

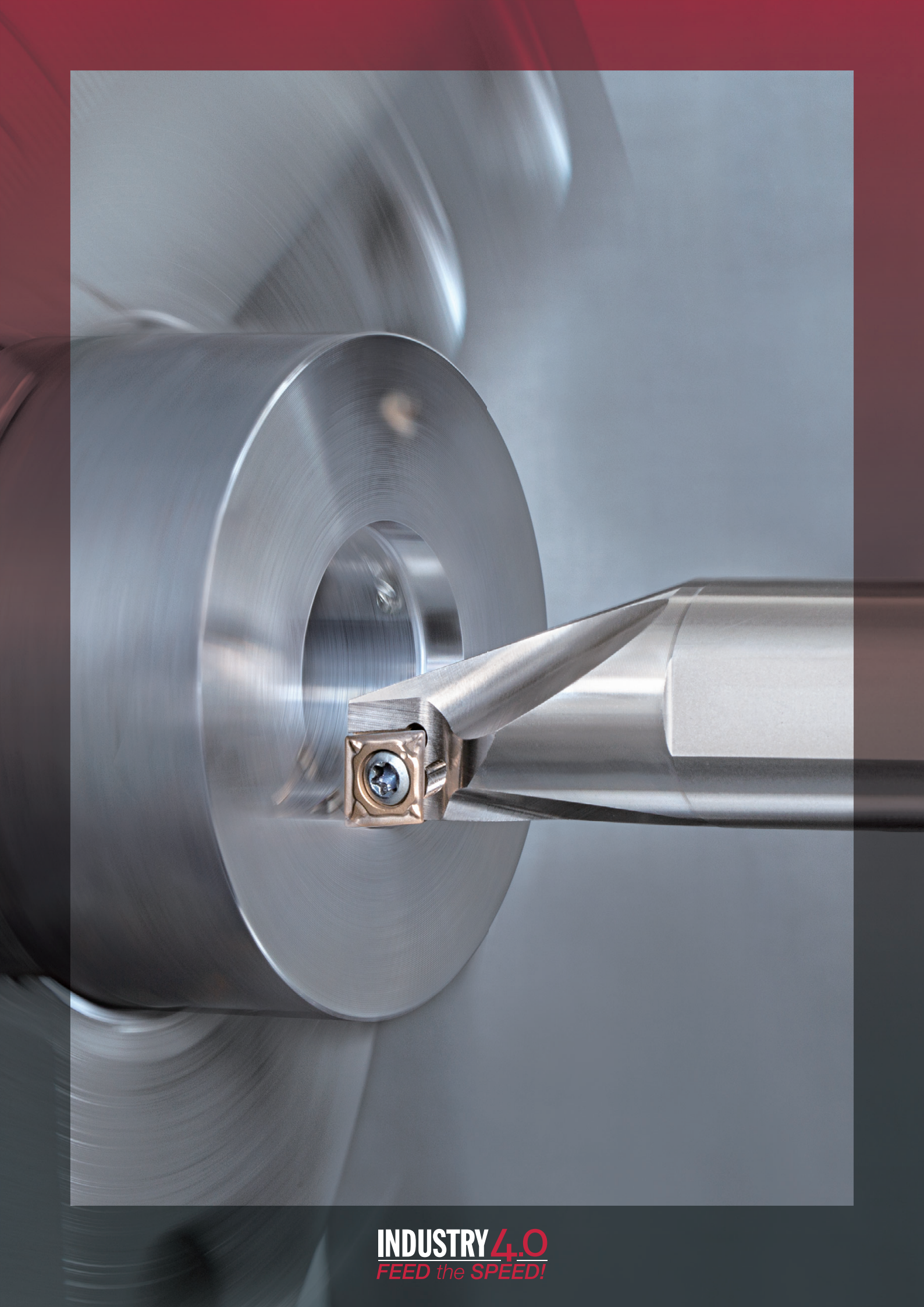
Grades for stainless steel

T6200 & AH6200

Tungaloy Report No. 547-G

Latest grade series for stainless steel turning
with exceptional reliability

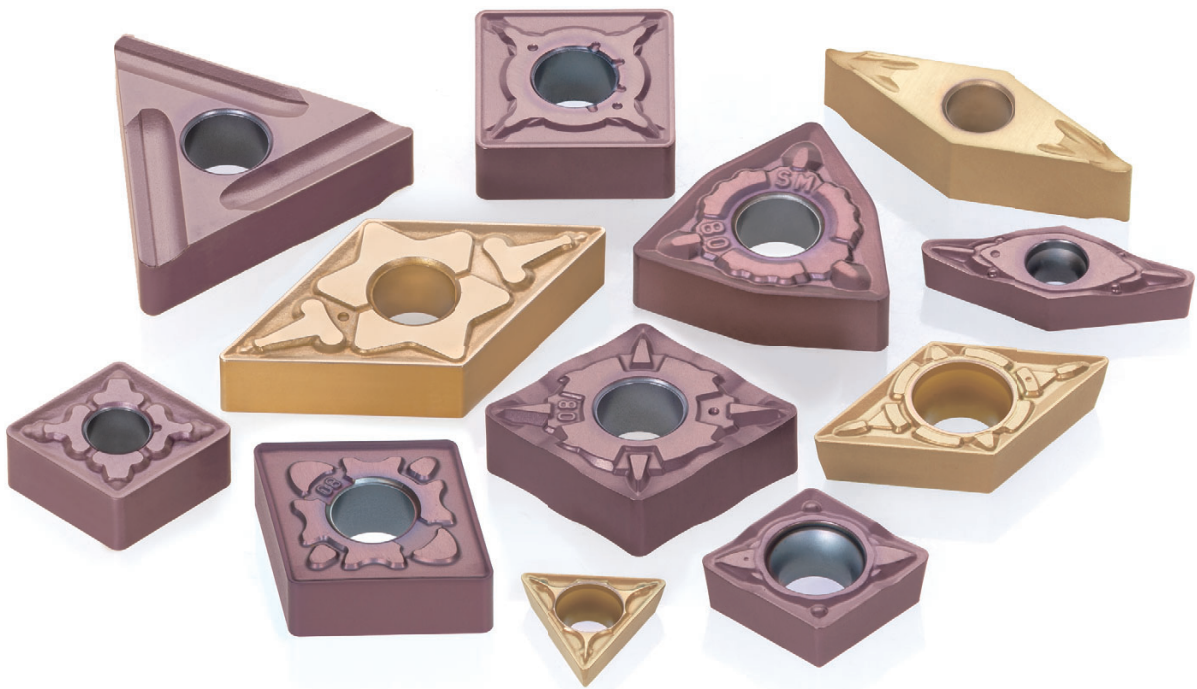




INDUSTRY 4.0
FEED the SPEED!



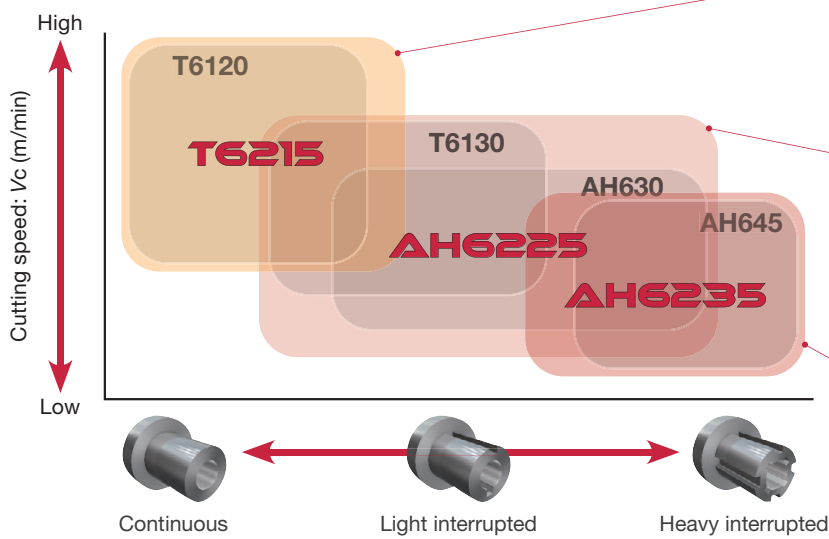
T6200 & AH6200



Latest grade series that **provide solutions for all your machining challenges in stainless steel**

T6200 & AH6200

M Stainless steel



New

T6215



A CVD-coated grade suited for high speed cutting. Demonstrates superior wear resistance during continuous cutting.

AH6225



A first-choice for stainless steel. A versatile PVD grade for excellent performance in a wide range of stainless steel applications.

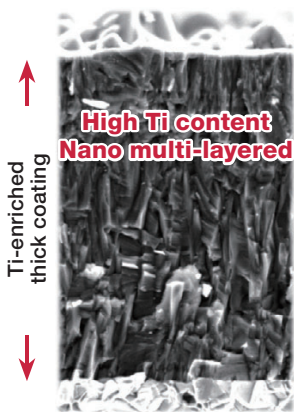
New

AH6235



Provides high reliability during interrupted cuts or at great depths of cut.

AH6200 SERIES



Versatile PVD-coated grade

Ti-enriched coating

- Thick Ti-enriched PVD coating for enhanced thermal shock resistance.
- Reduced crater wear.

High Ti-content nano-structured multilayer coating

The outer layer consists of a high Ti-content nano-structured multilayer made possible by Tungaloy's latest coating technology. Its high hardness and nano structure provides the grade with a good balance of wear and fracture resistance, enhancing tool life and predictability.

Dedicated carbide substrate

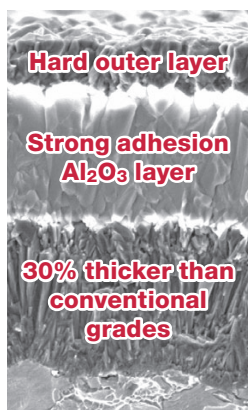
AH6225

Thanks to high thermal conductivity of the substrate, heat generated during machining is dissipated, efficiently reducing temperature on the cutting edge. This provides edge toughness, while reducing plastic deformation of the cutting edge. Ideal for continuous cuts.

AH6235

AH6235 incorporates a tough substrate that provides process security during interrupted machining. This tough substrate provides the grade with added reliability during interrupted cuts.

T6200 SERIES



T6215

Superior wear resistance

Enhanced hardness of outer layer

- Hard outer layer coating significantly reduces flank wear.

Strong adhesion of Al₂O₃ layers

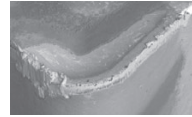
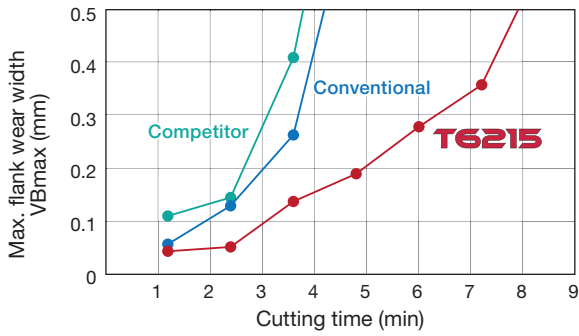
- Tungaloy's latest Al₂O₃ coating technology enhances the grade's adhesion of coating, preventing edge chipping and coating delamination.

Thick coating

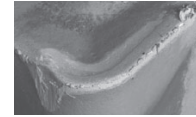
- 30% thicker than conventional grades.
- Provides superior wear resistance and long tool life.

CUTTING PERFORMANCE

M Austenitic stainless steel SUS316L / X2CrNiMo17-12-2



T6215
7.2 min. machining



Conventional
3.6 min. machining

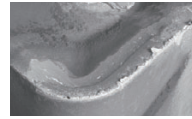
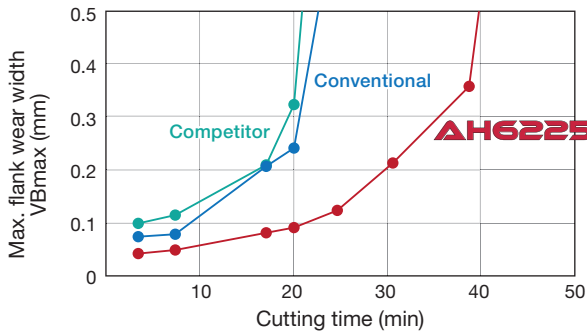


Competitor
3.6 min. machining

Insert : CNMG1204**
Cutting speed : $V_c = 240$ m/min
Feed : $f = 0.3$ mm/rev
Depth of cut : $a_p = 2$ mm
Machining : Continuous cutting
Coolant : Wet

T6215 demonstrated superior wear resistance during high speed turning of austenitic stainless steel.

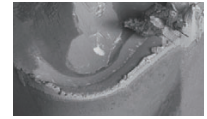
M Austenitic stainless steel SUS316L / X2CrNiMo17-12-2



AH6225
22 min. machining



Conventional
18 min. machining

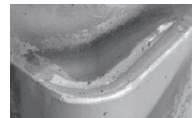
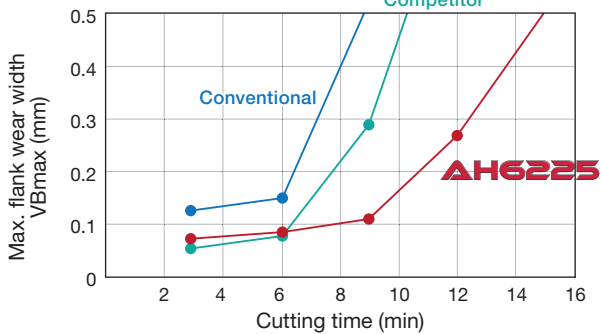


Competitor
18 min. machining

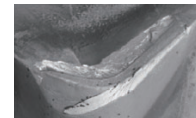
Insert : CNMG1204**
Cutting speed : $V_c = 150$ m/min
Feed : $f = 0.3$ mm/rev
Depth of cut : $a_p = 2$ mm
Machining : Continuous cutting
Coolant : Wet

AH6225 showed excellent wear resistance in austenitic stainless steel machining.

M Martensitic stainless steel SUS420J2 / X30Cr13



AH6225
9 min. machining



Conventional
9 min. machining

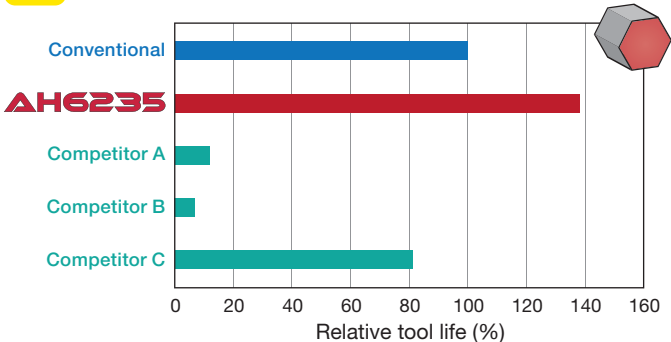


Competitor
9 min. machining

Insert : CNMG1204**
Cutting speed : $V_c = 200$ m/min
Feed : $f = 0.3$ mm/rev
Depth of cut : $a_p = 2$ mm
Machining : Continuous cutting
Coolant : Wet

AH6225 showed excellent wear resistance in martensitic stainless steel machining.

M Austenitic stainless steel SUS316L / X2CrNiMo17-12-2



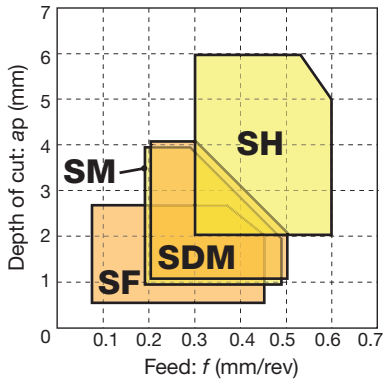
Insert : CNMG1204**
Cutting speed : $V_c = 120$ m/min
Feed : $f = 0.15$ mm/rev
Depth of cut : $a_p = 2$ mm
Machining : Heavy interrupted cutting
Coolant : Wet
Criteria : Breakage

AH6235 provided superior fracture resistance during interrupted cutting of austenitic stainless steel.

T6200 & AH6200

CHIPBREAKERS

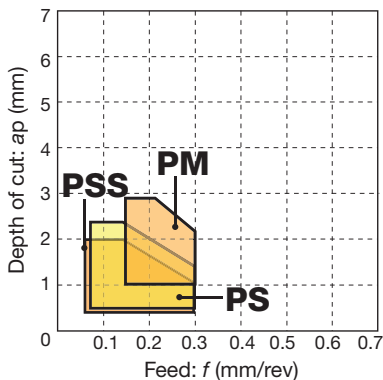
For negative inserts



Chipbreaker	Feature
SF	Demonstrates excellent chip control at high feed rates and light d.o.c. Ideal for finish machining of stainless steel.
SM	First choice for stainless steel turning. Provides light cutting action and good chip control over a wide range of cutting conditions.
New SDM	New chipbreaker that generates low cutting forces. Demonstrates excellent resistance to notch and crater wear.
SH	Strong cutting edge design with high fracture resistance for medium to heavy-duty cutting. Suited for rough machining or interrupted cuts.

ISO	Operation	Chipbreaker	Grade	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	SF	T6215	0.5 - 2.5	0.08 - 0.45	140 - 240	160 - 280	80 - 150
			AH6225	0.5 - 2.5	0.08 - 0.45	90 - 200	110 - 240	60 - 110
			AH6235	0.5 - 2.5	0.08 - 0.45	50 - 150	70 - 170	-
	Medium cutting	SM	T6215	1 - 4	0.2 - 0.5	140 - 240	160 - 280	80 - 150
			AH6225	1 - 4	0.2 - 0.5	90 - 200	110 - 240	60 - 110
			AH6235	1 - 4	0.2 - 0.5	50 - 150	70 - 170	-
		SDM	T6215	1 - 4	0.2 - 0.5	140 - 240	160 - 280	80 - 150
			AH6225	1 - 4	0.2 - 0.5	90 - 200	110 - 240	60 - 110
			AH6235	1 - 4	0.2 - 0.5	50 - 150	70 - 170	-
	Heavy cutting	SH	T6215	2 - 6	0.3 - 0.6	140 - 240	160 - 280	80 - 150
			AH6225	2 - 6	0.3 - 0.6	90 - 200	110 - 240	60 - 110
			AH6235	2 - 6	0.3 - 0.6	50 - 150	70 - 170	-

For positive inserts



Chipbreaker	Feature
PSS	Pressed-to-form 3D chipbreakers designed to provide excellent chip control and low cutting forces in finish to medium cutting.
PS	First choice for finish to medium cutting of stainless steel. Features pressed-to-form 3D chipbreakers and sharp cutting edge for excellent chip control.
PM	Chipbreaker for medium cutting with excellent chip control and process security.

ISO	Operation	Chipbreaker	Grade	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	PSS	T6215	0.3 - 2	0.08 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	0.3 - 2	0.08 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	0.3 - 2	0.08 - 0.3	50 - 150	70 - 170	-
	Finishing to medium cutting	PS	T6215	0.5 - 2.5	0.08 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	0.5 - 2.5	0.08 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	0.5 - 2.5	0.08 - 0.3	50 - 150	70 - 170	-
	Medium cutting	PM	T6215	1 - 3	0.15 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	1 - 3	0.15 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	1 - 3	0.15 - 0.3	50 - 150	70 - 170	-

T6200 & AH6200

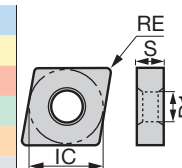
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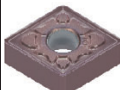
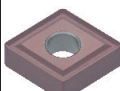
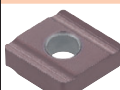
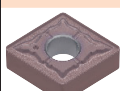

● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

CN

 Rhombic, 80° with hole

Material	P Steel	M Stainless	K Cast iron	N Non-ferrous	S Superalloy	H Hard material	T6215	AH6225	AH6235	Coated
P Steel	●	●	●	●	●	●	●	●	●	●
M Stainless	●	●	●	●	●	●	●	●	●	●
K Cast iron	●	●	●	●	●	●	●	●	●	●
N Non-ferrous	●	●	●	●	●	●	●	●	●	●
S Superalloy	●	●	●	●	●	●	●	●	●	●
H Hard material	●	●	●	●	●	●	●	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Medium cutting		SDM CNMG120404-SDM	●	●	●	0.4	12.7	4.76	5.16
		CNMG120408-SDM	●	●	●	0.8	12.7	4.76	5.16
		CNMG120412-SDM	●	●	●	1.2	12.7	4.76	5.16
		SA CNMG120404-SA	●	●	●	0.4	12.7	4.76	5.16
		CNMG120408-SA	●	●	●	0.8	12.7	4.76	5.16
		CNMG120412-SA	●	●	●	1.2	12.7	4.76	5.16
		S CNMG120404R-S	●	✱		0.4	12.7	4.76	5.16
		CNMG120404L-S	●	●		0.4	12.7	4.76	5.16
		CNMG120408R-S	●	✱		0.8	12.7	4.76	5.16
		CNMG120408L-S	●	●		0.8	12.7	4.76	5.16
	Medium to heavy cutting		TH CNMG120408-TH		✱		0.8	12.7	4.76
CNMG120412-TH				✱		1.2	12.7	4.76	5.16
		SH CNMG120408-SH	●	●		0.8	12.7	4.76	5.16
		CNMG120412-SH	●	●		1.2	12.7	4.76	5.16
		CNMG120416-SH	●	●		1.6	12.7	4.76	5.16
		CNMG160612-SH	✱	✱		1.2	15.875	6.35	6.35
		CNMG160616-SH	✱	✱		1.6	15.875	6.35	6.35
CNMG190612-SH	✱	✱		1.2	19.05	6.35	7.93		
CNMG190616-SH	✱	✱		1.6	19.05	6.35	7.93		

● : New product
 ✱ : Will be released in 2022
 ● : Line up

T6200 & AH6200

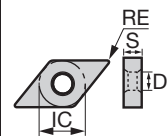
Insert NEGATIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✳ : Heavy interrupted cutting

DN

P Steel	◐	✳	✳																	
M Stainless	●	◐	✳																	
K Cast iron																				
N Non-ferrous																				
S Superalloy																				
H Hard material																				

Rhombic, 55° with hole

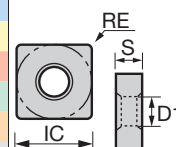


Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Medium cutting 	S	DNMG150404R-S	●	●		0.4	12.7	4.76	5.16
		DNMG150404L-S	●	●		0.4	12.7	4.76	5.16
		DNMG150408R-S	●	●		0.8	12.7	4.76	5.16
		DNMG150408L-S	●	●		0.8	12.7	4.76	5.16
		DNMG150604R-S	●	●		0.4	12.7	6.35	5.16
		DNMG150604L-S	●	●		0.4	12.7	6.35	5.16
		DNMG150608R-S	●	●		0.8	12.7	6.35	5.16
		DNMG150608L-S	●	●		0.8	12.7	6.35	5.16
Medium to heavy cutting 	SH	DNMG150408-SH	●	●		0.8	12.7	4.76	5.16
		DNMG150412-SH	●	●		1.2	12.7	4.76	5.16
		DNMG150416-SH	●	●		1.6	12.7	4.76	5.16
		DNMG150608-SH	●	●		0.8	12.7	6.35	5.16
		DNMG150612-SH	●	●		1.2	12.7	6.35	5.16

SN

P Steel	◐	✳	✳																	
M Stainless	●	◐	✳																	
K Cast iron																				
N Non-ferrous																				
S Superalloy																				
H Hard material																				

Square, 90° with hole



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing 	SF	SNMG120404-SF	●	●		0.4	12.7	4.76	5.16
		SNMG120408-SF	●	●		0.8	12.7	4.76	5.16
	SS	SNMG120404-SS	●	●	●	0.4	12.7	4.76	5.16
		SNMG120408-SS	●	●	●	0.8	12.7	4.76	5.16
		SNMG120412-SS	●	●	●	1.2	12.7	4.76	5.16

- : New product
- : Line up

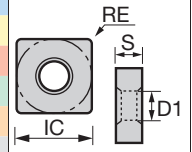
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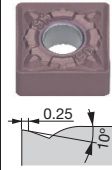
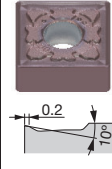
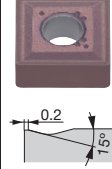
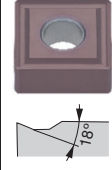
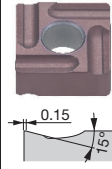
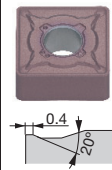
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

SN

Square, 90° with hole

P Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron																																										
N Non-ferrous																																										
S Superalloy																																										
H Hard material																																										



Application	Chipbreaker	Designation	Coated		Dimension (mm)			
			T6215	AH6225 AH6235	RE	IC	S	D1
Medium cutting	SM	SNMG120408-SM	●	●	0.8	12.7	4.76	5.16
		SNMG120412-SM	●	●	1.2	12.7	4.76	5.16
	SDM	SNMG120408-SDM	●	●	0.8	12.7	4.76	5.16
		SNMG120412-SDM	●	●	1.2	12.7	4.76	5.16
	All-round	SNMG150612	★		1.2	15.875	6.35	6.35
		SNMG190612	★		1.2	19.05	6.35	7.93
	SA	SNMG120404-SA	●	●	0.4	12.7	4.76	5.16
		SNMG120408-SA	●	●	0.8	12.7	4.76	5.16
	SNMG120412-SA	●	●	1.2	12.7	4.76	5.16	
Medium to heavy cutting	S	SNMG120404R-S	●	●	0.4	12.7	4.76	5.16
		SNMG120404L-S	●	●	0.4	12.7	4.76	5.16
		SNMG120408R-S	●	●	0.8	12.7	4.76	5.16
		SNMG120408L-S	●	●	0.8	12.7	4.76	5.16
	SH	SNMG120408-SH	●	●	0.8	12.7	4.76	5.16
	SNMG120412-SH	●	●	1.2	12.7	4.76	5.16	
	SNMG150612-SH	★	★	1.2	15.875	6.35	6.35	
	SNMG150616-SH	★	★	1.6	15.875	6.35	6.35	
	SNMG190612-SH	★	★	1.2	19.05	6.35	7.93	
	SNMG190616-SH	★	★	1.6	19.05	6.35	7.93	

- : New product
- ★ : Will be released in 2022
- : Line up

T6200 & AH6200

Insert NEGATIVE TYPE

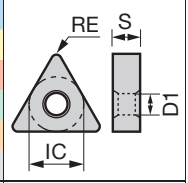
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✳ : Heavy interrupted cutting

TN



Triangular, 60°
with hole

P Steel	●	◐	✳
M Stainless	●	◐	✳
K Cast iron	●	◐	✳
N Non-ferrous	●	◐	✳
S Superalloy	●	◐	✳
H Hard material	●	◐	✳



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Application		SF TNMG160404-SF	●	●		0.4	9.525	4.76	3.81
		TNMG160408-SF	●	●		0.8	9.525	4.76	3.81
		TNMG160412-SF	●	●		1.2	9.525	4.76	3.81
Finishing		SS TNMG110404E-SS		✳	✳	0.4	6.35	4.76	2.26
		TNMG110408E-SS		✳	✳	0.8	6.35	4.76	2.26
		TNMG160404-SS	●	●	●	0.4	9.525	4.76	3.81
		TNMG160408-SS	●	●	●	0.8	9.525	4.76	3.81
		TNMG160412-SS	●	●	✳	1.2	9.525	4.76	3.81
		TNMG220404-SS	✳	✳	✳	0.4	12.7	4.76	5.16
		TNMG220408-SS	✳	✳	✳	0.8	12.7	4.76	5.16
		TNMG220412-SS	✳	✳	✳	1.2	12.7	4.76	5.16
Medium cutting		SM TNMG110404E-SM		✳	✳	0.4	6.35	4.76	2.26
		TNMG110408E-SM		✳	✳	0.8	6.35	4.76	2.26
		TNMG160404-SM	●	●	●	0.4	9.525	4.76	3.81
		TNMG160408-SM	●	●	●	0.8	9.525	4.76	3.81
		TNMG160412-SM	●	●	●	1.2	9.525	4.76	3.81
		TNMG220408-SM	✳	✳	✳	0.8	12.7	4.76	5.16
		SDM TNMG160404-SDM	●	●	●	0.4	9.525	4.76	3.81
		TNMG160408-SDM	●	●	●	0.8	9.525	4.76	3.81
		TNMG160412-SDM	●	●	●	1.2	9.525	4.76	3.81
		All-round TNMG220412		✳		1.2	12.7	4.76	5.16
	SA TNMG160404-SA	●	●	●	0.4	9.525	4.76	3.81	
	TNMG160408-SA	●	●	●	0.8	9.525	4.76	3.81	
	TNMG160412-SA	✳	●	●	1.2	9.525	4.76	3.81	
	TNMG220408-SA	✳	✳	✳	0.8	12.7	4.76	5.16	
	TNMG220412-SA	✳	✳	✳	1.2	12.7	4.76	5.16	
	S TNMG160404R-S		●	●	0.4	9.525	4.76	3.81	
	TNMG160404L-S		●	●	0.4	9.525	4.76	3.81	
	TNMG160408R-S		●	●	0.8	9.525	4.76	3.81	
	TNMG160408L-S		●	●	0.8	9.525	4.76	3.81	
	TNMG220404R-S		✳	✳	0.4	12.7	4.76	5.16	
	TNMG220404L-S		✳	✳	0.4	12.7	4.76	5.16	
	TNMG220408R-S		✳	✳	0.8	12.7	4.76	5.16	
	TNMG220408L-S		✳	✳	0.8	12.7	4.76	5.16	

- : New product
- ✳ : Will be released in 2022
- : Line up

Insert NEGATIVE TYPE

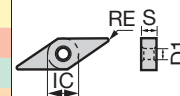
● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

VN



Rhombic, 35°
with hole

P Steel	● ● ● ✱																			
M Stainless	● ● ● ✱																			
K Cast iron	● ● ● ✱																			
N Non-ferrous	● ● ● ✱																			
S Superalloy	● ● ● ✱																			
H Hard material	● ● ● ✱																			



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing		SF VNMG160404-SF	●	●		0.4	9.525	4.76	3.81
		VNMG160408-SF	●	●		0.8	9.525	4.76	3.81
		SS VNMG120404E-SS	✱	✱	✱	0.4	7.15	4.76	3.81
		VNMG120408E-SS	✱	✱	✱	0.8	7.15	4.76	3.81
		VNMG160404-SS	●	●	●	0.4	9.525	4.76	3.81
		VNMG160408-SS	●	●	●	0.8	9.525	4.76	3.81
	VNMG160412-SS	✱	●	✱	1.2	9.525	4.76	3.81	
Medium cutting		TM VNMG160404-TM	✱			0.4	9.525	4.76	3.81
		SM VNMG120404E-SM	✱	✱	✱	0.4	7.15	4.76	3.81
		VNMG120408E-SM	✱	✱	✱	0.8	7.15	4.76	3.81
		VNMG160404-SM	●	●	●	0.4	9.525	4.76	3.81
		VNMG160408-SM	●	●	●	0.8	9.525	4.76	3.81
		VNMG160412-SM	●	●	●	1.2	9.525	4.76	3.81
		SDM VNMG160404-SDM	●	●	●	0.4	9.525	4.76	3.81
		VNMG160408-SDM	●	●	●	0.8	9.525	4.76	3.81
		VNMG160412-SDM	●	●	●	1.2	9.525	4.76	3.81

● : New product
 ✱ : Will be released in 2022
 ● : Line up

T6200 & AH6200

Insert NEGATIVE TYPE

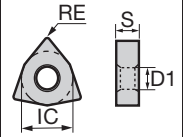
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✳ : Heavy interrupted cutting

WN



Trigon, 80° with hole

P Steel	●	◐	✳														
M Stainless	●	◐	✳														
K Cast iron																	
N Non-ferrous																	
S Superalloy																	
H Hard material																	



Application	Chipbreaker	Designation	Coated			Dimension (mm)				
			T6215	AH6225	AH6235	RE	IC	S	D1	
Finishing	SF 	WNMG060404-SF	★	★		0.4	9.525	4.76	3.81	
		WNMG060408-SF	★	★		0.8	9.525	4.76	3.81	
		WNMG080404-SF	●	●		0.4	12.7	4.76	5.16	
		WNMG080408-SF	●	●		0.8	12.7	4.76	5.16	
	SS 	WNMG060404E-SS		★	★		0.4	9.525	4.76	3.81
		WNMG060408E-SS		★	★		0.8	9.525	4.76	3.81
		WNMG060412E-SS		★	★		1.2	9.525	4.76	3.81
		WNMG080404-SS	●	●	●		0.4	12.7	4.76	5.16
WNMG080408-SS		●	●	●		0.8	12.7	4.76	5.16	
WNMG080412-SS		★	●	★		1.2	12.7	4.76	5.16	
Medium cutting	TM 	WNMG080404-TM	★	★	★	0.4	12.7	4.76	5.16	
		WNMG080408-TM	★	★	★	0.8	12.7	4.76	5.16	
		WNMG080412-TM	★	★	★	1.2	12.7	4.76	5.16	
		WNMG080416-TM	★	★	★	1.6	12.7	4.76	5.16	
	SM 	WNMG060404E-SM		★	★		0.4	9.525	4.76	3.81
		WNMG060408E-SM		★	★		0.8	9.525	4.76	3.81
		WNMG060412E-SM		★	★		1.2	9.525	4.76	3.81
		WNMG080404-SM	●	●	●		0.4	12.7	4.76	5.16
		WNMG080408-SM	●	●	●		0.8	12.7	4.76	5.16
		WNMG080412-SM	●	●	●		1.2	12.7	4.76	5.16
SDM 	WNMG080404-SDM	●	●	●		0.4	12.7	4.76	5.16	
	WNMG080408-SDM	●	●	●		0.8	12.7	4.76	5.16	
	WNMG080412-SDM	●	●	●		1.2	12.7	4.76	5.16	
SA 	WNMG080408-SA	●	●	●		0.8	12.7	4.76	5.16	
	WNMG080412-SA	●	●	●		1.2	12.7	4.76	5.16	
Medium to heavy cutting	TH 	WNMG080408-TH		★		0.8	12.7	4.76	5.16	

- : New product
- ★ : Will be released in 2022
- : Line up

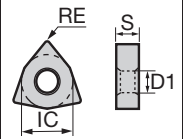
Insert NEGATIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

WN



Material	Coated	Application	Continuity
P Steel	●	●	●
M Stainless	●	●	●
K Cast iron	●	●	●
N Non-ferrous	●	●	●
S Superalloy	●	●	●
H Hard material	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Medium to heavy cutting	SH	WNMG080408-SH	●	●		0.8	12.7	4.76	5.16
		WNMG080412-SH	●	●		1.2	12.7	4.76	5.16

- : New product
- : Line up

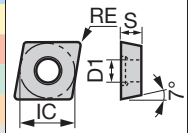
Insert POSITIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

CC



Material	Coated	Application	Continuity
P Steel	●	●	●
M Stainless	●	●	●
K Cast iron	●	●	●
N Non-ferrous	●	●	●
S Superalloy	●	●	●
H Hard material	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing	PF	CCMT060204-PF	★			0.4	6.35	2.38	2.8
Finishing to light cutting	PSS	CCMT060204-PSS	●	●	●	0.4	6.35	2.38	2.8
		CCMT060208-PSS	★	●	★	0.8	6.35	2.38	2.8
		CCMT09T304-PSS	●	●	●	0.4	9.525	3.97	4.4
		CCMT09T308-PSS	●	●	●	0.8	9.525	3.97	4.4
		CCMT120404-PSS	★	★	★	0.4	12.7	4.76	5.5
		CCMT120408-PSS	★	★	★	0.8	12.7	4.76	5.5
		CCMT120412-PSS	★	★	★	1.2	12.7	4.76	5.5
Finishing to medium cutting	PS	CCMT060202-PS	●	●	●	0.2	6.35	2.38	2.8
		CCMT060204-PS	●	●	●	0.4	6.35	2.38	2.8
		CCMT060208-PS	●	●	●	0.8	6.35	2.38	2.8
		CCMT09T302-PS	●	●	●	0.2	9.525	3.97	4.4
		CCMT09T304-PS	●	●	●	0.4	9.525	3.97	4.4
		CCMT09T308-PS	●	●	●	0.8	9.525	3.97	4.4
		CCMT120404-PS	★	★	★	0.4	12.7	4.76	5.5
		CCMT120408-PS	★	★	★	0.8	12.7	4.76	5.5
		CCMT120412-PS	★	★	★	1.2	12.7	4.76	5.5

- : New product
- ★ : Will be released in 2022
- : Line up

Insert POSITIVE TYPE

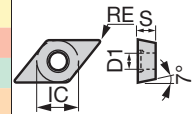
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

DC

Rhombic, 55°
with hole
Positive 7°



Material	Coated	Continuous	Light Int.	Heavy Int.
P Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S Superalloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H Hard material	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing		PF DCMT070204-PF	★			0.4	6.35	2.38	2.8
		DCMT070208-PF	★			0.8	6.35	2.38	2.8
Finishing to light cutting		PSS DCMT070204-PSS	●	●	●	0.4	6.35	2.38	2.8
		DCMT070208-PSS	★	★	★	0.8	6.35	2.38	2.8
		DCMT11T304-PSS	●	●	●	0.4	9.525	3.97	4.4
		DCMT11T308-PSS	●	●	●	0.8	9.525	3.97	4.4
		DCMT11T312-PSS	★	★	★	1.2	9.525	3.97	4.4
Finishing to medium cutting		PS DCMT070202-PS	★	★	★	0.2	6.35	2.38	2.8
		DCMT070204-PS	●	●	●	0.4	6.35	2.38	2.8
		DCMT11T302-PS	●	●	●	0.2	9.525	3.97	4.4
		DCMT11T304-PS	●	●	●	0.4	9.525	3.97	4.4
		DCMT11T308-PS	●	●	●	0.8	9.525	3.97	4.4
		DCMT11T312-PS	★	★	★	1.2	9.525	3.97	4.4
Medium cutting		PM DCMT070204-PM	●	●	●	0.4	6.35	2.38	2.8
		DCMT070208-PM	★	★	★	0.8	6.35	2.38	2.8
		DCMT11T304-PM	●	●	●	0.4	9.525	3.97	4.4
		DCMT11T308-PM	●	●	●	0.8	9.525	3.97	4.4
		DCMT11T312-PM	★	★	★	1.2	9.525	3.97	4.4
	24 DCMT11T308-24	★			0.8	9.525	3.97	4.4	

- : New product
- ★ : Will be released in 2022
- : Line up

Insert POSITIVE TYPE

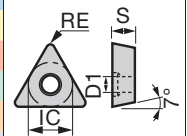
- : Continuous cutting
- : Light interrupted cutting
- ✳ : Heavy interrupted cutting

TC



Triangular, 60°
with hole
Positive 7°

Material	C	C✳	✳																																				
P Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
M Stainless	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S Superalloy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H Hard material	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing to medium cutting		PS TCMT110202-PS	★	★	★	0.2	6.35	2.38	2.8
		TCMT110204-PS	●	●	●	0.4	6.35	2.38	2.8
		TCMT110208-PS	●	●	★	0.8	6.35	2.38	2.8
		TCMT110302-PS	★	★	★	0.2	6.35	3.18	2.8
		TCMT110304-PS	★	★	★	0.4	6.35	3.18	2.8
		TCMT110308-PS	★	★	★	0.8	6.35	3.18	2.8
		TCMT16T302-PS	★	★	★	0.2	9.525	3.97	4.4
		TCMT16T304-PS	●	●	●	0.4	9.525	3.97	4.4
		TCMT16T308-PS	●	●	●	0.8	9.525	3.97	4.4
Medium cutting		PM TCMT110202-PM	★	★	★	0.2	6.35	2.38	2.8
		TCMT110204-PM	●	●	●	0.4	6.35	2.38	2.8
		TCMT110208-PM	●	●	★	0.8	6.35	2.38	2.8
		TCMT110302-PM	★	★	★	0.2	6.35	3.18	2.8
		TCMT110304-PM	★	★	★	0.4	6.35	3.18	2.8
		TCMT110308-PM	★	★	★	0.8	6.35	3.18	2.8
		TCMT16T304-PM	●	●	●	0.4	9.525	3.97	4.4
		TCMT16T308-PM	●	●	●	0.8	9.525	3.97	4.4
		TCMT16T312-PM	★	★	★	1.2	9.525	3.97	4.4

- : New product
- ★ : Will be released in 2022
- : Line up

T6200 & AH6200

Insert POSITIVE TYPE

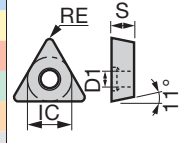
- : Continuous cutting
- ⦿ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

TP

Triangular, 60° with hole Positive 11°



	P	M	K	N	S	H
Steel	●	●	●	●	●	●
Stainless	●	●	●	●	●	●
Cast iron	●	●	●	●	●	●
Non-ferrous	●	●	●	●	●	●
Superalloy	●	●	●	●	●	●
Hard material	●	●	●	●	●	●



Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing to light cutting		PSS TPMT090204-PSS	●	●	✱	0.4	5.56	2.38	2.5
		TPMT090208-PSS	✱	●	✱	0.8	5.56	2.38	2.5
		TPMT110204-PSS	●	●	●	0.4	6.35	2.38	2.8
		TPMT110208-PSS	✱	✱	✱	0.8	6.35	2.38	2.8
		TPMT110304-PSS	●	●	●	0.4	6.35	3.18	3.4
		TPMT110308-PSS	✱	✱	✱	0.8	6.35	3.18	3.4
		TPMT130304-PSS	●	●	●	0.4	7.94	3.18	3.4
		TPMT130308-PSS	✱	●	✱	0.8	7.94	3.18	3.4
		TPMT16T304-PSS	●	●	●	0.4	9.525	3.97	4.4
		TPMT16T308-PSS	●	●	✱	0.8	9.525	3.97	4.4
		Finishing to medium cutting		PS TPMT090202-PS	●	●	●	0.2	5.56
TPMT090204-PS	●			●	●	0.4	5.56	2.38	2.5
TPMT090208-PS	●			●	●	0.8	5.56	2.38	2.5
TPMT110202-PS	✱			✱	✱	0.2	6.35	2.38	2.8
TPMT110204-PS	●			●	●	0.4	6.35	2.38	2.8
TPMT110208-PS	✱			✱	✱	0.8	6.35	2.38	2.8
TPMT110304-PS	●			●	●	0.4	6.35	3.18	3.4
TPMT110308-PS	✱			✱	✱	0.8	6.35	3.18	3.4
TPMT130304-PS	●			●	●	0.4	7.94	3.18	3.4
TPMT130308-PS	●			●	●	0.8	7.94	3.18	3.4
TPMT16T304-PS	●			●	●	0.4	9.525	3.97	4.4
TPMT16T308-PS	●	●	●	0.8	9.525	3.97	4.4		
Medium cutting		PM TPMT090204-PM	●	●	●	0.4	5.56	2.38	2.5
		TPMT090208-PM	✱	●	✱	0.8	5.56	2.38	2.5
		TPMT110204-PM	●	●	●	0.4	6.35	2.38	2.8
		TPMT110208-PM	✱	✱	✱	0.8	6.35	2.38	2.8
		TPMT110304-PM	●	●	●	0.4	6.35	3.18	3.4
		TPMT110308-PM	✱	✱	✱	0.8	6.35	3.18	3.4
		TPMT130304-PM	●	●	●	0.4	7.94	3.18	3.4
		TPMT130308-PM	●	●	●	0.8	7.94	3.18	3.4
		TPMT16T304-PM	●	●	●	0.4	9.525	3.97	4.4
		TPMT16T308-PM	●	●	●	0.8	9.525	3.97	4.4
		TPMT16T312-PM	✱	✱	✱	1.2	9.525	3.97	4.4

- : New product
- ✱ : Will be released in 2022
- : Line up

Insert POSITIVE TYPE

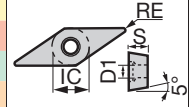
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

VB

Rhombic, 35°
with hole
Positive 5°



	P Steel	M Stainless	K Cast iron	N Non-ferrous	S Superalloy	H Hard material	Coated															
●	●	●																				
◐	◐	◐																				
✱	✱	✱																				



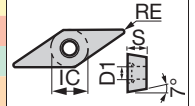
Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing to light cutting		PSS VBMT110304-PSS	●	●	●	0.4	6.35	3.18	2.8
		VBMT110308-PSS	●	●	●	0.8	6.35	3.18	2.8
		VBMT160404-PSS	●	●	●	0.4	9.525	4.76	4.4
		VBMT160408-PSS	●	●	●	0.8	9.525	4.76	4.4
Finishing to medium cutting		PS VBMT110302-PS	★	★	★	0.2	6.35	3.18	2.8
		VBMT110304-PS	●	●	●	0.4	6.35	3.18	2.8
		VBMT110308-PS	●	●	●	0.8	6.35	3.18	2.8
		VBMT160402-PS	★	★	★	0.2	9.525	4.76	4.4
		VBMT160404-PS	●	●	●	0.4	9.525	4.76	4.4
		VBMT160408-PS	●	●	●	0.8	9.525	4.76	4.4

VC

Rhombic, 35°
with hole
Positive 7°



	P Steel	M Stainless	K Cast iron	N Non-ferrous	S Superalloy	H Hard material	Coated															
●	●	●																				
◐	◐	◐																				
✱	✱	✱																				


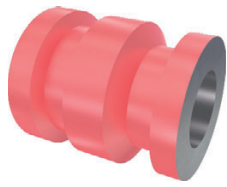
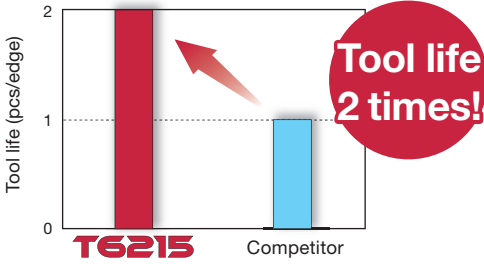
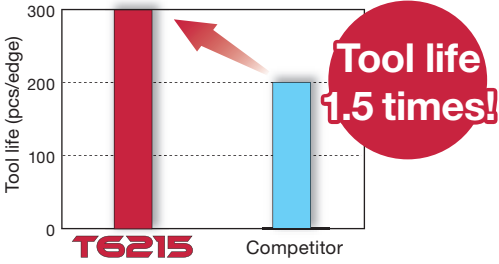
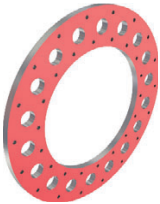

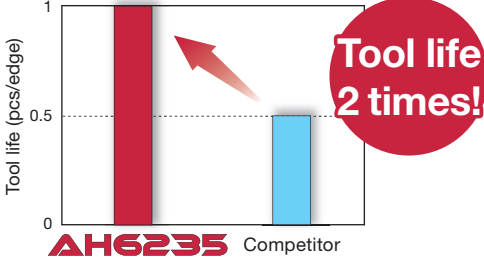
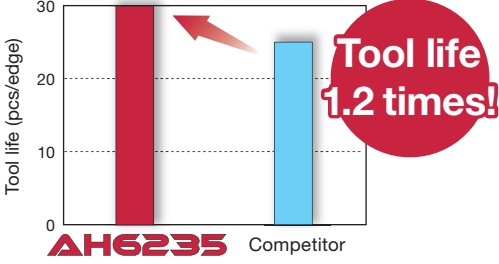


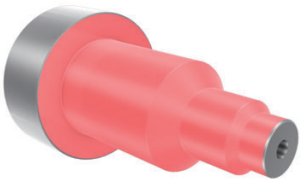
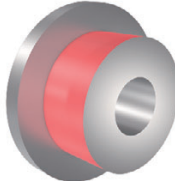
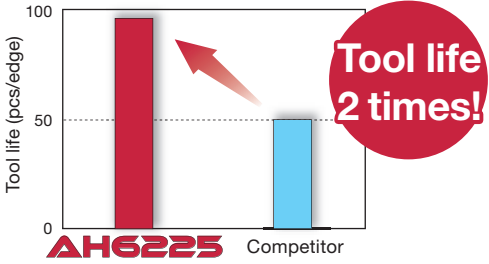
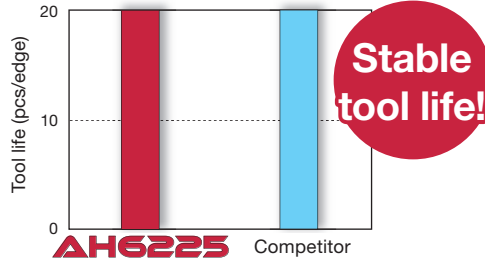
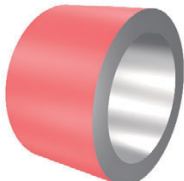
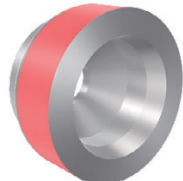
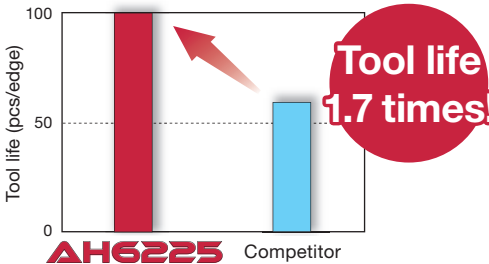
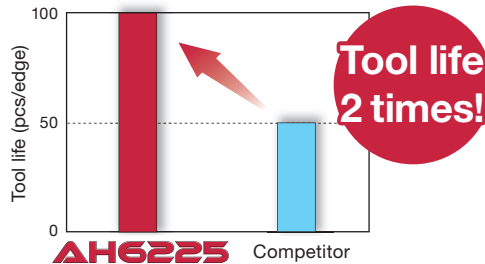
Application	Chipbreaker	Designation	Coated			Dimension (mm)			
			T6215	AH6225	AH6235	RE	IC	S	D1
Finishing to light cutting		PSS VCMT110304-PSS	●	●	●	0.4	6.35	3.18	2.8
		VCMT110308-PSS	★	●	●	0.8	6.35	3.18	2.8
		VCMT160404-PSS	●	●	●	0.4	9.525	4.76	4.4
		VCMT160408-PSS	●	●	●	0.8	9.525	4.76	4.4
Finishing to medium cutting		PS VCMT110302-PS	★	★	★	0.2	6.35	3.18	2.8
		VCMT110304-PS	●	●	●	0.4	6.35	3.18	2.8
		VCMT110308-PS	★	●	★	0.8	6.35	3.18	2.8
		VCMT160404-PS	●	●	●	0.4	9.525	4.76	4.4
		VCMT160408-PS	●	●	●	0.8	9.525	4.76	4.4

- : New product
- ★ : Will be released in 2022
- : Line up

T6200 & AH6200

PRACTICAL EXAMPLES

Workpiece type		Pipe part	Machine part
Insert		DNMG150408-SM	TNMG160408-SM
Grade		T6215	T6215
Workpiece material		SUS304 / X5CrNi18-9	SUS304 / X5CrNi18-9
		 M	 M
Cutting conditions	Cutting speed: V_c (m/min)	150	200
	Feed : f (mm/rev)	0.3	0.3
	Depth of cut : a_p (mm)	3	2.5
	Machining	External turning	External face turning
	Coolant	Wet	Wet
Results		 <p>T6215 provided double tool life and successfully minimized notch wear, which was a major challenge with the competitor's grade.</p>	 <p>T6215 provided 1.5 times tool life and eliminated plastic deformation. The grade also improved surface finish, providing process security.</p>
Workpiece type		Generator part	Machine part
Insert		CNMG120408-SH	CNMG120412-SM
Grade		AH6235	AH6235
Workpiece material		SUS410 / X12Cr13	SUS304 / X5CrNi18-9
		 M	 M
Cutting conditions	Cutting speed: V_c (m/min)	70	80
	Feed : f (mm/rev)	0.15	0.2
	Depth of cut : a_p (mm)	2 - 4	1.5
	Machining	Face turning (interrupted cutting)	Face turning (interrupted cutting)
	Coolant	Wet	Wet
Results		 <p>AH6235 provided double tool life and process security, eliminating insert failure during interrupted cuts.</p>	 <p>AH6235 provided 1.2 times tool life and substantially reduced edge chipping and fracture.</p>

Workpiece type		Joint part	Ball valve part
Insert		CNMG120404-SM	CNMG120408-SM
Grade		AH6225	AH6225
Workpiece material		SUS304 / X5CrNi18-9	SUS304 / X5CrNi18-9
			
Cutting conditions	Cutting speed: V_c (m/min)	90	150
	Feed : f (mm/rev)	0.2	0.2
	Depth of cut : a_p (mm)	1	1.5
	Machining	External turning	External turning
	Coolant	Wet	Wet
Results		 <p>AH6225 Competitor</p> <p>AH6225 doubled tool life and significantly reduced premature insert failure, helping the customer gain productivity.</p>	 <p>AH6225 Competitor</p> <p>AH6225 eliminated tool life unpredictability such as premature insert failures, while satisfying the tool life requirement of 20 pcs per edge.</p>
		<p>Workpiece type</p>	
Insert		TNMG160408-SM	VNMG160404-SF
Grade		AH6225	AH6225
Workpiece material		Super duplex stainless steel	SUS440 (Martensite stainless steel)
			
Cutting conditions	Cutting speed: V_c (m/min)	150	110
	Feed : f (mm/rev)	0.25	0.1
	Depth of cut : a_p (mm)	1	0.5
	Machining	External turning	External turning
	Coolant	Wet	Wet
Results		 <p>AH6225 Competitor</p> <p>AH6225 significantly reduced notch wear, while increasing tool life to 100 pcs per edge surpassing the required tool life of 60 pcs per edge.</p>	 <p>AH6225 Competitor</p> <p>AH6225 doubled tool life, allowing the customer to gain productivity.</p>

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