

● Face milling tools

Operating pattern	Series/Shape	Approach angle / Max. cutting depth.(inch)	Applicable insert	Application overview	Features
Face milling	FMA01  P200-201	Kr=45° a _p max=0.236	SEET12T3-DF/DM/DR SEET12T3-CF/CM/CR SEET12T3-EF/EM SEET12T3-LH/W	General face milling the following material: Steel, alloy steel, stainless steel, cast iron, aluminium alloy, high temperature alloy	• Diameter range Ø2.00"~Ø12.00" • Large rake angle designed makes cutting more light and fast • Wide applications can achieve using available inserts with different chipbreaker • Adopting wiper inserts improve surface quality
		Kr=45° a _p max=0.384	SEET18T6-DM/EM/W		
	FMA02  P202	Kr=45° a _p max=0.236	SEET12T3-DF/DM/DR SEET12T3-CF/CM/CR SEET12T3-EF/EM SEET12T3-LH/W	General face milling the following material: Steel, alloy steel, stainless steel, cast iron, aluminum alloy, high temperature alloy	• Diameter range Ø2.00"~Ø5.00" • Large rake angle designed makes cutting more light and fast • Wide applications can achieve using available inserts with different chipbreaker • Coarse and differential pitch, reduce vibration
	FMA03  P205	Kr=45° a _p max=0.217	SE□N1203AF□□	General face milling steel, stainless steel, cast iron	• Diameter range Ø3.00"~Ø12.00" • Large rake angle makes cutting more light and fast • Top clamping achieves better reduces vibrations resistance
		Kr=45° a _p max=0.295	SE□R1504AF□□		
	FMA04  P208	Kr=45° a _p max=0.138	OFKT05T3-DF/DM OFKT05T3-LH	Face milling steel, alloy steel, cast iron, aluminum alloy	• Diameter range Ø2.00"~ Ø6.00" • High economy milling tool with 8 cutting edges • Screw clamping, high precision
	 P211	Kr=45° a _p max=0.197	OFKR0704-DF/DM	Face milling steel, alloy steel and cast iron	• Diameter range Ø5.00"~Ø8.00" • High economy milling tool with 8 cutting edges • Top clamping is easy to assemble and disassemble
	FMA11  P215-216	Kr=45° a _p max=0.216	SNEG1205ANR-GM/HGR/W	General face milling steel, stainless steel, high-temperature alloy, cast iron	• Diameter range Ø2.00"~Ø12.00" • Double-sided chipbreaker milling insert has eight cutting edges and high economy • Large rake angle design and unique chip breaker structure of insert lead to low power consumption • Double negative rake angle structure and super thick insert has higher safety and outstanding toughness, which can realize great depth cutting • Insert has excellent machining performance with wiper edge
		Kr=45° a _p max=0.275	SNEG1506ANR-GM/HGR/W		
		Kr=45° a _p max=0.354	SNEG1907ANR-HGR		
	FMA12  P219	Kr=45° a _p max=0.157	ONHU060404ANN-GL ONHU060408ANN-GM/GH	General face milling steel, stainless steel, cast iron	• Diameter range Ø2.50"~Ø12.00" • High Performance Face Mill with 16 edges for outstanding economy • Double negative rake angle, in combination with helical insert structure, achieves double positive axial angle, which will help reduce cutting resistance and improve chip evacuation • Unique 3-dimensional edge
		Kr=45° a _p max=0.197	ONHU08T624R-GM		
	FMA14 <i>New</i>  P222页	Kr=45° a _p max=0.217	PNEG110512-GL PNEG110530-GM PNEG110530-GH	General face milling for steel, stainless steel and cast iron	• Diameter range Ø2.00"~Ø12.00" • 10 cutting edges high economy milling cutter • 45° approach angle balanced design • Great capability of anti-vibration ensures higher surface quality
	FMD02  P225-226	Kr=67° a _p max=0.197	PNEG110512R/L-CF/CM/CR	Face milling of cast iron and steel	• Diameter range Ø2.00"~Ø12.00" • High-economy milling tool with 10 cutting edges
		Kr=67° a _p max=0.276	PNEG110512R/L-PF/PM/PR		
		Kr=67° a _p max=0.256	PNEG110512-KH/KM/KL		
	FMD03  P229	Kr=60° a _p max=0.472	LNKT2007DN-ZR	Heavy-duty face milling of steel, alloy steel, stainless steel and cast iron	• Diameter range Ø5.00"~Ø12.00" • Double positive rake angles can reduce cutting forces • Inserts are mounted upright, suitable for heavy machining with high cutting depth • Easy to assemble and clamp inserts
		Kr=60° a _p max=0.669	LNKT2510-ZR		

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Face milling	FMD04  P231	Kr=67° a _{pmax} =0.472	PNGU170712R-GR PNGU170712-HDR	Rough milling of steel and cast iron	- Diameter range Ø5.00"~Ø12.00" - High-economy milling tool with 10 cutting edges - Double negative rake angle, in combination with helical insert structure, achieves double positive axial angle, which will help reduce cutting resistance and improve chip evacuation
	FME04  P233	Kr=75° a _{pmax} =0.472	LNKT1506EN-ZR	Heavy-duty face milling of steel, alloy steel, stainless steel and cast iron	- Diameter range Ø5.00"~Ø12.00" - Double positive rake angles can reduce the cutting force - Inserts are mounted upright, suitable for heavy machining at high cutting depth - Easy to assemble and clamp inserts
	FMP01  P235	Kr=90° a _{pmax} =0.709	TP□N2204PD□ TPKN2204PDF□ TPKN2204PDT□	Face milling steel, alloy steel and cast iron	- Diameter range Ø3.00"~Ø12.00" - Kr 90°, square shoulder milling - Top clamping is easy to assemble and disassemble
	FMP02  P237	Kr=90° a _{pmax} =0.285	SEET09T308PER-APF/ APM/APR	Face milling steel, alloy steel, stainless steel, cast iron and AL alloy	- Diameter range Ø2.00"~Ø10.00" - Kr 90°, for square shoulder milling - Different pitch design: coarse pitch, close pitch and extra close pitch - High precision insert, high work-piece surface quality - Optimized chipbreaker and grade, for finish machining, semi-finish machining and rough machining
		Kr=90° a _{pmax} =0.425	SEET120308PER-APF/ APM/APR SEET120308-LH		
	FMP03  P240	Kr=90° a _{pmax} =0.512	LNKT1506EN-ZR	Heavy-duty face milling of steel and alloy steel	- Diameter range Ø5.00"~Ø12.00" - Double positive rake angles can reduce the cutting force - Inserts are mounted upright, suitable for heavy machining at high cutting depth - Easy to assemble and clamp inserts
		Kr=90° a _{pmax} =0.669	LNKT2007DN-ZR		
		Kr=90° a _{pmax} =0.866	LNKT2510-ZR		
	FMP12  P243	Kr=90° a _{pmax} =0.224	WNHU060404PNR-GM WNHU060408PNR-GM	Steel, alloy steel, cast iron and AL alloy	- Diameter range Ø2.00"~Ø6.00" 90° approach angle can be used for shoulder milling, face milling, groove milling, etc - Six cutting edges - Double negative angle of the tool body combined with unique insert structure to achieve double positive tool angle, reducing cutting forces
		Kr=90° a _{pmax} =0.303	WNHU080608PNR-GM WNHU080612PNR-GM WNHU080616PNR-GM WNHU080608PNR-LH		
	FMP12  P244	Kr=90° a _{pmax} =0.224	WNHU060404PNR-GM WNHU060408PNR-GM		- Diameter range Ø1.00"~Ø2.00" 90° approach angle can be used for shoulder milling, face milling, groove milling, etc - Six cutting edges - Double negative angle of cutter body combined with unique insert structure to achieve double positive tool angle, reducing cutting forces
	FMR01  P246	a _{pmax} =0.197	RCKT10T3MO-DM	Cavity profile milling steel, alloy steel, stainless steel, high-temperature alloy and cast iron	- Diameter range Ø1.00"~Ø2.00" - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould - Economical milling cutters with screw clamping
		a _{pmax} =0.236	RCKT1204MO-DM/DR/ER/ NM		

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Face milling	FMR02  P249	$a_{pmax}=0.236$	RCKT1204MO-DM/DR/ER/NM	Face milling and cavity profile milling steel, alloy steel, stainless steel, high-temperature alloy and cast iron	- Diameter range $\varnothing 2.50'' \sim \varnothing 6.00''$ - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould - Economical milling tools with screw clamping
		$a_{pmax}=0.315$	RCKT1606MO-DM/DR/ER/NM		
		$a_{pmax}=0.394$	RCKT2006MO-DR/ER/NM		
	FMR03  P253	$a_{pmax}=0.157$	RDKW0803MO	Cavity profile milling steel, alloy steel, stainless steel, high-temperature alloy and cast iron	- Diameter range $\varnothing 1.00'' \sim \varnothing 2.00''$ - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould - Economical milling tools with screw clamping
		$a_{pmax}=0.197$	RDKW10T3MO RDKT10T3MO-NM		
		$a_{pmax}=0.236$	RDKW1204MO		
	FMR04  P256	$a_{pmax}=0.236$	RDKW1204MO	Face milling and cavity profile milling steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 2.00'' \sim \varnothing 6.00''$ - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould
		$a_{pmax}=0.315$	RDKW1605MO		
		$a_{pmax}=0.394$	RDKW2006MO		
	FMR05  P259  P260	$a_{pmax}=0.125$	RPMW2T200	Cavity profile milling steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 0.625'' \sim \varnothing 1.75''$ - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould - Economical milling cutters with screw clamping
		$a_{pmax}=0.180$	RPMW3(2.5)		
		$a_{pmax}=0.250$	RPMW43		
		$a_{pmax}=0.250$	RPMW43	Face milling and cavity profile milling steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 2.00'' \sim \varnothing 8.00''$ - R-type inserts possess stronger cutting edges - Suitable for machining curved surface of mould - Economical milling tools with screw clamping
		$a_{pmax}=0.315$	RPMW50500		
		$a_{pmax}=0.375$	RPMW64		

● Square shoulder milling tools

Operating pattern	Series/Shape	Approach angle / Max. cutting depth. (inch)	Applicable insert	Application overview	Features
Square shoulder milling	EMP01  P263-264	$Kr=90^\circ$ $a_{pmax}=0.433$	APKT11T3□□-APF/APM APKT11T3□□-ALH	Multi-function milling steel, alloy steel, stainless steel, cast iron and Al alloy	- Two mounting modes: Straight shank and Weldon shank, Diameter range $\varnothing 0.50'' \sim \varnothing 2.50''$ $Kr 90^\circ$, for square shoulder milling, slot milling, ramp milling etc - Wiper inserts also suitable for face milling - Inserts with 3D helical cutting edge, less cutting force
		$Kr=90^\circ$ $a_{pmax}=0.630$	APKT160408-APF/APM APKT160408-ALH		
	EMP02  P269	$Kr=90^\circ$ $a_{pmax}=0.433$	APKT11T3□□-APF/APM APKT11T3□□-ALH	Face milling steel, alloy steel, stainless steel, cast iron and Al alloy	- Diameter range $\varnothing 2.00'' \sim \varnothing 8.00''$ $Kr 90^\circ$, for square shoulder milling - Wiper inserts also suitable for face milling - Inserts with 3D helical cutting edge, less cutting force
		$Kr=90^\circ$ $a_{pmax}=0.630$	APKT160408-APF/APM APKT160408-ALH		

Operating pattern	Series/Shape	Approach angle / Max. cutting depth.(inch)	Applicable insert	Application overview	Features
Square shoulder milling	EMP03  P272	$K_r=90^\circ$ $a_{pmax}=1.535$	APKT11T3□□-APF/APM APKT11T3□□-ALH	Adopting large cutting depth, for milling steel, alloy steel, stainless steel, cast iron and Al alloy	- Diameter range $\varnothing 2.00'' \sim \varnothing 4.00''$ - End milling tools with positive helical angle, good chip removal - For side face milling and slot machining - Close pitch, high machining efficiency
	EMP04  P273	$K_r=90^\circ$ $a_{pmax}=1.157 \sim 2.283$	APKT11T3□□-APF/APM APKT11T3□□-ALH	Adopting large cutting depth, for milling steel, alloy steel, stainless steel, cast iron and Al alloy	- Diameter range $\varnothing 0.75'' \sim \varnothing 1.50''$ - End milling tools with positive helical angle, good chip removal - For side face milling and slot machining - Close pitch, high machining efficiency
	EMP09  P277	$K_r=90^\circ$ $a_{pmax}=0.315$	LNKT0804□□PNR-GM/GL	Multifunction milling machining for steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 1.00'' \sim \varnothing 1.50''$ 2 kinds of interface of straight shank and Weldon shank - With 90° approach angle, the cutter can be used in shoulder milling, chamfer milling and other tangential machining, and the cutter can stand greater cutting force
		$K_r=90^\circ$ $a_{pmax}=0.453$	LNKT1206□□PNR-GM/GL		
	 P278-279	$K_r=90^\circ$ $a_{pmax}=0.315$	LNKT0804□□PNR-GM/GL	Face milling for steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 1.50'' \sim \varnothing 6.00''$ - With 90° approach angle, the cutter can be used in shoulder milling, chamfer milling and other tangential machining, and the cutter has better rigidity
		$K_r=90^\circ$ $a_{pmax}=0.453$	LNKT1206□□PNR-GM/GL		
		$K_r=90^\circ$ $a_{pmax}=0.591$	LNKT1607□□PNR-GM/GL		
	 P280	$K_r=90^\circ$ $a_{pmax}=1.7$	LNKT1206□□PNR-GM/GL	Large cutting depth milling for steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 1.50'' \sim \varnothing 3.00''$ - Used in side milling and slot machining - Spiral cutting-edge design ensures easier and faster cutting
	 P281	$K_r=90^\circ$ $a_{pmax}=1.215 \sim 1.5$	LNKT0804□□PNR-GM/GL	Large cutting depth milling for steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 1.00'' \sim \varnothing 1.25''$ - Greater nose strength and shaper cutting-edge - Used in side milling and slot machining - Tangential inserts clamping style improves the capability of cutting force bearing
	EMP13  P285	$K_r=90^\circ$ $a_{pmax}=0.441$	ANGX1105□□PNR-GM/LH	Face milling steel, alloy steel, stainless steel and cast iron	- Diameter range $\varnothing 2.00'' \sim \varnothing 6.00''$ $K_r 90^\circ$, for square shoulder milling - Double negative rake angle of the tool body in combination with extra thick insert achieves double positive tool angle, which will help reduce cutting resistance and greatly improve impact resistance - Properly designed cutting edge with high precision control can achieve high quality 90°square shoulder milling
		$K_r=90^\circ$ $a_{pmax}=0.571$	ANGX1506□□PNR-GM/LH		
	 P286	$K_r=90^\circ$ $a_{pmax}=0.441$	ANGX1105□□PNR-GM/LH	Multi-function milling steel, alloy steel, stainless steel and cast iron	- Two mounting modes: Straight shank and Weldon shank, Diameter range $\varnothing 0.75'' \sim \varnothing 1.50''$ $K_r 90^\circ$, for square shoulder milling, slot milling, ramp milling ect - Double negative rake angle of the tool body in combination with extra thick insert achieves double positive tool angle, which will help reduce cutting resistance and greatly improve impact resistance - Properly designed cutting edge with high precision control can achieve high quality 90°square shoulder milling
		$K_r=90^\circ$ $a_{pmax}=0.571$	ANGX1506□□PNR-GM/LH		

Profile milling tools

Operating pattern	Series/Shape	Approach angle / Max. cutting depth.	Applicable insert	Application overview	Features
Profile milling	BMR02  P288	Cutting depth: see the detailed information about tool specifications	ROHX□□	Profile machining steel, stainless steel and cast iron	- Diameter range Ø0.625"~Ø1.00" - Applied for profile finish machining - Good assembly stability - Insert with two cutting edges, perfect economical efficiency
	BMR04  P290		ZOHX□□	Profile machining steel, stainless steel and cast iron	- Diameter range Ø0.625"~Ø1.25" - High precision, for finish profile machining - Two types of chipbreaker, used in different machining condition - High assembling precision, good stability

Special milling tools

Operating pattern	Series/Shape	Approach angle / Max. cutting depth.	Applicable insert	Application overview	Features
Special milling (high feed)	XMR01  P294	Cutting depth: see the detailed information about tool specifications	SDMT□□-DM/PM/NM	Face and profile milling steel, stainless steel, high-temperature alloy and cast iron in cavity applications	- Diameter range Ø0.75"~Ø6.00" - Two mounting types: Straight shank and Arbor mounting - The cutting forces are decomposed effectively, realize cutting with high feed rate - For plunge milling - Double clamping, firm and reliable
	 P295				
	 P297		WPGT□□ZSR WPGT□□ZSR-PM	Face and profile milling steel, stainless steel and cast iron in cavity applications	- Diameter range Ø0.75"~Ø4.00" - Two mounting types: Straight shank and Arbor mounting - The cutting forces are decomposed effectively, realize cutting with high feed rate - For plunge milling - Double clamping, firm and reliable
	 P298				

Chamfer milling tools

Operating pattern	Series/Shape	Approach angle / Max. cutting depth.	Applicable insert	Application overview	Features
Chamfer machining	CMA01  P303	Kr=45°	SPMT120408	Chamfer machining steel, alloy steel, stainless steel and cast iron	- Diameter range Ø0.50"~Ø1.25" - With the function of milling small surface
	CMD01  P304	Kr=60°			

Milling insert grades overview

ISO		Coated grade		Coated cermet	Cemented carbide	PCBN&PCD
		CVD	PVD			
P Steel	P01					
	P10		YBG202 YBG205 YB9320 YBG252	YNG151 YNG151C		
	P20	YBC302 YBM251 YBM253 YBM351				
	P30		YBG302		YC30S	
	P40					
M Stainless steel	M01					
	M10	YBM251 YBM253 YBM351	YBG202 YBG205 YB9320 YBG252	YNG151 YNG151C		
	M20					
	M30		YBG302		YC30S	
	M40					
K Cast iron	K01					YCB011
	K10	YBD151 YBD152 YBD252	YBG102 YBG102 YBG152 YBG252	YNG151 YNG151C	YD051 YD201	
	K20					
	K30					
	K40					
N Non-ferrous metal	N01					YCD011
	N10				YD101 YD201	
	N20					
	N30					
S Heat-resistant steel	S01					
	S10		YBG202 YBS203 YBS303			
	S20					
	S30					
H Hardened material	H01					YCB012
	H10					
	H20					
	H30					

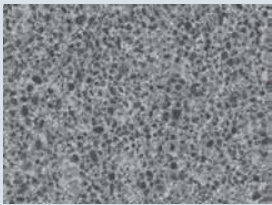
Coated Cemented Carbide CVD

Grade	Coating structure	Micro-structure	ISO applied range	Application field
YBM251	Combination of high toughness and strength substrate and the coating comprised of TiCN, thin Al ₂ O ₃ , TiN		P15~40	Applicable for semi-finish and rough milling P, M type materials
			M10~30	
YBM253	Combination of high-toughness gradient substrate and coating composed of TiCN and ultra fine Al ₂ O ₃		P15~40	Suitable for rough milling of P, M-type material
			M10~30	
YBM351	Combination of high toughness substrate and the coating composed of TiCN, thin Al ₂ O ₃ , TiN		P25~40	Applicable for rough milling P, M type materials
			M20~35	
YBD152	Good combination of substrate with high wear-resistance and coating composed of TiCN and thick Al ₂ O ₃		K05~25	Suitable for finish and semi-finish milling of K-type material
YBD252	Good combination of substrate with high wear-resistance and coating composed of TiCN and thick Al ₂ O ₃		K15~35	Suitable for rough and semi-finish milling of K-type material
YBC302	Combination of high toughness, high strength substrate and coating composed of TiCN, thin Al ₂ O ₃ and TiN		P15~35	Suitable for rough and semi-finish milling of P type material

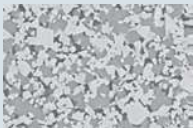
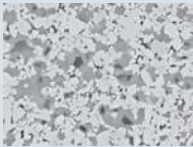
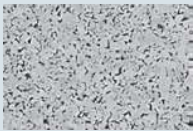
Coated Cemented Carbide PVD

Grade	Coating structure	ISO applied range	Application field
YBG102	Fine grain carbide substrate+Nano coating	K05~20	Applicable for finish and semi-finish milling K type material
YBG202	Carbide substrate with excellent deformation resistance +Nano coating	P10~30	PVD grade with wide application,widely applicable for semifinish milling type P,M,S materials
		M10~30	
		S05~20	
YBG205	Ultra fine carbide substrate + Nano coating	P10~30	Suitable for rough milling of P, M type material
		M10~30	
YBG302	Substrate with high toughness and strength + Nano-coating	P25~40	Applicable for rough milling type P and M materials
		M25~40	
YBG152	Substrate with reasonable hardness and strength + Nano coating	K20~35	Applicable for rough and semi-finish milling type K material
YB9320	Substrate with good toughness and strength +TiAlN Nano coating	P10~30	PVD grade with wide application,widely applicable for semifinish milling type P,M materials
		M10~30	
YBS203	Substrate with marvelous anti-deformation capability + nano coating	S10~20	Grade for S material's general machining, suitable for S material's milling
YBS303	Substrate with both good toughness and strength + nano coating	S20~30	Grade for S material's roughing, especially suitable for milling Ti-alloy

● Cermet

Grade	Coating structure	ISO applied range	Application field
YNG151		P05~20	Wide application of finish milling P, M, K type materials
		M05~20	
		K05~20	
YNG151C		P01~20	Wide application of finish milling P, M, K type materials
		M01~20	
		K01~20	

● Cemented Carbide

Grade	Coating structure	ISO applied range	Application field
YC30S		P25~40	Applicable for roughing milling Code P, M type materials
		M25~40	
YD051		K05~20	Applicable for finishing milling type K material
YD101		N05~25	Applicable for semi-finish and finish milling type N material
YD201		K15~35	Applicable for rough and semi-finish type K material, and for rough milling type N material
		N15~30	