

### <80° 菱形负角型 >

刀片型号		A		T						
		CN_1204		12.7		4.76				
钢	P	●	●	●	●	●	●	●	●	●
不锈钢	M	●	●	●	●	●	●	●	●	●
铸铁	K	●	●	●	●	●	●	●	●	●
有色金属	N	●	●	●	●	●	●	●	●	●
钛合金	S	●	●	●	●	●	●	●	●	●
高硬度材料	H	●	●	●	●	●	●	●	●	●

  

形状	刀片型号	英制	刀角 R	微粒子硬质合金						硬质合金			排屑槽适用范围	适用刀杆参照页
				PVD涂层						无涂层	CVD涂层			
				ZM3	QM3	VM1	TM4	DT4	DM4		KM1	CP7		
 UL (尖角)	CNMG 120404 FN UL		0.4	●	●	●	●	●	●	●	●	●		
	120408 FN UL		0.8	●	●	●	●	●	●	●	●	●		
 ZP 只有硬质合金才是尖角	CNMG 120404 FN ZP	CNMG431-FN--ZP	0.4	●	●	●	●	●	●	●	●	●		→ D9 → E38
	120408 FN ZP	CNMG432-FN--ZP	0.8	●	●	●	●	●	●	●	●	●		
 Z5	CNMG 120408 TNB Z5	CNMG432-TNB-Z5	0.8	●	●	●	●	●	●	●	●	●		
 G	CNMG 120408 G	CNMG432-G	0.8	●	●	●	●	●	●	●	●	●		
	120412 G	CNMG433-G	1.2	●	●	●	●	●	●	●	●	●		
	120416 G	CNMG434-G	1.6	●	●	●	●	●	●	●	●	●		

●: 标准库存 ●: 新标准库存 ■: 接受订单预定生产产品

### <90° 菱形负角型 >

刀片型号		A		T						
		SN_1204		12.7		4.76				
钢	P	●	●	●	●	●	●	●	●	●
不锈钢	M	●	●	●	●	●	●	●	●	●
铸铁	K	●	●	●	●	●	●	●	●	●
有色金属	N	●	●	●	●	●	●	●	●	●
钛合金	S	●	●	●	●	●	●	●	●	●
高硬度材料	H	●	●	●	●	●	●	●	●	●

  

形状	刀片型号	英制	刀角 R	微粒子硬质合金						硬质合金			排屑槽适用范围	适用刀杆参照页
				PVD涂层						无涂层	CVD涂层			
				ZM3	QM3	VM1	TM4	DT4	DM4		KM1	CP7		
 Z5	SNMG 120408 TNB Z5	SNMG432-TNB-Z5	0.8	●	●	●	●	●	●	●	●	●		→ D19 → D21 → D23 → H31
 G	SNMG 120408 G	SNMG432-G	0.8	●	●	●	●	●	●	●	●	●		
	120412 G	SNMG433-G	1.2	●	●	●	●	●	●	●	●	●		
	120416 G	SNMG434-G	1.6	●	●	●	●	●	●	●	●	●		

●: 标准库存 ●: 新标准库存 ■: 接受订单预定生产产品

- A 新产品
- B 刀具材料种类
- C 标准刀片
- D 外径刀杆
- E 小零件加工
- F 槽刀工具
- G 螺纹加工
- H 加大直径刀
- I 工夹具
- J 铣小径刀立
- K 钻舍弃头式
- L 加工中心
- M 技术资料
- N 索引

## <60° 正三角形负角型 >

刀片型号		A		T								
		TN_1604		9.525		4.76						
	钢	P	●	●	●	●	●	●	●	●	●	●
	不锈钢	M	●	●	●	●	●	●	●	●	●	●
	铸铁	K	●	●	●	●	●	●	●	●	●	●
	有色金属	N	●	●	●	●	●	●	●	●	●	●
	钛合金	S	●	●	●	●	●	●	●	●	●	●
高硬度材料	H	●	●	●	●	●	●	●	●	●	●	●

  

形状	刀片型号	英制	刀角 R	微粒子硬质合金										排屑槽适用范围	适用刀杆参照页	
				PVD涂层					硬质合金							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	KM1	CP7	CP1			
	TNGG 160401M FN UL		0.08	●	●	●	●	●	●	●	●	●	●	●		
	160402M FN UL		0.18	●	●	●	●	●	●	●	●	●	●	●		
	160404M FN UL		0.38	●	●	●	●	●	●	●	●	●	●	●		
	160408M FN UL		0.78	●	●	●	●	●	●	●	●	●	●	●		
	TNGG 160402 FN ZP	TNGG33Y-FN-ZP	0.2	●	●	●	●	●	●	●	●	●	●			
	160404 FN ZP	TNGG331-FN-ZP	0.4	●	●	●	●	●	●	●	●	●	●			
	160408 FN ZP	TNGG332-FN-ZP	0.8	●	●	●	●	●	●	●	●	●	●			
	TNMG 160404 TNB Z5	TNMG331-TNB-Z5	0.4	●	●	●	●	●	●	●	●	●				
	160408 TNB Z5	TNMG332-TNB-Z5	0.8	●	●	●	●	●	●	●	●	●				
	TNMG 160408 G	TNMG332-G	0.8	●	●	●	●	●	●	●	●	●		● D25 ● E36 ● E37		
	160412 G	TNMG333-G	1.2	●	●	●	●	●	●	●	●	●				
	TNGG 160401 FR/L DA	TNGG331CFR/L-DA	0.1	R	R											
	TNEG 160401M FR/L D1		0.08					●								
	160402 FR/L D1		0.2					●								
	160404 FR/L D1		0.4					●								
	TNGG 160401 FR/L U2	TNGG331CFR/L-U2	0.08	R	R											
	160402 FR/L U2	TNGG33Y-FR/L-U2	0.2	●	●	●	●	●	●	●	●	●				
	160404 FR/L U2	TNGG331-FR/L-U2	0.4	●	●	●	●	●	●	●	●	●				
	160408 FR/L U2	TNGG332-FR/L-U2	0.8	●	●	●	●	●	●	●	●	●				

●: 标准库存 ●: 新标准库存 ■: 接受订单预定产品

- A 新产品
- B 刀具材料种类
- C 标准刀片
- D 外径刀杆
- E 小零件加工
- F 槽刀工具
- G 螺纹加工
- H 加内径镗刀
- I 工夹具
- J 铣小径刀立
- K 钻舍弃头式
- L 用加工中心
- M 技术资料
- N 索引

# 硬质合金

## <35° 菱形负角型>

形状	刀片型号	英制	刀片型号	A		T		微粒子硬质合金							排屑槽适用范围	适用刀杆参照页																																																																												
				VN_1604		9.525	4.76	PVD涂层				无涂层	CVD涂层																																																																															
				ZM3	QM3	VM1	TM4	DT4	DM4	KM1	CP7	CP1																																																																																
			刀片型号	A	T	<table border="1"> <tr><td>钢</td><td>P</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>不锈钢</td><td>M</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>铸铁</td><td>K</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>有色金属</td><td>N</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>钛合金</td><td>S</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>高硬度材料</td><td>H</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> </table>							钢	P	●	●	●	●	●	●	●	●	●	不锈钢	M	●	●	●	●	●	●	●	●	●	铸铁	K	●	●	●	●	●	●	●	●	●	有色金属	N	●	●	●	●	●	●	●	●	●	钛合金	S	●	●	●	●	●	●	●	●	●	高硬度材料	H	●	●	●	●	●	●	●	●	●														
	钢	P	●	●	●	●	●	●	●	●	●																																																																																	
	不锈钢	M	●	●	●	●	●	●	●	●	●																																																																																	
铸铁	K	●	●	●	●	●	●	●	●	●																																																																																		
有色金属	N	●	●	●	●	●	●	●	●	●																																																																																		
钛合金	S	●	●	●	●	●	●	●	●	●																																																																																		
高硬度材料	H	●	●	●	●	●	●	●	●	●																																																																																		
	VNMG 160402 FN ZP	VNMG331-FN-ZP	0.2	●						●																																																																																		
	160404 FN ZP	VNMG331-FN-ZP	0.4	●						●																																																																																		
	160408 FN ZP	VNMG332-FN-ZP	0.8	●						●																																																																																		
	VNMG 160404 TNB AM1	VNMG331-TNB-AM1	0.4	●						●						→ D29																																																																												
	160408 TNB AM1	VNMG332-TNB-AM1	0.8	●						●																																																																																		
	VNMG 160404 G	VNMG331-G	0.4										●																																																																															
	160408 G	VNMG332-G	0.8										●																																																																															
	160412 G	VNMG333-G	1.2										●																																																																															

●: 标准库存 ●: 新标准库存 ■: 接受订单预定生产品

## <80° 六角形负角型>

形状	刀片型号	英制	刀片型号	A		T		微粒子硬质合金							排屑槽适用范围	适用刀杆参照页																																																																											
				WN_0804		12.7	4.76	PVD涂层				无涂层	CVD涂层																																																																														
				ZM3	QM3	VM1	TM4	DT4	DM4	KM1	CP7	CP1																																																																															
			刀片型号	A	T	<table border="1"> <tr><td>钢</td><td>P</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>不锈钢</td><td>M</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>铸铁</td><td>K</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>有色金属</td><td>N</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>钛合金</td><td>S</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>高硬度材料</td><td>H</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> </table>							钢	P	●	●	●	●	●	●	●	●	●	不锈钢	M	●	●	●	●	●	●	●	●	●	铸铁	K	●	●	●	●	●	●	●	●	●	有色金属	N	●	●	●	●	●	●	●	●	●	钛合金	S	●	●	●	●	●	●	●	●	●	高硬度材料	H	●	●	●	●	●	●	●	●	●													
	钢	P	●	●	●	●	●	●	●	●	●																																																																																
	不锈钢	M	●	●	●	●	●	●	●	●	●																																																																																
铸铁	K	●	●	●	●	●	●	●	●	●																																																																																	
有色金属	N	●	●	●	●	●	●	●	●	●																																																																																	
钛合金	S	●	●	●	●	●	●	●	●	●																																																																																	
高硬度材料	H	●	●	●	●	●	●	●	●	●																																																																																	
	WNGG 080404 FN UL		0.4	●						●																																																																																	
	080408 FN UL		0.8	●						●																																																																																	
	WNGG 080404 FN ZP	WNGG431-FN-ZP	0.4	●	●					●						→ D30 → H32																																																																											
	080408 FN ZP	WNGG432-FN-ZP	0.8	●	●					●																																																																																	
	WNMG 080408 TNB Z5	WNMG432-TNB-Z5	0.8	●						●																																																																																	
	080412 TNB Z5	WNMG433-TNB-Z5	1.2	●						●																																																																																	
	WNMG 080408 G	WNMG432-G	0.8										●																																																																														
	080412 G	WNMG433-G	1.2										●																																																																														

●: 标准库存 ●: 新标准库存 ■: 接受订单预定生产品