

New CVD Coated Grade for High Speed Steel Turning

Expanded
Inserts

UE6105

Leading edge technology for high efficiency steel turning

■ 2 in 1 technology ensures longer tool life.



2
IN **>** **1**
TECHNOLOGY

New CVD Coated Grade for High Speed Steel Turning

UE6105

Features

Superior machining performance achieved using 2 in 1 technology

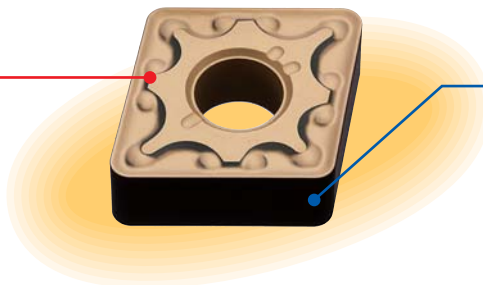
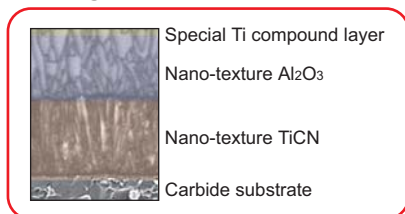
High Crater Wear Resistance

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 Al₂O₃.

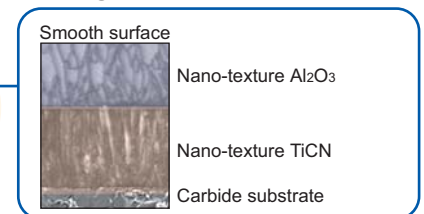
High Flank Wear Resistance

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 Al₂O₃

High speed and high efficiency machining can be achieved due to the thickened Al₂O₃ 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 Al₂O₃ structure

Conventional Al₂O₃

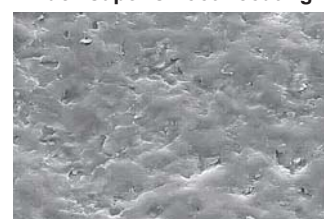
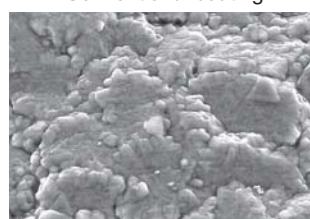
Nano-texture Al₂O₃



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	NEW UE6105
P10	UE6110
P20	UE6020
P30	UE6035
P40	UE6035

Recommended Cutting Conditions			
Work Material	Hardness	Cutting Mode	Recommended Cutting Speed (m/min)
Mild steel	≤180HB	General Cutting	400 (270–500)
Carbon steel Alloy steel	≥180HB	General Cutting	300 (200–380)

Negative Inserts

Workpiece **P** Mild Steel

Negative Inserts

Workpiece **P** Carbon Steel Alloy Steel

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.

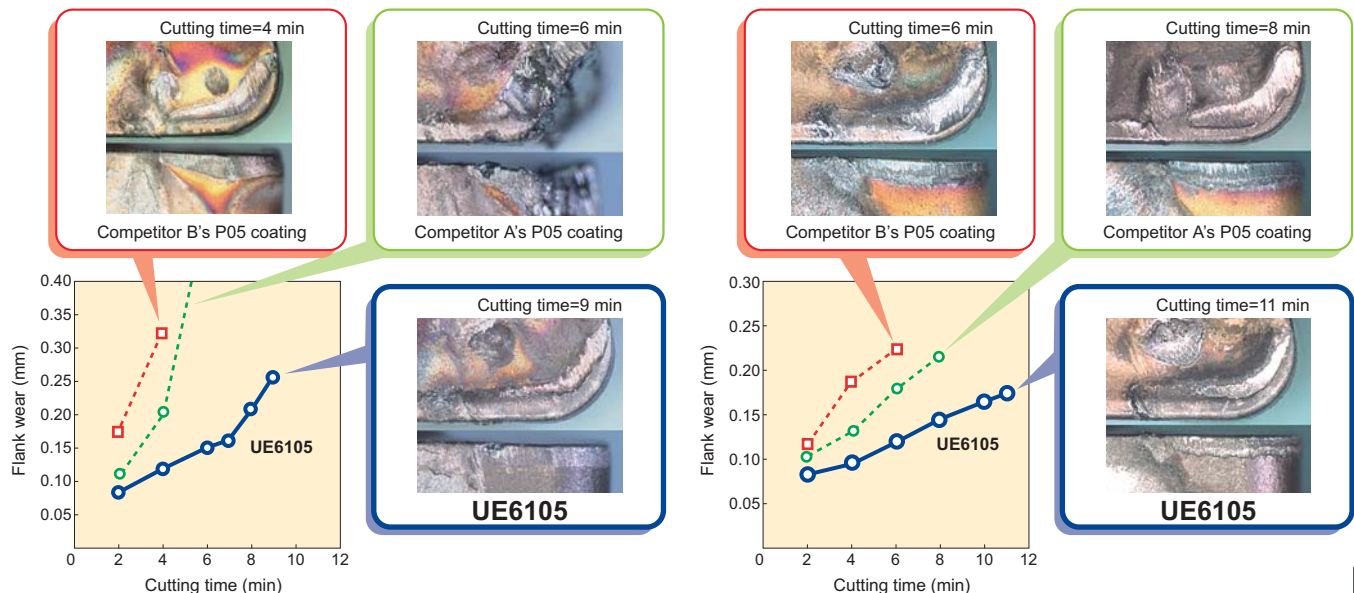
Wear Resistance

Continuous high speed cutting of alloy steel

UE6105 has excellent wear resistance when cutting alloy steel!


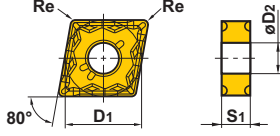

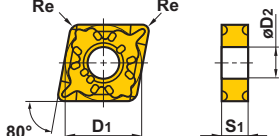

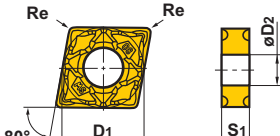

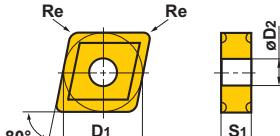

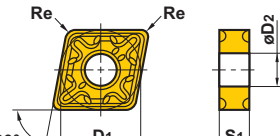

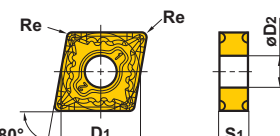

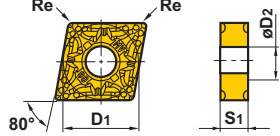
<Cutting Conditions>


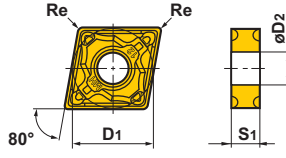

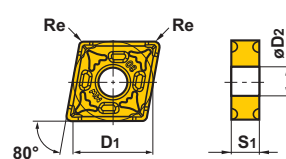

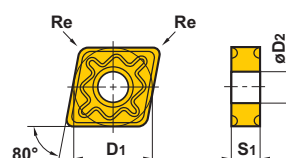

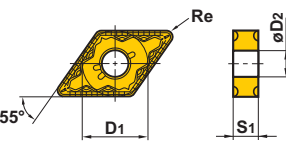

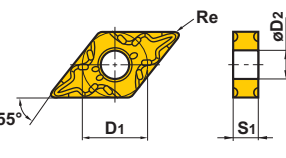

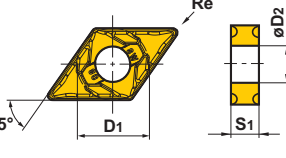

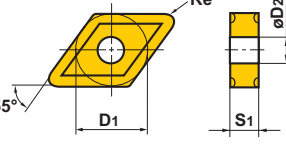
Insert : CNMG120408-○○○
Tool : PCLNL2525M12
Cutting speed : 350m/min
Feed : 0.3mm/rev
Depth of cut : 1.5mm
Coolant : Wet cutting
External continuous cutting ○○○ indicates chipbreaker.



Inserts


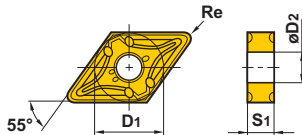

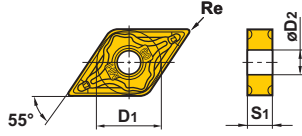

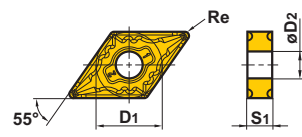

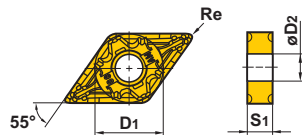

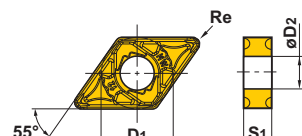

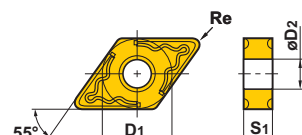

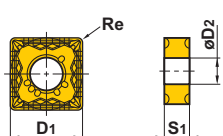
● Negative Inserts (With hole)


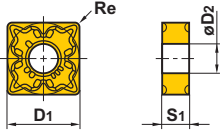

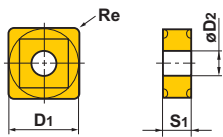

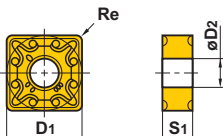

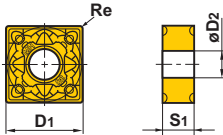

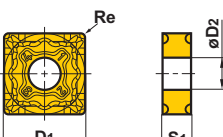


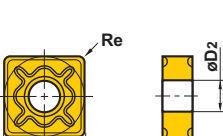
Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D ₁	S ₁	Re	D ₂	
SA Breaker 	CNMG120404-SA	●	12.7	4.76	0.4	5.16	
	120408-SA	●	12.7	4.76	0.8	5.16	
	120412-SA	●	12.7	4.76	1.2	5.16	
Light Cutting							
SH Breaker 	CNMG120404-SH	●	12.7	4.76	0.4	5.16	
	120408-SH	●	12.7	4.76	0.8	5.16	
	120412-SH	●	12.7	4.76	1.2	5.16	
Light Cutting							
SW Breaker 	CNMG120404-SW	●	12.7	4.76	0.4	5.16	
	120408-SW	●	12.7	4.76	0.8	5.16	
	120412-SW	●	12.7	4.76	1.2	5.16	
Light Cutting (Wiper)							
Standard Breaker 	CNMG120404	●	12.7	4.76	0.4	5.16	
	120408	●	12.7	4.76	0.8	5.16	
	120412	●	12.7	4.76	1.2	5.16	
	120416	●	12.7	4.76	1.6	5.16	
	160608	●	15.875	6.35	0.8	6.35	
	160612	●	15.875	6.35	1.2	6.35	
	160616	●	15.875	6.35	1.6	6.35	
	190608	●	19.05	6.35	0.8	7.93	
	190612	●	19.05	6.35	1.2	7.93	
190616	●	19.05	6.35	1.6	7.93		
Medium Cutting							
MA Breaker 	CNMG120404-MA	●	12.7	4.76	0.4	5.16	
	120408-MA	●	12.7	4.76	0.8	5.16	
	120412-MA	●	12.7	4.76	1.2	5.16	
	120416-MA	●	12.7	4.76	1.6	5.16	
	160608-MA	●	15.875	6.35	0.8	6.35	
	160612-MA	●	15.875	6.35	1.2	6.35	
	160616-MA	●	15.875	6.35	1.6	6.35	
190612-MA	●	19.05	6.35	1.2	7.93		
Medium Cutting							
MP Breaker 	CNMG120404-MP	●	12.7	4.76	0.4	5.16	
	120408-MP	●	12.7	4.76	0.8	5.16	
	120412-MP	●	12.7	4.76	1.2	5.16	
	120416-MP	●	12.7	4.76	1.6	5.16	
	160608-MP	●	15.875	6.35	0.8	6.35	
	160612-MP	●	15.875	6.35	1.2	6.35	
160616-MP	●	15.875	6.35	1.6	6.35		
Medium Cutting							
MV Breaker 	CNMG120404-MV	●	12.7	4.76	0.4	5.16	
	120408-MV	●	12.7	4.76	0.8	5.16	
	120412-MV	●	12.7	4.76	1.2	5.16	
	120416-MV	●	12.7	4.76	1.6	5.16	
Medium Cutting							

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
MH Breaker  Medium Cutting	CNMG120404-MH	●	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	
MW Breaker  Medium Cutting (Wiper)	CNMG120408-MW	●	12.7	4.76	0.8	5.16	
	120412-MW	●	12.7	4.76	1.2	5.16	
GH Breaker  Semi-Heavy Cutting	CNMG120408-GH	●	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	
SA Breaker  Light Cutting	DNMG150404-SA	●	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	
SH Breaker  Light Cutting	DNMG110404-SH	●	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	
SW Breaker  Light Cutting (Wiper)	NEW DNMX110404-SW	●	9.525	4.76	0.4	3.81	
	NEW 110408-SW	●	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	
Standard Breaker  Medium Cutting	DNMG150404	●	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


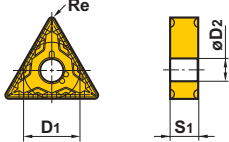

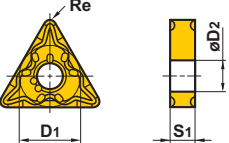

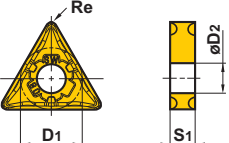

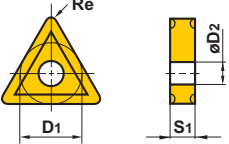

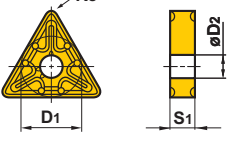

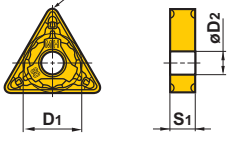

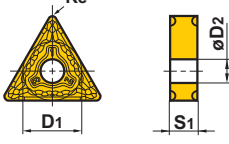

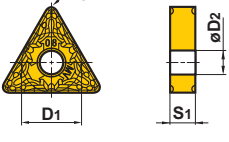
● Negative Inserts (With hole)

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

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

Inserts


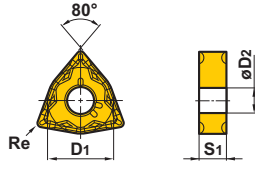

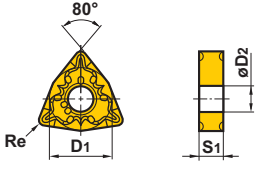

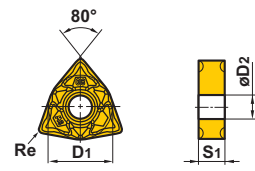

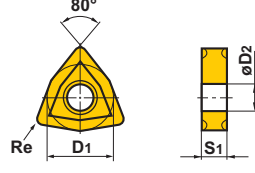

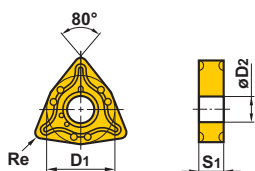

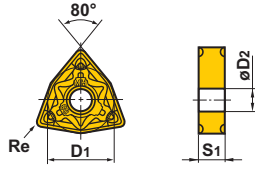

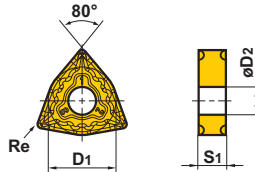
● Negative Inserts (With hole)


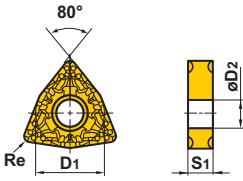

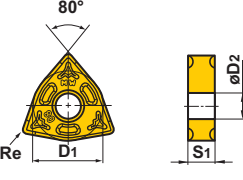

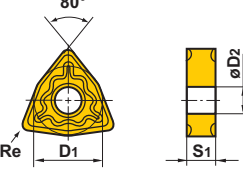
Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
SA Breaker 	TNMG160404-SA	●	9.525	4.76	0.4	3.81	
	160408-SA	●	9.525	4.76	0.8	3.81	
	160412-SA	●	9.525	4.76	1.2	3.81	
	220408-SA	●	12.7	4.76	0.8	5.16	
Light Cutting							
SH Breaker 	TNMG160404-SH	●	9.525	4.76	0.4	3.81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

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


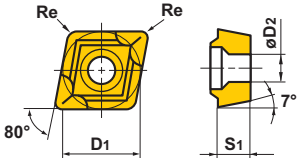

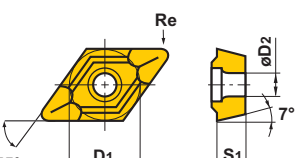

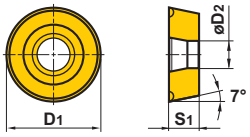

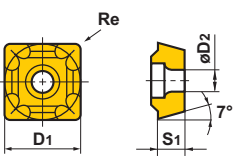
Inserts

● Negative Inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
SA Breaker 	WNMG080404-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 	WNMG06T304-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 	WNMG060404-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 	WNMG080404	●	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 	WNMG06T304-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	
	Medium Cutting	080412-MA	●	12.7	4.76	1.2	
080416-MA	●	12.7	4.76	1.6	5.16		
MH Breaker 	WNMG080404-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 	WNMG06T304-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	
	Medium Cutting	080412-MP	●	12.7	4.76	1.2	
080416-MP	●	12.7	4.76	1.6	5.16		


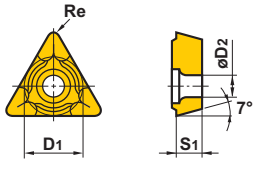

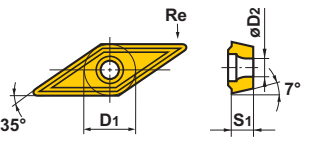
Shape	Order Number	Stock	Dimensions (mm)				Geometry
		<i>UE6105</i>	D1	S1	Re	D2	
MV Breaker  Medium Cutting	WNMG06T304-MV	●	9.525	3.97	0.4	3.81	
	06T308-MV	●	9.525	3.97	0.8	3.81	
	06T312-MV	●	9.525	3.97	1.2	3.81	
	060404-MV	●	9.525	4.76	0.4	3.81	
	060408-MV	●	9.525	4.76	0.8	3.81	
	060412-MV	●	9.525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

● 7° Positive inserts (With hole)

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

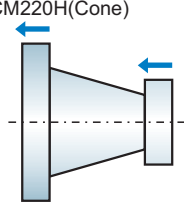

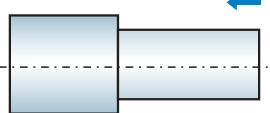
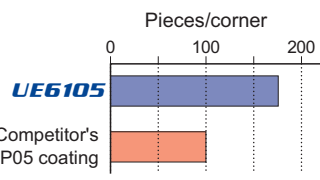
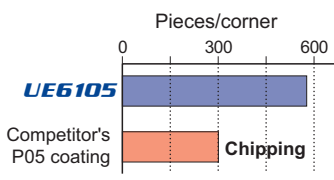
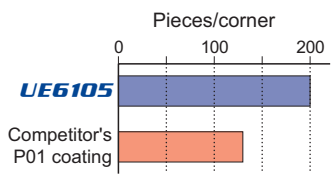
Inserts

● 7° Positive inserts (With hole)

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		UE6105	D1	S1	Re	D2	
 Standard Breaker Medium Cutting	TCMT110204	●	6.35	2.38	0.4	2.8	
	110208	●	6.35	2.38	0.8	2.8	
	16T304	●	9.525	3.97	0.4	4.4	
	16T308	●	9.525	3.97	0.8	4.4	
 Standard Breaker Medium Cutting	VCMT160404	●	9.525	4.76	0.4	4.4	
	160408	●	9.525	4.76	0.8	4.4	

● : Inventory maintained.

Application Examples

Insert	CNMG160612-GH	CNMG120408-SW	WNMG080412-GH	
Work material	JIS SNCM220H(Cone) 	JIS SUJ2(Bar) 	JIS SUM23(Shaft) 	
Cutting conditions	Cutting speed (m/min)	270	400	370
	Feed (mm/rev)	0.5	0.2-0.25	0.4
	Depth of cut (mm)	3.0	1.0-1.5	3.5
Coolant	Wet	Wet	Dry	
Result	 <p>UE6105 shown excellent wear resistance and achieved 1.5 times longer tool life than the competitor grade.</p>	 <p>UE6105 shown excellent chipping resistance and achieved 1.5 times longer tool life than the competitor grade.</p>	 <p>UE6105 shown excellent wear resistance and achieved 1.5 times longer tool life than the competitor grade.</p>	

For Your Safety

- Don't handle inserts and chips without gloves. ● Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ● Please use safety covers and wear safety glasses. ● When using compounded cutting oils, please take fire precautions. ● When attaching inserts or spare parts, please use only the correct wrench or spanner. ● When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

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(Tools specifications subject to change without notice.)