



SUMITOMO

CARBIDE - CBN - DIAMOND

Global Support, Global Solutions.

Coated Grades for Exotic Alloys

AC5005S/AC5015S/AC5025S



New coated grades for exotic alloy turning,
creating "ABSOLUTELY STABLE CUTTING"

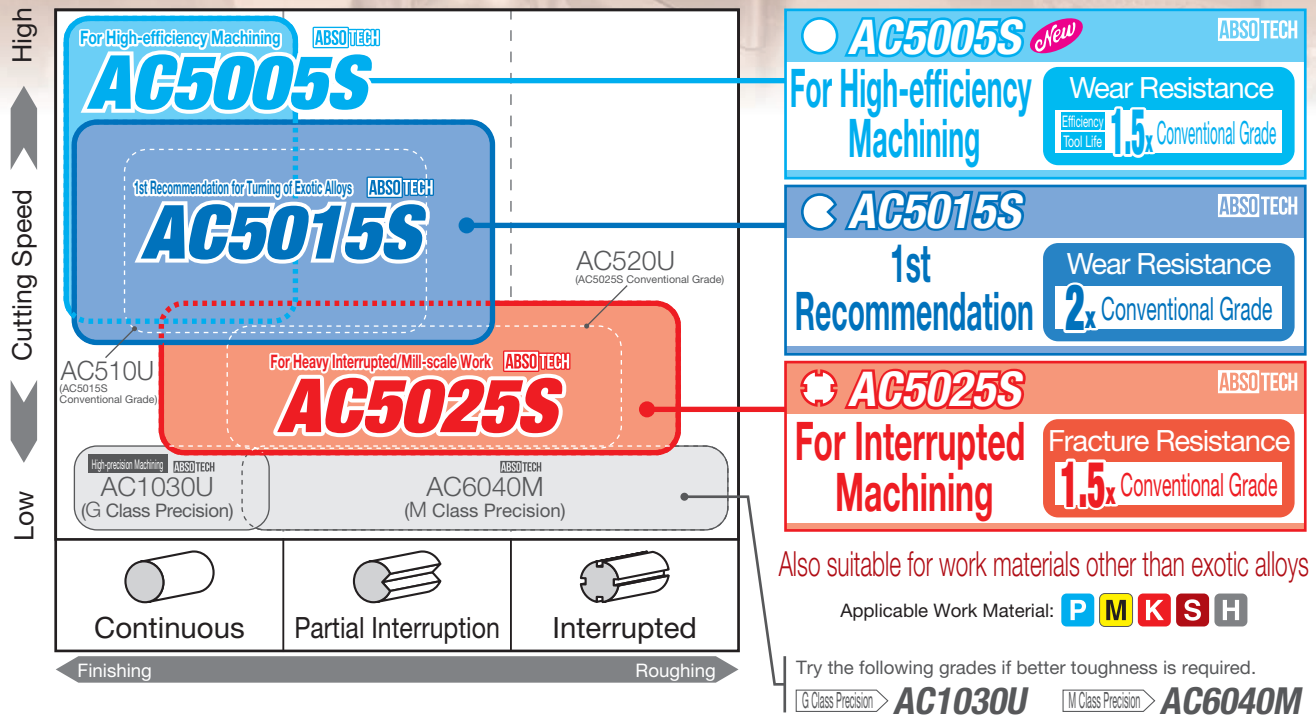
New High-efficiency Milling Grade
Introducing AC5005S



Coated Grades for Exotic Alloy Turning

AC5005S^{New} / AC5015S / AC5025S

Application Range



Features of AC5000S Series



PVD Coating Technology **ABSOTECH™**

Highly heat-resistant ultra multi-layered thin-film AlTiSiN structure realises excellent crater wear resistance and flank wear resistance.

Newly Developed Tough Carbide Substrate

Introduction of a revolutionary new sintering process enables hardness to be maintained while greatly improving toughness, achieving excellent notch wear and chipping resistance.



^{New} Newly Developed Heat-Resistant Carbide Substrate **AC5005S**

High efficiency with a newly developed dedicated substrate with excellent high-temperature hardness/strength. Realises excellent wear resistance and plastic deformation resistance during machining.



Deformation at high temperatures
50% Down from Conventional Grade

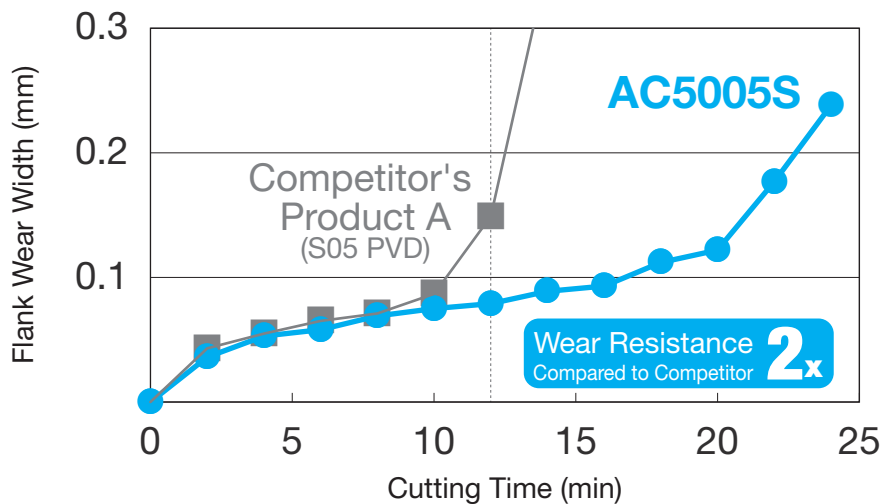
(High-temperature deformation evaluation 800°C)

● Chipbreaker Selection

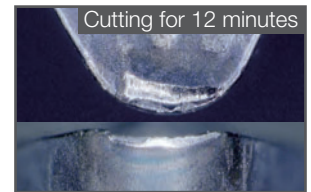
Negative	<p>For Finishing EF Type</p> <p>Main chipbreaker exhibits excellent chip evacuation performance even with small depths of cut</p> <p>Cutting edge designed with an emphasis on sharpness (20° rake angle) to suppress wear</p> <p>Grooved rake face suppresses heat generation and uneven contact</p>	<p>Chipbreaker Cross Section</p> <p>Corner Part 1.2 (mm) 20°</p> <p>Cutting Edge 20°</p> <p>CNMG120400 Type</p>	
	<p>For Medium to Rough Cutting EG Type</p> <p>Spherical protrusions exhibit excellent chip evacuation performance over a wide range of conditions</p> <p>Cutting edge shape that retains its strength even after wear progresses</p>	<p>Chipbreaker Cross Section</p> <p>Corner Part 0.09, 2.20 (mm) 20°, 30°</p> <p>Cutting Edge 0.09 (mm) 20°, 30°</p> <p>CNMG120400 Type</p>	
	<p>For Roughing EM Type</p> <p>Large convex rake face design keeps its cutting edge strength while suppressing crater wear</p> <p>Suppresses notch wear by eliminating the change of cutting points on the cutting edge</p>	<p>Chipbreaker Cross Section</p> <p>Corner Part 0.05, 2.50 (mm) 20°</p> <p>Cutting Edge 0.30 (mm) 25°</p> <p>CNMG120400 Type</p>	
Positive	<p>For Finishing to Light Cutting SI Type</p> <p>Dimpled shape suppresses heat generation due to large depths of cut</p> <p>Cutting edge designed with an emphasis on sharpness (15° rake angle)</p> <p>Cutting edge shape intended to improve profiling and reduce cutting force</p>	<p>Chipbreaker Cross Section</p> <p>Corner Part 0.8 (mm) 15°</p> <p>Cutting Edge 14°</p> <p>CCGT09T300 Type</p>	
	<p>For Light to Medium Cutting GU Type <i>New</i></p> <p>Suppresses chip build-up at high feed rates for ideal chip control</p> <p>Protrusion design controls chip flow</p> <p>Rake face shape with excellent balance of sharpness and strength</p>	<p>Chipbreaker Cross Section</p> <p>Corner Part 0.2, 1.6 (mm) 5°, 15°</p> <p>Cutting Edge 0.15 (mm) 3°, 25°, 8°</p> <p>CCGT09T300 Type</p>	

AC5005S/AC5015S/AC5025S

● Comparison of Wear Resistance for AC5005S (High-speed) Newly developed heat-resistant carbide substrate and PVD coating technology ABSOTECH™ suppress wear



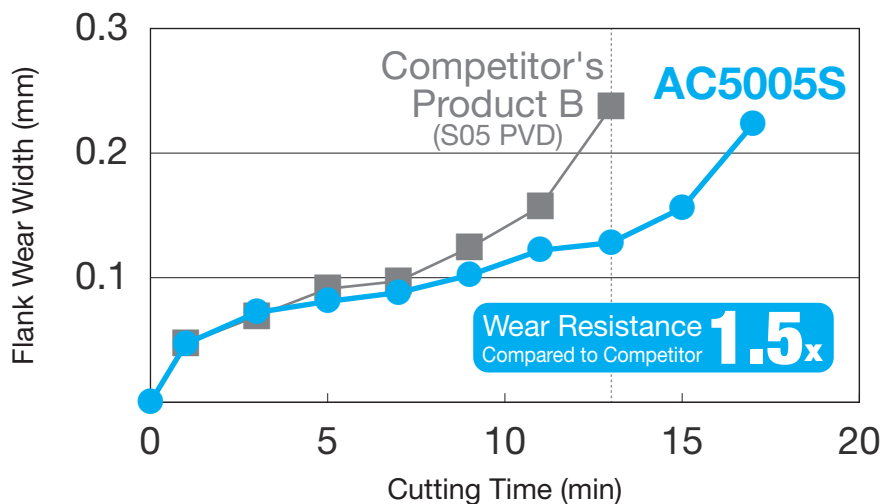
AC5005S



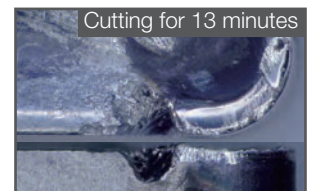
Competitor's Product A

Work Material: Inconel 718 (44HRC) Insert: DNMG150408 Cutting Conditions: $v_c = 100\text{m/min}$ $f = 0.15\text{mm/rev}$ $a_p = 0.50\text{mm}$ Wet

● Comparison of Wear Resistance for AC5005S (High-feed) Newly developed heat-resistant carbide substrate and PVD coating technology ABSOTECH™ suppress wear



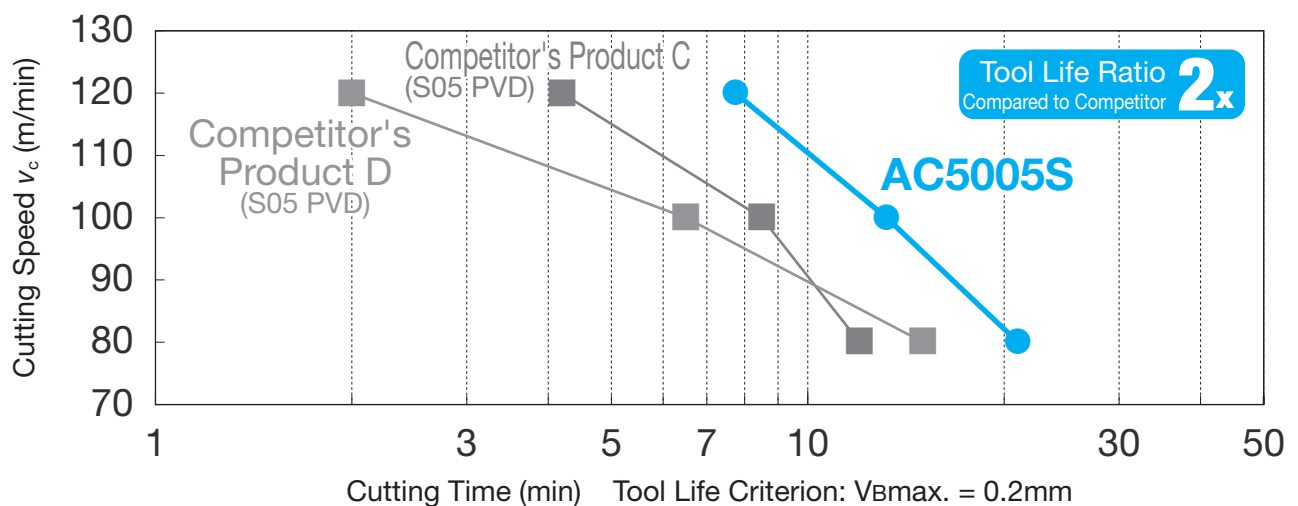
AC5005S



Competitor's Product B

Work Material: Inconel 718 (44HRC) Insert: CNMG120408 Cutting Conditions: $v_c = 50\text{m/min}$ $f = 0.25\text{mm/rev}$ $a_p = 1.50\text{mm}$ Wet

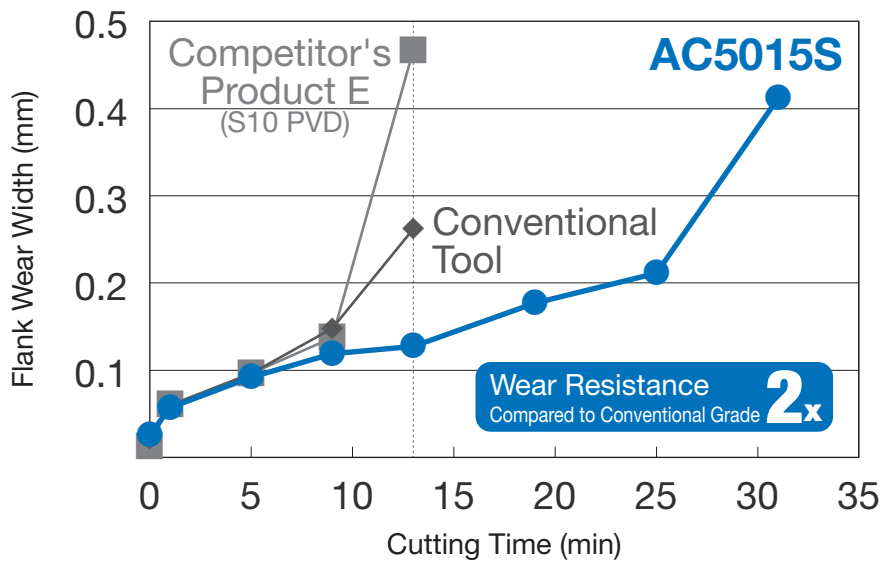
● Tool Life of AC5005S (V-T Chart (High-speed)) 2x longer tool life in high-speed machining



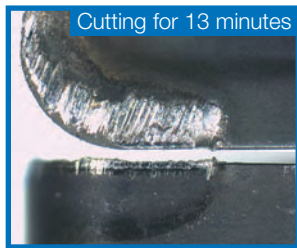
Work Material: Inconel 718 (45HRC) Insert: CNMG120408 Cutting Conditions: $f = 0.15\text{mm/rev}$ $a_p = 0.50\text{mm}$ Wet

AC5005S/AC5015S/AC5025S

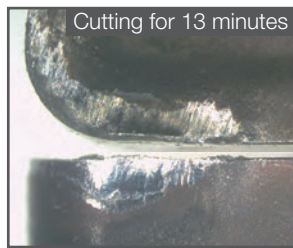
● Comparison of Wear Resistance for AC5015S PVD Coating Technology ABSOTECH™ Suppresses Wear



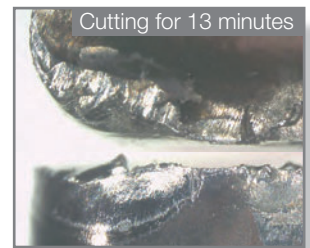
Work Material : Inconel 718 (44HRC)
 Insert : CNMG120408
 Cutting Conditions: $v_c = 40\text{m/min}$
 $f = 0.1\text{mm/rev}$
 $a_p = 1.5\text{mm}$
 Wet



AC5015S

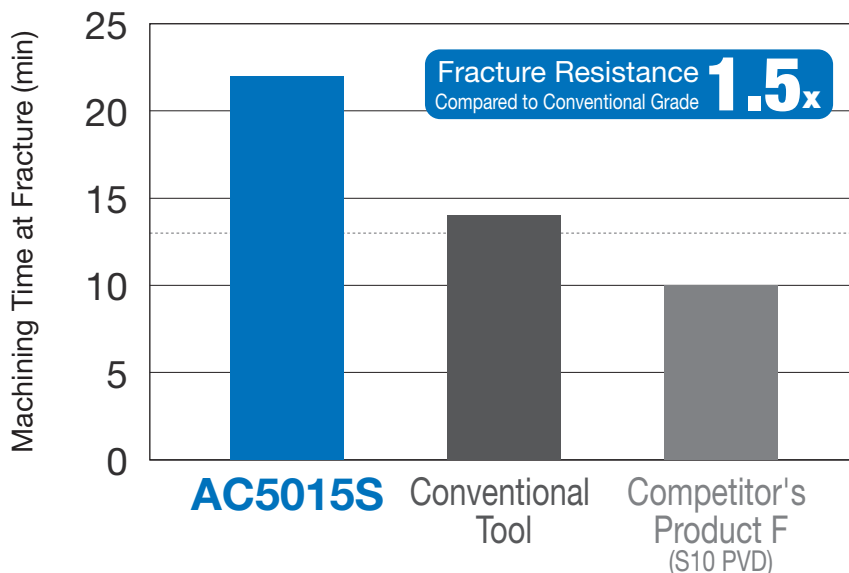


Conventional Tool

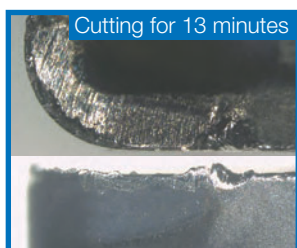


Comp's E (S10 PVD)

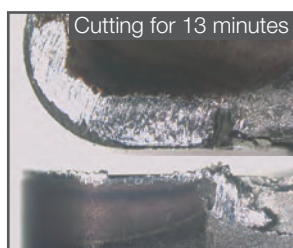
● Comparison of Fracture Resistance for AC5015S Newly Developed Tough Substrate Suppresses Notch Wear



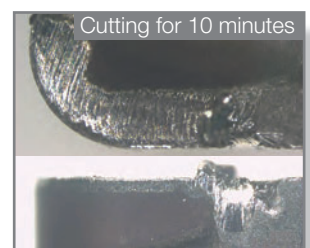
Work Material : Hastelloy (22HRC)
 Insert : CNMG120408
 Cutting Conditions: $v_c = 50\text{m/min}$
 $f = 0.1\text{mm/rev}$
 $a_p = 1.5\text{mm}$
 Wet



AC5015S



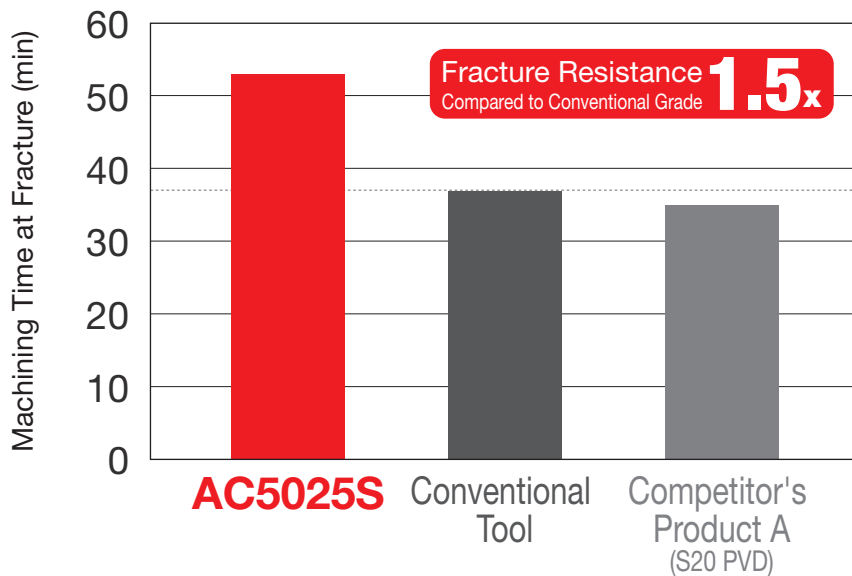
Conventional Tool



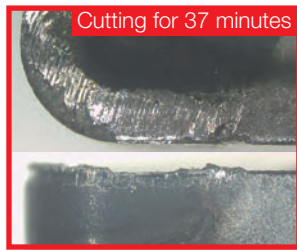
Comp's F (S10 PVD)

AC5005S/AC5015S/AC5025S

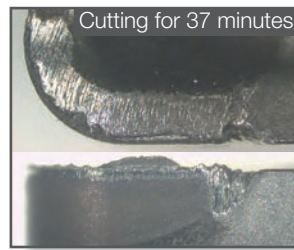
● Comparison of Fracture Resistance for AC5025S Newly Developed Tough Substrate Suppresses Notch Wear



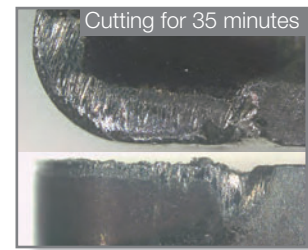
Work Material : Hastelloy (22HRC)
 Insert : CNMG120408
 Cutting Conditions: $v_c = 50\text{m/min}$
 $f = 0.1\text{mm/rev}$
 $a_p = 1.5\text{mm}$
 Wet



AC5025S

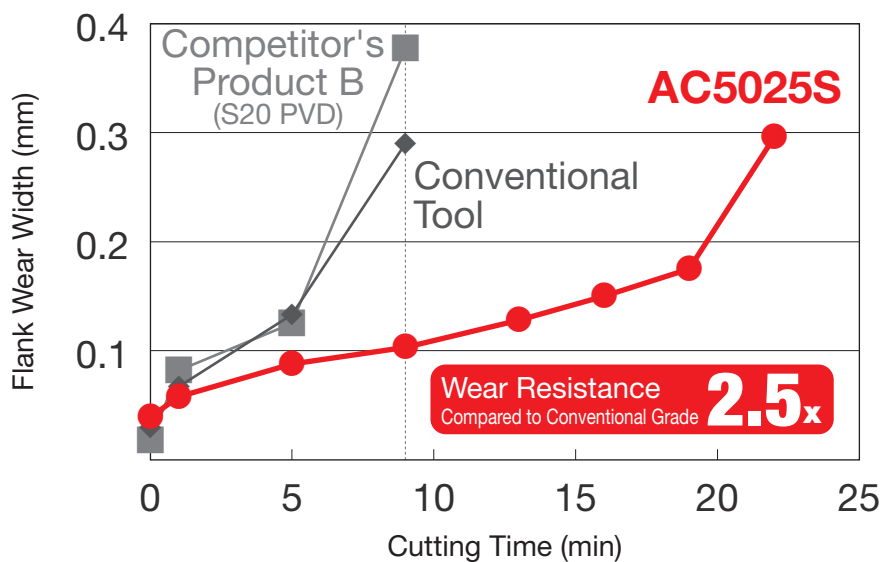


Conventional Tool

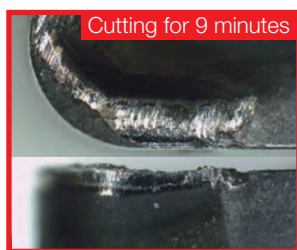


Comp's A (S20 PVD)

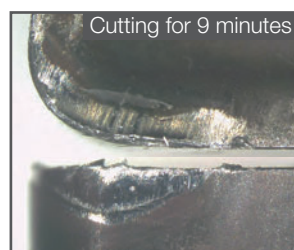
● Comparison of Wear Resistance for AC5025S PVD Coating Technology ABSOTECH™ Suppresses Wear



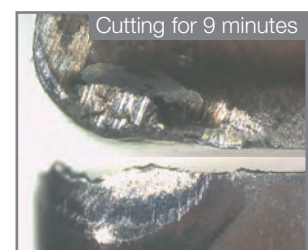
Work Material : Inconel 718 (44HRC)
 Insert : CNMG120408
 Cutting Conditions: $v_c = 40\text{m/min}$
 $f = 0.1\text{mm/rev}$
 $a_p = 1.5\text{mm}$
 Wet



AC5025S



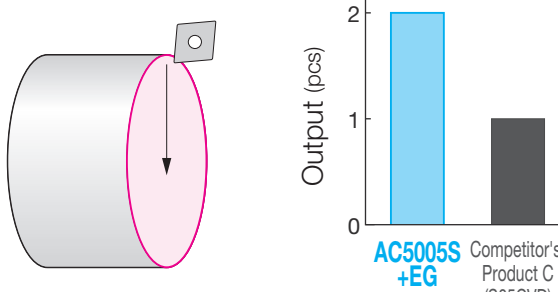
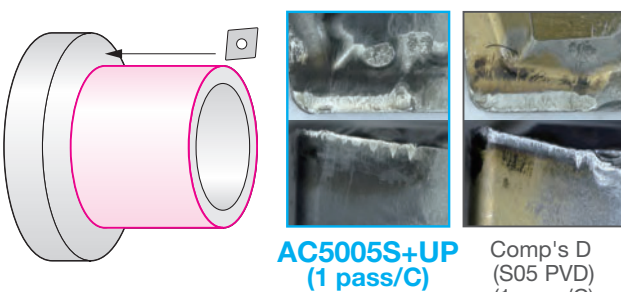
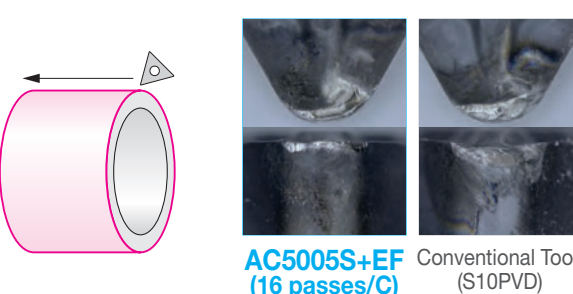
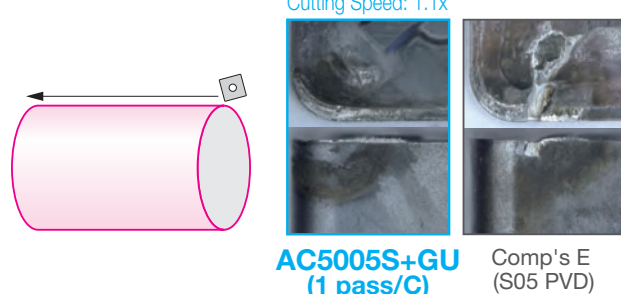
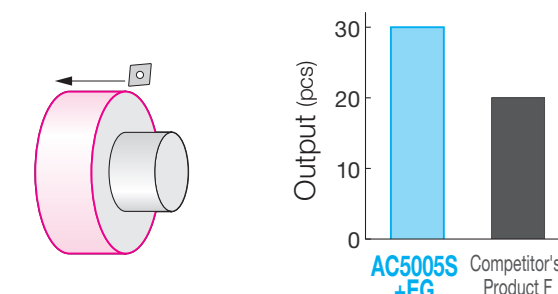
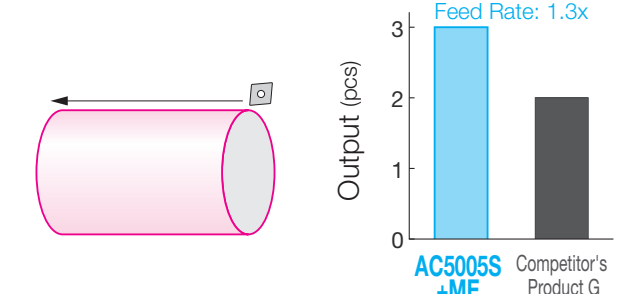
Conventional Tool



Comp's B (S20 PVD)

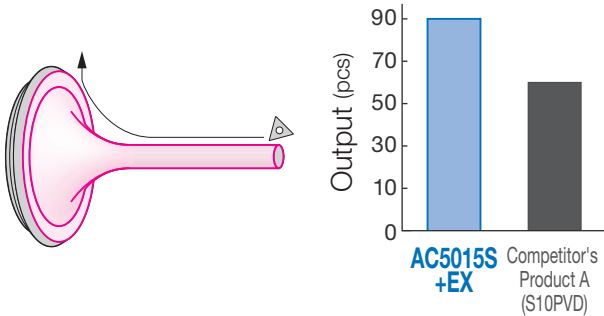
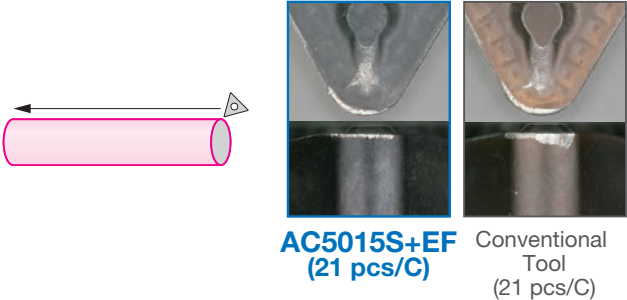
AC5005S/AC5015S/AC5025S

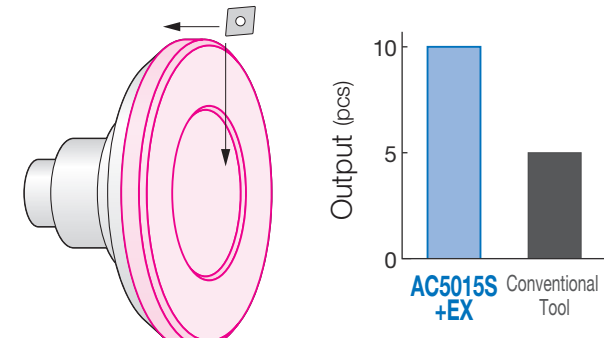
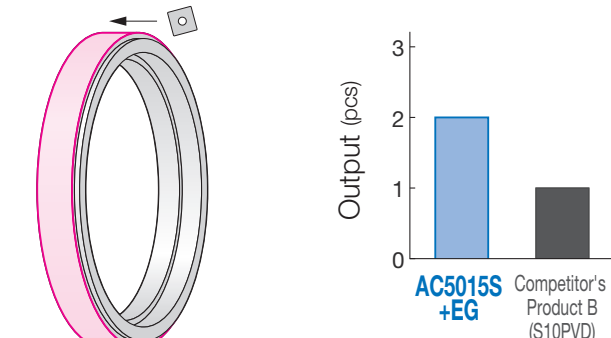
● Application Examples of AC5005S

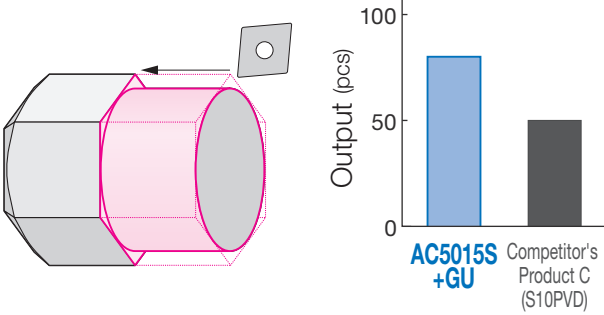
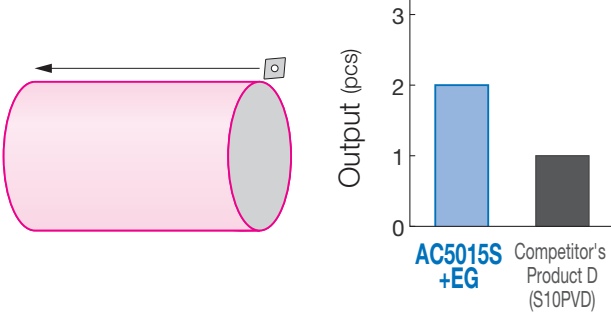
<p>Inconel 718 Aerospace Component S</p> <p>Good wear resistance for 2x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5005S+EG</td> <td>2</td> </tr> <tr> <td>Competitor's Product C (S05CVD)</td> <td>1</td> </tr> </table> <p>Tool : CNMG190616N-EG (AC5005S) Cutting Conditions : $v_c=55\text{m/min}$ $f=0.3\text{mm/rev}$ $a_p=3.0\text{mm}$ Wet</p>	AC5005S+EG	2	Competitor's Product C (S05CVD)	1	<p>Inconel 718 Aerospace Component S</p> <p>Suppresses wear and extends tool life</p>  <p>AC5005S+UP (1 pass/C) Comp's D (S05 PVD) (1 pass/C)</p> <p>Tool : CNMG120408N-UP (AC5005S) Cutting Conditions : $v_c=45\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=3.2\text{mm}$ Wet</p>				
AC5005S+EG	2								
Competitor's Product C (S05CVD)	1								
<p>Ni-based Heat-Resistant Alloy Industrial Machine Component S</p> <p>Good wear resistance for at least 5x longer tool life</p>  <p>AC5005S+EF (16 passes/C) Conventional Tool (S10PVD) (3 passes/C)</p> <p>Tool : TNMG160408N-EF (AC5005S) Cutting Conditions : $v_c=30\text{m/min}$ $f=0.13\text{mm/rev}$ $a_p=0.8\text{mm}$ Wet</p>	<p>Hardened Steel Industrial Machine Component (50 to 55HRC) H</p> <p>Good wear resistance for 13% reduced machining time and extendable tool life</p> <p>Cutting Speed: 1.1x</p>  <p>AC5005S+GU (1 pass/C) Comp's E (S05 PVD) (1 pass/C)</p> <p>Tool : SNMG120412N-GU (AC5005S) Cutting Conditions : $v_c=51\text{m/min}$ $f=0.4\text{mm/rev}$ $a_p=1.4\text{mm}$ Wet</p>								
<p>15-5 PH Stainless Steel Industrial Machine Component M</p> <p>Good wear resistance for 1.4x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5005S+EG</td> <td>30</td> </tr> <tr> <td>Competitor's Product F (M10CVD)</td> <td>20</td> </tr> </table> <p>Tool : CNMG120408N-EG (AC5005S) Cutting Conditions : $v_c=100\text{m/min}$ $f=0.2\text{mm/rev}$ $a_p=0.6\text{mm}$ Wet</p>	AC5005S+EG	30	Competitor's Product F (M10CVD)	20	<p>15-5 PH Stainless Steel Aerospace Component M</p> <p>Good wear resistance for 66% reduced machining time and 1.5x longer tool life</p> <p>Cutting Speed: 1.5x Feed Rate: 1.3x</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5005S+ME</td> <td>3</td> </tr> <tr> <td>Competitor's Product G (S10PVD)</td> <td>2</td> </tr> </table> <p>Tool : CNMG120412N-ME (AC5005S) Cutting Conditions : $v_c=55\text{m/min}$ $f=0.36\text{mm/rev}$ $a_p=2.5\text{mm}$ Wet</p>	AC5005S+ME	3	Competitor's Product G (S10PVD)	2
AC5005S+EG	30								
Competitor's Product F (M10CVD)	20								
AC5005S+ME	3								
Competitor's Product G (S10PVD)	2								

AC5005S/AC5015S/AC5025S

● Application Examples of AC5015S

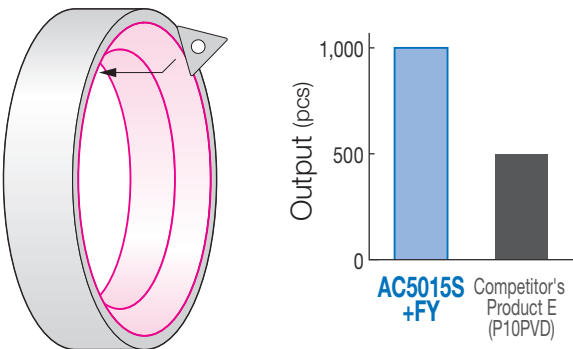
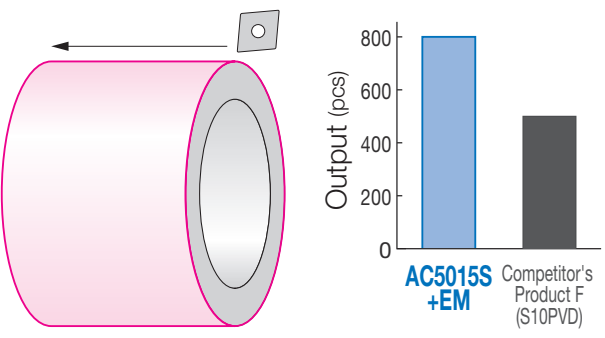
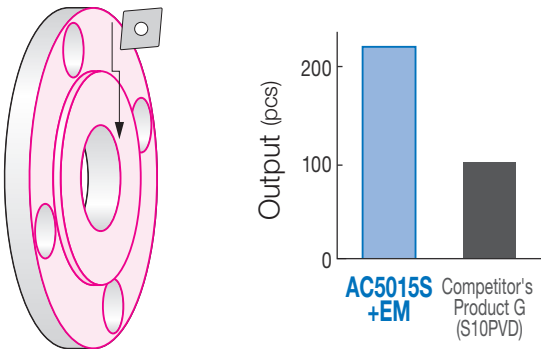
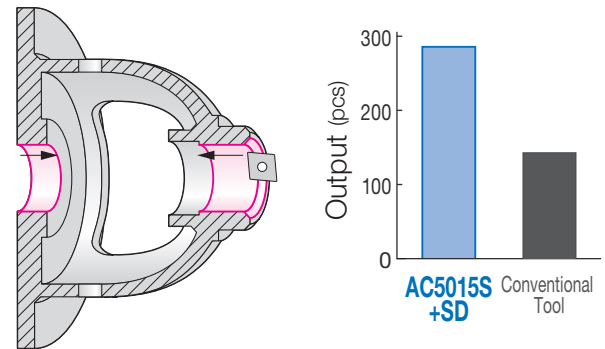
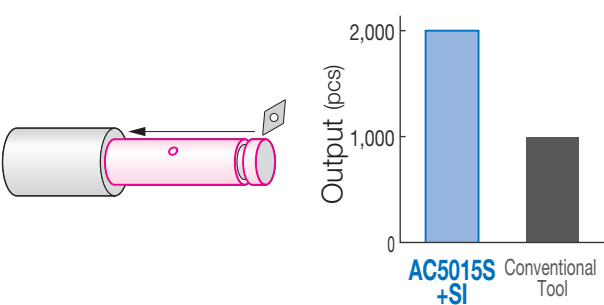
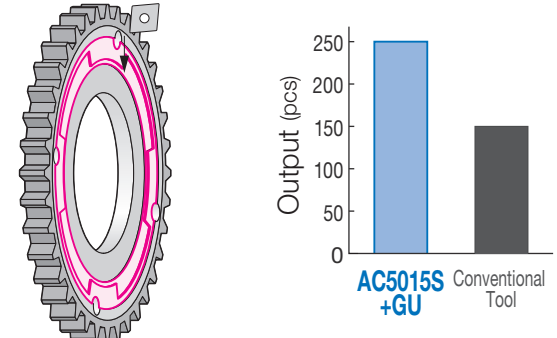
Ni-Based Heat-Resistant Alloy Automotive Component S	Inconel Automotive Component S
<p>Good wear resistance for 1.5x longer tool life</p>  <p>Output (pcs)</p> <p>AC5015S+EX: 90 pcs Competitor's Product A (S10PVD): 60 pcs</p>	<p>Suppresses wear and extends tool life</p>  <p>AC5015S+EF (21 pcs/C) Conventional Tool (21 pcs/C)</p>
<p>Tool : TNMG160408N-EX (AC5015S) Cutting Conditions : $v_c=82\text{m/min}$ $f=0.12\text{mm/rev}$ $a_p=0.5\text{mm}$ Wet</p>	<p>Tool : TNMG160408N-EF (AC5015S) Cutting Conditions : $v_c=30\text{m/min}$ $f=0.04\text{mm/rev}$ $a_p=0.5\text{mm}$ Wet</p>

Inconel 713C Automotive Component S	Inconel 718 Aerospace Component S
<p>Suppresses wear for 2x longer tool life</p>  <p>Output (pcs)</p> <p>AC5015S+EX: 10 pcs Conventional Tool: 5 pcs</p>	<p>Good wear resistance for 2x longer tool life</p>  <p>Output (pcs)</p> <p>AC5015S+EG: 2 pcs Competitor's Product B (S10PVD): 1 pc</p>
<p>Tool : CNMG120408N-EX (AC5015S) Cutting Conditions : $v_c=100\text{m/min}$ $f=0.12\text{mm/rev}$ $a_p=0.3\text{mm}$ Wet</p>	<p>Tool : SNMG120408N-EG (AC5015S) Cutting Conditions : $v_c=50\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=2.0\text{mm}$ Wet</p>

Inconel 625 Aerospace Component S	Inconel 718 Aerospace Component S
<p>Good wear resistance for 1.6x longer tool life</p>  <p>Output (pcs)</p> <p>AC5015S+GU: 80 pcs Competitor's Product C (S10PVD): 50 pcs</p>	<p>Good wear resistance for 2x longer tool life</p>  <p>Output (pcs)</p> <p>AC5015S+EG: 2 pcs Competitor's Product D (S10PVD): 1 pc</p>
<p>Tool : CNMG120408N-GU (AC5015S) Cutting Conditions : $v_c=50\text{m/min}$ $f=0.3\text{mm/rev}$ $a_p=0.5\text{mm}$ Wet</p>	<p>Tool : CNMG120408N-EG (AC5015S) Cutting Conditions : $v_c=37\text{m/min}$ $f=0.2\text{mm/rev}$ $a_p=1.4\text{mm}$ Wet</p>

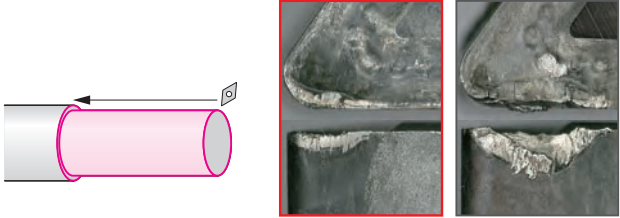
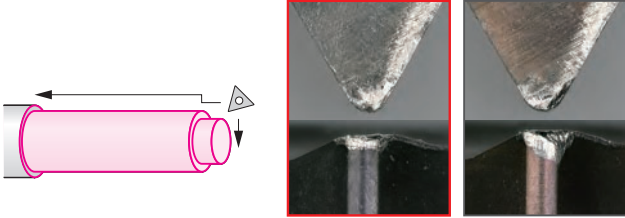
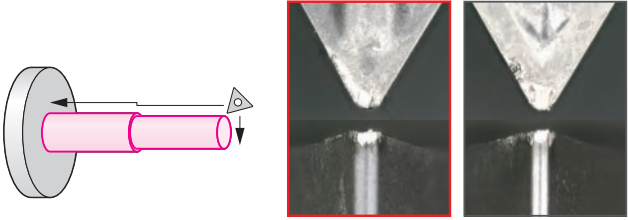
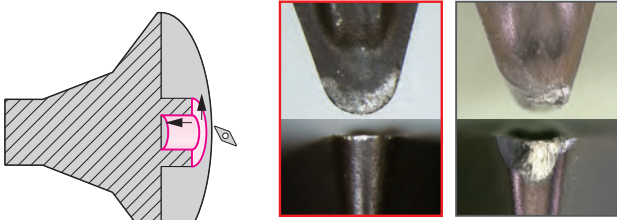
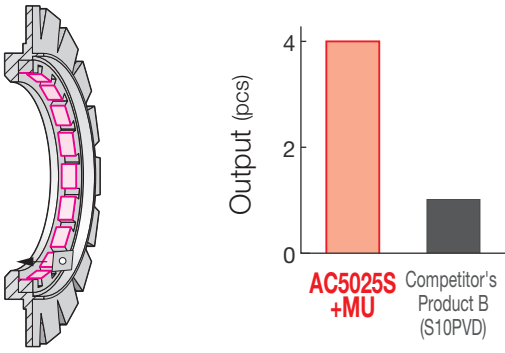
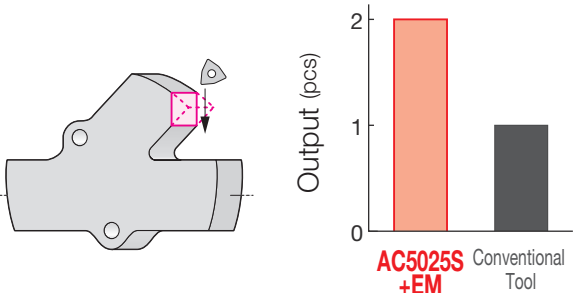
AC5005S/AC5015S/AC5025S

● Application Examples of AC5015S

<p>SUJ2 Automotive Components P</p> <p>Suppresses wear for 2x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +FY</td> <td>1,000</td> </tr> <tr> <td>Competitor's Product E (P10PVD)</td> <td>500</td> </tr> </table> <p>Tool : TNGG160402R-FY (AC5015S) Cutting Conditions : $v_c=120\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=0.3\text{mm}$ Wet</p>	AC5015S +FY	1,000	Competitor's Product E (P10PVD)	500	<p>Alloy Steel Industrial Machine Component P</p> <p>Stable machining for 1.6x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +EM</td> <td>800</td> </tr> <tr> <td>Competitor's Product F (S10PVD)</td> <td>500</td> </tr> </table> <p>Tool : CNMG120408N-EM (AC5015S) Cutting Conditions : $v_c=120\text{m/min}$ $f=0.25\text{mm/rev}$ $a_p=0.30\text{mm}$ Wet</p>	AC5015S +EM	800	Competitor's Product F (S10PVD)	500
AC5015S +FY	1,000								
Competitor's Product E (P10PVD)	500								
AC5015S +EM	800								
Competitor's Product F (S10PVD)	500								
<p>SCS13A Stainless Cast Steel Valve Component M</p> <p>Suppresses wear for 2.2x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +EM</td> <td>220</td> </tr> <tr> <td>Competitor's Product G (S10PVD)</td> <td>100</td> </tr> </table> <p>Tool : CNMG120408N-EM (AC5015S) Cutting Conditions : $v_c=90\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=2.00\text{mm}$ Wet</p>	AC5015S +EM	220	Competitor's Product G (S10PVD)	100	<p>FCD450 Automotive Component K</p> <p>Suppresses wear for 2x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +SD</td> <td>290</td> </tr> <tr> <td>Conventional Tool</td> <td>145</td> </tr> </table> <p>Tool : CPGT090308N-SD (AC5015S) Cutting Conditions : $v_c=210\text{m/min}$ $f=0.19\text{mm/rev}$ $a_p=0.25\text{mm}$ Wet</p>	AC5015S +SD	290	Conventional Tool	145
AC5015S +EM	220								
Competitor's Product G (S10PVD)	100								
AC5015S +SD	290								
Conventional Tool	145								
<p>Hardened Steel Automotive Component (47HRC) H</p> <p>Suppresses wear for 2x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +SI</td> <td>2,000</td> </tr> <tr> <td>Conventional Tool</td> <td>1,000</td> </tr> </table> <p>Tool : DCGT070202MN-SI (AC5015S) Cutting Conditions : $v_c=70\text{m/min}$ $f=0.03\text{mm/rev}$ $a_p=0.80\text{mm}$ Wet</p>	AC5015S +SI	2,000	Conventional Tool	1,000	<p>Sintered Ferrous Alloy Automotive Component Sintered Alloy</p> <p>Suppresses notch wear for 1.7x longer tool life</p>  <p>Output (pcs)</p> <table border="1"> <tr> <td>AC5015S +GU</td> <td>250</td> </tr> <tr> <td>Conventional Tool</td> <td>150</td> </tr> </table> <p>Tool : CNMG120408N-GU (AC5015S) Cutting Conditions : $v_c=170\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=0.30\text{mm}$ Wet</p>	AC5015S +GU	250	Conventional Tool	150
AC5015S +SI	2,000								
Conventional Tool	1,000								
AC5015S +GU	250								
Conventional Tool	150								

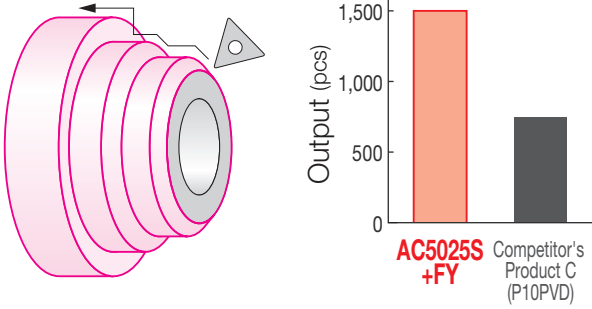
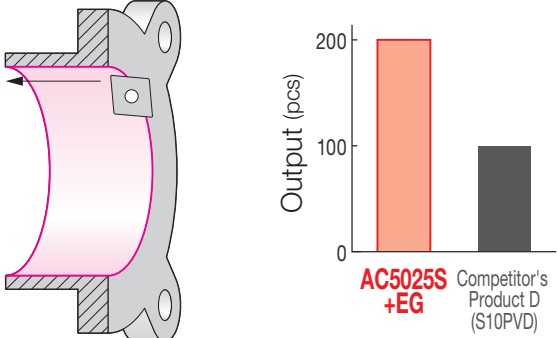
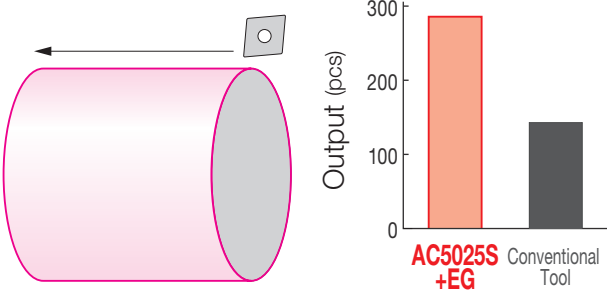
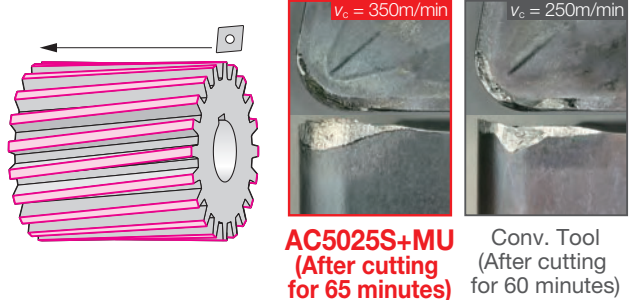
AC5005S/AC5015S/AC5025S

● Application Examples of AC5025S

<p>Inconel 718 Aerospace Component S</p> <p>Suppresses fractures for 1.7x longer tool life</p>  <p>AC5025S+EG (2.5 pcs/C)</p> <p>Conventional Tool (1.5 pcs/C)</p> <p>Tool : DNMG150408N-EG (AC5025S) Cutting Conditions : $v_c=35\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=1.6\text{mm}$ Wet</p>	<p>Inconel 718 Aerospace Component S</p> <p>Suppresses wear for 1.5x longer tool life</p>  <p>AC5025S+FY (18 pcs/C)</p> <p>Conventional Tool (12 pcs/C)</p> <p>Tool : TNGG160402R-FY (AC5025S) Cutting Conditions : $v_c=37\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=0.1\text{mm}$ Wet</p>
<p>Ni-Based Heat-Resistant Alloy Automotive Component S</p> <p>Enables stable machining for 2x longer tool life</p>  <p>AC5025S+SU (200 pcs/C)</p> <p>Comp's A (S10 PVD) (100 pcs/C)</p> <p>Tool : TNGG160402N-SU (AC5025S) Cutting Conditions : $v_c=70\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=0.15\text{mm}$ Wet</p>	<p>Inconel Automotive Component S</p> <p>Suppresses wear and extends tool life</p>  <p>AC5025S+SU (200 pcs/C)</p> <p>Conventional Tool (200 pcs/C)</p> <p>Tool : VCMT080204N-SU (AC5025S) Cutting Conditions : $v_c=49\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=0.5\text{mm}$ Wet</p>
<p>Hastelloy Aerospace Component S</p> <p>Suppresses wear for 4x longer tool life</p>  <p>AC5025S+MU</p> <p>Competitor's Product B (S10PVD)</p> <p>Tool : CNMG120412N-MU (AC5025S) Cutting Conditions : $v_c=100\text{m/min}$ $f=0.3\text{mm/rev}$ $a_p=3.0\text{mm}$ Wet</p>	<p>Fe-Based Heat-Resistant Alloy Valve Component S</p> <p>Enables stable machining for 2x longer tool life</p>  <p>AC5025S+EM</p> <p>Conventional Tool</p> <p>Tool : WNMG080408N-EM (AC5025S) Cutting Conditions : $v_c=90\text{m/min}$ $f=0.15\text{mm/rev}$ $a_p=1.5\text{mm}$ Wet</p>

















AC5005S/AC5015S/AC5025S

● Application Examples of AC5025S













<p>SUJ2 Industrial Machine Component P</p> <p>Good wear resistance for 2x longer tool life</p>  <p>Output (pcs)</p> <p>AC5025S +FY Competitor's Product C (P10PVD)</p> <p>Tool : TNGG160402R-FY (AC5025S) Cutting Conditions : $v_c=110\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=1.5\text{mm}$ Wet</p>	<p>Heat Resistant Stainless Steel Automotive Component M</p> <p>Stable machining for 2x longer tool life</p>  <p>Output (pcs)</p> <p>AC5025S +EG Competitor's Product D (S10PVD)</p> <p>Tool : CNMG120408N-EG (AC5025S) Cutting Conditions : $v_c=80\text{m/min}$ $f=0.3\text{mm/rev}$ $a_p=2.0\text{mm}$ Wet</p>
<p>SUS316 Industrial Machine Component M</p> <p>Suppresses wear for 1.5x longer tool life</p>  <p>Output (pcs)</p> <p>AC5025S +EG Conventional Tool</p> <p>Tool : CNMG120408N-EG (AC5025S) Cutting Conditions : $v_c=120\text{m/min}$ $f=0.3\text{mm/rev}$ $a_p=1.5\text{mm}$ Wet</p>	<p>Hardened Steel Industrial Machine Component (49HRC) H</p> <p>Same tool life achieved even at 1.4x higher cutting speed</p>  <p>$v_c = 350\text{m/min}$ $v_c = 250\text{m/min}$</p> <p>AC5025S+MU (After cutting for 65 minutes) Conv. Tool (After cutting for 60 minutes)</p> <p>Tool : CNMG120412N-MU (AC5025S) Cutting Conditions : $v_c=350\text{m/min}$ $f=0.16\text{mm/rev}$ $a_p=1.5\text{mm}$ Dry</p>

AC5005S/AC5015S/AC5025S

Negative 80° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)						
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
 FL	CNMG 120404N-FL	●	●	●	12.7	4.76	5.16	0.4			
	120408N-FL	●	●	●				0.8			
 SU	CNMG 120402N-SU	●	●	●	12.7	4.76	5.16	0.2			
	120404N-SU	●	●	●				0.4			
	120408N-SU	●	●	●				0.8			
	120412N-SU	●	●	●				1.2			
 SU	CNGG 120402N-SU				12.7	4.76	5.16	0.2			
	120404N-SU							0.4			
	120408N-SU							0.8			
 EF	CNMG 090404N-EF	●	●	●	9.525	4.76	3.81	0.4			
	090408N-EF	●	●	●				0.8			
	CNMG 120404N-EF	●	●	●				12.7	4.76	5.16	0.4
	120408N-EF	●	●	●							0.8
 EF	CNGG 120402N-EF				12.7	4.76	5.16	0.2			
	120404N-EF							0.4			
	120408N-EF							0.8			
 EX	CNMG 120404N-EX	●	●	●	12.7	4.76	5.16	0.4			
	120408N-EX	●	●	●				0.8			
	120412N-EX	●	●	●				1.2			
 EX	CNMG 160612N-EX	●	●	●	15.875	6.35	6.35	1.2			
	CNMG 190612N-EX	●	●	●	19.05	6.35	7.94	1.2			
 UP	CNMG 120404N-UP	●	●	●	12.7	4.76	5.16	0.4			
	120408N-UP	●	●	●				0.8			
	120412N-UP	●	●	●				1.2			
 GU	CNMG 120404N-GU	●	●	●	12.7	4.76	5.16	0.4			
	120408N-GU	●	●	●				0.8			
	120412N-GU	●	●	●				1.2			
 EG	CNMG 090408N-EG	●	●	●	9.525	4.76	3.81	0.8			
	090412N-EG	●	●	●				1.2			
	CNMG 120404N-EG	●	●	●	12.7	4.76	5.16	0.4			
	120408N-EG	●	●	●				0.8			
	120412N-EG	●	●	●				1.2			
	CNMG 160608N-EG	●	●	●				15.875	6.35	6.35	0.8
	160612N-EG	●	●	●	1.2						
	160616N-EG	●	●	●				1.6			
	CNMG 190612N-EG	●	●	●	19.05	6.35	7.94	1.2			
	190616N-EG	●	●	●				1.6			
 MU	CNMG 120408N-MU	●	●	●	12.7	4.76	5.16	0.8			
	120412N-MU	●	●	●				1.2			
	120416N-MU	●	●	●				1.6			
	CNMG 160608N-MU	●	●	●	15.875	6.35	6.35	0.8			
	160612N-MU	●	●	●				1.2			
	160616N-MU	●	●	●				1.6			
	CNMG 190612N-MU	●	●	●	19.05	6.35	7.94	1.2			
	190616N-MU	●	●	●				1.6			
	190624N-MU	●	●	●				2.4			
	CNMG 250924N-MU	●	●	●	25.4	9.52	9.12	2.4			
 EM	CNMG 120408N-EM	●	●	●	12.7	4.76	5.16	0.8			
	120412N-EM	●	●	●				1.2			
	120416N-EM	●	●	●				1.6			
 EM	CNMG 160608N-EM	●	●	●	15.875	6.35	6.35	0.8			
	160612N-EM	●	●	●				1.2			
	160616N-EM	●	●	●				1.6			
	CNMG 190612N-EM	●	●	●	19.05	6.35	7.94	1.2			
	190616N-EM	●	●	●				1.6			
190624N-EM	●	●	●				2.4				
 UZ	CNMG 120408N-UZ	●	●	●	12.7	4.76	5.16	0.8			
	120412N-UZ	●	●	●				1.2			
 MP	CNMM 120408N-MP	●	●	●	12.7	4.76	5.16	0.8			
	120412N-MP	●	●	●				1.2			
	120416N-MP	●	●	●				1.6			
	CNMM 160608N-MP	●	●	●	15.875	6.35	6.35	0.8			
	160612N-MP	●	●	●				1.2			
	160616N-MP	●	●	●				1.6			
	CNMM 190608N-MP	●	●	●	19.05	6.35	7.94	0.8			
190612N-MP	●	●	●	1.2							
190616N-MP	●	●	●	1.6							
190624N-MP	●	●	●				2.4				
 CNMA	CNMA 120408	●	●	●	12.7	4.76	5.16	0.8			


















Negative 55° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SU	DNMG 150402N-SU	●	●	●	12.7	4.76	5.16	0.2
	150404N-SU	●	●	●				0.4
	150408N-SU	●	●	●				0.8
 SU	DNGG 150402N-SU				12.7	4.76	5.16	0.2
	150404N-SU							0.4
	150408N-SU							0.8
 EF	DNMG 110404N-EF	●	●	●	9.525	4.76	3.81	0.4
	110408N-EF	●	●	●				0.8
	110412N-EF	●	●	●				1.2
	DNMG 150404N-EF	●	●	●	12.7	4.76	5.16	0.4
	150408N-EF	●	●	●				0.8
	150412N-EF	●	●	●				1.2
	DNMG 150604N-EF	●	●	●				12.7
150608N-EF	●	●	●	0.8				
150612N-EF	●	●	●				1.2	
 EF	DNGG 150404N-EF				12.7	4.76	5.16	0.4
	150408N-EF							0.8
 EX	DNMG 150404N-EX	●	●	●	12.7	4.76	5.16	0.4
	150408N-EX	●	●	●				0.8
	150412N-EX	●	●	●				1.2
 UP	DNMG 150404N-UP	●	●	●	12.7	4.76	5.16	0.4
	150408N-UP	●	●	●				0.8
	150412N-UP	●	●	●				1.2
 GU	DNMG 150404N-GU	●	●	●	12.7	4.76	5.16	0.4
	150408N-GU	●	●	●				0.8
	150412N-GU	●	●	●				1.2
 EG	DNMG 110408N-EG	●	●	●	9.525	4.76	3.81	0.8
	110412N-EG	●	●	●				1.2
	110416N-EG	●	●	●				1.6
	DNMG 150404N-EG	●	●	●	12.7	4.76	5.16	0.4
	150408N-EG	●	●	●				0.8
	150412N-EG	●	●	●				1.2
	DNMG 150604N-EG	●	●	●				12.7
150608N-EG	●	●	●	0.8				
150612N-EG	●	●	●				1.2	
 MU	DNMG 150408N-MU	●	●	●	12.7	4.76	5.16	0.8
	150412N-MU	●	●	●				1.2
	150416N-MU	●	●	●				1.6
 EM	DNMG 150408N-EM	●	●	●	12.7	4.76	5.16	0.8
	150412N-EM	●	●	●				1.2
	150416N-EM	●	●	●				1.6
	DNMG 150608N-EM	●	●	●	12.7	6.35	5.16	0.8
	150612N-EM	●	●	●				1.2
 UZ	DNMG 150408N-UZ	●	●	●	12.7	4.76	5.16	0.8
	150412N-UZ	●	●	●				1.2
 DNGA	DNGA 150404		●	●	12.7	4.76	5.16	0.4



















● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item

AC5005S/AC5015S/AC5025S

○ Negative Square Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SU	SNMG 120408N-SU	●	●	●	12.7	4.76	5.16	0.8
 EF	SNMG 120404N-EF	●	●	●	12.7	4.76	5.16	0.4
	120408N-EF	●	●	●				0.8
 EX	SNMG 120404N-EX	●	●	●	12.7	4.76	5.16	0.4
	120408N-EX	●	●	●				0.8
	SNMG 120412N-EX	●	●	●				1.2
	SNMG 150612N-EX	●	●	●	15.875	6.35	6.35	1.2
 UP	SNMG 190612N-EX	●	●	●	19.05	6.35	7.94	1.2
	SNMG 120408N-UP	●	●	●	12.7	4.76	5.16	0.8
 GU	120412N-UP	●	●	●				1.2
 GU	SNMG 120404N-GU	●	●	●				0.4
	120408N-GU	●	●	●	12.7	4.76	5.16	0.8
	120412N-GU	●	●	●				1.2
 EG	SNMG 120404N-EG	●	●	●				0.4
	120408N-EG	●	●	●	12.7	4.76	5.16	0.8
	120412N-EG	●	●	●				1.2
	SNMG 150608N-EG	●	●	●				0.8
	150612N-EG	●	●	●	15.875	6.35	6.35	1.2
 EG	150616N-EG	●	●	●				1.6
	SNMG 190612N-EG	●	●	●	19.05	6.35	7.94	1.2
 UM	190616N-EG	●	●	●				1.6
 UM	SNGG 120408R-UM		●	●	12.7	4.76	5.16	0.8
	120408L-UM		●	●				0.8
 MU	SNMG 120408N-MU	●	●	●	12.7	4.76	5.16	0.8
	120412N-MU	●	●	●				1.2
	SNMG 150608N-MU	●	●	●	15.875	6.35	6.35	0.8
	150612N-MU	●	●	●				1.2
	150616N-MU	●	●	●				1.6
	SNMG 190612N-MU	●	●	●				1.2
 MU	190616N-MU	●	●	●	19.05	6.35	7.94	1.6
	190624N-MU	●	●	●				2.4
	SNMG 250924N-MU	●	●	●	25.4	9.52	9.12	2.4
 EM	SNMG 120408N-EM	●	●	●	12.7	4.76	5.16	0.8
	120412N-EM	●	●	●				1.2
	SNMG 150608N-EM	●	●	●	15.875	6.35	6.35	0.8
	150612N-EM	●	●	●				1.2
	150616N-EM	●	●	●				1.6
	SNMG 190612N-EM	●	●	●				1.2
 EM	190616N-EM	●	●	●	19.05	6.35	7.94	1.6
	190624N-EM	●	●	●				2.4
	SNMG 250924N-EM	●	●	●	25.4	9.52	9.12	2.4
 UZ	SNMG 120408N-UZ	●	●	●	12.7	4.76	5.16	0.8
	120412N-UZ	●	●	●				1.2
 MP	SNMM 120408N-MP	●	●	●	12.7	4.76	5.16	0.8
	120412N-MP	●	●	●				1.2
	120416N-MP	●	●	●				1.6
	SNMM 190612N-MP	●	●	●	19.05	6.35	7.94	1.2
 MP	190616N-MP	●	●	●				1.6








△ Negative Triangular Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SU	TNMG 160402N-SU	●	●	●				0.2
	160404N-SU	●	●	●	9.525	4.76	3.81	0.4
	160408N-SU	●	●	●				0.8
 SU	160412N-SU	●	●	●				1.2
 SU	TNGG 160402N-SU	●	●	●				0.2
	160404N-SU	●	●	●	9.525	4.76	3.81	0.4
	160408N-SU	●	●	●				0.8
 EF	TNMG 160404N-EF	●	●	●	9.525	4.76	3.81	0.4
	160408N-EF	●	●	●				0.8
 FY	TNGG 160402R-FY	●	●	●				0.2
	160402L-FY	●	●	●	9.525	4.76	3.81	0.2
	160404R-FY	●	●	●				0.4
 FY	160404L-FY	●	●	●				0.4
 FX	TNGG 160402R-FX	●	●	●				0.2
	160402L-FX	●	●	●	9.525	4.76	3.81	0.2
	160404R-FX	●	●	●				0.4
 FX	160404L-FX	●	●	●				0.4
 EX	TNMG 160404N-EX	●	●	●	9.525	4.76	3.81	0.4
	160408N-EX	●	●	●				0.8
	160412N-EX	●	●	●				1.2
 UP	TNMG 160404N-UP	●	●	●	9.525	4.76	3.81	0.4
	160408N-UP	●	●	●				0.8
	160412N-UP	●	●	●				1.2
 UP	TNMG 220408N-UP	●	●	●	12.7	4.76	5.16	0.8
 GU	TNMG 160404N-GU	●	●	●	9.525	4.76	3.81	0.4
	160408N-GU	●	●	●				0.8
	160412N-GU	●	●	●				1.2
 EG	TNMG 160404N-EG	●	●	●	9.525	4.76	3.81	0.4
	160408N-EG	●	●	●				0.8
	160412N-EG	●	●	●				1.2
 MU	TNMG 160408N-MU	●	●	●	9.525	4.76	3.81	0.8
	160412N-MU	●	●	●				1.2
	TNMG 220408N-MU	●	●	●	12.7	4.76	5.16	0.8
 EM	TNMG 160408N-EM	●	●	●	9.525	4.76	3.81	0.8
	160412N-EM	●	●	●				1.2
	TNMG 330924N-EM	●	●	●	19.05	9.52	7.93	2.4
 HM	TNMG 160404R-HM	●	●	●				0.4
	160404L-HM	●	●	●	9.525	4.76	3.81	0.4
	160408R-HM	●	●	●				0.8
	160408L-HM	●	●	●				0.8
 TNMA	160404	●	●	●	9.525	4.76	3.81	0.4
	160408	●	●	●				0.8
 TNGA	160404		●	●	9.525	4.76	3.81	0.4


● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item

AC5005S/AC5015S/AC5025S











Negative 35° Diamond Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SU	VNMG 160402N-SU	●	●	●	9.525	4.76	3.81	0.2
	160404N-SU	●	●	●				0.4
	160408N-SU	●	●	●				0.8
 EF	VNMG 160402N-EF	●	●	●	9.525	4.76	3.81	0.2
	160404N-EF	●	●	●				0.4
	160408N-EF	●	●	●				0.8
 VNGG EF	160402N-EF	●	●	●	9.525	4.76	3.81	0.2
	160404N-EF	●	●	●				0.4
 EX	VNMG 160404N-EX	●	●	●	9.525	4.76	3.81	0.4
	160408N-EX	●	●	●				0.8
 GU	VNMG 160404N-GU	●	●	●	9.525	4.76	3.81	0.4
	160408N-GU	●	●	●				0.8
	160412N-GU	●	●	●				1.2
 EG	VNMG 160404N-EG	●	●	●	9.525	4.76	3.81	0.4
	160408N-EG	●	●	●				0.8
	160412N-EG	●	●	●				1.2
 UZ	VNMG 160404N-UZ	●	●	●	9.525	4.76	3.81	0.4
	160408N-UZ	●	●	●				0.8

Negative Square Type (Without Hole)

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SNMN	120408	●	●	●	12.7	4.76	—	0.8
	120412	●	●	●				1.2
	120416	●	●	●				1.6

Negative Trigon Type

Shape	Cat. No.	Stock			Dimensions (mm)			
		AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 SU	WNMG080404N-SU	●	●	●	12.7	4.76	5.16	0.4
	080408N-SU	●	●	●				0.8
	080412N-SU	●	●	●				1.2
 EF	WNMG060404N-EF	●	●	●	9.525	4.76	3.81	0.4
	060408N-EF	●	●	●				0.8
	WNMG080404N-EF	●	●	●				12.7
080408N-EF	●	●	●	0.8				
 EX	WNMG080404N-EX	●	●	●	12.7	4.76	5.16	0.4
	080408N-EX	●	●	●				0.8
	080412N-EX	●	●	●				1.2
 UP	WNMG080408N-UP	●	●	●	12.7	4.76	5.16	0.8
	080412N-UP	●	●	●				1.2
 GU	WNMG080404N-GU	●	●	●	12.7	4.76	5.16	0.4
	080408N-GU	●	●	●				0.8
	080412N-GU	●	●	●				1.2
 EG	WNMG060408N-EG	●	●	●	9.525	4.76	3.81	0.8
	060412N-EG	●	●	●				1.2
	WNMG080404N-EG	●	●	●				12.7
080408N-EG	●	●	●	0.8				
 MU	080412N-EG	●	●	●	12.7	4.76	5.16	1.2
	WNMG080408N-MU	●	●	●				12.7
 EM	080412N-MU	●	●	●	12.7	4.76	5.16	
	WNMG080408N-EM	●	●	●				12.7
 UZ	080412N-EM	●	●	●	12.7	4.76	5.16	
	WNMG080404N-UZ	●	●	●				12.7
 UZ	080408N-UZ	●	●	●	12.7	4.76	5.16	
	080412N-UZ	●	●	●				1.2

AC5005S/AC5015S/AC5025S

Positive 80° Diamond Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	CCGT 0602003R-FX	●	●	●	6.35	2.38	2.8	0.03
		0602003L-FX	●	●	●				0.03
		060201R-FX	●	●	●				0.1
		060201L-FX	●	●	●				0.1
		060202R-FX	●	●	●				0.2
		060202L-FX	●	●	●				0.2
		060204R-FX	●	●	●				0.4
	060204L-FX	●	●	●	0.4				
	7°	CCGT 09T3003R-FX	●	●	●	9.525	3.97	4.4	0.03
		09T3003L-FX	●	●	●				0.03
		09T301R-FX	●	●	●				0.1
		09T301L-FX	●	●	●				0.1
		09T302R-FX	●	●	●				0.2
		09T302L-FX	●	●	●				0.2
09T304R-FX		●	●	●	0.4				
09T304L-FX	●	●	●	0.4					
7°	CCGT 03X1003R-FYS	●	●	●	3.5	1.4	1.8	0.03	
	03X1003L-FYS	●	●	●				0.03	
	03X101R-FYS	●	●	●				0.1	
	03X101L-FYS	●	●	●				0.1	
	03X102R-FYS	●	●	●				0.2	
	03X102L-FYS	●	●	●				0.2	
	03X104R-FYS	●	●	●				0.4	
03X104L-FYS	●	●	●	0.4					
7°	CCGT 04X1003R-FYS	●	●	●	4.3	1.8	2.3	0.03	
	04X1003L-FYS	●	●	●				0.03	
	04X101R-FYS	●	●	●				0.1	
	04X101L-FYS	●	●	●				0.1	
	04X102R-FYS	●	●	●				0.2	
	04X102L-FYS	●	●	●				0.2	
	04X104R-FYS	●	●	●				0.4	
04X104L-FYS	●	●	●	0.4					
7°	CCGT 03X101R-FY	●	●	●	3.5	1.4	1.8	0.1	
	03X101L-FY	●	●	●				0.1	
	03X102R-FY	●	●	●				0.2	
	03X102L-FY	●	●	●				0.2	
	03X104R-FY	●	●	●				0.4	
	03X104L-FY	●	●	●				0.4	
	CCGT 04X101R-FY	●	●	●				4.3	1.8
04X101L-FY	●	●	●	0.1					
04X102R-FY	●	●	●	0.2					
04X102L-FY	●	●	●	0.2					
7°	CCMT 060202N-SU	●	●	●	6.35	2.38	2.8	0.2	
	060204N-SU	●	●	●				0.4	
	060208N-SU	●	●	●				0.8	
	7°	CCMT 09T302N-SU	●	●	●	9.525	3.97	4.4	0.2
		09T304N-SU	●	●	●				0.4
		09T308N-SU	●	●	●				0.8
	7°	CCMT 120404N-SU	●	●	●	12.7	4.76	5.5	0.4
120408N-SU		●	●	●	0.8				
7°	CCGT 09T301MN-SI	●	●	●	9.525	3.97	4.4	< 0.1	
	09T302MN-SI	●	●	●				< 0.2	
	09T304MN-SI	●	●	●				< 0.4	
7°	CCMT 060204N-GU	●	●	●	6.35	2.38	2.8	0.4	
	060208N-GU	●	●	●				0.8	
SD	11°	CPGT 080202N-SD	●	●	●	7.94	2.38	3.4	0.2
		080204N-SD	●	●	●				0.4
		080208N-SD	●	●	●				0.8
	11°	CPGT 090302N-SD	●	●	●	9.525	3.18	4.4	0.2
		090304N-SD	●	●	●				0.4
		090308N-SD	●	●	●				0.8
	11°	CPGT 120402N-SD	●	●	●	12.7	4.76	5.5	0.2
		120404N-SD	●	●	●				0.4
		120408N-SD	●	●	●				0.8
SU	11°	CPMT 080204N-SU	●	●	●	7.94	2.38	3.4	0.4
		080208N-SU	●	●	●				0.8
		090304N-SU	●	●	●				0.4
SU	11°	CPMT 090308N-SU	●	●	●	9.525	3.18	4.4	0.8

*1: Photo shows left-hand.

Positive 55° Diamond Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	DCGT 070201MN-FC	●	●	●	6.35	2.38	2.8	< 0.1
		070202MN-FC	●	●	●				< 0.2
		070204MN-FC	●	●	●				< 0.4
	7°	DCGT 11T301MN-FC	●	●	●	9.525	3.97	4.4	< 0.1
		11T302MN-FC	●	●	●				< 0.2
		11T304MN-FC	●	●	●				< 0.4
	7°	DCGT 0702003R-FX	●	●	●	6.35	2.38	2.8	0.03
		0702003L-FX	●	●	●				0.03
		070201R-FX	●	●	●				0.1
		070201L-FX	●	●	●				0.1
		070202R-FX	●	●	●				0.2
		070202L-FX	●	●	●				0.2
		070204R-FX	●	●	●				0.4
	070204L-FX	●	●	●	0.4				
	7°	DCGT 11T3003R-FX	●	●	●	9.525	3.97	4.4	0.03
		11T3003L-FX	●	●	●				0.03
		11T301R-FX	●	●	●				0.1
		11T301L-FX	●	●	●				0.1
		11T302R-FX	●	●	●				0.2
		11T302L-FX	●	●	●				0.2
11T304R-FX		●	●	●	0.4				
11T304L-FX	●	●	●	0.4					
	7°	DCGT 0702003R-FYS	●	●	●	6.35	2.38	2.8	0.03
		0702003L-FYS	●	●	●				0.03
		070201R-FYS	●	●	●				0.1
		070201L-FYS	●	●	●				0.1
		070202R-FYS	●	●	●				0.2
		070202L-FYS	●	●	●				0.2
		070204R-FYS	●	●	●				0.4
	070204L-FYS	●	●	●	0.4				
	7°	DCGT 11T3003R-FYS	●	●	●	9.525	3.97	4.4	0.03
		11T3003L-FYS	●	●	●				0.03
		11T301R-FYS	●	●	●				0.1
		11T301L-FYS	●	●	●				0.1
		11T302R-FYS	●	●	●				0.2
		11T302L-FYS	●	●	●				0.2
11T304R-FYS		●	●	●	0.4				
11T304L-FYS	●	●	●	0.4					
	7°	DCGT 0702003R-FY	●	●	●	6.35	2.38	2.8	0.03
		0702003L-FY	●	●	●				0.03
		070201R-FY	●	●	●				0.1
		070201L-FY	●	●	●				0.1
		070202R-FY	●	●	●				0.2
		070202L-FY	●	●	●				0.2
		070204R-FY	●	●	●				0.4
	070204L-FY	●	●	●	0.4				
	7°	DCGT 11T3003R-FY	●	●	●	9.525	3.97	4.4	0.03
		11T3003L-FY	●	●	●				0.03
		11T301R-FY	●	●	●				0.1
		11T301L-FY	●	●	●				0.1
		11T302R-FY	●	●	●				0.2
		11T302L-FY	●	●	●				0.2
11T304R-FY		●	●	●	0.4				
11T304L-FY	●	●	●	0.4					
	7°	DCMT 070202N-SU	●	●	●	6.35	2.38	2.8	0.2
		070204N-SU	●	●	●				0.4
		070208N-SU	●	●	●				0.8
	7°	DCMT 11T302N-SU	●	●	●	9.525	3.97	4.4	0.2
		11T304N-SU	●	●	●				0.4
		11T308N-SU	●	●	●				0.8
	7°	DCGT 070201MN-SI	●	●	●	6.35	2.38	2.8	< 0.1
		070202MN-SI	●	●	●				< 0.2
		070204MN-SI	●	●	●				< 0.4
	7°	DCGT 11T301MN-SI	●	●	●	9.525	3.97	4.4	< 0.1
		11T302MN-SI	●	●	●				< 0.2
		11T304MN-SI	●	●	●				< 0.4
	7°	DCGT 11T308MN-SI	●	●	●	9.525	3.97	4.4	< 0.8
			●	●	●				
		●	●	●					

Positive Round Type



Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	RCMX 1204MN-RP	●	●	●	12.0	4.76	4.2	—
		RCMX 2006MN-RP	●	●	●	20.0	6.35	6.5	—
	11°	RPGW 0803M0	●	●	●	8.0	3.18	3.3	—
		RPGW 1004M0	●	●	●	10.0	4.76	3.8	—
		RPGW 1204M0	●	●	●	12.0	4.76	4.3	—

A "<" next to the corner radius indicates a negative tolerance.

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item



AC5005S/AC5015S/AC5025S

Positive Square Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	SCGT 09T302R-FX	●	●	●	9.525	3.97	4.4	0.2
		09T302L-FX	●	●	●				0.2
		09T304R-FX	●	●	●				0.4
FX	7°	SCGT 120404R-FX	●	●	●	12.7	4.76	5.5	0.4
		120404L-FX	●	●	●				0.4
	7°	SCMT 09T304N-SU	●	●	●	9.525	3.97	4.4	0.4
		09T308N-SU	●	●	●				0.8


*1: Photo shows left-hand.

Positive Triangular Type

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)						
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
	5°	TBGT 060102R-FX	●	●	●	3.97	1.59	2.2	0.2			
		060102L-FX	●	●	●				0.2			
		060104R-FX	●	●	●				0.4			
		060104L-FX	●	●	●				0.4			
FX	5°	TBGT 060101R-FY	●	●	●	3.97	1.59	2.2	0.1			
		060101L-FY	●	●	●				0.1			
		060102R-FY	●	●	●				0.2			
		060102L-FY	●	●	●				0.2			
FY	5°	060104R-FY	●	●	●	3.97	1.59	2.2	0.4			
		060104L-FY	●	●	●				0.4			
		TCGT 090201R-FX	●	●	●				5.56	2.38	2.5	0.1
		090201L-FX	●	●	●							0.1
090202R-FX	●	●	●	0.2								
090202L-FX	●	●	●	0.2								
FX	7°	TCGT 110201R-FX	●	●	●	6.35	2.38	2.8	0.1			
		110201L-FX	●	●	●				0.1			
		110202R-FX	●	●	●				0.2			
		110202L-FX	●	●	●				0.2			
FY	7°	TCGT 090201R-FY	●	●	●	5.56	2.38	2.5	0.1			
		090201L-FY	●	●	●				0.1			
		090202R-FY	●	●	●				0.2			
		090202L-FY	●	●	●				0.2			
SU	7°	TCMT 110204N-SU	●	●	●	6.35	2.38	2.8	0.4			
		110208N-SU	●	●	●				0.8			
		TCMT 16T304N-SU	●	●	●				9.525	3.97	4.3	0.4
		16T308N-SU	●	●	●							0.8
SI	7°	TCGT 110204MN-SI	●	●	●	6.35	2.38	2.8	< 0.4			
FC	11°	TPGT 110302MN-FC	●	●	●	6.35	3.18	3.4	< 0.2			
		110304MN-FC	●	●	●				< 0.4			
	11°	TPGT 080202R-FX	●	●	●	4.76	2.38	2.4	0.2			
		080202L-FX	●	●	●				0.2			
		080204R-FX	●	●	●				0.4			
		080204L-FX	●	●	●				0.4			
	11°	TPGT 110202R-FX	●	●	●	6.35	2.38	2.8	0.2			
		110202L-FX	●	●	●				0.2			
		110204R-FX	●	●	●				0.4			
		110204L-FX	●	●	●				0.4			
	11°	TPGT 110208R-FX	●	●	●	6.35	2.38	2.8	0.8			
		110208L-FX	●	●	●				0.8			
		TPGT 110302R-FX	●	●	●				6.35	3.18	3.4	0.2
		110302L-FX	●	●	●							0.2
110304R-FX	●	●	●	0.4								
110304L-FX	●	●	●	0.4								
11°	TPGT 110308R-FX	●	●	●	6.35	3.18	3.4	0.8				
	110308L-FX	●	●	●				0.8				
	TPGT 160304R-FX	●	●	●				9.525	3.18	4.4	0.4	
	160304L-FX	●	●	●							0.4	
160308R-FX	●	●	●	0.8								
160308L-FX	●	●	●	0.8								

*1: Photo shows left-hand.

Positive Triangular Type (continued)

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)						
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
	11°	TPGT 0802003R-FY	●	●	●	4.76	2.38	2.4	0.03			
		0802003L-FY	●	●	●				0.03			
		080201R-FY	●	●	●				0.1			
		080201L-FY	●	●	●				0.1			
		080202R-FY	●	●	●				0.2			
		080202L-FY	●	●	●				0.2			
	11°	TPGT 090201R-FY	●	●	●	5.56	2.38	2.3	0.1			
		090201L-FY	●	●	●				0.1			
		090202R-FY	●	●	●				0.2			
		090202L-FY	●	●	●				0.2			
		090204R-FY	●	●	●				0.4			
		090204L-FY	●	●	●				0.4			
FY	11°	TPGT 1103003R-FY	●	●	●	6.35	3.18	3.4	0.03			
		1103003L-FY	●	●	●				0.03			
		110301R-FY	●	●	●				0.1			
		110301L-FY	●	●	●				0.1			
		110302R-FY	●	●	●				0.2			
		110302L-FY	●	●	●				0.2			
	11°	TPGT 110304R-FY	●	●	●	6.35	3.18	3.4	0.4			
		110304L-FY	●	●	●				0.4			
		110308R-FY	●	●	●				0.8			
		110308L-FY	●	●	●				0.8			
		TPGT 160302R-FY	●	●	●				9.525	3.18	4.4	0.2
		160302L-FY	●	●	●							0.2
SU	11°	TPMT 080202N-SU	●	●	●	4.76	2.38	2.4	0.2			
		080204N-SU	●	●	●				0.4			
	11°	TPMT 090204N-SU	●	●	●	5.56	2.38	2.8	0.4			
		TPMT 110302N-SU	●	●	●				6.35	3.18	3.4	0.2
	110304N-SU	●	●	●	0.4							
	110308N-SU	●	●	●	0.8							
SU	11°	TPMT 160404N-SU	●	●	●	9.525	4.76	4.4	0.4			
		160408N-SU	●	●	●				0.8			
SD	11°	TPGT 110304L-SD	●	●	●	6.35	3.18	3.4	0.4			
		TPGT 160404L-SD	●	●	●				9.525	4.76	4.4	0.4
FX	11°	TPGW 110304	●	●	●	6.35	3.18	3.4	0.4			
		TPGW 160404	●	●	●				9.525	4.76	4.4	0.4












*1: Photo shows left-hand.

A "<" next to the corner radius indicates a negative tolerance.



● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item

AC5005S/AC5015S/AC5025S

Positive 35° Diamond Type



Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	5°	VBGT 110301R-FX	●	●	●	6.35	3.18	2.8	0.1
		110301L-FX	●	●	●				0.1
		110302R-FX	●	●	●				0.2
		110302L-FX	●	●	●				0.2
		110304R-FX	●	●	●				0.4
		110304L-FX	●	●	●				0.4
	5°	VBGT 1103003R-FYS	●	●	●	6.35	3.18	2.8	0.03
		1103003L-FYS	●	●	●				0.03
		110301R-FYS	●	●	●				0.1
		110301L-FYS	●	●	●				0.1
		110302R-FYS	●	●	●				0.2
		110302L-FYS	●	●	●				0.2
		110304R-FYS	●	●	●				0.4
		110304L-FYS	●	●	●				0.4
		110308R-FYS	●	●	●				0.8
		110308L-FYS	●	●	●				0.8
			5°	VBGT 110301R-FY	●				●
110301L-FY	●			●	●	0.1			
110302R-FY	●			●	●	0.2			
110302L-FY	●			●	●	0.2			
110304R-FY	●			●	●	0.4			
110304L-FY	●			●	●	0.4			
	5°	VBMT 110302N-SU	●	●	●	6.35	3.18	2.8	0.2
		110304N-SU	●	●	●				0.4
	5°	110308N-SU	●	●	●	9.525	4.76	4.4	0.8
		VBMT 160404N-SU	●	●	●				0.4
		160408N-SU	●	●	●				0.8
	5°	VBGT 110301MN-SI	●	●	●	6.35	3.18	2.8	< 0.1
		110302MN-SI	●	●	●				< 0.2
		110304MN-SI	●	●	●				< 0.4
		110308MN-SI	●	●	●				< 0.8
	5°	VBGT 160401MN-SI	●	●	●	9.525	4.76	4.4	< 0.1
		160402MN-SI	●	●	●				< 0.2
		160404MN-SI	●	●	●				< 0.4
		160408MN-SI	●	●	●				< 0.8
	7°	VCGT 080204MN-FC	●	●	●	4.76	2.38	2.3	< 0.4
		VCGT 110301MN-FC	●	●	●				< 0.1
	7°	110302MN-FC	●	●	●	6.35	3.18	2.8	< 0.2
		110304MN-FC	●	●	●				< 0.4
	7°	VCGT 110301R-FX	●	●	●	6.35	3.18	2.8	0.1
		110301L-FX	●	●	●				0.1
		110302R-FX	●	●	●				0.2
		110302L-FX	●	●	●				0.2
		110304R-FX	●	●	●				0.4
		110304L-FX	●	●	●				0.4
	7°	VCGT 110301R-FY	●	●	●	6.35	3.18	2.8	0.1
		110301L-FY	●	●	●				0.1
		110302R-FY	●	●	●				0.2
		110302L-FY	●	●	●				0.2
		110304R-FY	●	●	●				0.4
		110304L-FY	●	●	●				0.4
	7°	VCMT 080204N-SU	●	●	●	4.76	2.38	2.3	0.4
		VCMT 110302N-SU	●	●	●				0.2
	7°	110304N-SU	●	●	●	6.35	3.18	2.8	0.4
		110308N-SU	●	●	●				0.8
	7°	VCMT 160404N-SU	●	●	●	9.525	4.76	4.4	0.4
		160408N-SU	●	●	●				0.8
	7°	VCGT 110301MN-SI	●	●	●	6.35	3.18	2.8	< 0.1
		110302MN-SI	●	●	●				< 0.2
		110304MN-SI	●	●	●				< 0.4
		110308MN-SI	●	●	●				< 0.8
	7°	VCGT 160401MN-SI	●	●	●	9.525	4.76	4.4	< 0.1
		160402MN-SI	●	●	●				< 0.2
		160404MN-SI	●	●	●				< 0.4
		160408MN-SI	●	●	●				< 0.8
	7°	VCMT 160404N-GU	●	●	●	9.525	4.76	4.4	0.4
		160408N-GU	●	●	●				0.8

Positive Trigon Type



Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)						
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
	5°	WBGT 060102R-FX	●	●	●	3.97	1.59	2.2	0.2			
		060102L-FX	●	●	●				0.2			
		060104R-FX	●	●	●				0.4			
		060104L-FX	●	●	●				0.4			
		WBGT 080202R-FX	●	●	●				4.76	2.38	2.4	0.2
		080202L-FX	●	●	●							0.2
	5°	080204R-FX	●	●	●	3.97	1.59	2.2	0.4			
		080204L-FX	●	●	●				0.4			
		WBGT 060102R-FY	●	●	●				3.97	1.59	2.2	0.2
		060102L-FY	●	●	●							0.2
		060104R-FY	●	●	●				0.4			
		060104L-FY	●	●	●				0.4			

*1: Photo shows left-hand.

Positive Square Type (Without Hole)

Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	11°	SPMN 120308	●	●	●	12.7	3.18	—	0.8
		120312	●	●	●				1.2
	11°	SPMN 150408	●	●	●	15.875	4.76	—	0.8
	11°	SPGN 090308	●	●	●	9.525	3.18	—	0.8
		SPGN 120304	●	●	●				0.4
	11°	120308	●	●	●	12.7	3.18	—	0.8

Positive Triangular Type (Without Hole)

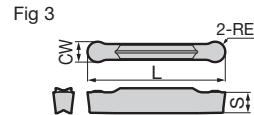
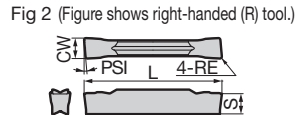
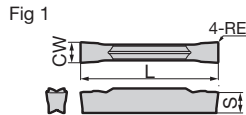
Shape	Relief Angle	Cat. No.	Stock			Dimensions (mm)			
			AC5005S	AC5015S	AC5025S	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	11°	TPMN 110304	●	●	●	6.35	3.18	—	0.4
		110308	●	●	●				0.8
	11°	TPMN 160304	●	●	●	9.525	3.18	—	0.4
		160308	●	●	●				0.8
	11°	TPMN 220408	●	●	●	12.7	4.76	—	0.8
		220412	●	●	●				1.2
	11°	TPGN 110304	●	●	●	6.35	3.18	—	0.4
		TPGN 160304	●	●	●				0.4
	11°	160308	●	●	●	9.525	3.18	—	0.8
		220408	●	●	●				12.7

A "<" next to the corner radius indicates a negative tolerance.

● mark: Standard stocked item ● mark: Standard stocked item (new product/expanded item) Blank: Made-to-order item

AC5005S/AC5015S/AC5025S

Inserts for SEC-Grooving Tools GND Series (For Grooving / Cut-off)



Grooving / Traverse Cutting

Cat. No.	Stock		Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack	Fig
	AC5015S	AC5025S	Width of Cut	Tolerance					
	GCM N3002-MG N3004-MG	●	●	3.0	±0.03	0.2	21.1		
GCM N4002-MG N4004-MG N4008-MG	●	●	4.0	±0.03	0.2	26.4	4.0		
GCM N5004-MG N5008-MG	●	●	5.0	±0.03	0.4	26.4	4.1	5	1
GCM N6004-MG N6008-MG	●	●	6.0	±0.03	0.4	26.4	4.5		
GCM N7004-MG N7008-MG	●	●	7.0	±0.04	0.4	28.8	5.5	5	1
GCM N8004-MG N8008-MG	●	●	8.0	±0.04	0.4	28.8	6.0		
GCM N2002-ML N3002-ML N3004-ML	●	●	2.0	±0.03	0.2	21.1	3.6	5	1
GCM N4002-ML N4004-ML N4008-ML	●	●	3.0	±0.03	0.2	21.1	3.8		
GCM N5004-ML N5008-ML	●	●	4.0	±0.03	0.2	26.4	4.0	5	1
GCM N6004-ML N6008-ML	●	●	4.0	±0.03	0.4	26.4	4.0		
GCM N7004-ML N7008-ML	●	●	4.0	±0.03	0.8	26.4	4.0	5	1
GCM N8004-ML N8008-ML	●	●	5.0	±0.03	0.4	26.4	4.1		
GCM N5008-ML N6008-ML N7008-ML N8008-ML	●	●	5.0	±0.03	0.8	26.4	4.1	5	1
GCM N6004-ML N6008-ML	●	●	6.0	±0.03	0.4	26.4	4.5		
GCM N7004-ML N7008-ML	●	●	6.0	±0.03	0.8	26.4	4.5		
GCM N8004-ML N8008-ML	●	●	7.0	±0.04	0.4	28.8	5.5		
GCM N8004-ML N8008-ML	●	●	7.0	±0.04	0.8	28.8	5.5	5	1
GCM N8004-ML N8008-ML	●	●	8.0	±0.04	0.4	28.8	6.0		
GCM N8004-ML N8008-ML	●	●	8.0	±0.04	0.8	28.8	6.0	5	1
GCM N8004-ML N8008-ML	●	●	8.0	±0.04	0.8	28.8	6.0		

Grooving / Cut-off

Cat. No.	Stock		Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack	Fig
	AC5015S	AC5025S	Width of Cut	Tolerance					
	GCM N2002-GG N3002-GG N3004-GG	●	●	2.0	±0.03	0.2	21.1		
GCM N4002-GG N4004-GG	●	●	3.0	±0.03	0.2	21.1	3.8		
GCM N5002-GG N5004-GG	●	●	4.0	±0.03	0.2	26.4	4.0	5	1
GCM N6002-GG N6004-GG	●	●	4.0	±0.03	0.4	26.4	4.0		
GCM N7004-GG N8004-GG	●	●	5.0	±0.03	0.2	26.4	4.1	5	1
GCM N5004-GG N6004-GG N7004-GG N8004-GG	●	●	5.0	±0.03	0.4	26.4	4.1		
GCM N6002-GL N6004-GL	●	●	6.0	±0.03	0.2	26.4	4.5	5	1
GCM N7004-GL N8004-GL	●	●	6.0	±0.03	0.4	26.4	4.5		
GCM N2002-GL N2004-GL	●	●	7.0	±0.04	0.4	28.8	5.5	5	1
GCM N3002-GL N3004-GL	●	●	8.0	±0.04	0.4	28.8	6.0		
GCM N4002-GL N4004-GL	●	●	2.0	±0.03	0.2	21.1	3.6	5	1
GCM N5002-GL N5004-GL	●	●	3.0	±0.03	0.2	21.1	3.8		
GCM N6002-GL N6004-GL	●	●	3.0	±0.03	0.4	21.1	3.8	5	1
GCM N7002-GL N7004-GL	●	●	3.0	±0.03	0.4	21.1	3.8		
GCM N8002-GL N8004-GL	●	●	4.0	±0.03	0.2	26.4	4.0	5	1
GCM N5002-GL N5004-GL	●	●	4.0	±0.03	0.4	26.4	4.0		
GCM N6002-GL N6004-GL	●	●	5.0	±0.03	0.2	26.4	4.1	5	1
GCM N7002-GL N7004-GL	●	●	5.0	±0.03	0.4	26.4	4.1		
GCM N8002-GL N8004-GL	●	●	6.0	±0.03	0.2	26.4	4.5	5	1
GCM N6004-GL N7004-GL N8004-GL	●	●	6.0	±0.03	0.4	26.4	4.5		
GCM N2002-GF N2004-GF	●	●	7.0	±0.04	0.2	28.8	5.5	5	1
GCM N3002-GF N3004-GF	●	●	7.0	±0.04	0.2	28.8	5.5		
GCM N4002-GF N4004-GF	●	●	8.0	±0.04	0.2	28.8	6.0	5	1
GCM N5002-GF N5004-GF	●	●	8.0	±0.04	0.2	28.8	6.0		
GCM N6002-GF N6004-GF	●	●	8.0	±0.04	0.4	28.8	6.0	5	1
GCM N7002-GF N7004-GF	●	●	8.0	±0.04	0.4	28.8	6.0		
GCM N8002-GF N8004-GF	●	●	8.0	±0.04	0.4	28.8	6.0	5	1
GCM N8002-GF N8004-GF	●	●	8.0	±0.04	0.4	28.8	6.0		

Note: The values in red have been changed from the 2021-2022 General Catalogue.

For details on the holders of the products listed on this page, refer to Tooling News No.492 "SEC-Grooving Tool Holders GND Series" and the General Catalogue. Select holders and inserts with matching width of cut (CW). Not usable with GNDIS type holders.

● mark: Standard stocked item (new product/expanded item)

Cut-off (Handed Edge)

Cat. No.	Stock		Lead Angle	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack	Fig
	AC5015S	AC5025S		Width of Cut	Tolerance					
	GCM R2002-CG-05 L2002-CG-05	●	●	5°	2.0	±0.03	0.2	21.1		
GCM R3002-CG-05 L3002-CG-05	●	●	5°	2.0	±0.03	0.2	21.1	3.6		
GCM R4002-CG-05 L4002-CG-05	●	●	5°	3.0	±0.03	0.2	21.3	3.8	5	2
GCM R2003-CF-10 L2003-CF-10	●	●	5°	3.0	±0.03	0.2	21.3	3.8		
GCM R3003-CF-10 L3003-CF-10	●	●	5°	4.0	±0.04	0.2	26.7	4.0	5	2
GCM R4003-CF-10 L4003-CF-10	●	●	5°	4.0	±0.04	0.2	26.7	4.0		
GCM R2003-CF-15 L2003-CF-15	●	●	10°	2.0	±0.08	0.03	22.4	3.6	5	2
GCM R3003-CF-15 L3003-CF-15	●	●	10°	2.0	±0.08	0.03	22.4	3.6		
GCM R2003-CF-15 L2003-CF-15	●	●	10°	3.0	±0.08	0.03	22.4	3.8	5	2
GCM R3003-CF-15 L3003-CF-15	●	●	10°	3.0	±0.08	0.03	22.4	3.8		
GCM R2003-CF-15 L2003-CF-15	●	●	15°	2.0	±0.08	0.03	22.4	3.6	5	2
GCM R3003-CF-15 L3003-CF-15	●	●	15°	2.0	±0.08	0.03	22.4	3.6		
GCM R2003-CF-15 L2003-CF-15	●	●	15°	3.0	±0.08	0.03	22.4	3.8	5	2
GCM R3003-CF-15 L3003-CF-15	●	●	15°	3.0	±0.08	0.03	22.4	3.8		

GCMR: Right-handed, GCML: Left-handed

External Profiling / External Radius Grooving

Cat. No.	Stock		Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack	Fig
	AC5015S	AC5025S	Width of Cut	Tolerance					
	GCM N3015-RG N4020-RG	●	●	3.0	±0.03	1.5	21.1		
GCM N5025-RG N6030-RG	●	●	4.0	±0.03	2.0	26.4	4.0		
GCM N7035-RG N8040-RG	●	●	5.0	±0.03	2.5	27.2	4.1	5	3
GCM N6030-RG N7035-RG N8040-RG	●	●	6.0	±0.03	3.0	27.5	4.5		
GCM N7035-RG N8040-RG	●	●	7.0	±0.04	3.5	29.1	5.5	5	3
GCM N8040-RG N7035-RG N8040-RG	●	●	8.0	±0.04	4.0	29.3	6.0		

Profiling / Radius Grooving / Necking

Cat. No.	Stock		Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack	Fig
	AC5015S	AC5025S	Width of Cut	Tolerance					
	GCM N2010-RN N3015-RN	●	●	2.0	±0.03	1.0	21.7		
GCM N4020-RN N5025-RN	●	●	3.0	±0.03	1.5	22.6	3.8		
GCM N6030-RN N7035-RN	●	●	4.0	±0.03	2.0	28.2	4.0	5	3
GCM N8040-RN N7035-RN N8040-RN	●	●	4.0	±0.03	2.5	28.3	4.1		
GCM N6030-RN N7035-RN N8040-RN	●	●	5.0	±0.03	2.5	28.3	4.1	5	3
GCM N7035-RN N8040-RN N6030-RN N7035-RN N8040-RN	●	●	6.0	±0.03	3.0	28.3	4.5		

Part Number Suffix Code (Chipbreakers)

Type	Symbol	Applications	Type	Symbol	Applications
Grooving / Traverse Cutting	MG	Multi-functional / General-purpose	Cut-off (Handed Edge)	CG	Cut-off / General-purpose
	ML	Multi-functional / Low-feed		CF	Cut-off / Low Cutting Force
Grooving / Cut-off	GG	Grooving / General-purpose	External Profiling / External Radius Grooving / Profiling / Radius Grooving / Necking	RG	Profiling / General-purpose
	GL	Grooving / Low-feed		RN	Facing / Necking / General-purpose
	GF	Grooving / Low Cutting Force			

AC5005S/AC5015S/AC5025S

● Recommended Cutting Conditions

(Red text indicates 1st recommendation)

Work Material	Application	Chipbreaker	Grade	Cutting Conditions		
				Depth of Cut a_p (mm)	Feed Rate f (mm/rev)	Cutting Speed V_c (m/min)
Heat-Resistant Alloy (Ni-based Material Fe-based Material Co-based Material)	Finishing	EF	AC5005S AC5015S AC5025S	0.2- 0.5 -1.5	0.10- 0.12 -0.20	50- 70 -110
	Light	EX	AC5005S AC5015S AC5025S	0.5- 1.0 -3.0	0.10- 0.20 -0.30	40- 60 -90
	Medium	EG	AC5005S AC5015S AC5025S	0.5- 2.0 -4.0	0.15- 0.25 -0.30	40- 60 -90
	Roughing	MU/EM	AC5015S AC5025S	1.0- 2.0 -4.0	0.20- 0.25 -0.40	30- 55 -80

Sumitomo Electric Cutting Tools Official Apps for iOS/Android



Cutting calculation App

SumiTool Calculator



Grade & chipbreaker comparison App

SumiTool Converter



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

< SAFETY NOTES >

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

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