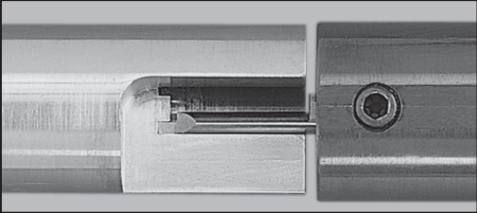

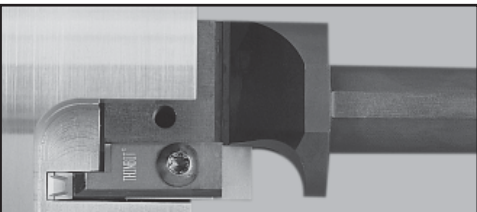


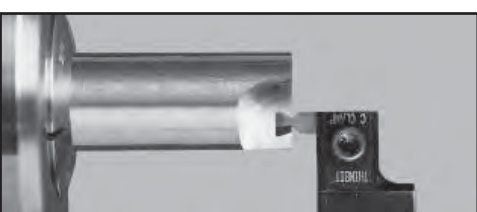




PRODUCT SELECTION GUIDE - FACE GROOVING

FACE  
GROOVING

PAGE 2-3		<ul style="list-style-type: none"> <li>• For internal diameters of .125" and larger</li> <li>• Groove widths .004"-.250"</li> <li>• Solid carbide shanks in 1/8", 3/16", 1/4", 5/16", 3/8" and 1/2" diameter</li> </ul>
PAGE 2-5		<ul style="list-style-type: none"> <li>• For internal diameters of .415" and larger</li> <li>• Groove widths .004"-.125"</li> <li>• For depth of cut up to .125"</li> <li>• Insert can groove, bore and generate profiles</li> </ul>
PAGE 2-7		<ul style="list-style-type: none"> <li>• For internal diameters of 1.574" and larger</li> <li>• Groove widths 2, 3, 4, 5 and 6mm</li> <li>• For depth of cut to 1"</li> <li>• Inserts can also be used for parting and OD/ID grooving</li> </ul>
PAGE 2-9		<ul style="list-style-type: none"> <li>• Major diameters of .300", .750", 1.250" &amp; 3"</li> <li>• Groove widths .004" to .150" in .001" increments</li> <li>• Depth of cut 2-1/2 to 3 times width</li> <li>• Insert can groove, turn and generate profiles</li> </ul>
PAGE 2-9		<ul style="list-style-type: none"> <li>• Major diameters of .300", .750", 1.250" &amp; 3"</li> <li>• Groove widths .004" to .150" in .001" increments</li> <li>• Depth of cut 2-1/2 to 3 times width</li> <li>• Insert can groove, turn and generate profiles</li> </ul>
PAGE 2-11		<ul style="list-style-type: none"> <li>• For dovetail o-ring grooves</li> <li>• Groove widths .030", .050", .070", .100", .125" &amp; .150"</li> <li>• Back clearance 24° (66° undercut)</li> <li>• Major diameters starting from .300"</li> </ul>
PAGE 2-13		<ul style="list-style-type: none"> <li>• For static o-ring grooves</li> <li>• Groove widths .086", .103", .122", .138" &amp; .125"</li> <li>• 7° included angle</li> <li>• Major diameters starting from .300"</li> </ul>
PAGE 2-15		<ul style="list-style-type: none"> <li>• Groove widths 2, 3, 4, 5 and 6mm</li> <li>• For depth of cut to 1"</li> <li>• Inserts can also be used for parting and OD/ID grooving</li> </ul>



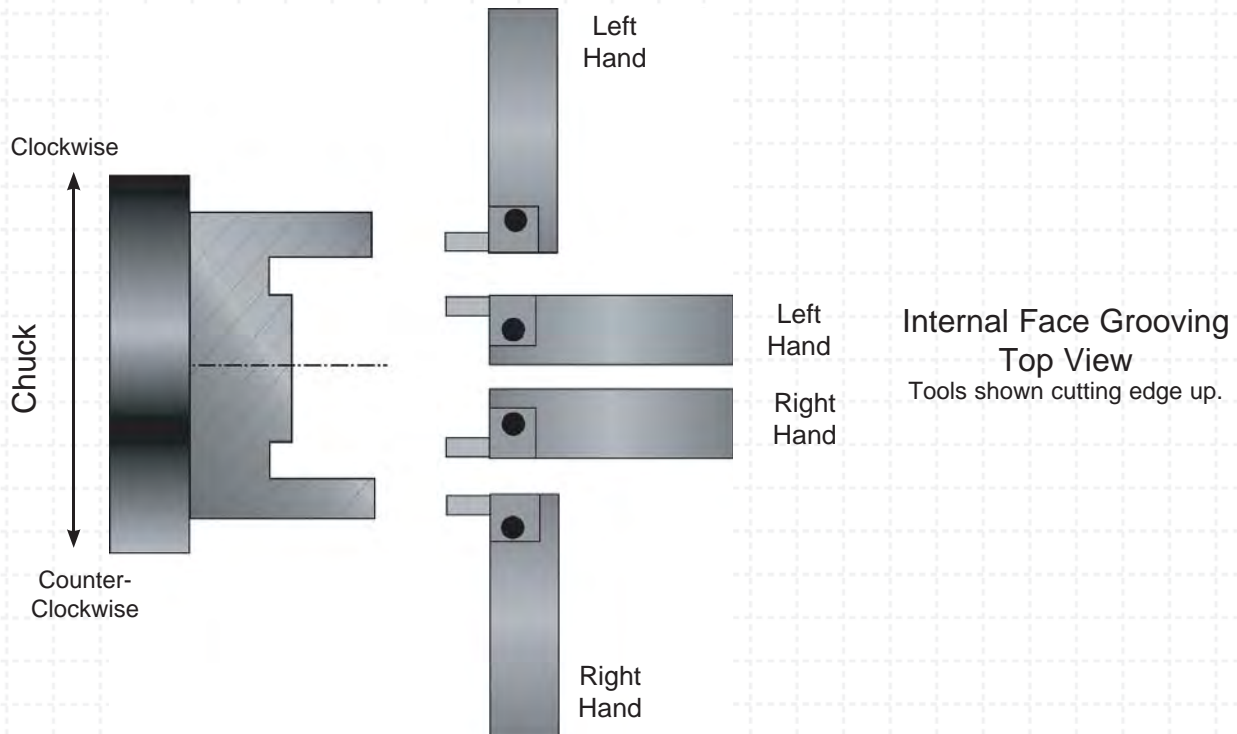
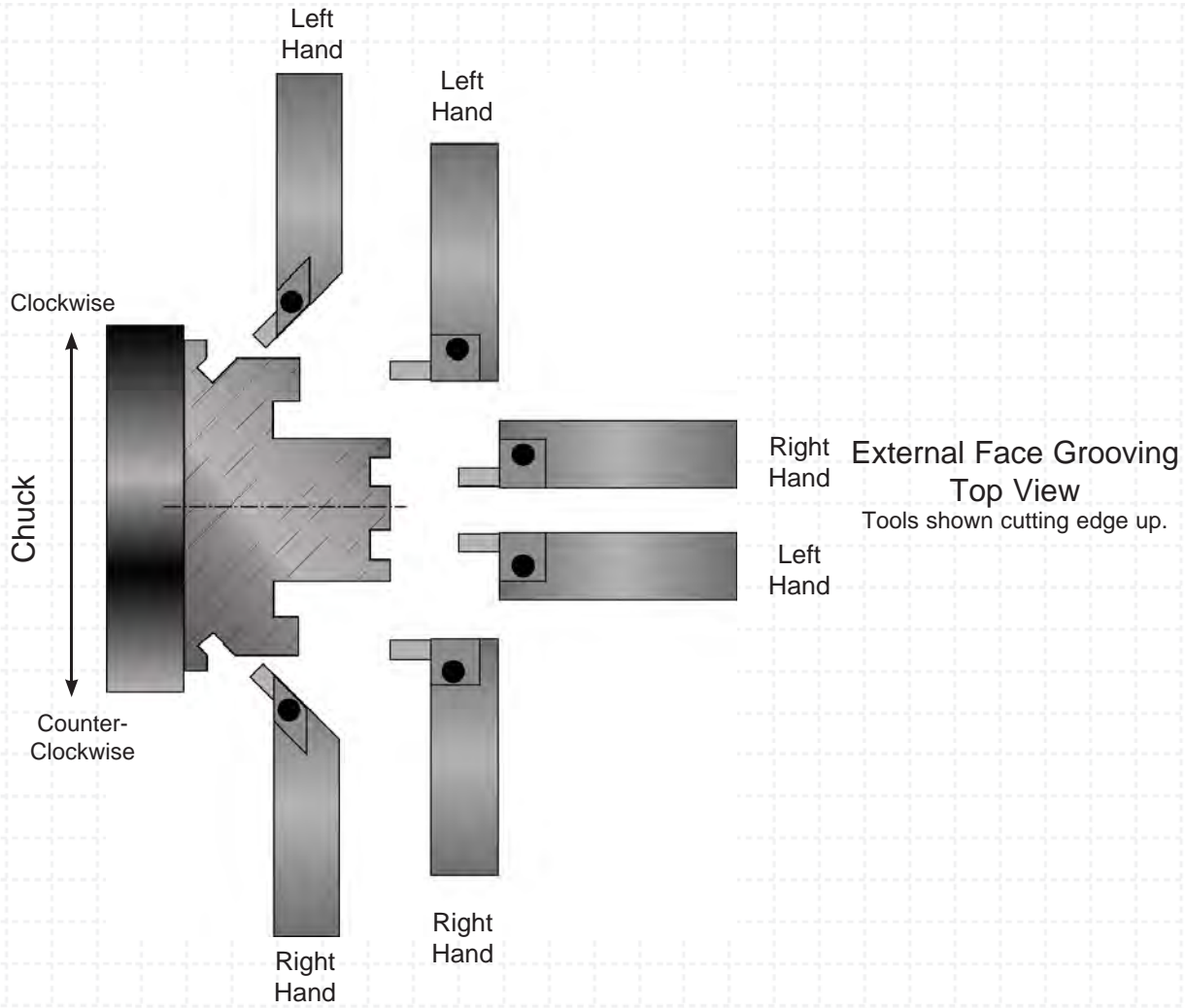
www.thinbit.com/qr2-1

Scan this code for additional information.

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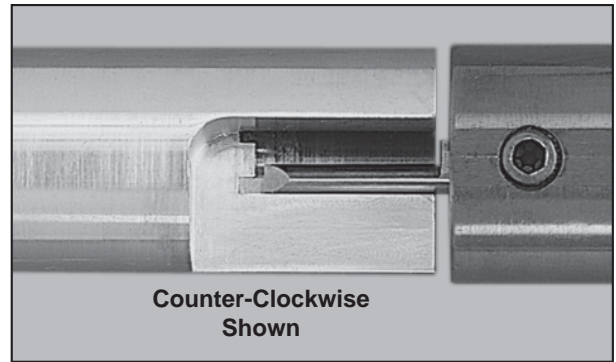
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**FACE  
GROOVING**



## PRODUCT INFORMATION

- Internal face grooving for diameters .125" and larger.
- Elliptically ground necks for greater strength.
- .004" through .250" in .001" increments available.
- 1/8", 3/16", 1/4", 5/16", 3/8" and 1/2" shanks.
- Sub-micron grain **DURA-MAX® 2000** Carbide.
- Inserts available with TiN, TiAlN, TiCN and Diamond coating.



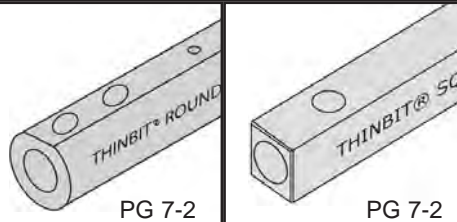
## MODIFICATIONS

SEE PAGE  
8-3  
FOR ADDITIONAL  
INFORMATION

<p><b>RADI</b> (TOP VIEW)</p>	<p><b>LEAD ANGLE</b> (TOP VIEW)</p>	<p><b>INCLUDED ANGLE</b> (TOP VIEW)</p>	<p><b>BACK CLEARANCE</b> (TOP VIEW)</p>
<p><b>CUSTOM BLANK</b> (TOP VIEW)</p> <p>PG 8-6</p>	<p><b>TOP RAKE</b> (SIDE VIEW)</p>	<p><b>CHIP BREAKER</b> (SIDE VIEW)</p>	<p><b>SIDE CLEARANCE</b> (END VIEW)</p>

## TOOLHOLDER SELECTIONS

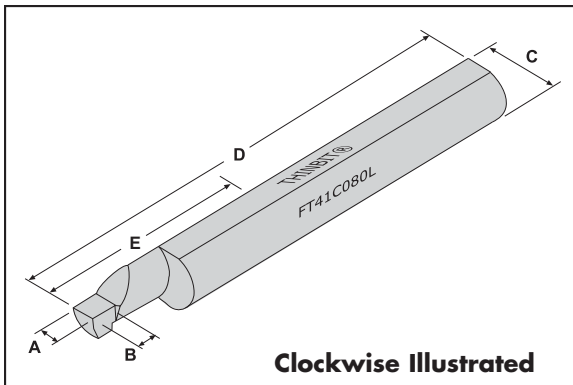
### ADAPTER STYLES



## TECHNICAL SECTIONS

PRODUCT DEMONSTRATION	SPEEDS AND FEEDS	APPLICATION REFERENCE	TROUBLE SHOOTING
<p><a href="http://www.thinbit.com/qr2-3">www.thinbit.com/qr2-3</a></p>	PG 9-15	PGS 9-3 & 9-4	PG 9-7

# INTERNAL FACE GROOVING TOOLS



FRONT RAKE: Primary 10°  
 BACK CLEARANCE: 2° ID side  
 SIDE CLEARANCE: 2° ID side  
 RADIUS: Sharp corner through full radius available  
 TOP RAKE: 0°  
 LEAD ANGLE: 0°

**INTERNAL  
FACE GROOVING**

## ORDERING INSTRUCTIONS

Complete the **ORDER CODE** in the table below that represents your selection of groove width and tool dimensions.

**EXAMPLE:**

The **ORDER CODE** for a 1/4" major diameter, clockwise rotation tool with an .080" groove width, .125" depth of cut and .750" reach is:

**FT41C Q 8 Q L**

Specify the Groove Width '**A**'


SPECIFICATIONS				ORDER CODE				INFORMATION		
Minimum Bore & Major Diameter  'C'	Groove Width Range  'A'  ± .001"	Depth of Cut  'B'	Reach into Bore  'E'	DURA-MAX® 2000 Carbide See Page 9-15 for Speeds and Feeds		Add-ons Use 'Order Code' and Add			Overall Length  'D'	Toolholder Page 7-2  Use Toolholders Beginning With
				Counter-Clockwise	Clockwise	Full Radius Page 8-3	Corner Radius Page 8-3	Coating Page 9-6		
1/8"	.004"-.063"	Width DOC .004"-.020" = 3 x 'A' .021"-.063" = .062"	.375"	FT21C ___ R	FT21C ___ L	add 'FR'	(indicate size in .xxx")	TiN add 'C' TiCN add 'D' TiAIN add 'E' Diamond add 'F'	1.365" + 'B'	'AD'
3/16"	.004"-.093"	Width DOC .004"-.030" = 3 x 'A' .031"-.093" = .093"	.625"	FT31C ___ R	FT31C ___ L				1.865" + 'B'	'AD'
1/4"	.004"-.125"	Width DOC .004"-.041" = 3 x 'A' .042"-.125" = .125"	.750"	FT41C ___ R	FT41C ___ L				2.365" + 'B'	'AD'
5/16"	.004"-.156"	Width DOC .004"-.051" = 3 x 'A' .052"-.156" = .156"	1.000"	FT51C ___ R	FT51C ___ L				2.330" + 'B'	'AD'
3/8"	.004"-.187"	Width DOC .004"-.061" = 3 x 'A' .062"-.187" = .187"	1.250"	FT61C ___ R	FT61C ___ L				2.800" + 'B'	'AD'
1/2"	.004"-.250"	Width DOC .004"-.082" = 3 x 'A' .083"-.250" = .250"	1.750"	FT81C ___ R	FT81C ___ L				3.240" + 'B'	'AD'

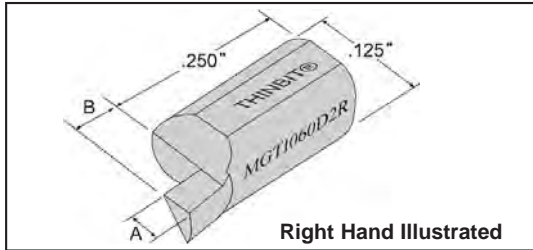
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<b>PRODUCT INFORMATION</b>	<ul style="list-style-type: none"> <li>• Internal face grooving and profiling for diameters of .415" and larger.</li> <li>• Shank sizes 3/8", 1/2" and 5/8" in steel; 3/8" and 1/2" in heavy metal.</li> <li>• 1/2" and 5/8" diameter toolholders are reversible for right and left hand orientation.</li> <li>• Modifications can be provided on any of our tooling. Please contact us with your application requirements.</li> </ul>
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<b>TECHNICAL SECTIONS</b>	<b>PRODUCT DEMONSTRATION</b>	<b>SPEEDS AND FEEDS</b>	<b>APPLICATION REFERENCE</b>	<b>TROUBLE SHOOTING</b>
	 <a href="http://www.thinbit.com/qr2-5">www.thinbit.com/qr2-5</a>	PG 9-15	PGS 9-3 & 9-4	PG 9-7



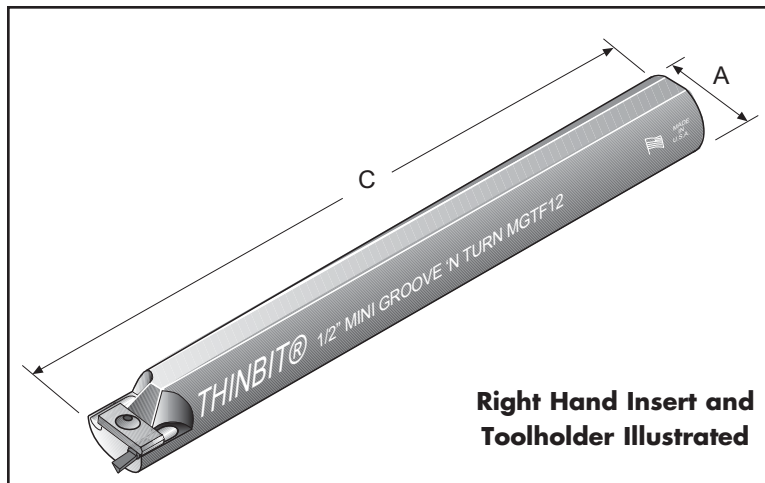
FRONT RAKE: 15°  
 BACK CLEARANCE: 2° both sides  
 SIDE CLEARANCE: 2° I.D. side  
 RADIUS: Sharp corner through full radius available  
 TOP RAKE: 0°  
 LEAD ANGLE: 0°

SPECIFICATIONS			ORDER CODE				
Insert Orientation	Insert Width	Depth of Cut	Insert Grades		Add-ons		
	'A'	'B'	DURA-MAX® 2000 Carbide For Steel & Interrupted Cutting	DURA-MAX® 5000 Carbide For Aluminum & Non-ferrous	Full Radius Page 8-3	Corner Radius Page 8-3	Coating Page 9-6
Right Hand <small>For ID grooving use left hand 'MGT' Page 1-5</small>  <small>For face grooving use right hand 'MGTF' Page 2-6</small>	.004"-.063"	$\frac{\text{Width}}{\text{DOC}}$ .004"-.031" = 2 x 'A' .032"-.063" = .063"	MGTI _ _ _D2R	MGTI _ _ _D5R	add 'FR'	(indicate size in .xxx")	add 'CR_ _ _'  TiN add 'C' TiCN add 'D'  TiAlN add 'E' Diamond add 'F'
	.064"-.125"	$\frac{\text{Width}}{\text{DOC}}$ .064"-.083" = 1.5 x 'A' .084"-.125" = .125"					
Left Hand <small>For ID grooving use right hand 'MGT' Page 1-5</small>  <small>For face grooving use left hand 'MGTF' Page 2-6</small>	.004"-.063"	$\frac{\text{Width}}{\text{DOC}}$ .004"-.031" = 2 x 'A' .032"-.063" = .063"	MGTI _ _ _D2L	MGTI _ _ _D5L			
	.064"-.125"	$\frac{\text{Width}}{\text{DOC}}$ .064"-.083" = 1.5 x 'A' .084"-.125" = .125"					

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## I.D. FACE GROOVING TOOLS



Note:

- 1/2" and 5/8" toolholders are reversible for right hand or left hand orientation.

- For face grooving:

<u>Insert Width</u>	<u>Depth of Cut</u>
.004"-.031"	2 x width
.032"-.063"	.063"
.064"-.083"	1.5 x width
.084"-.125"	.125"

**I.D. FACE GROOVING**

## ORDERING INSTRUCTIONS

Select the **ORDER CODE** in the table below that represents your selection of tool specifications.

**EXAMPLE:**

The **ORDER CODE** for a .530" minimum bore and a 1/2" steel shank is:  
**MGTF12**

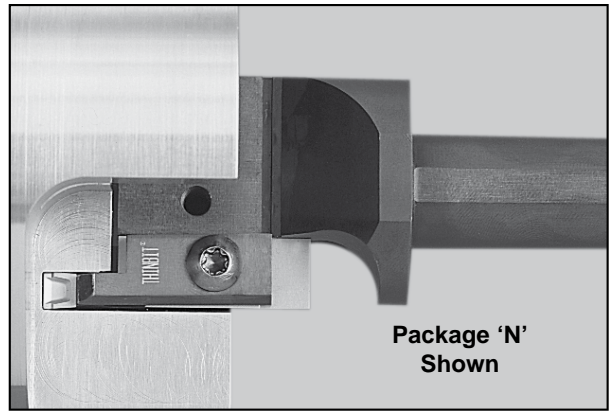
SPECIFICATIONS		ORDER CODE				INFORMATION		
Minimum Bore & Major Diameter	Orientation & Toolholder Material	Toolholder Package  Includes Shank, Clamp and Hardware	Replacement Parts			Shank Diameter  'A'	Shank Length  'C'	Inserts Page 2-5  Use Inserts Beginning With
			Clamp Only	Screw Only	Wrench Only			
.415"	Right Hand Steel	MGTF38R	MGC1	F31	W31	3/8"	5.500"	'MGTI' Use right hand inserts
	Right Hand Heavy Metal	MGTF38RHM					5.875"	
	Left Hand Steel	MGTF38L					5.500"	'MGTI' Use left hand inserts
	Left Hand Heavy Metal	MGTF38LHM					5.875"	
.530"	Steel	MGTF12				1/2"	5.500"	'MGTI' Use with left hand inserts for clockwise or with right hand inserts for counter-clockwise
	Heavy Metal	MGTF12HM					5.875"	
.650"	Steel	MGTF58				5/8"	5.500"	

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## PRODUCT INFORMATION

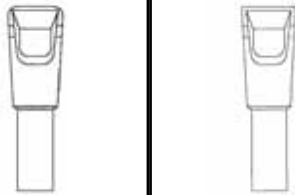
- Internal face grooving for diameters 1.574" and larger with Depth of Cut to 1".
- Shank sizes 3/4" and 1".
- Modular tooling system will also accept OD & external face grooving heads. See compatibility guide on Page 9-8.
- If square shank is required, see Page 7-14, package styles 'S','T','U' and 'V'.
- Modifications can be provided on any of our tooling. Please contact us with your application requirements.




## INSERT SELECTIONS

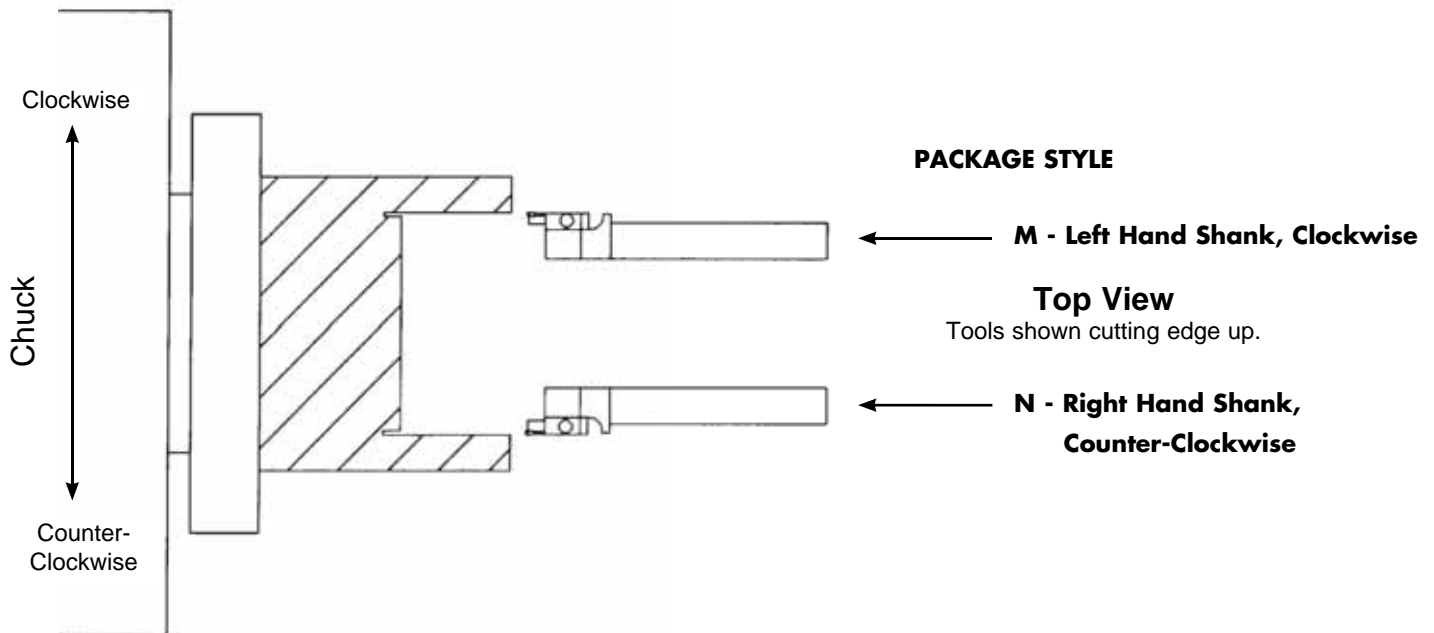
SEE PAGE 6-1

### INSERT STYLES



## TECHNICAL SECTIONS

PRODUCT DEMONSTRATION	SPEEDS AND FEEDS	APPLICATION REFERENCE	TROUBLE SHOOTING
 <a href="http://www.thinbit.com/qr2-7">www.thinbit.com/qr2-7</a>	PG 9-12	PGS 9-3 & 9-4	PG 9-7



**Note:** If square shank is required, see Page 7-14, package styles 'S','T','U' and 'V'.

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# I.D. FACE GROOVING TOOLS

## ORDERING INSTRUCTIONS

**Complete** the **ORDER CODE** in the table below that represents your selection of major diameter.

**EXAMPLE:**

The **ORDER CODE** for a 3mm insert width, toolholder package style 'N' with a .500" depth of cut, 1" shank and 1.75" major diameter is:

**DGPN301301 4 5**

Specify Major Diameter '**CODE**' here \_\_\_\_\_↑

**I.D. FACE GROOVING**

SPECIFICATIONS			ORDER CODE							
Insert Width	Depth of Cut	Package Style	Toolholder Package <small>Includes Shank, Head, Clamp and Hardware</small>		Inserts  Use Inserts Beginning With	Replacement Parts				
			3/4" Shank 7" Long	1" Shank 7" Long		Head	Head Hardware	Shank 3/4 = 3/4" 01 = 1"	Clamp	Clamp Hardware
2mm (.078")	13mm (1/2")	M	DGPM201334 __	DGPM201301 __	'DG12'  (Page 6-1)	DGH52013 __	Screw: 2 each S7552  Wrench: W4025	DGS__ZL	DGC52013	Screw: S6552  Wrench: W4025
		N	DGPN201334 __	DGPN201301 __		DGH62013 __		DGS__ZR	DGC62013	
3mm (.118")	13mm (1/2")	M	DGPM301334 __	DGPM301301 __	'DG13'  (Page 6-1)	DGH53013 __		DGS__ZL	DGC53013	
		N	DGPN301334 __	DGPN301301 __		DGH63013 __		DGS__ZR	DGC63013	
4mm (.157")	13mm (1/2")	M	DGPM401334 __	DGPM401301 __	'DG14'  (Page 6-1)	DGH54013 __		DGS__ZL	DGC54013	
		N	DGPN401334 __	DGPN401301 __		DGH64013 __		DGS__ZR	DGC64013	
	20mm (3/4")	M	DGPM402034 __	DGPM402001 __		DGH54020 __		DGS__ZL	DGC54020	
		N	DGPN402034 __	DGPN402001 __		DGH64020 __		DGS__ZR	DGC64020	
5mm (.197")	13mm (1/2")	M	DGPM501334 __	DGPM501301 __	'DG15'  (Page 6-1)	DGH55013 __		DGS__ZL	DGC55013	
		N	DGPN501334 __	DGPN501301 __		DGH65013 __		DGS__ZR	DGC65013	
	25mm (1")	M	DGPM502534 __	DGPM502501 __		DGH55025 __		DGS__ZL	DGC55025	
		N	DGPN502534 __	DGPN502501 __		DGH65025 __		DGS__ZR	DGC65025	
6mm (.236")	13mm (1/2")	M	DGPM601334 __	DGPM601301 __	'DG16'  (Page 6-1)	DGH56013 __	DGS__ZL	DGC56013		
		N	DGPN601334 __	DGPN601301 __		DGH66013 __	DGS__ZR	DGC66013		
	25mm (1")	M	DGPM602534 __	DGPM602501 __		DGH56025 __	DGS__ZL	DGC56025		
		N	DGPN602534 __	DGPN602501 __		DGH66025 __	DGS__ZR	DGC66025		

Major Diameter Range	Code
1.574"-1.968" (40-50mm)	45
1.968"-2.362" (50-60mm)	56
2.362"-2.952" (60-75mm)	67
2.952"-3.937" (75-100mm)	71
3.937"-5.905" (100-150mm)	11
5.905"-11.811" (150-300mm)	13
11.811"- ∞ (300mm-∞)	30

**Note:**

As long as first plunge is made within major diameter range and each following plunge overlaps, groove width can be increased toward or away from center of part.

**KAISER TOOL COMPANY, INC.**



## PRODUCT INFORMATION









- Face grooving for major diameters .300", .750", 1.250", 3" and greater.
- Face grooving with a central hub or flat face.
- .004" - .150" in .001" increments available.
- Sub-micron grain **DURA-MAX® 2000** and **5000** Carbides.
- Inserts available with TiN, TiAlN, TiCN and Diamond coating.



Left Hand, Counter-Clockwise Insert in Left Hand, Straight Toolholder Shown

## MODIFICATIONS

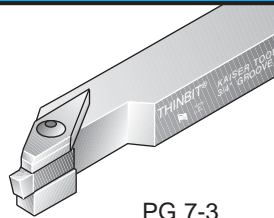
SEE PAGES 8-2 & 8-3 FOR ADDITIONAL INFORMATION

<b>RADII (TOP VIEW)</b>	<b>DEPTH OF CUT (TOP VIEW)</b>	<b>SIZING (TOP VIEW)</b>	<b>BACK CLEARANCE (TOP VIEW)</b>
			
<b>LEAD ANGLE (TOP VIEW)</b>	<b>TOP RAKE (SIDE VIEW)</b>	<b>CHIP BREAKER (SIDE VIEW)</b>	<b>SIDE CLEARANCE (END VIEW)</b>
			

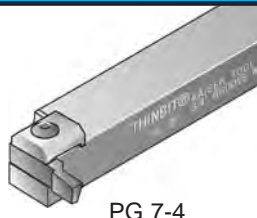
## TOOLHOLDER SELECTIONS

### CNC, SWISS, CONVENTIONAL STYLE

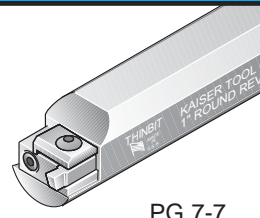
### ROUND STYLE



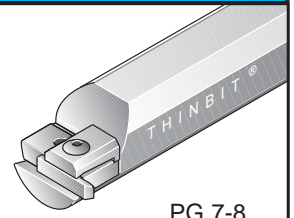
PG 7-3



PG 7-4



PG 7-7



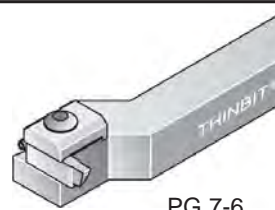
PG 7-8

### 45° STYLE

### SWISS FACE STYLE



PG 7-11



PG 7-6

## TECHNICAL SECTIONS

### PRODUCT DEMONSTRATION



[www.thinbit.com/qr2-9](http://www.thinbit.com/qr2-9)

### SPEEDS AND FEEDS

PG 9-12

### APPLICATION REFERENCE

PGS 9-3 & 9-4

### TROUBLE SHOOTING

PG 9-7

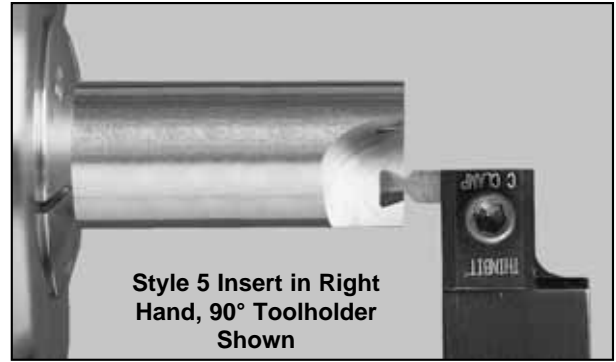
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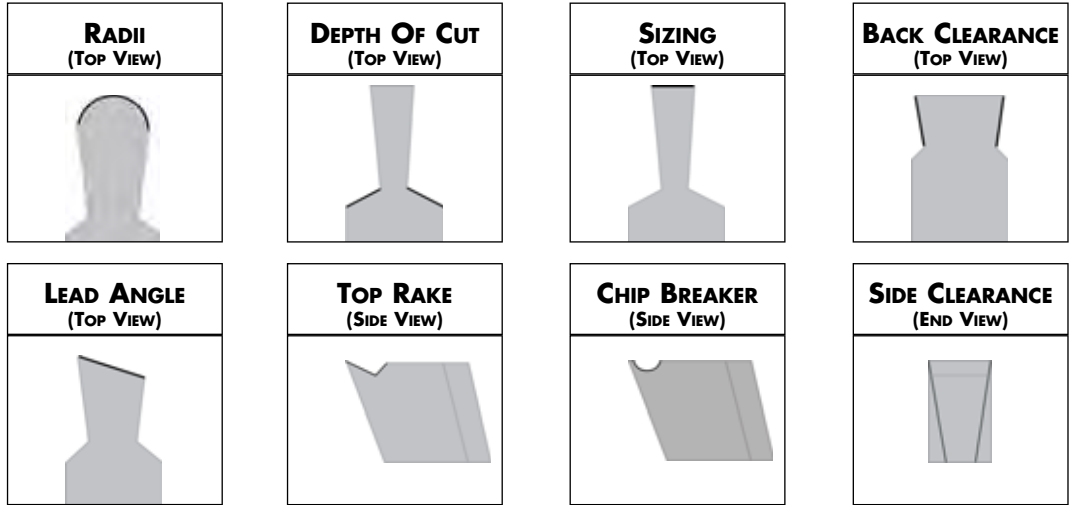
## PRODUCT INFORMATION

- For Dovetail O-Ring face grooving.
- Groove Widths .030", .050", .070", .090", .100", .125" & .150".
- Major diameters from .300".
- Sub-micron grain **DURA-MAX<sup>®</sup> 2000** and **5000** Carbides.
- Inserts available with TiN, TiCN, TiAlN or Diamond Film Coating.



## MODIFICATIONS

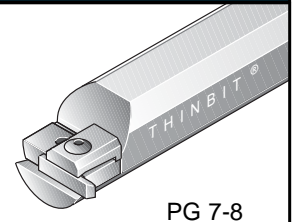
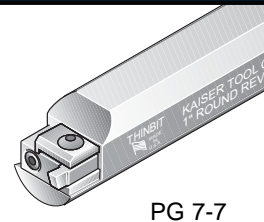
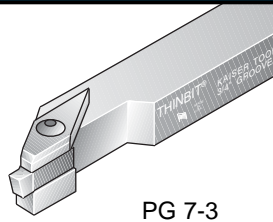
SEE PAGES  
8-2 & 8-3  
FOR ADDITIONAL  
INFORMATION



## TOOLHOLDER SELECTIONS

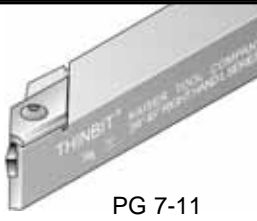
### CNC, SWISS, CONVENTIONAL STYLE

### ROUND STYLE



### 45° STYLE

### SWISS FACE STYLE



## TECHNICAL SECTIONS

### PRODUCT DEMONSTRATION



[www.thinbit.com/qr2-11](http://www.thinbit.com/qr2-11)

### SPEEDS AND FEEDS

PG 9-12

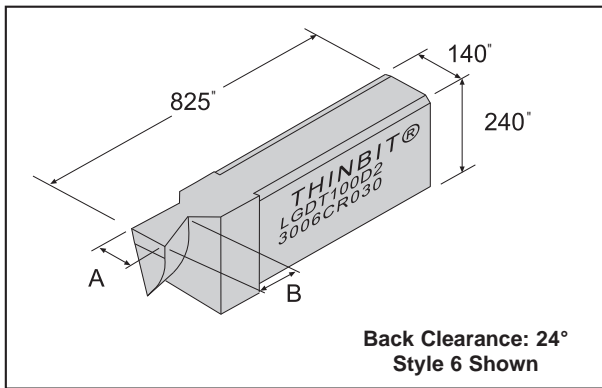
### APPLICATION REFERENCE

PGS 9-3 & 9-4

### TROUBLE SHOOTING

PG 9-7

# DOVETAIL O-RING FACE GROOVING INSERTS



FRONT RAKE: Primary 10° honed, Secondary 15°  
 BACK CLEARANCE: 24° one side  
 SIDE CLEARANCE: Depends on major diameter  
 RADIUS: One side as specified  
 TOP RAKE: 0°  
 LEAD ANGLE: 0°

**Note:**  
 For best performance, form undercut by profiling.

DOVE TAIL  
FACE GROOVING

## ORDERING INSTRUCTIONS

Select the **ORDER CODE** in the table below that represents your selection of groove width and insert grade.

### EXAMPLE:

The **ORDER CODE** for a left hand/counter-clockwise, .100" wide OD side insert in **DURA-MAX® 2000**, with a .300" major diameter and a .030" corner radius is:  
**LGDT100D23006CR030**

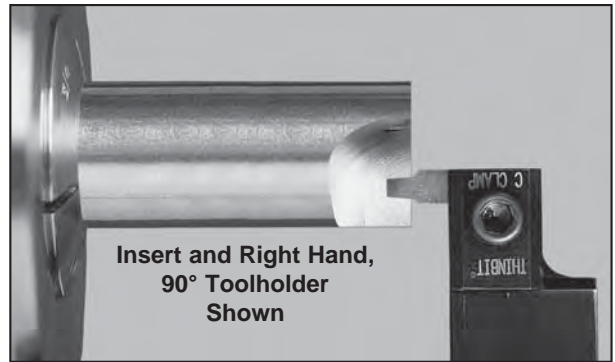
SPECIFICATIONS				ORDER CODE				INFO.	
Insert Orientation & Radius	Insert Width  'A'  ± .001"	Depth of Cut  'B'	Major Diameter  Can be used on any diameter equal to or greater than listed	Insert Grades See Page 9-5 for expanded material descriptions and Page 9-12 for Speeds and Feeds information				Add-ons Use 'Order Code' and Add  Coating Page 9-6	Toolholder Catalog Section 7  Use Toolholders Beginning With
				DURA-MAX® 2000 Carbide For Steel & Interrupted Cutting		DURA-MAX® 5000 Carbide For Aluminum & Non-ferrous			
				ID Tool Style 5	OD Tool Style 6	ID Tool Style 5	OD Tool Style 6		
Left Hand/ Counter-Clockwise; .015" Radius	.030"	.030"	.300"	LGDT030D23005CR015	LGDT030D23006CR015	LGDT030D53005CR015	LGDT030D53006CR015	TIN add 'C'  TICN add 'D'  TiAIN add 'E'  Diamond add 'F'	'L'
			.500"	LGDT030D25005CR015	LGDT030D25006CR015	LGDT030D55005CR015	LGDT030D55006CR015		
			1.000"	LGDT030D210005CR015	LGDT030D210006CR015	LGDT030D510005CR015	LGDT030D510006CR015		
	.050"	.070"	.300"	LGDT050D23005CR015	LGDT050D23006CR015	LGDT050D53005CR015	LGDT050D53006CR015		
			.500"	LGDT050D25005CR015	LGDT050D25006CR015	LGDT050D55005CR015	LGDT050D55006CR015		
			1.000"	LGDT050D210005CR015	LGDT050D210006CR015	LGDT050D510005CR015	LGDT050D510006CR015		
	.070"	.100"	.300"	LGDT070D23005CR015	LGDT070D23006CR015	LGDT070D53005CR015	LGDT070D53006CR015		
			.500"	LGDT070D25005CR015	LGDT070D25006CR015	LGDT070D55005CR015	LGDT070D55006CR015		
			1.000"	LGDT070D210005CR015	LGDT070D210006CR015	LGDT070D510005CR015	LGDT070D510006CR015		
	.090"	.115"	.300"	LGDT090D23005CR015	LGDT090D23006CR015	LGDT090D53005CR015	LGDT090D53006CR015		
			.500"	LGDT090D25005CR015	LGDT090D25006CR015	LGDT090D55005CR015	LGDT090D55006CR015		
			1.000"	LGDT090D210005CR015	LGDT090D210006CR015	LGDT090D510005CR015	LGDT090D510006CR015		
Left Hand/ Counter-Clockwise; .030" Radius	.100"	.125"	.300"	LGDT100D23005CR030	LGDT100D23006CR030	LGDT100D53005CR030	LGDT100D53006CR030		
			1.000"	LGDT100D210005CR030	LGDT100D210006CR030	LGDT100D510005CR030	LGDT100D510006CR030		
	.125"	.190"	.300"	LGDT125D23005CR030	LGDT125D23006CR030	LGDT125D53005CR030	LGDT125D53006CR030		
			1.000"	LGDT125D210005CR030	LGDT125D210006CR030	LGDT125D510005CR030	LGDT125D510006CR030		
	.150"	.200"	1.000"	LGDT150D210005CR030	LGDT150D210006CR030	LGDT150D510005CR030	LGDT150D510006CR030		
			2.000"	LGDT150D220005CR030	LGDT150D220006CR030	LGDT150D520005CR030	LGDT150D520006CR030		

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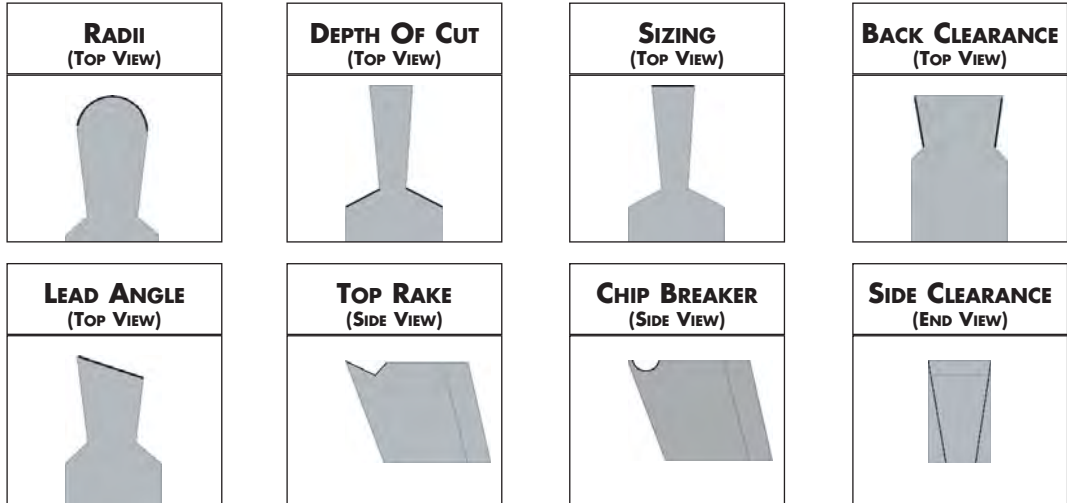
## PRODUCT INFORMATION

- For Static O-Ring Face Grooving.
- Groove widths .086", .103", .122", .125" & .138"
- 7° included angle.
- Major diameters starting from .300".
- Sub-micron grain **DURA-MAX® 2000** and **5000** Carbides.
- Inserts available with TiN, TiCN, TiAlN or Diamond film coating.



## MODIFICATIONS

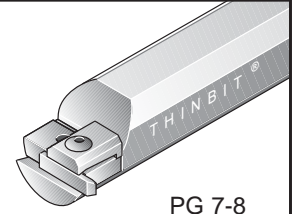
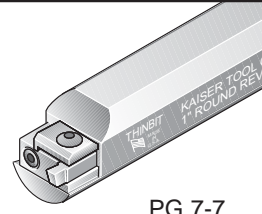
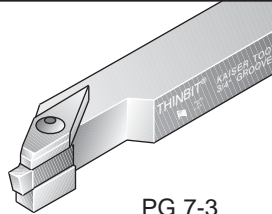
SEE PAGES 8-2 & 8-3 FOR ADDITIONAL INFORMATION



## TOOLHOLDER SELECTIONS

### CNC, SWISS, CONVENTIONAL STYLE

### ROUND STYLE



### 45° STYLE

### SWISS FACE STYLE



### PRODUCT DEMONSTRATION

### SPEEDS AND FEEDS

### APPLICATION REFERENCE

### TROUBLE SHOOTING



[www.thinbit.com/qr2-13](http://www.thinbit.com/qr2-13)

PG 9-12

PGS 9-3 & 9-4

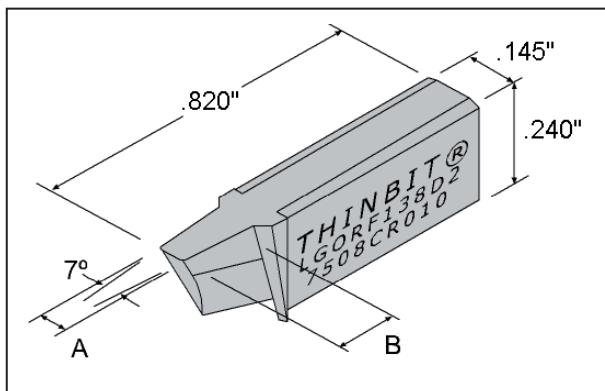
PG 9-7

## TECHNICAL SECTIONS

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# STATIC O-RING FACE GROOVING INSERTS



FRONT RAKE: Primary 10° honed, Secondary 15°  
 BACK CLEARANCE: 7° included angle  
 SIDE CLEARANCE: 5° both sides  
 RADIUS: .010" or .020"  
 TOP RAKE: 0°  
 LEAD ANGLE: 0°  
 DEPTH OF CUT: .170" or .250"

**STATIC O-RING  
FACE GROOVING**

## ORDERING INSTRUCTIONS

Select the **ORDER CODE** in the table below that represents your selection of groove width and insert grade.

**EXAMPLE:**

The **ORDER CODE** for a counter-clockwise, .138" wide insert in **DURA-MAX® 2000**, with a .750" major diameter and a .010" corner radius is:

**LGORF138D27508CR010**

SPECIFICATIONS				ORDER CODE		INFO.	
Insert Orientation & Radius	Insert Width  'A'  ± .001"	Depth of Cut  'B'	Major Diameter  Can be used on any diameter equal to or greater than listed	Insert Grades See Page 9-5 for expanded material descriptions and Page 9-12 for Speeds and Feeds information		Add-ons Use 'Order Code' and Add  Coating Page 9-6	Toolholder Catalog Section 7  Use Toolholders Beginning With
				DURA-MAX® 2000 Carbide For Steel & Interrupted Cutting	DURA-MAX® 5000 Carbide For Aluminum & Non-ferrous		
Counter-Clockwise; .010" Corner Radius	.086"	.250"	.300"	LGORF086D23008CR010	LGORF086D53008CR010	TiN add 'C' TiCN add 'D' TiAlN add 'E' Diamond add 'F'	'L'  Use left hand straight holder or right hand 90° holder
			.750"	LGORF086D27508CR010	LGORF086D57508CR010		
	.103"	.250"	.300"	LGORF103D23008CR010	LGORF103D53008CR010		
			.750"	LGORF103D27508CR010	LGORF103D57508CR010		
	.122"	.250"	.300"	LGORF122D23008CR010	LGORF122D53008CR010		
			.750"	LGORF122D27508CR010	LGORF122D57508CR010		
	.138"	.170"	.300"	LGORF138D23008CR010	LGORF138D53008CR010		
			.750"	LGORF138D27508CR010	LGORF138D57508CR010		
Counter-Clockwise; .020" Corner Radius	.125"	.250"	.300"	LGORF125D23008CR020	LGORF125D53008CR020		
			.750"	LGORF125D27508CR020	LGORF125D57508CR020		

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## PRODUCT INFORMATION

- External face grooving with Depth of Cut to 1".
- Shank sizes 3/4", 1", 16mm, 20mm and 25mm in straight and 90° orientations.
- Modular tooling system will also accept OD & internal face grooving heads. See compatibility guide on Page 9-8.
- If round shanks are required, see Page 7-13, package styles 'O' and 'P'.
- Modifications can be provided on any of our tooling. Please contact us with your application requirements.

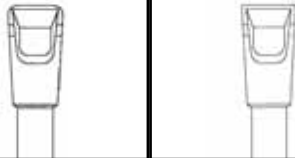


Package 'D' Shown

## INSERT SELECTIONS

SEE PAGE 6-1

### Insert STYLES



## TECHNICAL SECTIONS

### PRODUCT DEMONSTRATION



[www.thinbit.com/qr2-15](http://www.thinbit.com/qr2-15)

### SPEEDS AND FEEDS

PG 9-12

### APPLICATION REFERENCE

PGS 9-3 & 9-4

### TROUBLE SHOOTING

PG 9-7

## ORDERING INSTRUCTIONS

### 3/4", 1" and Metric Shanks

Select the **ORDER CODE** in the table at right that represents your selection of major diameter.

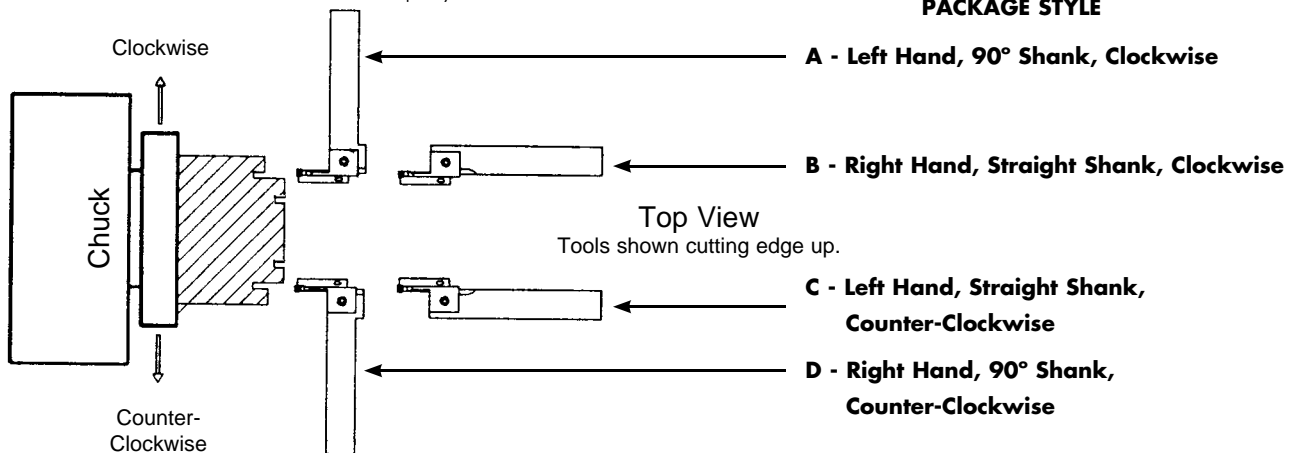
#### EXAMPLE:

The **ORDER CODE** for a 3mm insert width, toolholder package style 'C' with a .500" Depth of Cut, 1" shank and 1" major diameter is:

DGPC301301 23

Specify the 'SHANK SIZE' and MAJOR DIAMETER 'CODE'

#### PACKAGE STYLE



**Note:** If round shanks are required, see Page 7-13, package styles "O" and "P".

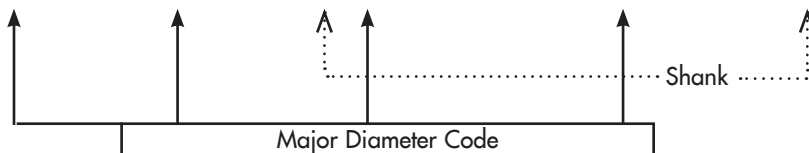
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# FACE GROOVING TOOLS

SPECIFICATIONS			ORDER CODE												
Insert Width	Depth of Cut	Package Style  See Page 2-15	Toolholder Package <small>Includes Shank, Head, Clamp and Hardware</small>			Inserts  Section 6 Use Inserts Beginning With	Replacement Parts								
			3/4" Shank <small>3/4"x3/4"x5"</small>	1" Shank <small>1"x1"x5"</small>	Metric Shanks <small>16 = 16x16x125mm 20 = 20x1"x125mm 25 = 25x1"x125mm</small>		Head	Head Hardware	Shank <small>3/4 = 3/4" 01 = 1" 16 = 16mm 20 = 20mm 25 = 25mm</small>	Clamp	Clamp Hardware				
2mm (.078")	13mm (1/2")	A	DGPA201334_	DGPA201301_	DGPA2013_	'DGI2'  (Page 6-1)	DGH32013_	DGS_ _YL	DGC12013	Screw: S6552	Wrench: W4025				
		B	DGPB201334_	DGPB201301_	DGPB2013_							DGS_ _XR			
		C	DGPC201334_	DGPC201301_	DGPC2013_								DGS_ _XL		
		D	DGPD201334_	DGPD201301_	DGPD2013_									DGS_ _YR	
3mm (.118")	13mm (1/2")	A	DGPA301334_	DGPA301301_	DGPA3013_	Use 'DGMI3' for major diameter codes '02' & '25' 'DGI3' for all others  (Page 6-1)	DGH33013_	DGS_ _YL	DGC13013	Screw: S6552	Wrench: W4025				
		B	DGPB301334_	DGPB301301_	DGPB3013_							DGS_ _XR			
		C	DGPC301334_	DGPC301301_	DGPC3013_								DGS_ _XL		
		D	DGPD301334_	DGPD301301_	DGPD3013_									DGS_ _YR	
4mm (.157")	13mm (1/2")	A	DGPA401334_	DGPA401301_	DGPA4013_	Use 'DGMI4' for major diameter codes '02' & '25' 'DGI4' for all others  (Page 6-1)	DGH34013_	DGS_ _YL	DGC14013	Screw: S7552	Wrench: W4025				
		B	DGPB401334_	DGPB401301_	DGPB4013_							DGS_ _XR			
		C	DGPC401334_	DGPC401301_	DGPC4013_								DGS_ _XL		
		D	DGPD401334_	DGPD401301_	DGPD4013_									DGS_ _YR	
	20mm (3/4")	A	DGPA402034_	DGPA402001_	DGPA4020_		DGH34020_	DGS_ _YL	DGC14020			Screw: S6552	Wrench: W4025		
		B	DGPB402034_	DGPB402001_	DGPB4020_									DGS_ _XR	
		C	DGPC402034_	DGPC402001_	DGPC4020_										DGS_ _XL
		D	DGPD402034_	DGPD402001_	DGPD4020_										
5mm (.197")	13mm (1/2")	A	DGPA501334_	DGPA501301_	DGPA5013_	'DGI5'  (Page 6-1)	DGH35013_	DGS_ _YL	DGC15013	Screw: S6552	Wrench: W4025				
		B	DGPB501334_	DGPB501301_	DGPB5013_							DGS_ _XR			
		C	DGPC501334_	DGPC501301_	DGPC5013_								DGS_ _XL		
		D	DGPD501334_	DGPD501301_	DGPD5013_									DGS_ _YR	
	25mm (1")	A	DGPA502534_	DGPA502501_	DGPA5025_		DGH35025_	DGS_ _YL	DGC15025			Screw: S6552	Wrench: W4025		
		B	DGPB502534_	DGPB502501_	DGPB5025_									DGS_ _XR	
		C	DGPC502534_	DGPC502501_	DGPC5025_										DGS_ _XL
		D	DGPD502534_	DGPD502501_	DGPD5025_										
6mm (.236")	13mm (1/2")	A	DGPA601334_	DGPA601301_	DGPA6013_	'DGI6'  (Page 6-1)	DGH36013_	DGS_ _YL	DGC16013	Screw: S6552	Wrench: W4025				
		B	DGPB601334_	DGPB601301_	DGPB6013_							DGS_ _XR			
		C	DGPC601334_	DGPC601301_	DGPC6013_								DGS_ _XL		
		D	DGPD601334_	DGPD601301_	DGPD6013_									DGS_ _YR	
	25mm (1")	A	DGPA602534_	DGPA602501_	DGPA6025_		DGH36025_	DGS_ _YL	DGC16025			Screw: S6552	Wrench: W4025		
		B	DGPB602534_	DGPB602501_	DGPB6025_									DGS_ _XR	
		C	DGPC602534_	DGPC602501_	DGPC6025_										DGS_ _XL
		D	DGPD602534_	DGPD602501_	DGPD6025_										

**DEEPCUT  
FACE GROOVING**



Major Diameter Range	Insert Width	Code	Insert Style	Major Diameter Range	Insert Width	Code	Insert Style	
.787"-.885" (20-22.5mm)	2mm	02	DGI	1.377"-1.574" (35-40mm)	2mm	50	DGI	
	3 & 4mm	02	DGMI		3, 4, 5 & 6mm	34	DGI	
.885"-.984" (22.5-25mm)	2mm	25	DGI		1.574"-1.968" (40-50mm)	All	45	DGI
	3 & 4mm	25	DGMI		1.968"-2.362" (50-60mm)		56	DGI
.984"-1.082" (25-27.5mm)	2mm	57	DGI		2.362"-2.952" (60-75mm)		67	DGI
	3, 4, 5 & 6mm	23	DGI		2.952"-3.937" (75-100mm)		71	DGI
1.082"-1.181" (27.5-30mm)	2mm	70	DGI		3.937"-5.905" (100-150mm)		11	DGI
	3, 4, 5 & 6mm	23	DGI		5.905"-11.811" (150-300mm)		13	DGI
1.181"-1.377" (30-35mm)	2mm	05	DGI	11.811"-∞ (300mm-∞)	30		DGI	
	3, 4, 5 & 6mm	34	DGI					

**Note:**  
As long as first plunge is made within major diameter range and each following plunge overlaps, groove width can be increased toward or away from center of part.