



**ZHUZHOU XINSHUO ADVANCED MATERIAL CO., LTD**  
株洲鑫烁新材料有限公司

**CNC CUTTING TOOLS**



## 公司简介 Company Profile

**Zhuzhou Xinshuo Advanced Materials Co.,Ltd(Branded as SIEESO)** is a Chinese company that started operations in the year 2008 located in Zhuzhou City Hunan Province where is famous in the world for its tungsten carbide industry.

SIEESO CARBIDE factory starts business as the distributor for famous cutting tools brands such as ZCCCT,Sandvik,Walter,Seco,Mitsubishi,Toshiba,Korloy and Teagutec for domestic markets as the beginning.After years successful operating,we built up our own carbide inserts factory in 2013.Equipped with the latest facilities and units, Our manufacturing facility conforms to ISO-9001 standard.Our continuous investment in state of the art pressing, sintering and grinding equipment, highly trained personnel and a proven manufacturing process properly positions us for the future. Our commitment to quality products and quality relationships reinforces our belief that our customers remain our most valuable asset.

Now SIEESO CARBIDE is able to supply as following cutting tools:

- 1.General turning and milling inserts,(in carbide and cermet.)
- 2.Solid carbide endmills,(in carbide and cermet.)
- 3.Solid twist carbide drills,
- 4.Special cutting tools ,such as flow drills,water cutter(Jet).

As an ISO 9001 certified company, SIEESO ensures all the aspects of development (design), production, sales and services to comply with the highest international standards for design and manufacturing excellence.

Customer satisfaction is our number one priority. Our knowledgeable, friendly sales staff are always available to answer your questions, provide technical information, and help with special orders. Outstanding service, quality tooling and competitive pricing are what you can expect from Zhuzhou Xinshuo Advanced Materials Co.,Ltd..

## 车削刀片牌号介绍

## Grade Informations

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
HS8125	P10~P25	CVD 双色 Bicolor	MT-TiCN+Al <sub>2</sub> O <sub>3</sub> +TiN	1.梯度结构的高硬度专用基体,结合中温TiCN和超细Al <sub>2</sub> O <sub>3</sub> 涂层,刀片具备优异的耐磨性能。 2.适用于稳定工况下钢件的精加工,连续车削,追求高耐磨性场合。 1.Using the special high-hardness substrate of gradient structure,combined with medium temperature TiCN and ultra-fine Al <sub>2</sub> O <sub>3</sub> coating,it has excellent performance of wear resistance. 2.It is suitable for finishing processing and continuous turning of steel under stable working conditions and in pursuit of high wear-resistant occasions.
HS8122	P15~P35	CVD 黑色 Black	MT-TiCN+Al <sub>2</sub> O <sub>3</sub> +TiN	1.全新的纳米柱状结构MT-TiCN和厚Al <sub>2</sub> O <sub>3</sub> 涂层,与韧性、强度兼备的中钴梯度硬质合金基体相结合。 2.适用于碳钢、合金钢等材料的半精加工到粗加工,亦可用于断续加工,是钢件车削加工的首选牌号。 1.Using new nano-columnar structure of MT-TiCN and thick Al <sub>2</sub> O <sub>3</sub> coating,combined with medium Cobalt gradient cemented carbide substrate with both toughness and strength. 2.It is suitablefor semi-finishing to roughingprocessing of carbon steel,alloy steel and other materials.It can also be used for interrupted processing,and is the preferred grade for steel turning.
HS8125	P20~P40	CVD 双色 Bicolor	MT-TiCN+Al <sub>2</sub> O <sub>3</sub> +TiN	1.高韧性基体搭配合适厚度的MT-TiCN和Al <sub>2</sub> O <sub>3</sub> 涂层,使得材质在强冲击力工况下仍能兼顾耐磨性和稳定。 2.适用于碳钢、合金钢等材料的车削粗加工。 1.High toughness substrate with suitable thickness of MT-TiCN and Al <sub>2</sub> O <sub>3</sub> coating which makes the material keep the wear resistance and stability under strong impact conditions. 2.It is suitable for roughing processing ofcarbon steel,alloy steel and other materials turning.
HS8133	P20~P35	CVD 黄色 Yellow	MT-TiCN+Al <sub>2</sub> O <sub>3</sub> +TiN	1.采用中钴含量的韧性硬质合金基体,结合中温TiCN和厚的Al <sub>2</sub> O <sub>3</sub> 涂层,具有优良的耐磨性和抗崩缺性能。 2.适用于软钢、低碳钢、低碳合金钢的广泛车削加工。 1.It uses medium Cobalt content tough cemented carbide substrate,combined with medium temperature TiCN and thickAl <sub>2</sub> O <sub>3</sub> coating,which has excellent performance of wearresistance and chipping resistance. 2.It is suitable for a wide range of turning of soft steel,low carbon steel and low carbon alloy steel.
HS8125	P15~P35 M10~M30	CVD 双色 Bicolor	MT-TiCN+Al <sub>2</sub> O <sub>3</sub>	1.采用中钴成分的高韧性梯度合金基体,搭配细晶柱状TiCN和超细的薄的Al <sub>2</sub> O <sub>3</sub> 涂层,具有优异的抗崩缺能力和高温强度。 2.适用于钢件、不锈钢材料的半精、粗车削加工,亦可用于恶劣工况下的大切深、大进给加工。 1.Using high toughness gradient cemented carbide substrate with medium Cobalt content,matched with fine crystalline columnar TiCN and ultra-fine Al <sub>2</sub> O <sub>3</sub> coating,it has excellent performance of chipping resistance and high temperature resistance. 2.It is suitable for semi-finishing and roughing processing of steel and stainless steel turning.It can also be used for large depth of cut and large feed machining under severe working conditions.
HS6115	K10~K25	CVD 双色 Bicolor	MT-TiCN+Al <sub>2</sub> O <sub>3</sub>	1.高耐磨性细晶粒基体,搭配细晶柱状中温TiCN和加厚Al <sub>2</sub> O <sub>3</sub> 涂层,具有高的耐磨性和热稳定性。 2.适用于球墨铸铁的连续加工和高耐磨性场合,尤其适合灰口铸铁的加工。 1.Using high wear resistance fine crystalline substrate,combined with fine crystalline columnar medium temperature TiCN and thickened Al <sub>2</sub> O <sub>3</sub> coating,it has excellent performance of wear resistance and thermal stability. 2.It is suitable for continuous processing of nodular cast iron and high wear resistance occasions,especially applicable to the processing of gray cast iron.
HS6120	K15~K35	CVD 黑色 Black	MT-TiCN+Al <sub>2</sub> O <sub>3</sub>	1.中等晶粒的强韧性基体,搭配全新升级的MT-TiCN和Al <sub>2</sub> O <sub>3</sub> 涂层工艺,经特殊后处理工艺,刃口强度高,表面光滑。 2.适用于铸铁的半精加工到粗加工,亦可用于断续切削,是铸铁车削加工的首选牌号。 1.The strong and tough matrix of medium grain,combined with the newly upgraded MT-TiCN and Al <sub>2</sub> O <sub>3</sub> coating process,after special post-treatment process,has good cutting edge strength and smooth surface. 2.It is suitable for semi-finishing to roughing processing of cast iron,and can also be used for interrupted cutting.It is the preferred grade for cast iron turning.

## 车削刀片牌号介绍

## Grade Informations

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
HS7125	M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1.梯度结构的高硬度专用基体,结合中温TiCN和超细Al <sub>2</sub> O <sub>3</sub> 涂层,刀片具备优异的耐磨性能。 2.适用于稳定工况下钢件的精加工,连续车削,追求高耐磨性场合。 1.Using the special high-hardness substrate of gradient structure,combined with medium temperature TiCN and ultra-fine Al <sub>2</sub> O <sub>3</sub> coating,it has excellent performance of wear resistance. 2.It is suitable for finishing processing and continuous turning of steel under stable working conditions and in pursuit of high wear-resistant occasions.
HS7225	M10~M25 S10~S25	PVD 紫红色 Dark purple	TiAlSiN	1.采用亚微晶粒的中钴基体,搭配极高热稳定性的含硅PVD涂层,具有耐磨性好,耐高温性能优异的特点。 2.适用于不锈钢、高温合金、钛合金等的连续车削场合,半精加工、偏精加工。 1.Using the submicron grain medium cobalt substrate,combined with silicon-containing PVD coating with extremely high thermal stability,the inserts have characteristics of good wear resistance and high temperature resistance. 2.It is suitable for continuous turning of stainless steel,superalloy,titanium alloy,etc, semi-finishing and partial finishing.
HS7125 HS5130	P10~P25 M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1.采用亚微晶粒的中钴基体,结合纳米结晶TiAlN涂层,具有良好的强韧性和通用性能。 2.适用于合金钢、不锈钢、高温合金等的连续车削场合,半精加工。 1.The submicron grain medium cobalt substrate combined with nanocrystal TiAlN coating which makes it has high-toughness and good generality. 2.It is suitable for continuous turning of alloy steel,stainless steel,superalloy,semi-finishing.
HS5120	M15~M30 S15~S30	PVD 古铜色 Copper	TiAlSiN	1.中钴含量的细晶粒硬质合金基体,结合热稳定性优异的TiAlSiN涂层,兼具耐磨性和韧性且耐高温性能优。 2.适用于不锈钢、耐热合金的半精车削加工。 1.The fine grain cemented carbide substrate with medium cobalt combined with excellent thermal stability of TiAlSiN coating,which makes inserts have good wear resistance and toughness,and excellent high temperature resistance. 2.It is suitable for semi-finishing turning of stainless steel and heat-resistant alloy.
HS5121	P15~P30 M15~M30 S15~S30	PVD 金黄色 Gold-yellow	TiAlN	1.中钴含量的细晶粒硬质合金基体,具有良好的刃口强度,搭配全新的TiAlN涂层,具有良好的耐磨和通用性能。 2.适用于合金钢、不锈钢等的半精车削加工,是不锈钢车削加工的通用牌号。 1.Using medium cobalt fine-grained cemented carbide substrate with good edgestrength combined with the new TiAlN coating,it has both good wear resistance and generality. 2.It is applicable to semi-finishing turning of alloy steel,stainless steel,etc.and it is a general grade of stainless steel turning.
HS5125	P10~P25 M05~M25	PVD 灰黑色 Gray-black	TiAlN	1.采用亚微晶粒的中钴基体,结合纳米结晶TiAlN涂层,具有良好的强韧性和通用性能。 2.适用于合金钢、不锈钢、高温合金等的连续车削场合,半精加工。 1.The submicron grain medium cobalt substrate combined with nanocrystal TiAlN coating which makes it has high-toughness and good generality. 2.It is suitable for continuous turning of alloy steel,stainless steel,superalloy, semi-finishing

## 车削刀片牌号介绍

## Grade Informations

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
HS1001	H05~H25	PVD 七彩色 Rainbow	AlTiCrSiN	1.采用低钴含量的超细晶粒硬质合金基体,搭配全新升级的纳米结构PVD涂层,获得较强的涂层结合力、高耐磨性和高抗氧化性能。 2.适用于淬硬钢的连续车削加工。 1.The ultra-fine grain cemented carbide matrix with low Cobalt content is used with the newly upgraded nanostructure PVD coating to obtain strong coating adhesion,high wear resistance and high oxidation resistance. 2.It is suitable for continuous turning processing of hardened steel.
HS1002	纳米蓝	PVD 纳米蓝 Nano blue	AlTiCrSiN	1.采用低钴含量的细晶粒硬质合金基体,结合优异性能的纳米结构PVD涂层,具有优异的耐磨性和耐高温性能。 2.适用于淬硬钢的车削半精加工,轻断续加工场合。 1.The fine grain cemented carbide matrix with low Cobalt content is used,combined with excellent performance nanostructure PVD coating to obtain wear resistance and high temperature resistance. 2.It is suitable for turning semi-finishing of hardened steel,light intermittent processing occasions.
HS10	N05~N20	无涂层 Uncoated	\	1.低钴的亚微晶粒硬质合金材质,结合特殊的后处理工艺,具有优异的耐磨性和抗黏结性。 2.适用于有色金属 铝 铜等的车削精加工。 1.Low Cobalt submicrograin cemented carbide grade,combined with a special post-treatment process,has excellent wear resistance and adhesion resistance. 2.It is suitable for turning finishing processing of non-ferrous metals.
HS20	N10-N30	无涂层 Uncoated	\	1.低钴含量的细晶粒硬质合金材质,结合特殊的后处理工艺,具有优异的耐磨性和抗黏结性。 2.适用于有色金属 铝 铜等的车削加工。 1.The fine grain carbide grade with low cobalt content,combined with a special post-treatment process,has excellent wear resistance and adhesion resistance. 2.It is suitable for turning of non-ferrous metals.

## Chipbreaker

Steel Turning  
MT



Chip breaking groove cutting edge+6. The rake angle and the rake face form a large arc with smooth transition design,the chip is smooth while the cutting edge does not lose strength. the versatility is strong.Recommended cutting parameters: ap: 1.00-5.00fn: 0.20-0.5

HM

Suitable for semi finishing of inner hole and outer circle of steel,cast iron and other materials.

PM

The cutting edge strength is high, which is suitable for semi finish machining with unstable working conditions, and also can be used for processing cast iron to obtain lower cutting force.

L/R-ZC

Impact resistance, not easy to break, continuous/intermittent processing.

CQ

When machining with different cutting depths, such as profiling, the chip treatment is good, and it is also suitable for wall lifting.

## Chipbreaker

Stainless steel Turning  
MA

Type M material rough and semi finish machining grooves and double-sided chip breaking grooves. It is light and versatile for stainless steel, steel, cast iron and other materials. The cutting edge strength is good, and it can be used in general impact processing. Recommended cutting parameters: ap: 0.50-4.00 fn: 0.20-0.50

SL

Suitable for finishing and semi finishing, with stronger chip breaking function.

EF

Sharp edge, suitable for finishing of stainless steel, mild steel and other viscous materials.

Universal Chipbreak TC



General processing groove type, double-sided chip breaking groove, with high wear resistance and strong toughness, especially suitable for processing of K-type materials. Recommended cutting parameters: ap:0.20-8.00fn:0.15-0.60

Parting and grooving M



It can meet various processing needs such as cutting, grooving, turning, etc. The cutting process becomes light, the chip removal is more smooth, and the ideal processing surface quality is achieved.

G



Special chip breaking groove design for cutting, which narrows chips and improves cutting flow control.

T



The special rear face structure reduces the cutting resistance by 20%, reduces the vibration and further improves the surface quality. The special edge design makes the chip breaking effect better, and the tool can be moved laterally.

NO CODE

Large rake angle, wide chip breaking groove, light and quick cutting, small vibration, suitable for occasions with low cutting speed, insufficient rigidity and easy shaking.

普通车削刀片命名规则

General Turning Inserts Naming Rules

形状代号 Shape			断屑槽及夹固形式代号 Chip Breaker and Hole										
T	N	M	16	04	08	-MT	T	N	M	16	04	08	-MT
A	B	C	代号	有无孔	有无断屑槽	刀片剖面	代号	有无孔	有无断屑槽	刀片剖面			
			Symbol	Center Hole	Chip Breaker	Insert Profile	Symbol	Center Hole	Chip Breaker	Insert Profile			
D	E	H	B	有(Y)	无(N)		N	无(N)	无(N)				
			H	有(Y)	单面(S)		R	无(N)	单面(S)				
K	L	M	C	有(Y)	无(N)		F	无(N)	双面(D)				
			J	有(Y)	双面(D)		A	有(Y)	无(N)				
O	P	R	W	有(Y)	无(N)		M	有(Y)	单面(S)				
			T	有(Y)	单面(S)		G	有(Y)	双面(D)				
S	T	T	Q	有(Y)	无(N)		X						
			U	有(Y)	双面(D)								
V	W	Z											
		其它											

后角代号 Clearance Angle

精度代号 Tolerance

后角代号 Clearance Angle			精度代号 Tolerance										
T	N	M	16	04	08	-MT	T	N	M	16	04	08	-MT
A	B		代号	刀尖高度m公差 (mm)	内接圆φ1.C公差 (mm)	厚度S公差 (mm)	(参考) M级精度详细情况 (按形状、大小分) • 刀尖高度公差 (mm) (reference) M grade tolerance detail (accord to shape, size)						
			Symbol	m (mm)	d=1.C. (mm)	s (mm)	内切圆 Incribed Circle	正三角形 Regular Triangle	正方形 Square	80°菱形 80°Rhombus	55°菱形 55°Rhombus	35°菱形 35°Rhombus	圆形 Round
C	D						6.35	±0.08	±0.08	±0.0g	±0.1	±0.16	
							9.525	±0.08	±0.08	±0.08	±0.11	±0.16	-
E	F		A	±0.005	±0.022	±0.02E	12.7	±0.13	±0.13	±0.13	±0.15		
			F	±0.005	±0.013	±0.02g	15.875	±0.15	±0.15	±0.15	±0.18		
G	N		C	±0.013	±0.026	±0.025	19.05	±0.15	±0.15	±0.15	±0.18		
			H	±0.013	±0.013	±0.013	25.4		±0.18				
P	O		E	±0.026	±0.026	±0.025	• 内切圆φ1.C公差 (mm) • Tolerance of Incribed Circle						
	其它后角 Others		G	±0.025	±0.025	±0.13	内切圆 Incribed Circle	正三角形 Regular Triangle	正方形 Square	80°菱形 80°Rhombus	55°菱形 55°Rhombus	35°菱形 35°Rhombus	圆形 Round
			J	±0.005	±0.05-±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	
			K	±0.013	±0.05-±0.13	±0.025	9.525	±0.05	±0.06	±0.0F	±0.05	±0.05	±0.05
			L	±0.025	±0.05-±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08		±0.08
			M	±0.08-±0.18	±0.05-±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10		±0
			N	±0.08-±0.18	±0.05-±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10		±0.1
			U	±0.13-±0.38	±0.08-±0.25	±0.13	25.4			±0.13			±0.13

普通车削刀片命名规则

General Turning Inserts Naming Rules

切削刃长度代号 Cutting Edge Length

刀片厚度代号 Thickness

T N M G 16 04 08 — MT

内切圆直径 Inscribed Circle diameter (mm)	刀片外形Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56			06		09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			16	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

T N M G 16 04 08 — MT

代号 Symbol	刀片厚度 Thickness(mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.56
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.7

刀尖圆弧代号Corner Radius

断屑槽型代号Chip Breaker

T N M G 16 04 08 — MT

代号 Symbol	刀尖圆弧半径(mm) Corner Radius(mm)
00	无圆角
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2
24	2.4
32	3.2
X	其它Special
刀片直径尺寸mo(公制) Diameter Dimension	圆形刀片 Round Insert

T N M G 16 04 08 — MT

SM	MT	PM	CQ
HM	MS	TC	BF
GH	MA		

Turning Inserts-Negative  
CNMG (80°Negative)

车削刀片-负角型  
CNMG (80°负角型)

钢件车削General Turning Inserts for Steel

√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions

工件材料 Workpiece Material	尺寸Dimensions(mm)											CVD涂层 (Coating)			PVD涂层 (Coating)						
	L	ØI.C	T	φd	r	H <sub>S</sub> 01-1.5	H <sub>S</sub> 01-3	H <sub>S</sub> 01-2													
 ØI.C Re 80° φd T	P	钢	√	√	√	O	O	O	X	X	X				O	O	O	X	X	X	√
M	不锈钢											√	√	√	O	O	O	X	X	X	√
K	铸铁																		X	X	
N	有色金属																				
S	耐热合金、钛合金																		X	X	
H	淬硬钢																				
产品 Inserts Shape	型号 Type	尺寸Dimensions(mm)					CVD涂层 (Coating)			PVD涂层 (Coating)											
		L	ØI.C	T	φd	r	H <sub>S</sub> 01-1.5	H <sub>S</sub> 01-3	H <sub>S</sub> 01-2												
 半精加工-粗加工 Semi-finishing to Roughing	CNMG120404-MT	12.9	12.7	4.76	5.16	0.4	▲	▲	▲												
	CNMG120408-MT	12.9	12.7	4.76	5.16	0.8	▲	▲	▲												
	CNMG120412-MT	12.9	12.7	4.76	5.16	1.2	▲	▲	▲												
 半精加工-粗加工 Semi-finishing to Roughing	CNMG120404-PM	12.9	12.7	4.76	5.16	0.4	▲	▲	▲												
	CNMG120408-PM	12.9	12.7	4.76	5.16	0.8	▲	▲	▲												
	CNMG120412-PM	12.9	12.7	4.76	5.16	0.4	▲	▲	▲												
	CNMG160608-PM	16.1	15.875	6.35	6.35	0.8	▲	▲	▲												
	CNMG160612-PM	16.1	15.875	6.35	6.35	1.2	▲	▲	▲												
	CNMG190608-PM	19.3	19.05	6.35	7.94	0.8	▲	▲	▲												
	CNMG190612-PM	19.3	19.05	6.35	7.94	1.2	▲	▲	▲												
CNMG190616-PM	19.3	19.05	6.35	7.94	1.6	▲	▲	▲													

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



Turning Inserts-Negative  
SNMG (90°Negative)

车削刀片-负角型  
SNMG (90°负角型)

钢件车削 General Turning Inserts for Steel

		√ 良好工况 Good working conditions. ○ 一般工况 General working conditions. × 不稳定工况 Unstable working conditions																		
		工件材料 Workpiece Material																		
		P	M	K	N	S	H	CVD涂层 (Coating)				PVD涂层 (Coating)								
		钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢	HS8125	HS8133	HS8122	HS7225									
产品 Inserts Shape	型号 Type	L	ØI.C	T	φd	r	HS8125	HS8133	HS8122	HS7225										
半精加工-粗加工 Semi-finishing to Roughing	SNMG120404-MT	12.7	12.7	4.76	5.16	0.4	▲	▲	▲											
	SNMG120408-MT	12.7	12.7	4.76	5.16	0.8	▲	▲	▲											
	SNMG120412-MT	12.7	12.7	4.76	5.16	1.2	▲	▲	▲											
半精加工-粗加工 Semi-finishing to Roughing	SNMG120404-PM	12.7	12.7	4.76	5.16	0.4	▲	▲	▲											
	SNMG120408-PM	12.7	12.7	4.76	5.16	0.8	▲	▲	▲											
	SNMG120412-PM	12.7	12.7	4.76	5.16	1.2	▲	▲	▲											
半精加工-粗加工 Semi-finishing to Roughing	SNMG150608-PM	15.875	15.875	6.35	6.35	0.8	▲	▲	▲											
	SNMG150612-PM	15.875	15.875	6.35	6.35	1.2	▲	▲	▲											
	SNMG150616-PM	15.875	15.875	6.35	6.35	1.6	▲	▲	▲											
通槽 Standard	SNMG190612-PM	19.05	19.05	6.35	6.35	1.2	▲	▲	▲											
	SNMG190616-PM	19.05	19.05	6.35	6.35	1.6	▲	▲	▲											
	SNMG120404	12.7	12.7	4.76	5.16	0.4	▲	▲	▲											
	SNMG120408	12.7	12.7	4.76	5.16	0.8	▲	▲	▲											
左右手 L/R-ZC	SNMG120412	12.7	12.7	4.76	5.16	1.2	▲	▲	▲											
	SNMG120404L/R-ZC	12.7	12.7	4.76	5.16	0.4	▲	▲	▲										▲	
	SNMG120408L/R-ZC	12.7	12.7	4.76	5.16	0.8	▲	▲	▲										▲	
SNMG120412L/R-ZC	12.7	12.7	4.76	5.16	1.2	▲	▲	▲										▲		

Turning Inserts-Negative  
TNMG (60°Negative)

车削刀片-负角型  
TNMG (60°负角型)

钢件车削 General Turning Inserts for Steel

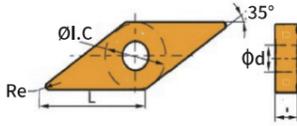
		√ 良好工况 Good working conditions. ○ 一般工况 General working conditions. × 不稳定工况 Unstable working conditions																		
		工件材料 Workpiece Material																		
		P	M	K	N	S	H	CVD涂层 (Coating)				PVD涂层 (Coating)								
		钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢	HS8125	HS8133	HS8122	HS7225									
产品 Inserts Shape	型号 Type	L	ØI.C	T	φd	r	HS8125	HS8133	HS8122	HS7225										
半精加工-粗加工 Semi-finishing to Roughing	TNMG160404-PM	16.5	9.525	4.76	3.81	0.4	▲	▲	▲											
	TNMG160408-PM	16.5	9.525	4.76	3.81	0.8	▲	▲	▲											
	TNMG160412-PM	16.5	9.525	4.76	3.81	1.2	▲	▲	▲											
半精加工 Semi-finishing	TNMG160404-CQ	16.5	9.525	4.76	3.81	0.4	▲	▲	▲											
	TNMG160408-CQ	16.5	9.525	4.76	3.81	0.8	▲	▲	▲											
	TNMG160412-CQ	16.5	9.525	4.76	3.81	1.2	▲	▲	▲											
通槽 Standard	TNMG160404-MT	16.5	9.525	4.76	3.81	0.4	▲	▲	▲											
	TNMG160408-MT	16.5	9.525	4.76	3.81	0.8	▲	▲	▲											
	TNMG160408-MT	16.5	9.525	4.76	3.81	1.2	▲	▲	▲											
左右手 L/R-ZC	TNMG160408	16.5	9.525	4.76	3.81	0.4	▲	▲	▲											
	TNMG160408	16.5	9.525	4.76	3.81	0.8	▲	▲	▲											
	TNMG160404L/R-ZC	16.5	9.525	4.76	3.81	0.4	▲	▲	▲										▲	
TNMG160408L/R-ZC	16.5	9.525	4.76	3.81	0.8	▲	▲	▲										▲		
TNMG160412L/R-ZC	16.5	9.525	4.76	3.81	1.2	▲	▲	▲										▲		

▲ 为主推荐牌号 Recommended grade (Always stock available) ● 按订单生产可选牌号 Make-to-order

Turning Inserts-Negative  
VNMG (35°Negative)

车削刀片-负角型  
VNMG (35°负角型)

钢件车削 General Turning Inserts for Steel

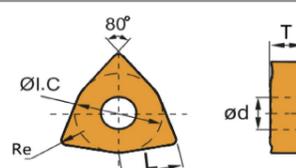
		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																				
工件材料 Workpiece Material	P	钢	√	√	√	O	O	O	X	X	X							O	O	X	X	√
	M	不锈钢									√	√	O	O	O	X	X					√
K	铸铁																				X	X
N	有色金属																					
S	耐热合金、钛合金																				X	
H	淬硬钢																					
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)			PVD涂层 (Coating)												
		L	ØI.C	T	φd	r	HS8125	HS8133	HS8122	HS7125												
	VNMG160404-MT	16.6	9.525	4.76	3.81	0.4	▲	▲	▲													
	VNMG160408-MT	16.6	9.525	4.76	3.81	0.8	▲	▲	▲													
	VNMG160412-MT	16.6	9.525	4.76	3.81	1.2	▲	▲	▲													
	VNMG160404-PM	16.6	9.525	4.76	3.81	0.4	▲	▲	▲				●									
	VNMG160408-PM	16.6	9.525	4.76	3.81	0.8	▲	▲	▲				●									
	VNMG160412-PM	16.6	9.525	4.76	3.81	1.2	▲	▲	▲													

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

Turning Inserts-Negative  
WNMG (80°Trigonal Negative)

车削刀片-负角型  
WNMG (80°桃形负角型)

钢件车削 General Turning Inserts for Steel

		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																				
工件材料 Workpiece Material	P	钢	√	√	√	O	O	O	X	X	X							O	O	X	X	√
	M	不锈钢									√	√	√	O	O	O	X	X	X	X	√	
K	铸铁																			X	X	
N	有色金属																					
S	耐热合金、钛合金																				X	X
H	淬硬钢																					
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)			PVD涂层 (Coating)												
		L	ØI.C	T	φd	r	HS8125	HS8133	HS8122	HS7225												
	WNMG080404-MT	8.7	12.7	4.76	5.16	0.4	▲	▲	▲													
	WNMG080408-MT	8.7	12.7	4.76	5.16	0.8	▲	▲	▲													
	WNMG080412-MT	8.7	12.7	4.76	5.16	1.2	▲	▲	▲													
	WNMG080404-PM	8.7	12.7	4.76	5.16	0.4	▲	▲	▲					●								
	WNMG080408-PM	8.7	12.7	4.76	5.16	0.8	▲	▲	▲					●								
	WNMG080412-PM	8.7	12.7	4.76	5.16	1.2	▲	▲	▲					●								
	WNMG080404-CQ	8.7	12.7	4.76	5.16	0.4	▲	▲	▲													
	WNMG080408-CQ	8.7	12.7	4.76	5.16	0.8	▲	▲	▲													
	WNMG080412-CQ	8.7	12.7	4.76	5.16	1.2	▲	▲	▲													
	WNMG080404-43	8.7	12.7	4.76	5.16	0.4	▲	▲	▲													
	WNMG080408-43	8.7	12.7	4.76	5.16	0.8	▲	▲	▲													
	WNMG080412-43	8.7	12.7	4.76	5.16	1.2	▲	▲	▲													
	WNMG080404L/R-ZC	8.7	12.7	4.76	5.16	0.4	▲	▲	▲					▲								
	WNMG080408L/R-ZC	8.7	12.7	4.76	5.16	0.8	▲	▲	▲					▲								
	WNMG080412L/R-ZC	8.7	12.7	4.76	5.16	1.2	▲	▲	▲					▲								

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

Turning Inserts-Positive  
CCMT (80°Positive) /DCMT(55°Positive)

车削刀片-正角型  
CCMT (80°正角型) /DCMT(55°正角型)

钢件车削 General Turning Inserts for Steel

		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																						
		工件材料 Workpiece Material					CVD涂层 (Coating)					PVD涂层 (Coating)												
		P	M	K	N	S	H	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122		
		钢	√	√	√				X	X	X										X	X	√	
		不锈钢																			√	√	√	
		铸铁																			O	X	X	
		有色金属																						
		耐热合金、钛合金																				X	X	
		淬硬钢																						
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)												
		L	ØI.C	T	ϕd	r	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122			
	CCMT060204-HM	6.4	6.35	2.38	2.8	0.4	▲						▲						▲					
	CCMT060208-HM	6.4	6.35	2.38	2.8	0.8	▲						▲						▲					
	CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4	▲						▲						▲					
	CCMT09T308-HM	9.7	9.525	3.97	4.4	0.8	▲						▲						▲					
	CCMT120404-HM	12.9	12.7	4.76	5.56	0.4	▲						▲						▲					
	CCMT120408-HM	12.9	12.7	4.76	5.56	0.8	▲						▲						▲					
	CCMT120412-HM	12.9	12.7	4.76	5.56	1.2	▲						▲						▲					
	CCMT060204-SL	6.4	6.35	2.38	2.8	0.4	▲						▲						▲					
	CCMT060208-SL	6.4	6.35	2.38	2.8	0.8	▲						▲						▲					
	CCMT09T304-SL	9.7	9.525	3.97	4.4	0.4	▲						▲						▲					
	CCMT09T308-SL	9.7	9.525	3.97	4.4	0.8	▲						▲						▲					
	CCMT120404-SL	12.9	12.7	4.76	5.56	0.4	▲						▲						▲					
CCMT120408-SL	12.9	12.7	4.76	5.56	0.8	▲						▲						▲						
		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																						
		工件材料 Workpiece Material					CVD涂层 (Coating)					PVD涂层 (Coating)												
		P	M	K	N	S	H	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122		
		钢	√	√	√				X	X	X										X	X	√	
		不锈钢																			√	√	√	
		铸铁																			O	X	X	
		有色金属																						
		耐热合金、钛合金																				X	X	
		淬硬钢																						
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)												
		L	ØI.C	T	ϕd	r	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122			
	CCMT070204-HM	7.8	6.35	2.38	2.8	0.4	▲						▲						▲					
	DCMT070208-HM	7.8	6.35	2.38	2.8	0.8	▲						▲						▲					
	DCMT11T304-HM	11.6	9.525	3.97	4.4	0.4	▲						▲						▲					
	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.4	▲						▲						▲					
	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.4	▲						▲						▲					

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

Turning Inserts-Positive  
SCMT (Square Positive)

车削刀片-正角型  
SCMT(正方形正角型)

钢件车削 General Turning Inserts for Steel

		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																						
		工件材料 Workpiece Material					CVD涂层 (Coating)					PVD涂层 (Coating)												
		P	M	K	N	S	H	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122		
		钢	√	√	√				X	X	X										O	X	X	
		不锈钢																			√	√	√	
		铸铁																			O	O	O	
		有色金属																						
		耐热合金、钛合金																				X	X	
		淬硬钢																						
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)												
		L	ØI.C	T	ϕd	r	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122			
	SCMT09T304-HM	9.525	9.525	3.976	4.4	0.4	▲						▲						▲					
	SCMT09T308-HM	9.525	9.525	3.97	4.4	0.8	▲						▲						▲					
	SCMT120404-HM	12.7	12.7	4.76	5.56	0.4	▲						▲						▲					
	SCMT120408-HM	12.7	12.7	4.76	5.56	0.8	▲						▲						▲					
	SCMT120408-HM	12.7	12.7	4.76	5.56	0.8	▲						▲						▲					
		√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions																						
		工件材料 Workpiece Material					CVD涂层 (Coating)					PVD涂层 (Coating)												
		P	M	K	N	S	H	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122		
		钢	√	√	√				X	X												X	X	
		不锈钢																			√	√	√	
		铸铁																			O	O	O	
		有色金属																						
		耐热合金、钛合金																				X	X	
		淬硬钢																						
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)												
		L	ØI.C	T	ϕd	r	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122	HS125	HS133	HS122			
	TCMT090204-HM	9.6	5.56	2.38	2.5	0.4	▲						▲						▲					
	TCMT090208-HM	9.6	5.56	2.38	2.5	0.8	▲						▲						▲					
	TCMT110204-HM	11	6.35	2.38	2.8	0.4	▲						▲						▲					
	TCMT110208-HM	11	6.35	2.38	2.8	0.8	▲						▲						▲					
	TCMT16T304-HM	16.5	9.525	3.97	4.4	0.4	▲						▲						▲					
	TCMT16T308-HM	16.5	9.525	3.97	4.4	0.8	▲						▲						▲					

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order









Turning Inserts-Negative  
SNMG/SNMA (90° Negative)

车削刀片-负角型  
SNMG/SNMA(90°负角型)

铸铁车削 General Turning Inserts for Cast Iron

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)				PVD涂层 (Coating)			
		L	ØI.C	T	φd	r	HS6115	HS6110						
半精加工 Semi-finishing	SNMG120404-TC	12.7	12.7	4.76	5.16	0.4	▲	▲						
	SNMG120408-TC	12.7	12.7	4.76	5.16	0.8	▲	▲						
	SNMG120412-TC	12.7	12.7	4.76	5.16	1.2	▲	▲						
半精加工-粗加工 Semi-finishing to Roughing	SNMG120408-GH	12.7	12.7	4.76	5.16	0.8	▲	▲						
	SNMG120412-GH	12.7	12.7	4.76	5.16	1.2	▲	▲						
平板 Flat	SNMA120408	12.7	12.7	4.76	5.16	0.8	▲	▲						
	SNMA120412	12.7	12.7	4.76	5.16	1.2	▲	▲						
	SNMA150608	15.88	15.88	6.35	6.4	0.8	▲	▲						
	SNMA150612	15.88	15.88	6.35	6.4	1.2	▲	▲						
	SNMA190612	19.05	19.05	6.35	7.9	1.2	▲	▲						
SNMA190616	19.05	19.05	6.35	7.9	1.6	▲	▲							

Turning Inserts-Negative  
TNMG/TNMA (60° Negative)

车削刀片-负角型  
TNMG/TNMA(60°负角型)

铸铁车削 General Turning Inserts for Cast Iron

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)				PVD涂层 (Coating)			
		L	ØI.C	T	φd	r	HS6115	HS6110						
半精加工 Semi-finishing	TNMG160404-TC	16.5	9.525	4.76	3.81	0.4	▲	▲						
	TNMG160408-TC	16.5	9.525	4.76	3.81	0.8	▲	▲						
	TNMG160412-TC	16.5	9.525	4.76	3.81	1.2	▲	▲						
半精加工-粗加工 Semi-finishing to Roughing	TNMG160404-GH	16.5	9.525	4.76	3.81	0.4	▲	▲						
	TNMG160408-GH	16.5	9.525	4.76	3.81	0.8	▲	▲						
	TNMG160412-GH	16.5	9.525	4.76	3.81	1.2	▲	▲						
平板 Flat	TNMA160404	16.5	9.525	4.76	3.81	0.4	▲	▲						
	TNMA160408	16.5	9.525	4.76	3.81	0.8	▲	▲						
	TNMA160412	16.5	9.525	4.76	3.81	1.2	▲	▲						







### 铣削刀片牌号介绍

### Grade Informations

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features And Applications
HS1001	P20~P35 M20~M35	PVD 七彩色 Multiple-Color	AlTiCrSiN	1.采用低钴含量的细晶粒硬质合金基体, 结合优异性能的纳米结构PVD涂层, 具有优异的耐磨性和耐高温性能。 2.适用于淬硬钢的半精和精铣削加工。 1.Using the fine-grained cemented carbide substrat with low cobalt content,combined with high excellent performance of PVD nano-coating,it has excellent wear resistance and high temperature resistance. 2.It is suitable for semi-finish and finish milling of hardened steel.
HS01	P10~P25 M15~M25 K10~K25	无涂层 Uncoated		1.TiCN基金属陶瓷牌号, 细小弥散的硬质相颗粒、粘结相强化和环形相结构控制三者结合, 使之表现出优异的耐磨性、红硬性和抗月牙洼磨损性能。 2.适用于钢件、不锈钢、铸铁等材料的精、半精加工。 1.TiCN-based cermet grade,fine dispersion hard phase particles,bonded phase reinforcement and annular phase structure control are combined to show excellent wear resistance,red hardness and crescent hole wear resistance. 2.It is suitable for finishing and semi-finishing of steel,stainlesssteel,cast iron etc.
HS01	P10~P25 M10~M25 K10~K25	无涂层 Uncoated		1.TiCN基金属陶瓷牌号, 具有均匀、晶粒细化组织, 环形相结构, 提高了材料的强度和耐磨性。 2.适用于钢件、不锈钢、铸铁材料的精铣、半精铣削加工。 1.TiCN-based cermet grade,with uniform,grain refinement structure,annular phase structure,improve the strength andwear resistance of the material. 2.It is suitable for finishing milling and semi-finishing milling of steel,stainless steel and cast iron materials.

### 铣削刀片牌号介绍

### Grade Informations

产品牌 号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features And Applications
HS5231	P15~P35	CVD 黄色 Yellow	MT-TiCN+Al <sub>2</sub> O <sub>3</sub> +TiN	1.采用高强度和高韧性的硬质合金基体, 结合薄的氧化铝CVD涂层, 具有优异耐磨性和抗冲击性能。 2.适用于钢件材料的半精铣削加工。 1.Using high strength and toughness cemented carbide substrate,combined with thin Al <sub>2</sub> O <sub>3</sub> CVD coating,it has excellent performanceof wear resistance and impact resistance. 2.It is suitable for semi-finish processeing of steel milling.
HS5130	P15~P35 M10~M30	CVD 黑色 Black	MT-TiCN+Al <sub>2</sub> O <sub>3</sub>	1.采用中钴成分的高韧性梯度合金基体, 搭配细晶柱状TiCN和超细的薄的Al <sub>2</sub> O <sub>3</sub> 涂层, 具有优异的抗崩缺能力和高温强度。 2.适用于合金钢、碳素钢、不锈钢材料的半精铣和粗铣加工。 1.Using high toughness gradient cemented carbide substrate with medium Cobalt content,matched with fine crystalline columnar TiCNand ultra-fineAl2O3 coating, it has excellent performance of chipping resistance and high temperature resistance. 2.It is suitable for semi-finishing and roughing processing of alloy steel,carbon steel and stainless steel milling.
HS5130	K15~K35	CVD 黑色 Black	MT-TiCN+Al <sub>2</sub> O	1.中等晶粒的强韧性基体, 结合MT-TiCN和厚的Al2O3 涂层工艺, 具备良好的刃口强度和优异的耐磨性能。 2.适用于铸铁的粗铣及半精铣削加工。 1.Using strong toughness substrate of medium crystal grain,combined with MT-TiCN and thick Al2O3 coating process,it has excellent edge strength and performance of wear resistance. 2.It is suitable for roughing and semi-finishing processing of cast iron milling.
HS7125	P10~P25 M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1.采用亚微晶粒的中钴基体, 结合纳米结晶TiAlN 涂层, 具有良好的强韧性和通用性能。 2.适用于合金钢、不锈钢、高温合金等材料的半精、精铣加工。 1.Using sub-micro crystalline substrate withmedium Cobalt content,combined with nano-crystalline TiAlNcoating,it has good strong toughness and general processing performance. 2.It is suitable for semi-finishing and finishing processing ofalloy steel,stainless steel, high temperature alloy and other materials milling.
HS5130	P15~P30 M15~M30 S15~S30	PVD 灰黑色 Gray-black	TiAlN	1.较高耐磨性的细晶粒中钴基体, 搭配通用性好的TiAlN 涂层, 具有良好的膜基结合力、耐磨性和抗氧化性能。 2.适用于合金钢、不锈钢、高温合金等材料的半精铣削加工, 为钢件、不锈钢铣削首选牌号。 1.The fine-grain medium cobalt substrat with high wear resistance is match with high universality of TiAlN coating,it has good film-based adhesion,wear resistance and oxidation resistance. 2.It is suitable for semi-finishing milling of alloy steel,stainless steel,superalloy and other materials,and is the preferred brand for steel and stainlesssteel milling.



SEEN/SEMT/SEMR/SEKR/SEKT/WDMW/JDMW

Milling Inserts  
铣削刀片

铣削刀片 Milling Tools

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)							
		L	ØI.C	T	φd	a	HS1222					HS1225	HS130	HS120					
	SEEN1203AFTN	12.7	12.7	3.18	/		•					•	▲	▲					
	SEEN1504AFTN	15.875	15.875	4.76	/		•					•	▲	▲					
	SEMR1203AFTN	12.7		3.18	2.3		•					•	▲	▲					
	SEMR1504AFTN	15.875	15.875	4.76	3.2		•					•	▲	▲					
	SEKR1003AFEN	10.39	10.39				•					•	▲	▲					
	SEKR1203AFTN	12.7	12.7	3.18	2.3		•					•	▲	▲					
	SEMT13T3AGSN-DM	13.4	13.4	3.97	4.4		•					•	▲	▲					
	SEKR1204AFTN	12.7	12.7	4.76	5.5		•					•	▲	▲					

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)				CVD涂层 (Coating)					PVD涂层 (Coating)								
		ØI.C	T	B	Re						HS1225	HS130	HS120						
	WDMW06T320ZTR	10.0	3.97	1.20	2.00							•	▲	▲					
	WDMW08520ZTR	13.0	5.50	1.50	2.00							•	▲	▲					
	WDMW10X620ZTR	13.0	6.00	1.20	2.00							•	▲	▲					
	JDMW09T320SR	9.53	3.97	1.80	2.00							•	▲	▲					
	JDMW120420SR	13.0	5.50	1.50	2.00							•	▲	▲					
	JDMW140520SR	13.0	6.00	1.20	2.00							•	▲	▲					

XOMX/JDMT

Milling Inserts  
铣削刀片

铣削刀片 Milling Tools

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)									
		L	S	W	φd	Re						HS1225	HS130	HS120							
	XOMX120408TR	10.2	3.85	6.90	2.96	0.8						•							•	▲	▲
	XOMX120420TR	12.7	5.07	8.20	3.85	0.8						•							•	▲	▲
	XOMX120412TR	12.7	5.05	8.20	3.90	1.2						•							•	▲	▲

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)									
		L	S	W	φd	Re						HS1225	HS130	HS120							
	JDMT070204R	7.1	2.45	4.25	1.9	0.4						•	▲	▲							
	JDMT070208R	7.1	2.45	4.25	1.9	0.8						•	▲	▲							

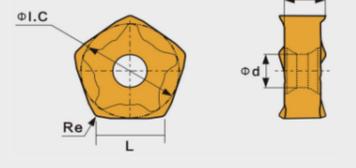


PNMU/ONMU

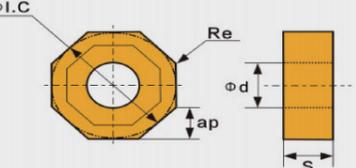
Milling Inserts  
铣削刀片

铣削刀片 Milling Tools

√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)				
		ØI.C	S	L	φd	Re	H S S 1 3 1						H S S 2 2 5	H S S 1 3 0	H S S 1 2 0	
	PNMU0905XNER	13.4	6.19	9.3	4.64	0.8	•						•	▲	▲	

√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)				
		ØI.C	S	ap	BS	Re	H S S 1 3 1						H S S 2 2 5	H S S 1 3 0	H S S 1 2 0	
	ONMU050505-PM	13.0	5.5	3.5	5.0	0.5	•						•	▲	▲	
	ONMU080608-PM	20.2	5.79	6.9	6	0.8	•						•	▲	▲	

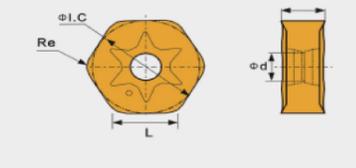
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

HNGX/XNEX

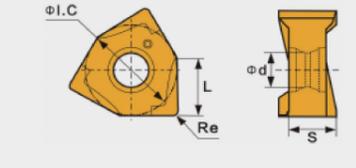
Milling Inserts  
铣削刀片

铣削刀片 Milling Tools

√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)				
		ØI.C	S	L	φd	Re	H S S 3 1						H S S 1 3 0	H S S 1 2 5	H S S 2 2 5	
	HNGX0906ANSN	16.5	6.35	9.1	4.9	1.0	•						•	▲	▲	

√良好工况Good working conditions. O一般工况General working conditions ×不稳定工况Unstable working conditions

产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)					CVD涂层 (Coating)					PVD涂层 (Coating)				
		ØI.C	S	L	φd	Re	H S S 3 1						H S S 1 3 0	H S S 1 2 5	H S S 2 2 5	
	XNEX040304TR	6.71	3.29	4.3	3.1	0.4	•						•	▲	▲	
	XNEX040308TR	6.71	3.29	4.3	3.1	0.8	•						•	▲	▲	
	XNEX080608TR	12.48	6.45	8.0	4.65	0.8	•						•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

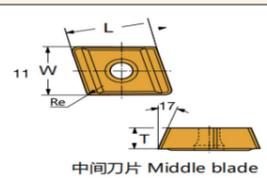


800 Series/R424.9

孔加工刀片

深孔钻刀片 Deep-hole Drilling Inserts

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

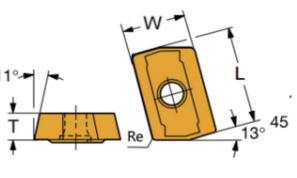


中间刀片 Middle blade

Workpiece Material	P	M	K	N	S	H																	
	钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢	0	X	0	√	√	√	√	0	0	0	0	0	X	√	√	X	X
尺寸 Dimensions(mm)																							
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)				CVD涂层 (Coating)										PVD涂层 (Coating)							
		W	L	T	Re	H S 1 2 0	H S 1 3 0											H S 1 2 0	H S 1 3 0				
-I-G  -I-L	800-050308M-I-G	5.56	9.87	3.18	0.8	▲															●	▲	
	800-050308M-I-L	5.56	9.87	3.18	0.8	▲															●	▲	
	800-06 T308M-I-G	6.35	9.87	3.97	0.8	▲															●	▲	
	800-06 T308M-I-L	6.35	9.87	3.97	0.8	▲															●	▲	
	800-09 T308M-I-G	7.94	9.87	3.97	0.8	▲															●	▲	
	800-08 T308M-I-L	7.94	9.87	3.97	0.8	▲															●	▲	
	800-12 T308M-I-G	12.70	9.87	3.97	0.8	▲															●	▲	
800-12 T308M-I-L	12.70	9.87	3.97	0.8	▲															●	▲		

深孔钻刀片 Deep-hole Drilling Inserts

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions



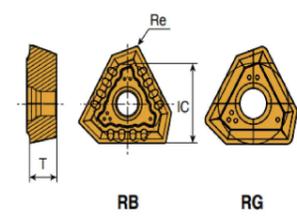
Workpiece Material	P	M	K	N	S	H																	
	钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢	0	X	0	√	√	√	√	0	0	0	0	0	X	√	√	X	X
尺寸 Dimensions(mm)																							
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)				CVD涂层 (Coating)										PVD涂层 (Coating)							
		W	L	T	Re	H S 1 2 0	H S 1 3 0											H S 1 2 0	H S 1 3 0				
	R424.9-13T308-22	10.0	14.7	3.97	0.8	▲															●	▲	
	R424.9-13T308-23	10.0	14.7	3.97	0.8	▲															●	▲	
	R424.9-180608-22	11.5	20.6	6.35	0.8	▲															●	▲	
	R424.9-180608-23	11.5	20.6	6.35	0.8	▲															●	▲	

TPMX-RB/RG/LG

孔加工刀片

深孔钻刀片 Deep-hole Drilling Inserts

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions



Workpiece Material	P	M	K	N	S	H																	
	钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢	0	X	√	√	√	√	√	0	0	0	0	0	X	√	√	X	X
尺寸 Dimensions(mm)																							
产品 Inserts Shape	型号 Type	尺寸 Dimensions(mm)			CVD涂层 (Coating)										PVD涂层 (Coating)								
		IC	T	Re	H S 1 2 0	H S 1 3 0											H S 1 2 0	H S 1 3 0					
	TPMX1403-RB	8.45	3.5	0.4	▲																●	▲	
	TPMX1403-RG	8.45	3.5	0.8	▲																●	▲	
	TPMX1704-RG	10.30	4.0	0.4	▲																●	▲	
	TPMX1704-RG	10.30	4.0	0.8	▲																●	▲	
	TPMX2405-RB	14.20	5.5	0.4	▲																●	▲	
	TPMX2405-RG	14.20	5.5	1.2	▲																●	▲	
	TPMX2807-RB	17.00	7.5	0.8	▲																●	▲	
	TPMX2807-RG	17.00	7.5	1.6	▲																●	▲	
	TPMX1403-LG	8.45	3.5	0.8	▲																●	▲	
	TPMX1704-LG	10.30	4.0	0.8	▲																●	▲	
TPMX12405-LG	14.20	5.5	1.2	▲																●	▲		





### 槽刀片 Grooving Inserts

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

刀片外形	型号 Type	基本尺寸 (MM) 尺寸(mm)					牌 号			
		L	S	T	Re	a	CVD涂层 (Coating)		PVD涂层 (Coating)	
							HS 8 1 2 3	HS 8 1 3 3	HS 6 1 1 5	HS 7 1 2 5
	MGMN150-G	16	1.5	4	0.15	8.5°	▲	▲	▲	▲
	MGMN200-G	16	2	4	0.2	7.5°	▲	▲	▲	▲
	MGMN250-G	18.5	2.5	4.5	0.2	8.5°	▲	▲	▲	▲
	MGMN300-G	21	3	5.6	0.3	7.5°	▲	▲	▲	▲
	MGMN200-M	16	2	4	0.2	8°	▲	▲	▲	▲
	MGMN250-M	18.5	2.5	4.5	0.2	8°	▲	▲	▲	▲
	MGMN300-M	21	3	5.6	0.4	8°	▲	▲	▲	▲
	MGMN400-M	21	4	5.8	0.4	8°	▲	▲	▲	▲
	MGMN500-M	26	5	5.8	0.8	8°	▲	▲	▲	▲
	MGMN600-M	26	6	5.9	0.8	8°	▲	▲	▲	▲
	MRMN200-M	16	2	3.5	1	7°	▲	▲	▲	▲
	MRMN300-M	21	3	4.8	1.5	7°	▲	▲	▲	▲
	MRMN300-M	21	4	4.8	2	7°	▲	▲	▲	▲
	MRMN500-M	26	5	5.8	2.5	7°	▲	▲	▲	▲
	MGMN200-T	16	2	3.55	0.2	7.5°	▲	▲	▲	▲
	MGMN300-T	21	3	4.86	0.4	7.5°	▲	▲	▲	▲
	MGMN400-T	21	4	4.86	0.4	7.5°	▲	▲	▲	▲
	MGMN500-T	26	5	5.8	0.8	7.5°	▲	▲	▲	▲
	MGMN200	16	2	3.55	0.2	7.5°	▲	▲	▲	▲
	MGMN300	21	3	4.86	0.4	7.5°				▲
	MGMN400	21	4	4.86	0.4	7.5°				▲
	MGMN500	26	5	5.8	0.8	7.5°				▲
	TDC2	20	2	3.9	0.2	7°				
	TDC3	20	3	4.2	0.2	6.5°				
	TDC4	20	4	4.2	0.3	6°				
	TDC5	25	5	5	0.3	7°				

### 螺纹刀片 Threading Inserts

√良好工况Good working conditions. 0一般工况General working conditions ×不稳定工况Unstable working conditions

刀片外形	型号 Type	基本尺寸 (mm)							牌 号			
		螺距 Pitch	IC	S	T	Re	φd	θ	CVD涂层 (Coating)		PVD涂层 (Coating)	
									HS 1 1 2 5	HS 1 1 2 5	HS 1 1 2 5	HS 1 1 2 5
	16ER100ISO	1	9.525	0.7	3.52	0.13	4	60			▲	
	16ER125ISO	1.25	9.525	0.9	3.52	0.16	4	60			▲	
	16ER150ISO	1.5	9.525	1	3.52	0.2	4	60			▲	
	16ER200ISO	2	9.525	1.3	3.52	0.26	4	60			▲	
	16ER250ISO	2.5	9.525	1.5	3.52	0.33	4	60			▲	
	16ER300ISO	3	9.525	1.6	3.52	0.44	4	60			▲	
	16R100ISO	1	9.525	0.7	3.52	0.13	4	60			▲	
	16R125ISO	1.25	9.525	0.9	3.52	0.16	4	60			▲	
	16R150ISO	1.5	9.525	1	3.52	0.1	4	60			▲	
	16R200ISO	2	9.525	1.3	3.52	0.13	4	60			▲	
	16R250ISO	2.5	9.525	1.5	3.52	0.17	4	60			▲	
	16R300ISO	3	9.525	1.5	3.52	0.22	4	60			▲	
	16ER11W	11	9.525	1.5	3.52	0.3	4	55			▲	
	16ER14W	14	9.525	1.2	3.52	0.23	4	55			▲	
	16ER19W	19	9.525	1	3.52	0.17	4	55			▲	
	16R11W	11	9.525	1.5	3.52	0.3	4	55			▲	
	16R14W	14	9.525	1.2	3.52	0.23	4	55			▲	
	16R19W	19	9.525	1	3.52	0.17	4	55			▲	
	16ERAG55	0.5-3.0	9.525	1.7	3.52	0.06	4	55			▲	
	16ERAG60	0.5-3.0	9.525	1.7	3.52	0.07	4	55			▲	
	16RAG55	0.5-3.0	9.525	1.7	3.52	0.06	4	55			▲	
	16RAG60	0.5-3.0	9.525	1.7	3.52	0.076	4	55			▲	
	16ER11BSPT	11	9.525	1.5	3.52	0.32	4	55			▲	
	16ER14BSPT	14	9.525	1.2	3.52	0.23	4	55			▲	
	16ER19BSPT	19	9.525	0.9	3.52	0.19	4	55			▲	
	16R11BSPT	11	9.525	1.5	3.52	0.32	4	55			▲	
	16R14BSPT	14	9.525	1.2	3.52	0.23	4	55			▲	
	16R19BSPT	19	9.525	0.9	3.52	0.19	4	55			▲	

## Application cases

### Intermittent turning of bearing pedestal



Cutting Materials	5 5 Steel automobile hub bearing seat
Cutting Method	Wet cylindrical continuous, intermittent semi finish turning and finishing of end face
Inserts	WNMG080408-MT HS8125
Cutting Data	$V_c = 259\text{m/min}$ , $f=0.18\sim 0.275\text{mm/r}$ , $a_p = 0.5\sim 1\text{mm}$
Cutting Performance	Lifespan : 78pcs/flute,

### Intermittent rough turning of outer circle of three cylinder shell



Cutting Materials	CF53 steel three column shell outer circle
Cutting Method	Wet axle neck intermittent rough turning
Inserts	CNMG120408-MT HS8125
Cutting Data	$V_c = 220\text{m/min}$ , $f=0.2\text{mm/r}$ , $a_p = 1.5\text{mm}$
Cutting Performance	Lifespan : 40~50pcs/flute

### Rough turning of piston rod



Cutting Materials	27SiMn
Cutting Method	Dry rough car
Inserts	TNMG160408R-ZC HS8125
Cutting Data	$V_c = 220\text{m/min}$ , $f=0.2\text{mm/r}$ , $a_p = 1.5\text{mm}$
Cutting Performance	Lifespan : 40~50pcs/flute

## Application cases

### Wheel hub unit broken and continuous turning



Cutting Materials	55 steel Automobile hub unit
Cutting Method	Wet cylindrical continuous and intermittent semi finish turning
Inserts	WNMG080408-MT HS8125
Cutting Data	$V_c = 220\sim 300\text{m/min}$ , $f=0.15\sim 0.28\text{mm/r}$ , $a_p = 0.8\text{mm}$
Cutting Performance	Lifespan : 80~ 100pcs/flute

### Three cylinder shell breaking and continuous turning



Cutting Materials	CF53
Cutting Method	Wet cylindrical continuous and intermittent semi finishing turning
Inserts	DNMG150408-MT HS8125
Cutting Data	$V_c = 286\text{m/min}$ , $f=0.33\text{mm/r}$ , $a_p = 0.2\text{mm}$
Cutting Performance	Lifespan 48~63pcs/flute

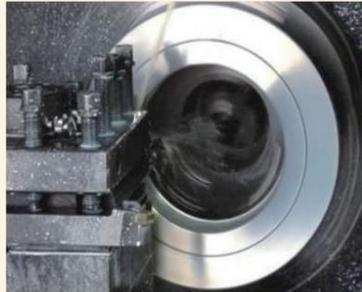
### Bearing turning



Cutting Materials	GCr15 bearing
Cutting Method	Wet rough and fine turning A end face and chamfer
Inserts	WNMG080408-MT HS8125
Cutting Data	$V_c = 369\text{m/min}$ , $f=0.31\text{mm/r}$ , $a_p = 1\text{mm}$
Cutting Performance	Lifespan:65~72pcs/flute

## Rust steel turning

### Rough turning of flange plate



Cutting Materials	SS SUS201
Cutting Method	Continuous turning of end face and excircle
Inserts	WNMG080408-MA HS7225
Cutting Data	Vc = 273m/min , f=0.3mm/r, ap = 1.0mm
Cutting Performance	Lifespan : 37~42pcs/flute

### Pipe fitting



Cutting Materials	SS (SUS304)
Cutting Method	Wet interior hole
Inserts	CCMT09T308 HS7225
Cutting Data	Vc=81m/min , f=0.14mm/r, ap = 0.5mm
Cutting Performance	Lifespan : 541pcs/flute

### Rough and fine turning of valve ball



Cutting Materials	SS(SUS304)
Cutting Method	Wet rough and fine turning valve ball
Inserts	TNMG160408-MS HS7225
Cutting Data	Vc=188-314m/min , f=0.22-0.13mm/r , ap=2-0.05mm
Cutting Performance	Lifespan : 92pcs/flute

## Rust steel turning

### Compressor cylinder



Cutting Materials	HT250
Cutting Method	Rough turning of excircle and end face
Inserts	WNMG080412 HS6115
Cutting Data	Vc=415m/min , f=0.15mm/r, ap = 0.4mm
Cutting Performance	Lifespan 60~70pcs/flute

### Turning of compressor flange



Cutting Materials	D138 flange, HT250
Cutting Method	Dry continuous and intermittent rough turning of excircle and end face
Inserts	WNMG080408 HS6115
Cutting Data	Vc = 563m/min , f=0.25mm/r, ap = 1mm
Cutting Performance	Lifespan: 70~80pcs/flute

### Turning of pulley excircle and end face



Cutting Materials	TH200
Cutting Method	Dry continuous rough turning of outer circle and end face
Inserts	CNMG120408 HS6115
Cutting Data	Vc=438m/min 1 f=0.3mm/r, ap = 1.2mm
Cutting Performance	Lifespan : 130~140pcs/flute