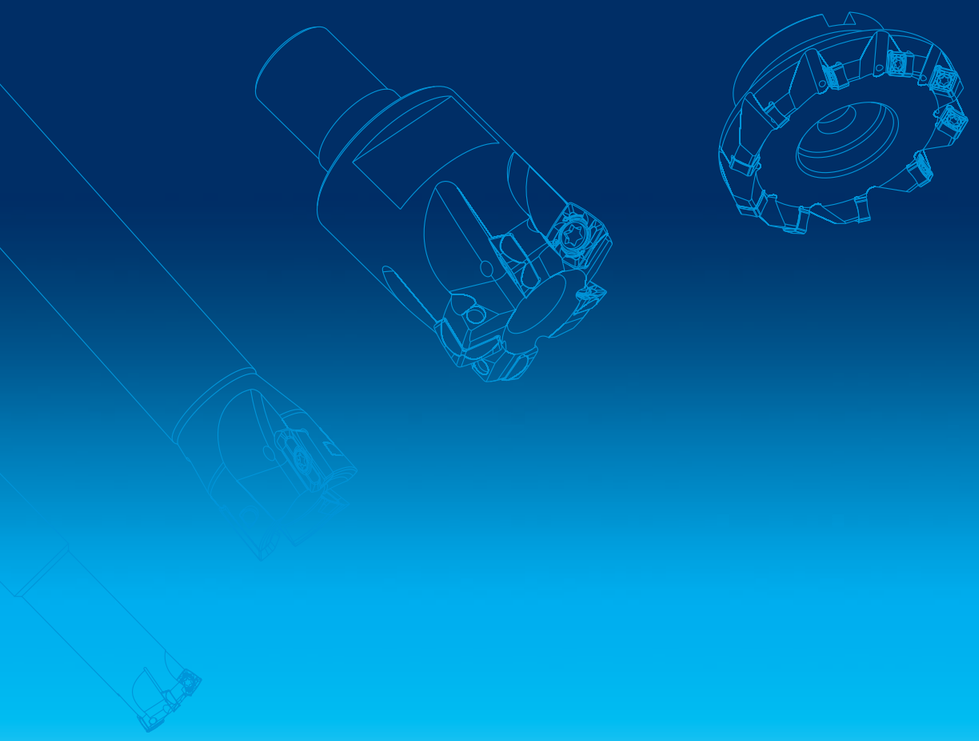
铣削 PULCUT®

PROFESSIONAL CARBIDE CUTTING TOOLS MANUFACTURER



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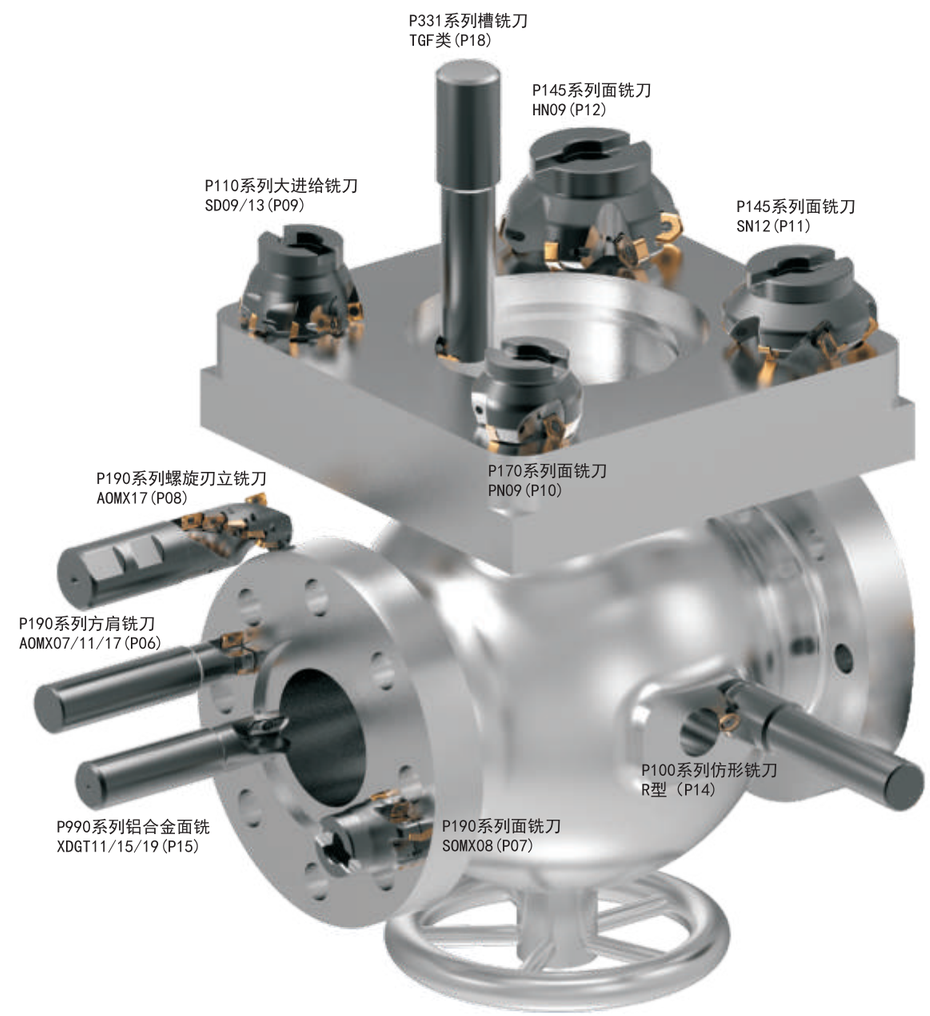
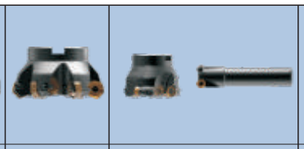
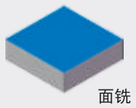
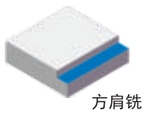
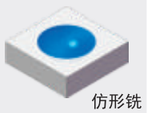
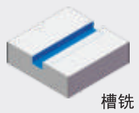
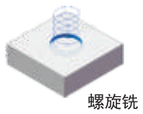


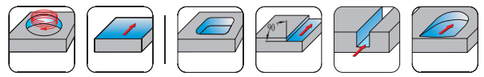
铣刀刀谱表
Milling cutter table

型号																						
		P190A型		P190C型	P190A型	P190C型	P110A型	P110C型	P110M型	P170-PN09	P145-SE12系列	P145-SN12系列	P145-HN09系列	P100A型	P100C型	P990A型	P990C型	P990M型	P990A型	P990C型	P990-A016	XMT/XLT	P331系列
材料	首选	P、M、K			P、M		S			P、M	P、K			M		N			N		N	P、M、K	K
	次选	S、N			K、S		P、M、K			K、S	M			P、M、K								S、N	P、M
刀片																							
型号		AOGX070204	AOMX11T308	AOMX170408	SOMX08T304		SDMT090307	SDMT130512		PNMU090608	SEKT1204AFSN	SNMX1205..	HNGX0906ANSN	RPGT10T3MOE	RPMT1204MOE RPMT1604MOE	XDGT1135..	XDGT1504..	XDGT1904..	VCGT2205..		AOGX1105H-PR2-NL	TGF32R/L	LNGT1450
刃径		8-12mm	16-80mm	25-160mm	20-40mm		22-63mm	22-63mm	63-160mm	40-80mm	50-315mm			20-40mm	40-80mm	16-40mm	40-125mm	40-125mm	32-80mm		40-160mm	20-80mm	80-315mm
 面铣		√			√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√
 方肩铣		√			√											√	√	√			√		
 仿形铣		√			√									√	√								
坡走铣		√			√		√	√	√					√	√	√	√	√	√	√			
 槽铣		√			√																	√	√
 螺旋铣		√			√									√	√	√	√	√	√	√	√		

铣削牌号推荐 Recommendation of general milling grade

材质分类 Material	ISO	铣削牌号推荐 Recommendation of general milling grade	
		基本牌号 Basic grade	补充牌号 Supplementary grade
P钢 P steel	10	PP2115	
	20		PP2125
	30	PX6140	
	40		
M不锈钢 M Stainless steel	10	PP2115	PP2125
	20		
	30	PX6140	
	40		
K铸铁 K Cast iron	10	PX5105	
	20	PX5110	
	30	PP2115	
S耐热合金 S Heat-resisting alloy	01		
	10	PP4115	
	20		
	30	PX6140	
	40		
N有色金属 N nonferrous metal	10	PH3110	
	20	PH3120	
	30		

P190系列方肩铣刀
P190 series shoulder milling cutter



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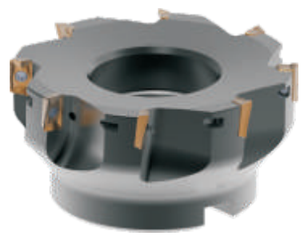
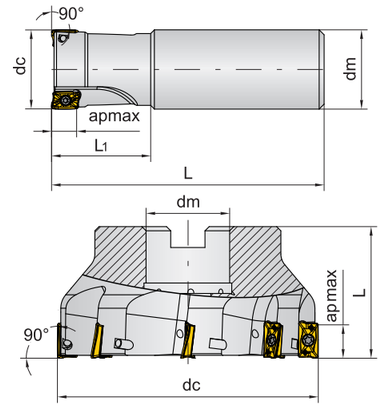
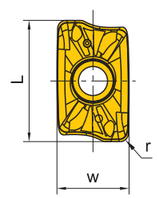
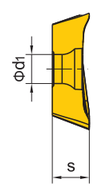




型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L	L1						
P190-16Z02AOMX11-C16	●	16	16	10	100	30				2		0.20
P190-20Z02AOMX11-C20	●	20	20	10	100	30				2		0.30
P190-25Z02AOMX11-C25	●	25	25	10	100	30				2		0.45
P190-30Z03AOMX11-C32	●	30	25	10	120	30				3		0.50
P190-32Z03AOMX11-C32	●	32	32	10	120	30				3		0.70
P190-40Z04AOMX11-C32	●	40	32	10	120	30				4		0.80
P190-25Z02AOMX17-C25	●	25	25	15.7	120	30				2		0.50
P190-30Z03AOMX17-C32	●	20	20	15.7	120	30				3		0.60
P190-32Z03AOMX17-C32	●	25	25	15.7	160	30				3		1.00
P190-40Z04AOMX17-C32	●	30	25	15.7	160	30				4		1.10
P190-50Z04AOMX17-A22	●	50	22	15.7	40					4		0.60
P190-63Z05AOMX17-A22	●	63	22	15.7	40					5		0.70
P190-80Z06AOMX17-A27	●	80	27	15.7	50					6		1.00

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





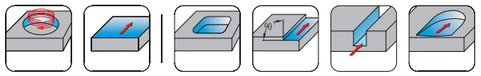
-PM
半精加工

型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	L	w	s	d1	r		PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
AOGX070204-PL	7.07	4.25	2.4	2	0.4		★	☆	★	☆	☆	★	★	☆	☆	★
AOMX11T308-PL	11.72	6.9	3.58	2.8	0.8		★	☆	★	☆	★	☆	★	☆		
AOMX11T308-PM	11.72	6.9	3.58	2.8	0.8		★	☆	★	☆	★	☆	★	☆		
AOMX170408-PL	17.82	9.6	4.76	4.12	0.8		★	☆	★	☆	★	☆	★	☆		
AOMX170408-PM	17.82	9.6	4.76	4.12	0.8		★	☆	★	☆	★	☆	★	☆		

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

P190系列方肩铣刀
P190 series shoulder milling cutter



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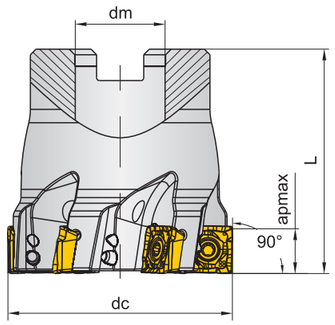
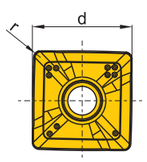
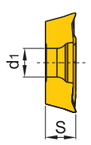


型 号	库存状态	基本尺寸(mm)							齿数	内冷状态	重量
		dc	dm	apmax	L	L1			Z		
P190-20Z02SOMX08-C20	○	20	20	5.5	110	25			2	+	0.23
P190-25Z02SOMX08-C25	○	25	25	5.5	120	32			2	+	0.40
P190-32Z03SOMX08-C32	●	32	32	5.5	130	40			3	+	0.70
P190-40Z04SOMX08-C32	●	40	32	5.5	170				4	+	1.08
P190-40Z04SOMX08-A16	●	40	16	5.5	40				4	+	0.18
P190-50Z05SOMX08-A22	●	50	22	5.5	40				5	+	0.40
P190-63Z06SOMX08-A22	●	63	22	5.5	50				6	+	0.55
P190-80Z08SOMX08-A27	○	80	27	5.5	50				8	+	1.25

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



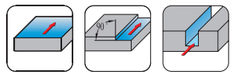


型 号	基本尺寸(mm)				P		M		K		S		N	
	d	S	d1	r	PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
SOMX08T304M-PL	8.50	3.30	2.80	0.40	★	☆	★	☆	★	☆				
SOMX08T308M-PL	8.50	3.30	2.80	0.40	★	☆	★	☆	★	☆				

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

螺旋刃立铣刀
Helical milling cutter



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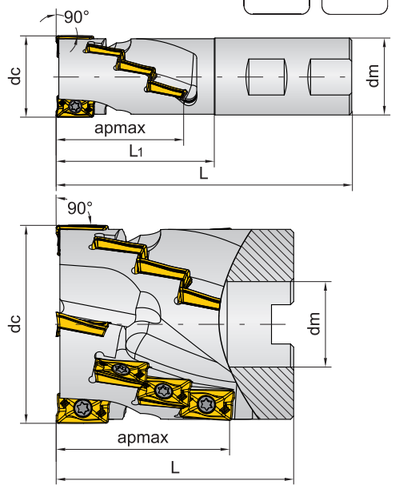
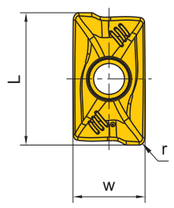
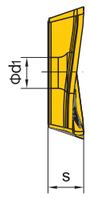


型 号 Type	库存状态 Stock	尺寸（mm） Dimension							Z	齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L	L1						
P190-40Z02AOMX17-E40	○	40	40	60	175	95			2	8		1.25
P190-50Z03AOMX17-E40	○	50	40	60	175	95			3	12		2.60
P190-50Z03AOMX17-A22	○	50	22	60	90				3	12		1.20
P190-63Z04AOMX17-A27	○	63	27	60	90				4	16		1.75
P190-80Z04AOMX17-A32	○	80	32	60	90				4	16		3.60

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





-PL
精加工

-PM
半精加工

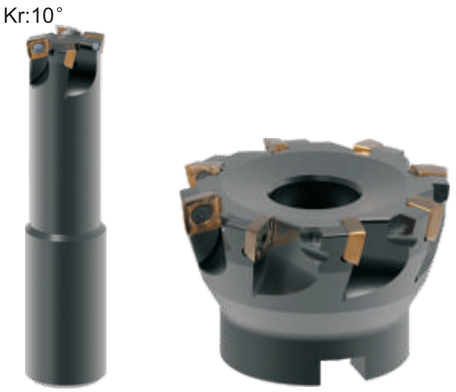
型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	L	w	s	d1	r		PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
AOMX170408-PL	17.82	9.6	4.76	4.12	0.8		★	☆	★	☆	★	☆	★	☆		
AOMX170408-PM	17.82	9.6	4.76	4.12	0.8		★	☆	★	☆	★	☆	★	☆		

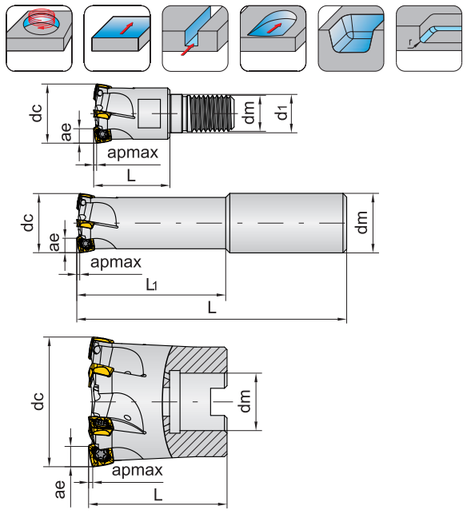
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

P110系列大进给铣刀
P110 series high feed milling cutter

Kr:10°

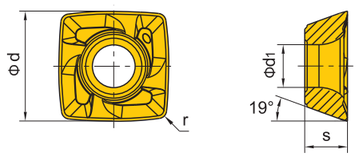




型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	ae	L	d1	L1				
P110-22Z02SD09-M10	●	22	M10	1.5	9	30	10.5			2	+	0.10
P110-25Z03SD09-M12	●	25	M12	1.5	9	35	12.5			3	+	0.14
P110-30Z04SD09-M16	●	30	M16	1.5	9	42	17			4	+	0.20
P110-32Z04SD09-M16	●	32	M16	1.5	9	42	17			4	+	0.23
P110-40Z05SD09-M16	●	40	M16	1.5	9	42	17			5	+	0.30
P110-22Z02SD09-C20	●	22	20	1.5	9	140		65		2	+	0.35
P110-25Z03SD09-C25	●	25	25	1.5	9	145		80		3	+	0.50
P110-30Z04SD09-C25	●	30	25	1.5	9	145		80		4	+	0.75
P110-32Z04SD09-C32	●	32	32	1.5	9	145		80		4	+	0.80
P110-40Z05SD09-C32	●	40	32	1.5	9	145		80		5	+	1.30
P110-50Z06SD09-A22	●	25	22	1.5	9	40				6	+	0.30
P110-63Z06SD13-A22	●	63	22	2.5	13	40				6	+	0.38
P110-80Z07SD13-A27	●	80	27	2.5	13	50				7	+	1.20
P110-100Z08SD13-A32	●	100	32	2.5	13	50				8	+	1.90
P110-125Z10SD13-A40	●	125	40	2.5	13	63				10	+	3.20

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

编程圆角R1.5



面铣和仿形加工

-SF -SM

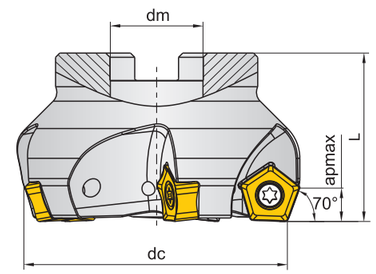
型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1	r			PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
SDMT090307-SF	9	3.5	3.5	0.7			★		★		★		★			
SDMT090307-SM	9	3.5	3.5	0.7			★		★		★		★			
SDMT130512-SF	13	5	5	1.2			★		★		★		★			
SDMT130512-SM	13	5	5	1.2			★		★		★		★			

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

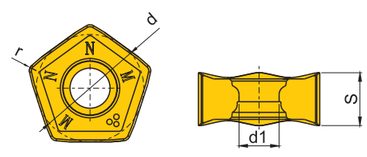
P170系列面铣刀
P170 series high feed milling cutter

Kr:70°



型 号	库存状态	基本尺寸(mm)							齿数 Z	内冷状态	重量
		dc	dm	apmax	L						
P170-50Z04PN09-A22	○	50	22	6.4	40				4	+	0.30
P170-63Z05PN09-A22	○	63	22	6.4	40				5	+	0.50
P170-80Z06PN09-A27	○	80	27	6.4	50				6	+	0.90
P170-100Z07PN09-A32	○	100	32	6.4	50				7	+	1.80
P170-125Z08PN09-A40	○	125	40	6.4	63				8	+	3.20
P170-160Z10PN09-B40	○	160	40	6.4	63				10		5.20

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

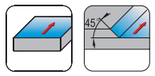


型 号	基本尺寸(mm)				P		M		K		S		N	
	d	S	d1	r	PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
PNMU090608-MN	12.20	5.80	4.30	0.80	★	☆	★	☆	★	☆				

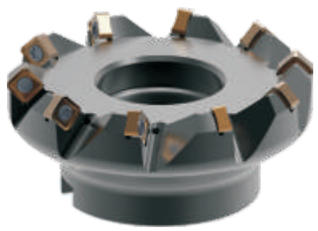
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

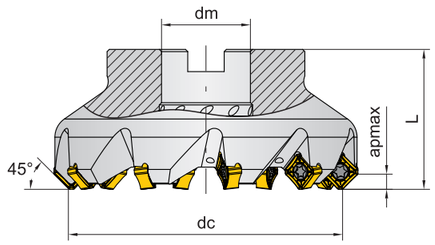
技术资料
→20-22

P145系列面铣刀
P145 series face milling cutter



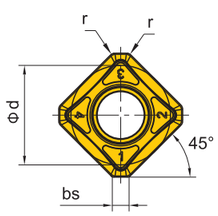
Kr:45°

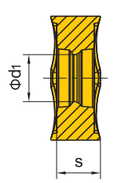




型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L							
P145-50Z04SN12-A22	○	50	22	6.5	40					4	+	0.40
P145-63Z06SN12-A22	●	63	22	6.5	40					6	+	0.60
P145-80Z07SN12-A27	●	80	27	6.5	50					7	+	1.40
P145-100Z08SN12-A32	●	100	32	6.5	50					8	+	1.90
P145-125Z10SN12-A40	●	125	40	6.5	63					10	+	3.20
P145-160Z12SN12-B40	●	160	40	6.5	63					12		5.90
P145-200Z18SN12-D60	○	200	60	6.5	63					18		9.10

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



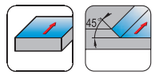


型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1	r	bs		PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
SNMX1205ANEN-FM	12.7	5.56	6	0.8	1.5		☆	★	★	☆	★	☆				
SNMX120512-MM	12.7	5.56	6	1.2			☆	★	★	☆	★	☆				

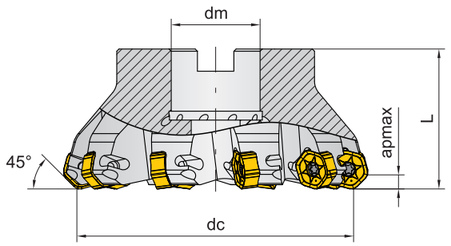
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

P145系列面铣刀
P145 series face milling cutter

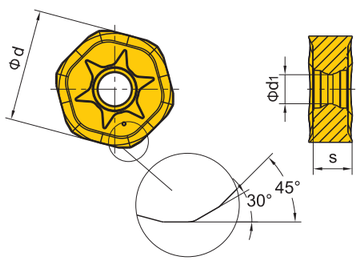


Kr:45°



型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L							
P145-50Z04HN09-A22	●	50	22	5	40					4	+	0.35
P145-63Z06HN09-A22	●	63	22	5	40					6	+	0.49
P145-80Z06HN09-A27	●	80	27	5	50					6	+	1.06
P145-100Z08HN09-A32	●	100	32	5	50					8	+	1.74
P145-125Z10HN09-A40	●	125	40	5	63					10	+	3.24
P145-160Z12HN09-B40	●	160	40	5	63					12		5.70
P145-200Z10HN09-B60	●	200	60	5	63					10		9.00
P145-250Z10HN09-B60	●	250	60	5	63					10		10.20

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



-F
精加工

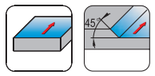
-M
半精加工

型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1				PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
HNGX0906ANSN-F	16.5	6.35	4.9				☆	★	★	☆	★	☆				
HNGX0906ANSN-M	16.5	6.35	4.9				☆	★	★	☆	★	☆				

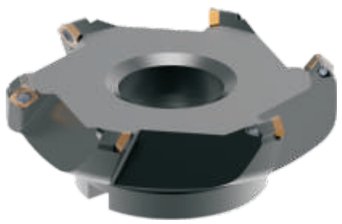
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

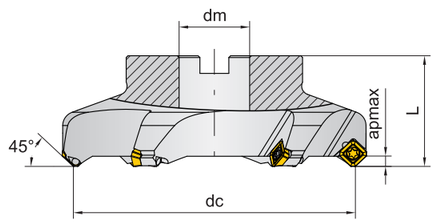
技术资料
→20-22

P145系列面铣刀
P145 series face milling cutter



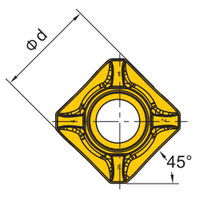
Kr:45°

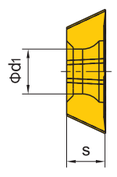




型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L							
P145-50Z04SE12-A22	○	50	22	6	40					4	+	0.50
P145-63Z05SE12-A22	●	63	22	6	40					5	+	0.60
P145-80Z05SE12-A27	●	80	27	6	50					5	+	1.10
P145-100Z06SE12-A32	●	100	32	6	50					6	+	1.80
P145-125Z06SE12-A40	○	125	40	6	63					6	+	3.70
P145-160Z08SE12-B40	○	160	40	6	63					8		5.70

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



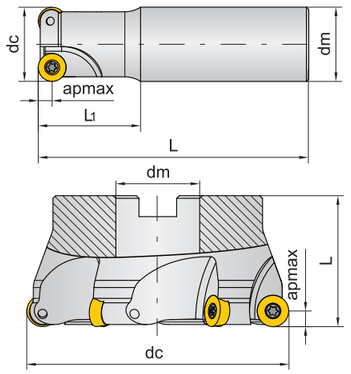


型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1				PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
SEKT1204AFSN-FM	12.7	4.76	5.5				☆	★	★	☆	★	☆				

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

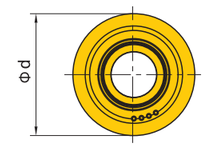
P100系列仿形铣刀
P100 series profile milling cutter

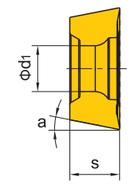
Kr:0°



型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L	L1						
P100-25Z02RP10-C20	○	25	20	5	100	35				2	+	0.20
P100-32Z02RP10-C25	○	32	25	5	120	40				2	+	0.50
P100-40Z03RP10-C32	○	40	32	5	120	40				3	+	0.70
P100-40Z05RP10-A16	○	40	16	5	40					5	+	0.44
P100-50Z05RP10-A22	○	50	22	5	40					5	+	0.87
P100-32Z02RP12-C25	○	32	25	6	135	40				2	+	0.90
P100-50Z04RP12-A22	○	50	22	6	45					4	+	0.40
P100-63Z04RP12-A22	○	63	22	6	45					4	+	0.60

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





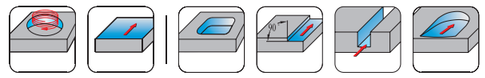
-MV
精/半精加工

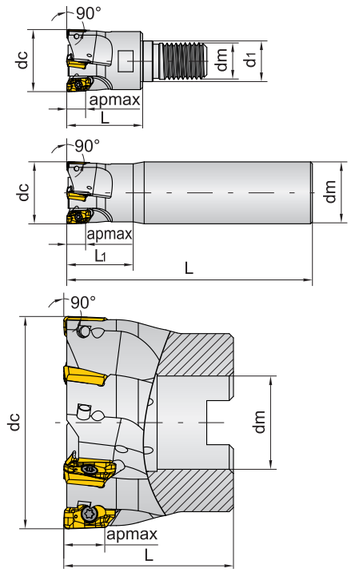
型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1	α			PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
RPGT0803MOE-MV	8	3.18	3.4	11°			★	☆	★	☆	☆	★	★	☆		
RPGT10T3MOE-MV	10	3.97	4.4	11°			★	☆	★	☆	☆	★	★	☆		
RPMT1204MOE-MV	12	4.76	4.4	11°			★	☆	★	☆	☆	★	★	☆		
RCMT1606MOS-MP	16	6.35	5.5	7°			★	☆	★	☆	☆	★	★	☆		

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

P990系列铝合金面铣刀
P990 series aluminum face milling cutter

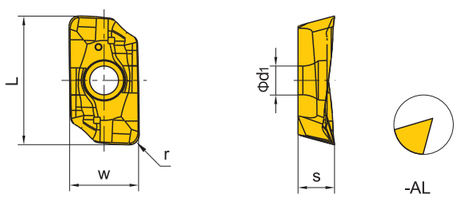
Kr:90°





型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	dm	apmax	L	d1	L1					
P990-16Z02XD11-M08	●	16	M8	10	25	8.5				2	+	0.1
P990-20Z03XD11-M10	●	20	M10	10	30	10.5				3	+	0.15
P990-25Z04XD11-M12	●	25	M12	10	35	12.5				4	+	0.23
P990-32Z05XD11-M16	●	32	M16	10	43	17				5	+	0.35
P990-16Z02XD11-C16	●	16	16	10	165		32			2	+	0.2
P990-20Z03XD11-C20	●	20	20	10	165		40			3	+	0.26
P990-25Z04XD11-C25	●	25	25	10	225		50			4	+	0.5
P990-32Z05XD11-C32	●	32	32	10	225		50			5	+	0.8

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



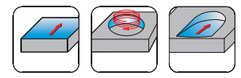
型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	L	w	s	d1	r		PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
XDGT113504PDFR-AL	12.58	6.6	3.5	2.8	0.4-3.0										☆	★
XDGT150408FR-AL	15.58	9.7	4.76	4.4	0.4-3.0										☆	★
XDGT190432FR-AL	22.1	9.525	4.76	4.7	0.4-3.2										☆	★

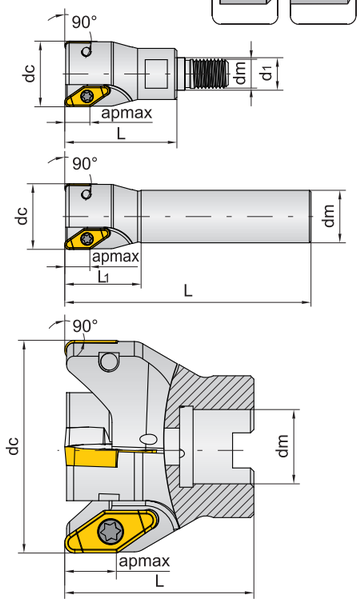
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

P990系列铝合金面铣刀
P990 series aluminum face milling cutter

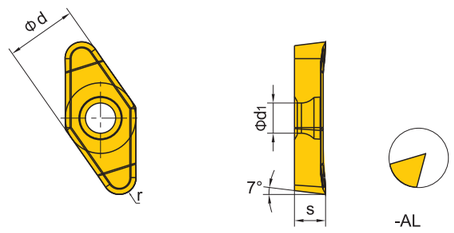
Kr:90°





型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	内冷状态 Cooling	重量 kg
		dc	d	apmax	L	d1	L1					
P990-32Z02VC22-M16	○	32	M16	16	43	17				2	+	0.2
P990-40Z03VC22-M16	○	40	M16	16	43	17				3	+	0.24
P990-32Z02VC22-C25	●	32	25	16	120		45			2	+	0.41
P990-40Z03VC22-C32	●	40	32	16	150		45			3	+	0.84
P990-50Z03VC22-A22	○	50	22	16	56					3	+	0.37
P990-63Z04VC22-A22	○	63	22	16	56					4	+	0.65
P990-80Z05VC22-A27	○	80	27	16	56					5	+	1.1

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

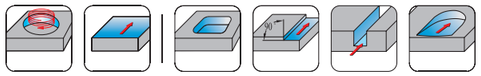


型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	d	s	d1	r			PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
VCGT220530-AL	12.7	5.56	5.5	3											☆	★

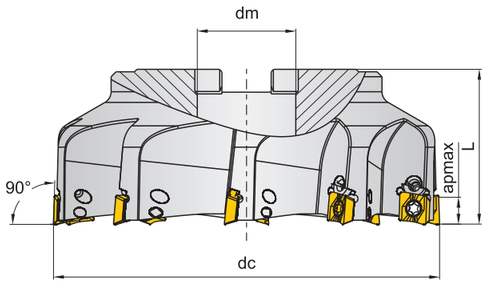
★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

P990系列铝合金面铣刀
P990 series aluminum face milling cutter

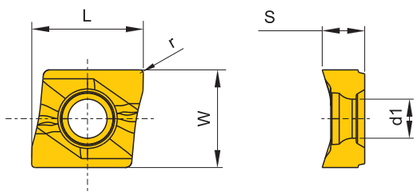


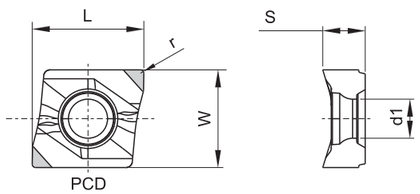
Kr:90°



型　号	库存状态	基本尺寸(mm)							齿数	内冷状态	重量
		dc	dm	apmax	L				Z		
P990-50Z04AOMX1105H-A22	○	50	22	11	40				4	+	0.80
P990-63Z05AOMX1105H-A22	○	63	22	11	40				5	+	0.80
P990-80Z06AOMX1105H-A27	○	80	27	11	50				6	+	0.90
P990-100Z06AOMX1105H-A32	○	100	32	11	50				6	+	1.00
P990-125Z08AOMX1105H-A40	○	125	40	11	63				8	+	1.90

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



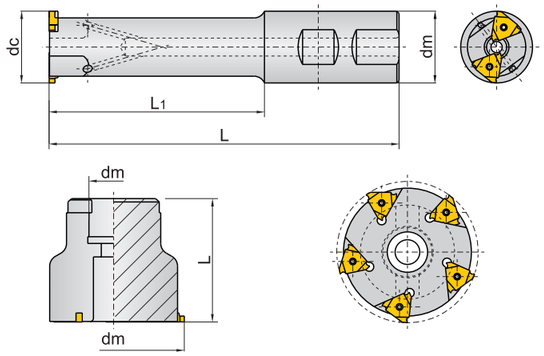


型　号	基本尺寸(mm)					P		M		K		S		N		
	L	W	S	d1	r	PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120	PCD20
AOGX-1105H-PR2-NL	13.18	11.53	5.00	4.60	0.40									★	☆	★

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

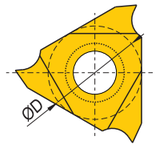
技术资料
—20-22

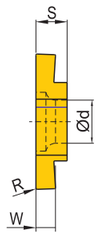
P331 系列槽铣刀
P331 series milling inserts



型　号	库存状态	基本尺寸(mm)							齿数	内冷状态	重量
		dc	dm	apmax	L1	L			Z		
P331-XLT32TGF16Z02-E32	○	32	32	3.5	96	156			2	+	0.99
P331-XLT40TGF16Z02-E32	○	40	32	3.5	120	190			2	+	1.45
P331-XMT50TGF16Z05-A22	○	50	22	3.5		55			5	+	0.99
P331-XMT63TGF16Z05-A22	○	63	22	3.5		55			5	+	1.45
P331-XMT80TGF16Z05-A27	○	80	27	3.5		55			5	+	1.90

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





型号 Type	基本尺寸 (mm)					P		M		K		S		N	
	D	W	S	d	r	PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
TGF32R/L-100-010	9.53	1.00	3.18	4.40	0.10	★	☆	★	☆	☆	★	★	☆		
TGF32R/L-150-010	9.53	1.50	3.18	4.40	0.10	★	☆	★	☆	☆	★	★	☆		
TGF32R/L-175-010	9.53	1.75	3.18	4.40	0.10	★	☆	★	☆	☆	★	★	☆		
TGF32R/L-200-010	9.53	2.00	3.18	4.40	0.10	★	☆	★	☆	☆	★	★	☆		

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

备注：槽铣刀槽宽尺寸W位置可做0.1mm每档，如：1.1、1.2、1.3...

技术资料
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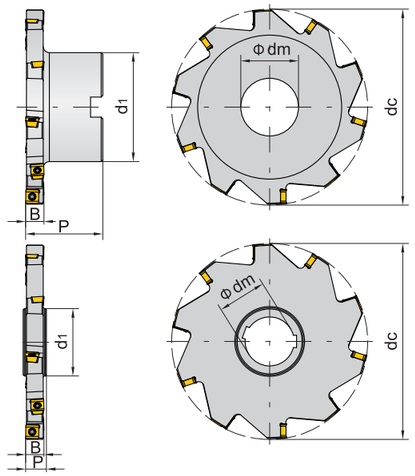
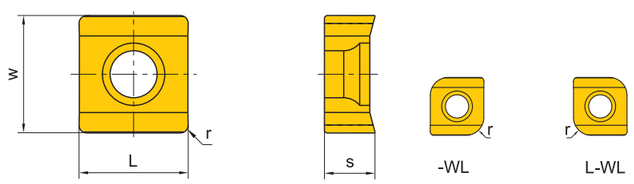
P331系列三面刃铣刀
P331 series face and side milling cutter



型 号 Type	库存状态 Stock	尺寸（mm） Dimension								齿数 Z	Zn	重量 kg
		dc	dm	d1	P	B*						
P331-160P23B20.5Z10LN14-S40	○	160	40	55	23	20.5				5	10	2.65
P331-200P23B20.5Z12LN14-S40	○	200	50	69	23	20.5				6	12	3.75
P331-250P23B20.5Z16LN14-S50	○	250	50	69	23	20.5				8	16	6.90
P331-315P23B20.5Z20LN14-S60	○	315	60	84	23	20.5				10	20	7.10
P331-160P50B20.5Z10LN14-B40	○	160	40	89	63	20.5				5	10	4.20
P331-200P50B20.5Z12LN14-B60	○	200	60	89	63	20.5				6	12	9.80

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



型号 Type	基本尺寸 (mm) Dimension						P		M		K		S		N	
	L	w	s	r			PP2115	PX6140	PP2115	PX6140	PX5110	PP2115	PP4115	PX6140	PH3110	PH3120
LNGT084530-WL	7.7	9.5	4.45	0.2-3.0			★	☆	★	☆	★	☆	★			
LNGT145040-WL	13.7	11.5	4.95	0.8-4.0			★	☆	★	☆	★	☆	★			

★ 为第一推荐牌号 Recommended Grade
常备库存
☆ 为第二推荐牌号 Optional Grade
按订单生产

技术资料
→20-22

推荐切削参数 Recommended cutting parameters

被加工材料		硬度	材质	切削速度 (m/min)	P190		P110		P170		P145		P100		P990		P331	
					ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)	ap(mm)	fz(mm/z)
统削	P 钢件 Steel	26-40HRC	PP2115	120-300	≤5	≤0.6	≤2	≤1.5	≤4	≤0.6	≤5	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
			PX6140	120-300	≤5	≤0.6	≤2	≤1.5	≤4	≤0.6	≤5	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
	M 不锈钢 Stainless	270HB≤	PP2115	80-220	≤4	≤0.6	≤2	≤1.5	≤3	≤0.6	≤4	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
			PX6140	80-220	≤4	≤0.6	≤2	≤1.5	≤3	≤0.6	≤4	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
	K 铸铁 Cast iron	≤350MPa	PX5110	120-300	≤5	≤0.6	≤2	≤1.5	≤4	≤0.6	≤5	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
			PP2115	120-300	≤5	≤0.6	≤2	≤1.5	≤4	≤0.6	≤5	≤0.6	≤5	≤0.6	—	—	≤3.5	≤0.3
	S 耐热合金 Heat-resisting alloy	—	PP4115	20-60	≤3	≤0.5	≤1.5	≤1.5	—	—	—	—	≤3	≤0.5	—	—	≤3.5	≤0.3
			PX6140	20-60	≤3	≤0.5	≤1.5	≤1.5	—	—	—	—	≤3	≤0.5	—	—	≤3.5	≤0.3
	N 有色金属 nonferrous metal	RM280≥ Mpa RM280≤ Mpa	PH3110	400-1000	—	—	—	—	—	—	—	—	—	—	≤0.8	≤6	≤3.5	≤0.3
			PH3120	400-1000	—	—	—	—	—	—	—	—	—	—	≤0.8	≤6	≤3.5	≤0.3
			PCD20	400-1000	—	—	—	—	—	—	—	—	—	—	≤0.5	≤2		

应用推荐
Application recommendation

类别	牌号 Grade	ISO分类 ISO classification	表面颜色 Surface color	应用推荐 Applications Recommended
P类	PP2115	P15(P10-P20)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金；用于以中等切削速度进行的精到半精加工；良好的耐热和耐机械冲击能力；在间断切削时具有出色的切削刃安全性。 PVD coated carbide.For semi-finishing to roughing at medium cutting speed. Great heat resistance and mechanical shock resistance. In the intermittent cutting have an excellent edge security.
	PP2125	P25(P10-P30)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金牌号；使用于中等到低切削速度；半精到粗加工；需要出色的刃口强度和高表面质量时；可提供完美的平顺切削；很高的耐热冲击性能；适用于轻型间断切削。 PVD coated carbide grade, Use for finishings and semi-finishing at medium to cutting speed. When need excellent edge dtrength and high surface quality ,provide the perfect ride cutting. A high thermal shock resistance.Suitable for light interrupted cuts.
	PX6140	P35(P30-P40)	黑/黄 Black/Yellow	CVD涂层硬质合金牌号;具有高强度基体;适用于铣削粗加工;提供极好的切削刃安全性;在最恶劣工况下钢和铸钢件的粗加工。 CVD-coated cemented carbide grades with high strength base body,For rough milling. providing excellent edge security. For steel and cast steel roughing in the most bad conditions. Can work at low speed overload interrupted cutting.
M类	PP2115	M15(P10-P20)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金；用于以中等切削速度进行的精到半精加工；良好的耐热和耐机械冲击能力；在间断切削时具有出色的切削刃安全性。 PVD coated carbide.For semi-finishing to roughing at medium cutting speed. Great heat resistance and mechanical shock resistance. In the intermittent cutting have an excellent edge security.
	PP2125	M25(P10-P30)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金牌号；使用于中等到低切削速度；半精到粗加工；需要出色的刃口强度和高表面质量时；可提供完美的平顺切削；很高的耐热冲击性能；适用于轻型间断切削。 PVD coated carbide grade, Use for finishings and semi-finishing at medium to cutting speed. When need excellent edge dtrength and high surface quality ,provide the perfect ride cutting. A high thermal shock resistance.Suitable for light interrupted cuts.
	PX6140	M35(P30-P40)	黑/黄 Black/Yellow	CVD涂层硬质合金牌号;具有高强度基体;适用于铣削粗加工;提供极好的切削刃安全性;在最恶劣工况下钢和铸钢件的粗加工。 CVD-coated cemented carbide grades with high strength base body,For rough milling. providing excellent edge security. For steel and cast steel roughing in the most bad conditions. Can work at low speed overload interrupted cutting.
K类	PX5105	K05(K01-K15)	黑/黄 Black/Yellow	CVD涂层硬质合金牌号，涂有光滑耐磨涂层。推荐用于灰口铸铁(GCI)的高速铣削。 CVD coated carbide grade, wear-resistant coating. Recommended for gray cast iron (GCI) of the high-speed milling.
	PX5110	K15(K10-K20)	黑/黄 Black/Yellow	CVD涂层硬质合金牌号，涂有光滑耐磨涂层。推荐用于灰口铸铁(GCI)的高速铣削。 CVD coated carbide grade, wear-resistant coating. Recommended for gray cast iron (GCI) of the high-speed milling.
	PP2115	K10(K10-K20)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金牌号，使用于中等到低切削速度，精到半精加工。需要出色的刃口强度和高表面质量时，可提供完美的平顺切削。很高的耐热冲击性能。适用于轻型间断切削。 PVD coated carbide grade, Use for finishings and semi-finishing at medium to cutting speed. When need excellent edge dtrength and high surface quality ,provide the perfect ride cutting. A high thermal shock resistance.Suitable for light interrupted cuts.
S类	PP4115	S15(S10-S20)	青灰黑 Cyan-blue gray drak	PVD涂层硬质合金；用于以中等切削速度进行的精到半精加工；良好的耐热和耐机械冲击能力；在间断切削时具有出色的切削刃安全性。 PVD coated carbide.For semi-finishing to roughing at medium cutting speed. Great heat resistance and mechanical shock resistance. In the intermittent cutting have an excellent edge security.
	PX6140	S30(S25-S35)	黑/黄 Black/Yellow	CVD涂层硬质合金牌号;具有高强度基体;适用于铣削粗加工;提供极好的切削刃安全性;在最恶劣工况下钢和铸钢件的粗加工。 CVD-coated cemented carbide grades with high strength base body,For rough milling. providing excellent edge security. For steel and cast steel roughing in the most bad conditions. Can work at low speed overload interrupted cutting.
N类	PH3110	N05(N01-N10)	灰色 Gray	非涂层牌号，表面抛光处理可降低积屑瘤，从而获得更高表面质量。适于铝、镁、铜、黄铜、塑料等的精加工到粗加工。 Grade for uncoating , Surface polishing process can reduce BUE,obtain higher surface quality. Suitable for aluminum, magnesium, copper, brass, plastic finishing to roughing processing.
	PH3120	N15(N10-N25)	灰色 Gray	非涂层牌号，表面抛光处理可降低积屑瘤,在抗高温基体上带有耐磨涂层。在中等到高切削速度下有色金属的半精加工和轻型粗加工。首选用于连续切削。 Grade for uncoating， Surface polishing process can reduce BUE,with a wear-resistant coating, high temperature resistant matrix. For aluminum alloys semi-finishing and light roughing at medium to high cutting speed. Preferred for continuous cutting.

铣削材料对照表 Milling materails comparison table

类别	使用分类 代号	PULCUT 普努克	SANDVIK 山特维克	ISCAR 伊斯卡	KENNAMETAL 肯纳金属	Taegu Tec. 特固克	WALTER 瓦尔特	MITSUBiSHi 三菱	SUMITOMO 住友电气工业	TUNGALOY 泰珂洛	KYOCERA 京瓷	KORLOY 克洛伊	SECO 山高工具	ZCC. CT 株硬刀具
铣削	P10	PP2115	GC4220	IC950		TT6800	WAM10	F7030	ACP100		PR830	PC3500	MP2500	YBG252
	P20	PP2115	GC4020			TT7080	WAM20				PR1025	PC3535	T250M	
	P30	PP2125	GC4230	IC808	KC522M	TT9080	WAM30	VP15TF	ACP200	GH330	PR1225	PC9530	F30M	YBG202
			GC4030	IC908	KC635M	TT9030								YBM251
	P40	PX6140	GC4240	IC830	KC725M	TT8020	WKP35	VP30RT	ACP300	AH730	PR1225	NCM325	F40M	YBM351
			GC4040	IC928	KC735M	TT8080	WSP45	F7030	ACZ350	AH140	PR1230	NCM335	T350M	
					KC935M	TT7800						PC3545		
	M10	PP2115	GC1010	IC808	KC522M	TT9080	WAM30	VP15TF	ACP200	AH120	PR1025		F30M	YBG202
	M20		GC1030	IC908	KC525M	TT9030	WQM35				PR1225			YBG205
	M25	PP2125	GC2030			TT8020					PR905			YBG302
	M30													
	M40	PX6140	GC2040	IC830	KC725M	TT8020	WXM35	VP30RF	ACP300	AH130	PR1535		F40M	
				IC928		TT8080	WSM35							
							WSP45							
	K01	PX5105	GC3220	IC410	KC915M	TT6800		MP8010					T150M	
	K10	PX5110	GC3020	IC810		TT6080	WKK25	VP10TF	ACZ310		PR510	PC6510	MK2000	YBG102
			GC1020	IC910					ACK200		PR610	PC215K		YBD152
	K20	PP2115							ACK300		PR905			YBD152
	S10	PP4115	GCS05F	IC907	KC5510	TT5080	WSM10	VP05RT	AC510U	AH110	PR1005	PC8110	TH1000	
	S20		GC1105					VP10RT			PR930		TH1500	
			GC1115										TS2000	
													TS2500	
	S30	PX6140	GC1125	IC908	KC5525	TT9080	WSM20	VP15TF	AC520U	AH120	PR1025	PC5300	CP500	
							WSM30	VP20RT			PR1125	PC9530		
											PR1225			
	N01		H10 H13A		K605				H1 H2	KS05F				
	N10	PH3310			K313 K110M THM THM-U	K10	WK10	HTi10	EH10 EH510	TH10 H10T		H01	890 H15	YD101
	N20	PH3120			K715 KMF K600	K20			G10E EH20 EH520	KS15F			HX KX 883 H15 H25	YD201
	N30				G13 THR								H25	