

# Leading edge technology for high efficiency steel turning

2 in 1 technology ensures longer tool life.



# New CVD Coated Grade for High Speed Steel Turning

# UE6105

## Features

### Superior machining performance achieved using 2 in 1 technology

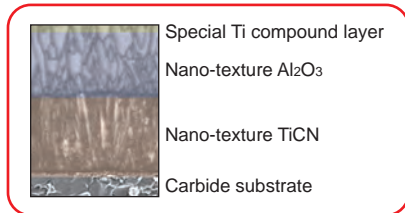
#### High Crater Wear Resistance

The gold Ti compound coating on the rake face exhibits high crater wear resistance. It also enhances the crater wear resistance of the nano-texture  $Al_2O_3$ .

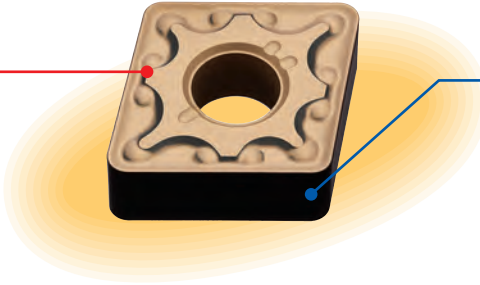
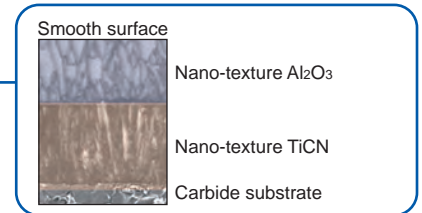
#### High Flank Wear Resistance

The black coating on the flank face has an extremely smooth surface, this prevents abnormal wear and weld chipping, leading to improved surface finishes and stable tool life.


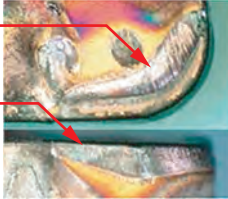
#### Coating structure on the rake face





#### Coating structure on the flank face



#### Superior wear resistance when dry high-speed machining.

UE6105-MA breaker	Competitor's
Cutting Speed : 350m/min	Cutting Speed : 300m/min
Cutting Time : 4min 	Cutting Time : 4min  Large crater wear Large flank wear

#### <Cutting Conditions>

Insert : CNMG120408-  
 Tool : PCLNL2525M12  
 Feed : 0.3mm/rev  
 Depth of cut : 1.5mm  
 Coolant : Dry cutting  
 External continuous cutting  
 indicates types of general-purpose chipbreakers from respective companies.

### State-of-the-art coating featuring 2 in 1 technology

#### 1 Wear resistant nano-texture $Al_2O_3$

High speed and high efficiency machining can be achieved due to the thickened  $Al_2O_3$  layer.

#### 2 Black super-smooth coating

Improved surface finishes and stable tool life can be obtained due to the use of the black super smooth coating. This coating limits wear development and weld chipping.

#### Comparison of $Al_2O_3$ structure

Conventional  $Al_2O_3$

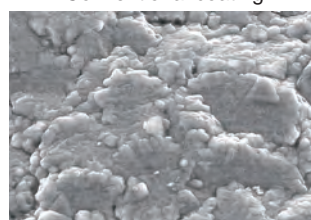


Nano-texture  $Al_2O_3$

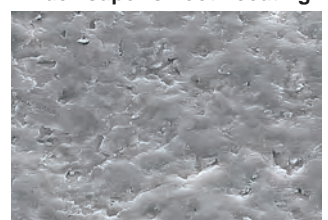


#### Comparison of coating surface

Conventional coating



Black super-smooth coating



# Application Range and Recommended Cutting Conditions

- **UE6105** is the first recommendation for high speed steel turning.  
Suitable for turning mild, carbon and alloy steels.

Application Range	
ISO	Steel
P01	UE6105 (NEW)
P10	UE6110
P20	UE6020
P30	UE6035
P40	

Recommended Cutting Conditions			
Work Material	Hardness	Cutting Mode	Recommended Cutting Speed (m/min)
Mild steel	≤180HB	General Cutting	350 (300–450)
Carbon steel Alloy steel	≥180HB	General Cutting	300 (200–400)

**Negative Inserts**

Workpiece: **P** Mild Steel

1st Recommendation (General Cutting)

**Negative Inserts**

Workpiece: **P** Carbon Steel Alloy Steel

1st Recommendation (General Cutting)

**Cutting Conditions**

- **Stable Cutting**: Continuous Cutting, Constant depth of cutting, Pre-machined, Securely clamped component cutting
- **General Cutting**
- ⊕ **Unstable Cutting**: Heavy interrupted cutting, Irregular depth of cutting, Low clamping rigidity cutting

**Cutting Area**

- F** Finish Cutting (ap ≤ 0.5mm)
- S** Light Cutting (ap = 0.5–1.5mm)
- M** Medium Cutting (ap = 1.5–4.0mm)
- G** Semi-heavy Cutting (ap = 4.0–7.0mm)

## Cutting Performance

### Wear Resistance

Continuous high speed cutting of alloy steel

**UE6105** has excellent wear resistance when cutting alloy steel!

<Cutting Conditions>

Insert : CNMG120408-○○○  
 Tool : PCLNL2525M12  
 Cutting Speed : 300m/min  
 Feed : 0.3mm/rev  
 Depth of cut : 1.5mm  
 Coolant : Dry cutting  
 External continuous cutting  
 ○○○ indicates chipbreaker.

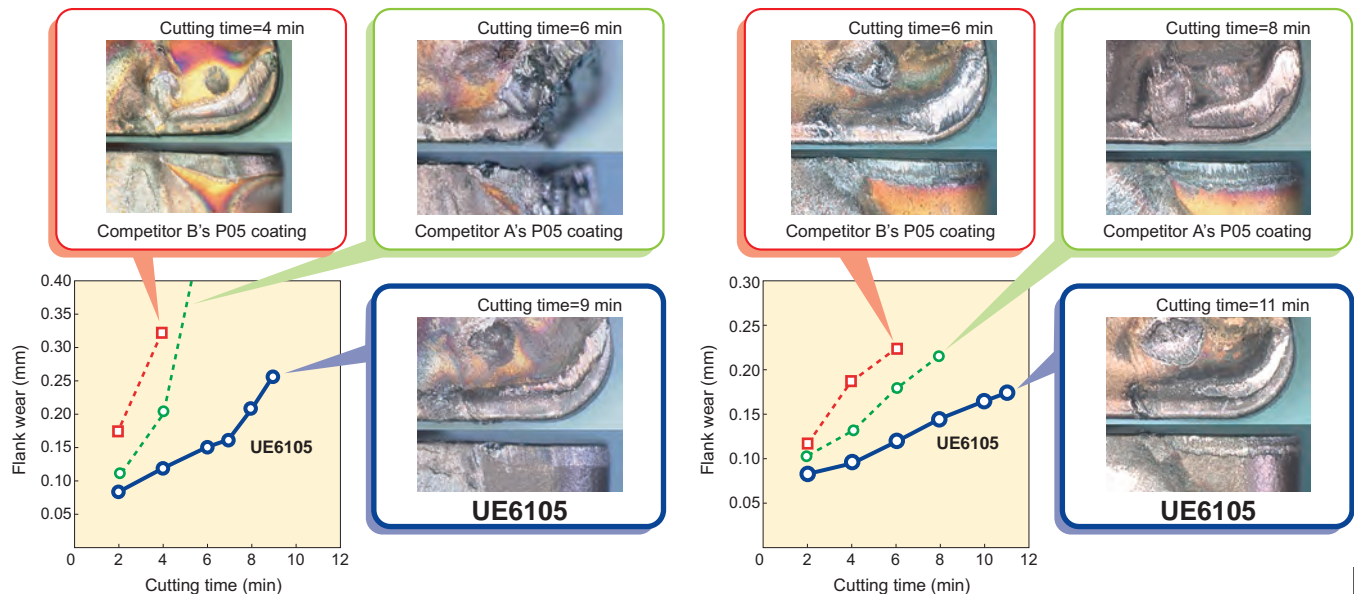
### Wear Resistance

Continuous high speed cutting of alloy steel

**UE6105** has excellent wear resistance when cutting alloy steel!


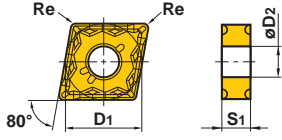

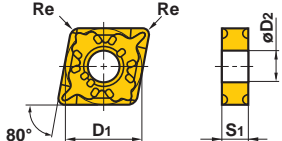

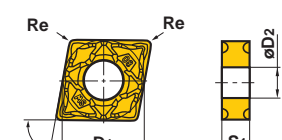

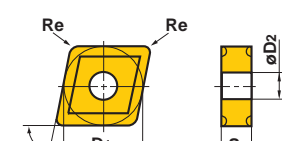

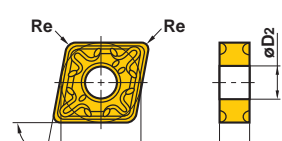

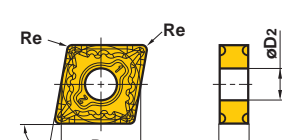

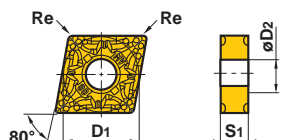
<Cutting Conditions>


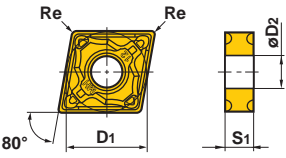

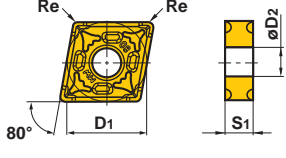

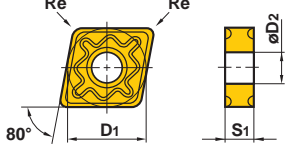

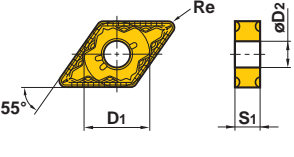

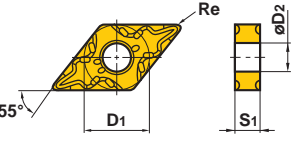

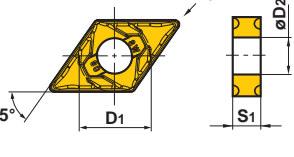
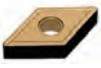
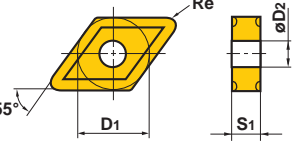
Insert : CNMG120408-○○○  
 Tool : PCLNL2525M12  
 Cutting speed : 350m/min  
 Feed : 0.3mm/rev  
 Depth of cut : 1.5mm  
 Coolant : Wet cutting  
 External continuous cutting  
 ○○○ indicates chipbreaker.



## Inserts


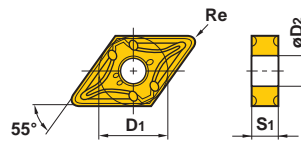

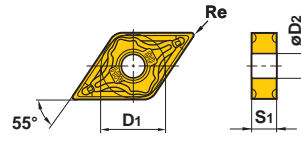

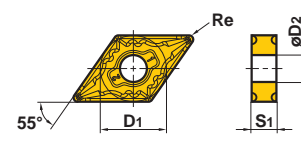

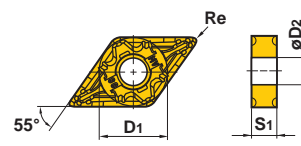

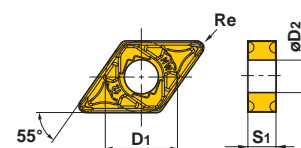

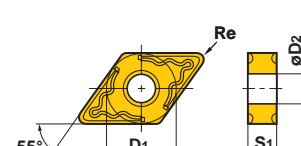

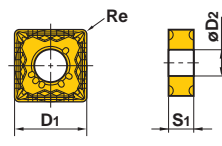
### ● Negative Inserts (With hole)


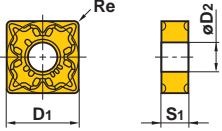

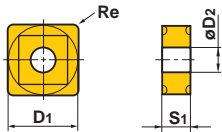

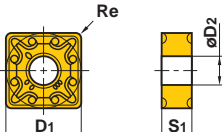

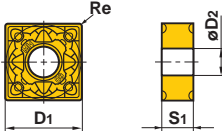

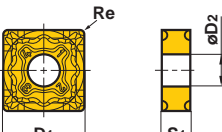

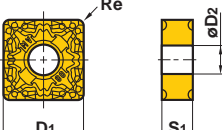

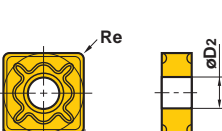
Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>SA</b> Breaker  Light Cutting	<b>CNMG120404-SA</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-SA</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-SA</b>	●	12.7	4.76	1.2	5.16	
<b>SH</b> Breaker  Light Cutting	<b>CNMG120404-SH</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-SH</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-SH</b>	●	12.7	4.76	1.2	5.16	
<b>SW</b> Breaker  Light Cutting (Wiper)	<b>CNMG120404-SW</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-SW</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-SW</b>	●	12.7	4.76	1.2	5.16	
<b>Standard</b> Breaker  Medium Cutting	<b>CNMG120404</b>	●	12.7	4.76	0.4	5.16	
	<b>120408</b>	●	12.7	4.76	0.8	5.16	
	<b>120412</b>	●	12.7	4.76	1.2	5.16	
	<b>120416</b>	●	12.7	4.76	1.6	5.16	
	<b>160608</b>	●	15.875	6.35	0.8	6.35	
	<b>160612</b>	●	15.875	6.35	1.2	6.35	
	<b>160616</b>	●	15.875	6.35	1.6	6.35	
	<b>190608</b>	●	19.05	6.35	0.8	7.93	
	<b>190612</b>	●	19.05	6.35	1.2	7.93	
<b>190616</b>	●	19.05	6.35	1.6	7.93		
<b>MA</b> Breaker  Medium Cutting	<b>CNMG120404-MA</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MA</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MA</b>	●	12.7	4.76	1.2	5.16	
	<b>120416-MA</b>	●	12.7	4.76	1.6	5.16	
	<b>160608-MA</b>	●	15.875	6.35	0.8	6.35	
	<b>160612-MA</b>	●	15.875	6.35	1.2	6.35	
	<b>160616-MA</b>	●	15.875	6.35	1.6	6.35	
<b>190612-MA</b>	●	19.05	6.35	1.2	7.93		
<b>MP</b> Breaker  Medium Cutting	<b>CNMG120404-MP</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MP</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MP</b>	●	12.7	4.76	1.2	5.16	
	<b>120416-MP</b>	●	12.7	4.76	1.6	5.16	
	<b>160608-MP</b>	●	15.875	6.35	0.8	6.35	
	<b>160612-MP</b>	●	15.875	6.35	1.2	6.35	
<b>160616-MP</b>	●	15.875	6.35	1.6	6.35		
<b>MV</b> Breaker  Medium Cutting	<b>CNMG120404-MV</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MV</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MV</b>	●	12.7	4.76	1.2	5.16	
	<b>120416-MV</b>	●	12.7	4.76	1.6	5.16	

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>MH</b> Breaker    Medium Cutting	<b>CNMG120404-MH</b>	●	12.7	4.76	0.4	5.16	
	120408-MH	●	12.7	4.76	0.8	5.16	
	120412-MH	●	12.7	4.76	1.2	5.16	
	120416-MH	●	12.7	4.76	1.6	5.16	
	160608-MH	●	15.875	6.35	0.8	6.35	
	160612-MH	●	15.875	6.35	1.2	6.35	
	160616-MH	●	15.875	6.35	1.6	6.35	
	190612-MH	●	19.05	6.35	1.2	7.93	
	190616-MH	●	19.05	6.35	1.6	7.93	
<b>MW</b> Breaker    Medium Cutting (Wiper)	<b>CNMG120408-MW</b>	●	12.7	4.76	0.8	5.16	
	120412-MW	●	12.7	4.76	1.2	5.16	
<b>GH</b> Breaker    Semi-Heavy Cutting	<b>CNMG120408-GH</b>	●	12.7	4.76	0.8	5.16	
	120412-GH	●	12.7	4.76	1.2	5.16	
	120416-GH	●	12.7	4.76	1.6	5.16	
	160612-GH	●	15.875	6.35	1.2	6.35	
	160616-GH	●	15.875	6.35	1.6	6.35	
	190612-GH	●	19.05	6.35	1.2	7.93	
<b>SA</b> Breaker    Light Cutting	<b>DNMG150404-SA</b>	●	12.7	4.76	0.4	5.16	
	150408-SA	●	12.7	4.76	0.8	5.16	
	150412-SA	●	12.7	4.76	1.2	5.16	
	150604-SA	●	12.7	6.35	0.4	5.16	
	150608-SA	●	12.7	6.35	0.8	5.16	
	150612-SA	●	12.7	6.35	1.2	5.16	
<b>SH</b> Breaker    Light Cutting	<b>DNMG110404-SH</b>	●	9.525	4.76	0.4	3.81	
	110408-SH	●	9.525	4.76	0.8	3.81	
	150404-SH	●	12.7	4.76	0.4	5.16	
	150408-SH	●	12.7	4.76	0.8	5.16	
	150412-SH	●	12.7	4.76	1.2	5.16	
	150604-SH	●	12.7	6.35	0.4	5.16	
	150608-SH	●	12.7	6.35	0.8	5.16	
	150612-SH	●	12.7	6.35	1.2	5.16	
<b>SW</b> Breaker    Light Cutting (Wiper)	<b>NEW DNMX110404-SW</b>	●	9.525	4.76	0.4	3.81	
	<b>NEW 110408-SW</b>	●	9.525	4.76	0.8	3.81	
	150404-SW	●	12.7	4.76	0.4	5.16	
	150408-SW	●	12.7	4.76	0.8	5.16	
	150412-SW	●	12.7	4.76	1.2	5.16	
	150604-SW	●	12.7	6.35	0.4	5.16	
	150608-SW	●	12.7	6.35	0.8	5.16	
	150612-SW	●	12.7	6.35	1.2	5.16	
<b>Standard</b> Breaker    Medium Cutting	<b>DNMG150404</b>	●	12.7	4.76	0.4	5.16	
	150408	●	12.7	4.76	0.8	5.16	
	150412	●	12.7	4.76	1.2	5.16	
	150604	●	12.7	6.35	0.4	5.16	
	150608	●	12.7	6.35	0.8	5.16	
	150612	●	12.7	6.35	1.2	5.16	

## Inserts


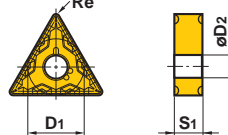

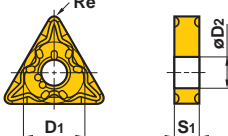

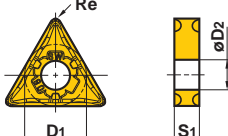

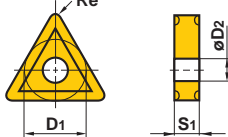

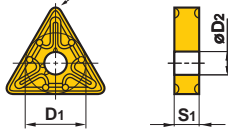

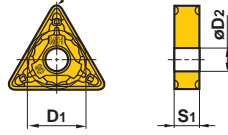

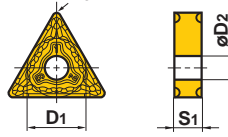

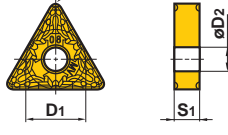
### ● Negative Inserts (With hole)


Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>MA</b> Breaker    Medium Cutting	<b>DNMG110404-MA</b>	●	9.525	4.76	0.4	3.81	
	<b>110408-MA</b>	●	9.525	4.76	0.8	3.81	
	<b>110412-MA</b>	●	9.525	4.76	1.2	3.81	
	<b>150404-MA</b>	●	12.7	4.76	0.4	5.16	
	<b>150408-MA</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-MA</b>	●	12.7	4.76	1.2	5.16	
	<b>150604-MA</b>	●	12.7	6.35	0.4	5.16	
	<b>150608-MA</b>	●	12.7	6.35	0.8	5.16	
	<b>150612-MA</b>	●	12.7	6.35	1.2	5.16	
<b>MH</b> Breaker    Medium Cutting	<b>DNMG150404-MH</b>	●	12.7	4.76	0.4	5.16	
	<b>150408-MH</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-MH</b>	●	12.7	4.76	1.2	5.16	
	<b>150604-MH</b>	●	12.7	6.35	0.4	5.16	
	<b>150608-MH</b>	●	12.7	6.35	0.8	5.16	
<b>MP</b> Breaker    Medium Cutting	<b>DNMG150404-MP</b>	●	12.7	4.76	0.4	5.16	
	<b>150408-MP</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-MP</b>	●	12.7	4.76	1.2	5.16	
	<b>150416-MP</b>	★	12.7	4.76	1.6	5.16	
	<b>150604-MP</b>	●	12.7	6.35	0.4	5.16	
	<b>150608-MP</b>	●	12.7	6.35	0.8	5.16	
	<b>150612-MP</b>	●	12.7	6.35	1.2	5.16	
<b>MV</b> Breaker    Medium Cutting	<b>DNMG150404-MV</b>	●	12.7	4.76	0.4	5.16	
	<b>150408-MV</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-MV</b>	●	12.7	4.76	1.2	5.16	
	<b>150604-MV</b>	●	12.7	6.35	0.4	5.16	
	<b>150608-MV</b>	●	12.7	6.35	0.8	5.16	
<b>MW</b> Breaker    Medium Cutting (Wiper)	<b>DNMX150408-MW</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-MW</b>	●	12.7	4.76	1.2	5.16	
	<b>150608-MW</b>	●	12.7	6.35	0.8	5.16	
	<b>150612-MW</b>	●	12.7	6.35	1.2	5.16	
<b>GH</b> Breaker    Semi-Heavy Cutting	<b>DNMG150408-GH</b>	●	12.7	4.76	0.8	5.16	
	<b>150412-GH</b>	●	12.7	4.76	1.2	5.16	
	<b>150608-GH</b>	●	12.7	6.35	0.8	5.16	
	<b>150612-GH</b>	●	12.7	6.35	1.2	5.16	
<b>SA</b> Breaker    Light Cutting	<b>SNMG120408-SA</b>	●	12.7	4.76	0.8	5.16	

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>SH</b> Breaker  Light Cutting	<b>SNMG120408-SH</b>	●	12.7	4.76	0.8	5.16	
<b>Standard</b> Breaker  Medium Cutting	<b>NEW</b> <b>SNMG090304</b>	★	9.525	3.18	0.4	3.81	
	<b>090308</b>	★	9.525	3.18	0.8	3.81	
	<b>120404</b>	●	12.7	4.76	0.4	5.16	
	<b>120408</b>	●	12.7	4.76	0.8	5.16	
	<b>120412</b>	●	12.7	4.76	1.2	5.16	
	<b>150612</b>	●	15.875	6.35	1.2	6.35	
	<b>190612</b>	●	19.05	6.35	1.2	7.93	
	<b>190616</b>	●	19.05	6.35	1.6	7.93	
<b>MA</b> Breaker  Medium Cutting	<b>SNMG120404-MA</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MA</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MA</b>	●	12.7	4.76	1.2	5.16	
	<b>150608-MA</b>	●	15.875	6.35	0.8	6.35	
	<b>150612-MA</b>	●	15.875	6.35	1.2	6.35	
	<b>190612-MA</b>	●	19.05	6.35	1.2	7.93	
	<b>190616-MA</b>	●	19.05	6.35	1.6	7.93	
<b>MH</b> Breaker  Medium Cutting	<b>SNMG120408-MH</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MH</b>	●	12.7	4.76	1.2	5.16	
	<b>190612-MH</b>	●	19.05	6.35	1.2	7.93	
	<b>190616-MH</b>	●	19.05	6.35	1.6	7.93	
<b>MP</b> Breaker  Medium Cutting	<b>SNMG120404-MP</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MP</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MP</b>	●	12.7	4.76	1.2	5.16	
<b>MV</b> Breaker  Medium Cutting	<b>SNMG120404-MV</b>	●	12.7	4.76	0.4	5.16	
	<b>120408-MV</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-MV</b>	●	12.7	4.76	1.2	5.16	
<b>GH</b> Breaker  Semi-Heavy Cutting	<b>SNMG120408-GH</b>	●	12.7	4.76	0.8	5.16	
	<b>120412-GH</b>	●	12.7	4.76	1.2	5.16	
	<b>120416-GH</b>	●	12.7	4.76	1.6	5.16	
	<b>150612-GH</b>	●	15.875	6.35	1.2	6.35	
	<b>190612-GH</b>	●	19.05	6.35	1.2	7.93	
	<b>190616-GH</b>	●	19.05	6.35	1.6	7.93	

## Inserts


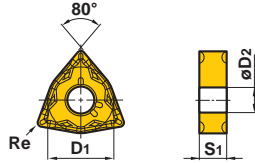

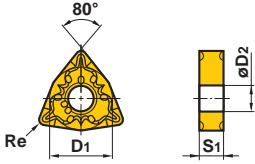

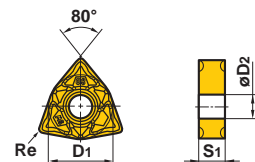

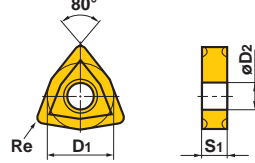

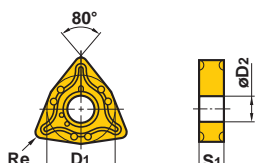

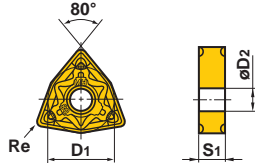

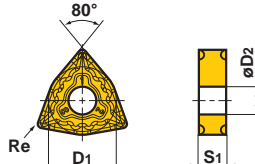
### ● Negative Inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>SA</b> Breaker 	<b>TNMG160404-SA</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-SA</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-SA</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-SA</b>	●	12.7	4.76	0.8	5.16	
Light Cutting							
<b>SH</b> Breaker 	<b>TNMG160404-SH</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-SH</b>	●	9.525	4.76	0.8	3.81	
	<b>220408-SH</b>	●	12.7	4.76	0.8	5.16	
Light Cutting							
<b>SW</b> Breaker 	<b>TNMX160404-SW</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-SW</b>	●	9.525	4.76	0.8	3.81	
Light Cutting (Wiper)							
<b>Standard</b> Breaker 	<b>TNMG160404</b>	●	9.525	4.76	0.4	3.81	
	<b>160408</b>	●	9.525	4.76	0.8	3.81	
	<b>160412</b>	●	9.525	4.76	1.2	3.81	
	<b>220404</b>	●	12.7	4.76	0.4	5.16	
	<b>220408</b>	●	12.7	4.76	0.8	5.16	
	<b>220412</b>	●	12.7	4.76	1.2	5.16	
Medium Cutting							
<b>MA</b> Breaker 	<b>TNMG160404-MA</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MA</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MA</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-MA</b>	●	12.7	4.76	0.8	5.16	
	<b>220412-MA</b>	●	12.7	4.76	1.2	5.16	
	<b>270608-MA</b>	●	15.875	6.35	0.8	6.35	
Medium Cutting							
<b>MH</b> Breaker 	<b>TNMG160404-MH</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MH</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MH</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-MH</b>	●	12.7	4.76	0.8	5.16	
	<b>220412-MH</b>	●	12.7	4.76	1.2	5.16	
Medium Cutting							
<b>MP</b> Breaker 	<b>TNMG160404-MP</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MP</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MP</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-MP</b>	●	12.7	4.76	0.8	5.16	
	<b>220412-MP</b>	●	12.7	4.76	1.2	5.16	
Medium Cutting							
<b>MV</b> Breaker 	<b>TNMG160404-MV</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MV</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MV</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-MV</b>	●	12.7	4.76	0.8	5.16	
Medium Cutting							


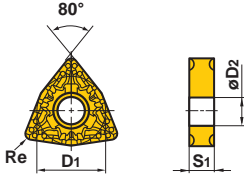

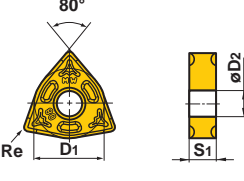

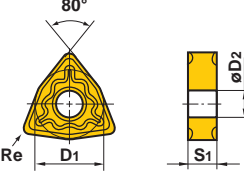
Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>MW</b> Breaker  Medium Cutting (Wiper)	<b>TNMX160408-MW</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MW</b>	●	9.525	4.76	1.2	3.81	
<b>GH</b> Breaker  Semi-Heavy Cutting	<b>TNMG160408-GH</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-GH</b>	●	9.525	4.76	1.2	3.81	
	<b>220408-GH</b>	●	12.7	4.76	0.8	5.16	
	<b>220412-GH</b>	●	12.7	4.76	1.2	5.16	
	<b>220416-GH</b>	●	12.7	4.76	1.6	5.16	
	<b>270612-GH</b>	●	15.875	6.35	1.2	6.35	
<b>SH</b> Breaker  Light Cutting	<b>VNMG160404-SH</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-SH</b>	●	9.525	4.76	0.8	3.81	
<b>Standard</b> Breaker  Medium Cutting	<b>VNMG160404</b>	●	9.525	4.76	0.4	3.81	
	<b>160408</b>	●	9.525	4.76	0.8	3.81	
	<b>160412</b>	●	9.525	4.76	1.2	3.81	
<b>MA</b> Breaker  Medium Cutting	<b>VNMG160404-MA</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MA</b>	●	9.525	4.76	0.8	3.81	
<b>MH</b> Breaker  Medium Cutting	<b>VNMG160404-MH</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MH</b>	●	9.525	4.76	0.8	3.81	
<b>MP</b> Breaker  Medium Cutting	<b>VNMG160404-MP</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MP</b>	●	9.525	4.76	0.8	3.81	
	<b>160412-MP</b>	★	9.525	4.76	1.2	3.81	
<b>MV</b> Breaker  Medium Cutting	<b>VNMG160404-MV</b>	●	9.525	4.76	0.4	3.81	
	<b>160408-MV</b>	●	9.525	4.76	0.8	3.81	

## Inserts


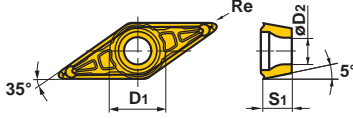
### ● Negative Inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
SA Breaker 	WNUMG080404-SA	●	12.7	4.76	0.4	3.81	
	080408-SA	●	12.7	4.76	0.8	3.81	
	080412-SA	●	12.7	4.76	1.2	3.81	
Light Cutting							
SH Breaker 	WNUMG06T304-SH	●	9.525	3.97	0.4	3.81	
	06T308-SH	●	9.525	3.97	0.8	3.81	
	060404-SH	●	9.525	4.76	0.4	3.81	
	060408-SH	●	9.525	4.76	0.8	3.81	
	080404-SH	●	12.7	4.76	0.4	5.16	
	080408-SH	●	12.7	4.76	0.8	5.16	
Light Cutting	080412-SH	●	12.7	4.76	1.2	5.16	
SW Breaker 	WNUMG060404-SW	●	9.525	4.76	0.4	3.81	
	060408-SW	●	9.525	4.76	0.8	3.81	
	080404-SW	●	12.7	4.76	0.4	5.16	
	080408-SW	●	12.7	4.76	0.8	5.16	
	Light Cutting (Wiper)	080412-SW	●	12.7	4.76	1.2	
Standard Breaker 	WNUMG080404	●	12.7	4.76	0.4	5.16	
	080408	●	12.7	4.76	0.8	5.16	
	080412	●	12.7	4.76	1.2	5.16	
Medium Cutting							
MA Breaker 	WNUMG06T304-MA	●	9.525	3.97	0.4	3.81	
	06T308-MA	●	9.525	3.97	0.8	3.81	
	06T312-MA	●	9.525	3.97	1.2	3.81	
	060404-MA	●	9.525	4.76	0.4	3.81	
	060408-MA	●	9.525	4.76	0.8	3.81	
	060412-MA	●	9.525	4.76	1.2	3.81	
	080404-MA	●	12.7	4.76	0.4	5.16	
	080408-MA	●	12.7	4.76	0.8	5.16	
	080412-MA	●	12.7	4.76	1.2	5.16	
Medium Cutting	080416-MA	●	12.7	4.76	1.6	5.16	
MH Breaker 	WNUMG080404-MH	●	12.7	4.76	0.4	5.16	
	080408-MH	●	12.7	4.76	0.8	5.16	
	080412-MH	●	12.7	4.76	1.2	5.16	
Medium Cutting							
MP Breaker 	WNUMG06T304-MP	●	9.525	3.97	0.4	3.81	
	06T308-MP	●	9.525	3.97	0.8	3.81	
	06T312-MP	●	9.525	3.97	1.2	3.81	
	060404-MP	●	9.525	4.76	0.4	3.81	
	060408-MP	●	9.525	4.76	0.8	3.81	
	060412-MP	●	9.525	4.76	1.2	3.81	
	080404-MP	●	12.7	4.76	0.4	5.16	
	080408-MP	●	12.7	4.76	0.8	5.16	
	080412-MP	●	12.7	4.76	1.2	5.16	
Medium Cutting	080416-MP	●	12.7	4.76	1.6	5.16	

● : Inventory maintained.

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>MV</b> Breaker    Medium Cutting	<b>WNMG06T304-MV</b>	●	9.525	3.97	0.4	3.81	
	<b>06T308-MV</b>	●	9.525	3.97	0.8	3.81	
	<b>06T312-MV</b>	●	9.525	3.97	1.2	3.81	
	<b>060404-MV</b>	●	9.525	4.76	0.4	3.81	
	<b>060408-MV</b>	●	9.525	4.76	0.8	3.81	
	<b>060412-MV</b>	●	9.525	4.76	1.2	3.81	
	<b>080404-MV</b>	●	12.7	4.76	0.4	5.16	
	<b>080408-MV</b>	●	12.7	4.76	0.8	5.16	
	<b>080412-MV</b>	●	12.7	4.76	1.2	5.16	
<b>MW</b> Breaker    Medium Cutting (Wiper)	<b>WNMG060408-MW</b>	●	9.525	4.76	0.8	3.81	
	<b>060412-MW</b>	●	9.525	4.76	1.2	3.81	
	<b>080408-MW</b>	●	12.7	4.76	0.8	5.16	
	<b>080412-MW</b>	●	12.7	4.76	1.2	5.16	
<b>GH</b> Breaker    Semi-Heavy Cutting	<b>WNMG080408-GH</b>	●	12.7	4.76	0.8	5.16	
	<b>080412-GH</b>	●	12.7	4.76	1.2	5.16	


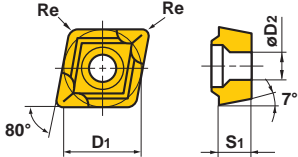

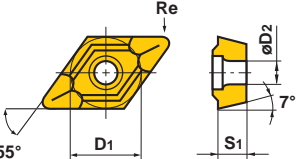

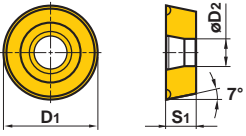

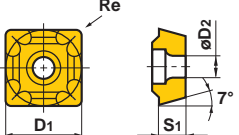

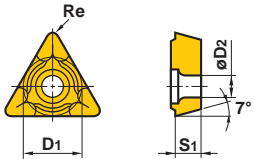

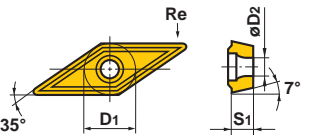
### ● 5° Positive Inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>MV</b> Breaker    Medium Cutting	<b>VBMT160404-MV</b>	●	9.525	4.76	0.4	4.4	
	<b>160408-MV</b>	●	9.525	4.76	0.8	4.4	

# New CVD Coated Grade for High Speed Steel Turning

## Inserts

### ● 7° Positive Inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>CCMT060204</b>	●	6.35	2.38	0.4	2.8	
	<b>09T304</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308</b>	●	9.525	3.97	0.8	4.4	
	<b>120404</b>	●	12.7	4.76	0.4	5.5	
	<b>120408</b>	●	12.7	4.76	0.8	5.5	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>DCMT070204</b>	●	6.35	2.38	0.4	2.8	
	<b>11T304</b>	●	9.525	3.97	0.4	4.4	
	<b>11T308</b>	●	9.525	3.97	0.8	4.4	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>RCMX1204M0</b>	●	12	4.76	—	4.2	
	<b>1606M0</b>	●	16	6.35	—	5.2	
	<b>2006M0</b>	●	20	6.35	—	6.5	
	<b>2507M0</b>	●	25	7.94	—	7.2	
	<b>3209M0</b>	●	32	9.52	—	9.5	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>SCMT09T304</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308</b>	●	9.525	3.97	0.8	4.4	
	<b>120404</b>	●	12.7	4.76	0.4	5.5	
	<b>120408</b>	●	12.7	4.76	0.8	5.5	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>TCMT110204</b>	●	6.35	2.38	0.4	2.8	
	<b>110208</b>	●	6.35	2.38	0.8	2.8	
	<b>16T304</b>	●	9.525	3.97	0.4	4.4	
	<b>16T308</b>	●	9.525	3.97	0.8	4.4	
<b>NEW</b> Standard Breaker  Medium Cutting	<b>VCMT160404</b>	●	9.525	4.76	0.4	4.4	
	<b>160408</b>	●	9.525	4.76	0.8	4.4	

● : Inventory maintained.

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