM6506030061004F	6	30	6	100	4
EM6506040061504F	6	40	6	150	4
EM6508025080754F	8	25	8	75	4
EM6508035081004F	8	35	8	100	4
EM6508050081504F	8	50	8	150	4
EM6510040101004F	10	40	10	100	4
EM6510050101504F	10	50	10	150	4
EM6512045121004F	12	45	12	100	4
EM6512055121504F	12	55	12	150	4
EM6514060141504F	14	60	14	150	4
EM6516060161504F	16	60	16	150	4
EM6518060181504F	18	60	18	150	4
EM6520070201504F	20	70	20	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened
Y	Y	Y			Y	Y

Y 适合 Suitable

# 60度平底4刃钨钢铣刀

## HRC60 Carbide 4 Flutes Standard Length End Mills



Raw Material: Use ZK40SF with 12% Co content and 0.6um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用自贡ZK40SF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

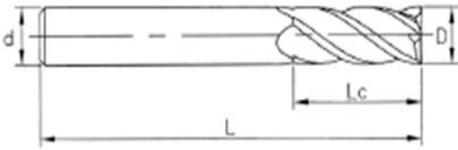
Order No.	Diameter	Cutting Length	Shank Diameter	Overall Length	Flutes
EM6003008030504 F	3	8	3	50	4
EM6001003040504 F	1	3	4	50	4
EM6001504040504 F	1.5	4	4	50	4
EM6002006040504 F	2	6	4	50	4
EM6002507040504 F	2.5	7	4	50	4
EM6003008040504 F	3	8	4	50	4
EM6004010040504 F	4	10	4	50	4
EM6005013050504 F	5	13	5	50	4
EM6005013060504 F	5	13	6	50	4
EM6006015060504 F	6	15	6	50	4
EM6007018080604 F	7	18	8	60	4
EM6008020080604 F	8	20	8	60	4
EM6010025100754 F	10	25	10	75	4
EM6012030120754 F	12	30	12	75	4
EM6014035140804 F	14	35	14	80	4
EM6014045141004 F	14	45	14	100	4
EM6016045161004 F	16	45	16	100	4
EM6018045181004 F	18	45	18	100	4
EM6020045201004 F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened
Y	Y	Y			Y	Y

Y 适合 Suitable

# 60度长柄平底4刃钨钢铣刀

## HRC60 Carbide Long Shank 4 Flutes Square End Mills



Raw Material: Use ZK40SF with 12% Co content and 0.6um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用自贡ZK40SF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

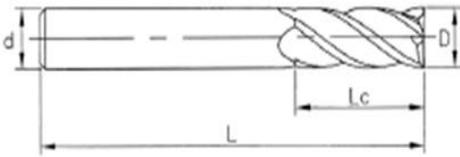
Order No.	Diameter	Cutting Length	Shank Diameter	Overall Length	Flutes
EM6004016040754F	4	16	4	75	4
EM6004020041004F	4	20	4	100	4
EM6005020050754F	5	20	5	75	4
EM6005025051004F	5	25	5	100	4
EM6006020060754F	6	20	6	75	4
EM6006030061004F	6	30	6	100	4
EM6006040061504F	6	40	6	150	4
EM6008025080754F	8	25	8	75	4
EM6008035081004F	8	35	8	100	4
EM6008050081504F	8	50	8	150	4
EM6010040101004F	10	40	10	100	4
EM6010050101504F	10	50	10	150	4
EM6012045121004F	12	45	12	100	4
EM6012055121504F	12	55	12	150	4
EM6014060141504F	14	60	14	150	4
EM6016060161504F	16	60	16	150	4
EM6018060181504F	18	60	18	150	4
EM6020070201504F	20	70	20	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened
Y	Y	Y			Y	Y

Y 适合 Suitable

# 55度平底4刃钨钢铣刀

## HRC55 Carbide 4 Flutes Standard Length End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6 -0.010 \sim -0.030$ ;  $6 < D \leq 10 -0.015 \sim -0.040$ ;  $10 < D \leq 20 -0.020 \sim -0.050$

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

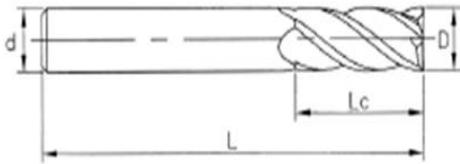
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM5503008030504 F	3	8	3	50	4
EM5501003040504 F	1	3	4	50	4
EM5501504040504 F	1.5	4	4	50	4
EM5502006040504 F	2	6	4	50	4
EM5502507040504 F	2.5	7	4	50	4
EM5503008040504 F	3	8	4	50	4
EM5503510040504 F	3.5	10	4	50	4
EM5504010040504 F	4	10	4	50	4
EM5505013050504 F	5	13	5	50	4
EM5502507060504 F	2.5	7	6	50	4
EM5503008060504 F	3	8	6	50	4
EM5503510060504 F	3.5	10	6	50	4
EM5504010060504 F	4	10	6	50	4
EM5504512060504 F	4.5	12	6	50	4
EM5505013060504 F	5	13	6	50	4
EM5506015060504 F	6	15	6	50	4
EM5507018080604 F	7	18	8	60	4
EM5508020080604 F	8	20	8	60	4
EM5509023100754 F	9	23	10	75	4
EM5510025100754 F	10	25	10	75	4
EM5511028120754 F	11	28	12	75	4
EM5512030120754 F	12	30	12	75	4
EM5514035140804 F	14	35	14	80	4
EM5514045141004 F	14	45	14	100	4
EM5516045161004 F	16	45	16	100	4
EM5518045181004 F	18	45	18	100	4
EM5520045201004 F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度长柄平底4刃钨钢铣刀

## HRC55 Carbide 4 Flutes Long Shank Square End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim -0.050$

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

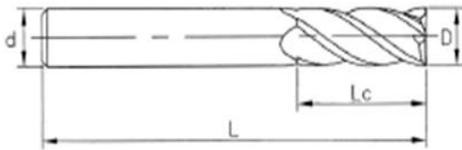
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM5503012030754F	3	12	3	75	4
EM5503012031004F	3	12	3	100	4
EM5504016040754F	4	16	4	75	4
EM5504020041004F	4	20	4	100	4
EM5505020050754F	5	20	5	75	4
EM5505025051004F	5	25	5	100	4
EM5506020060754F	6	20	6	75	4
EM5506030061004F	6	30	6	100	4
EM5506040061504F	6	40	6	150	4
EM5508025080754F	8	25	8	75	4
EM5508035081004F	8	35	8	100	4
EM5508050081504F	8	50	8	150	4
EM5510040101004F	10	40	10	100	4
EM5510050101504F	10	50	10	150	4
EM5512045121004F	12	45	12	100	4
EM5512055121504F	12	55	12	150	4
EM5514060141504F	14	60	14	150	4
EM5516060161504F	16	60	16	150	4
EM5518060181504F	18	60	18	150	4
EM5520070201504F	20	70	20	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度平底4刃钨钢铣刀

## HRC45 Carbide 4 Flute Standard Length End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AITiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

AITiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度

4 刃，刚性高，广泛用于浅槽、侧铣和精加工

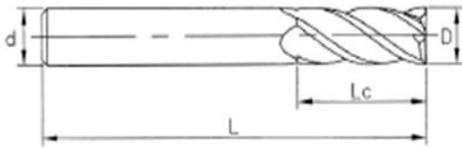
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM4503008030504 F	3	8	3	50	4
EM4501003040504 F	1	3	4	50	4
EM4501504040504 F	1.5	4	4	50	4
EM4502006040504 F	2	6	4	50	4
EM4502507040504 F	2.5	7	4	50	4
EM4503008040504 F	3	8	4	50	4
EM4503510040504 F	3.5	10	4	50	4
EM4504010040504 F	4	10	4	50	4
EM4505013050504 F	5	13	5	50	4
EM4502507060504 F	2.5	7	6	50	4
EM4503008060504 F	3	8	6	50	4
EM4503510060504 F	3.5	10	6	50	4
EM4504010060504 F	4	10	6	50	4
EM4504512060504 F	4.5	12	6	50	4
EM4505013060504 F	5	13	6	50	4
EM4506015060504 F	6	15	6	50	4
EM4507018080604 F	7	18	8	60	4
EM4508020080604 F	8	20	8	60	4
EM4509023100754 F	9	23	10	75	4
EM4510025100754 F	10	25	10	75	4
EM4511028120754 F	11	28	12	75	4
EM4512030120754 F	12	30	12	75	4
EM4514035140804 F	14	35	14	80	4
EM4514045141004 F	14	45	14	100	4
EM4516045161004 F	16	45	16	100	4
EM4518045181004 F	18	45	18	100	4
EM4520045201004 F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 45度长柄平底4刃钨钢铣刀

## HRC45 Carbide 4 Flute Long Length End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AITiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim -0.050$

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

AITiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度

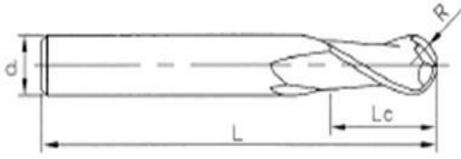
4 刃，刚性高，广泛用于浅槽、侧铣和精加工

Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM4503012030754 F	3	12	3	75	4
EM4503012031004 F	3	12	3	100	4
EM4504016040754 F	4	16	4	75	4
EM4504020041004 F	4	20	4	100	4
EM4505020050754 F	5	20	5	75	4
EM4505025051004 F	5	25	5	100	4
EM4506020060754 F	6	20	6	75	4
EM4506030061004 F	6	30	6	100	4
EM4506040061504 F	6	40	6	150	4
EM4508025080754 F	8	25	8	75	4
EM4508035081004 F	8	35	8	100	4
EM4508050081504 F	8	50	8	150	4
EM4510040101004 F	10	40	10	100	4
EM4510050101504 F	10	50	10	150	4
EM4512045121004 F	12	45	12	100	4
EM4512055121504 F	12	55	12	150	4
EM4514060141504 F	14	60	14	150	4
EM4516060161504 F	16	60	16	150	4
EM4518060181504 F	18	60	18	150	4
EM4520070201504 F	20	70	20	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

# 65度2刃钨钢球头铣刀

## HRC65 Carbide 2 Flute Standard Length Ball Nose End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

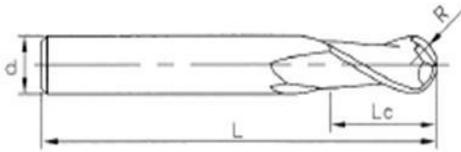
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN6503006030502F	3	6	3	50	2
BN6501002040502F	1	2	4	50	2
BN6501503040502F	1.5	3	4	50	2
BN6502004040502F	2	4	4	50	2
BN6502505040502F	2.5	5	4	50	2
BN6503006040502F	3	6	4	50	2
BN6504008040502F	4	8	4	50	2
BN6505010050502F	5	10	5	50	2
BN6506012060502F	6	12	6	50	2
BN6508016080602F	8	16	8	60	2
BN6510020100752F	10	20	10	75	2
BN6512024120752F	12	24	12	75	2
BN6514028141002F	14	28	14	100	2
BN6516032161002F	16	32	16	100	2
BN6518036181002F	18	36	18	100	2
BN6520040201002F	20	40	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 65度2刃长柄钨钢球头铣刀

## HRC65 Carbide 2 Flute Long Length Ball Nose End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

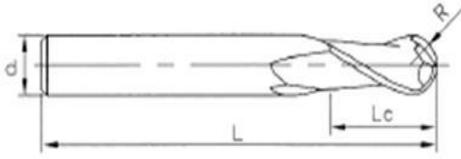
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN6504008040752F	4	8	4	75	2
BN6504008041002F	4	8	4	100	2
BN6505010050752F	5	10	5	75	2
BN6505010051002F	5	10	5	100	2
BN6506012060752F	6	12	6	75	2
BN6506012061002F	6	12	6	100	2
BN6506012061502F	6	12	6	150	2
BN6508016080752F	8	16	8	75	2
BN6508016081002F	8	16	8	100	2
BN6508016081502F	8	16	8	150	2
BN6510020101002F	10	20	10	100	2
BN6510020101502F	10	20	10	150	2
BN6512024121002F	12	24	12	100	2
BN6512024121502F	12	24	12	150	2
BN6514028141502F	14	28	14	150	2
BN6516032161502F	16	32	16	150	2
BN6518036181502F	18	36	18	150	2
BN6520040201502F	20	40	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 60度2刃钨钢球头铣刀

## HRC60 Carbide 2 Flute Standard Length Ball Nose End Mills



Raw Material: Use ZK40SF with 12% Co content and 0.6um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用自贡ZK40SF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

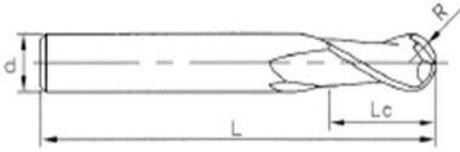
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN6003006030502F	3	6	3	50	2
BN6001002040502F	1	2	4	50	2
BN6001503040502F	1.5	3	4	50	2
BN6002004040502F	2	4	4	50	2
BN6002505040502F	2.5	5	4	50	2
BN6003006040502F	3	6	4	50	2
BN6004008040502F	4	8	4	50	2
BN6005010050502F	5	10	5	50	2
BN6006012060502F	6	12	6	50	2
BN6008016080602F	8	16	8	60	2
BN6010020100752F	10	20	10	75	2
BN6012024120752F	12	24	12	75	2
BN6014028141002F	14	28	14	100	2
BN6016032161002F	16	32	16	100	2
BN6018036181002F	18	36	18	100	2
BN6020040201002F	20	40	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 60度2刃长柄钨钢球头铣刀

## HRC60 Carbide 2 Flute Long Length Ball Nose End Mills



Raw Material: Use ZK40SF with 12% Co content and 0.6um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用金鹭ZK40SF具有高强度和高韧性

AlTiSiN, 纳米技术涂层, 硬度高达4000HV, 热稳定性达1200°C

双刃带设计, 有效提高刃带刚性和工件表面光洁度; 刃口过中心, 有效减少切削阻力; 大容量排屑槽, 方便顺畅排屑, 提高加工效率; 二刃设计, 广泛应用于沟槽, 孔加工

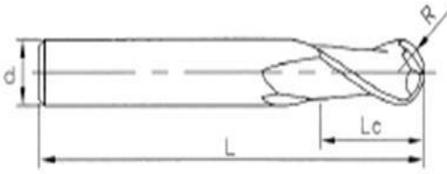
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN6004008040752F	4	8	4	75	2
BN6004008041002F	4	8	4	100	2
BN6005010050752F	5	10	5	75	2
BN6005010051002F	5	10	5	100	2
BN6006012060752F	6	12	6	75	2
BN6006012061002F	6	12	6	100	2
BN6006012061502F	6	12	6	150	2
BN6008016080752F	8	16	8	75	2
BN6008016081002F	8	16	8	100	2
BN6008016081502F	8	16	8	150	2
BN6010020101002F	10	20	10	100	2
BN6010020101502F	10	20	10	150	2
BN6012024121002F	12	24	12	100	2
BN6012024121502F	12	24	12	150	2
BN6014028141502F	14	28	14	150	2
BN6016032161502F	16	32	16	150	2
BN6018036181502F	18	36	18	150	2
BN6020040201502F	20	40	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 55度2刃钨钢球头铣刀

## HRC55 Carbide 2 Flute Standard Length Ball Nose End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim -0.050$

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

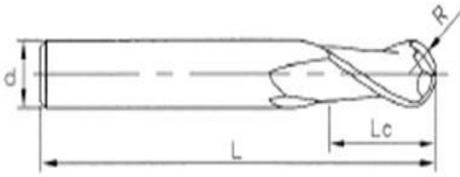
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN5503006030502F	3	6	3	50	2
BN5501002040502F	1	2	4	50	2
BN5501503040502F	1.5	3	4	50	2
BN5502004040502F	2	4	4	50	2
BN5502505040502F	2.5	5	4	50	2
BN5503006040502F	3	6	4	50	2
BN5504008040502F	4	8	4	50	2
BN5505010050502F	5	10	5	50	2
BN5506012060502F	6	12	6	50	2
BN5507014080602F	7	14	8	60	2
BN5508016080602F	8	16	8	60	2
BN5509018100752F	9	18	10	75	2
BN5510020100752F	10	20	10	75	2
BN5511022120752F	11	22	12	75	2
BN5512024120752F	12	24	12	75	2
BN5514028141002F	14	28	14	100	2
BN5516032161002F	16	32	16	100	2
BN5518036181002F	18	36	18	100	2
BN5520040201002F	20	40	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度2刃长柄钨钢球头铣刀

## HRC55 Carbide 2 Flute Long Length Ball Nose End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

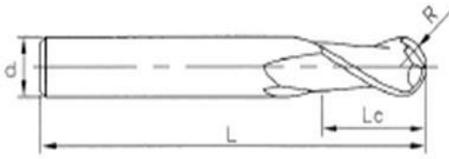
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN5503006030752F	3	6	3	75	2
BN5503006031002F	3	6	3	100	2
BN5504008040752F	4	8	4	75	2
BN5504008041002F	4	8	4	100	2
BN5505010050752F	5	10	5	75	2
BN5505010051002F	5	10	5	100	2
BN5506012060752F	6	12	6	75	2
BN5506012061002F	6	12	6	100	2
BN5506012061502F	6	12	6	150	2
BN5508016080752F	8	16	8	75	2
BN5508016081002F	8	16	8	100	2
BN5508016081502F	8	16	8	150	2
BN5510020101002F	10	20	10	100	2
BN5510020101502F	10	20	10	150	2
BN5512024121002F	12	24	12	100	2
BN5512024121502F	12	24	12	150	2
BN5514028141502F	14	28	14	150	2
BN5516032161502F	16	32	16	150	2
BN5518036181502F	18	36	18	150	2
BN5520040201502F	20	40	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度2刃钨钢球头铣刀

## HRC45 Carbide 2 Flute Standard Length Ball Nose End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

AlTiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

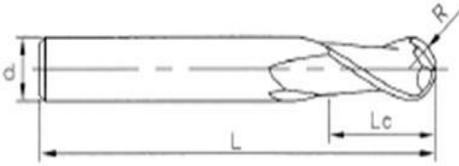
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN4503006030502F	3	6	3	50	2
BN4501002040502F	1	2	4	50	2
BN4501503040502F	1.5	3	4	50	2
BN4502004040502F	2	4	4	50	2
BN4502505040502F	2.5	5	4	50	2
BN4503006040502F	3	6	4	50	2
BN4504008040502F	4	8	4	50	2
BN4505010050502F	5	10	5	50	2
BN4506012060502F	6	12	6	50	2
BN4507014080602F	7	14	8	60	2
BN4508016080602F	8	16	8	60	2
BN4509018100752F	9	18	10	75	2
BN4510020100752F	10	20	10	75	2
BN4511022120752F	11	22	12	75	2
BN4512024120752F	12	24	12	75	2
BN4514028141002F	14	28	14	100	2
BN4516032161002F	16	32	16	100	2
BN4518036181002F	18	36	18	100	2
BN4520040201002F	20	40	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 45度2刃长柄钨钢球头铣刀

## HRC45 Carbide 2 Flute Long Length Ball Nose End Mills



**Raw Material:** Use YG10X with 10% Co content and 0.8um grain size.

**Coating:** AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

**Tolerance of End Mill Diameter:**  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

AlTiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度

双刃带设计，有效提高刃带刚性和工件表面光洁度；刃口过中心，有效减少切削阻力；大容量排屑槽，方便顺畅排屑，提高加工效率；二刃设计，广泛应用于沟槽，孔加工

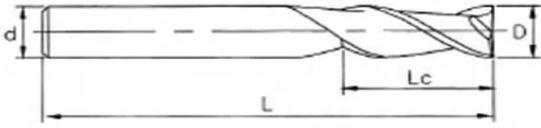
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
BN4503006030752F	3	6	3	75	2
BN4503006031002F	3	6	3	100	2
BN4504008040752F	4	8	4	75	2
BN4504008041002F	4	8	4	100	2
BN4505010050752F	5	10	5	75	2
BN4505010051002F	5	10	5	100	2
BN4506012060752F	6	12	6	75	2
BN4506012061002F	6	12	6	100	2
BN4506012061502F	6	12	6	150	2
BN4508016080752F	8	16	8	75	2
BN4508016081002F	8	16	8	100	2
BN4508016081502F	8	16	8	150	2
BN4510020101002F	10	20	10	100	2
BN4510020101502F	10	20	10	150	2
BN4512024121002F	12	24	12	100	2
BN4512024121502F	12	24	12	150	2
BN4514028141502F	14	28	14	150	2
BN4516032161502F	16	32	16	150	2
BN4518036181502F	18	36	18	150	2
BN4520040201502F	20	40	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 55度平底2刃钨钢铣刀

## HRC55 Carbide 2 Flute Standard Length End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim -0.050$

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

2 刃排削顺畅，纵向进给加工容易，广泛用于切槽和孔加工

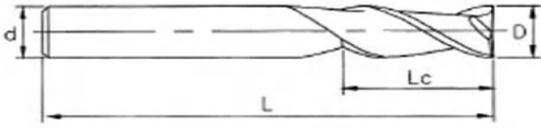
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM5503008030502F	3	8	3	50	2
EM5501003040502F	1	3	4	50	2
EM5501504040502F	1.5	4	4	50	2
EM5502006040502F	2	6	4	50	2
EM5502507040502F	2.5	7	4	50	2
EM5503008040502F	3	8	4	50	2
EM5503510040502F	3.5	10	4	50	2
EM5504010040502F	4	10	4	50	2
EM5505013050502F	5	13	5	50	2
EM5502507060502F	2.5	7	6	50	2
EM5503008060502F	3	8	6	50	2
EM5503510060502F	3.5	10	6	50	2
EM5504010060502F	4	10	6	50	2
EM5504512060502F	4.5	12	6	50	2
EM5505013060502F	5	13	6	50	2
EM5506015060502F	6	15	6	50	2
EM5507018080602F	7	18	8	60	2
EM5508020080602F	8	20	8	60	2
EM5509023100752F	9	23	10	75	2
EM5510025100752F	10	25	10	75	2
EM5511028120752F	11	28	12	75	2
EM5512030120752F	12	30	12	75	2
EM5514035140802F	14	35	14	80	2
EM5514045141002F	14	45	14	100	2
EM5516045161002F	16	45	16	100	2
EM5518045181002F	18	45	18	100	2
EM5520045201002F	20	45	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度平底长柄2刃钨钢铣刀

## HRC55 Carbide 2 Flute Long Length End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

2 刃排削顺畅，纵向进给加工容易， 广泛用于切槽和孔加工

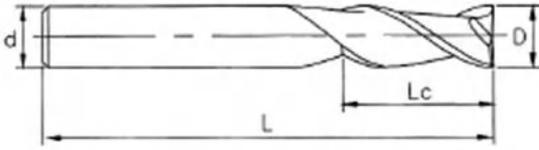
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM5503012030752F	3	12	3	75	2
EM5503012031002F	3	12	3	100	2
EM5504016040752F	4	16	4	75	2
EM5504020041002F	4	20	4	100	2
EM5505020050752F	5	20	5	75	2
EM5505025051002F	5	25	5	100	2
EM5506020060752F	6	20	6	75	2
EM5506030061002F	6	30	6	100	2
EM5506040061502F	6	40	6	150	2
EM5508025080752F	8	25	8	75	2
EM5508035081002F	8	35	8	100	2
EM5508050081502F	8	50	8	150	2
EM5510040101002F	10	40	10	100	2
EM5510050101502F	10	50	10	150	2
EM5512045121002F	12	45	12	100	2
EM5512055121502F	12	55	12	150	2
EM5514060141502F	14	60	14	150	2
EM5516060161502F	16	60	16	150	2
EM5518060181502F	18	60	18	150	2
EM5520070201502F	20	70	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度平底2刃钨钢铣刀

## HRC45 Carbide 2 Flute Standard Length End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性  
AlTiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度  
2 刃排削顺畅，纵向进给加工容易， 广泛用于切槽和孔加工

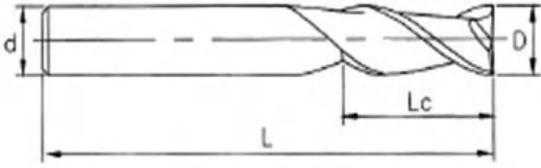
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM4503008030502F	3	8	3	50	2
EM4501003040502F	1	3	4	50	2
EM4501504040502F	1.5	4	4	50	2
EM4502006040502F	2	6	4	50	2
EM4502507040502F	2.5	7	4	50	2
EM4503008040502F	3	8	4	50	2
EM4503510040502F	3.5	10	4	50	2
EM4504010040502F	4	10	4	50	2
EM4505013050502F	5	13	5	50	2
EM4502507060502F	2.5	7	6	50	2
EM4503008060502F	3	8	6	50	2
EM4503510060502F	3.5	10	6	50	2
EM4504010060502F	4	10	6	50	2
EM4504512060502F	4.5	12	6	50	2
EM4505013060502F	5	13	6	50	2
EM4506015060502F	6	15	6	50	2
EM4507018080602F	7	18	8	60	2
EM4508020080602F	8	20	8	60	2
EM4509023100752F	9	23	10	75	2
EM4510025100752F	10	25	10	75	2
EM4511028120752F	11	28	12	75	2
EM4512030120752F	12	30	12	75	2
EM4514035140802F	14	35	14	80	2
EM4514045141002F	14	45	14	100	2
EM4516045161002F	16	45	16	100	2
EM4518045181002F	18	45	18	100	2
EM4520045201002F	20	45	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 45度平底长柄2刃钨钢铣刀

## HRC45 Carbide 2 Flute Long Length End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -0.050

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性  
AlTiN 涂层，高铝含量提供了优异的红硬性和抗氧化温度  
2 刃排削顺畅，纵向进给加工容易，广泛用于切槽和孔加工

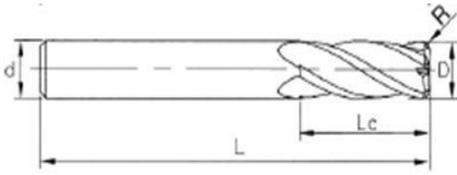
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
EM4503012030752F	3	12	3	75	2
EM4503012031002F	3	12	3	100	2
EM4504016040752F	4	16	4	75	2
EM4504020041002F	4	20	4	100	2
EM4505020050752F	5	20	5	75	2
EM4505025051002F	5	25	5	100	2
EM4506020060752F	6	20	6	75	2
EM4506030061002F	6	30	6	100	2
EM4506040061502F	6	40	6	150	2
EM4508025080752F	8	25	8	75	2
EM4508035081002F	8	35	8	100	2
EM4508050081502F	8	50	8	150	2
EM4510040101002F	10	40	10	100	2
EM4510050101502F	10	50	10	150	2
EM4512045121002F	12	45	12	100	2
EM4512055121502F	12	55	12	150	2
EM4514060141502F	14	60	14	150	2
EM4516060161502F	16	60	16	150	2
EM4518060181502F	18	60	18	150	2
EM4520070201502F	20	70	20	150	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 65度4刃钨钢圆鼻铣刀

## HRC65 Carbide 4 Flute Standard Length Corner Radius End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6 -0.010 \sim -0.030$ ;  $6 < D \leq 10 -0.015 \sim -0.040$ ;  $10 < D \leq 20 -0.020 \sim -0.040$

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

刃口倒角，不易崩裂，广泛用于高速加工中

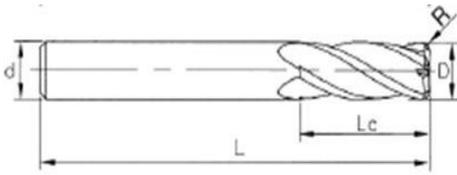
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR650401004050R054F	4	0.5	10	4	50	4
CR650401004050R104F	4	1	10	4	50	4
CR650501305050R054F	5	0.5	13	5	50	4
CR650501305050R104F	5	1	13	5	50	4
CR650601506050R054F	6	0.5	15	6	50	4
CR650601506050R104F	6	1	15	6	50	4
CR650802008060R054F	8	0.5	20	8	60	4
CR650802008060R104F	8	1	20	8	60	4
CR650802008060R204F	8	2	20	8	60	4
CR650802008060R304F	8	3	20	8	60	4
CR651002510075R054F	10	0.5	25	10	75	4
CR651002510075R104F	10	1	25	10	75	4
CR651002510075R204F	10	2	25	10	75	4
CR651002510075R304F	10	3	25	10	75	4
CR651203012075R054F	12	0.5	30	12	75	4
CR651203012075R104F	12	1	30	12	75	4
CR651203012075R204F	12	2	30	12	75	4
CR651203012075R304F	12	3	30	12	75	4
CR651403514100R054F	14	0.5	35	14	100	4
CR651404514100R104F	14	1	45	14	100	4
CR651604516100R054F	16	0.5	45	16	100	4
CR651604516100R104F	16	1	45	16	100	4
CR651804518100R054F	18	0.5	45	18	100	4
CR651804518100R104F	18	1	45	18	100	4
CR652004520100R054F	20	0.5	45	20	100	4
CR652004520100R104F	20	1	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 65度4刃长柄钨钢圆鼻铣刀

## HRC65 Carbide 4 Flute Long Length Corner Radius End Mills



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim$

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

刃口倒角，不易崩裂，广泛用于高速加工中

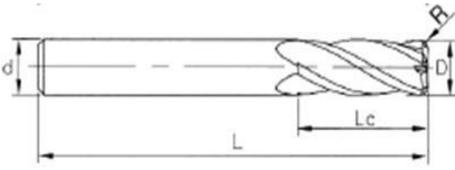
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR650401604075R054F	4	0.5	16	4	75	4
CR650401604075R104F	4	1	16	4	75	4
CR650402004100R054F	4	0.5	20	4	100	4
CR650402004100R104F	4	1	20	4	100	4
CR650502005075R054F	5	0.5	20	5	75	4
CR650502005075R104F	5	1	20	5	75	4
CR650502505100R054F	5	0.5	25	5	100	4
CR650502505100R104F	5	1	25	5	100	4
CR650602006075R054F	6	0.5	20	6	75	4
CR650602006075R104F	6	1	20	6	75	4
CR650603006100R054F	6	0.5	30	6	100	4
CR650603006100R104F	6	1	30	6	100	4
CR650802508075R054F	8	0.5	25	8	75	4
CR650802508075R104F	8	1	25	8	75	4
CR650803508100R054F	8	0.5	35	8	100	4
CR650803508100R104F	8	1	35	8	100	4
CR651004010100R054F	10	0.5	40	10	100	4
CR651004010100R104F	10	1	40	10	100	4
CR651204512100R054F	12	0.5	45	12	100	4
CR651204512100R104F	12	1	45	12	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 55度4刃钨钢圆鼻铣刀

## HRC55 Carbide 4 Flute Standard Length Corner Radius End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim -0.040$

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

刃口倒角，不易崩裂，广泛用于高速加工中

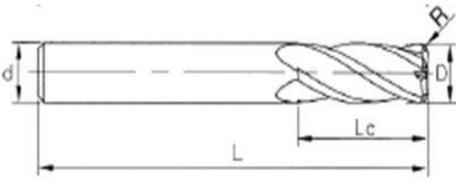
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR550300803050R054F	3	0.5	8	3	50	4
CR550300803050R104F	3	1	8	3	50	4
CR550300804050R054F	3	0.5	8	4	50	4
CR550300804050R104F	3	1	8	4	50	4
CR550401004050R054F	4	0.5	10	4	50	4
CR550401004050R104F	4	1	10	4	50	4
CR550501305050R054F	5	0.5	13	5	50	4
CR550501305050R104F	5	1	13	5	50	4
CR550601506050R054F	6	0.5	15	6	50	4
CR550601506050R104F	6	1	15	6	50	4
CR550802008060R054F	8	0.5	20	8	60	4
CR550802008060R104F	8	1	20	8	60	4
CR550802008060R204F	8	2	20	8	60	4
CR550802008060R304F	8	3	20	8	60	4
CR551002510075R054F	10	0.5	25	10	75	4
CR551002510075R104F	10	1	25	10	75	4
CR551002510075R204F	10	2	25	10	75	4
CR551002510075R304F	10	3	25	10	75	4
CR551203012075R054F	12	0.5	30	12	75	4
CR551203012075R104F	12	1	30	12	75	4
CR551203012075R204F	12	2	30	12	75	4
CR551203012075R304F	12	3	30	12	75	4
CR551403514100R054F	14	0.5	35	14	100	4
CR551404514100R104F	14	1	45	14	100	4
CR551604516100R054F	16	0.5	45	16	100	4
CR551604516100R104F	16	1	45	16	100	4
CR551804518100R054F	18	0.5	45	18	100	4
CR551804518100R104F	18	1	45	18	100	4
CR552004520100R054F	20	0.5	45	20	100	4
CR552004520100R104F	20	1	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度4刃长柄钨钢圆鼻铣刀

## HRC55 Carbide 4 Flute Long Length Corner Radius End Mills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6 -0.010 \sim -0.030$ ;  $6 < D \leq 10 -0.015 \sim -0.040$ ;  $10 < D \leq 20 -0.020 \sim$

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度，对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

刃口倒角，不易崩裂，广泛用于高速加工中

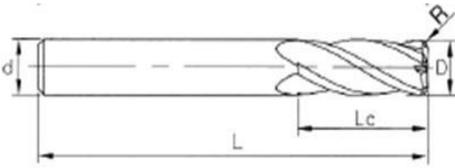
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR550301203075R054F	3	0.5	12	3	75	4
CR550301203075R104F	3	1	12	3	75	4
CR550301203100R054F	3	0.5	12	3	100	4
CR550301203100R104F	3	1	12	3	100	4
CR550401604075R054F	4	0.5	16	4	75	4
CR550401604075R104F	4	1	16	4	75	4
CR550402004100R054F	4	0.5	20	4	100	4
CR550402004100R104F	4	1	20	4	100	4
CR550502005075R054F	5	0.5	20	5	75	4
CR550502005075R104F	5	1	20	5	75	4
CR550502505100R054F	5	0.5	25	5	100	4
CR550502505100R104F	5	1	25	5	100	4
CR550602006075R054F	6	0.5	20	6	75	4
CR550602006075R104F	6	1	20	6	75	4
CR550603006100R054F	6	0.5	30	6	100	4
CR550603006100R104F	6	1	30	6	100	4
CR550604006150R054F	6	0.5	40	6	150	4
CR550604006150R104F	6	1	40	6	150	4
CR550802508075R054F	8	0.5	25	8	75	4
CR550802508075R104F	8	1	25	8	75	4
CR550803508100R054F	8	0.5	35	8	100	4
CR550803508100R104F	8	1	35	8	100	4
CR550805008150R054F	8	0.5	50	8	150	4
CR550805008150R104F	8	1	50	8	150	4
CR551004010100R054F	10	0.5	40	10	100	4
CR551004010100R104F	10	1	40	10	100	4
CR551005010150R054F	10	0.5	50	10	150	4
CR551005010150R104F	10	1	50	10	150	4
CR551204512100R054F	12	0.5	45	12	100	4
CR551204512100R104F	12	1	45	12	100	4
CR551205512150R054F	12	0.5	55	12	150	4
CR551205512150R104F	12	1	55	12	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度4刃钨钢圆鼻铣刀

## HRC45 Carbide 4 Flute Standard Length Corner Radius End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: ALTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$   $-0.010 \sim -0.030$ ;  $6 < D \leq 10$   $-0.015 \sim -0.040$ ;  $10 < D \leq 20$   $-0.020 \sim$

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

刃口倒角，不易崩裂，广泛用于高速加工中

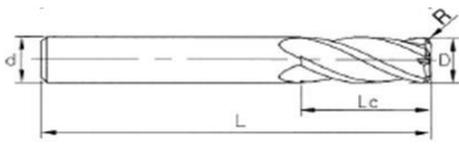
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR450300803050R054F	3	0.5	8	3	50	4
CR450300803050R104F	3	1	8	3	50	4
CR450300804050R054F	3	0.5	8	4	50	4
CR450300804050R104F	3	1	8	4	50	4
CR450401004050R054F	4	0.5	10	4	50	4
CR450401004050R104F	4	1	10	4	50	4
CR450501305050R054F	5	0.5	13	5	50	4
CR450501305050R104F	5	1	13	5	50	4
CR450601506050R054F	6	0.5	15	6	50	4
CR450601506050R104F	6	1	15	6	50	4
CR450802008060R054F	8	0.5	20	8	60	4
CR450802008060R104F	8	1	20	8	60	4
CR450802008060R204F	8	2	20	8	60	4
CR450802008060R304F	8	3	20	8	60	4
CR451002510075R054F	10	0.5	25	10	75	4
CR451002510075R104F	10	1	25	10	75	4
CR451002510075R204F	10	2	25	10	75	4
CR451002510075R304F	10	3	25	10	75	4
CR451203012075R054F	12	0.5	30	12	75	4
CR451203012075R104F	12	1	30	12	75	4
CR451203012075R204F	12	2	30	12	75	4
CR451203012075R304F	12	3	30	12	75	4
CR451403514100R054F	14	0.5	35	14	100	4
CR451404514100R104F	14	1	45	14	100	4
CR451604516100R054F	16	0.5	45	16	100	4
CR451604516100R104F	16	1	45	16	100	4
CR451804518100R054F	18	0.5	45	18	100	4
CR451804518100R104F	18	1	45	18	100	4
CR452004520100R054F	20	0.5	45	20	100	4
CR452004520100R104F	20	1	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 45度4刃长柄钨钢圆鼻铣刀

## HRC45 Carbide 4 Flute Long Length Corner Radius End Mills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of End Mill Diameter:  $1 < D \leq 6$  -0.010 ~ -0.030;  $6 < D \leq 10$  -0.015 ~ -0.040;  $10 < D \leq 20$  -0.020 ~ -

Cutting Edge Design: Corner radius, uneasy to cracking, widely used in high speed cutting

采用高硬度的自贡 YG10X, 具有良好的耐磨性和抗腐蚀性

TiSiN, 含硅, 具有极高的表面硬度和极高的热阻

螺旋角度35度, 对被加工材料的材质和硬度适应性强, 广泛应用于模具和产品加工, 有较高的性价比

刃口倒角, 不易崩裂, 广泛用于高速加工中

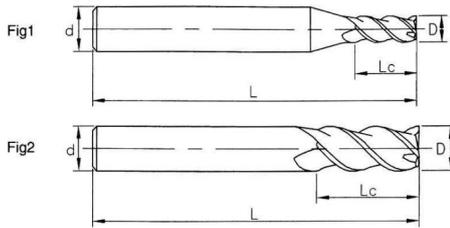
Order No.	Diameter D	R	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
CR450301203075R054F	3	0.5	12	3	75	4
CR450301203075R104F	3	1	12	3	75	4
CR450301203100R054F	3	0.5	12	3	100	4
CR450301203100R104F	3	1	12	3	100	4
CR450401604075R054F	4	0.5	16	4	75	4
CR450401604075R104F	4	1	16	4	75	4
CR450402004100R054F	4	0.5	20	4	100	4
CR450402004100R104F	4	1	20	4	100	4
CR450502005075R054F	5	0.5	20	5	75	4
CR450502005075R104F	5	1	20	5	75	4
CR450502505100R054F	5	0.5	25	5	100	4
CR450502505100R104F	5	1	25	5	100	4
CR450602006075R054F	6	0.5	20	6	75	4
CR450602006075R104F	6	1	20	6	75	4
CR450603006100R054F	6	0.5	30	6	100	4
CR450603006100R104F	6	1	30	6	100	4
CR450604006150R054F	6	0.5	40	6	150	4
CR450604006150R104F	6	1	40	6	150	4
CR450802508075R054F	8	0.5	25	8	75	4
CR450802508075R104F	8	1	25	8	75	4
CR450803508100R054F	8	0.5	35	8	100	4
CR450803508100R104F	8	1	35	8	100	4
CR450805008150R054F	8	0.5	50	8	150	4
CR450805008150R104F	8	1	50	8	150	4
CR451004010100R054F	10	0.5	40	10	100	4
CR451004010100R104F	10	1	40	10	100	4
CR451005010150R054F	10	0.5	50	10	150	4
CR451005010150R104F	10	1	50	10	150	4
CR451204512100R054F	12	0.5	45	12	100	4
CR451205512150R054F	12	0.5	55	12	150	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				

Y 适合 Suitable

# 55 度3 刃铝用铣刀

## HRC55 Carbide 3 Flute Standard Length End Mills for Aluminum



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Flutes: 3 flutes, effectively mitigate vibration and stable cutting

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

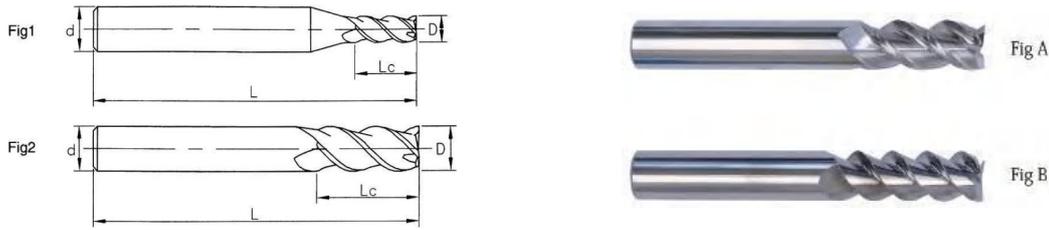
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
AL5503009030503FA	3	9	3	50	3
AL5501003040503FA	1	3	4	50	3
AL5501505040503FA	1.5	5	4	50	3
AL5502006040503FA	2	6	4	50	3
AL5502508040503FA	2.5	8	4	50	3
AL5503009040503FA	3	9	4	50	3
AL5503512040503FA	3.5	12	4	50	3
AL5504012040503FA	4	12	4	50	3
AL5505015050503FA	5	15	5	50	3
AL5502006060503FA	2	6	6	50	3
AL5503009060503FA	3	9	6	50	3
AL5504012060503FA	4	12	6	50	3
AL5505015060503FA	5	15	6	50	3
AL5506018060503FA	6	18	6	50	3
AL5507021080603FA	7	21	8	60	3
AL5508024080603FA	8	24	8	60	3
AL5509027100753FA	9	27	10	75	3
AL5510030100753FA	10	30	10	75	3
AL5511033120753FA	11	33	12	75	3
AL5512036120753FA	12	36	12	75	3
AL5514035140803FA	14	35	14	80	3
AL5514045141003FA	14	45	14	100	3
AL5516045161003FA	16	45	16	100	3
AL5518045181003FA	18	45	18	100	3
AL5520045201003FA	20	45	20	100	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 55 度长柄3 刃铝用铣刀

## HRC55 Carbide 3 Flute Long Length End Mills for Aluminum



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Flutes: 3 flutes, effectively mitigate vibration and stable cutting

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

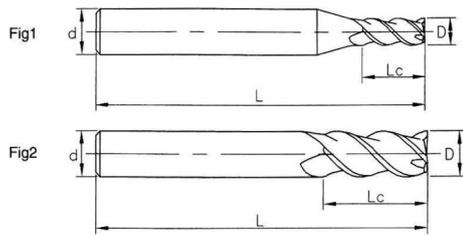
Order No.	Diameter	Cutting Length	Shank Diameter	Overall Length	Flutes
AL5503015030753FA	3	15	3	75	3
AL5503015031003FA	3	15	3	100	3
AL5504020040753FA	4	20	4	75	3
AL5504025051003FA	4	25	5	100	3
AL5505020050753FA	5	20	5	75	3
AL5505025051003FA	5	25	5	100	3
AL5506030060753FA	6	30	6	75	3
AL5506030061003FA	6	30	6	100	3
AL5506040061503FA	6	40	6	150	3
AL5508035080753FA	8	35	8	75	3
AL5508040081003FA	8	40	8	100	3
AL5508050081503FA	8	50	8	150	3
AL5510040101003FA	10	40	10	100	3
AL5510050101503FA	10	50	10	150	3
AL5512045121003FA	12	45	12	100	3
AL5512060121503FA	12	60	12	150	3
AL5514060141503FA	14	60	14	150	3
AL5516060161503FA	16	60	16	150	3
AL5518060181503FA	18	60	18	150	3
AL5520070201503FA	20	70	20	150	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 55 度2 刃铝用铣刀

## HRC55 Carbide 2 Flute Standard Length End Mills for Aluminum



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Flutes: 2 flutes, good for chip removal, easy for vertical feed processing, widely used in slot and hole processing

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

2 刃排屑顺畅，纵向进给加工容易，广泛用于切槽和孔加工

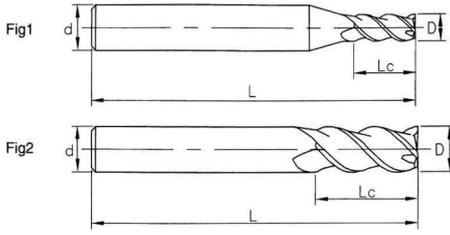
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
AL5503009030502FA	3	9	3	50	2
AL5501003040502FA	1	3	4	50	2
AL5501505040502FA	1.5	5	4	50	2
AL5502006040502FA	2	6	4	50	2
AL5502508040502FA	2.5	8	4	50	2
AL5503009040502FA	3	9	4	50	2
AL5504012040502FA	4	12	4	50	2
AL5505015050502FA	5	15	5	50	2
AL5506018060502FA	6	18	6	50	2
AL5508024080602FA	8	24	8	60	2
AL5510030100752FA	10	30	10	75	2
AL5512036120752FA	12	36	12	75	2
AL5514035140802FA	14	35	14	80	2
AL5514045141002FA	14	45	14	100	2
AL5516045161002FA	16	45	16	100	2
AL5518045181002FA	18	45	18	100	2
AL5520045201002FA	20	45	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 45度3刃铝用铣刀

## HRC45 Carbide 3 Flute Standard Length End Mills for Aluminum



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Flutes: 3 flutes, effectively mitigate vibration and stable cutting

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

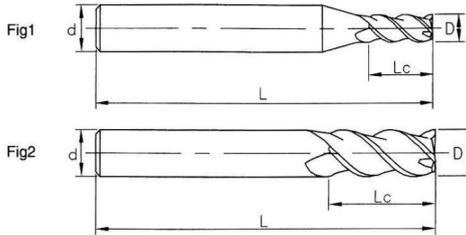
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
AL4503009030503FA	3	9	3	50	3
AL4501003040503FA	1	3	4	50	3
AL4501505040503FA	1.5	5	4	50	3
AL4502006040503FA	2	6	4	50	3
AL4502508040503FA	2.5	8	4	50	3
AL4503009040503FA	3	9	4	50	3
AL4503512040503FA	3.5	12	4	50	3
AL4504012040503FA	4	12	4	50	3
AL4505015050503FA	5	15	5	50	3
AL4502006060503FA	2	6	6	50	3
AL4503009060503FA	3	9	6	50	3
AL4504012060503FA	4	12	6	50	3
AL4505015060503FA	5	15	6	50	3
AL4506018060503FA	6	18	6	50	3
AL4507021080603FA	7	21	8	60	3
AL4508024080603FA	8	24	8	60	3
AL4509027100753FA	9	27	10	75	3
AL4510030100753FA	10	30	10	75	3
AL4511033120753FA	11	33	12	75	3
AL4512036120753FA	12	36	12	75	3
AL4514035140803FA	14	35	14	80	3
AL4514045141003FA	14	45	14	100	3
AL4516045161003FA	16	45	16	100	3
AL4518045181003FA	18	45	18	100	3
AL4520045201003FA	20	45	20	100	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 45 度 长柄3 刃铝用铣刀

## HRC45 Carbide 3 Flute Long Length End Mills for Aluminum



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Flutes: 3 flutes, effectively mitigate vibration and stable cutting

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

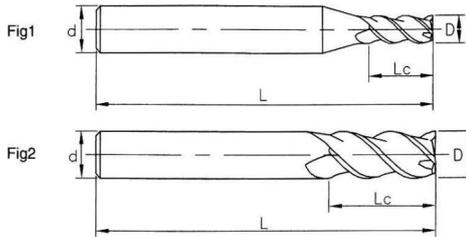
Order No.	Diameter	Cutting Length	Shank Diameter	Overall Length	Flutes
AL4503015030753FA	3	15	3	75	3
AL4503015031003FA	3	15	3	100	3
AL4504020040753FA	4	20	4	75	3
AL4504025051003FA	4	25	5	100	3
AL4505020050753FA	5	20	5	75	3
AL4505025051003FA	5	25	5	100	3
AL4506030060753FA	6	30	6	75	3
AL4506030061003FA	6	30	6	100	3
AL4506040061503FA	6	40	6	150	3
AL4508035080753FA	8	35	8	75	3
AL4508040081003FA	8	40	8	100	3
AL4508050081503FA	8	50	8	150	3
AL4510040101003FA	10	40	10	100	3
AL4510050101503FA	10	50	10	150	3
AL4512045121003FA	12	45	12	100	3
AL4512060121503FA	12	60	12	150	3
AL4514060141503FA	14	60	14	150	3
AL4516060161503FA	16	60	16	150	3
AL4518060181503FA	18	60	18	150	3
AL4520070201503FA	20	70	20	150	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 45度3刃铝用铣刀

## HRC45 Carbide 3 Flute Standard Length End Mills for Aluminum



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Flutes: 3 flutes, effectively mitigate vibration and stable cutting

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

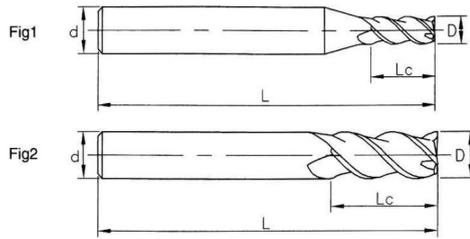
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
AL4503009030503FB	3	9	3	50	3
AL4501003040503FB	1	3	4	50	3
AL4501505040503FB	1.5	5	4	50	3
AL4502006040503FB	2	6	4	50	3
AL4502508040503FB	2.5	8	4	50	3
AL4503009040503FB	3	9	4	50	3
AL4503512040503FB	3.5	12	4	50	3
AL4504012040503FB	4	12	4	50	3
AL4505015050503FB	5	15	5	50	3
AL4505015060503FB	5	15	6	50	3
AL4506018060503FB	6	18	6	50	3
AL4508024080603FB	8	24	8	60	3
AL4510030100753FB	10	30	10	75	3
AL4512036120753FB	12	36	12	75	3
AL4514045141003FB	14	45	14	100	3
AL4516045161003FB	16	45	16	100	3
AL4518045181003FB	18	45	18	100	3
AL4520045201003FB	20	45	20	100	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 45 度2 刃铝用铣刀

## HRC45 Carbide 2 Flute Standard Length End Mills for Aluminum



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Flutes: 2 flutes, good for chip removal, easy for vertical feed processing, widely used in slot and hole processing

A Type: Double-edge design provides good smooth finish and is suitable for semi-finish and finish machining.

B Type: Single-edge design, sharp blade, good for chip removal, high cutting speed, widely used in rough machining.

采用高硬度的自贡 YG10X，具有良好的耐磨性和抗腐蚀性

双后角设计有效去毛刺，用于工件的半精加工和精加工

单后角设计，刀刃锋利，排屑顺畅，切削速度快，广泛应用于工件粗加工中

2 刃排屑顺畅，纵向进给加工容易，广泛用于切槽和孔加工

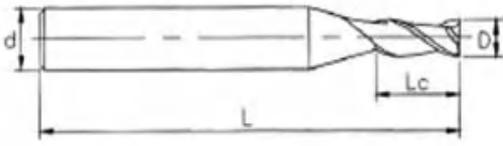
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
AL4503009030502FA	3	9	3	50	2
AL4501003040502FA	1	3	4	50	2
AL4501505040502FA	1.5	5	4	50	2
AL4502006040502FA	2	6	4	50	2
AL4502508040502FA	2.5	8	4	50	2
AL4503009040502FA	3	9	4	50	2
AL4504012040502FA	4	12	4	50	2
AL4505015050502FA	5	15	5	50	2
AL4506018060502FA	6	18	6	50	2
AL4508024080602FA	8	24	8	60	2
AL4510030100752FA	10	30	10	75	2
AL4512036120752FA	12	36	12	75	2
AL4514035140802FA	14	35	14	80	2
AL4514045141002FA	14	45	14	100	2
AL4516045161002FA	16	45	16	100	2
AL4518045181002FA	18	45	18	100	2
AL4520045201002FA	20	45	20	100	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
			Y	Y		

Y 适合 Suitable

# 55度 2 刃微小径铣刀

## HRC55 Carbide 2 Flute Micro End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

铣刀直径精度公差：1 < D ≤ 6 -0.010 ~ -0.030; 6 < D ≤ 10 -0.015 ~ -0.040; 10 < D ≤ 20 -0.020 ~ -0.050

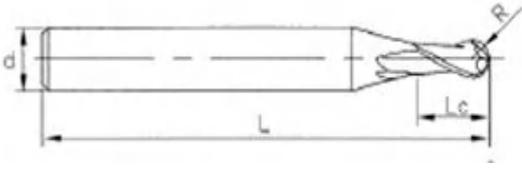
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
ME5500204040502F	0.2	0.4	4	50	2
ME5500306040502F	0.3	0.6	4	50	2
ME5500408040502F	0.4	0.8	4	50	2
ME5500510040502F	0.5	1	4	50	2
ME5500612040502F	0.6	1.2	4	50	2
ME5500714040502F	0.7	1.4	4	50	2
ME5500816040502F	0.8	1.6	4	50	2
ME5500918040502F	0.9	1.8	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度 2 刃微小径球刀

## HRC55 Carbide 2 Flute Micro Ball Nose End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

铣刀直径精度公差：1 < D ≤ 6 -0.010 ~ -0.030; 6 < D ≤ 10 -0.015 ~ -0.040; 10 < D ≤ 20 -0.020 ~ -0.050

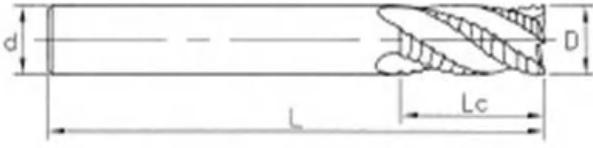
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
MB5500204040502F	0.2	0.4	4	50	2
MB5500306040502F	0.3	0.6	4	50	2
MB5500408040502F	0.4	0.8	4	50	2
MB5500510040502F	0.5	1	4	50	2
MB5500612040502F	0.6	1.2	4	50	2
MB5500714040502F	0.7	1.4	4	50	2
MB5500816040502F	0.8	1.6	4	50	2
MB5500918040502F	0.9	1.8	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度 4 刃钨钢粗皮铣刀

## HRC55 Carbide 4 Flute Roughing End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Product Design: Sharp wave and 35 helix angle design improve the chip removal capacity, widely used in slot, profile, rough

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

锋利波纹，35 度螺旋角设计，提高排屑能力，广泛应用于工件槽切屑、侧切屑、粗加工中

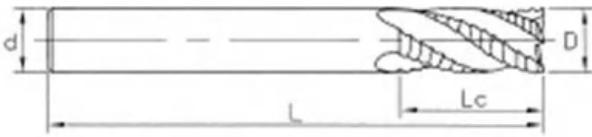
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
RM5506015060504F	6	15	6	50	4
RM5508020080604F	8	20	8	60	4
RM5510025100754F	10	25	10	75	4
RM5512030120754F	12	30	12	75	4
RM5514045141004F	14	45	14	100	4
RM5516045161004F	16	45	16	100	4
RM5518045181004F	18	45	18	100	4
RM5520045201004F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度 4 刃钨钢粗皮铣刀

## HRC45 Carbide 4 Flute Roughing End Mill



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Application: Suitable for roughing milling general steel under hrc 45, cast iron, alloy steel, etc.

采用自贡 YG10X料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

锋利波纹，35 度螺旋角设计，提高排屑能力，广泛应用于工件槽切屑、侧切屑、粗加工中

Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
RM4506015060504F	6	15	6	50	4
RM4508020080604F	8	20	8	60	4
RM4510025100754F	10	25	10	75	4
RM4512030120754F	12	30	12	75	4
RM4514045141004F	14	45	14	100	4
RM4516045161004F	16	45	16	100	4
RM4518045181004F	18	45	18	100	4
RM4520045201004F	20	45	20	100	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55度 3 刃铝用粗皮铣刀

## HRC55 Carbide 3 Flute Roughing End Mill for Aluminum



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Product Design: Sharp wave and 35 helix angle design improve the chip removal capacity, widely used in slot, profile, rough

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

锋利波纹，35 度螺旋角设计，提高排屑能力，广泛应用于工件槽切屑、侧切屑、粗加工中

Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
RA5506018060503F	6	18	6	50	3
RA5508024080603F	8	24	8	60	3
RA5510030100753F	10	30	10	75	3
RA5512036120753F	12	36	12	75	3
RA5514045141003F	14	45	14	100	3
RA5516045161003F	16	45	16	100	3
RA5518045181003F	18	45	18	100	3
RA5520045201003F	20	45	20	100	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45度 3 刃铝用粗皮铣刀

## HRC45 Carbide 3 Flute Roughing End Mill for Aluminum



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Application: Suitable for roughing milling general steel under hrc 45, cast iron, alloy steel, etc.

采用自贡 YG10X料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

锋利波纹，35 度螺旋角设计，提高排屑能力，广泛应用于工件槽切屑、侧切屑、粗加工中

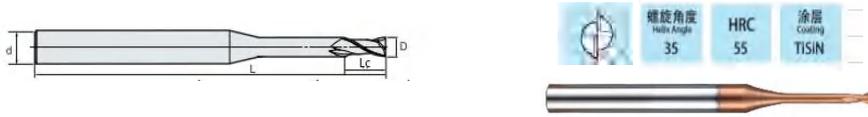
Order No.	Diameter D	Cutting Length Lc	Shank Diameter d	Overall Length L	Flutes
RA4506018060503F	6	18	6	50	3
RA4508024080603F	8	24	8	60	3
RA4510030100753F	10	30	10	75	3
RA4512036120753F	12	36	12	75	3
RA4514045141003F	14	45	14	100	3
RA4516045161003F	16	45	16	100	3
RA4518045181003F	18	45	18	100	3
RA4520045201003F	20	45	20	100	3

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

## 55 度 两刃平底深沟立铣刀

### HRC55 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

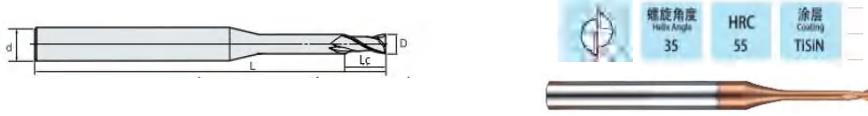
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter	Overall Length L	Flutes
0.2*4D*50L-L1	0.2	0.3	1	4	50	2
0.2*4D*50L-L2	0.2	0.3	2	4	50	2
0.3*4D*50L-L1	0.3	0.6	1	4	50	2
0.3*4D*50L-L2	0.3	0.6	2	4	50	2
0.3*4D*50L-L3	0.3	0.6	3	4	50	2
0.4*4D*50L-L2	0.4	0.6	2	4	50	2
0.4*4D*50L-L3	0.4	0.6	3	4	50	2
0.4*4D*50L-L4	0.4	0.6	4	4	50	2
0.4*4D*50L-L6	0.4	0.6	6	4	50	2
0.5*4D*50L-L2	0.5	0.8	2	4	50	2
0.5*4D*50L-L3	0.5	0.8	3	4	50	2
0.5*4D*50L-L4	0.5	0.8	4	4	50	2
0.5*4D*50L-L5	0.5	0.8	5	4	50	2
0.5*4D*50L-L6	0.5	0.8	6	4	50	2
0.5*4D*50L-L8	0.5	0.8	8	4	50	2
0.6*4D*50L*L2	0.6	1	2	4	50	2
0.6*4D*50L*L3	0.6	1	3	4	50	2
0.6*4D*50L*L4	0.6	1	4	4	50	2
0.6*4D*50L*L5	0.6	1	5	4	50	2
0.6*4D*50L*L6	0.6	1	6	4	50	2
0.6*4D*50L*L8	0.6	1	8	4	50	2
0.7*4D*50L-L3	0.7	1	3	4	50	2
0.7*4D*50L-L4	0.7	1	4	4	50	2
0.7*4D*50L-L5	0.7	1	5	4	50	2
0.7*4D*50L-L6	0.7	1	6	4	50	2
0.7*4D*50L-L8	0.7	1	8	4	50	2
0.7*4D*50L-L10	0.7	1	10	4	50	2
0.8*4D*50L-L3	0.8	1.2	3	4	50	2
0.8*4D*50L-L4	0.8	1.2	4	4	50	2
0.8*4D*50L-L5	0.8	1.2	5	4	50	2
0.8*4D*50L-L6	0.8	1.2	6	4	50	2
0.8*4D*50L-L8	0.8	1.2	8	4	50	2
0.8*4D*50L-L10	0.8	1.2	10	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

## 55 度 两刃平底深沟立铣刀

### HRC55 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

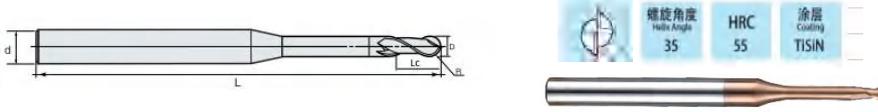
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter	Overall Length L	Flutes
1*4D*50L-L5	1	2	5	4	50	2
1*4D*50L-L6	1	2	6	4	50	2
1*4D*50L-L8	1	2	8	4	50	2
1*4D*50L-L10	1	2	10	4	50	2
1*4D*50L-L12	1	2	12	4	50	2
1*4D*50L-L14	1	2	14	4	50	2
1*4D*50L-L16	1	2	16	4	50	2
1*4D*50L-L20	1	2	20	4	50	2
1.5*4D*50L-L6	1.5	3	6	4	50	2
1.5*4D*50L-L8	1.5	3	8	4	50	2
1.5*4D*50L-L10	1.5	3	10	4	50	2
1.5*4D*50L-L12	1.5	3	12	4	50	2
1.5*4D*50L-L14	1.5	3	14	4	50	2
1.5*4D*50L-L16	1.5	3	16	4	50	2
1.5*4D*50L-L20	1.5	3	20	4	50	2
2*4D*50L-L8	2	4	8	4	50	2
2*4D*50L-L10	2	4	10	4	50	2
2*4D*50L-L12	2	4	12	4	50	2
2*4D*50L-L14	2	4	14	4	50	2
2*4D*50L-L16	2	4	16	4	50	2
2*4D*50L-L20	2	4	20	4	50	2
3*4D*50L-L12	3	5	12	4	50	2
3*4D*50L-L16	3	5	16	4	50	2
3*4D*50L-L20	3	5	20	4	50	2
3*6D*50L-L12	3	5	12	6	50	2
3*6D*50L-L16	3	5	16	6	50	2
3*6D*50L-L20	3	5	20	6	50	2
3*6D*75L-L26	3	5	26	6	75	2
3*6D*75L-L30	3	5	30	6	75	2
4*6D*50L-L16	4	6	16	6	50	2
4*6D*50L-L20	4	6	20	6	50	2
4*6D*75L-L26	4	6	26	6	75	2
4*6D*75L-L30	4	6	30	6	75	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

## 55 度 两刃深沟球头铣刀

### HRC55 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

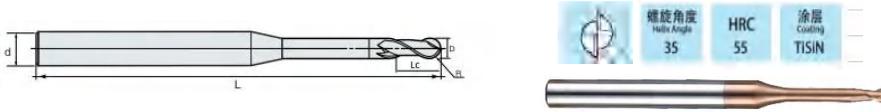
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter d	Overall Length L	Flutes
R0.1*4D*50L-L1	R0.1	0.3	1	4	50	2
R0.1*4D*50L-L2	R0.1	0.3	2	4	50	2
R0.15*4D*50L-L1	R0.15	0.6	1	4	50	2
R0.15*4D*50L-L2	R0.15	0.6	2	4	50	2
R0.15*4D*50L-L3	R0.15	0.6	3	4	50	2
R0.2*4D*50L-L2	R0.2	0.6	2	4	50	2
R0.2*4D*50L-L3	R0.2	0.6	3	4	50	2
R0.2*4D*50L-L4	R0.2	0.6	4	4	50	2
R0.2*4D*50L-L6	R0.2	0.6	6	4	50	2
R0.25*4D*50L-L2	R0.25	0.8	2	4	50	2
R0.25*4D*50L-L3	R0.25	0.8	3	4	50	2
R0.25*4D*50L-L4	R0.25	0.8	4	4	50	2
R0.25*4D*50L-L5	R0.25	0.8	5	4	50	2
R0.25*4D*50L-L6	R0.25	0.8	6	4	50	2
R0.25*4D*50L-L8	R0.25	0.8	8	4	50	2
R0.3*4D*50L-L2	R0.3	1	2	4	50	2
R0.3*4D*50L-L3	R0.3	1	3	4	50	2
R0.3*4D*50L-L4	R0.3	1	4	4	50	2
R0.3*4D*50L-L5	R0.3	1	5	4	50	2
R0.3*4D*50L-L6	R0.3	1	6	4	50	2
R0.3*4D*50L-L8	R0.3	1	8	4	50	2
R0.4*4D*50L-L3	R0.4	1.2	3	4	50	2
R0.4*4D*50L-L4	R0.4	1.2	4	4	50	2
R0.4*4D*50L-L5	R0.4	1.2	5	4	50	2
R0.4*4D*50L-L6	R0.4	1.2	6	4	50	2
R0.4*4D*50L-L8	R0.4	1.2	8	4	50	2
R0.4*4D*50L-L10	R0.4	1.2	10	4	50	2
R0.5*4D*50L-L5	R0.5	2	5	4	50	2
R0.5*4D*50L-L6	R0.5	2	6	4	50	2
R0.5*4D*50L-L8	R0.5	2	8	4	50	2
R0.5*4D*50L-L10	R0.5	2	10	4	50	2
R0.5*4D*50L-L12	R0.5	2	12	4	50	2
R0.5*4D*50L-L14	R0.5	2	14	4	50	2
R0.5*4D*50L-L16	R0.5	2	16	4	50	2
R0.5*4D*50L-L20	R0.5	2	20	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

## 55 度 两刃深沟球头铣刀

### HRC55 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Application: widely used in Machining, aerospace, automobile and other precision manufacturing areas.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

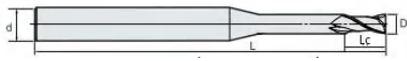
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter d	Overall Length L	Flutes
R0.75*4D*50L-L6	R0.75	3	6	4	50	2
R0.75*4D*50L-L8	R0.75	3	8	4	50	2
R0.75*4D*50L-L10	R0.75	3	10	4	50	2
R0.75*4D*50L-L12	R0.75	3	12	4	50	2
R0.75*4D*50L-L14	R0.75	3	14	4	50	2
R0.75*4D*50L-L16	R0.75	3	16	4	50	2
R0.75*4D*50L-L20	R0.75	3	20	4	50	2
R1.0*4D*50L-L8	R1	4	8	4	50	2
R1.0*4D*50L-L10	R1	4	10	4	50	2
R1.0*4D*50L-L12	R1	4	12	4	50	2
R1.0*4D*50L-L14	R1	4	14	4	50	2
R1.0*4D*50L-L16	R1	4	16	4	50	2
R1.0*4D*50L-L20	R1	4	20	4	50	2
R1.5*4D*50L-L12	R1.5	5	12	4	50	2
R1.5*4D*50L-L16	R1.5	5	16	4	50	2
R1.5*4D*50L-L20	R1.5	5	20	4	50	2
R1.5*6D*50L-L12	R1.5	5	12	6	50	2
R1.5*6D*50L-L16	R1.5	5	16	6	50	2
R1.5*6D*50L-L20	R1.5	5	20	6	50	2
R1.5*6D*75L-L26	R1.5	5	26	6	75	2
R1.5*6D*75L-L30	R1.5	5	30	6	75	2
R2.0*6D*50L-L16	R2	6	16	6	50	2
R2.0*6D*50L-L20	R2	6	20	6	50	2
R2.0*6D*75L-L26	R2	6	26	6	75	2
R2.0*6D*75L-L30	R2	6	30	6	75	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高碳钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

## 65度 两刃平底深沟立铣刀

### HRC65 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AITiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Application: Suitable for milling stainless steel, hardened steel, titanium alloy, etc.

采用金鹭GU25UF料，具有高强度和高韧性

AITiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

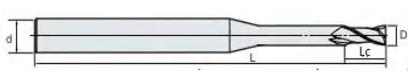
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter d	Overall Length L	Flutes
0.2*4D*50L-L1	0.2	0.3	1	4	50	2
0.2*4D*50L-L2	0.2	0.3	2	4	50	2
0.3*4D*50L-L1	0.3	0.6	1	4	50	2
0.3*4D*50L-L2	0.3	0.6	2	4	50	2
0.3*4D*50L-L3	0.3	0.6	3	4	50	2
0.4*4D*50L-L2	0.4	0.6	2	4	50	2
0.4*4D*50L-L3	0.4	0.6	3	4	50	2
0.4*4D*50L-L4	0.4	0.6	4	4	50	2
0.4*4D*50L-L6	0.4	0.6	6	4	50	2
0.5*4D*50L-L2	0.5	0.8	2	4	50	2
0.5*4D*50L-L3	0.5	0.8	3	4	50	2
0.5*4D*50L-L4	0.5	0.8	4	4	50	2
0.5*4D*50L-L5	0.5	0.8	5	4	50	2
0.5*4D*50L-L6	0.5	0.8	6	4	50	2
0.5*4D*50L-L8	0.5	0.8	8	4	50	2
0.6*4D*50L-L2	0.6	1	2	4	50	2
0.6*4D*50L-L3	0.6	1	3	4	50	2
0.6*4D*50L-L4	0.6	1	4	4	50	2
0.6*4D*50L-L5	0.6	1	5	4	50	2
0.6*4D*50L-L6	0.6	1	6	4	50	2
0.6*4D*50L-L8	0.6	1	8	4	50	2
0.7*4D*50L-L3	0.7	1	3	4	50	2
0.7*4D*50L-L4	0.7	1	4	4	50	2
0.7*4D*50L-L5	0.7	1	5	4	50	2
0.7*4D*50L-L6	0.7	1	6	4	50	2
0.7*4D*50L-L8	0.7	1	8	4	50	2
0.7*4D*50L-L10	0.7	1	10	4	50	2
0.8*4D*50L-L3	0.8	1.2	3	4	50	2
0.8*4D*50L-L4	0.8	1.2	4	4	50	2
0.8*4D*50L-L5	0.8	1.2	5	4	50	2
0.8*4D*50L-L6	0.8	1.2	6	4	50	2
0.8*4D*50L-L8	0.8	1.2	8	4	50	2
0.8*4D*50L-L10	0.8	1.2	10	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高碳钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

## 65 度 两刃平底深沟立铣刀

### HRC65 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AITiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Application: Suitable for milling stainless steel, hardened steel, titanium alloy, etc.

采用金鹭GU25UF料，具有高强度和高韧性

AITiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

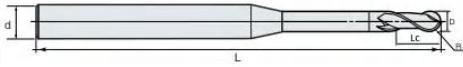
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter	Overall Length L	Flutes
1*4D*50L-L5	1	2	5	4	50	2
1*4D*50L-L6	1	2	6	4	50	2
1*4D*50L-L8	1	2	8	4	50	2
1*4D*50L-L10	1	2	10	4	50	2
1*4D*50L-L12	1	2	12	4	50	2
1*4D*50L-L14	1	2	14	4	50	2
1*4D*50L-L16	1	2	16	4	50	2
1*4D*50L-L20	1	2	20	4	50	2
1.5*4D*50L-L6	1.5	3	6	4	50	2
1.5*4D*50L-L8	1.5	3	8	4	50	2
1.5*4D*50L-L10	1.5	3	10	4	50	2
1.5*4D*50L-L12	1.5	3	12	4	50	2
1.5*4D*50L-L14	1.5	3	14	4	50	2
1.5*4D*50L-L16	1.5	3	16	4	50	2
1.5*4D*50L-L20	1.5	3	20	4	50	2
2*4D*50L-L8	2	4	8	4	50	2
2*4D*50L-L10	2	4	10	4	50	2
2*4D*50L-L12	2	4	12	4	50	2
2*4D*50L-L14	2	4	14	4	50	2
2*4D*50L-L16	2	4	16	4	50	2
2*4D*50L-L20	2	4	20	4	50	2
3*4D*50L-L12	3	5	12	4	50	2
3*4D*50L-L16	3	5	16	4	50	2
3*4D*50L-L20	3	5	20	4	50	2
3*6D*50L-L12	3	5	12	6	50	2
3*6D*50L-L16	3	5	16	6	50	2
3*6D*50L-L20	3	5	20	6	50	2
3*6D*75L-L26	3	5	26	6	75	2
3*6D*75L-L30	3	5	30	6	75	2
4*6D*50L-L16	4	6	16	6	50	2
4*6D*50L-L20	4	6	20	6	50	2
4*6D*75L-L26	4	6	26	6	75	2
4*6D*75L-L30	4	6	30	6	75	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高碳钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

## 65 度 两刃深沟球头铣刀

### HRC65 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AlTiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Application: Suitable for milling stainless steel, hardened steel, titanium alloy, etc.

采用金鹭GU25UF料，具有高强度和高韧性

AlTiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

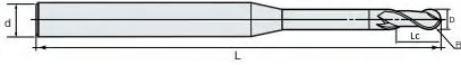
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter d	Overall Length L	Flutes
R0.1*4D*50L-L1	R0.1	0.3	1	4	50	2
R0.1*4D*50L-L2	R0.1	0.3	2	4	50	2
R0.15*4D*50L-L1	R0.15	0.6	1	4	50	2
R0.15*4D*50L-L2	R0.15	0.6	2	4	50	2
R0.15*4D*50L-L3	R0.15	0.6	3	4	50	2
R0.2*4D*50L-L2	R0.2	0.6	2	4	50	2
R0.2*4D*50L-L3	R0.2	0.6	3	4	50	2
R0.2*4D*50L-L4	R0.2	0.6	4	4	50	2
R0.2*4D*50L-L6	R0.2	0.6	6	4	50	2
R0.25*4D*50L-L2	R0.25	0.8	2	4	50	2
R0.25*4D*50L-L3	R0.25	0.8	3	4	50	2
R0.25*4D*50L-L4	R0.25	0.8	4	4	50	2
R0.25*4D*50L-L5	R0.25	0.8	5	4	50	2
R0.25*4D*50L-L6	R0.25	0.8	6	4	50	2
R0.25*4D*50L-L8	R0.25	0.8	8	4	50	2
R0.3*4D*50L-L2	R0.3	1	2	4	50	2
R0.3*4D*50L-L3	R0.3	1	3	4	50	2
R0.3*4D*50L-L4	R0.3	1	4	4	50	2
R0.3*4D*50L-L5	R0.3	1	5	4	50	2
R0.3*4D*50L-L6	R0.3	1	6	4	50	2
R0.3*4D*50L-L8	R0.3	1	8	4	50	2
R0.4*4D*50L-L3	R0.4	1.2	3	4	50	2
R0.4*4D*50L-L4	R0.4	1.2	4	4	50	2
R0.4*4D*50L-L5	R0.4	1.2	5	4	50	2
R0.4*4D*50L-L6	R0.4	1.2	6	4	50	2
R0.4*4D*50L-L8	R0.4	1.2	8	4	50	2
R0.4*4D*50L-L10	R0.4	1.2	10	4	50	2
R0.5*4D*50L-L5	R0.5	2	5	4	50	2
R0.5*4D*50L-L6	R0.5	2	6	4	50	2
R0.5*4D*50L-L8	R0.5	2	8	4	50	2
R0.5*4D*50L-L10	R0.5	2	10	4	50	2
R0.5*4D*50L-L12	R0.5	2	12	4	50	2
R0.5*4D*50L-L14	R0.5	2	14	4	50	2
R0.5*4D*50L-L16	R0.5	2	16	4	50	2
R0.5*4D*50L-L20	R0.5	2	20	4	50	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高碳钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

## 65 度 两刃深沟球头铣刀

### HRC65 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AITiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Application: Suitable for milling stainless steel, hardened steel, titanium alloy, etc.

采用金鹭GU25UF料，具有高强度和高韧性

AITiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度,对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

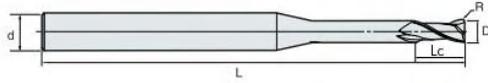
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter d	Overall Length L	Flutes
R0.75*4D*50L-L6	R0.75	3	6	4	50	2
R0.75*4D*50L-L8	R0.75	3	8	4	50	2
R0.75*4D*50L-L10	R0.75	3	10	4	50	2
R0.75*4D*50L-L12	R0.75	3	12	4	50	2
R0.75*4D*50L-L14	R0.75	3	14	4	50	2
R0.75*4D*50L-L16	R0.75	3	16	4	50	2
R0.75*4D*50L-L20	R0.75	3	20	4	50	2
R1.0*4D*50L-L8	R1	4	8	4	50	2
R1.0*4D*50L-L10	R1	4	10	4	50	2
R1.0*4D*50L-L12	R1	4	12	4	50	2
R1.0*4D*50L-L14	R1	4	14	4	50	2
R1.0*4D*50L-L16	R1	4	16	4	50	2
R1.0*4D*50L-L20	R1	4	20	4	50	2
R1.5*4D*50L-L12	R1.5	5	12	4	50	2
R1.5*4D*50L-L16	R1.5	5	16	4	50	2
R1.5*4D*50L-L20	R1.5	5	20	4	50	2
R1.5*6D*50L-L12	R1.5	5	12	6	50	2
R1.5*6D*50L-L16	R1.5	5	16	6	50	2
R1.5*6D*50L-L20	R1.5	5	20	6	50	2
R1.5*6D*75L-L26	R1.5	5	26	6	75	2
R1.5*6D*75L-L30	R1.5	5	30	6	75	2
R2.0*6D*50L-L16	R2	6	16	6	50	2
R2.0*6D*50L-L20	R2	6	20	6	50	2
R2.0*6D*75L-L26	R2	6	26	6	75	2
R2.0*6D*75L-L30	R2	6	30	6	75	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

## 65度两刃深沟圆鼻铣刀

### HRC65 Carbide 2 Flutes Long Neck Short Flutes Square End Mill



Raw Material: Use GU25UF with 12% Co content and 0.4um grain size

Coating: AITiSiN, with the hardness and thermal stability are up to 4000HV and 1200°C, respectively

Application: Suitable for milling stainless steel, hardened steel, titanium alloy, etc.

采用金鹭GU25UF料，具有高强度和高韧性

AITiSiN，纳米技术涂层，硬度高达4000HV，热稳定性达1200°C

螺旋角度35度，对被加工材料的材质和硬度适应性强，广泛应用于模具和产品加工，有较高的性价比

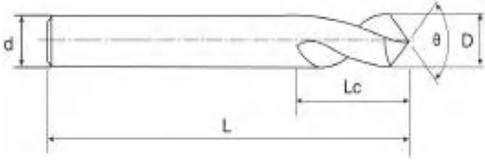
Order No.	Diameter D	Cutting Length Lc	Effective Length	Shank Diameter	Overall Length L	Flutes
1R0.1*4D*50L-L4	1	2	4	4	50	2
1R0.1*4D*50L-L6	1	2	6	4	50	2
1R0.1*4D*50L-L8	1	2	8	4	50	2
1R0.2*4D*50L-L4	1	2	4	4	50	2
1R0.2*4D*50L-L6	1	2	6	4	50	2
1R0.2*4D*50L-L8	1	2	8	4	50	2
1R0.2*4D*50L-L10	1	2	10	4	50	2
1.5R0.1*4D*50L-L6	1.5	3	6	4	50	2
1.5R0.1*4D*50L-L8	1.5	3	8	4	50	2
1.5R0.1*4D*50L-L10	1.5	3	10	4	50	2
1.5R0.2*4D*50L-L6	1.5	3	6	4	50	2
1.5R0.2*4D*50L-L8	1.5	3	8	4	50	2
1.5R0.2*4D*50L-L10	1.5	3	10	4	50	2
1.5R0.2*4D*50L-L12	1.5	3	12	4	50	2
2R0.1*4D*50L-L8	2	4	8	4	50	2
2R0.1*4D*50L-L10	2	4	10	4	50	2
2R0.1*4D*50L-L12	2	4	12	4	50	2
2R0.1*4D*50L-L16	2	4	16	4	50	2
2R0.2*4D*50L-L8	2	4	8	4	50	2
2R0.2*4D*50L-L10	2	4	10	4	50	2
2R0.2*4D*50L-L12	2	4	12	4	50	2
2R0.2*4D*50L-L16	2	4	16	4	50	2
3R0.2*4D*50L-L12	3	6	12	4	50	2
3R0.2*4D*50L-L16	3	6	16	4	50	2
3R0.2*4D*50L-L20	3	6	20	4	50	2
3R0.5*4D*50L-L12	3	5	12	4	50	2
3R0.5*4D*50L-L16	3	5	16	4	50	2
3R0.5*4D*50L-L20	3	5	20	4	50	2
3R0.2*6D*50L-L16	3	5	16	6	50	2
3R0.2*6D*50L-L20	3	5	20	6	50	2
3R0.5*6D*50L-L16	3	5	16	6	50	2
3R0.5*6D*50L-L20	3	5	20	6	50	2
3R0.5*6D*75L-L26	3	5	26	6	75	2
3R0.5*6D*75L-L30	3	5	30	6	75	2
4R0.2*6D*50L-L16	4	6	16	6	50	2
4R0.2*6D*50L-L20	4	6	20	6	50	2
4R0.5*6D*50L-L16	4	6	16	6	50	2
4R0.5*6D*50L-L20	4	6	20	6	50	2
4R0.5*6D*75L-L26	4	6	26	6	75	2
4R0.5*6D*75L-L30	4	6	30	6	75	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高碳钢 Hardened Steel
Y	Y	Y			Y	Y

Y 适合 Suitable

# 55 度 钨钢定点钻

## HRC55 NC Spotting Drills



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Products Design: Spotting drills can perform both centering and chamfering. Precise position the holes and chamfer are accomplished at one time to improve the processing efficiency.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

定点、倒角两用型，中心定位及倒角一次性完成，提高加工的效率

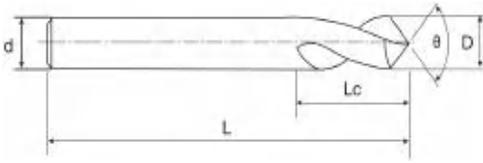
Order No.	Diameter D	Shank Diameter	Overall Length L	Point Angle $\theta$	Flutes
NC550303050090	3	3	50	90	2
NC550404050090	4	4	50	90	2
NC550505050090	5	5	50	90	2
NC550606050090	6	6	50	90	2
NC550808060090	8	8	60	90	2
NC551010075090	10	10	75	90	2
NC551212075090	12	12	75	90	2
NC550303050120	3	3	50	120	2
NC550404050120	4	4	50	120	2
NC550505050120	5	5	50	120	2
NC550606050120	6	6	50	120	2
NC550808060120	8	8	60	120	2
NC551010075120	10	10	75	120	2
NC551212075120	12	12	75	120	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 45 度 钨钢定点钻

## HRC45 NC Spotting Drills



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Products Design: Spotting drills can perform both centering and chamfering. Precise position the holes and chamfer are accomplished at one time to improve the processing efficiency.

采用自贡 YG10X料，具有高硬度和良好的耐磨度  
TiSiN，含硅，具有极高的表面硬度和极高的热阻  
定点、倒角两用型，中心定位及倒角一次性完成，提高加工的效率

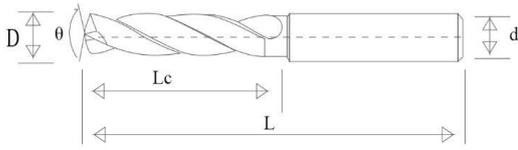
Order No.	Diameter D	Shank Diameter	Overall Length L	Point Angle $\theta$	Flutes
NC450303050090	3	3	50	90	2
NC450404050090	4	4	50	90	2
NC450505050090	5	5	50	90	2
NC450606050090	6	6	50	90	2
NC450808060090	8	8	60	90	2
NC451010075090	10	10	75	90	2
NC451212075090	12	12	75	90	2
NC450303050120	3	3	50	120	2
NC450404050120	4	4	50	120	2
NC450505050120	5	5	50	120	2
NC450606050120	6	6	50	120	2
NC450808060120	8	8	60	120	2
NC451010075120	10	10	75	120	2
NC451212075120	12	12	75	120	2

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55 度 钨钢麻花钻 (3D)

## HRC55 Solid Carbide Twist Drills (3D)



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.  
 Coating: TiSiN , with very high surface hardness and good wear resistance.  
 Tolerance of end mill diameter every size: 0.000 ~ -0.050

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度  
 TiSiN，含硅，具有极高的表面硬度和极高的热阻  
 直径精度公差：0.000 ~ -0.050

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

TD3D55010	1	8	38	3	2
TD3D55011	1.1	12	42	3	2
TD3D55012	1.2				2
TD3D55013	1.3				2
TD3D55014	1.4				2
TD3D55015	1.5				2
TD3D55016	1.6				2
TD3D55017	1.7				2
TD3D55018	1.8				2
TD3D55019	1.9				2
TD3D55020	2				2
TD3D55021	2.1	14	50	3	2
TD3D55022	2.2				2
TD3D55023	2.3				2
TD3D55024	2.4				2
TD3D55025	2.5				2
TD3D55026	2.6				2
TD3D55027	2.7				2
TD3D55028	2.8				2
TD3D55029	2.9				2
TD3D55030	3				2
TD3D55031	3.1	20	60	4	2
TD3D55032	3.2				2
TD3D55033	3.3				2
TD3D55034	3.4				2
TD3D55035	3.5				2
TD3D55036	3.6				2
TD3D55037	3.7				2
TD3D55038	3.8				2
TD3D55039	3.9				2
TD3D55040	4				2

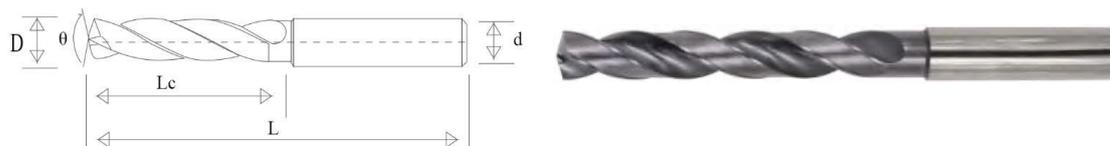
TD3D55041	4.1	24	62	5	2
TD3D55042	4.2				2
TD3D55043	4.3				2
TD3D55044	4.4				2
TD3D55045	4.5				2
TD3D55046	4.6				2
TD3D55047	4.7				2
TD3D55048	4.8				2
TD3D55049	4.9				2
TD3D55050	5				2
TD3D55051	5.1	28	66	6	2
TD3D55052	5.2				2
TD3D55053	5.3				2
TD3D55054	5.4				2
TD3D55055	5.5				2
TD3D55056	5.6				2
TD3D55057	5.7				2
TD3D55058	5.8				2
TD3D55059	5.9				2
TD3D55060	6				2
TD3D55061	6.1	34	74	7	2
TD3D55062	6.2				2
TD3D55063	6.3				2
TD3D55064	6.4				2
TD3D55065	6.5				2
TD3D55066	6.6				2
TD3D55067	6.7				2
TD3D55068	6.8				2
TD3D55069	6.9				2
TD3D55070	7				2
TD3D55071	7.1	40	79	8	2
TD3D55072	7.2				2
TD3D55073	7.3				2
TD3D55074	7.4				2
TD3D55075	7.5				2
TD3D55076	7.6				2
TD3D55077	7.7				2
TD3D55078	7.8				2
TD3D55079	7.9				2
TD3D55080	8				2
TD3D55081	8.1	43	84	9	2
TD3D55082	8.2				2
TD3D55083	8.3				2
TD3D55084	8.4				2
TD3D55085	8.5				2
TD3D55086	8.6				2
TD3D55087	8.7				2
TD3D55088	8.8				2
TD3D55089	8.9				2
TD3D55090	9				2

TD3D55091	9.1	47	89	10	2
TD3D55092	9.2				2
TD3D55093	9.3				2
TD3D55094	9.4				2
TD3D55095	9.5				2
TD3D55096	9.6				2
TD3D55097	9.7				2
TD3D55098	9.8				2
TD3D55099	9.9				2
TD3D55100	10				2
TD3D55101	10.1	51	95	11	2
TD3D55102	10.2				2
TD3D55103	10.3				2
TD3D55104	10.4				2
TD3D55105	10.5				2
TD3D55106	10.6				2
TD3D55107	10.7				2
TD3D55108	10.8				2
TD3D55109	10.9				2
TD3D55110	11				2
TD3D55111	11.1	54	102	12	2
TD3D55112	11.2				2
TD3D55113	11.3				2
TD3D55114	11.4				2
TD3D55115	11.5				2
TD3D55116	11.6				2
TD3D55117	11.7				2
TD3D55118	11.8				2
TD3D55119	11.9				2
TD3D55120	12				2
TD3D55121	12.1	57	102	13	2
TD3D55122	12.2				2
TD3D55123	12.3				2
TD3D55124	12.4				2
TD3D55125	12.5				2
TD3D55126	12.6				2
TD3D55127	12.7				2
TD3D55128	12.8				2
TD3D55129	12.9				2
TD3D55130	13				2
TD3D55131	13.1	60	107	14	2
TD3D55132	13.2				2
TD3D55133	13.3				2
TD3D55134	13.4				2
TD3D55135	13.5				2
TD3D55136	13.6				2
TD3D55137	13.7				2
TD3D55138	13.8				2
TD3D55139	13.9				2
TD3D55140	14				2

TD3D55141	14.1	62	111	15	2
TD3D55142	14.2				2
TD3D55143	14.3				2
TD3D55144	14.4				2
TD3D55145	14.5				2
TD3D55146	14.6				2
TD3D55147	14.7				2
TD3D55148	14.8				2
TD3D55149	14.9				2
TD3D55150	15				2
TD3D55151	15.1	64	115	16	2
TD3D55152	15.2				2
TD3D55153	15.3				2
TD3D55154	15.4				2
TD3D55155	15.5				2
TD3D55156	15.6				2
TD3D55157	15.7				2
TD3D55158	15.8				2
TD3D55159	15.9				2
TD3D55160	16				2
TD3D55161	16.1	66	119	17	2
TD3D55162	16.2				2
TD3D55163	16.3				2
TD3D55164	16.4				2
TD3D55165	16.5				2
TD3D55166	16.6				2
TD3D55167	16.7				2
TD3D55168	16.8				2
TD3D55169	16.9				2
TD3D55170	17				2
TD3D55171	17.1	66	123	18	2
TD3D55172	17.2				2
TD3D55173	17.3				2
TD3D55174	17.4				2
TD3D55175	17.5				2
TD3D55176	17.6				2
TD3D55177	17.7				2
TD3D55178	17.8				2
TD3D55179	17.9				2
TD3D55180	18				2
TD3D55181	18.1	70	127	19	2
TD3D55182	18.2				2
TD3D55185	18.5				2
TD3D55190	19				2
TD3D55191	19.1	70	131	20	2
TD3D55192	19.2				2
TD3D55195	19.5				2
TD3D55197	19.7				2
TD3D55200	20				2

# 45 度 钨钢麻花钻 (3D)

## HRC45 Solid Carbide Twist Drills (3D)



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of end mill diameter every size: 0.000 ~ -0.050

采用自贡 YG10X料, 具有高硬度和良好的耐磨度

TiSiN, 含硅, 具有极高的表面硬度和极高的热阻

直径精度公差: 0.000 ~ -0.050

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

TD3D45010	1	8	38	3	2
TD3D45011	1.1	12	42	3	2
TD3D45012	1.2				2
TD3D45013	1.3				2
TD3D45014	1.4				2
TD3D45015	1.5				2
TD3D45016	1.6				2
TD3D45017	1.7				2
TD3D45018	1.8				2
TD3D45019	1.9				2
TD3D45020	2				2
TD3D45021	2.1	14	50	3	2
TD3D45022	2.2				2
TD3D45023	2.3				2
TD3D45024	2.4				2
TD3D45025	2.5				2
TD3D45026	2.6				2
TD3D45027	2.7				2
TD3D45028	2.8				2
TD3D45029	2.9				2
TD3D45030	3				2
TD3D45031	3.1	20	60	4	2
TD3D45032	3.2				2
TD3D45033	3.3				2
TD3D45034	3.4				2
TD3D45035	3.5				2
TD3D45036	3.6				2
TD3D45037	3.7				2
TD3D45038	3.8				2
TD3D45039	3.9				2
TD3D45040	4				2

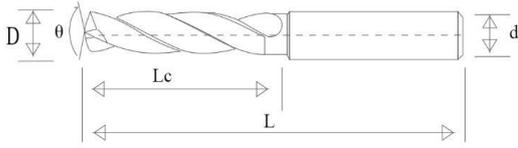
TD3D45041	4.1	24	62	5	2
TD3D45042	4.2				2
TD3D45043	4.3				2
TD3D45044	4.4				2
TD3D45045	4.5				2
TD3D45046	4.6				2
TD3D45047	4.7				2
TD3D45048	4.8				2
TD3D45049	4.9				2
TD3D45050	5				2
TD3D45051	5.1	28	66	6	2
TD3D45052	5.2				2
TD3D45053	5.3				2
TD3D45054	5.4				2
TD3D45055	5.5				2
TD3D45056	5.6				2
TD3D45057	5.7				2
TD3D45058	5.8				2
TD3D45059	5.9				2
TD3D45060	6				2
TD3D45061	6.1	34	74	7	2
TD3D45062	6.2				2
TD3D45063	6.3				2
TD3D45064	6.4				2
TD3D45065	6.5				2
TD3D45066	6.6				2
TD3D45067	6.7				2
TD3D45068	6.8				2
TD3D45069	6.9				2
TD3D45070	7				2
TD3D45071	7.1	40	79	8	2
TD3D45072	7.2				2
TD3D45073	7.3				2
TD3D45074	7.4				2
TD3D45075	7.5				2
TD3D45076	7.6				2
TD3D45077	7.7				2
TD3D45078	7.8				2
TD3D45079	7.9				2
TD3D45080	8				2
TD3D45081	8.1	43	84	9	2
TD3D45082	8.2				2
TD3D45083	8.3				2
TD3D45084	8.4				2
TD3D45085	8.5				2
TD3D45086	8.6				2
TD3D45087	8.7				2
TD3D45088	8.8				2
TD3D45089	8.9				2
TD3D45090	9				2

TD3D45091	9.1	47	89	10	2
TD3D45092	9.2				2
TD3D45093	9.3				2
TD3D45094	9.4				2
TD3D45095	9.5				2
TD3D45096	9.6				2
TD3D45097	9.7				2
TD3D45098	9.8				2
TD3D45099	9.9				2
TD3D45100	10				2
TD3D45101	10.1	51	95	11	2
TD3D45102	10.2				2
TD3D45103	10.3				2
TD3D45104	10.4				2
TD3D45105	10.5				2
TD3D45106	10.6				2
TD3D45107	10.7				2
TD3D45108	10.8				2
TD3D45109	10.9				2
TD3D45110	11				2
TD3D45111	11.1	54	102	12	2
TD3D45112	11.2				2
TD3D45113	11.3				2
TD3D45114	11.4				2
TD3D45115	11.5				2
TD3D45116	11.6				2
TD3D45117	11.7				2
TD3D45118	11.8				2
TD3D45119	11.9				2
TD3D45120	12				2
TD3D45121	12.1	57	102	13	2
TD3D45122	12.2				2
TD3D45123	12.3				2
TD3D45124	12.4				2
TD3D45125	12.5				2
TD3D45126	12.6				2
TD3D45127	12.7				2
TD3D45128	12.8				2
TD3D45129	12.9				2
TD3D45130	13				2
TD3D45131	13.1	60	107	14	2
TD3D45132	13.2				2
TD3D45133	13.3				2
TD3D45134	13.4				2
TD3D45135	13.5				2
TD3D45136	13.6				2
TD3D45137	13.7				2
TD3D45138	13.8				2
TD3D45139	13.9				2
TD3D45140	14				2

TD3D45141	14.1	62	111	15	2
TD3D45142	14.2				2
TD3D45143	14.3				2
TD3D45144	14.4				2
TD3D45145	14.5				2
TD3D45146	14.6				2
TD3D45147	14.7				2
TD3D45148	14.8				2
TD3D45149	14.9				2
TD3D45150	15				2
TD3D45151	15.1	64	115	16	2
TD3D45152	15.2				2
TD3D45153	15.3				2
TD3D45154	15.4				2
TD3D45155	15.5				2
TD3D45156	15.6				2
TD3D45157	15.7				2
TD3D45158	15.8				2
TD3D45159	15.9				2
TD3D45160	16				2
TD3D45161	16.1	66	119	17	2
TD3D45162	16.2				2
TD3D45163	16.3				2
TD3D45164	16.4				2
TD3D45165	16.5				2
TD3D45166	16.6				2
TD3D45167	16.7				2
TD3D45168	16.8				2
TD3D45169	16.9				2
TD3D45170	17				2
TD3D45171	17.1	66	123	18	2
TD3D45172	17.2				2
TD3D45173	17.3				2
TD3D45174	17.4				2
TD3D45175	17.5				2
TD3D45176	17.6				2
TD3D45177	17.7				2
TD3D45178	17.8				2
TD3D45179	17.9				2
TD3D45180	18				2
TD3D45181	18.1	70	127	19	2
TD3D45182	18.2				2
TD3D45185	18.5				2
TD3D45190	19				2
TD3D45191	19.1	70	131	20	2
TD3D45192	19.2				2
TD3D45195	19.5				2
TD3D45197	19.7				2
TD3D45200	20				2

# 55 度 钨钢麻花钻 (5D)

## HRC55 Solid Carbide Twist Drills (5D)



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.  
 Coating: TiSiN , with very high surface hardness and good wear resistance.  
 Tolerance of end mill diameter every size: 0.000 ~ -0.050

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度  
 TiSiN，含硅，具有极高的表面硬度和极高的热阻  
 直径精度公差: 0.000 ~ -0.050

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

Order No.	Diameter D	Cutting Length Lc	Overall Length L	Shank Diameter	Flutes
TD5D55030	3	25	60	3	2
TD5D55031	3.1	30	66	4	2
TD5D55032	3.2				2
TD5D55033	3.3				2
TD5D55034	3.4				2
TD5D55035	3.5				2
TD5D55036	3.6				2
TD5D55037	3.7				2
TD5D55038	3.8				2
TD5D55039	3.9				2
TD5D55040	4				2
TD5D55041	4.1	36	79	5	2
TD5D55042	4.2				2
TD5D55043	4.3				2
TD5D55044	4.4				2
TD5D55045	4.5				2
TD5D55046	4.6				2
TD5D55047	4.7				2
TD5D55048	4.8				2
TD5D55049	4.9				2
TD5D55050	5				2
TD5D55051	5.1	40	83	6	2
TD5D55052	5.2				2
TD5D55053	5.3				2
TD5D55054	5.4				2
TD5D55055	5.5				2
TD5D55056	5.6				2
TD5D55057	5.7				2
TD5D55058	5.8				2
TD5D55059	5.9				2
TD5D55060	6				2

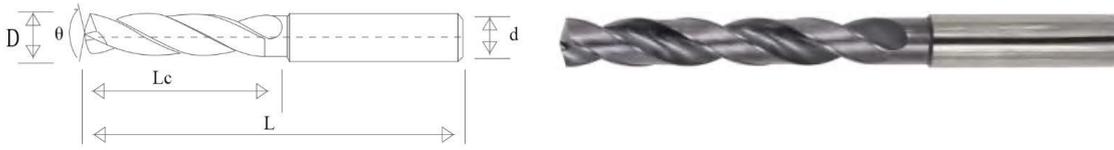
TD5D55061	6.1	47	87	7	2
TD5D55062	6.2				2
TD5D55063	6.3				2
TD5D55064	6.4				2
TD5D55065	6.5				2
TD5D55066	6.6				2
TD5D55067	6.7				2
TD5D55068	6.8				2
TD5D55069	6.9				2
TD5D55070	7				2
TD5D55071	7.1	52	91	8	2
TD5D55072	7.2				2
TD5D55073	7.3				2
TD5D55074	7.4				2
TD5D55075	7.5				2
TD5D55076	7.6				2
TD5D55077	7.7				2
TD5D55078	7.8				2
TD5D55079	7.9				2
TD5D55080	8				2
TD5D55081	8.1	56	96	9	2
TD5D55082	8.2				2
TD5D55083	8.3				2
TD5D55084	8.4				2
TD5D55085	8.5				2
TD5D55086	8.6				2
TD5D55087	8.7				2
TD5D55088	8.8				2
TD5D55089	8.9				2
TD5D55090	9				2
TD5D55091	9.1	62	105	10	2
TD5D55092	9.2				2
TD5D55093	9.3				2
TD5D55094	9.4				2
TD5D55095	9.5				2
TD5D55096	9.6				2
TD5D55097	9.7				2
TD5D55098	9.8				2
TD5D55099	9.9				2
TD5D55100	10				2
TD5D55101	10.1	68	115	11	2
TD5D55102	10.2				2
TD5D55103	10.3				2
TD5D55104	10.4				2
TD5D55105	10.5				2
TD5D55106	10.6				2
TD5D55107	10.7				2
TD5D55108	10.8				2
TD5D55109	10.9				2
TD5D55110	11				2

TD5D55111	11.1	71	118	12	2
TD5D55112	11.2				2
TD5D55113	11.3				2
TD5D55114	11.4				2
TD5D55115	11.5				2
TD5D55116	11.6				2
TD5D55117	11.7				2
TD5D55118	11.8				2
TD5D55119	11.9				2
TD5D55120	12				2
TD5D55121	12.1	75	125	13	2
TD5D55122	12.2				2
TD5D55123	12.3				2
TD5D55124	12.4				2
TD5D55125	12.5				2
TD5D55126	12.6				2
TD5D55127	12.7				2
TD5D55128	12.8				2
TD5D55129	12.9				2
TD5D55130	13				2
TD5D55131	13.1	80	134	14	2
TD5D55132	13.2				2
TD5D55133	13.3				2
TD5D55134	13.4				2
TD5D55135	13.5				2
TD5D55136	13.6				2
TD5D55137	13.7				2
TD5D55138	13.8				2
TD5D55139	13.9				2
TD5D55140	14				2
TD5D55141	14.1	83	143	15	2
TD5D55142	14.2				2
TD5D55143	14.3				2
TD5D55144	14.4				2
TD5D55145	14.5				2
TD5D55146	14.6				2
TD5D55147	14.7				2
TD5D55148	14.8				2
TD5D55149	14.9				2
TD5D55150	15				2
TD5D55151	15.1	90	150	16	2
TD5D55152	15.2				2
TD5D55153	15.3				2
TD5D55154	15.4				2
TD5D55155	15.5				2
TD5D55156	15.6				2
TD5D55157	15.7				2
TD5D55158	15.8				2
TD5D55159	15.9				2
TD5D55160	16				2

TD5D55161	16.1	95	155	17	2
TD5D55162	16.2				2
TD5D55163	16.3				2
TD5D55164	16.4				2
TD5D55165	16.5				2
TD5D55166	16.6				2
TD5D55167	16.7				2
TD5D55168	16.8				2
TD5D55169	16.9				2
TD5D55170	17				2
TD5D55171	17.1	100	157	18	2
TD5D55172	17.2				2
TD5D55173	17.3				2
TD5D55174	17.4				2
TD5D55175	17.5				2
TD5D55176	17.6				2
TD5D55177	17.7				2
TD5D55178	17.8				2
TD5D55179	17.9				2
TD5D55180	18				2
TD5D55181	18.1	105	160	19	2
TD5D55182	18.2				2
TD5D55185	18.5				2
TD5D55190	19				2
TD5D55191	19.1	110	163	20	2
TD5D55192	19.2				2
TD5D55195	19.5				2
TD5D55197	19.7				2
TD5D55200	20				2

# 45 度 钨钢麻花钻 (5D)

## HRC45 Solid Carbide Twist Drills (5D)



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Tolerance of end mill diameter every size: 0.000 ~ -0.050

采用自贡 YG10X料, 具有高硬度和良好的耐磨度  
TiSiN, 含硅, 具有极高的表面硬度和极高的热阻  
直径精度公差: 0.000 ~ -0.050

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

Order No.	Diameter D	Cutting Length Lc	Overall Length L	Shank Diameter	Flutes
TD5D45030	3	25	60	3	2
TD5D45031	3.1	30	66	4	2
TD5D45032	3.2				2
TD5D45033	3.3				2
TD5D45034	3.4				2
TD5D45035	3.5				2
TD5D45036	3.6				2
TD5D45037	3.7				2
TD5D45038	3.8				2
TD5D45039	3.9				2
TD5D45040	4				2
TD5D45041	4.1	36	79	5	2
TD5D45042	4.2				2
TD5D45043	4.3				2
TD5D45044	4.4				2
TD5D45045	4.5				2
TD5D45046	4.6				2
TD5D45047	4.7				2
TD5D45048	4.8				2
TD5D45049	4.9				2
TD5D45050	5				2
TD5D45051	5.1	40	83	6	2
TD5D45052	5.2				2
TD5D45053	5.3				2
TD5D45054	5.4				2
TD5D45055	5.5				2
TD5D45056	5.6				2
TD5D45057	5.7				2
TD5D45058	5.8				2
TD5D45059	5.9				2
TD5D45060	6				2

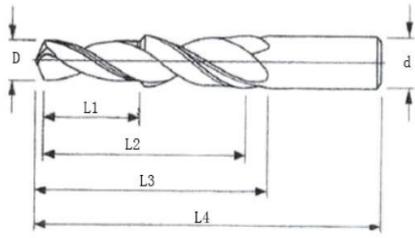
TD5D45061	6.1	47	87	7	2
TD5D45062	6.2				2
TD5D45063	6.3				2
TD5D45064	6.4				2
TD5D45065	6.5				2
TD5D45066	6.6				2
TD5D45067	6.7				2
TD5D45068	6.8				2
TD5D45069	6.9				2
TD5D45070	7				2
TD5D45071	7.1	52	91	8	2
TD5D45072	7.2				2
TD5D45073	7.3				2
TD5D45074	7.4				2
TD5D45075	7.5				2
TD5D45076	7.6				2
TD5D45077	7.7				2
TD5D45078	7.8				2
TD5D45079	7.9				2
TD5D45080	8				2
TD5D45081	8.1	56	96	9	2
TD5D45082	8.2				2
TD5D45083	8.3				2
TD5D45084	8.4				2
TD5D45085	8.5				2
TD5D45086	8.6				2
TD5D45087	8.7				2
TD5D45088	8.8				2
TD5D45089	8.9				2
TD5D45090	9				2
TD5D45091	9.1	62	105	10	2
TD5D45092	9.2				2
TD5D45093	9.3				2
TD5D45094	9.4				2
TD5D45095	9.5				2
TD5D45096	9.6				2
TD5D45097	9.7				2
TD5D45098	9.8				2
TD5D45099	9.9				2
TD5D45100	10				2
TD5D45101	10.1	68	115	11	2
TD5D45102	10.2				2
TD5D45103	10.3				2
TD5D45104	10.4				2
TD5D45105	10.5				2
TD5D45106	10.6				2
TD5D45107	10.7				2
TD5D45108	10.8				2
TD5D45109	10.9				2
TD5D45110	11				2

TD5D45111	11.1	71	118	12	2
TD5D45112	11.2				2
TD5D45113	11.3				2
TD5D45114	11.4				2
TD5D45115	11.5				2
TD5D45116	11.6				2
TD5D45117	11.7				2
TD5D45118	11.8				2
TD5D45119	11.9				2
TD5D45120	12				2
TD5D45121	12.1	75	125	13	2
TD5D45122	12.2				2
TD5D45123	12.3				2
TD5D45124	12.4				2
TD5D45125	12.5				2
TD5D45126	12.6				2
TD5D45127	12.7				2
TD5D45128	12.8				2
TD5D45129	12.9				2
TD5D45130	13				2
TD5D45131	13.1	80	134	14	2
TD5D45132	13.2				2
TD5D45133	13.3				2
TD5D45134	13.4				2
TD5D45135	13.5				2
TD5D45136	13.6				2
TD5D45137	13.7				2
TD5D45138	13.8				2
TD5D45139	13.9				2
TD5D45140	14				2
TD5D45141	14.1	83	143	15	2
TD5D45142	14.2				2
TD5D45143	14.3				2
TD5D45144	14.4				2
TD5D45145	14.5				2
TD5D45146	14.6				2
TD5D45147	14.7				2
TD5D45148	14.8				2
TD5D45149	14.9				2
TD5D45150	15				2
TD5D45151	15.1	90	150	16	2
TD5D45152	15.2				2
TD5D45153	15.3				2
TD5D45154	15.4				2
TD5D45155	15.5				2
TD5D45156	15.6				2
TD5D45157	15.7				2
TD5D45158	15.8				2
TD5D45159	15.9				2
TD5D45160	16				2

TD5D45161	16.1	95	155	17	2
TD5D45162	16.2				2
TD5D45163	16.3				2
TD5D45164	16.4				2
TD5D45165	16.5				2
TD5D45166	16.6				2
TD5D45167	16.7				2
TD5D45168	16.8				2
TD5D45169	16.9				2
TD5D45170	17				2
TD5D45171	17.1	100	157	18	2
TD5D45172	17.2				2
TD5D45173	17.3				2
TD5D45174	17.4				2
TD5D45175	17.5				2
TD5D45176	17.6				2
TD5D45177	17.7				2
TD5D45178	17.8				2
TD5D45179	17.9				2
TD5D45180	18				2
TD5D45181	18.1	105	160	19	2
TD5D45182	18.2				2
TD5D45185	18.5				2
TD5D45190	19				2
TD5D45191	19.1	110	163	20	2
TD5D45192	19.2				2
TD5D45195	19.5				2
TD5D45197	19.7				2
TD5D45200	20				2

# 台阶钻

## Carbide Step Drill Bits



Material: Good quality carbide rod with 45 55 or 65HRC

Coating: AlTiN/TiSiN/AlTiSiN/TiN/without coating, all are available

Feature: Suitable for drilling step hole at one time

Produce According to your drawings or detailed parameters listed below

Diameter(D) \_\_\_\_\_ mm

Cutting Length (L1) \_\_\_\_\_ mm

Cutting Length (L2) \_\_\_\_\_ mm

Effective Length (L3) \_\_\_\_\_ mm

Overall Length (L4) \_\_\_\_\_ mm

Shank Diameter (d) \_\_\_\_\_ mm

Point Angle (  $\theta$  ) \_\_\_\_\_ °

Workpiece \_\_\_\_\_

Others: \_\_\_\_\_

# 45 度 四刃倒角刀

## HRC45 Chamfer Mill



Raw Material: Use YG10X with 10% Co content and 0.8um grain size.

Coating: AlTiN, High aluminum content provides excellent hot hardness and oxidation resistance.

Products Design: Spotting drills can perform both centering and chamfering. Precise position the holes and chamfer are accomplished at one time to improve the processing efficiency.

采用自贡 YG10X料，具有高硬度和良好的耐磨度  
TiSiN，含硅，具有极高的表面硬度和极高的热阻  
定点、倒角两用型，中心定位及倒角一次性完成，提高加工的效率

Order No.	Diameter D	Shank Diameter	Overall Length L	Point Angle $\theta$	Flutes
CM450303050090	3	3	50	90	4
CM450404050090	4	4	50	90	4
CM450505050090	5	5	50	90	4
CM450606050090	6	6	50	90	4
CM450808060090	8	8	60	90	4
CM451010075090	10	10	75	90	4
CM451212075090	12	12	75	90	4
CM450303050120	3	3	50	120	4
CM450404050120	4	4	50	120	4
CM450505050120	5	5	50	120	4
CM450606050120	6	6	50	120	4
CM450808060120	8	8	60	120	4
CM451010075120	10	10	75	120	4
CM451212075120	12	12	75	120	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 55 度 四刃倒角刀

## HRC55 Chamfer Mill



Raw Material: Use ZK30UF with 10% Co content and 0.6um grain size.

Coating: TiSiN, with very high surface hardness and good wear resistance, AlTiN, AlTiSiN is also available

Products Design: Spotting drills can perform both centering and chamfering. Precise position the holes and chamfer are accomplished at one time to improve the processing efficiency.

采用自贡 ZK30UF 料，具有高硬度和良好的耐磨度

TiSiN，含硅，具有极高的表面硬度和极高的热阻

定点、倒角两用型，中心定位及倒角一次性完成，提高加工的效率

Order No.	Diameter D	Shank Diameter	Overall Length L	Point Angle $\theta$	Flutes
CM550303050090	3	3	50	90	4
CM550404050090	4	4	50	90	4
CM550505050090	5	5	50	90	4
CM550606050090	6	6	50	90	4
CM550808060090	8	8	60	90	4
CM551010075090	10	10	75	90	4
CM551212075090	12	12	75	90	4
CM550303050120	3	3	50	120	4
CM550404050120	4	4	50	120	4
CM550505050120	5	5	50	120	4
CM550606050120	6	6	50	120	4
CM550808060120	8	8	60	120	4
CM551010075120	10	10	75	120	4
CM551212075120	12	12	75	120	4

工件材料 Workpiece Material						
碳钢 Carbon Steel	合金钢 Alloy Steel	铸铁 Cast Iron	铝合金 Aluminum Alloy	铜合金 Copper Alloy	不锈钢 Stainless Steel	高硬钢 Hardened Steel
Y	Y	Y				Y

Y 适合 Suitable

# 精磨圆棒

## Grinding Carbide Rods



Tolerance: h6

Grade	Content of Cobalt Co %	Grain Size $\mu\text{m}$	Density $\text{g/cm}^3$	Hardness HRA	TRS $\text{N/mm}^2$
YG10X	10	0.8	14.6	91.5	3800
ZK30UF	10	0.6	14.5	92	4200
GU25UF	12	0.4	14.3	92.5	4300

### Recommended Usage

- YG10X** Use widely, with good hot hardness. Suitable for milling and drilling general steel under 45 HRC and Aluminum, etc at a low cutting speed. Recommend use this grade to make the twist drills, end mills, etc.
- ZK30UF** Suitable for milling and drilling general steel under HRC 55, cast iron, stainless steel, aluminum alloy, etc. Recommend to make the drills, milling cutters, reamers and taps.
- GU25UF** Suitable for milling titanium alloy, hardened steel, refractory alloy under HRC 62. Recommend to make end mills with high cutting speed and reamer.

Order No.	Diameter D	Overall Length L	Order No.	Diameter D	Overall Length L
FG02100	2	100	FG16100	16	100
FG03100	3	100	FG18100	18	100
FG04100	4	100	FG20100	20	100
FG05100	5	100	FG06150	6	150
FG06100	6	100	FG08150	8	150
FG07100	7	100	FG10150	10	150
FG08100	8	100	FG12150	12	150
FG09100	9	100	FG14150	14	150
FG10100	10	100	FG16150	16	150
FG12100	12	100	FG18150	18	150

## 毛坯圆棒

# BLANK CEMENTED CARBIDE RODS



**YG10X** Use widely, with good hot hardness. Suitable for milling and drilling general steel under 45 HRC and Aluminum, etc at a low cutting speed. Recommend use this grade to make the twist drills, end mills, etc.

**ZK30UF** Suitable for milling and drilling general steel under HRC 55, cast iron, stainless steel, aluminum alloy, etc. Recommend to make the drills, milling cutters, reamers and taps.

**GU25UF** Suitable for milling titanium alloy, hardened steel, refractory alloy under HRC 62. Recommend to make end mills with high cutting speed and reamer.

Grade	Content of Cobalt Co %	Grain Size $\mu\text{m}$	Density $\text{g/cm}^3$	Hardness HRA	TRS $\text{N/mm}^2$
YG10X	10	0.8	14.6	91.5	3800
ZK30UF	10	0.6	14.5	92	4200
GU25UF	12	0.4	14.3	92.5	4300

## 300 mm 钨钢棒

### 300mm Standard Length Rods

CODE	Diameter		Length	
	D	Tolerance	L	Tolerance
CCS020300	2	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS030300	3	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS040300	4	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS050300	5	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS060300	6	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS070300	7	+0.2 ~ +0.4	300	+5.0 ~ +10.0
CCS080300	8	+0.2 ~ +0.5	300	+5.0 ~ +10.0
CCS090300	9	+0.2 ~ +0.5	300	+5.0 ~ +10.0
CCS100300	10	+0.2 ~ +0.5	300	+5.0 ~ +10.0
CCS110300	11	+0.2 ~ +0.5	300	+5.0 ~ +10.0
CCS120300	12	+0.2 ~ +0.5	300	+5.0 ~ +10.0
CCS130300	13	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS140300	14	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS150300	15	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS160300	16	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS170300	17	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS180300	18	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS190300	19	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS200300	20	+0.3 ~ +0.7	300	+5.0 ~ +10.0
CCS220300	22	+0.4 ~ +0.8	300	+5.0 ~ +10.0
CCS250300	25	+0.4 ~ +0.8	300	+5.0 ~ +10.0

### 330mm Standard Length Rods

CODE	Diameter		Length	
	D	Tolerance	L	Tolerance
CCS020330	2	+0.2 ~ +0.4	330	+5.0 ~ +10.0
CCS060330	6	+0.2 ~ +0.4	330	+5.0 ~ +10.0
CCS070330	7	+0.2 ~ +0.4	330	+5.0 ~ +10.0
CCS080330	8	+0.2 ~ +0.5	330	+5.0 ~ +10.0
CCS090330	9	+0.2 ~ +0.5	330	+5.0 ~ +10.0
CCS100330	10	+0.2 ~ +0.5	330	+5.0 ~ +10.0
CCS110330	11	+0.2 ~ +0.5	330	+5.0 ~ +10.0
CCS120330	12	+0.2 ~ +0.5	330	+5.0 ~ +10.0
CCS130330	13	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS140330	14	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS150330	15	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS160330	16	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS170330	17	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS180330	18	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS190330	19	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS200330	20	+0.3 ~ +0.7	330	+5.0 ~ +10.0
CCS220330	22	+0.4 ~ +0.8	330	+5.0 ~ +10.0
CCS250330	25	+0.4 ~ +0.8	330	+5.0 ~ +10.0

## 其他规格钨钢棒

### Fixing Length Rods

CODE	Diameter		Length	
	D	Tolerance	L	Tolerance
CCF030050	3.0	+0.2 ~ +0.4	50	+0.5 ~ +1.0
CCF030075	3.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF030100	3.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF040050	4.0	+0.2 ~ +0.4	50	+0.5 ~ +1.0
CCF040075	4.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF040100	4.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF050050	5.0	+0.2 ~ +0.4	50	+0.5 ~ +1.0
CCF050075	5.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF050100	5.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF060050	6.0	+0.2 ~ +0.4	50	+0.5 ~ +1.0
CCF060075	6.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF060100	6.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF060150	6.0	+0.2 ~ +0.4	150	+0.5 ~ +1.0
CCF070060	7.0	+0.2 ~ +0.4	60	+0.5 ~ +1.0
CCF070100	7.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF080060	8.0	+0.2 ~ +0.4	60	+0.5 ~ +1.0
CCF080075	8.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF080100	8.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF080150	8.0	+0.3 ~ +0.5	150	+0.5 ~ +1.0
CCF090075	9.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF090100	9.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF100075	10.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF100100	10.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF100150	10.0	+0.3 ~ +0.5	150	+0.5 ~ +1.0
CCF110075	11.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF110100	11.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF120075	12.0	+0.2 ~ +0.4	75	+0.5 ~ +1.0
CCF120100	12.0	+0.2 ~ +0.4	100	+0.5 ~ +1.0
CCF120150	12.0	+0.3 ~ +0.5	150	+0.5 ~ +1.0
CCF130100	13.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF140100	14.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF140150	14.0	+0.3 ~ +0.5	150	+0.5 ~ +1.5
CCF150100	15.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF160100	16.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF160150	16.0	+0.3 ~ +0.5	150	+0.5 ~ +1.5
CCF180100	18.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF180150	18.0	+0.3 ~ +0.5	150	+0.5 ~ +1.5
CCF200100	20.0	+0.3 ~ +0.5	100	+0.5 ~ +1.5
CCF200150	20.0	+0.4 ~ +0.6	150	+0.5 ~ +1.5
CCF220100	22.0	+0.4 ~ +0.6	100	+0.5 ~ +1.5
CCF250100	25.0	+0.4 ~ +0.6	100	+0.5 ~ +1.5

Any fixing sizes can be specially produced.

任何规格都可以定制

非标定制

## Carbide Customized Cutter

Material: Good quality carbide rod with 45 55 or 65HRC

Coating: AlTiN/TiSiN/AlTiSiN/TiN/without coating, all are available

Range: Reamers, T-slot cutters, forming cutters, compression cutters, single flute end mills, etc.



铣刀片

## Milling Inserts

RPMW1003MO

APMT1135PDER-H2

APMT1135PDER-H2 golden

APM1135PDER-M2

APMT1135PDER-M2 golden

APMT1604PDER-M2

APMT1604PDER M2 golden

APMT1604PDER-H2

RPMT1204MOE-JS

RPMT10T3MOE-JS



# 锯片铣刀

## Carbide Saw Blade



Raw Material: high performance carbide

How to order:

Application: Widely used in Machinery area.

Specifications	Unit Price USD/pcs	Specifications	Unit Price USD/pcs	Specifications	Unit Price USD/pcs
12*0.1-0.2	\$3.17	50*0.15-0.25	\$7.14	90*1.4-1.6	\$22.22
12*0.3-1.0	\$2.70	50*0.3-0.4	\$5.56	90*1.9-2.1	\$26.83
12*1.1-2.0	\$3.02	50*0.5-0.8	\$6.19	90*2.4-2.6	\$31.75
12*2.1-30	\$3.02	50*0.9-1.2	\$6.98	90*2.9-3.1	\$36.19
12*3.1-4.0	\$3.17	50*1.3-1.6	\$8.89	90*3.4-3.6	\$40.95
20*0.1-0.2	\$3.49	50*1.7-2.1	\$10.16	90*3.8-4.0	\$45.87
20*0.3-1.0	\$3.17	50*2.2-2.4	\$10.95	100*0.4-0.5	\$19.68
20*1.1-1.5	\$3.33	50*2.5-2.8	\$12.22	100*0.6-0.8	\$18.10
20*1.6-2.0	\$3.49	50*2.9-3.2	\$13.33	100*0.9-1.2	\$22.86
20*2.1-2.5	\$3.65	50*3.3-3.7	\$14.60	100*1.3-1.6	\$26.67
20*2.6-30	\$3.81	50*3.8-4.1	\$15.87	100*1.8-2.1	\$33.02
20*3.1-4.0	\$4.13	60*0.2-0.3	\$9.84	100*2.2-2.5	\$37.30
25*0.1-0.2	\$3.81	60*0.4-0.8	\$8.57	100*2.6-3.0	\$43.65
25*0.3-0.6	\$3.33	60*0.9-1.2	\$10.32	100*3.1-3.4	\$47.62
25*0.7-1.0	\$3.49	60*1.3-1.7	\$12.54	100*3.5-3.8	\$52.06
25*1.1-1.5	\$3.65	60*1.8-2.2	\$14.60	100*3.9-4.1	\$55.56
25*1.6-2.0	\$3.81	60*2.3-2.6	\$16.03	110*0.5-0.6	\$24.76
25*2.1-2.5	\$4.13	60*2.7-3.1	\$18.25	110*0.7-1.1	\$2.54
25*2.6-3.0	\$4.44	60*3.2-3.6	\$20.48	110*1.4-1.6	\$33.33
25*3.1-3.5	\$4.76	60*3.7-4.1	\$22.54	110*1.9-2.1	\$39.68
25*3.6-4.0	\$5.08	75*0.3-0.4	\$11.90	110*2.4-2.6	\$46.83
30*0.1-0.2	\$4.60	75*0.5-0.8	\$11.43	110*2.9-3.1	\$53.97
30*0.3-0.6	\$3.81	75*0.9-1.2	\$13.49	125*0.5-0.6	\$33.33
30*0.7-1.0	\$4.13	75*1.3-1.7	\$16.67	125*0.8-1.1	\$34.60
30*1.1-1.5	\$4.60	75*1.8-2.2	\$20.00	125*1.4-1.6	\$43.65
30*1.6-2.0	\$5.08	75*2.3-2.6	\$22.70	125*1.9-2.1	\$52.54
30*2.1-2.5	\$5.71	75*2.7-3.1	\$26.35	125*2.4-2.6	\$61.43
30*2.6-3.0	\$6.35	75*3.2-3.6	\$30.16	125*2.9-3.1	\$70.48
30*3.1-3.5	\$7.14	75*3.7-4.0	\$33.65	125*3.4-3.6	\$79.37
30*3.6*4.0	\$7.78	80*0.35-0.45	\$15.08	125*3.9-4.1	\$88.25
40*0.1-0.2	\$5.40	80*0.5-0.8	\$13.97	150*0.55-0.65	\$50.48
40*0.3-0.4	\$4.92	80*0.9-1.1	\$15.71	150*0.8-1.1	\$52.86
40*0.5-0.9	\$5.40	80*1.2-1.6	\$18.89	150*1.2-1.5	\$63.33
40*1.0-1.4	\$6.35	80*1.7-2.1	\$22.38	150*1.6-1.8	\$71.11
40*1.5-1.8	\$7.14	80*2.2-2.6	\$26.03	150*1.9-2.1	\$78.57
40*1.9-2.1	\$7.62	80*2.7-3.1	\$29.68	160*0.7-1.1	\$62.70
40*2.2-2.5	\$8.41	80*3.2-3.6	\$34.13	160*1.3-1.6	\$77.14
40*2.6-2.9	\$9.21	80*3.7-4.0	\$36.67	170*0.8-1.1	\$74.29
40*3.0-3.3	\$10.00	90*0.4-0.5	\$17.14	180*0.8-1.1	\$76.19
40*3.4-3.6	\$10.79	90*0.6-0.9	\$15.87	200*0.9-1.2	\$109.52
40*3.7-4.0	\$11.59	90*1.0-1.3	\$19.52	250*1.1-1.6	\$197.94

## 铝用车削加工刀片 Aluminum Turning Insert

DCGT070202-TK  
DCGT070204-TK  
DCGT070208-TK



DCGT11T302-TK  
DCGT11T304-TK  
DCGT11T308-TK



CCGT060202-TK  
CCGT060204-TK  
CCGT060208-TK



CCGT09T302-TK  
CCGT09T304-TK  
CCGT09T308-TK



CCGT120402-TK  
CCGT120404-TK  
CCGT120408-TK  
CCGT120412-TK



VCGT110302-TK  
VCGT110304-TK  
VCGT110308-TK  
VBGT110302-TK  
VBGT110304-TK  
VBGT110308-TK



VCGT160402-TK  
VCGT160404-TK  
VCGT160408-TK  
VCGT160412-TK  
VBGT160402-TK  
VBGT160404-TK  
VBGT160408-TK



SCGT120402-TK  
SCGT120404-TK  
SCGT120408-TK  
SCGT120412-TK



SCGT09T302-TK  
SCGT09T304-TK  
SCGT09T308-TK



TCGT090202-TK  
TCGT090204-TK



TCGT110202-TK  
TCGT110204-TK  
TCGT110208-TK



TCGT16T302-TK  
TCGT16T304-TK  
TCGT16T308-TK  
TCGT16T312-TK



TNMG160402-TK  
TNMG160404-TK  
TNMG160408-TK  
TNMG160412-TK



CNMG120402-TK  
CNMG120404-TK  
CNMG120408-TK  
CNMG120412-TK



WNMG080402-TK  
WNMG080404-TK  
WNMG080408-TK  
WNMG080412-TK



VNMG160402-TK  
VNMG160404-TK  
VNMG160408-TK  
VNMG160412-TK



SNMG120402-TK  
SNMG120404-TK  
SNMG120408-TK  
SNMG120412-TK



## 铝用铣削加工刀片 Aluminum Milling Insert

APKT1604-TK



APKT1604-MA3



APGT1604-G2



APKT1135-G2



APKT1003



SEHT1204



RCGT0702  
RCGT0803  
RCGT1003  
RCGT10T3  
RCGT1204



RPGT0702  
RPGT08T2  
RPGT1003  
RPGT10T3  
RPGT1204



## 铝用切槽切断加工刀片 Aluminum Parting & Grooving Insert

MGMN150-G M01  
MGMN200-G M01  
MGMN250-G M01  
MGMN300-M M01  
MGMN400-M M01  
MGMN500-M M01



MRMN150-G M01  
MRMN200-G M01  
MRMN250-G M01  
MRMN300-M M01  
MRMN400-M M01  
MRMN500-M M01



SP200-A M01  
SP300-A M01  
SP400-A M01



## 铝用镗孔加工刀片 Aluminum Boring Insert

TPGH060202L-F M01  
TPGH060204L-F M01  
TPGH080202L-F M01  
TPGH080204L-F M01  
TPGH090202L-F M01  
TPGH090204L-F M01  
TPGH110302L-F M01  
TPGH110304L-F M01



WBG060101 M01  
WBG060102 M01  
WBG060104 M01



## 铝用螺纹刀片 Threading Insert for Aluminum

16ER AG55 M01  
16ER AG60 M01  
16ER ISO150 M01  
16ER ISO200 M01  
16ER ISO250 M01  
16ER ISO300 M01



16IR AG55 M01  
16IR AG60 M01  
16IR ISO150 M01  
16IR ISO200 M01  
16IR ISO250 M01  
16IR ISO300 M01



## 铝用小零件加工 Small Parts Turning Insert

CTP10FR M01  
CTP15FR M01  
CTP10FL M01  
CTP15FL M01  
CTPA10FR M01  
CTPA15FR M01  
CTPA20FR M01  
CTPA10FL M01  
CTPA15FL M01  
CTPA20FL M01

TBP60F R/L 00 M01  
TBP60F R/L 10 M01  
TBP60F R/L 20 M01  
TBPA60F R/L VB M01  
TBPA60F R/L 10M M01

ABS15R 4005 M01  
ABS15R 4015 M01

ABW23R 5005 M01  
ABW23R 5015 M01

7GR 100 M01  
7GR 150 M01  
7GR 200 M01

8GR 100 M01  
8GR 150 M01  
8GR 200 M01

9GR 100 M01  
9GR 150 M01  
9GR 200 M01

TGF32R 050 M01  
TGF32R 100 M01  
TGF32R 150 M01  
TGF32R 200 M01

CSVB11F R/L V M01  
CSVB11F R/L V-M M01  
CSVB11F R/L V M01

CSVC11F R/L V07 M01  
CSVC11F R/L V10 M01  
CSVC11F R/L V15 M01

CSVG11F R/L V025 M01  
CSVG11F R/L V030 M01  
CSVG11F R/L V040 M01

CSVT11F R/L  
P60-035A M01  
CSVT11F R/L  
P60-035B M01



## 钢件车削可转位刀片 Turning Insert for Steel

TNMG160404HQ CA  
TNMG160408HQ CA



CNMG120404HQ CA  
CNMG120408HQ CA



WNMG080404HQ CA  
WNMG080408HQ CA



DCMT11T304HQ CA  
DCMT11T308HQ CA



DCMT070204HQ CA



CCMT09T304HQ CA  
CCMT09T308HQ CA



CCMT060204HQ CA



VBMT110304HQ CA

## 通用型加工可转位刀片 Turning Insert for General

TNMG160404MS PR1  
TNMG160408MS PR1



TNMG160404HQ PR9  
TNMG160408HQ PR9



CNMG120404HQ PR9  
CNMG120408HQ PR9



WNMG080404HQ PR9  
WNMG080408HQ PR9



DCMT11T304HQ PR9  
DCMT11T308HQ PR9



DCMT070204HQ PR9



CCMT09T304HQ PR9  
CCMT09T308HQ PR9



CCMT060204HQ PR9



VBMT110304HQ PR9



## 不锈钢车削可转位刀片 Turning Insert for Stainless Steel

TNMG160404MA VP  
TNMG160408MA VP



CNMG120404MA VP  
CNMG120408MA VP



WNMG080404MA VP  
WNMG080408MA VP



SNMG120404MA VP  
SNMG120408MA VP



VNMG160404MA VP  
VNMG160408MA VP



TNMG160404MS VP  
TNMG160408MS VP



CNMG120404MS VP  
CNMG120408MS VP



WNMG080404MS VP  
WNMG080408MS VP



VBMT160404 VP  
VBMT160408 VP



VCMT160404 VP  
VCMT160408 VP



TCMT16T304 VP  
TCMT16T308 VP



TCMT110202 VP  
TCMT110204 VP



DCMT11T304 VP  
DCMT11T308 VP



DCMT070202 VP  
DCMT070204 VP



CCMT120404 VP  
CCMT120408 VP



CCMT09T304 VP  
CCMT09T308 VP



CCMT060202 VP  
CCMT060204 VP



## 钢件车削可转位刀片 Turning Insert for steel

TNMG160404MA UE  
TNMG160408MA UE



CNMG120404MA UE  
CNMG120408MA UE



WNMG080404MA UE  
WNMG080408MA UE



SNMG120404MA UE  
SNMG120408MA UE



VNMG160404MA UE  
VNMG160408MA UE



VBMT160404 UE  
VBMT160408 UE



VCMT160404 UE  
VCMT160408 UE



TCMT16T304 UE  
TCMT16T308 UE



TCMT110202 UE  
TCMT110204 UE



DCMT11T304 UE  
DCMT11T308 UE



DCMT070202 UE  
DCMT070204 UE



CCMT120404 UE  
CCMT120408 UE



CCMT09T304 UE  
CCMT09T308 UE



CCMT060202 UE  
CCMT060204 UE

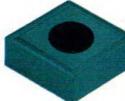


## 铸铁车削用可转位刀片 Turning Insert for Casted Iron

TNMG160404 UC  
TNMG160408 UC  
TNMG160412 UC



CNMG120404 UC  
CNMG120408 UC  
CNMG120412 UC



WNMG080404 UC  
WNMG080408 UC  
WNMG080412 UC

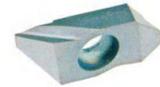


## 小零件车削可转位刀片 Small Parts Cutting Insert

CTP10FR  
CTP15FR  
CTP10FL  
CTP15FL  
CTPA10FR  
CTPA15FR  
CTPA20FR  
CTPA10FL  
CTPA15FL  
CTPA20FL



TBP60F R/L 00  
TBP60F R/L 10  
TBP60F R/L 20  
TBPA60F R/L VB  
TBPA60F R/L 10M



ABS15R 4005  
ABS15R 4015



ABW23R 5005  
ABW23R 5015



CSVB11F R/L V  
CSVB11F R/L V-M  
CSVB11F R/L V



CSVC11F R/L V07  
CSVC11F R/L V10  
CSVC11F R/L V15



CSVG11F R/L V025  
CSVG11F R/L V030  
CSVG11F R/L V040



CSVT11F R/L P60-035A  
CSVT11F R/L P60-035B



DCGT11T3005E R/L-U  
DCGT11T301E R/L-U  
DCGT11T302E R/L-U



DCGT11T3005 R/L-F  
DCGT11T301 R/L-F  
DCGT11T302 R/L-F



DCGT0702005E R/L-U  
DCGT070201E R/L-U  
DCGT070202E R/L-U



DCGT0702005 R/L-F  
DCGT070201 R/L-F  
DCGT070202 R/L-F



CCGT09T3005E R/L-U  
CCGT09T301E R/L-U  
CCGT09T302E R/L-U



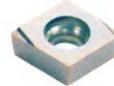
CCGT09T3005 R/L-F  
CCGT09T301 R/L-F  
CCGT09T302 R/L-F



CCGT0602005E R/L-U  
CCGT060201E R/L-U  
CCGT060202E R/L-U



CCGT0602005 R/L-F  
CCGT060201 R/L-F  
CCGT060202 R/L-F



VBGT110301 R/L-Y  
VBGT110302 R/L-Y  
VBGT110304 R/L-Y



VBGT1103003 R/L-F  
VBGT110301 R/L-F  
VBGT110302 R/L-F



TPGH080202L PR9  
TPGH080204L PR9  
TPGH090202L PR9  
TPGH090204L PR9  
TPGH110302L PR9  
TPGH110304L PR9



TNGG160401R/L-C PR9  
TNGG160402R/L-C PR9  
TNGG160404R/L-C PR9



TNGG160401R/L-S PR9  
TNGG160402R/L-S PR9  
TNGG160404R/L-S PR9



## 切槽、切断车削可转位刀片 Grooving & Parting Insert

MGMN150-G NC  
MGMN200-G NC  
MGMN250-G NC  
MGMN300-M NC  
MGMN400-M NC  
MGMN500-M NC



MRMN150-G NC  
MRMN200-G NC  
MRMN250-G NC  
MRMN300-M NC  
MRMN400-M NC  
MRMN500-M NC



TGF32R 050 PR9  
TGF32R 055 PR9  
TGF32R 060 PR9  
TGF32R 065 PR9  
TGF32R 070 PR9  
TGF32R 075 PR9  
TGF32R 080 PR9  
TGF32R 085 PR9  
TGF32R 090 PR9  
TGF32R 095 PR9  
TGF32R 100 PR9  
TGF32R 105 PR9  
TGF32R 110 PR9  
TGF32R 115 PR9  
TGF32R 120 PR9  
TGF32R 125 PR9  
TGF32R 130 PR9  
TGF32R 135 PR9  
TGF32R 140 PR9  
TGF32R 145 PR9  
TGF32R 150 PR9  
TGF32R 155 PR9  
TGF32R 160 PR9  
TGF32R 165 PR9  
TGF32R 170 PR9  
TGF32R 175 PR9  
TGF32R 180 PR9  
TGF32R 185 PR9  
TGF32R 190 PR9  
TGF32R 195 PR9  
TGF32R 200 PR9  
TGF32R 205 PR9  
TGF32R 210 PR9  
TGF32R 215 PR9  
TGF32R 220 PR9  
TGF32R 225 PR9  
TGF32R 230 PR9  
TGF32R 235 PR9  
TGF32R 240 PR9  
TGF32R 245 PR9  
TGF32R 250 PR9  
TGF32R 255 PR9  
TGF32R 260 PR9  
TGF32R 265 PR9  
TGF32R 270 PR9  
TGF32R 275 PR9  
TGF32R 280 PR9  
TGF32R 285 PR9  
TGF32R 290 PR9  
TGF32R 295 PR9  
TGF32R 300 PR9



MGMN150-G PC  
MGMN200-G PC  
MGMN250-G PC  
MGMN300-M PC  
MGMN400-M PC  
MGMN500-M PC



MGGN150-G PC  
MGGN200-G PC  
MGGN250-G PC  
MGGN300-M PC  
MGGN400-M PC  
MGGN500-M PC



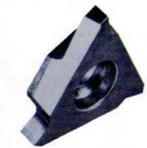
MRMN150-G PC  
MRMN200-G PC  
MRMN250-G PC  
MRMN300-M PC  
MRMN400-M PC  
MRMN500-M PC



SP200 PC  
SP300 PC  
SP400 PC



GBA43R 100 PR9  
GBA43R 150 PR9  
GBA43R 200 PR9  
GBA43R 250 PR9  
GBA43R 300 PR9



SP200 NC  
SP300 NC  
SP400 NC



7GR 100 NS  
7GR 150 NS  
7GR 200 NS



8GR 100 NS  
8GR 150 NS  
8GR 200 NS

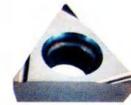


9GR 100 NS  
9GR 150 NS  
9GR 200 NS



## 内孔车削可转位刀片 Boring Insert

TPGH060202L-W  
TPGH060204L-W  
TPGH080202L-W  
TPGH080204L-W  
TPGH090202L-W  
TPGH090204L-W  
TPGH110302L-W  
TPGH110304L-W



TPGH060202L  
TPGH060204L  
TPGH080202L  
TPGH080204L  
TPGH090202L  
TPGH090204L  
TPGH110302L  
TPGH110304L



WBG060101  
WBG060102  
WBG060104



WCMT030208  
WCMT040208  
WCMT050308  
WCMT06T308  
WCMT080412



## 螺纹车削可转位刀片 Threading Insert

16ER AG55  
16ER AG60  
16ER ISO150  
16ER ISO200  
16ER ISO250  
16ER ISO300



16IR AG55  
16IR AG60  
16IR ISO150  
16IR ISO200  
16IR ISO250  
16IR ISO300  
11ER AG55  
11ER AG60  
11IR AG55  
11IR AG60



MTTR43 6000  
MTTR43 6001  
MTTR43 6002  
MTTR43 5500  
MTTR43 5501  
MTTR43 5502



**车削用可转位刀片**  
Cermet Turning Insert

TNMG160404HQ TN  
TNMG160408HQ TN



CNMG120404HQ TN  
CNMG120408HQ TN



WNMG080404HQ TN  
WNMG080408HQ TN



DCMT11T304HQ TN  
DCMT11T308HQ TN



DCMT070204HQ TN



CCMT09T304HQ TN  
CCMT09T308HQ TN



CCMT060204HQ TN



VBMT110304HQ TN



TNMG160404MT CT  
TNMG160408MT CT



CNMG120404MT CT  
CNMG120408MT CT



WNMG080404MT CT  
WNMG080408MT CT



DCMT11T304MT CT  
DCMT11T308MT CT  
DCMT070204MT CT



CCMT09T304MT CT  
CCMT09T308MT CT  
CCMT060204MT CT



VBMT110304MT CT



TCMT16T304MT CT  
TCMT16T308MT CT  
TCMT110204MT CT  
TCMT090204MT CT



VNMG160404MT CT



TNMG160404RVF CT  
TNMG160404LVF CT



DNMG150404RVF CT



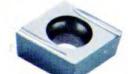
DCGT11T3005E R/L-U  
DCGT11T301E R/L-U  
DCGT11T302E R/L-U  
DCGT0702005E R/L-U  
DCGT070201E R/L-U  
DCGT070202E R/L-U



DCGT11T3005 R/L-F  
DCGT11T301 R/L-F  
DCGT11T302 R/L-F  
DCGT0702005 R/L-F  
DCGT070201 R/L-F  
DCGT070202 R/L-F



CCGT09T3005E R/L-U  
CCGT09T301E R/L-U  
CCGT09T302E R/L-U  
CCGT0602005E R/L-U  
CCGT060201E R/L-U  
CCGT060202E R/L-U



CCGT09T3005 R/L-F  
CCGT09T301 R/L-F  
CCGT09T302 R/L-F  
CCGT0602005 R/L-F  
CCGT060201 R/L-F  
CCGT060202 R/L-F



VBGT110301 R/L-Y  
VBGT110302 R/L-Y  
VBGT110304 R/L-Y



VBGT1103003 R/L-F  
VBGT110301 R/L-F  
VBGT110302 R/L-F



TNGG160402R/L-2G  
TNGG160404R/L-2G  
TNGG160408R/L-2G



TNGG160402 R/L-P  
TNGG160404 R/L-P  
TNGG160408 R/L-P



TNGG160402 R/L-C  
TNGG160404 R/L-C  
TNGG160408 R/L-C



TNGG160402 R/L-F  
TNGG160404 R/L-F  
TNGG160408 R/L-F



**切槽、切断用可转位刀片**  
Cermet Grooving & Parting Insert

TGF32R 050  
TGF32R 100  
TGF32R 150  
TGF32R 200



GBA43R 100  
GBA43R 150  
GBA43R 200  
GBA43R 250  
GBA43R 300



TG43R 100  
TG43R 150  
TG43R 200  
TG43R 250  
TG43R 300



APMT1604-M2



APMT1604-H2



APMT1135-M2



APMT1135-H2



AOMT123608-H



RPMW1003MO



RPMT08T2-JS



RPMT10T3-JS



RPMT1204-JS



RPMT1606-JS



JDMW120420-FT



TPMN160308



TPMN220408



SPGX090304



SPGX120304



APMT1604-TT



APMT1135-TT



RPMW1003MO-TT



RPMT1204-TT



**铣削用可转位刀片**  
Cermet Milling Insert

RPMW1003MO NX  
APMT1135-H2 NX  
APMT1604-H2 NX



SEEN1203AFTN  
SEEN1203AFTN-T  
SEEN1504AFTN



**内孔加工用可转位刀片**  
Cermet Boring Insert

TPGX060202L  
TPGX060204L  
TPGX080202L  
TPGX080204L  
TPGX090202L  
TPGX090204L  
TPGX110302L  
TPGX110304L



QUALITY FIRST  
KEEP GOOD SERVICE

CHANGZHOU TIANZHAO CUTTERS CO.,LTD

Mob/Whatsapp: +86-15861866309

Email: info@tianzhaocutter.com

Http://tianzhaocutter.com