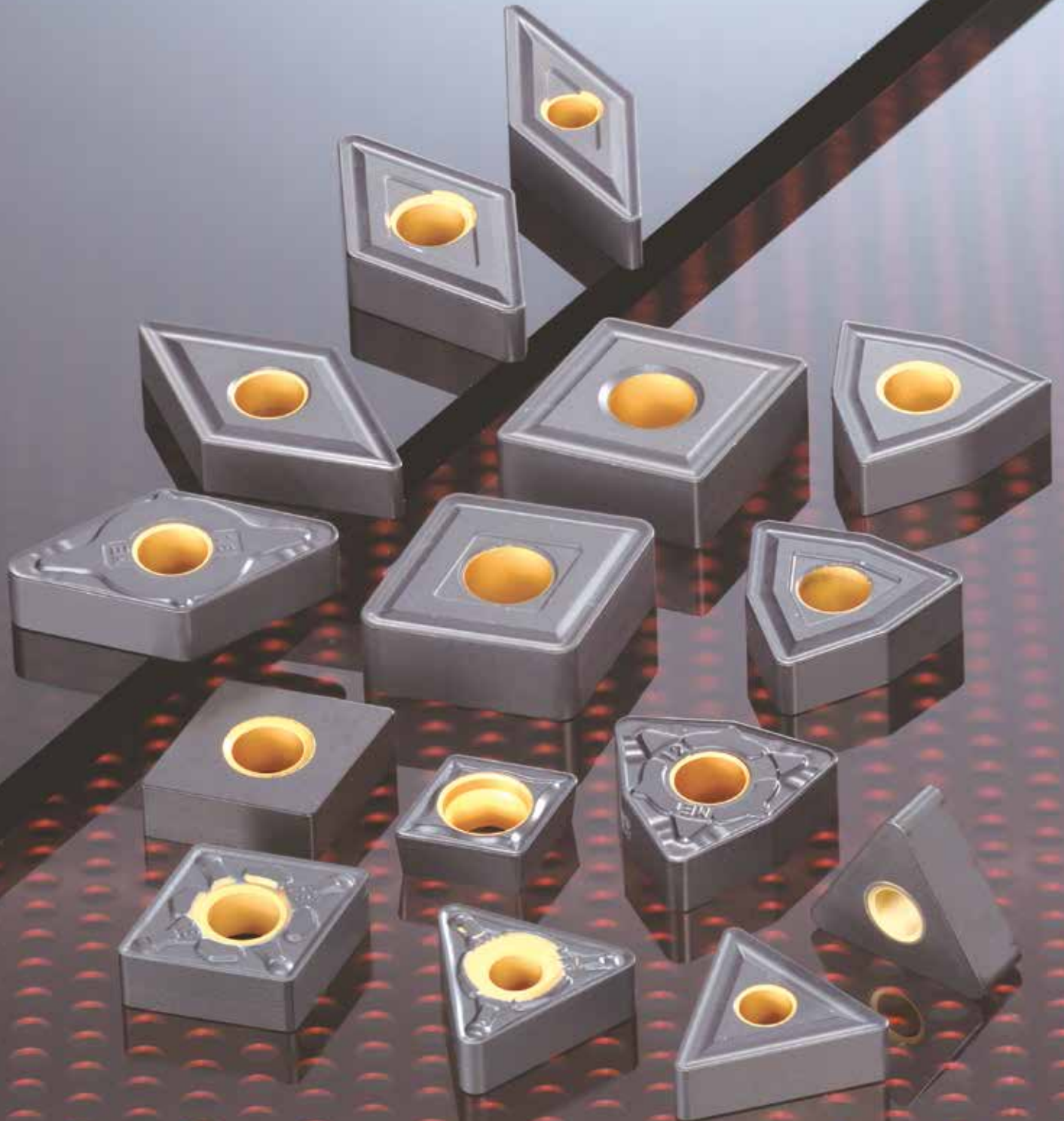


Coated Grades for Cast Iron

# AC4010K / AC4015K / AC4020K

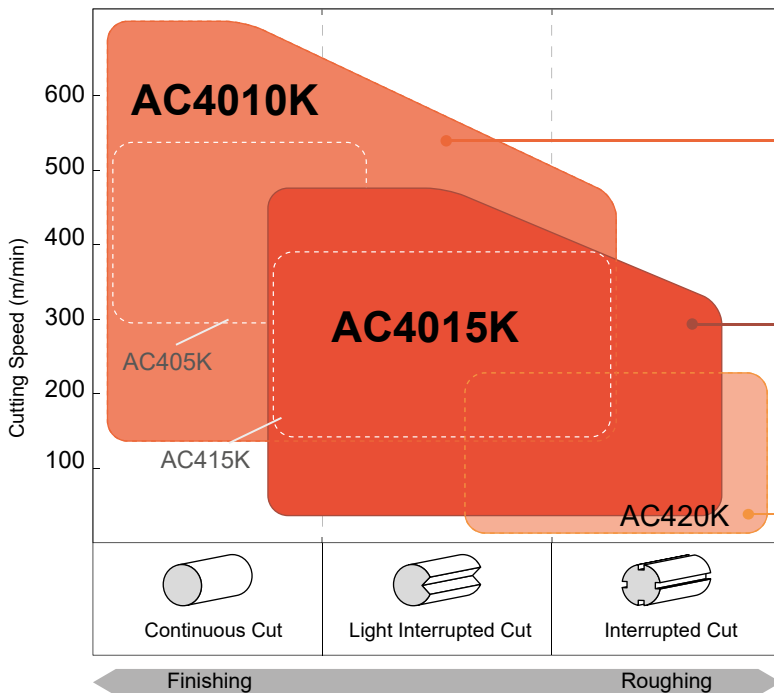
For Ultra-High Speed Machining of Gray Cast Iron to Heavy Interrupted Machining  
of High-Strength Ductile Cast Iron



# For Cast Iron Turning

## AC4010K / AC4015K

### Application Range



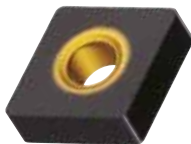
**AC4010K**  
1st recommended grade for gray cast iron. Ultra thick coating allows for ultra-high speed machining ( $v_c = 700$  m/min)

**AC4015K**  
1st recommended grade for ductile cast iron. High adhesion, high-strength coating provides longer and stable tool life.

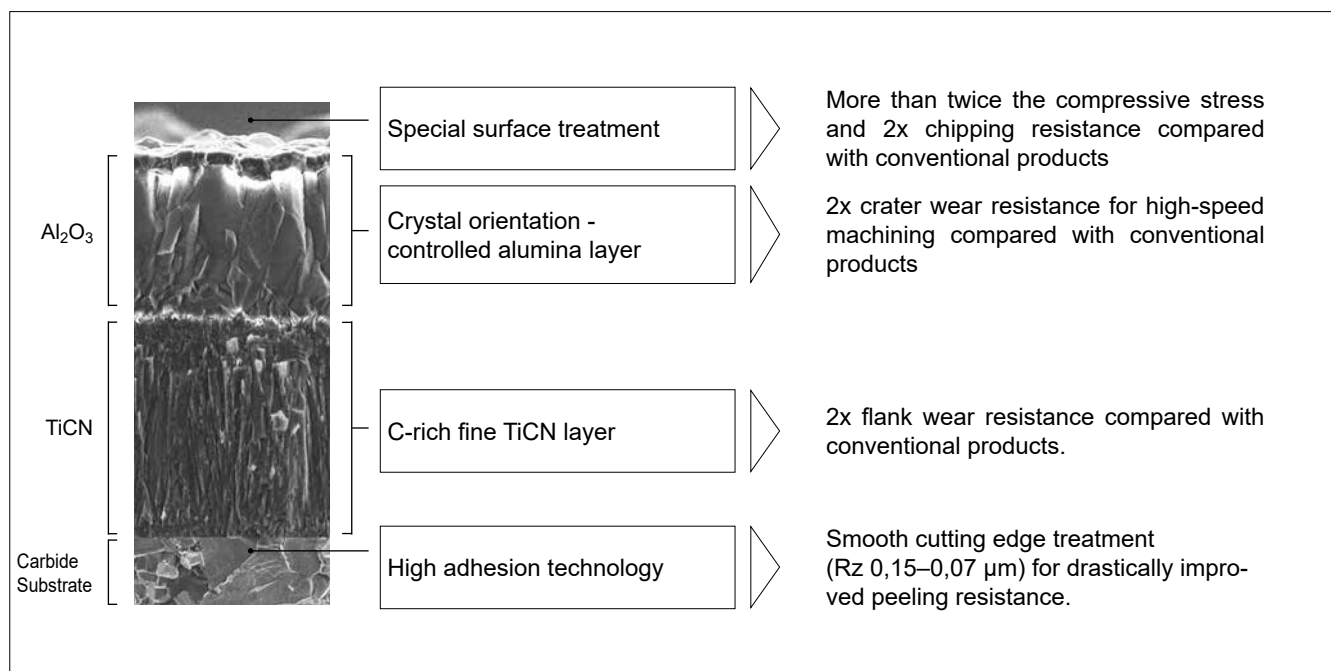
**AC420K**  
Excellent fracture resistance in heavy interrupted and unstable machining.

### Features

#### AC4010K / AC4015K

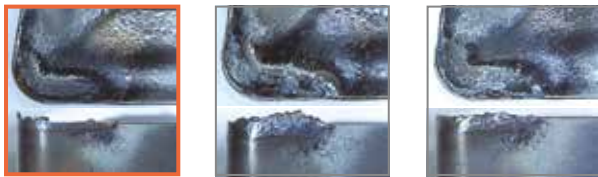
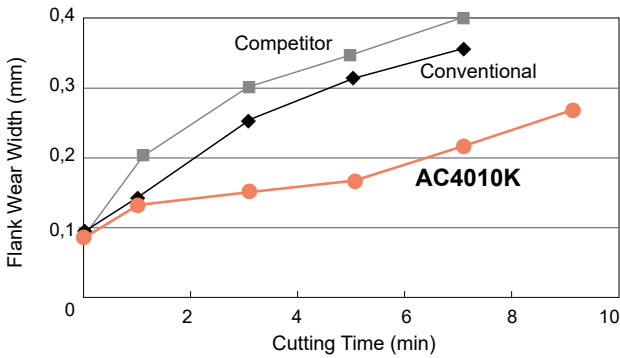


Newly developed high adhesion technology, crystal orientation control technology and residual stress control technology for longer and stable tool life with various cast irons - from gray cast iron and ordinary cast iron (GG) to high-strength ductile cast iron (GGG).



## Cutting Performance

### Wear Resistance, Gray Cast Iron (GG)



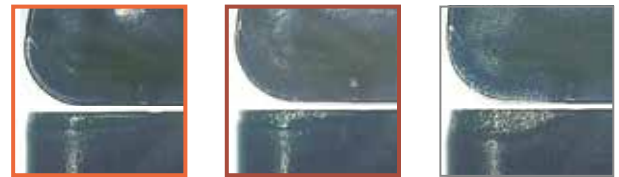
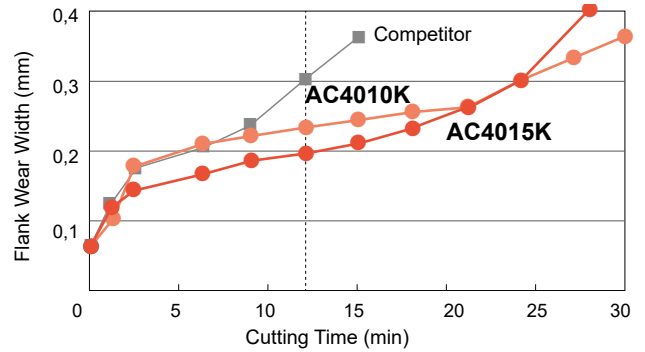
NGZ AC4010K

Conventional

Competitor

Work Material: GG-25 Continuous  
 Insert: CNMG120408  
 Cutting Conditions:  $v_c = 600$  m/min,  $f = 0,4$  mm/rev,  $a_p = 2,0$  mm, dry

### Wear Resistance, Ductile Cast Iron (GGG)



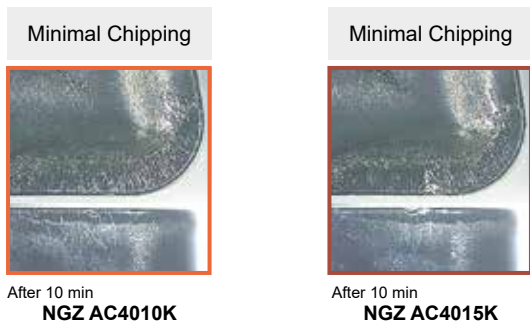
After 12 min  
NGZ AC4010K

After 12 min  
NGZ AC4015K

After 12 min  
Competitor

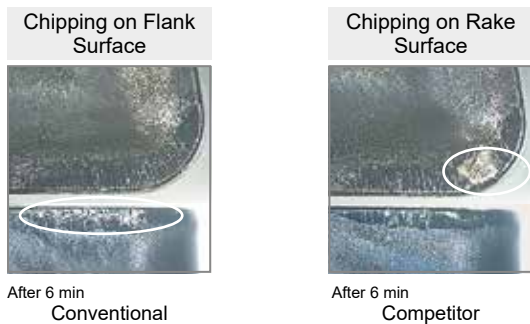
Work Material: GGG-70 Continuous  
 Insert: CNMG120408  
 Cutting Conditions:  $v_c = 140$  m/min,  $f = 0,3$  mm/rev,  $a_p = 1,5$  mm, wet

### Chipping Resistance, Gray Cast Iron (GG)



After 10 min  
NGZ AC4010K

After 10 min  
NGZ AC4015K

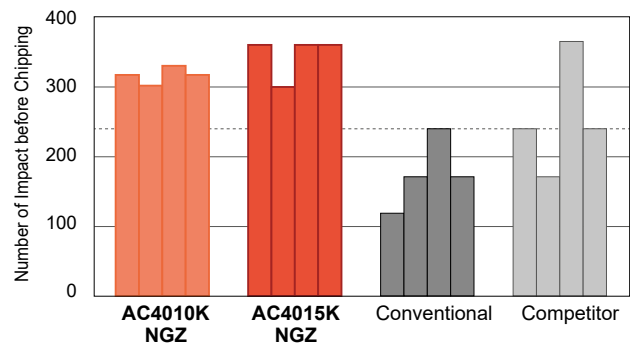


After 6 min  
Conventional

After 6 min  
Competitor

Work Material: GG-25 Interrupted  
 Insert: CNMG120408  
 Cutting Conditions:  $v_c = 400$  m/min,  $f = 0,3$  mm/rev,  $a_p = 2,0$  mm, wet

### Chipping Resistance, Ductile Cast Iron (GGG)



After 4 min  
NGZ AC4010K



After 4 min  
NGZ AC4015K



After 4 min  
Conventional



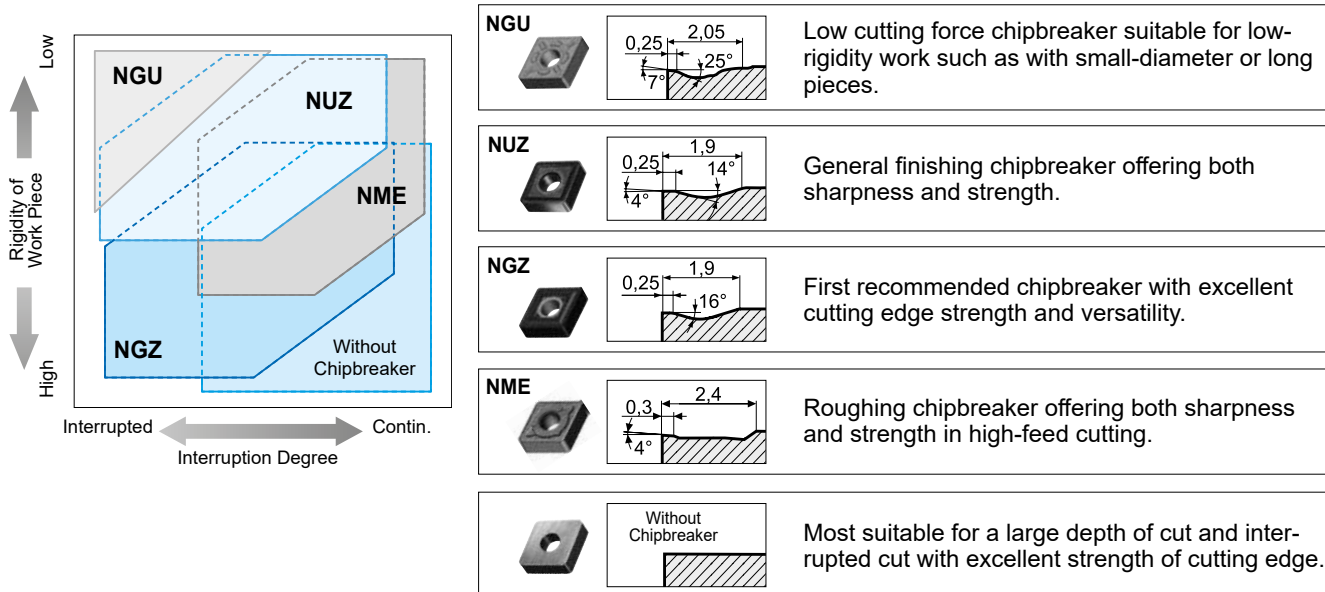
After 4 min  
Competitor

Work Material: GGG-40,3 Interrupted  
 Insert: CNMG120408  
 Cutting Conditions:  $v_c = 450$  m/min,  $f = 0,3$  mm/rev,  $a_p = 1,5$  mm, wet

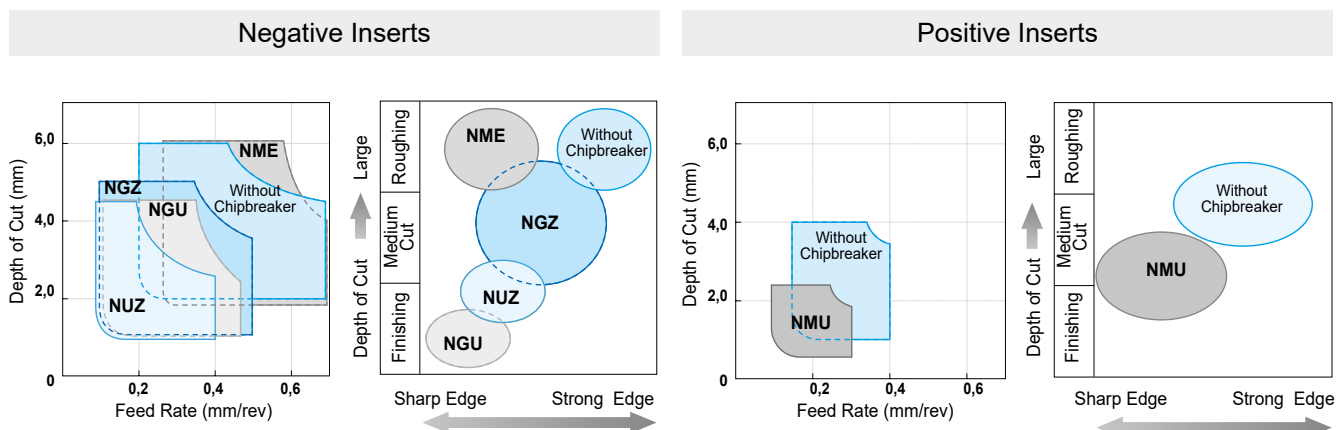
# For Cast Iron Turning

## AC4010K / AC4015K

### Chipbreaker Selection Guide



### Chipbreaker Application Range



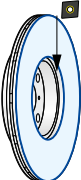
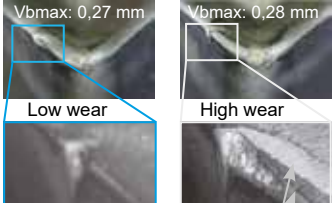
### Recommended Cutting Conditions

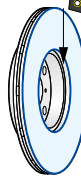
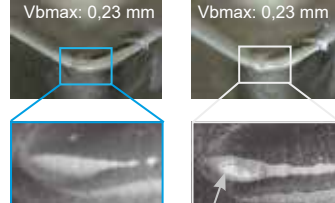
Min. - Optimum - Max.


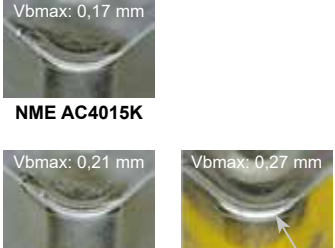
Work Material	Cutting Process	Grades	Cutting Conditions		
			Depth of Cut (mm)	Feed Rate (mm/rev)	Cutting Speed (m/min)
Gray Cast Iron (GG-25)	Continuous-General	<b>AC4010K</b>	0,5-2,0-6,0	0,10-0,25-0,40	200-400-700
	Interrupted	AC4015K	0,5-2,0-6,0	0,10-0,30-0,50	180-300-450
	Heavy Interrupted	AC420K	0,5-2,0-6,0	0,10-0,30-0,60	150-200-300
Ductile Cast Iron (GGG-40,3)	Continuous	AC4010K	0,5-2,0-6,0	0,10-0,25-0,40	180-300-450
	General-Interrupted	<b>AC4015K</b>	0,5-2,0-6,0	0,10-0,30-0,50	160-250-400
	Heavy Interrupted	AC420K	0,5-2,0-6,0	0,10-0,30-0,60	120-170-250
High Strength Ductile Cast Iron (GGG-70)	Continuous	AC4010K	0,5-2,0-6,0	0,10-0,25-0,40	160-250-400
	General-Interrupted	<b>AC4015K</b>	0,5-2,0-6,0	0,10-0,30-0,50	140-200-350
	Heavy Interrupted	AC420K	0,5-2,0-6,0	0,10-0,30-0,60	80-150-220

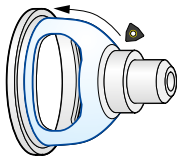



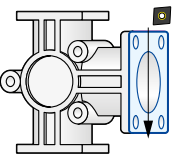
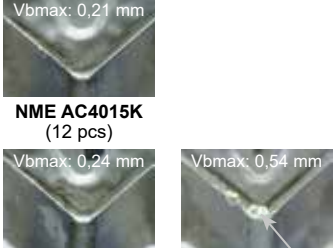
## Application Examples

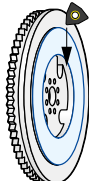

Brake Disc, GG-25	AC4010K
AC4010K achieved 1,4 times longer tool life.	
	
Acute angle Facing of casting skin	NGZ AC4010K (70 pcs) Competitor (50 pcs) TiCN layer exposed
Insert: CNMG120408 Cutting Conditions: $v_c = 960$ m/min, $f = 0,75$ mm/rev, $a_p = 2,0$ mm, wet	

Brake Disc, GG-25	AC4015K
At the same cutting conditions, only the competitor had an exposed substrate.	
	
Obtuse angle Facing of casting skin	NGZ AC4015 (35 pcs) No substrate exposure Competitor (35 pcs) Substrate exposed
Insert: CNMG120408 Cutting Conditions: $v_c = 960$ m/min, $f = 0,75$ mm/rev, $a_p = 2,0$ mm, wet	

Ring, GGG-80	AC4010K AC4015K
Improved wear resistance in high-strength ductile cast iron machining.	
	
Continuous cut	NME AC4015K NME AC4010K Competitor Adhesion
Insert: WNMG080412 Cutting Conditions: $v_c = 120$ m/min, $f = 0,25$ mm/rev, $a_p = 1,0-3,0$ mm, wet	

Differential Case, GGG-60	AC4010K AC4015K
Improved chipping resistance and suppressed wear variation during heavy interrupted machining of high-strength ductile cast iron.	
	
Heavy interrupted cut	NGZ AC4015K (60 pcs) NGZ AC4010K (45 pcs) Competitor (45 pcs)
Insert: WNMG080412 Cutting Conditions: $v_c = 250$ m/min, $f = 0,30-0,45$ mm/rev, $a_p = 2,0$ mm, wet	

Gear Case, GGG-50	AC4010K AC4015K
1,2x tool life when combined with NME type chipbreaker for roughing.	
	
Interrupted cut	NME AC4015K (12 pcs) NME AC4010K (12 pcs) Competitor (10 pcs) Chipping
Insert: CNMG120408 Cutting Conditions: $v_c = 220$ m/min, $f = 0,35$ mm/rev, $a_p = 1,5$ mm, wet	

Flywheel, GGG-40,3	AC4015K
Minimal wear even after twice the cutting processes thanks to excellent wear resistance.	
	
Continuous cut	NME AC4015K (80 pcs) Competitor (40 pcs)
Insert: WNMG120408 Cutting Conditions: $v_c = 230$ m/min, $f = 0,3$ mm/rev, $a_p = 2,0$ mm, wet	

# Stock Items

# Negative Type Inserts

## 80° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)							
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius				
	CNMG 120404 NLUW	●	●		12,7	4,76	5,16	0,4				
	120408 NLUW	●	●					0,8				
	120412 NLUW	●	●					1,2				
	CNMG 090304 NGU	○	○		9,525	3,18	3,81	0,4				
	090308 NGU	○	○					0,8				
	CNMG 090412 NGU	○	○					1,2				
		CNMG 120404 NGU	○	○		12,7	4,76	5,16	0,4			
		120408 NGU	○	○					0,8			
		120412 NGU	○	○					1,2			
		120416 NGU	○	○					1,6			
		CNMG 160608 NGU	○	○		15,875	6,35	6,35	0,8			
		160612 NGU	○	○					1,2			
		160616 NGU	○	○					1,6			
	CNMG 120408 NGUW	●	●		12,7	4,76	5,16	0,8				
	120412 NGUW	●	●					1,2				
	CNMG 120408 NME	○	○		12,7	4,76	5,16	0,8				
	120412 NME	○	○					1,2				
	120416 NME	○	○					1,6				
		CNMG 160608 NME	○	○		15,875	6,35	6,35	0,8			
		160612 NME	○	○					1,2			
		160616 NME	○	○					1,6			
CNMG 190612 NME		○	○		1,2							
	CNMG 190616 NME	○	○		19,05	6,35	7,94	1,6				
	190624 NME	○	○					2,4				
	CNMG 250924 NME	○	○					2,4				
	CNMG 120404 NUZ	●	●		12,7	4,76	5,16	0,4				
	120408 NUZ	●	●					0,8				
	120412 NUZ	●	●					1,2				
	120416 NUZ	○	○					1,6				
		CNMG 160608 NUZ	●	●		15,875	6,35	6,35	0,8			
		160612 NUZ	●	●					1,2			
		160616 NUZ	●	●					1,6			
		CNMG 190612 NUZ	○	○					1,2			
		190616 NUZ	○	○					1,6			
		190624 NUZ	○	○					2,4			
	CNMG 090408 NGZ	○	○		9,525	4,76	3,81	0,8				
	090412 NGZ	○	○					1,2				
	CNMG 120404 NGZ	●	●					0,4				
		CNMG 120408 NGZ	●	●		12,7	4,76	5,16	0,8			
		120412 NGZ	●	●					1,2			
		120416 NGZ	●	●					1,6			
		CNMG 160608 NGZ	○	○					15,875	6,35	6,35	0,8
		160612 NGZ	○	○								1,2
		160616 NGZ	○	○								1,6
		CNMG 190612 NGZ	○	○								1,2
190616 NGZ	○	○		1,6								
	CNMA 120404	○	○	●	12,7	4,76	5,16	0,4				
	120408	○	○	●				0,8				
	120412	○	○	●				1,2				
	120416	○	○	●				1,6				
		CNMA 160608	○	○	●	15,875	6,35	6,35	0,8			
		160612	○	○	●				1,2			
		160616	○	○	●				1,6			
CNMA 190612		○	○	●	1,2							
190616	○	○	●	1,6								

## 55° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)						
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius			
	DNMG 110404 NGU	○	○		9,525	4,76	3,81	0,4			
	110408 NGU	○	○					0,8			
	110412 NGU	○	○					1,2			
		DNMG 150404 NGU	○	○		12,7	4,76	5,16	0,4		
		150408 NGU	○	○					0,8		
		150412 NGU	○	○					1,2		
		150416 NGU	○	○					1,6		
DNMG 150604 NGU		○	○		12,7				6,35	5,16	0,4
150608 NGU		○	○								0,8
150612 NGU	○	○		1,2							
	DNMG 150616 NGU	○	○		12,7	4,76	5,16	1,6			
	150612 NME	○	○					0,8			
	150412 NME	○	○					1,2			
	150416 NME	○	○					1,6			
	DNMG 150608 NME	○	○		12,7	6,35	5,16	0,8			
	150612 NME	○	○					1,2			
	150616 NME	○	○					1,6			
	DNMG 150404 NUZ	○	○		12,7	4,76	5,16	0,4			
	150408 NUZ	○	○					0,8			
	150412 NUZ	○	○					1,2			
	DNMG 150608 NUZ	○	○	●				12,7	6,35	5,16	0,8
150612 NUZ	○	○	●	1,2							

● Euro stock ○ Japan stock

## 55° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)				
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius	
	DNMG 110408 NGZ	○	○	●	9,525	4,76	3,81	0,8	
	110412 NGZ	○	○	●				1,2	
		DNMG 150404 NGZ	○	○		12,7	4,76	5,16	0,4
		150408 NGZ	○	○					0,8
		150412 NGZ	○	○					1,2
	DNMG 150604 NGZ	○	○		12,7	6,35	5,16	0,4	
	150608 NGZ	○	○	●				0,8	
	150612 NGZ	○	○	●				1,2	
	DNMA 150404	○	○					12,7	4,76
150408	○	○		0,8					
150412	○	○		1,2					
DNMA 150608	○	○	●	0,8					
150612	○	○	●	1,2					

## Square Type

Shape	Cat. No.	Stock			Dimensions (mm)				
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius	
	SNMG 090304 NGU	○	○		9,525	3,18	3,81	0,4	
	090308 NGU	○	○					0,8	
	SNMG 120404 NGU	○	○					0,4	
		120408 NGU	○	○		12,7	4,76	5,16	0,8
		120412 NGU	○	○					1,2
		120416 NGU	○	○					1,6
SNMG 150608 NGU		○	○		15,875				6,35
150612 NGU	○	○		1,2					
150616 NGU	○	○		1,6					
	SNMG 120408 NME	○	○		12,7	4,76	5,16	0,8	
	120412 NME	○	○					1,2	
	120416 NME	○	○					1,6	
		SNMG 150608 NME	○	○		15,875	6,35	6,35	0,8
		150612 NME	○	○					1,2
		150616 NME	○	○					1,6
SNMG 190612 NME		○	○		19,05				6,35
190616 NME	○	○		1,6					
190624 NME	○	○		2,4					
	SNMG 250924 NME	○	○		2,4				
	SNMG 120408 NUZ	○	○	●	12,7	4,76	5,16	0,8	
	120412 NUZ	○	○	●				1,2	
	120416 NUZ	○	○	●				1,6	
		SNMG 150612 NUZ	○	○	●	15,875	6,35	6,35	1,2
		150616 NUZ	○	○	●				1,6
SNMG 190612 NUZ		○	○	●	19,05				6,38
190616 NUZ	○	○	●	1,6					
	SNMG 120408 NGZ	○	○	●		12,7	4,76	5,16	
	120412 NGZ	○	○	●	1,2				
	120416 NGZ	○	○	●	1,6				
		SNMG 150612 NGZ	○	○	●	15,875	6,35	6,35	1,2
		150616 NGZ	○	○	●				1,6
		SNMG 190612 NGZ	○	○	●				19,05
190616 NGZ	○	○	●	1,6					
	SNMA 120404	○	○	●	12,7	4,76	5,16	0,4	
	120408	○	○	●				0,8	
	120412	○	○	●				1,2	
	120416	○	○	●				1,6	
		SNMA 150612	○	○	●	15,875	6,35	6,35	1,2
		150616	○	○	●				1,6
		SNMA 190612	○	○	●				19,05
190616	○	○	●	1,6					

## Triangular Type

Shape	Cat. No.	Stock			Dimensions (mm)						
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius			
	TNMG 160404 NGU	○	○		9,525	4,76	3,81	0,4			
	160408 NGU	○	○					0,8			
	160412 NGU	○	○					1,2			
		TNMG 160416 NGU	○	○		12,7	4,76	5,16	1,6		
		220404 NGU	○	○					0,4		
	TNMG 220408 NGU	○	○		12,7	4,76	5,16	0,8			
	220412 NGU	○	○					1,2			
	TNMG 160408 NME	○	○					9,525	4,76	3,81	0,8
	160412 NME	○	○								1,2
TNMG 220408 NME	○	○		12,7	4,76	5,16	0,8				
220412 NME	○	○					1,2				
220416 NME	○	○		1,6							

## Triangular Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius
	TNMG 160404 NUZ	○	○	●				0,4
	160408 NUZ	○	○	●				0,8
	160412 NUZ	○	○	●	9,525	4,76	3,81	1,2
	160416 NUZ	○	○	○				1,6
	160420 NUZ	○	○	○				2,0
TNMG	220408 NUZ	○	○	○				0,8
	220412 NUZ	○	○	○	12,7	4,76	5,16	1,2
	220416 NUZ	○	○	○				1,6
	TNMG 160404 NGZ	○	○	○				0,4
	160408 NGZ	●	●	●	9,525	4,76	3,81	0,8
	160412 NGZ	○	○	●				1,2
	TNMG 220408 NGZ	○	○	○				0,8
	220412 NGZ	○	○	○	12,7	4,76	5,16	1,2
220416 NGZ	○	○	○				1,6	
	TNMA 160404	○	○	○				0,4
	160408	○	○	○				0,8
	160412	○	○	●	9,525	4,76	3,81	1,2
	160416	○	○	○				1,6
	160420	○	○	○				2,0
TNMA	220408	○	○	○				0,8
	220412	○	○	○	12,7	4,76	5,16	1,2
	220416	○	○	○				1,6

## Square Type (without Insert Hole)

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius
	SNMN 120408	○	○	○				0,8
	120412	○	○	○	12,7	4,76	-	1,2
	120416	○	○	○				1,6

## Triangular Type (without Insert Hole)

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius
	TNMN 160408	○	○	○				0,8
	160412	○	○	○	9,525	4,76	-	1,2
	160416	○	○	○				1,6

## 35° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius
	VNMG 160404 NGU	○	○	○				0,4
	160408 NGU	○	○	○	9,525	4,76	3,81	0,8
	160412 NGU	○	○	○				1,2
	VNMG 160404 NUZ	○	○	○				0,4
	160408 NUZ	○	○	○	9,525	4,76	3,81	0,8
	160412 NUZ	○	○	○				1,2
	VNMG 160404 NGZ	○	○	○				0,4
	160408 NGZ	●	●	○	9,525	4,76	3,81	0,8
	160412 NGZ	●	○	○				1,2
	VNMA 160404	○	○	○				0,4
	160408	○	○	○	9,525	4,76	3,81	0,8
	160412	○	○	○				1,2

## Trigon Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC4010K	AC4015K	AC420K	Inscribed Circle	Thick-ness	Screw Hole Ø	Nose Radius
	WNMG 080408 NLUW	●	●	○	12,7	4,76	5,16	0,8
	080412 NLUW	●	○	○				1,2
	WNMG 060404 NGU	○	○	○				0,4
	060408 NGU	○	○	○	9,525	4,76	3,81	0,8
	060412 NGU	○	○	○				1,2
	WNMG 080404 NGU	○	○	○				0,4
	080408 NGU	○	○	○	12,7	4,76	5,16	0,8
080412 NGU	○	○	○				1,2	
WNMG 080408 NGUW	●	○	○	12,7	4,76	5,16	0,8	
	WNMG 060408 NME	○	○	○	9,525	4,76	3,81	0,8
	060412 NME	○	○	○				1,2
	WNMG 080408 NME	○	○	○				0,8
	080412 NME	○	○	○	12,7	4,76	5,16	1,2
080416 NME	○	○	○				1,6	
	WNMG 080404 NUZ	○	○	○				0,4
	080408 NUZ	○	○	●	12,7	4,76	5,16	0,8
	080412 NUZ	●	○	○				1,2
	WNMG 060408 NGZ	○	○	●	9,525	4,76	3,81	0,8
	060412 NGZ	○	○	●				1,2
	WNMG 080404 NGZ	○	○	○				0,4
080408 NGZ	○	○	●	12,7	4,76	5,16	0,8	
080412 NGZ	○	○	●				1,2	
	WNMA 080408	○	○	○				0,8
	080412	○	○	○	12,7	4,76	5,16	1,2
	080416	○	○	○				1,6

● Euro stock ○ Japan stock

## 80° Diamond Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC4010K	AC4015K	AC420K	Inscribed Circle	Thickness	Screw Hole Ø	Nose Radius
	7°	CCMT 09T304 NLB	●	●		9,525	3,97	4,4	0,4
		09T308 NLB	●	●					0,8
	7°	CCMT 060204 NSU	●	●		6,35	2,38	2,8	0,4
		CCMT 09T304 NSU	●	●					0,4
		09T308 NSU	●	●		9,525	3,97	4,4	0,8
		CCMT 120404 NSU	●	●		12,7	4,76	5,5	0,4
		120408 NSU	●	●				0,8	
	7°	CCMT 120412 NSK	●	●		12,7	4,76	5,5	1,2
	7°	CCMT 09T304 NMU	○	●	●	9,525	3,97	4,4	0,4
		09T308 NMU	●	●	●				0,8
	7°	CCMW 060204	○	○		6,35	2,38	2,8	0,4
		CCMW 09T304	○	○					0,4
		09T308	○	○	●	9,525	3,97	4,4	0,8
	11°	CPMT 080204 NMU	○	○		7,94	2,38	3,4	0,4
		080208 NMU	○	○					0,8
		CPMT 090304 NMU	○	○		9,525	3,18	4,4	0,4
		090308 NMU	○	○					0,8
	11°	CPMW 080204	○	○		7,94	2,38	3,4	0,4
		080208	○	○					0,8
		CPMW 090304	○	○		9,525	3,18	4,4	0,4
		090308	○	○				0,8	

## 55° Diamond Type

	7°	DCMT 070208 NSU	●	●		6,35	2,38	2,8	0,8
		DCMT 11T304 NSU	●	●					0,4
		11T308 NSU	●	●		9,525	3,97	4,4	0,8
	7°	DCMT 11T304 NMU	○	●	●	9,525	3,97	4,4	0,4
		11T308 NMU	●	●	●				0,8
	7°	DCMW 070204	○	○		6,35	2,38	2,8	0,4
		070208	○	○					0,8
		DCMW 11T304	○	○		9,525	3,97	4,4	0,4
		11T308	●	●					0,8

## Round Type

	7°	RCMX 1003M0NRP	○	○		10,0	3,18	3,6	-
		RCMX 1204M0NRP	○	○		12,0	4,76	4,2	-
		RCMX 1606M0NRP	○	○		16,0	6,35	5,2	-

## Square Type

	7°	SCMT 09T308 NSU	●	●		9,525	3,97	4,4	0,8
		SCMT 120408 NSU	●	●		12,7	4,76	5,5	0,8
	7°	SCMT 09T308 NMU	○	○	●	9,525	3,97	4,4	0,8
		SCMT 120408 NMU	○	○	●	12,7	4,76	5,5	0,8
	7°	SCMW 09T308	○	○		9,525	3,97	4,4	0,8
		SCMW 120408	○	○					0,8
		120412	○	○		12,7	4,76	5,5	1,2

## Triangular Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC4010K	AC4015K	AC420K	Inscribed Circle	Thickness	Screw Hole Ø	Nose Radius
	7°	TCMW 110204	○	○		6,35	2,38	2,8	0,4
		110208	○	○					0,8
		TCMW 16T304	○	○					0,4
		16T308	○	○		9,525	3,97	4,3	0,8
		16T312	○	○				1,2	
	7°	TCMT 110208 NSU	●	●		6,35	2,38	2,8	0,8
		TCMT 16T308 NSU	●	●		9,525	3,97	4,3	0,8
	7°	TCMT 16T312 NSK	●	●		9,525	3,97	4,3	1,2
	11°	TPMT 110304 NMU	○	○		6,35	3,18	3,4	0,4
		110308 NMU	○	○					0,8
	11°	TPMT 160404 NMU	○	○		9,525	4,76	4,4	0,4
		160408 NMU	○	○					0,8

## 35° Diamond Type

	5°	VBMT 160404 NSU	●	●		9,525	4,76	4,4	0,4
		160408 NSU	●	●					0,8
	5°	VBMT 160412 NSK	●	●		9,525	4,76	4,4	1,2
	5°	VBMW 160404	○	○		9,525	4,76	4,4	0,4
		160408	○	○					0,8
	7°	VCMT 160404 NSU	●	●		9,525	4,76	4,4	0,4

## Square Type (without Insert Hole)

	11°	SPMN 090304	○	○		9,525	3,18	-	0,4
		090308	○	○					0,8
	11°	SPMN 120304	○	○		12,7	3,18	-	0,4
		120308	○	○					0,8
		120312	○	○				1,2	

## Triangular Type (without Insert Hole)

	11°	TPMN 110304	○	○		6,35	3,18	-	0,4
		110308	○	○					0,8
	11°	TPMN 160304	○	○		9,525	3,18	-	0,4
		160308	○	○					0,8
		160312	○	○				1,2	

● Euro stock ○ Japan stock



CARBIDE - CBN - DIAMOND

(Germany)  
SUMITOMO ELECTRIC Hartmetall GmbH  
Konrad-Zuse-Straße 9, 47877 Willich

Tel. +49 2154 4992-0, Fax +49 2154 4992-161  
Info@SumitomoTool.com  
www.SumitomoTool.com



(UK and Ireland)  
SUMITOMO ELECTRIC Hardmetal Ltd.  
Summerleys Road, Princes Risborough  
Buckinghamshire HP27 9PW, UK

Tel. +44 1844 342081, Fax: +44 1844 342415  
SalesUK@sumitomotool.com  
www.Sumitomotool.com

