

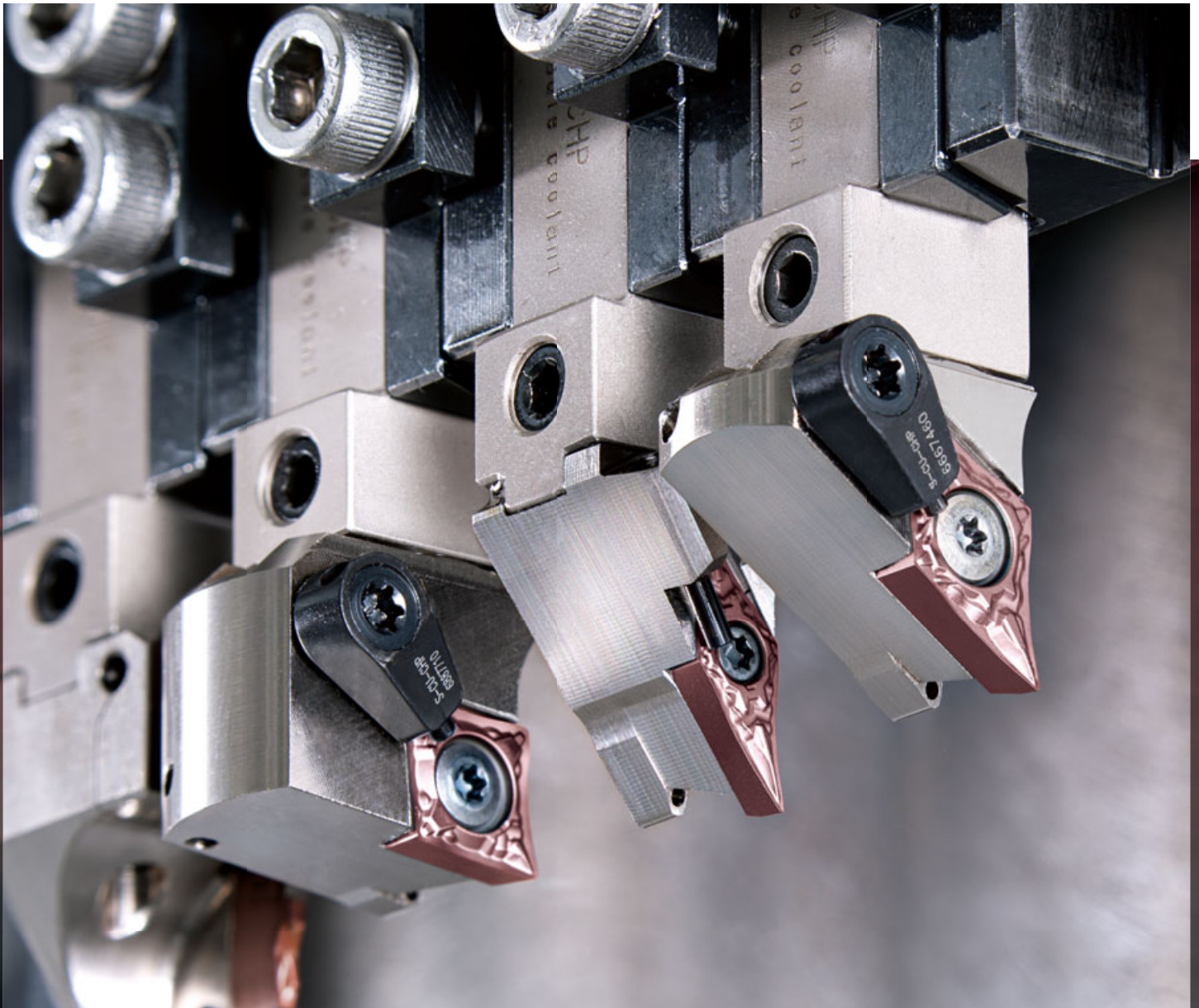


Grades for stainless steel

# AH6200 SERIES

Tungaloy Report No. 547S1-US

## Expansion of JS chipbreaker inserts for stainless steel machining



# AH6200 SERIES

## High precision G-class 3D chipbreaker

Provides excellent chip control and superior surface finishing quality in stainless steel

### I JS First choice chipbreaker for finish cutting



**Chipbreaker geometry that allows light cutting action and excellent chip breaking**

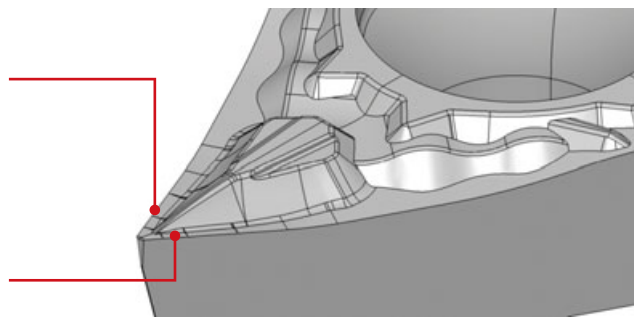
- A steep cutting edge inclination angle for better chip control and reduced cutting load
- A unique protrusion that extends towards the radius effectively controls chip flow from small to large cutting depths

#### Cutting edge with a steep inclination angle

Provides good chip evacuation and reduced cutting loads

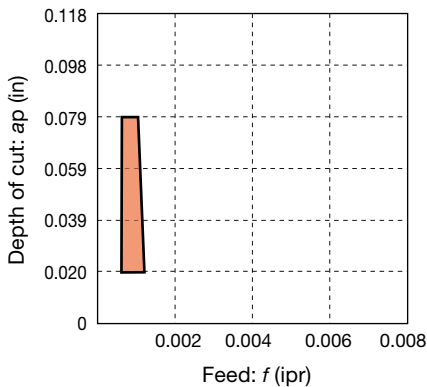
#### Rake with variable angles and steep protrusion

Provides stable chip control in the small to large cutting depth range and also maintains cutting edge integrity and sharpness over extended period of time

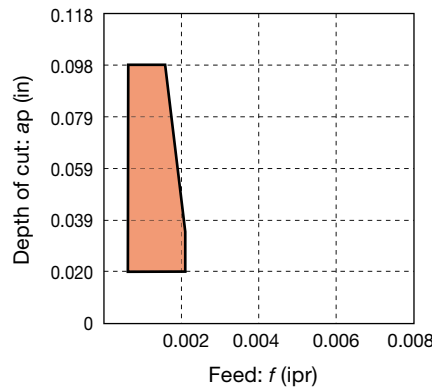


### ■ Chip control range

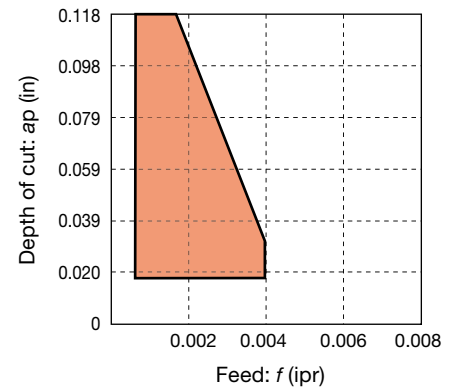
**RE < 0.002"**



**RE < 0.004"**



**RE < 0.008"**



### ■ Chip control



**M** Insert : DCGT 32.50.5 M-JS  
AH6225  
Workpiece material : 316SS  
Cutting speed :  $V_c = 262$  sfm  
Feed :  $f = 0.001$  ipr  
Depth of cut :  $a_p = 0.039$ "  
Coolant : Wet

**M** Insert : DCGT 32.50.5 M-JS  
AH6225  
Workpiece material : 316SS  
Cutting speed :  $V_c = 262$  sfm  
Feed :  $f = 0.002$  ipr  
Depth of cut :  $a_p = 0.020$ "  
Coolant : Wet

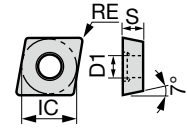
**M** Insert : DCGT 32.50.5 M-JS  
AH6225  
Workpiece material : 316SS  
Cutting speed :  $V_c = 262$  sfm  
Feed :  $f = 0.004$  ipr  
Depth of cut :  $a_p = 0.004$ "  
Coolant : Wet

## CC



Rhombic, 80°  
with hole  
Positive 7°

<b>P</b> Steel	●⊛																			
<b>M</b> Stainless	●◐																			
<b>K</b> Cast iron	◐																			
<b>N</b> Non-ferrous	◐																			
<b>S</b> Superalloy	◐																			
<b>H</b> Hard material																				



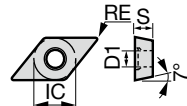
Application	Chipbreaker	Designation	Coated		Dimension (in)													
			AH6225		RE	IC	S	D1										
Finishing		Inch	Metric	AH6225	●													
													<b>JS</b> CCGT 21.50 M-JS	CCGT060201M-JS	<0.004	0.250	0.094	0.110
													CCGT 21.50.5 M-JS	CCGT060202M-JS	<0.008	0.250	0.094	0.110
													CCGT 21.51 M-JS	CCGT060204M-JS	<0.016	0.250	0.094	0.110
													CCGT 32.50 M-JS	CCGT09T301M-JS	<0.004	0.375	0.156	0.173
													CCGT 32.50.5 M-JS	CCGT09T302M-JS	<0.008	0.375	0.156	0.173
													CCGT 32.51 M-JS	CCGT09T304M-JS	<0.016	0.375	0.156	0.173

## DC



Rhombic, 55°  
with hole  
Positive 7°

<b>P</b> Steel	●⊛																			
<b>M</b> Stainless	●◐																			
<b>K</b> Cast iron	◐																			
<b>N</b> Non-ferrous	◐																			
<b>S</b> Superalloy	◐																			
<b>H</b> Hard material																				



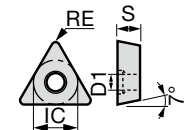
Application	Chipbreaker	Designation	Coated		Dimension (in)													
			AH6225		RE	IC	S	D1										
Finishing		Inch	Metric	AH6225	●													
													<b>JS</b> DCGT 21.50 M-JS	DCGT070201M-JS	<0.004	0.250	0.094	0.110
													DCGT 21.50.5 M-JS	DCGT070202M-JS	<0.008	0.250	0.094	0.110
													DCGT 32.50 M-JS	DCGT11T301M-JS	<0.004	0.375	0.156	0.173
													DCGT 32.50.5 M-JS	DCGT11T302M-JS	<0.008	0.375	0.156	0.173
													DCGT 32.51 M-JS	DCGT11T304M-JS	<0.016	0.375	0.156	0.173

## TC



Triangular, 60°  
with hole  
Positive 7°

<b>P</b> Steel	●⊛																			
<b>M</b> Stainless	●◐																			
<b>K</b> Cast iron	◐																			
<b>N</b> Non-ferrous	◐																			
<b>S</b> Superalloy	◐																			
<b>H</b> Hard material																				



Application	Chipbreaker	Designation	Coated		Dimension (in)													
			AH6225		RE	IC	S	D1										
Finishing		Inch	Metric	AH6225	●													
													<b>JS</b> TCGT 21.50 M-JS	TCGT110201M-JS	<0.004	0.250	0.094	0.110
													TCGT 21.50.5 M-JS	TCGT110202M-JS	<0.008	0.250	0.094	0.110
													TCGT 21.51 M-JS	TCGT110204M-JS	<0.016	0.250	0.094	0.110

Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : New product

Tolerance



# AH6200 SERIES

## Insert POSITIVE TYPE

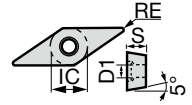
- : Continuous cutting
- : Light interrupted cutting
- ✳ : Heavy interrupted cutting

### VB

Rhombic, 35°  
with hole  
Positive 5°



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



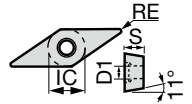
Application	Chipbreaker	Designation		AH6225	Dimension (in)				
		Inch	Metric		RE	IC	S	D1	
Finishing		JS	VBGT 220 M-JS	VBGT110301M-JS	●	<0.004	0.250	0.125	0.110
			VBGT 220.5 M-JS	VBGT110302M-JS	●	<0.008	0.250	0.125	0.110
			VBGT 221 M-JS	VBGT110304M-JS	●	<0.016	0.250	0.125	0.110

### VP

35° Rhombic  
with hole  
Positive 11°



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



Application	Chipbreaker	Designation		AH6225	Dimension (in)				
		Inch	Metric		RE	IC	S	D1	
Finishing		JS	VPGT 220 M-JS	VPGT110301M-JS	●	<0.004	0.250	0.125	0.110
			VPGT 220.5 M-JS	VPGT110302M-JS	●	<0.008	0.250	0.125	0.110
			VPGT 221 M-JS	VPGT110304M-JS	●	<0.016	0.250	0.125	0.110

Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : New product

## STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Chipbreaker	Grade	Cutting speed Vc (sfm)	Depth of cut ap (in)	Feed: f (ipr)			
						RE < 0.002"	RE < 0.004"	RE < 0.008"	RE < 0.016"
<b>M</b>	Austenitic stainless steel	JS	AH6225	295 - 656	0.020 - 0.118	0.0008 - 0.0012	0.0008 - 0.002	0.0008 - 0.004	0.002 - 0.008
	Ferritic / martensite stainless steel	JS	AH6225	361 - 787	0.020 - 0.118	0.0008 - 0.0012	0.0008 - 0.002	0.0008 - 0.004	0.002 - 0.008
	Precipitation hardened stainless steel	JS	AH6225	197 - 361	0.020 - 0.118	0.0008 - 0.0012	0.0008 - 0.002	0.0008 - 0.004	0.002 - 0.008



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