

New

# AC8115P/AC8020P/AC8025P/AC8035P

Rev. 2



## Toward a new era in steel machining Steel turning grade series for "ABSOLUTELY STABLE CUTTING"

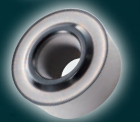
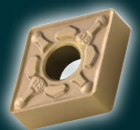


New

Introducing High-speed  
Machining Grade **AC8115P**

New

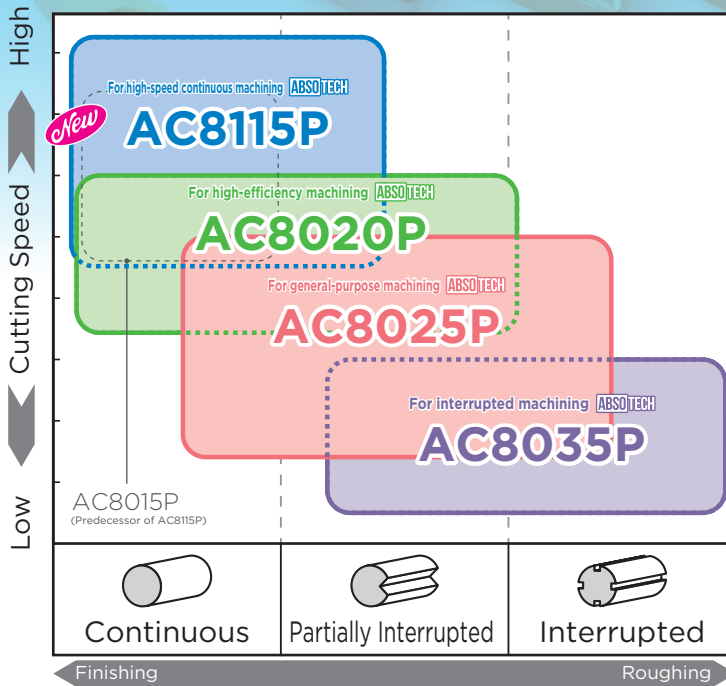
Round Chipbreaker  
**RE type lineup**





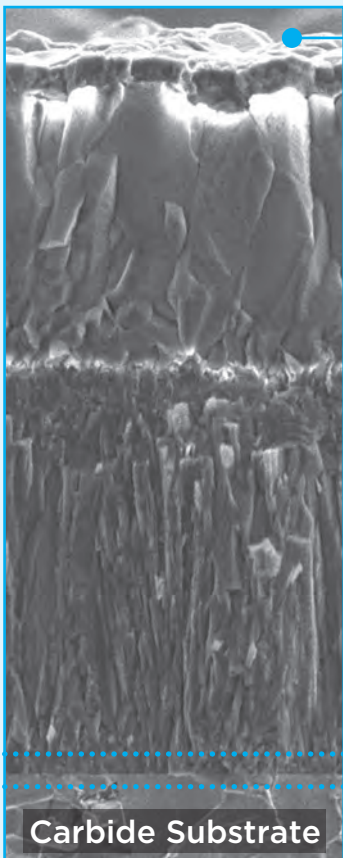
# AC8115P / AC8020P / AC8025P / AC8035P

## Application Range



<b>AC8115P</b> <i>New</i>	CVD ABSOTECH
<b>Amazing Wear Resistance</b>	Crater wear resistance <b>1.5x</b> against conventional tools
<b>AC8020P</b>	CVD ABSOTECH
<b>Standout Chipping Resistance</b>	Chipping resistance in high-efficiency machining <b>2.5x</b> against conventional tools
<b>AC8025P</b>	CVD ABSOTECH
<b>Absolute Reliability</b>	Adhesion resistance/chipping resistance <b>2x</b> against conventional tools
<b>AC8035P</b>	CVD ABSOTECH
<b>Exceptional Stability</b>	Fracture resistance in interrupted machining <b>2x</b> against conventional tools

## Features of AC8020P / AC8025P / AC8035P



### Special Surface Treatment

Chipping resistance and adhesion resistance are significantly improved by special surface treatments applied to suit the application

### High Strength Alumina Layer

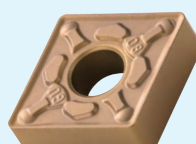
Significantly improves the coating strength by controlling crystal growth direction

### High Hardness Fine Grained TiCN Layer

Significantly improves the coating hardness by creating a fine and uniform crystal structure

### High Adhesion Technology

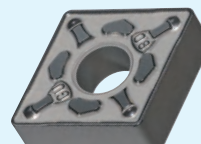
Significantly improves adhesion strength through a smooth interface between the coating and carbide substrate



**AC8020P**

Prestressed Gold-colored Surface

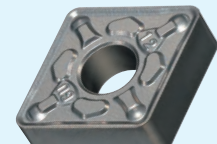
Chipping Suppressed / Visibility Improved



**AC8025P**

Smoothing

Adhesion / Chipping Suppressed

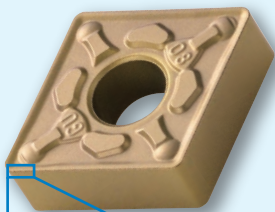


**AC8035P**

Prestressed

Fracture Suppressed

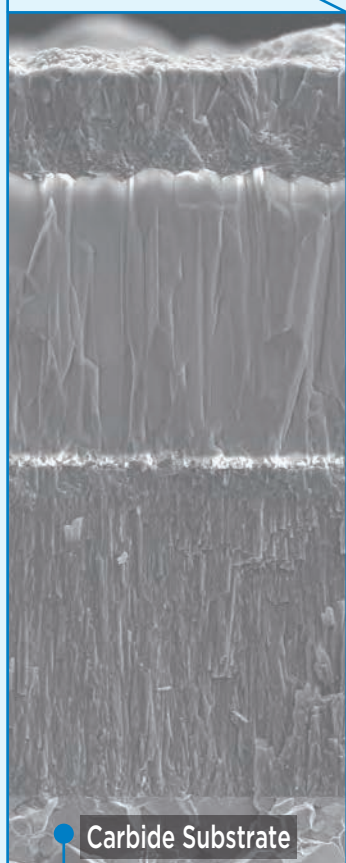
■ Features of AC8115P *new*



## AC8115P

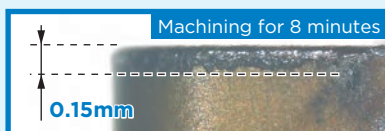
CVD ABSOTECH

Thanks to a high-hardness layer, evolving fine crystal orientation control technology, and a new carbide substrate with excellent plastic deformation resistance, superb wear resistance is realised over a wide range of machining, including high-efficiency machining and dry machining

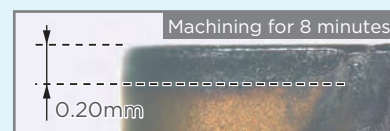


### Hard Surface Layer

Initial wear is reduced while also providing both high compression stress and gold colour with excellent visuality for used corners



AC8115P

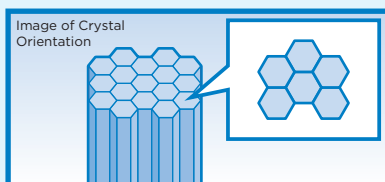


Competitor's Product A

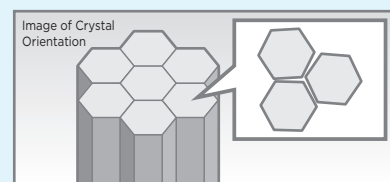
Work Material: SCM435 Cutting Conditions: vc=270m/min f=0.3mm/rev ap=1.5mm Wet

### Crystal Orientation Control Ultra-fine Alumina Layer

Improved coating strength suppresses wear due to crystal fallout, achieving wear resistance improvement by at least 1.5x against conventional tools



Crystal Orientation Control Ultra-fine Alumina Layer



Conventional Orientation Al<sub>2</sub>O<sub>3</sub>

### High Hardness Fine Grained TiCN Layer

Significantly improves the coating hardness by creating a fine and uniform crystal structure

## New Carbide Substrate With Excellent Plastic Deformation Resistance

At least 2x the deformation resistance through improved high-temperature properties



AC8115P



Conventional Tool



Competitor's Product B

Work Material: SK85 Cutting Conditions: vc=170m/min f=0.6mm/rev ap=1.5mm Dry

# AC8115P/AC8020P/AC8025P/AC8035P

High-speed Machining

## AC8115P <sup>New</sup>

**ABSOTECH**

Crystal Orientation Control  
Ultra-fine Alumina Layer

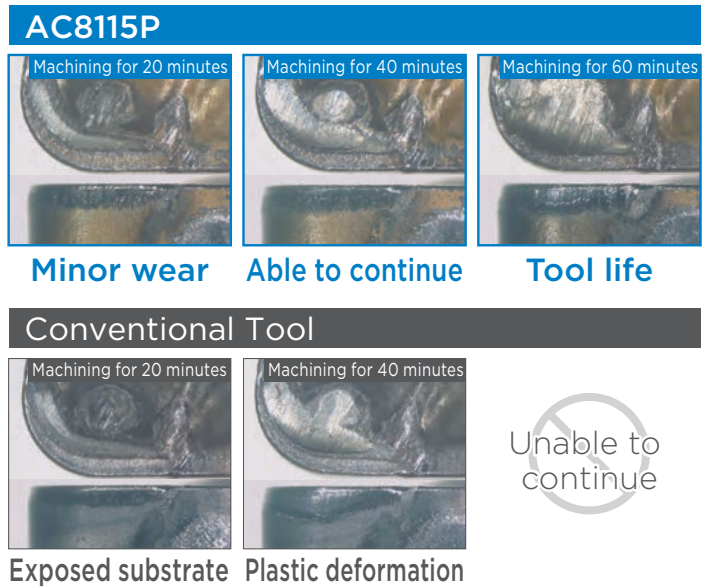
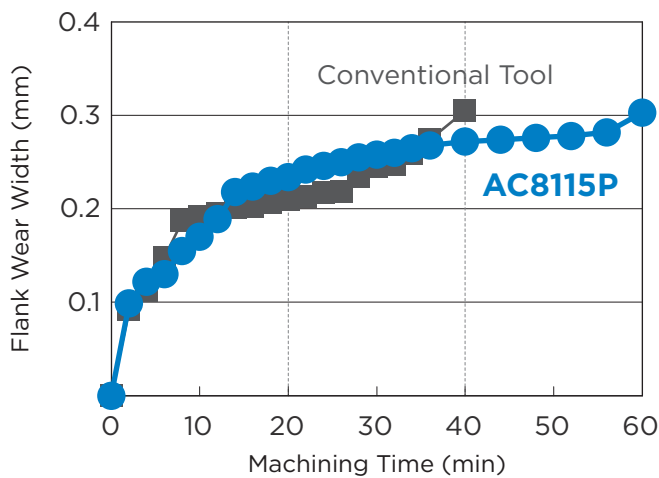
Amazing Wear Resistance



Crater wear is suppressed and tool life extended through improved alumina layer coating strength and higher carbide substrate plastic deformation resistance

### AC8115P Cutting Performance (Conditions Same as Conventional)

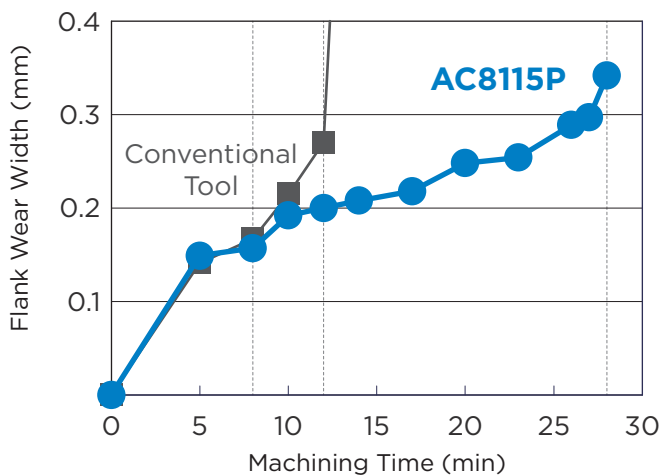
1.5x better wear resistance through improved plastic deformation resistance



Work Material: SCM435 Round Bar (External Turning) Insert: CNMG120408N-GE (AC8115P) Cutting Conditions: vc=270m/min f=0.3mm/rev ap=1.5mm Wet

### AC8115P Cutting Performance (High-speed Machining)

More than 2x better wear resistance during high-speed machining through improved alumina layer wear resistance

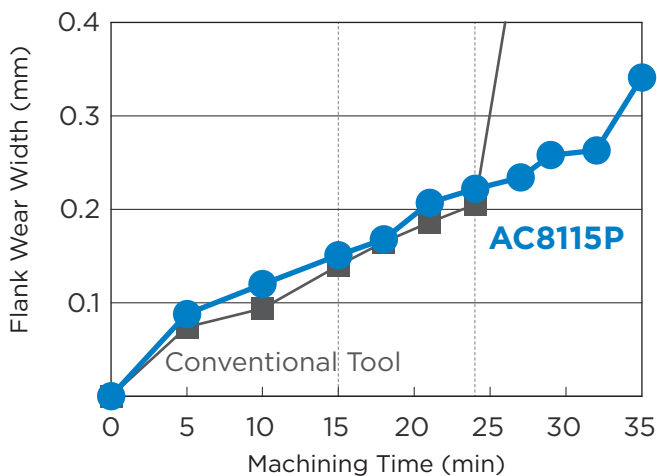


Work Material: SCM435 Round Bar (External Turning) Insert: CNMG120408N-GE (AC8115P) Cutting Conditions: vc=350m/min f=0.3mm/rev ap=1.5mm Wet

# AC8115P/AC8020P/AC8025P/AC8035P

## AC8115P Cutting Performance (Dry Machining)

1.5x better wear resistance through improved alumina layer wear resistance and plastic deformation resistance



Work Material: SCM435 Round Bar (External Turning) Insert: CNMG120408N-GE (AC8115P) Cutting Conditions: vc=270m/min f=0.3mm/rev ap=1.5mm Dry

## AC8115P Recommended Cutting Conditions

Min. - Optimum - Max.

Insert Shape / Cutting Edge Length	Chipbreaker	Mild Steel (SS400, etc.) Low Carbon Steel (S10C, etc.) Low-alloy Steel (SCM415, etc.) 180HB or less			High Carbon Steel (S45C, etc.) High-alloy Steel (SCM435, etc.) 180HB or more		
		Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)	Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)
CNM□12 TNM□16 DNM□15 TNM□22 SNM□12 WNM□08	FE	0.1 - <b>0.4</b> - 1.2	0.10 - <b>0.20</b> - 0.40	190 - <b>310</b> - 500	0.1 - <b>0.4</b> - 1.2	0.10 - <b>0.20</b> - 0.40	140 - <b>260</b> - 450
	LU/SU/SE	0.5 - <b>1.5</b> - 2.0	0.10 - <b>0.20</b> - 0.40	170 - <b>310</b> - 500	0.5 - <b>1.5</b> - 2.0	0.10 - <b>0.20</b> - 0.40	130 - <b>260</b> - 450
	SEW	0.5 - <b>1.5</b> - 2.5	0.10 - <b>0.40</b> - 0.60	170 - <b>310</b> - 500	0.5 - <b>1.5</b> - 2.5	0.10 - <b>0.40</b> - 0.60	130 - <b>260</b> - 450
	GU/GE/UX	0.8 - <b>2.2</b> - 5.0	0.10 - <b>0.30</b> - 0.45	170 - <b>310</b> - 500	0.8 - <b>2.2</b> - 5.0	0.10 - <b>0.30</b> - 0.45	130 - <b>260</b> - 450
	MU	1.8 - <b>3.0</b> - 6.0	0.20 - <b>0.35</b> - 0.60	140 - <b>280</b> - 440	1.8 - <b>3.0</b> - 6.0	0.20 - <b>0.35</b> - 0.60	110 - <b>240</b> - 380
	ME	1.0 - <b>3.0</b> - 6.0	0.20 - <b>0.45</b> - 0.70	140 - <b>280</b> - 440	1.0 - <b>3.0</b> - 6.0	0.20 - <b>0.45</b> - 0.70	110 - <b>240</b> - 380
	HG	3.0 - <b>4.5</b> - 8.0	0.35 - <b>0.50</b> - 0.80	140 - <b>280</b> - 440	3.0 - <b>4.5</b> - 8.0	0.35 - <b>0.50</b> - 0.80	110 - <b>240</b> - 380
CNM□16 SNM□15	GU/GE/UX	0.8 - <b>3.5</b> - 5.0	0.15 - <b>0.30</b> - 0.45	140 - <b>280</b> - 400	0.8 - <b>3.5</b> - 5.0	0.15 - <b>0.30</b> - 0.45	110 - <b>240</b> - 380
	MU	1.8 - <b>4.5</b> - 6.0	0.20 - <b>0.40</b> - 0.60	140 - <b>240</b> - 360	1.8 - <b>4.5</b> - 6.0	0.20 - <b>0.40</b> - 0.60	110 - <b>200</b> - 300
	ME	1.5 - <b>4.5</b> - 7.0	0.20 - <b>0.50</b> - 0.70	140 - <b>240</b> - 360	1.5 - <b>4.5</b> - 7.0	0.20 - <b>0.50</b> - 0.70	110 - <b>200</b> - 300
	HG	3.0 - <b>5.0</b> - 8.0	0.35 - <b>0.60</b> - 0.80	120 - <b>210</b> - 330	3.0 - <b>5.0</b> - 8.0	0.35 - <b>0.60</b> - 0.80	90 - <b>170</b> - 270
CNM□19 SNM□19 CNM□25 SNM□25 DNM□19 TNM□27	MU	1.8 - <b>5.0</b> - 6.0	0.20 - <b>0.40</b> - 0.60	140 - <b>240</b> - 360	1.8 - <b>5.0</b> - 6.0	0.20 - <b>0.40</b> - 0.60	110 - <b>200</b> - 300
	ME	2.0 - <b>5.0</b> - 8.0	0.20 - <b>0.50</b> - 0.70	140 - <b>240</b> - 360	2.0 - <b>5.0</b> - 8.0	0.20 - <b>0.50</b> - 0.70	110 - <b>200</b> - 300
	HG	3.0 - <b>6.5</b> - 9.0	0.35 - <b>0.60</b> - 0.80	120 - <b>210</b> - 330	3.0 - <b>6.5</b> - 9.0	0.35 - <b>0.60</b> - 0.80	90 - <b>170</b> - 270

# AC8115P/AC8020P/AC8025P/AC8035P

High Efficiency

## AC8020P

**ABSOTECH**

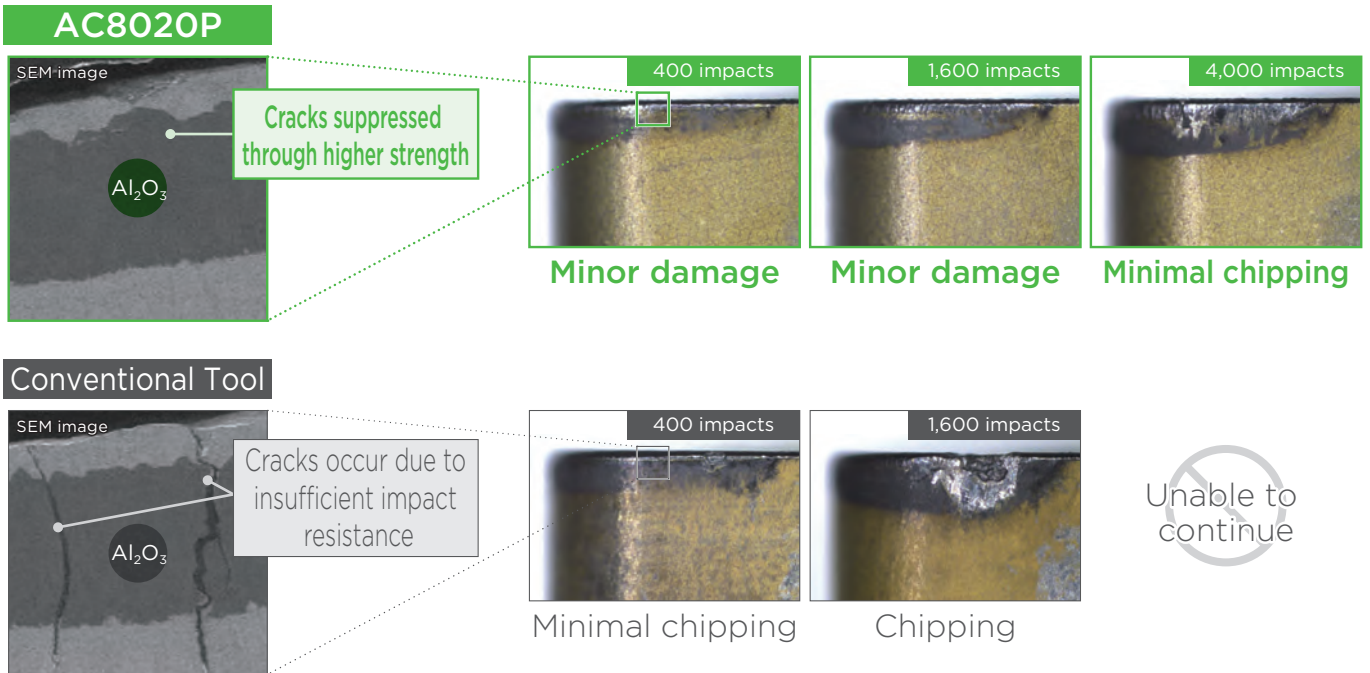
High Strength Alumina Layer

Standout Chipping Resistance



Alumina layer with even higher strength suppresses chipping

**AC8020P Cutting Performance** Balance of high wear resistance and stability. Chipping resistance **2.5x or more**



Work Material: SCM435 (Forged Part With Interrupted Sections) Insert: CNMG120408N-GU (AC8020P)  
 Cutting Conditions:  $vc = 250\text{m/min}$   $f = 0.3\text{mm/rev}$   $ap = 1.5\text{mm}$  Wet

**AC8020P Recommended Cutting Conditions**

Min. - Optimum - Max.

Insert Shape / Cutting Edge Length	Chipbreaker	Mild Steel (SS400, etc.) Low Carbon Steel (S10C, etc.) Low-alloy Steel (SCM415, etc.) 180HB or less			High Carbon Steel (S45C, etc.) High-alloy Steel (SCM435, etc.) 180HB or more		
		Depth of Cut $ap$ (mm)	Feed Rate $f$ (mm/rev)	Cutting Speed $vc$ (m/min)	Depth of Cut $ap$ (mm)	Feed Rate $f$ (mm/rev)	Cutting Speed $vc$ (m/min)
CNM□12 TNM□16 DNM□15 TNM□22 SNM□12 WNM□08	FE	0.1 - 0.4 - 1.2	0.10 - 0.20 - 0.40	180 - 290 - 450	0.1 - 0.4 - 1.2	0.10 - 0.20 - 0.40	130 - 240 - 400
	LU/SU/SE	0.5 - 1.5 - 2.0	0.10 - 0.20 - 0.40	160 - 290 - 420	0.5 - 1.5 - 2.0	0.10 - 0.20 - 0.40	120 - 240 - 370
	SEW	0.5 - 1.5 - 2.5	0.10 - 0.40 - 0.60	160 - 290 - 420	0.5 - 1.5 - 2.5	0.10 - 0.40 - 0.60	120 - 240 - 370
	GU/GE/UX	0.8 - 2.2 - 5.0	0.10 - 0.30 - 0.45	160 - 290 - 420	0.8 - 2.2 - 5.0	0.10 - 0.30 - 0.45	120 - 240 - 370
	MU	1.8 - 3.0 - 6.0	0.20 - 0.35 - 0.60	140 - 250 - 350	1.8 - 3.0 - 6.0	0.20 - 0.35 - 0.60	100 - 220 - 300
	ME	1.0 - 3.0 - 6.0	0.20 - 0.45 - 0.70	140 - 250 - 350	1.0 - 3.0 - 6.0	0.20 - 0.45 - 0.70	100 - 220 - 300
	HG	3.0 - 4.5 - 8.0	0.35 - 0.50 - 0.80	120 - 230 - 330	3.0 - 4.5 - 8.0	0.35 - 0.50 - 0.80	100 - 220 - 300
CNM□16 SNM□15	GU/GE/UX	0.8 - 3.5 - 5.0	0.15 - 0.30 - 0.45	110 - 260 - 350	0.8 - 3.5 - 5.0	0.15 - 0.30 - 0.45	100 - 220 - 300
	MU	1.8 - 4.5 - 6.0	0.20 - 0.40 - 0.60	120 - 220 - 300	1.8 - 4.5 - 6.0	0.20 - 0.40 - 0.60	100 - 180 - 250
	ME	1.5 - 4.5 - 7.0	0.20 - 0.50 - 0.70	120 - 220 - 300	1.5 - 4.5 - 7.0	0.20 - 0.50 - 0.70	100 - 180 - 250
	HG	3.0 - 5.0 - 8.0	0.35 - 0.60 - 0.80	110 - 190 - 270	3.0 - 5.0 - 8.0	0.35 - 0.60 - 0.80	80 - 150 - 220
CNM□19 SNM□19 CNM□25 SNM□25 DNM□19 TNM□27	MU	1.8 - 5.0 - 6.0	0.20 - 0.40 - 0.60	120 - 220 - 300	1.8 - 5.0 - 6.0	0.20 - 0.40 - 0.60	100 - 180 - 250
	ME	2.0 - 5.0 - 8.0	0.20 - 0.50 - 0.70	120 - 220 - 300	2.0 - 5.0 - 8.0	0.20 - 0.50 - 0.70	100 - 180 - 250
	HG	3.0 - 6.5 - 9.0	0.35 - 0.60 - 0.80	110 - 190 - 270	3.0 - 6.5 - 9.0	0.35 - 0.60 - 0.80	80 - 150 - 220

# AC8115P/AC8020P/AC8025P/AC8035P

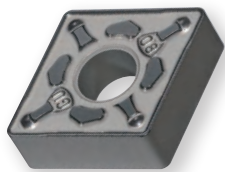
General Machining

## AC8025P

**ABSOTECH**

Surface Smoothing Treatment

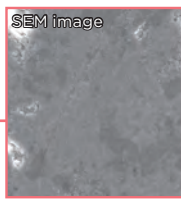
Absolute Reliability



Surface smoothing treatment significantly suppresses adhesion and chipping

**AC8025P Cutting Performance** Suppresses adhesion with ultra-smooth surface. Adhesion fracture resistance **2x or more**

### AC8025P



Ra0.04μm



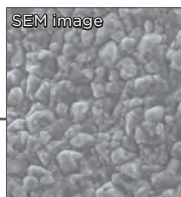
Normal wear



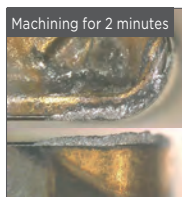
Minor damage only, able to continue



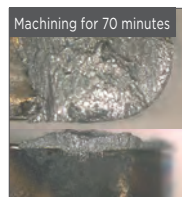
### Conventional Tool



Ra0.4μm



Adhesion



Fracture



Work Material: SCM415 (Facing) Insert: CNMG120408N-GU (AC8025P)  
Cutting Conditions: vc= 100 to 300m/min f= 0.3mm/rev ap= 1.5mm Wet

### AC8025P Recommended Cutting Conditions

Min. - Optimum - Max.

Insert Shape / Cutting Edge Length	Chipbreaker	Mild Steel (S45C, etc.) Low Carbon Steel (S10C, etc.) Low-alloy Steel (SCM415, etc.) 180HB or less			High Carbon Steel (S45C, etc.) High-alloy Steel (SCM435, etc.) 180HB or more		
		Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)	Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)
CNM□12 TNM□16 DNM□15 TNM□22 SNM□12 WNM□08	FE	0.1- <b>0.4</b> - 1.2	0.10- <b>0.25</b> -0.45	150- <b>250</b> -350	0.1- <b>0.4</b> - 1.2	0.10- <b>0.25</b> -0.45	120- <b>210</b> -300
	LU/SU/SE	0.5- <b>1.5</b> - 2.0	0.10- <b>0.20</b> -0.40	150- <b>250</b> -350	0.5- <b>1.5</b> - 2.0	0.10- <b>0.20</b> -0.40	120- <b>210</b> -300
	SEW	0.5- <b>1.5</b> - 2.5	0.10- <b>0.40</b> -0.60	150- <b>250</b> -350	0.5- <b>1.5</b> - 2.5	0.10- <b>0.40</b> -0.60	120- <b>210</b> -300
	GU/GE/UX	0.8- <b>2.2</b> - 5.0	0.10- <b>0.30</b> -0.45	150- <b>230</b> -300	0.8- <b>2.2</b> - 5.0	0.10- <b>0.30</b> -0.45	100- <b>180</b> -270
	MU	1.8- <b>3.0</b> - 6.0	0.20- <b>0.35</b> -0.60	130- <b>200</b> -280	1.8- <b>3.0</b> - 6.0	0.20- <b>0.35</b> -0.60	80- <b>150</b> -230
	ME	1.0- <b>3.0</b> - 6.0	0.20- <b>0.45</b> -0.70	130- <b>200</b> -280	1.0- <b>3.0</b> - 6.0	0.20- <b>0.45</b> -0.70	80- <b>150</b> -230
	HG	3.0- <b>4.5</b> - 8.0	0.35- <b>0.50</b> -0.80	100- <b>180</b> -260	3.0- <b>4.5</b> - 8.0	0.35- <b>0.50</b> -0.80	60- <b>130</b> -200
CNM□16 SNM□15	GU/GE/UX	0.8- <b>3.5</b> - 5.0	0.15- <b>0.30</b> -0.45	130- <b>200</b> -280	0.8- <b>3.5</b> - 5.0	0.15- <b>0.30</b> -0.45	100- <b>160</b> -230
	MU	1.8- <b>4.5</b> - 6.0	0.20- <b>0.40</b> -0.60	100- <b>180</b> -260	1.8- <b>4.5</b> - 6.0	0.20- <b>0.40</b> -0.60	80- <b>140</b> -210
	ME	1.5- <b>4.5</b> - 7.0	0.20- <b>0.50</b> -0.70	100- <b>180</b> -260	1.5- <b>4.5</b> - 7.0	0.20- <b>0.50</b> -0.70	80- <b>140</b> -210
	HG	3.0- <b>5.0</b> - 8.0	0.35- <b>0.60</b> -0.80	80- <b>160</b> -240	3.0- <b>5.0</b> - 8.0	0.35- <b>0.60</b> -0.80	70- <b>120</b> -180
CNM□19 SNM□19 CNM□25 SNM□25 DNM□19 TNM□27	MU	1.8- <b>5.0</b> - 6.0	0.20- <b>0.40</b> -0.60	100- <b>180</b> -260	1.8- <b>5.0</b> - 6.0	0.20- <b>0.40</b> -0.60	80- <b>140</b> -210
	ME	2.0- <b>5.0</b> - 8.0	0.20- <b>0.50</b> -0.70	100- <b>180</b> -260	2.0- <b>5.0</b> - 8.0	0.20- <b>0.50</b> -0.70	80- <b>140</b> -210
	HG	3.0- <b>6.5</b> - 9.0	0.35- <b>0.60</b> -0.80	80- <b>160</b> -240	3.0- <b>6.5</b> - 9.0	0.35- <b>0.60</b> -0.80	70- <b>120</b> -180
	HF	4.5- <b>8.0</b> -13.5	0.45- <b>0.80</b> -1.10	135- <b>170</b> -220	4.5- <b>8.0</b> -13.5	0.45- <b>0.80</b> -1.15	105- <b>140</b> -190

# AC8115P/AC8020P/AC8025P/AC8035P

Interrupted Machining **AC8035P**

**ABSOTECH**

Stress Control Within Coating

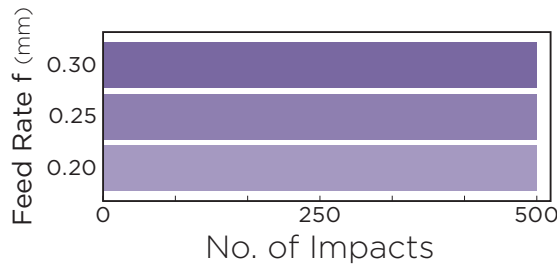
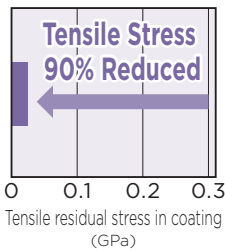
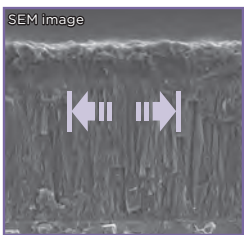
Exceptional Stability



Special surface treatment reduces tensile stress in the coating layer, significantly suppressing fractures

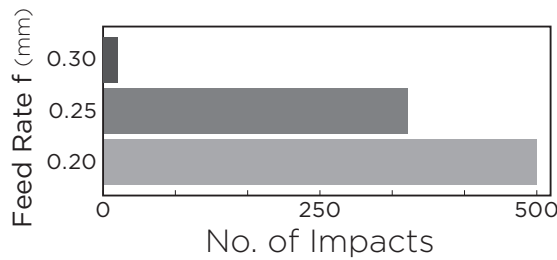
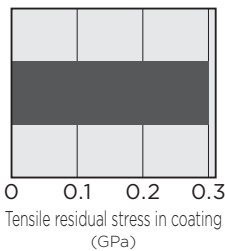
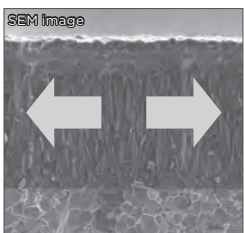
**AC8035P Cutting Performance** Suppresses crack growth and fractures by reducing tensile residual stress. Fracture resistance 2x or more

## AC8035P



All corners able to continue

## Conventional Tool



Unable to continue

Work Material: SCM435 (External Interrupted) Insert: CNMG120408N-GU (AC8035P)  
Cutting Conditions: vc= 160m/min f= 0.2 to 0.3mm/rev ap= 2.0mm Dry

## AC8035P Recommended Cutting Conditions

Min. - Optimum - Max.

Insert Shape / Cutting Edge Length	Chipbreaker	Mild Steel (SS400, etc.) Low Carbon Steel (S10C, etc.) Low-alloy Steel (SCM415, etc.) 180HB or less			High Carbon Steel (S45C, etc.) High-alloy Steel (SCM435, etc.) 180HB or more		
		Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)	Depth of Cut ap (mm)	Feed Rate f (mm/rev)	Cutting Speed vc (m/min)
CNM□12 TNM□16 DNM□15 TNM□22 SNM□12 WNM□08	FE	0.1 - <b>0.4</b> - 1.2	0.10 - <b>0.25</b> - 0.45	120 - <b>200</b> - 300	0.1 - <b>0.4</b> - 1.2	0.10 - <b>0.25</b> - 0.45	120 - <b>180</b> - 250
	LU/SU/SE	0.5 - <b>1.3</b> - 2.0	0.10 - <b>0.20</b> - 0.40	120 - <b>200</b> - 300	0.5 - <b>1.3</b> - 2.0	0.10 - <b>0.20</b> - 0.40	120 - <b>180</b> - 250
	SEW	0.8 - <b>2.2</b> - 5.0	0.10 - <b>0.30</b> - 0.45	120 - <b>200</b> - 300	0.8 - <b>2.2</b> - 5.0	0.10 - <b>0.30</b> - 0.45	100 - <b>150</b> - 200
	GU/GE/UX	1.8 - <b>3.0</b> - 6.0	0.20 - <b>0.35</b> - 0.60	100 - <b>180</b> - 250	1.8 - <b>3.0</b> - 6.0	0.20 - <b>0.35</b> - 0.60	80 - <b>130</b> - 180
	MU	1.0 - <b>3.0</b> - 6.0	0.20 - <b>0.45</b> - 0.70	100 - <b>180</b> - 250	1.0 - <b>3.0</b> - 6.0	0.20 - <b>0.45</b> - 0.70	80 - <b>130</b> - 180
	ME	3.0 - <b>4.5</b> - 8.0	0.35 - <b>0.50</b> - 0.80	100 - <b>150</b> - 200	3.0 - <b>4.5</b> - 8.0	0.35 - <b>0.50</b> - 0.80	70 - <b>100</b> - 160
	HG	0.8 - <b>3.5</b> - 5.0	0.15 - <b>0.30</b> - 0.45	100 - <b>180</b> - 250	0.8 - <b>3.5</b> - 5.0	0.15 - <b>0.30</b> - 0.45	90 - <b>130</b> - 170
CNM□16 SNM□15	GU/GE/UX	1.8 - <b>4.5</b> - 6.0	0.20 - <b>0.40</b> - 0.60	100 - <b>150</b> - 200	1.8 - <b>4.5</b> - 6.0	0.20 - <b>0.40</b> - 0.60	70 - <b>110</b> - 150
	MU	1.5 - <b>4.5</b> - 7.0	0.20 - <b>0.50</b> - 0.70	100 - <b>150</b> - 200	1.5 - <b>4.5</b> - 7.0	0.20 - <b>0.50</b> - 0.70	70 - <b>110</b> - 150
	ME	3.0 - <b>5.0</b> - 8.0	0.35 - <b>0.60</b> - 0.80	80 - <b>130</b> - 180	3.0 - <b>5.0</b> - 8.0	0.35 - <b>0.60</b> - 0.80	60 - <b>100</b> - 140
	HG	1.8 - <b>5.0</b> - 6.0	0.20 - <b>0.40</b> - 0.60	100 - <b>150</b> - 200	1.8 - <b>5.0</b> - 6.0	0.20 - <b>0.40</b> - 0.60	70 - <b>110</b> - 150
CNM□19 SNM□19 CNM□25 SNM□25 DNM□19 TNM□27	MU	2.0 - <b>5.0</b> - 8.0	0.20 - <b>0.50</b> - 0.70	100 - <b>150</b> - 200	2.0 - <b>5.0</b> - 8.0	0.20 - <b>0.50</b> - 0.70	70 - <b>110</b> - 150
	ME	3.0 - <b>6.5</b> - 9.0	0.35 - <b>0.60</b> - 0.80	80 - <b>130</b> - 180	3.0 - <b>6.5</b> - 9.0	0.35 - <b>0.60</b> - 0.80	60 - <b>100</b> - 140
	HG	4.5 - <b>8.0</b> - 13.5	0.45 - <b>0.80</b> - 1.15	120 - <b>150</b> - 190	4.5 - <b>8.0</b> - 13.5	0.45 - <b>0.80</b> - 1.15	90 - <b>120</b> - 160
	HF	5.0 - <b>8.0</b> - 27.0	0.80 - <b>1.20</b> - 1.60	70 - <b>110</b> - 150	5.0 - <b>8.0</b> - 27.0	0.80 - <b>1.20</b> - 1.60	50 - <b>180</b> - 120

# AC8115P/AC8020P/AC8025P/AC8035P

## Application Guide

1st Recommended Grade

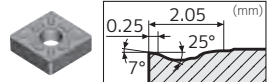
1st Recommended Chipbreaker

General-purpose machining

**AC8025P**



**GU type**



	Chipbreakers for High-efficiency Machining		Main Chipbreakers	Strong Cutting Edge Chipbreakers
Finishing to Small Depth of Cut	<b>FE type</b> 	<b>SE type</b> 	<b>SU type</b> 	<b>SX type</b> 
General-purpose	<b>GE type</b> 	<b>GU type</b> 	<b>UX type</b> 	
Roughing to Large Depth of Cut	<b>ME type</b> 	<b>MU type</b> 	<b>MX type</b> 	

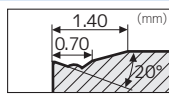
For high-speed and dry machining

High-speed Machining

**AC8115P** *New*

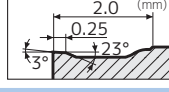
To improve tool life at small depths of cut

**FE type**



To increase feed rate

**GE type**



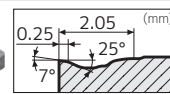
For heavy interrupted cutting emphasizing stability

Interrupted Machining

**AC8035P**

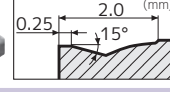
To improve tool life

**GU type**



To improve machining stability

**UX type**



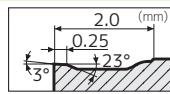
For high-efficiency machining of hard steel and forgings

High Efficiency

**AC8020P**

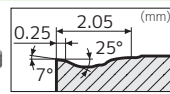
To increase feed rate

**GE type**



To increase cutting speed

**GU type**



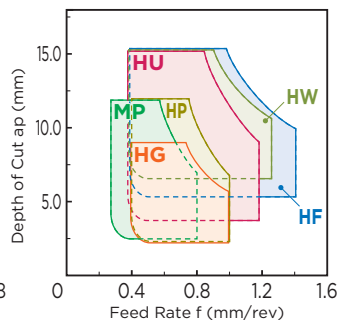
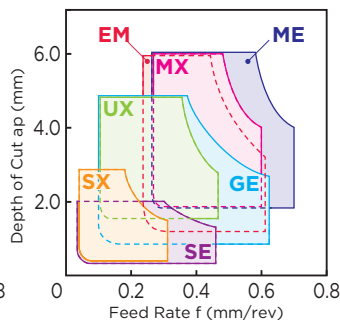
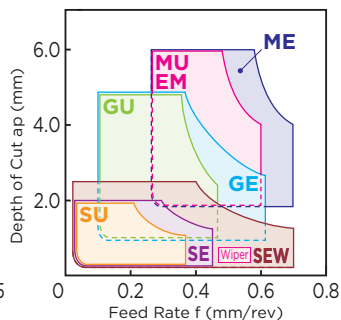
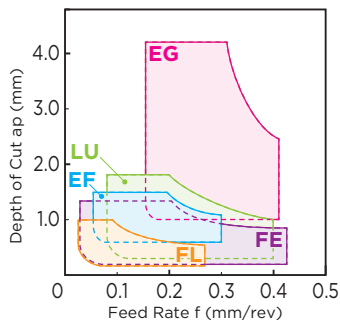
## Chipbreaker Application Range

● Chip evacuation emphasised

● Continuous to light interrupted cutting

● Light interrupted to heavy interrupted cutting

● Rough to heavy cutting








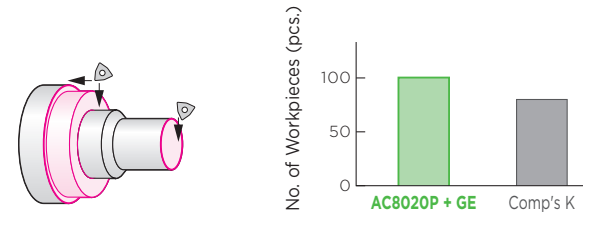
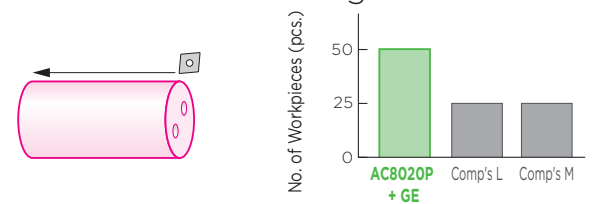

# AC8115P/AC8020P/AC8025P/AC8035P

## ■ AC8115P Application Examples

<p><b>SCM440 Rotor Shaft</b></p> <p>Suppresses crater wear for 1.3x longer tool life</p> <p><b>AC8115P + MU</b> (5 pcs/C)</p> <p>Comp's A (4 pcs/C)</p> <p>Insert: TNMG220412N-MU (AC8115P) Roughing Cutting Conditions: <math>vc=220\text{m/min}</math> <math>f=0.4\text{mm/rev}</math> <math>ap=2.5\text{mm}</math> Wet</p>	<p><b>P110 Pipe</b></p> <p>1.3x longer tool life even in high-load machining</p> <p><b>AC8115P + EM</b> (14 pcs/C)</p> <p>Comp's B (11 pcs/C)</p> <p>Insert: CNMG160616N-EM (AC8115P) Cutting Conditions: <math>vc=185\text{m/min}</math> <math>f=0.6\text{mm/rev}</math> <math>ap=4.0\text{mm}</math> Wet</p>
<p><b>SCM440 Rotor Shaft</b></p> <p>Suppresses crater wear for 1.3x longer tool life</p> <p><b>AC8115P + GE</b> (150 pcs/C)</p> <p>Comp's C(P05) (120 pcs/C)</p> <p>Insert: DNMG150612-GE (AC8115P) Roughing Cutting Conditions: <math>vc=310\text{-}340\text{m/min}</math> <math>f=0.4\text{mm/rev}</math> <math>ap=1.0\text{-}2.5\text{mm}</math> Wet</p>	<p><b>SCM440 Rotor Shaft</b></p> <p>Suppresses wear for 2x longer tool life</p> <p><b>AC8115P + MU</b> (8 pcs/C)</p> <p>Comp's D (4 pcs/C)</p> <p>Insert: CNMG120408N-MU (AC8115P) Cutting Conditions: <math>vc=240\text{m/min}</math> <math>f=0.3\text{mm/rev}</math> <math>ap=3.0\text{mm}</math> Wet</p>
<p><b>Transmission Part</b></p> <p>Suppresses flank wear for 1.3x longer tool life</p> <p><b>AC8115P + SU</b> (100 pcs/C)</p> <p>Comp's E (80 pcs/C)</p> <p>Insert: DNMG150408N-SU (AC8115P) Finishing Cutting Conditions: <math>vc=300\text{m/min}</math> <math>f=0.4\text{mm/rev}</math> <math>ap=0.8\text{-}1.0\text{mm}</math> Wet</p>	<p><b>S38C Motor Shaft</b></p> <p>Suppresses chipping and rake face wear</p> <p><b>AC8115P + ME</b> (250 pcs/C)</p> <p>Comp's F (250 pcs/C)</p> <p>Insert: CNMG120408N-ME (AC8115P) Roughing Cutting Conditions: <math>vc=280\text{m/min}</math> <math>f=0.5\text{mm/rev}</math> <math>ap=2.0\text{mm}</math> Wet</p>
<p><b>SCM440 Rotor Shaft</b></p> <p>Suppresses cutting edge fractures for 1.2x longer tool life</p> <p><b>AC8115P + SE</b> (180 pcs/C)</p> <p>Conventional Tool (150 pcs/C)</p> <p>Insert: TNMG160408N-SE (AC8115P) Finishing Cutting Conditions: <math>vc=300\text{m/min}</math> <math>f=0.45\text{mm/rev}</math> <math>ap=0.2\text{-}0.3\text{mm}</math> Wet</p>	<p><b>SKD61 Die</b></p> <p>Suppresses wear over the same machining time</p> <p><b>AC8115P + GE</b> (25 pcs/C)</p> <p>Comp's G (25 pcs/C)</p> <p>Insert: CNMG120408N-GE (AC8115P) Cutting Conditions: <math>vc=120\text{m/min}</math> <math>f=0.2\text{mm/rev}</math> <math>ap=1.5\text{mm}</math> Wet</p>

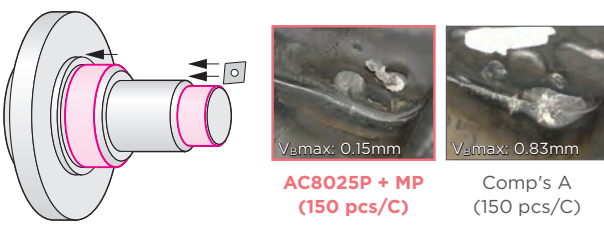



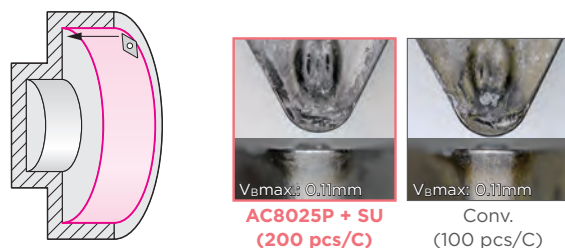

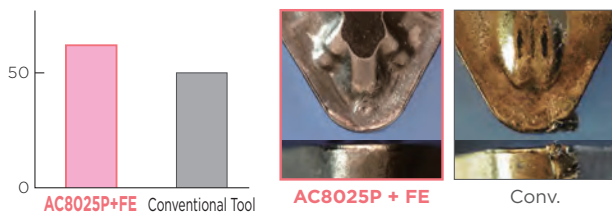

# AC8115P/AC8020P/AC8025P/AC8035P

## AC8020P Application Examples


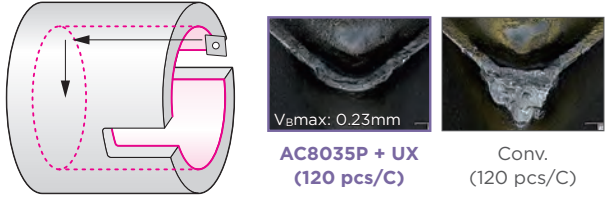
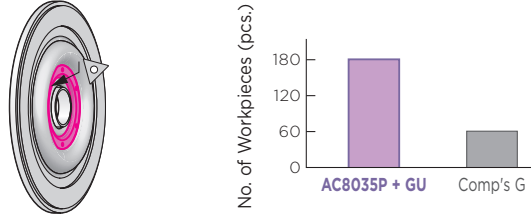
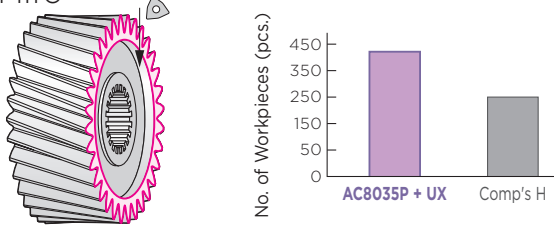
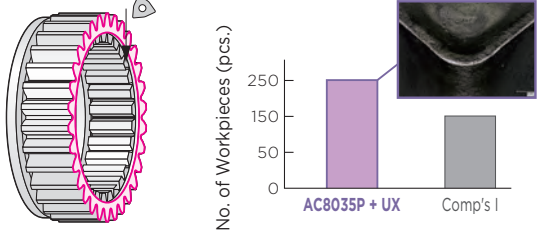

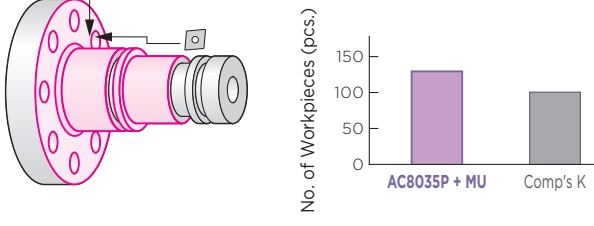
<p><b>S53C CVJ Component</b></p> <p>Suppresses chipping for 1.7x longer tool life</p>  <p><b>AC8020P + SE</b> (100 pcs/C)</p> <p>Comp's H (60 pcs/C)</p> <p>Insert: DNMG150412N-SE (AC8020P) Cutting Conditions: vc= 220m/min f= 0.35mm/rev ap= 1.00mm Wet</p>	<p><b>S35C Machine Tool Component</b></p> <p>Suppresses both crater and flank wear for 2x longer tool life</p>  <p><b>AC8020P + SE</b> (1,600 pcs/C)</p> <p>Comp's I (800 pcs/C)</p> <p>Insert: WNMG080408N-SE (AC8020P) Cutting Conditions: vc= 240m/min f= 0.25mm/rev ap= 1.00mm Wet</p>						
<p><b>SCM435 Equivalent Transmission Component</b></p> <p>Suppresses crater wear for 1.5x longer tool life</p>  <p><b>AC8020P + GU</b> (40 pcs/C)</p> <p>Conv. (26 pcs/C)</p> <p>Insert: CNMG120408N-GU (AC8020P) Cutting Conditions: vc= 250m/min f= 0.3mm/rev ap= 1.5mm Wet</p>	<p><b>S45C Bearing</b></p> <p>Suppresses crater wear and chipping for 1.4x longer tool life</p>  <p><b>AC8020P + SU</b> (230 pcs/C)</p> <p>Conv. (160 pcs/C)</p> <p>Insert: WNMG080408N-SU (AC8020P) Cutting Conditions: vc= 230m/min f= 0.26mm/rev ap= 1.00mm Wet</p>						
<p><b>SUJ2 Bearing</b></p> <p>Suppresses flank wear for 1.2x longer tool life and stable machining</p>  <p><b>AC8020P + GE</b> (600 pcs/C)</p> <p>Comp's J (500 pcs/C)</p> <p>Insert: DNMG150412N-GE (AC8020P) Cutting Conditions: vc= 300m/min f= 0.3mm/rev ap= 0.3mm Wet</p>	<p><b>S53C CVJ Component</b></p> <p>1.3x longer tool life and stable machining</p>  <p>No. of Workpieces (pcs.)</p> <table border="1"> <tr> <td>AC8020P + GE</td> <td>100</td> </tr> <tr> <td>Comp's K</td> <td>75</td> </tr> </table> <p>Insert: WNMG080412N-GE (AC8020P) Cutting Conditions: vc= 260m/min f= 0.45mm/rev ap= 1.50mm Wet</p>	AC8020P + GE	100	Comp's K	75		
AC8020P + GE	100						
Comp's K	75						
<p><b>SCM440 Automotive Component</b></p> <p>Suppresses wear for 2x longer tool life and stable machining</p>  <p>No. of Workpieces (pcs.)</p> <table border="1"> <tr> <td>AC8020P + GE</td> <td>50</td> </tr> <tr> <td>Comp's L</td> <td>25</td> </tr> <tr> <td>Comp's M</td> <td>25</td> </tr> </table> <p>Insert: CNMG120408N-GE (AC8020P) Cutting Conditions: vc= 190m/min f= 0.3mm/rev ap= 3.0mm Wet</p>	AC8020P + GE	50	Comp's L	25	Comp's M	25	<p><b>Boron Steel Shaft</b></p> <p>Suppresses both crater wear and chipping for 3x longer tool life</p>  <p><b>AC8020P + GU</b> (220 pcs/C)</p> <p>Conv. (70 pcs/C)</p> <p>Insert: DNMG150412N-UX (AC8020P) Cutting Conditions: vc= 230m/min f= 0.55mm/rev ap= 1.00mm Wet</p>
AC8020P + GE	50						
Comp's L	25						
Comp's M	25						

# AC8115P/AC8020P/AC8025P/AC8035P

## AC8025P Application Examples

<p><b>S45C Automotive Chassis Component</b></p> <p>Suppresses crater wear</p>  <p>Insert: CNMM120416N-MP (AC8025P) Cutting Conditions: <math>v_c=180</math> to <math>200\text{m/min}</math> <math>f=0.43</math> to <math>0.55\text{mm/rev}</math> <math>a_p=1.00</math> to <math>3.00\text{mm}</math> Wet</p>	<p><b>SCr415 Ring Gear</b></p> <p>Suppresses chipping for 1.5x longer tool life</p>  <p>Insert: WNMG080416N-ME (AC8025P) Cutting Conditions: <math>v_c=250\text{m/min}</math> <math>f=0.30</math> to <math>0.45\text{mm/rev}</math> <math>a_p=2.50\text{mm}</math> Wet</p>
<p><b>SCM415 Tool Holder</b></p> <p>Suppresses adhesion fractures, enabling stable machining</p>  <p>Insert: DNMG150608N-EM (AC8025P) Cutting Conditions: <math>v_c=150\text{m/min}</math> <math>f=0.4\text{mm/rev}</math> <math>a_p=4.0\text{mm}</math> Wet</p>	<p><b>S45C Ring</b></p> <p>Reduces crater wear for 3x longer tool life</p>  <p>Insert: CNMG120408N-GE (AC8025P) Cutting Conditions: <math>v_c=200</math> to <math>250\text{m/min}</math> <math>f=0.25\text{mm/rev}</math> <math>a_p=1.00\text{mm}</math> Wet</p>
<p><b>Rolled Steel Cylinder</b></p> <p>Suppresses chipping for 2x longer tool life</p>  <p>Insert: DCMT11T308N-SU (AC8025P) Cutting Conditions: <math>v_c=210\text{m/min}</math> <math>f=0.15\text{mm/rev}</math> <math>a_p=1.00\text{mm}</math> Wet</p>	<p><b>SMnC420H Bush</b></p> <p>Suppresses flank wear</p>  <p>Insert: CNMG120416N-ME (AC8025P) Cutting Conditions: <math>v_c=260\text{m/min}</math> <math>f=0.5</math> to <math>1.0\text{mm/rev}</math> <math>a_p=1.5</math> to <math>2.0\text{mm}</math> Wet</p>
<p><b>Rolled Steel Front Cover</b></p> <p>Eliminates tearing in combination with FE type chipbreaker for 1.2x longer tool life</p>  <p>Insert: TNMG160408N-FE (AC8025P) Cutting Conditions Facing: <math>v_c=450</math> to <math>480\text{m/min}</math> <math>f=0.25</math> to <math>0.32\text{mm/rev}</math> <math>a_p=0.05</math> to <math>0.25\text{mm}</math> Wet Internal Boring: <math>v_c=400\text{m/min}</math> <math>f=0.20</math> to <math>0.30\text{mm/rev}</math> <math>a_p=0.20</math> to <math>0.30\text{mm}</math> Wet</p>	<p><b>SCr415 Fastening Component</b></p> <p>Strong design realizes 1.5x longer tool life</p>  <p>Insert: CCMT09T308N-GU (AC8025P) Cutting Conditions: <math>v_c=190\text{m/min}</math> <math>f=0.25\text{mm/rev}</math> <math>a_p=1.00\text{mm}</math> Wet</p>

## AC8035P Application Examples

<h3>S35C Planetary Pinion</h3> <p>Significantly suppresses fractures for 1.5x longer tool life</p>  <p>Insert: CNMG120412N-UX (AC8035P) Interrupted Machining Cutting Conditions: <math>v_c = 180\text{m/min}</math> <math>f = 0.3\text{mm/rev}</math> <math>a_p = 2.0\text{mm}</math> Wet</p>	<h3>S25C Equivalent Automotive Component</h3> <p>Significantly suppresses fractures and extends tool life</p>  <p>Insert: CNMG120408N-UX (AC8035P) Interrupted Machining Cutting Conditions: <math>v_c = 100</math> to <math>130\text{m/min}</math> <math>f = 0.2\text{mm/rev}</math> <math>a_p = 1.0</math> to <math>3.2\text{mm}</math> Wet</p>
<h3>SPH440 Flange</h3> <p>Suppresses chipping for 3x longer tool life</p>  <p>Insert: TNMG160408N-GU (AC8035P) Interrupted Roughing Cutting Conditions: <math>v_c = 100\text{m/min}</math> <math>f = 0.3\text{mm/rev}</math> <math>a_p = 1.5\text{mm}</math> Wet</p>	<h3>SNCN Gear</h3> <p>Suppresses chipping for 1.7x longer tool life</p>  <p>Insert: WNMG080408N-UX (AC8035P) Interrupted Roughing Cutting Conditions: <math>v_c = 180\text{m/min}</math> <math>f = 0.15</math> to <math>0.40\text{mm/rev}</math> <math>a_p = 1.00\text{mm}</math> Wet</p>
<h3>SCr420 Equivalent Reverse Gear</h3> <p>Suppresses chipping for 1.6x longer tool life</p>  <p>Insert: WNMG080408N-UX (AC8035P) Interrupted Roughing Cutting Conditions: <math>v_c = 230\text{m/min}</math> <math>f = 0.15</math> to <math>0.30\text{mm/rev}</math> <math>a_p = 1.00</math> to <math>2.00\text{mm}</math> Wet</p>	<h3>SCr440 Flange</h3> <p>Suppresses chipping for 1.5x longer tool life</p>  <p>Insert: WNMG080412N-GU (AC8035P) Interrupted Roughing Cutting Conditions: <math>v_c = 80</math> to <math>200\text{m/min}</math> <math>f = 0.2\text{mm/rev}</math> <math>a_p = 1.5\text{mm}</math> Dry</p>
<h3>Alloy Steel Automotive Chassis Component</h3> <p>Suppresses chipping for 1.3x longer tool life</p>  <p>Insert: CNMG190616N-MU (AC8035P) Mill-scale Work Continuous to Interrupted Machining Cutting Conditions: <math>v_c = 140</math> to <math>280\text{m/min}</math> <math>f = 0.5\text{mm/rev}</math> <math>a_p = \text{Max. } 5.0\text{mm}</math> Dry</p>	

# AC8115P/AC8020P/AC8025P/AC8035P

## 80° Diamond type Negative Inserts

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	CNMG 090308N-FL					9.525	3.18	3.81	0.8
	CNMG 120404N-FL					12.7	4.76	5.16	0.4
	CNMG 120408N-FL								0.8
	CNMG 090304N-FE	●	●	●	●	9.525	3.18	3.81	0.4
	CNMG 090308N-FE	●	●	●	●	9.525	3.18	3.81	0.8
	CNMG 090404N-FE	●	●	●	●	9.525	4.76	3.81	0.4
	CNMG 090408N-FE	●	●	●	●				0.8
	CNMG 120402N-FE	●	●	●	●				0.2
	CNMG 120404N-FE	●	●	●	●	12.7	4.76	5.16	0.4
	CNMG 090304N-LU	●	●	●	●	9.525	3.18	3.81	0.4
	CNMG 090308N-LU	●	●	●	●				0.8
	CNMG 120404N-LU	●	●	●	●				0.4
	CNMG 120408N-LU	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-LU	●	●	●	●				1.2
	CNMG 120404N-LUW	●	●	●	●				0.4
	CNMG 120408N-LUW	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-LUW	●	●	●	●				1.2
	CNMG 090304N-SU	●	●	●	●	9.525	3.18	3.81	0.4
	CNMG 090308N-SU	●	●	●	●	9.525	3.18	3.81	0.8
	CNMG 09T304N-SU	●	●	●	●	9.525	3.97	3.81	0.4
	CNMG 09T308N-SU	●	●	●	●				0.8
	CNMG 090404N-SU	●	●	●	●				0.4
	CNMG 090408N-SU	●	●	●	●	9.525	4.76	3.81	0.8
	CNMG 090412N-SU	●	●	●	●				1.2
	CNMG 120404N-SU	●	●	●	●				0.4
	CNMG 120408N-SU	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-SU	●	●	●	●				1.2
	CNMG 120404N-SE	●	●	●	●	12.7	4.76	5.16	0.4
	CNMG 120408N-SE	●	●	●	●				0.8
	CNMG 120412N-SE	●	●	●	●				1.2
	CNMG 090404N-SEW	●	●	●	●	9.525	4.76	3.81	0.4
	CNMG 090408N-SEW	●	●	●	●				0.8
	CNMG 120404N-SEW	●	●	●	●				0.4
	CNMG 120408N-SEW	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-SEW	●	●	●	●				1.2
	CNMG 120404N-EF	●	●	●	●				0.4
	CNMG 120408N-EF	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-EF	●	●	●	●				1.2
	CNMG 120404N-SX	●	●	●	●				0.4
	CNMG 120408N-SX	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-SX	●	●	●	●				1.2
	CNMG 090304N-GU	●	●	●	●	9.525	3.18	3.81	0.4
	CNMG 090308N-GU	●	●	●	●				0.8
	CNMG 090404N-GU	●	●	●	●				0.4
	CNMG 090408N-GU	●	●	●	●	9.525	4.76	3.81	0.8
	CNMG 090412N-GU	●	●	●	●				1.2
	CNMG 120404N-GU	●	●	●	●				0.4
	CNMG 120408N-GU	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-GU	●	●	●	●				1.2
	CNMG 120416N-GU	●	●	●	●				1.6
	CNMG 160608N-GU	●	●	●	●				0.8
	CNMG 160612N-GU	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-GU	●	●	●	●				1.6
	CNMG 190612N-GE	●	●	●	●	19.05	6.35	7.94	1.2
	CNMG 190616N-GE	●	●	●	●				1.6
	CNMG 120404N-GE	●	●	●	●				0.4
	CNMG 120408N-GE	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-GE	●	●	●	●				1.2
	CNMG 120416N-GE	●	●	●	●				1.6
	CNMG 160608N-GE	●	●	●	●				0.8
	CNMG 160612N-GE	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-GE	●	●	●	●				1.6
	CNMG 190612N-GE	●	●	●	●	19.05	6.35	7.94	1.2
	CNMG 190616N-GE	●	●	●	●				1.6
	CNMG 120408N-GUW	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-GUW	●	●	●	●				1.2
	CNMG 160612N-GUW	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 090304N-UX				●	9.525	3.18	3.81	0.4
	CNMG 090308N-UX				●				0.8
	CNMG 120404N-UX	●	●	●	●				0.4
	CNMG 120408N-UX	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-UX	●	●	●	●				1.2
	CNMG 120416N-UX	●	●	●	●				1.6
	CNMG 160608N-UX	●	●	●	●				0.8
	CNMG 160612N-UX	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-UX	●	●	●	●				1.6
	CNMG 190608N-UX	●	●	●	●				0.8
	CNMG 190612N-UX	●	●	●	●	19.05	6.35	7.94	1.2
	CNMG 190616N-UX	●	●	●	●				1.6

## 80° Diamond type Negative Inserts (continued)

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	CNMG 090304N-UG				●				0.4
	CNMG 090308N-UG				●	9.525	3.18	3.81	0.8
	CNMG 09T304N-UG				●	9.525	3.97	3.81	0.4
	CNMG 09T308N-UG				●				0.8
	CNMG 090404N-UG				●				0.4
	CNMG 090408N-UG				●	9.525	4.76	3.81	0.8
	CNMG 120404N-UG				●				0.4
	CNMG 120408N-UG				●				0.8
	CNMG 120412N-UG				●	12.7	4.76	5.16	1.2
	CNMG 120416N-UG				●				1.6
	CNMG 160608N-UG				●				0.8
	CNMG 160612N-UG				●	15.875	6.35	6.35	1.2
	CNMG 160616N-UG				●				1.6
	CNMG 190608N-UG				●	19.05	6.35	7.94	1.2
	CNMG 190612N-UG				●				1.6
	CNMG 190616N-UG				●				1.6
	CNMG 120404N-EG	●	●	●	●				0.4
	CNMG 120408N-EG	●	●	●	●	12.7	4.76	5.16	0.8
	CNMG 120412N-EG	●	●	●	●				1.2
	CNMG 160608N-EG	●	●	●	●				0.8
	CNMG 160612N-EG	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-EG	●	●	●	●				1.6
	CNMG 190612N-EG	●	●	●	●	19.05	6.35	7.94	1.2
	CNMG 190616N-EG	●	●	●	●				1.6
	CNMG 120408N-MU	●	●	●	●				0.8
	CNMG 120412N-MU	●	●	●	●	12.7	4.76	5.16	1.2
	CNMG 120416N-MU	●	●	●	●				1.6
	CNMG 160608N-MU	●	●	●	●				0.8
	CNMG 160612N-MU	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-MU	●	●	●	●				1.6
	CNMG 190608N-MU	●	●	●	●				0.8
	CNMG 190612N-MU	●	●	●	●	19.05	6.35	7.94	1.2
	CNMG 190616N-MU	●	●	●	●				1.6
	CNMG 190624N-MU	●	●	●	●				2.4
	CNMG 250924N-MU	●	●	●	●	25.4	9.52	9.12	2.4
	CNMG 120408N-EM	●	●	●	●				0.8
	CNMG 120412N-EM	●	●	●	●	12.7	4.76	5.16	1.2
	CNMG 120416N-EM	●	●	●	●				1.6
	CNMG 160608N-EM	●	●	●	●				0.8
	CNMG 160612N-EM	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-EM	●	●	●	●				1.6
	CNMG 190612N-EM	●	●	●	●	19.05	6.35	7.94	1.6
	CNMG 190616N-EM	●	●	●	●				1.6
	CNMG 190624N-EM	●	●	●	●				2.4
	CNMG 250924N-EM	●	●	●	●	25.4	9.52	9.12	2.4
	CNMG 120408N-ME	●	●	●	●				0.8
	CNMG 120412N-ME	●	●	●	●	12.7	4.76	5.16	1.2
	CNMG 120416N-ME	●	●	●	●				1.6
	CNMG 160608N-ME	●	●	●	●				0.8
	CNMG 160612N-ME	●	●	●	●	15.875	6.35	6.35	1.2
	CNMG 160616N-ME	●	●	●	●				1.6
	CNMG 190612N-ME	●	●	●	●	19.05	6.35	7.94	1.6
	CNMG 190616N-ME	●	●	●	●				1.6
	CNMG 190624N-ME	●	●	●	●				2.4
	CNMG 250924N-ME	●	●	●	●	25.4	9.52	9.12	2.4
	CNMG 120408N-MX	●	●	●	●				0.8
	CNMG 120412N-MX	●	●	●	●	12.7	4.76	5.16	1.2
	CNMG 120416N-MX	●	●	●	●				1.6
	CNMG 160608N-MX	●	●</						

# AC8115P/AC8020P/AC8025P/AC8035P

## 80° Diamond type Negative Inserts (continued)

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	CNMM 190608N-MP					19.05	6.35	7.94	0.8
	190612N-MP	●	●	●	●				1.2
	190616N-MP	●	●	●	●				1.6
	190624N-MP	●	●	●	●				2.4
MP	CNMM 250724N-MP					25.4	7.94	9.12	2.4
	CNMM 250924N-MP					25.4	9.52	9.12	2.4
	CNMM 120408N-HG	●	●	●	●	12.7	4.76	5.16	0.8
	120412N-HG	●	●	●	●				1.2
	120416N-HG	●	●	●	●				1.6
	120424N-HG	●	●	●	●				2.4
HG	CNMM 160612N-HG	●	●	●	●	15.875	6.35	6.35	1.2
	160616N-HG	●	●	●	●				1.6
	CNMM 190612N-HG	●	●	●	●	19.05	6.35	7.94	1.2
	190616N-HG	●	●	●	●				1.6
	190624N-HG	●	●	●	●				2.4
	CNMM 120408N-HP								12.7
120412N-HP					1.2				
120416N-HP					1.6				
120424N-HP					2.4				
HP	CNMM 160608N-HP					15.875	6.35	6.35	0.8
	160612N-HP								1.2
	CNMM 190608N-HP					19.05	6.35	7.94	0.8
	190612N-HP								1.2
	190616N-HP								1.6
	190624N-HP								2.4
HF	CNMM 190616N-HF					19.05	6.35	7.94	1.6
	190624N-HF								2.4
	CNMM 250924N-HF					25.4	9.52	9.12	2.4
	250932N-HF								3.2

## 55° Diamond type Negative Inserts (continued)

Shape	Cat. No.	Stock				Dimensions (mm)						
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
	DNMG 110404N-GU					9.525	4.76	3.81	0.4			
	110408N-GU	●	●	●	●				0.8			
	110412N-GU	●	●	●	●				1.2			
	150404N-GU	●	●	●	●				0.4			
GU	DNMG 150408N-GU	●	●	●	●	12.7	4.76	5.16	0.8			
	150412N-GU	●	●	●	●				1.2			
	150416N-GU	●	●	●	●				1.6			
	150604N-GU	●	●	●	●				0.4			
	DNMG 150608N-GU	●	●	●	●	12.7	6.35	5.16	0.8			
	150612N-GU	●	●	●	●				1.2			
	150616N-GU	●	●	●	●				1.6			
	DNMG 110408N-GE	●	●	●	●				9.525	4.76	3.81	0.8
110412N-GE	●	●	●	●	1.2							
DNMG 150404N-GE	●	●	●	●	12.7	4.76	5.16	0.4				
150408N-GE	●	●	●	●				0.8				
150412N-GE	●	●	●	●				1.2				
150416N-GE	●	●	●	●				1.6				
GE	DNMG 150604N-GE	●	●	●	●	12.7	6.35	5.16	0.4			
	150608N-GE	●	●	●	●				0.8			
	DNMG 150612N-GE	●	●	●	●	12.7	6.35	5.16	1.2			
	150616N-GE	●	●	●	●				1.6			
	DNMG 110408N-UX	●	●	●	●				9.525	4.76	3.81	0.8
	110412N-UX	●	●	●	●							1.2
DNMG 150404N-UX	●	●	●	●	12.7	4.76	5.16	0.4				
150408N-UX	●	●	●	●				0.8				
150412N-UX	●	●	●	●				1.2				
150416N-UX	●	●	●	●				1.6				
UX	DNMG 150604N-UX	●	●	●	●	12.7	6.35	5.16	0.4			
	150608N-UX	●	●	●	●				0.8			
	150612N-UX	●	●	●	●				1.2			
	150616N-UX	●	●	●	●				1.6			
	DNMG 110404N-UG					9.525	4.76	3.81	0.4			
	110408N-UG								0.8			
	DNMG 150404N-UG								12.7	4.76	5.16	0.4
	150408N-UG											0.8
150412N-UG					1.2							
150416N-UG					1.6							
UG	DNMG 150604N-UG					12.7	6.35	5.16	0.4			
	150608N-UG								0.8			
	150612N-UG								1.2			
	150616N-UG								1.6			
	DNMG 110408N-EG	●	●	●	●	9.525	4.76	3.81	0.8			
	110412N-EG	●	●	●	●				1.2			
	DNMG 150404N-EG	●	●	●	●				12.7	4.76	5.16	0.4
	150408N-EG	●	●	●	●							0.8
150412N-EG	●	●	●	●	1.2							
150416N-EG	●	●	●	●	1.6							
EG	DNMG 150604N-EG	●	●	●	●	12.7	6.35	5.16	0.4			
	150608N-EG	●	●	●	●				0.8			
	150612N-EG	●	●	●	●				1.2			
	150616N-EG	●	●	●	●				1.6			
	DNMG 150408N-MU	●	●	●	●	12.7	4.76	5.16	0.8			
	150412N-MU	●	●	●	●				1.2			
	150416N-MU	●	●	●	●				1.6			
	150424N-MU	●	●	●	●				2.4			
MU	DNMG 150608N-MU	●	●	●	●	12.7	6.35	5.16	0.8			
	150612N-MU	●	●	●	●				1.2			
	150616N-MU	●	●	●	●	12.7	6.35	5.16	1.6			
	DNMG 150408N-EM	●	●	●	●				12.7	4.76	5.16	0.8
	150412N-EM	●	●	●	●							1.2
	150416N-EM	●	●	●	●							1.6
EM	DNMG 150608N-EM	●	●	●	●	12.7	6.35	5.16				0.8
	150612N-EM	●	●	●	●				1.2			
	150616N-EM	●	●	●	●	12.7	6.35	5.16	1.6			
	DNMG 150408N-ME	●	●	●	●				12.7	4.76	5.16	0.8
	150412N-ME	●	●	●	●							1.2
	150416N-ME	●	●	●	●							1.6
ME	DNMG 150608N-ME	●	●	●	●	12.7	6.35	5.16				0.8
	150612N-ME	●	●	●	●				1.2			
	150616N-ME	●	●	●	●	12.7	6.35	5.16	1.6			
	DNMG 150408N-MX	●	●	●	●				12.7	4.76	5.16	0.8
	150412N-MX	●	●	●	●							1.2
	150416N-MX	●	●	●	●							1.6
MX	DNMG 150608N-MX	●	●	●	●	12.7	6.35	5.16				0.8
	150612N-MX	●	●	●	●				1.2			
	150616N-MX	●	●	●	●	12.7	6.35	5.16	1.6			
	DNMG 150404N-UZ								12.7	4.76	5.16	0.4
	150408N-UZ											0.8
	150412N-UZ											1.2
150416N-UZ					1.6							
UZ	DNMG 150608N-UZ					12.7	6.35	5.16	0.8			
	150612N-UZ								1.2			
	DNMG 150404R-HM	●	●	●	●	12.7	4.76	5.16	0.4			
	150404L-HM								0.4			
	150408R-HM	●	●	●	●				0.8			
	150408L-HM								0.8			
HM	DNMM 150404N-MP					12.7	4.76	5.16	0.4			
	150408N-MP	●	●	●	●				0.8			
150412N-MP	●	●	●	●	1.2							
150416N-MP	●	●	●	●	1.6							



\*Approximate values, not compliant with ISO standards.

## 55° Diamond type Negative Inserts














	DNMG 150404N-FL					12.7	4.76	5.16	0.4			
	150408N-FL								0.8			
	150412N-FL								1.2			
	DNMG 110404N-FE	●	●	●	●	9.525	4.76	3.81	0.4			
	110408N-FE	●	●	●	●				0.8			
	110412N-FE	●	●	●	●				1.2			
	DNMG 150402N-FE	●	●	●	●				0.2			
FE	150404N-FE	●	●	●	●	12.7	4.76	5.16	0.4			
	150408N-FE	●	●	●	●				0.8			
	150412N-FE	●	●	●	●				1.2			
	DNMG 150602N-FE	●	●	●	●				0.2			
	150604N-FE	●	●	●	●	12.7	6.35	5.16	0.4			
	150608N-FE	●	●	●	●				0.8			
	150612N-FE	●	●	●	●				1.2			
	DNMG 110404N-LU	●	●	●	●				9.525	4.76	3.81	0.4
110408N-LU	●	●	●	●	0.8							
DNMG 150402N-LU	●	●	●	●	0.2							
150404N-LU	●	●	●	●	0.4							
LU	150408N-LU	●	●	●	●	12.7	4.76	5.16	0.8			
	150412N-LU	●	●	●	●				1.2			
	DNMG 110404N-SU	●	●	●	●				9.525	4.76	3.81	0.4
	110408N-SU	●	●	●	●							0.8
110412N-SU	●	●	●	●	1.2							
DNMG 150404N-SU	●	●	●	●	12.7	4.76	5.16	0.4				
150408N-SU	●	●	●	●				0.8				
150412N-SU	●	●	●	●				1.2				
150416N-SU	●	●	●	●				1.6				
	DNMG 150604N-SU	●	●	●	●	12.7	6.35	5.16	0.4			
	150608N-SU	●	●	●	●				0.8			
	150612N-SU	●	●	●	●				1.2			
	DNMG 110408N-SE	●	●	●	●				9.525	4.76	3.81	0.8
110404N-SE	●	●	●	●	0.4							
150408N-SE	●	●	●	●	0.8							
150412N-SE	●	●	●	●	1.2							
SE	150416N-SE	●	●	●	●	12.7	4.76	5.16	1.6			
	DNMX 110404N-SEW	●	●	●	●				9.525	4.76	3.81	0.4*
110408N-SEW	●	●	●	●	0.8*							
110412N-SEW	●	●	●	●	1.2*							
DNMX 150404N-SEW	●	●	●	●	0.4*							
SEW	150408N-SEW	●	●	●	●	12.7	4.76	5.16	0.8*			
	150412N-SEW	●	●	●	●				1.2*			
	DNMG 110404N-EF	●	●	●	●	9.525	4.76	3.81	0.4			
	110408N-EF	●	●	●	●				0.8			
	110412N-EF	●										

# AC8115P/AC8020P/AC8025P/AC8035P














## 55° Diamond type Negative Inserts (continued)

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 MP	DNMM 150604N-MP					12.7	6.35	5.16	0.4
	150608N-MP	●	●	●	●				0.8
	150612N-MP	●	●	●	●				1.2
	150616N-MP	●	●	●	●				1.6
 HP	DNMM 150404N-HP					12.7	4.76	5.16	0.4
	150408N-HP								0.8
	150412N-HP								1.2
	150416N-HP								1.6
	DNMM 150604N-HP					12.7	6.35	5.16	0.4
	150608N-HP	●	●	●	●				0.8
	150612N-HP	●	●	●	●				1.2
	150616N-HP	●	●	●	●				1.6

## Square type Negative Inserts





















 FL	SNMG 120408N-FL					12.7	4.76	5.16	0.8	
 FE	SNMG 120404N-FE	●	●	●	●	12.7	4.76	5.16	0.4	
	120408N-FE	●	●	●	●				0.8	
	120412N-FE	●	●	●	●				1.2	
 LU	SNMG 120408N-LU	●	●			12.7	4.76	5.16	0.8	
	120412N-LU	●	●						1.2	
 SU	SNMG 120408N-SU	●	●	●	●	12.7	4.76	5.16	0.8	
 SE	SNMG 120408N-SE	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-SE	●	●	●	●				1.2	
 EF	SNMG 120404N-EF	●	●	●	●	12.7	4.76	5.16	0.4	
	120408N-EF	●	●	●	●				0.8	
 SX	SNMG 120408N-SX	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-SX	●	●	●	●				1.2	
 GU	SNMG 090304N-GU					9.525	3.18	3.81	0.4	
	090308N-GU	●	●						0.8	
	SNMG 120404N-GU	●	●	●	●	12.7	4.76	5.16	0.4	
	120408N-GU	●	●	●	●				0.8	
	120412N-GU	●	●	●	●				1.2	
		120416N-GU	●	●	●	●				1.6
		SNMG 150608N-GU	●	●	●	●	15.875	6.35	6.35	0.8
	150612N-GU	●	●	●	●	1.2				
	150616N-GU	●	●	●	●	1.6				
 GE	SNMG 120408N-GE	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-GE	●	●	●	●				1.2	
	120416N-GE	●	●	●	●				1.6	
		SNMG 150608N-GE	●	●	●	●	15.875	6.35	6.35	0.8
		150612N-GE	●	●	●	●				1.2
	150616N-GE	●	●	●	●	1.6				
 UX	SNMG 090308N-UX					9.525	3.18	3.81	0.8	
	SNMG 120404N-UX								12.7	4.76
	120408N-UX	●	●	●	●	0.8				
	120412N-UX	●	●	●	●	1.2				
		120416N-UX	●	●	●	●				1.6
		SNMG 190612N-UX	●	●	●	●	19.05	6.35	7.94	1.2
	190616N-UX	●	●	●	●	1.6				
 UG	SNMG 090308N-UG					9.525	3.18	3.81	0.8	
	SNMG 120408N-UG								12.7	4.76
	120412N-UG					1.2				
	120416N-UG					1.6				
		SNMG 150612N-UG					15.875	6.35	6.35	1.2
		SNMG 190612N-UG								19.05
		190616N-UG					19.05	6.35	7.94	1.6
	SNMG 250924N-UG					25.4	9.52	9.12	2.4	
 EG	SNMG 120404N-EG	●	●	●	●	12.7	4.76	5.16	0.4	
	120408N-EG	●	●	●	●				0.8	
	120412N-EG	●	●	●	●				1.2	
		SNMG 150608N-EG	●	●	●	●	15.875	6.35	6.35	0.8
		150612N-EG	●	●	●	●				1.2
		150616N-EG	●	●	●	●				1.6
		SNMG 190612N-EG	●	●	●	●	19.05	6.35	7.94	1.2
	190616N-EG	●	●	●	●	1.6				
 MU	SNMG 120408N-MU	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-MU	●	●	●	●				1.2	
	120416N-MU	●	●	●	●				1.6	
		SNMG 150608N-MU	●	●	●	●	15.875	6.35	6.35	0.8
		150612N-MU	●	●	●	●				1.2
		150616N-MU	●	●	●	●				1.6

## Square type Negative Inserts (continued)







Shape	Cat. No.	Stock				Dimensions (mm)				
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius	
 MU	SNMG 190612N-MU	●	●	●	●	19.05	6.35	7.94	1.2	
	190616N-MU	●	●	●	●				1.6	
	190624N-MU	●	●	●	●				2.4	
	SNMG 250924N-MU	●	●	●	●				25.4	9.52
 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	
 EM	SNMG 190612N-EM	●	●	●	●	19.05	6.35	7.94	1.2	
	190616N-EM	●	●	●	●				1.6	
	190624N-EM	●	●	●	●				2.4	
	SNMG 250924N-EM	●	●	●	●				25.4	9.52
 ME	SNMG 120408N-ME	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-ME	●	●	●	●				1.2	
	120416N-ME	●	●	●	●				1.6	
		SNMG 150608N-ME	●	●	●	●	15.875	6.35	6.35	0.8
		150612N-ME	●	●	●	●				1.2
		150616N-ME	●	●	●	●				1.6
		SNMG 190612N-ME	●	●	●	●	19.05	6.35	7.94	1.2
	190616N-ME	●	●	●	●	1.6				
	190624N-ME	●	●	●	●	2.4				
	SNMG 250924N-ME	●	●	●	●	25.4	9.52	9.12	2.4	
 MX	SNMG 120408N-MX	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-MX	●	●	●	●				1.2	
	120416N-MX	●	●	●	●				1.6	
		SNMG 150612N-MX	●	●	●	●	15.875	6.35	6.35	1.2
		150616N-MX	●	●	●	●				1.6
	SNMG 190612N-MX	●	●	●	●	19.05	6.35	7.94	1.2	
	190616N-MX	●	●	●	●				1.6	
 UZ	SNMG 120408N-UZ					12.7	4.76	5.16	0.8	
	120412N-UZ								1.2	
	120416N-UZ								1.6	
		SNMG 150612N-UZ					15.875	6.35	6.35	1.2
		SNMG 190612N-UZ								19.05
	190616N-UZ					19.05	6.35	7.94	1.6	
 HM	SNMG 120408R-HM	●	●	●	●	12.7	4.76	5.16	0.8	
	120408L-HM	●	●	●	●				0.8	
 MP	SNMM 120408N-MP	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-MP	●	●	●	●				1.2	
	120416N-MP	●	●	●	●				1.6	
		120420N-MP	●	●	●	●				2.0
		SNMM 150612N-MP	●	●	●	●	15.875	6.35	6.35	1.2
		150616N-MP	●	●	●	●				1.6
		SNMM 190612N-MP	●	●	●	●	19.05	6.35	7.94	1.2
		190616N-MP	●	●	●	●				1.6
		SNMM 250724N-MP	●	●	●	●	25.4	7.94	9.12	2.4
		SNMM 250924N-MP	●	●	●	●				25.4
	SNMM 310924N-MP	●	●	●	●	31.75	9.52	8.8	2.4	
 HG	SNMM 120408N-HG	●	●	●	●	12.7	4.76	5.16	0.8	
	120412N-HG	●	●	●	●				1.2	
	120416N-HG	●	●	●	●				1.6	
		SNMM 150616N-HG	●	●	●	●	15.875	6.35	6.35	1.6
		SNMM 190612N-HG	●	●	●	●				1.2
		190616N-HG	●	●	●	●	19.05	6.35	7.94	1.6
	190624N-HG	●	●	●	●	19.05	6.35	7.94	2.4	
 HP	SNMM 120408N-HP					12.7	4.76	5.16	0.8	
	120412N-HP								1.2	
	120416N-HP								1.6	
		SNMM 190612N-HP					19.05	6.35	7.94	1.2
		190616N-HP								1.6
		SNMM 250724N-HP	●	●	●	●	25.4	7.94	9.12	2.4
	SNMM 250924N-HP	●	●	●	●	25.4				9.52
	SNMM 310924N-HP	●	●	●	●	31.75	9.52	8.8	2.4	
 HU	SNMM 250724N-HU	●	●	●	●	25.4	7.94	9.12	2.4	
	SNMM 250924N-HU	●	●	●	●				25.4	9.52
		SNMM 310924N-HU	●	●	●	●	31.75	9.52	8.8	2.4
		SNMM 250724N-HW	●	●	●	●				25.4
 HW	SNMM 250924N-HW	●	●	●	●	25.4	9.52	9.12	2.4	
	SNMM 310924N-HW	●	●	●	●				31.75	9.52
 HF	SNMM 190616N-HF									

# AC8115P/AC8020P/AC8025P/AC8035P

## Triangular type Negative Inserts

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 FL	TNMG 160404N-FL					9.525	4.76	3.81	0.4
	160408N-FL								0.8
 FE	TNMG 160402N-FE	●	●	●	●	9.525	4.76	3.81	0.2
	160404N-FE	●	●	●	●				0.4
	160408N-FE	●	●	●	●				0.8
	160412N-FE	●	●	●	●				1.2
 LU	TNMG 160404N-LU	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-LU	●	●	●	●				0.8
	160412N-LU	●	●	●	●				1.2
 SU	TNMG 160404N-SU	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-SU	●	●	●	●				0.8
	160412N-SU	●	●	●	●				1.2
 SE	TNMG 160404N-SE	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-SE	●	●	●	●				0.8
	160412N-SE	●	●	●	●				1.2
 EF	TNMG 220404N-SE	●	●	●	●	12.7	4.76	5.16	0.4
	220408N-SE	●	●	●	●				0.8
	220412N-SE	●	●	●	●				1.2
 EF	TNMG 160404N-EF	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-EF	●	●	●	●				0.8
 SX	TNMG 160304N-SX	●	●	●	●	9.525	3.18	3.81	0.4
	160308N-SX	●	●	●	●				0.8
	TNMG 160404N-SX	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-SX	●	●	●	●				0.8
	TNMG 220404N-SX	●	●	●	●	12.7	4.76	5.16	0.4
	220408N-SX	●	●	●	●				0.8
220412N-SX	●	●	●	●	1.2				
 GU	TNMG 160404N-GU	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-GU	●	●	●	●				0.8
	160412N-GU	●	●	●	●				1.2
	160416N-GU	●	●	●	●				1.6
	TNMG 220404N-GU	●	●	●	●				12.7
220408N-GU	●	●	●	●	0.8				
220412N-GU	●	●	●	●	1.2				
 GE	TNMG 160404N-GE	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-GE	●	●	●	●				0.8
	160412N-GE	●	●	●	●				1.2
	TNMG 220408N-GE	●	●	●	●				12.7
220412N-GE	●	●	●	●	1.2				
 UX	TNMG 160404N-UX	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-UX	●	●	●	●				0.8
	160412N-UX	●	●	●	●				1.2
	TNMG 220408N-UX	●	●	●	●				12.7
220412N-UX	●	●	●	●	1.2				
 UG	TNMG 160404N-UG		●	●	●	9.525	4.76	3.81	0.4
	160408N-UG		●	●	●				0.8
	160412N-UG		●	●	●				1.2
	160416N-UG		●	●	●				1.6
 UG	TNMG 220408N-UG		●	●	●	12.7	4.76	5.16	0.8
	220412N-UG		●	●	●				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
	160416N-MU	●	●	●	●				1.6
	TNMG 220408N-MU	●	●	●	●	12.7	4.76	5.16	0.8
	220412N-MU	●	●	●	●				1.2
220416N-MU	●	●	●	●	1.6				
 EM	TNMG 270612N-MU		●	●	●	15.875	6.35	6.35	1.2
	270616N-MU		●	●	●				1.6
 EM	TNMG 160408N-EM	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-EM	●	●	●	●				1.2
 ME	TNMG 330924N-EM		●	●	●	19.05	9.52	7.93	2.4
	TNMG 160408N-ME	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-ME	●	●	●	●				1.2
160416N-ME	●	●	●	●	1.6				
 ME	TNMG 220408N-ME	●	●	●	●	12.7	4.76	5.16	0.8
	220412N-ME	●	●	●	●				1.2
	220416N-ME	●	●	●	●				1.6
	TNMG 160408N-MX	●	●	●	●				9.525
160412N-MX	●	●	●	●	1.2				
160416N-MX	●	●	●	●	1.6				
 MX	TNMG 220408N-MX	●	●	●	●	12.7	4.76	5.16	0.8
	220412N-MX	●	●	●	●				1.2

## Triangular type Negative Inserts (continued)

Shape	Cat. No.	Stock				Dimensions (mm)						
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius			
 UZ	TNMG 160404N-UZ		●	●	●	9.525	4.76	3.81	0.4			
	160408N-UZ		●	●	●				0.8			
	160412N-UZ		●	●	●				1.2			
	160416N-UZ		●	●	●				1.6			
	160420N-UZ		●	●	●				2.0			
	TNMG 220408N-UZ		●	●	●				12.7	4.76	5.16	0.8
	220412N-UZ		●	●	●							1.2
 UZ	TNMG 220416N-UZ		●	●	●	15.875	6.35	6.35	1.6			
	TNMG 270608N-UZ		●	●	●				0.8			
	270612N-UZ		●	●	●				1.2			
	270616N-UZ		●	●	●				1.6			
 HM	TNMG 160404R-HM	●	●	●	●	9.525	4.76	3.81	0.4			
	160404L-HM	●	●	●	●				0.4			
	160408R-HM	●	●	●	●				0.8			
	160408L-HM	●	●	●	●				0.8			
	TNMG 220404R-HM	●	●	●	●				12.7	4.76	5.16	0.4
	220404L-HM	●	●	●	●							0.4
	220408R-HM	●	●	●	●							0.8
220408L-HM	●	●	●	●	0.8							
 MP	TNMM 160404N-MP		●	●	●	9.525	4.76	3.81	0.4			
	160408N-MP		●	●	●				0.8			
	160412N-MP		●	●	●				1.2			
	220416N-MP		●	●	●				1.6			
	TNMM 270612N-MP		●	●	●				15.875	6.35	6.35	1.2
270616N-MP		●	●	●	1.6							
 HG	TNMM 220408N-HG		●	●	●	12.7	4.76	5.16	0.8			
	220412N-HG		●	●	●				1.2			
	220416N-HG		●	●	●				1.6			
 HP	TNMM 160408N-HP		●	●	●	9.525	4.76	3.81	0.8			
	160412N-HP		●	●	●				1.2			
	TNMM 220408N-HP		●	●	●				12.7	4.76	5.16	0.8
	220412N-HP		●	●	●							1.2
	220416N-HP		●	●	●							1.6
TNMM 270612N-HP		●	●	●	15.875	6.35	6.35	1.2				
270616N-HP		●	●	●				1.6				

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

# AC8115P/AC8020P/AC8025P/AC8035P

## 35° Diamond type Negative Inserts

Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
FL	VNMG 160404N-FL					9.525	4.76	3.81	0.4
	160408N-FL								0.8
FE	VNMG 160402N-FE								0.2
	160404N-FE	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-FE	●	●	●	●				0.8
	160412N-FE	●	●	●	●				1.2
LU	VNMG 160404N-LU	●	●	●	●				0.4
	160408N-LU	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-LU	●	●	●	●				1.2
SU	VNMG 160404N-SU	●	●	●	●				0.4
	160408N-SU	●	●	●	●	9.525	4.76	3.81	0.8
SE	VNMG 160404N-SE	●	●	●	●				0.4
	160408N-SE	●	●	●	●	9.525	4.76	3.81	0.8
EF	VNMG 160402N-EF	●	●	●	●				0.2
	160404N-EF	●	●	●	●	9.525	4.76	3.81	0.4
	160408N-EF	●	●	●	●				0.8
SX	VNMG 160404N-SX	●	●	●	●				0.4
	160408N-SX	●	●	●	●	9.525	4.76	3.81	0.8
GU	VNMG 160404N-GU	●	●	●	●				0.4
	160408N-GU	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-GU	●	●	●	●				1.2
GE	VNMG 160404N-GE	●	●	●	●				0.4
	160408N-GE	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-GE	●	●	●	●				1.2
UX	VNMG 160404N-UX	●	●	●	●				0.4
	160408N-UX	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-UX	●	●	●	●				1.2
UG	VNMG 160404N-UG	●	●	●	●				0.4
	160408N-UG	●	●	●	●	9.525	4.76	3.81	0.8
EG	VNMG 160404N-EG	●	●	●	●				0.4
	160408N-EG	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-EG	●	●	●	●				1.2
UZ	VNMG 160404N-UZ	●	●	●	●				0.4
	160408N-UZ	●	●	●	●	9.525	4.76	3.81	0.8
	160412N-UZ	●	●	●	●				1.2

## Trigon type Negative Inserts




















FL	WNMG 080404N-FL					12.7	4.76	5.16	0.4
	080408N-FL								0.8
FE	WNMG 060404N-FE	●	●	●	●	9.525	4.76	3.81	0.4
	060408N-FE	●	●	●	●				0.8
	WNMG 080402N-FE								0.2
	080404N-FE	●	●	●	●	12.7	4.76	5.16	0.4
LU	080408N-FE	●	●	●	●				0.8
	080412N-FE	●	●	●	●				1.2
	WNMG 060404N-LU	●	●	●	●				0.4
	060408N-LU	●	●	●	●	9.525	4.76	3.81	0.8
LUW	060412N-LU	●	●	●	●				1.2
	WNMG 080404N-LU	●	●	●	●				0.4
	080408N-LU	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-LU	●	●	●	●				1.2
SU	WNMG 060404N-LUW	●	●	●	●				0.4
	060408N-LUW	●	●	●	●	9.525	4.76	3.81	0.8
SU	WNMG 080404N-LUW	●	●	●	●				0.4
	080408N-LUW	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-LUW	●	●	●	●				1.2
SU	WNMG 06T304N-SU					9.525	3.97	3.81	0.4
	06T308N-SU								0.8
	WNMG 060404N-SU	●	●	●	●				0.4
	060408N-SU	●	●	●	●	9.525	4.76	3.81	0.8
SU	060412N-SU	●	●	●	●				1.2
	WNMG 080404N-SU	●	●	●	●				0.4
	080408N-SU	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-SU	●	●	●	●				1.2

## Trigon type Negative Inserts (continued)










Shape	Cat. No.	Stock				Dimensions (mm)			
		AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
SE	WNMG 080404N-SE	●	●	●	●				0.4
	080408N-SE	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-SE	●	●	●	●				1.2
SEW	WNMG 060404N-SEW	●	●	●	●				0.4
	060408N-SEW	●	●	●	●	9.525	4.76	3.81	0.8
	WNMG 080404N-SEW	●	●	●	●				0.4
	080408N-SEW	●	●	●	●	12.7	4.76	5.16	0.8
SEW	080412N-SEW	●	●	●	●				1.2
	WNMG 060404N-EF	●	●	●	●				0.4
	060408N-EF	●	●	●	●	9.525	4.76	3.81	0.8
EF	WNMG 080404N-EF	●	●	●	●				0.4
	080408N-EF	●	●	●	●	12.7	4.76	5.16	0.8
SX	WNMG 080404N-SX	●	●	●	●				0.4
	080408N-SX	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-SX	●	●	●	●				1.2
GU	WNMG 060404N-GU	●	●	●	●				0.4
	060408N-GU	●	●	●	●	9.525	4.76	3.81	0.8
	060412N-GU	●	●	●	●				1.2
GU	WNMG 080404N-GU	●	●	●	●				0.4
	080408N-GU	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-GU	●	●	●	●				1.2
GE	WNMG 060408N-GE	●	●	●	●				0.8
	060412N-GE	●	●	●	●	9.525	4.76	3.81	1.2
GE	WNMG 080404N-GE	●	●	●	●				0.4
	080408N-GE	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-GE	●	●	●	●				1.2
GUW	WNMG 080416N-GE	●	●	●	●				1.6
	WNMG 060408N-GUW	●	●	●	●	9.525	4.76	3.81	0.8
	060412N-GUW	●	●	●	●				1.2
UX	WNMG 080408N-GUW	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-GUW	●	●	●	●				1.2
	WNMG 080404N-UX	●	●	●	●				0.4
UX	080408N-UX	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-UX	●	●	●	●				1.2
	WNMG 06T304N-UG					9.525	3.97	3.81	0.4
UG	06T308N-UG								0.8
	WNMG 060404N-UG	●	●	●	●				0.4
	060408N-UG	●	●	●	●	9.525	4.76	3.81	0.8
UG	WNMG 080404N-UG	●	●	●	●				0.4
	080408N-UG	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-UG	●	●	●	●				1.2
	WNMG 060408N-EG	●	●	●	●				0.8
EG	060412N-EG	●	●	●	●	9.525	4.76	3.81	1.2
	WNMG 080404N-EG	●	●	●	●				0.4
	080408N-EG	●	●	●	●	12.7	4.76	5.16	0.8
EG	080412N-EG	●	●	●	●				1.2
	WNMG 060408N-MU	●	●	●	●				0.8
	060412N-MU	●	●	●	●	9.525	4.76	3.81	1.2
MU	WNMG 080408N-MU	●	●	●	●				0.8
	080412N-MU	●	●	●	●	12.7	4.76	5.16	1.2
	080416N-MU	●	●	●	●				1.6
	WNMG 080408N-EM	●	●	●	●				0.8
EM	080412N-EM	●	●	●	●	12.7	4.76	5.16	1.2
	WNMG 060408N-ME	●	●	●	●				0.8
	060412N-ME	●	●	●	●	9.525	4.76	3.81	1.2
ME	WNMG 080408N-ME	●	●	●	●				0.8
	080412N-ME	●	●	●	●	12.7	4.76	5.16	1.2
	080416N-ME	●	●	●	●				1.6
	WNMG 080408N-MX	●	●	●	●				0.8
MX	080412N-MX	●	●	●	●	12.7	4.76	5.16	1.2
	WNMG 080404N-UZ	●	●	●	●				0.4
UZ	080408N-UZ	●	●	●	●	12.7	4.76	5.16	0.8
	080412N-UZ	●	●	●	●				1.2

# AC8115P/AC8020P/AC8025P/AC8035P






## 80° Diamond type Positive Inserts

Shape	Relief Angle	Cat. No.	Stock				Dimensions (mm)			
			AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	CCMT 060202N-LU	●	●	●		6.35	2.38	2.8	0.2
		060204N-LU	●	●	●					0.4
		CCMT 09T304N-LU	●	●	●		9.525	3.97	4.4	0.4
	7°	09T308N-LU	●	●	●					0.8
		CCMT 09T304N-LUW	●	●	●		9.525	3.97	4.4	0.4
	7°	09T308N-LUW	●	●	●					0.8
		CCMT 060202N-LB	●	●	●		6.35	2.38	2.8	0.2
	7°	060204N-LB	●	●	●					0.4
		060208N-LB	●	●	●					0.8
		CCMT 09T302N-LB	●	●	●		9.525	3.97	4.4	0.2
	7°	09T304N-LB	●	●	●		9.525	3.97	4.4	0.4
		09T308N-LB	●	●	●					0.8
		CCMT 060202N-SU	●	●	●		6.35	2.38	2.8	0.2
	7°	060204N-SU	●	●	●					0.4
		060208N-SU	●	●	●					0.8
		CCMT 09T302N-SU	●	●	●		9.525	3.97	4.4	0.2
	7°	09T304N-SU	●	●	●		9.525	3.97	4.4	0.4
		09T308N-SU	●	●	●					0.8
		CCMT 120404N-SU	●	●	●		12.7	4.76	5.5	0.4
	7°	120408N-SU	●	●	●					0.8
		CCMT 060204N-SC	●	●	●		6.35	2.38	2.8	0.4
		CCMT 080304N-SC	●	●	●		7.94	3.18	3.4	0.4
	7°	CCMT 090308N-SC	●	●	●		9.525	3.18	4.4	0.8
		CCMT 120408N-SC	●	●	●		12.7	4.76	5.5	0.8
		CCMT 060204N-GU	●	●	●		6.35	2.38	2.8	0.4
	7°	060208N-GU	●	●	●					0.8
		CCMT 09T304N-GU	●	●	●		9.525	3.97	4.4	0.4
		09T308N-GU	●	●	●					0.8
	7°	CCMT 120408N-GU	●	●	●		12.7	4.76	5.5	0.8
		CCMT 09T304N-MU	●	●	●		9.525	3.97	4.4	0.4
	7°	09T308N-MU	●	●	●					0.8
		CPMT 080204N-LU	●	●	●		7.94	2.38	3.4	0.4
	11°	CPMT 090304N-LU	●	●	●		9.525	3.18	4.4	0.4
		090308N-LU	●	●	●					0.8
	11°	CPMT 090304N-LUW	●	●	●		9.525	3.18	4.4	0.4
		090308N-LUW	●	●	●					0.8
	11°	CPMT 080204N-LB	●	●	●		7.94	2.38	3.4	0.4
		CPMT 090304N-LB	●	●	●		9.525	3.18	4.4	0.4
		090308N-LB	●	●	●					0.8
	11°	CPMT 080204N-SU	●	●	●		7.94	2.38	3.4	0.4
		080208N-SU	●	●	●					0.8
		CPMT 090304N-SU	●	●	●		9.525	3.18	4.4	0.4
	11°	090308N-SU	●	●	●					0.8
		CPMT 090304N-GU	●	●	●		9.525	3.18	4.4	0.4
		090308N-GU	●	●	●					0.8
	11°	CPMT 080204N-MU	●	●	●		7.94	2.38	3.4	0.4
		080208N-MU	●	●	●					0.8
		CPMT 090304N-MU	●	●	●		9.525	3.18	4.4	0.4
	11°	090308N-MU	●	●	●					0.8

## 55° Diamond type Positive Inserts

Shape	Relief Angle	Cat. No.	Stock				Dimensions (mm)			
			AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	DCMT 070202N-LU	●	●	●		6.35	2.38	2.8	0.2
		070204N-LU	●	●	●					0.4
	7°	DCMT 11T302N-LU	●	●	●					0.2
		11T304N-LU	●	●	●		9.525	3.97	4.4	0.4
		11T308N-LU	●	●	●					0.8
	7°	DCMT 070202N-LB	●	●	●		6.35	2.38	2.8	0.2
		070204N-LB	●	●	●					0.4
		070208N-LB	●	●	●					0.8
	7°	DCMT 11T302N-LB	●	●	●					0.2
		11T304N-LB	●	●	●		9.525	3.97	4.4	0.4
		11T308N-LB	●	●	●					0.8
	7°	DCMT 070202N-SU	●	●	●		6.35	2.38	2.8	0.2
		070204N-SU	●	●	●					0.4
		070208N-SU	●	●	●					0.8
	7°	DCMT 11T302N-SU	●	●	●					0.2
		11T304N-SU	●	●	●		9.525	3.97	4.4	0.4
		11T308N-SU	●	●	●					0.8
	7°	DCMT 070204N-GU	●	●	●		6.35	2.38	2.8	0.4
		070208N-GU	●	●	●					0.8
		DCMT 11T302N-GU	●	●	●		9.525	3.97	4.4	0.2
	7°	11T304N-GU	●	●	●					0.4
		11T308N-GU	●	●	●					0.8
		11T312N-GU	●	●	●					1.2
	7°	DCMT 11T304N-MU	●	●	●		9.525	3.97	4.4	0.4
		11T308N-MU	●	●	●					0.8

## Round type Positive Inserts

Shape	Relief Angle	Cat. No.	Stock				Dimensions (mm)			
			AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	RCMT 1003MON-RE	●	●	●		10.0	3.18	4.4	—
		1204MON-RE	●	●	●		12.0	4.76	4.4	—
		1606MON-RE	●	●	●		16.0	6.35	5.5	—
	7°	RCMT 1003MON-RX	●	●	●		10.0	3.18	4.4	—
		1204MON-RX	●	●	●		12.0	4.76	4.4	—
		1606MON-RX	●	●	●		16.0	6.35	5.0	—
		2006MON-RX	●	●	●		20.0	6.35	6.5	—
	7°	2507MON-RX	●	●	●		25.0	7.94	7.6	—
		RCMT 1204MON-RH	●	●	●		12.0	4.76	4.4	—
		1606MON-RH	●	●	●		16.0	6.35	5.0	—
	7°	2006MON-RH	●	●	●		20.0	6.35	6.5	—
		RCMX 1003MON-RP	●	●	●		10.0	3.18	3.6	—
		1204MON-RP	●	●	●		12.0	4.76	4.2	—
	7°	1606MON-RP	●	●	●		16.0	6.35	5.2	—
		2006MON-RP	●	●	●		20.0	6.35	6.5	—
		2507MON-RP	●	●	●		25.0	7.94	7.2	—
		3209MON-RP	●	●	●		32.0	9.52	9.5	—

Tooling News  
No.554  
RE type Chipbreaker



# AC8115P/AC8020P/AC8025P/AC8035P

## ○ Square type Positive Inserts

Shape	Relief Angle	Cat. No.	Stock				Dimensions (mm)			
			AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	SCMT 09T304N-LU	●	●	●	●	9.525	3.97	4.4	0.4
		09T308N-LU	●	●	●	●				
	7°	SCMT 09T304N-LB	●	●	●	●	9.525	3.97	4.4	0.4
		09T308N-LB	●	●	●	●				
	7°	SCMT 09T304N-SU	●	●	●	●	9.525	3.97	4.4	0.4
		09T308N-SU	●	●	●	●				
	7°	SCMT 120404N-SU	●	●	●	●	12.7	4.76	5.5	0.4
		120408N-SU	●	●	●	●				
	7°	SCMT 09T304N-GU	●	●	●	●	9.525	3.97	4.4	0.4
		09T308N-GU	●	●	●	●				
	7°	SCMT 120408N-GU	●	●	●	●	12.7	4.76	5.5	0.8
		09T308N-MU	●	●	●	●				
	7°	SCMT 120408N-MU	●	●	●	●	12.7	4.76	5.5	0.8
	11°	SPMT 090304N-LU	●	●	●	●	9.525	3.18	3.4	0.4
		090308N-LU	●	●	●	●				
	11°	SPMT 090304N-LB	●	●	●	●	9.525	3.18	3.4	0.4
		090308N-LB	●	●	●	●				
	11°	SPMT 070208N-SS	●	●	●	●	7.94	2.38	3.4	0.8
	11°	SPMT 070308N-US	●	●	●	●	7.94	3.18	3.4	0.8
	11°	SPMT 090304N-SF	●	●	●	●	9.525	3.18	3.3	0.4
		090308N-SF	●	●	●	●				

## △ Triangular type Positive Inserts

	7°	TCMT 110204N-LU	●	●	●	●	6.35	2.38	2.8	0.4
		110208N-LU	●	●	●	●				
	7°	TCMT 110204N-LB	●	●	●	●	6.35	2.38	2.8	0.4
		110208N-LB	●	●	●	●				
	7°	TCMT 110204N-SU	●	●	●	●	6.35	2.38	2.8	0.4
		110208N-SU	●	●	●	●				
	7°	TCMT 16T304N-SU	●	●	●	●	9.525	3.97	4.3	0.4
		16T308N-SU	●	●	●	●				
	11°	TPMT 080204N-LU	●	●	●	●	4.76	2.38	2.4	0.4
		090202N-LU	●	●	●	●				
	11°	TPMT 090202N-LU	●	●	●	●	5.56	2.38	2.8	0.2
		090204N-LU	●	●	●	●				
	11°	TPMT 110304N-LU	●	●	●	●	6.35	3.18	3.4	0.4
		110308N-LU	●	●	●	●				
	11°	TPMT 080202N-LB	●	●	●	●	4.76	2.38	2.4	0.2
		080204N-LB	●	●	●	●				
	11°	TPMT 090202N-LB	●	●	●	●	5.56	2.38	2.8	0.4
		090204N-LB	●	●	●	●				
	11°	TPMT 110302N-LB	●	●	●	●	6.35	3.18	3.4	0.4
		110304N-LB	●	●	●	●				
	11°	TPMT 110308N-LB	●	●	●	●	6.35	3.18	3.4	0.8
		160304N-LB	●	●	●	●				
	11°	TPMT 160304N-LB	●	●	●	●	9.525	3.18	4.4	0.4
		160308N-LB	●	●	●	●				
	11°	TPMT 160404N-LB	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-LB	●	●	●	●				
	11°	TPMT 080204N-SU	●	●	●	●	4.76	2.38	2.4	0.4
		110302N-SU	●	●	●	●				
	11°	TPMT 110304N-SU	●	●	●	●	6.35	3.18	3.4	0.4
		110308N-SU	●	●	●	●				
	11°	TPMT 160404N-SU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-SU	●	●	●	●				
	11°	TPMT 110304N-GU	●	●	●	●	6.35	3.18	3.4	0.4
		110308N-GU	●	●	●	●				
	11°	TPMT 160404N-GU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-GU	●	●	●	●				
	11°	TPMT 110304N-MU	●	●	●	●	6.35	3.18	3.4	0.4
		110308N-MU	●	●	●	●				
	11°	TPMT 160404N-MU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-MU	●	●	●	●				
	11°	TPMH 110304N-SF	●	●	●	●	6.35	3.18	3.3	0.4
		110308N-SF	●	●	●	●				
	11°	TPMT 160404N-SF	●	●	●	●	9.525	4.76	4.3	0.4
		160408N-SF	●	●	●	●				

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

## △ 35° Diamond type Positive Inserts

Shape	Relief Angle	Cat. No.	Stock				Dimensions (mm)			
			AC8115P	AC8020P	AC8025P	AC8035P	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	5°	VBMT 110304N-LU	●	●	●	●	6.35	3.18	2.8	0.4
		110308N-LU	●	●	●	●				
	5°	VBMT 160404N-LU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-LU	●	●	●	●				
	5°	VBMT 110302N-LB	●	●	●	●	6.35	3.18	2.8	0.2
		110304N-LB	●	●	●	●				
	5°	VBMT 110308N-LB	●	●	●	●	6.35	3.18	2.8	0.4
		160404N-LB	●	●	●	●				
	5°	VBMT 160408N-LB	●	●	●	●	9.525	4.76	4.4	0.8
		160412N-LB	●	●	●	●				
	5°	VBMT 110304N-SU	●	●	●	●	6.35	3.18	2.8	0.4
		110308N-SU	●	●	●	●				
	5°	VBMT 160404N-SU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-SU	●	●	●	●				
	5°	VBMT 160412N-SU	●	●	●	●	9.525	4.76	4.4	1.2
	5°	VBMT 110304N-GU	●	●	●	●	6.35	3.18	2.8	0.4
		110308N-GU	●	●	●	●				
	5°	VBMT 160404N-GU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-GU	●	●	●	●				
	7°	VCMT 160404N-LU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-LU	●	●	●	●				
	7°	VCMT 080202N-LB	●	●	●	●	4.76	2.38	2.3	0.2
		080204N-LB	●	●	●	●				
	7°	VCMT 160404N-LB	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-LB	●	●	●	●				
	7°	VCMT 110304N-SU	●	●	●	●	6.35	3.18	2.8	0.4
		110308N-SU	●	●	●	●				
	7°	VCMT 160404N-SU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-SU	●	●	●	●				
	7°	VCMT 160404N-GU	●	●	●	●	9.525	4.76	4.4	0.4
		160408N-GU	●	●	●	●				

## △ Trigon type Positive Inserts

	11°	WPMT 110204N-LB	●	●	●	●	6.35	2.38	2.8	0.4
		WPMT 160308N-LB	●	●	●	●				

## □ Square type Positive Inserts (Without Hole)

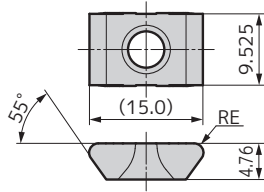
	11°	SPMR 090304N-SF	●	●	●	●	9.525	3.18	-	0.4
		090308N-SF	●	●	●	●				
	11°	SPMR 120304N-SF	●	●	●	●	12.7	3.18	-	0.4
		120308N-SF	●	●	●	●				
	11°	SPMR 120312N-SF	●	●	●	●	12.7	3.18	-	1.2
	11°	SPMR 090304N-UJ	●	●	●	●	9.525	3.18	-	0.4
		090308N-UJ	●	●	●	●				
	11°	SPMR 120304N-UJ	●	●	●	●	12.7	3.18	-	0.4
		120308N-UJ	●	●	●	●				

## △ Triangular type Positive Inserts (Without Hole)

	11°	TPMR 110304N-SF	●	●	●	●	6.35	3.18	-	0.4
		110308N-SF	●	●	●	●				
	11°	TPMR 160304N-SF	●	●	●	●	9.525	3.18	-	0.4
		160308N-SF	●	●	●	●				
	11°	TPMR 160312N-SF	●	●	●	●	9.525	3.18	-	1.2
	11°	TPMR 110304N-UJ	●	●	●	●	6.35	3.18	-	0.4
		110308N-UJ	●	●	●	●				
	11°	TPMR 160304N-UJ	●	●	●	●	9.525	3.18	-	0.4
		160308N-UJ	●	●	●	●				

# AC8115P/AC8020P/AC8025P/AC8035P

Inserts for SEC-XD type Tool Holders (For Crank Shaft Machining)

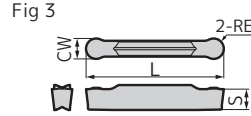
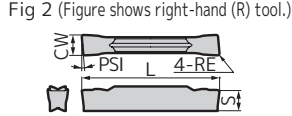
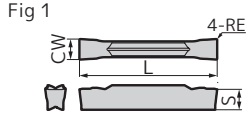


Cat. No.	Stock				Dimensions (mm)
	AC8115P	AC8020P	AC8025P	AC8035P	Corner Radius
<b>XDM 150408-GU</b>			●	●	0.8
<b>150412-GU</b>			●	●	1.2
<b>150420-GU</b>			●	●	2.0
<b>XDM 150408-LU</b>			●	●	0.8
<b>150412-LU</b>			●	●	1.2
<b>150420-LU</b>			●	●	2.0

Contact your local sales office for details on the applicable holders for the inserts above.

# AC8115P/AC8020P/AC8025P/AC8035P

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



### Grooving / Traverse Cutting

Cat. No.	Stock		Dimensions (mm)					Pcs/Pack	Fig
	AC8025P	AC8035P	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S		
			Width of Cut	Tolerance					
GCM N3002-MG	●	●	3.0	±0.03	0.2	21.1	3.8	5	1
N3004-MG	●	●	3.0	±0.03	0.4	21.1	3.8		1
GCM N4002-MG	●	●	4.0	±0.03	0.2	26.4	4.0	5	1
N4004-MG	●	●	4.0	±0.03	0.4	26.4	4.0		1
GCM N4008-MG	●	●	4.0	±0.03	0.8	26.4	4.0	5	1
N5004-MG	●	●	5.0	±0.03	0.4	26.4	4.1		1
N5008-MG	●	●	5.0	±0.03	0.8	26.4	4.1	5	1
GCM N6004-MG	●	●	6.0	±0.03	0.4	26.4	4.5		1
N6008-MG	●	●	6.0	±0.03	0.8	26.4	4.5	5	1
GCM N7004-MG	●	●	7.0	±0.04	0.4	28.8	5.5		1
N7008-MG	●	●	7.0	±0.04	0.8	28.8	5.5	5	1
GCM N8004-MG	●	●	8.0	±0.04	0.4	28.8	6.0		1
N8008-MG	●	●	8.0	±0.04	0.8	28.8	6.0	5	1
GCM N3002-ML	●	●	3.0	±0.03	0.2	21.1	3.8		1
N3004-ML	●	●	3.0	±0.03	0.4	21.1	3.8	5	1
GCM N4002-ML	●	●	4.0	±0.03	0.2	26.4	4.0		1
N4004-ML	●	●	4.0	±0.03	0.4	26.4	4.0	5	1
GCM N4008-ML	●	●	4.0	±0.03	0.8	26.4	4.0		1
GCM N5004-ML	●	●	5.0	±0.03	0.4	26.4	4.1	5	1
N5008-ML	●	●	5.0	±0.03	0.8	26.4	4.1		1
GCM N6004-ML	●	●	6.0	±0.03	0.4	26.4	4.5	5	1
N6008-ML	●	●	6.0	±0.03	0.8	26.4	4.5		1
GCM N7004-ML	●	●	7.0	±0.04	0.4	28.8	5.5	5	1
N7008-ML	●	●	7.0	±0.04	0.8	28.8	5.5		1
GCM N8004-ML	●	●	8.0	±0.04	0.4	28.8	6.0	5	1
N8008-ML	●	●	8.0	±0.04	0.8	28.8	6.0		1

### Cut-off (Handed Edge)

Cat. No.	Stock		Lead Angle PSI	Dimensions (mm)					Pcs/Pack	Fig
	AC8025P	AC8035P		Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S		
				Width of Cut	Tolerance					
GCM R2002-CG-05	●	●	5°	2.0	±0.03	0.2	21.1	3.6	5	2
L2002-CG-05	●	●	5°	2.0	±0.03	0.2	21.1	3.6		2
GCM R3002-CG-05	●	●	5°	3.0	±0.03	0.2	21.3	3.8	5	2
L3002-CG-05	●	●	5°	3.0	±0.03	0.2	21.3	3.8		2
GCM R4002-CG-05	●	●	5°	4.0	±0.04	0.2	26.7	4.0	5	2
L4002-CG-05	●	●	5°	4.0	±0.04	0.2	26.7	4.0		2

GCMR: Right Handed, GCML: Left Handed

### External Profiling / External Radius Grooving

Cat. No.	Stock		Dimensions (mm)					Pcs/Pack	Fig
	AC8025P	AC8035P	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S		
			Width of Cut	Tolerance					
GCM N3015-RG	●	●	3.0	±0.03	1.5	21.1	3.8	5	3
N4020-RG	●	●	4.0	±0.03	2.0	26.4	4.0		3
GCM N5025-RG	●	●	5.0	±0.03	2.5	27.2	4.1	5	3
N6030-RG	●	●	6.0	±0.03	3.0	27.5	4.5		3
GCM N7035-RG	●	●	7.0	±0.04	3.5	29.1	5.5	5	3
N8040-RG	●	●	8.0	±0.04	4.0	29.3	6.0		3

### Profiling / Radius Grooving / Necking

Cat. No.	Stock		Dimensions (mm)					Pcs/Pack	Fig
	AC8025P	AC8035P	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S		
			Width of Cut	Tolerance					
GCM N3015-RN	●	●	3.0	±0.03	1.5	22.6	3.8	5	3
N4020-RN	●	●	4.0	±0.03	2.0	28.2	4.0		3
GCM N5025-RN	●	●	5.0	±0.03	2.5	28.3	4.1	5	3
N6030-RN	●	●	6.0	±0.03	3.0	28.3	4.5		3

### Grooving / Cut-off

Cat. No.	Stock		Dimensions (mm)					Pcs/Pack	Fig
	AC8025P	AC8035P	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S		
			Width of Cut	Tolerance					
GCM N2002-GG	●	●	2.0	±0.03	0.2	21.1	3.6	5	1
GCM N3002-GG	●	●	3.0	±0.03	0.2	21.1	3.8		1
N3004-GG	●	●	3.0	±0.03	0.4	21.1	3.8	5	1
GCM N4002-GG	●	●	4.0	±0.03	0.2	26.4	4.0		1
N4004-GG	●	●	4.0	±0.03	0.4	26.4	4.0	5	1
GCM N5002-GG	●	●	5.0	±0.03	0.2	26.4	4.1		1
N5004-GG	●	●	5.0	±0.03	0.4	26.4	4.1	5	1
GCM N6002-GG	●	●	6.0	±0.03	0.2	26.4	4.5		1
N6004-GG	●	●	6.0	±0.03	0.4	26.4	4.5	5	1
GCM N7004-GG	●	●	7.0	±0.04	0.4	28.8	5.5		1
GCM N8004-GG	●	●	8.0	±0.04	0.4	28.8	6.0	5	1
GCM N2002-GL	●	●	2.0	±0.03	0.2	21.1	3.6		1
N2004-GL	●	●	2.0	±0.03	0.4	21.1	3.6	5	1
GCM N3002-GL	●	●	3.0	±0.03	0.2	21.1	3.8		1
N3004-GL	●	●	3.0	±0.03	0.4	21.1	3.8	5	1
GCM N4002-GL	●	●	4.0	±0.03	0.2	26.4	4.0		1
N4004-GL	●	●	4.0	±0.03	0.4	26.4	4.0	5	1
GCM N5002-GL	●	●	5.0	±0.03	0.2	26.4	4.1		1
N5004-GL	●	●	5.0	±0.03	0.4	26.4	4.1	5	1
GCM N6002-GL	●	●	6.0	±0.03	0.2	26.4	4.5		1
N6004-GL	●	●	6.0	±0.03	0.4	26.4	4.5	5	1
GCM N7004-GL	●	●	7.0	±0.04	0.4	28.8	5.5		1
GCM N8004-GL	●	●	8.0	±0.04	0.4	28.8	6.0	5	1
GCM N3002-GF	●	●	3.0	±0.03	0.2	21.1	3.8		1
N3004-GF	●	●	3.0	±0.03	0.4	21.1	3.8	5	1
GCM N4002-GF	●	●	4.0	±0.03	0.2	26.4	4.0		1
N4004-GF	●	●	4.0	±0.03	0.4	26.4	4.0	5	1
GCM N5002-GF	●	●	5.0	±0.03	0.2	26.4	4.1		1
N5004-GF	●	●	5.0	±0.03	0.4	26.4	4.1	5	1
GCM N6002-GF	●	●	6.0	±0.03	0.2	26.4	4.5		1
N6004-GF	●	●	6.0	±0.03	0.4	26.4	4.5	5	1
GCM N7002-GF	●	●	7.0	±0.04	0.2	28.8	5.5		1
N7004-GF	●	●	7.0	±0.04	0.4	28.8	5.5	5	1
GCM N8002-GF	●	●	8.0	±0.04	0.2	28.8	6.0		1
N8004-GF	●	●	8.0	±0.04	0.4	28.8	6.0	1	

### Part Number Suffix Code (Chipbreakers)

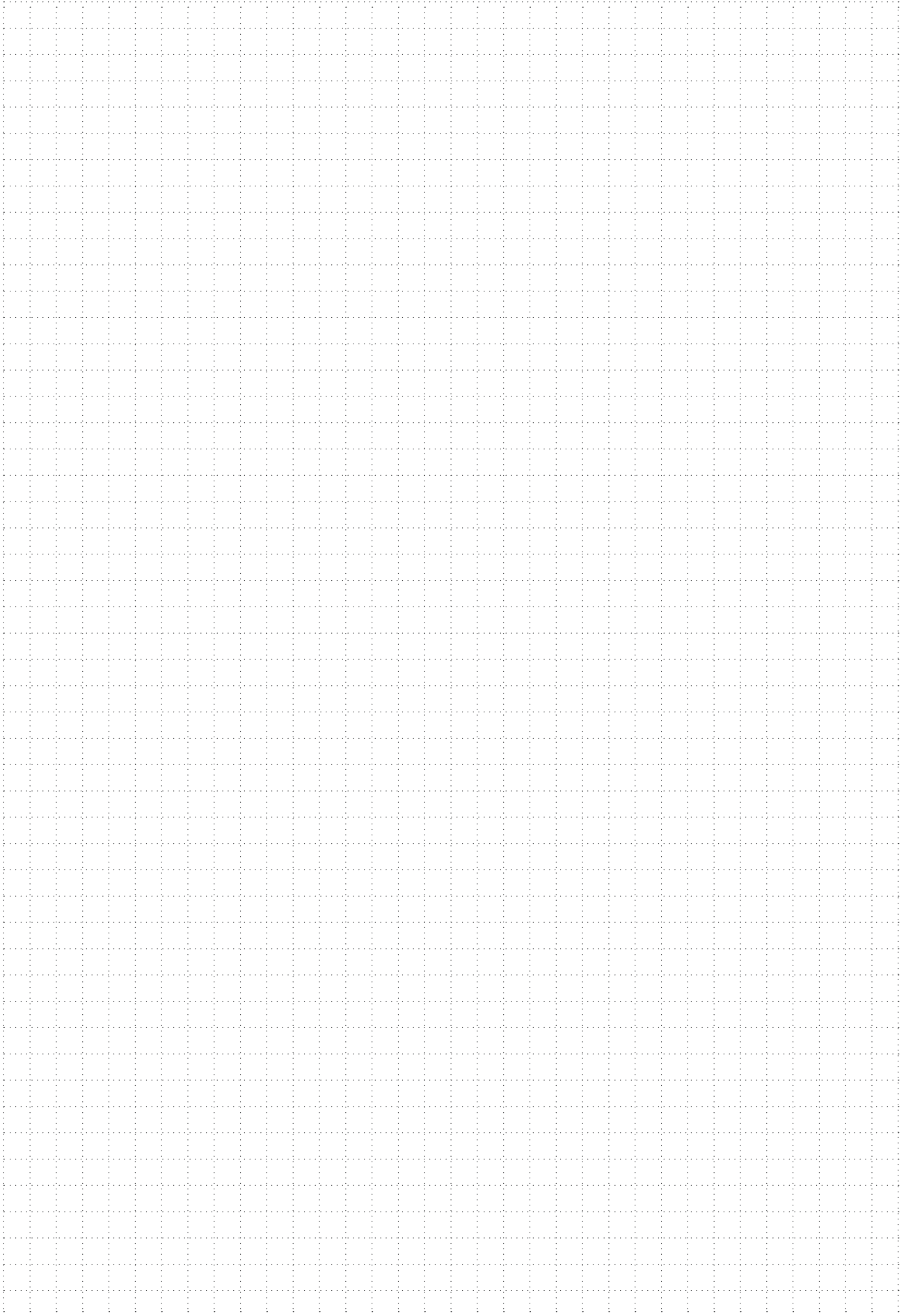
Type	Symbol	Applications	Type	Symbol	Applications
Grooving / Traverse Cutting	MG	Multi-functional / General-purpose	Cut-off (Handed Edge)	CG	Cut-off / General-purpose
	ML	Multi-functional / Low-feed		External Profiling / External Radius Grooving	RG
Grooving / Cut-off	GG	Grooving / General-purpose	Profiling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

For details on the holders of the products listed on this page, refer to Tooling News No.492 "SEC-Grooving Tools GND type" and the General Catalogue.

Select holders and inserts with matching width of cut (CW). Not usable with GNDXL type / GNDIS type holders.

● mark: Standard stocked item Blank: Made-to-order item

# MEMO





- 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.

 **Sumitomo Electric Industries, Ltd.**

**Hardmetal Division**

Global Marketing Department : 1-1-1, Koyakita, Itami, Hyogo 664-0016, Japan

<https://www.sumitool.com/global>