NPA

NEW

New Product Announcement

Member IMC Group Ingersoll Cutting Tools

MILLING - SCEM

PRIMOLINE™

Cutter Series

P5M1H, P6M1H
Cylindrical shank
P5M2H-_C, P6M2H-_C
Cylindrical shank with coolant thru
P5M2H-_W, P6M2H-_W
Weldon flat shank with coolant thru

Geometry

5 and 6-flute, coolant thru (Ø .3125" and larger), variable pitch, variable helix

Diameter Range

.125–1.000"

Depth of Cut

2x, 3x, and 4xD APMX

Grade

IN2205
(multi-layer PVD AlTiSiN)

Lead Angle

90°

Corner Radii

.004", .008", .015", .030", .060", .125"

Materials

☐ Stainless steel

AHB TOOLING & MACHINERY
COMPLETE METALWORKING SOLUTIONS
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PRIMOSSH™

NEW

Premium 5 and 6-Flute, Solid Carbide 90° End Mills, Ideal for HEM of Stainless Steel

- Chip splitter cutting edge provides unique chip management, disrupts vibrations, and reduces heat
- Unique geometry with variable pitch and variable helix disrupts vibrations in long reach applications
- 2x, 3x, and up to 4xD depth-of-cut (APMX) maximum provides a deep reach capability
- Coolant thru to assist with chip control and evacuation, and reduce heat

5-Flutes

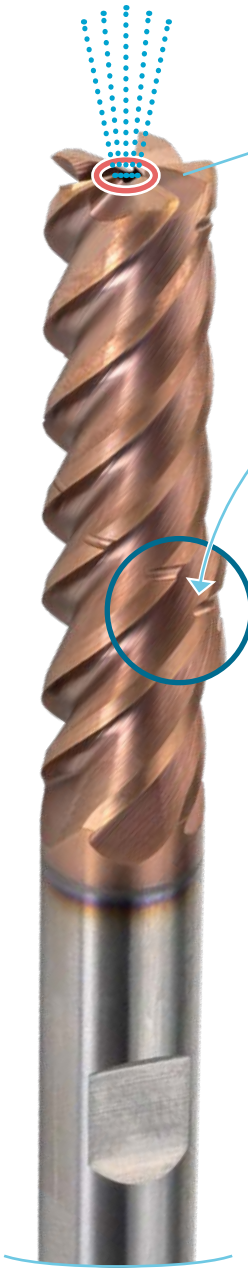
6-Flutes

See it in action! »

ingersoll-imc.com

Overview

PrimoLine, Ingersoll's line of premium solid carbide end mills, now includes **PrimoSS-H**, a new series of 5 and 6-flute end mills ideal for HEM (high efficiency machining) in stainless steel.



Coolant Thru

Coolant helps with temperature control in the cutting area and optimal chip evacuation, resulting in a cleaner work area.

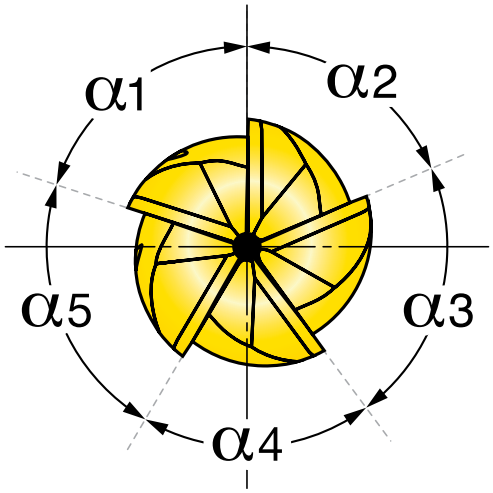
Chip Splitter Cutting Edge

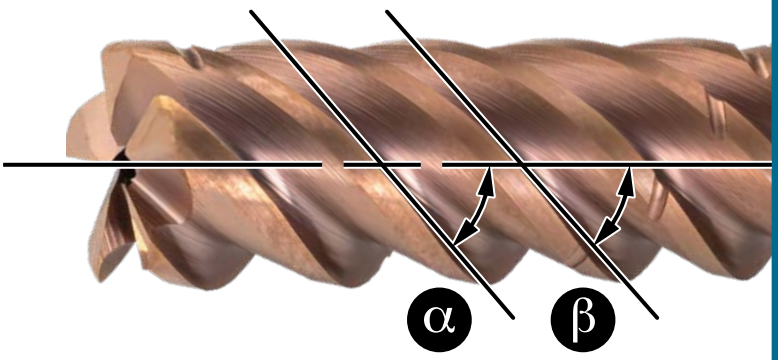
Unique flute geometry and chip splitters provide excellent chip management. Cutting chips are broken into smaller segments reducing heat buildup and disrupting harmonic vibrations while enabling HEM and aggressive material removal.

FEATURES & BENEFITS:

- Chip splitter cutting edge provides unique chip management
- Variable pitch and variable helix to assist with vibration control
- Coolant thru to assist with chip control and evacuation
- 2x, 3x, and up to 4xD depth-of-cut (APMX) maximum provides a deep reach capability
- Wide variety of corner radii: .004", .008", .015", .030", .060", .125"

Variable Pitch and Variable (Different) Helix Angles



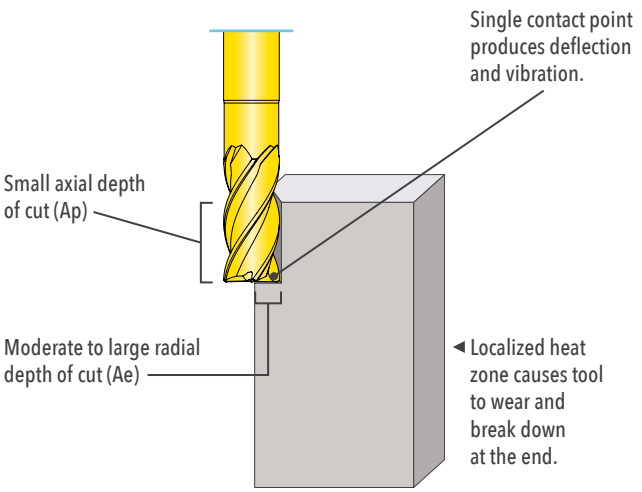


$$\alpha 1 \neq \alpha 2 \neq \alpha 3 \neq \alpha 4 \neq \alpha 5$$

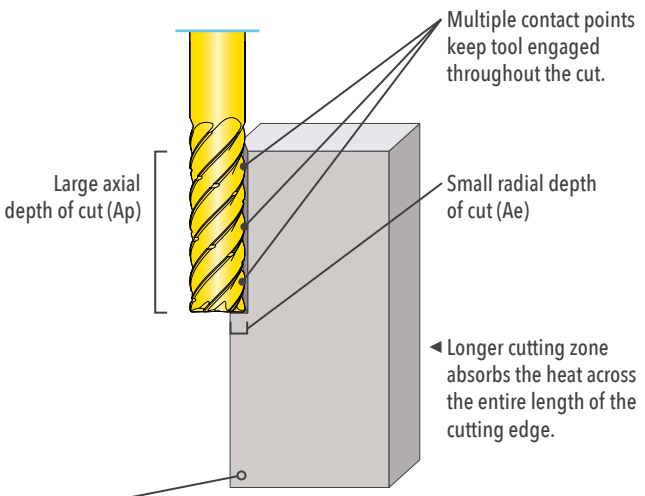
$$\alpha \neq \beta$$

Principles of High Efficiency Machining

Traditional Milling ▼

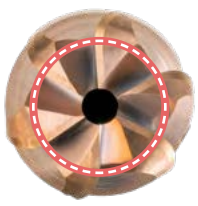


▼ HEM/Trochoidal Milling



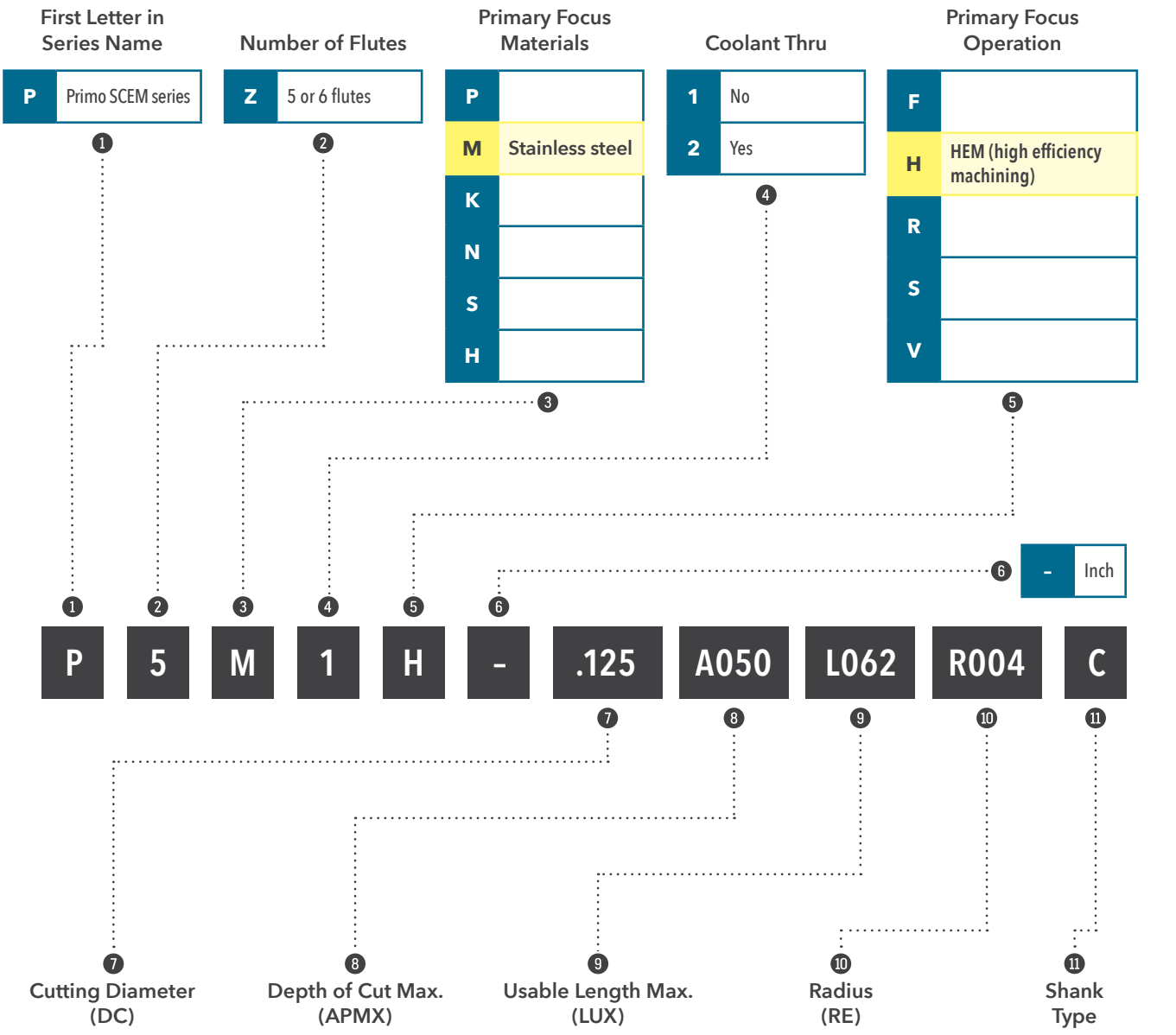
End Result

In HEM, lighter radial depths of cut permit more shallow flutes to exist on the tool. Since chip thinning is in effect, chips are smaller and readily evacuated. Therefore, the reduced flute depth (Ae) allows the core of the end mill to be larger, providing more stiffness and less bending force when fully engaged at large axial cutting depths.



- Larger core promotes rigidity.
- Shallow flutes provide more strength behind the cutting edge while still allowing adequate space for chip evacuation.
- Variable pitch flutes with an aggressive 45.5° average helix angle that provides multi-edge engagement and stability during the cut.

Solid Carbide End Mill (SCEM) Part Number Nomenclature



4 characters including decimal	"A" + 3 characters excluding decimal	"L" + 3 characters excluding decimal	"R" + 3 characters excluding decimal	C Cylindrical W Weldon
EXAMPLE	**EXAMPLE**	**EXAMPLE**	**EXAMPLE**	
Inch for 0.125" DC would be P5M1H-.125	Inch for 0.500" APMX would be A050	*Inch for 0.625" LUX would be L062	*Inch for 0.004" radius would be R004	

*Measurement is truncated.

Shoulder Pocket

Series P5M1H

5-FLUTE SCEM 90° - CYLINDRICAL

Figure 1

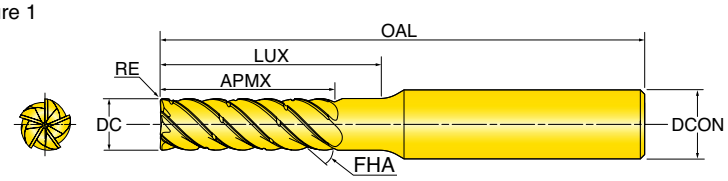
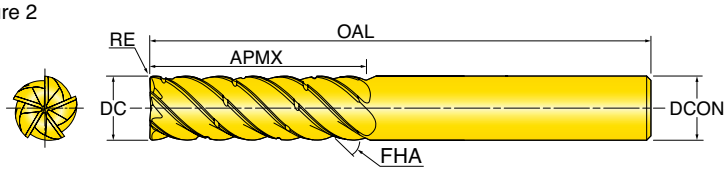


Figure 2

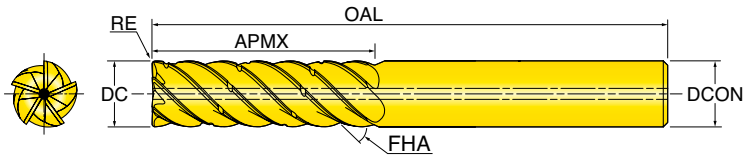


Part Number	DC Cutting Dia.	RE Corner Radius	APMX Depth of Cut Max.	LUX Usable Length Max.	ULDR Usable Length Dia. Ratio	OAL Overall Length	DCON Shank Dia.	Figure
INCH								
P5M1H-.125A025L037R004C	0.1250	0.004	0.250	0.375	2×	2.00	0.250	1
P5M1H-.125A037L050R004C	0.1250	0.004	0.375	0.500	3×	2.25	0.250	1
P5M1H-.125A050L062R004C	0.1250	0.004	0.500	0.625	4×	2.25	0.250	1
P5M1H-.125A025L037R008C	0.1250	0.008	0.250	0.375	2×	2.00	0.250	1
P5M1H-.125A037L050R008C	0.1250	0.008	0.375	0.500	3×	2.25	0.250	1
P5M1H-.125A050L062R008C	0.1250	0.008	0.500	0.625	4×	2.25	0.250	1
P5M1H-.187A037L050R004C	0.1875	0.004	0.375	0.500	2×	2.00	0.250	1
P5M1H-.187A056L068R004C	0.1875	0.004	0.562	0.688	3×	2.25	0.250	1
P5M1H-.187A075L087R004C	0.1875	0.004	0.750	0.875	4×	2.50	0.250	1
P5M1H-.187A037L050R008C	0.1875	0.008	0.375	0.500	2×	2.00	0.250	1
P5M1H-.187A056L068R008C	0.1875	0.008	0.562	0.688	3×	2.25	0.250	1
P5M1H-.187A075L087R008C	0.1875	0.008	0.750	0.875	4×	2.50	0.250	1
P5M1H-.250A050R004C	0.2500	0.004	0.500	-	2×	2.00	0.250	2
P5M1H-.250A075R004C	0.2500	0.004	0.750	-	3×	2.25	0.250	2
P5M1H-.250A100R004C	0.2500	0.004	1.000	-	4×	2.50	0.250	2
P5M1H-.250A050R008C	0.2500	0.008	0.500	-	2×	2.00	0.250	2
P5M1H-.250A075R008C	0.2500	0.008	0.750	-	3×	2.25	0.250	2
P5M1H-.250A100R008C	0.2500	0.008	1.000	-	4×	2.50	0.250	2
P5M1H-.250A050R015C	0.2500	0.015	0.500	-	2×	2.00	0.250	2
P5M1H-.250A075R015C	0.2500	0.015	0.750	-	3×	2.25	0.250	2
P5M1H-.250A100R015C	0.2500	0.015	1.000	-	4×	2.50	0.250	2
P5M1H-.250A050R030C	0.2500	0.030	0.500	-	2×	2.00	0.250	2
P5M1H-.250A075R030C	0.2500	0.030	0.750	-	3×	2.25	0.250	2
P5M1H-.250A100R030C	0.2500	0.030	1.000	-	4×	2.50	0.250	2

Shoulder Pocket Coolant

Series P5M2H

5-FLUTE SCEM 90° - CYLINDRICAL WITH COOLANT

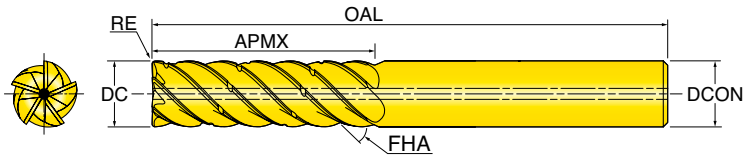


Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Diameter
INCH						
P5M2H-.312A062R008C	0.3125	0.008	0.625	2×	2.50	0.313
P5M2H-.312A093R008C	0.3125	0.008	0.938	3×	2.75	0.313
P5M2H-.312A125R008C	0.3125	0.008	1.250	4×	3.00	0.313
P5M2H-.312A062R015C	0.3125	0.015	0.625	2×	2.50	0.313
P5M2H-.312A093R015C	0.3125	0.015	0.938	3×	2.75	0.313
P5M2H-.312A125R015C	0.3125	0.015	1.250	4×	3.00	0.313
P5M2H-.312A062R030C	0.3125	0.030	0.625	2×	2.50	0.313
P5M2H-.312A093R030C	0.3125	0.030	0.938	3×	2.75	0.313
P5M2H-.312A125R030C	0.3125	0.030	1.250	4×	3.00	0.313
P5M2H-.375A075R008C	0.3750	0.008	0.750	2×	2.75	0.375
P5M2H-.375A112R008C	0.3750	0.008	1.125	3×	3.25	0.375
P5M2H-.375A150R008C	0.3750	0.008	1.500	4×	3.50	0.375
P5M2H-.375A075R015C	0.3750	0.015	0.750	2×	2.75	0.375
P5M2H-.375A112R015C	0.3750	0.015	1.125	3×	3.25	0.375
P5M2H-.375A150R015C	0.3750	0.015	1.500	4×	3.50	0.375
P5M2H-.375A075R030C	0.3750	0.030	0.750	2×	2.75	0.375
P5M2H-.375A112R030C	0.3750	0.030	1.125	3×	3.25	0.375
P5M2H-.375A150R030C	0.3750	0.030	1.500	4×	3.50	0.375
P5M2H-.500A100R008C	0.5000	0.008	1.000	2×	3.00	0.500
P5M2H-.500A150R008C	0.5000	0.008	1.500	3×	3.50	0.500
P5M2H-.500A200R008C	0.5000	0.008	2.000	4×	4.00	0.500
P5M2H-.500A100R015C	0.5000	0.015	1.000	2×	3.00	0.500
P5M2H-.500A150R015C	0.5000	0.015	1.500	3×	3.50	0.500
P5M2H-.500A200R015C	0.5000	0.015	2.000	4×	4.00	0.500
P5M2H-.500A100R030C	0.5000	0.030	1.000	2×	3.00	0.500
P5M2H-.500A150R030C	0.5000	0.030	1.500	3×	3.50	0.500
P5M2H-.500A200R030C	0.5000	0.030	2.000	4×	4.00	0.500
P5M2H-.500A100R060C	0.5000	0.060	1.000	2×	3.00	0.500
P5M2H-.500A150R060C	0.5000	0.060	1.500	3×	3.50	0.500
P5M2H-.500A200R060C	0.5000	0.060	2.000	4×	4.00	0.500

Shoulder Pocket Coolant

Series P5M2H *continued*

5-FLUTE SCEM 90° - CYLINDRICAL WITH COOLANT

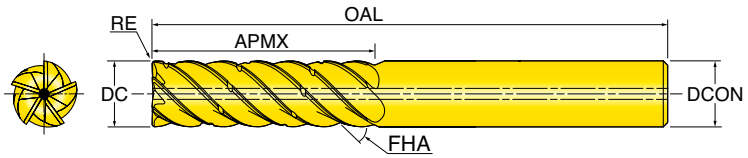


Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Diameter
INCH						
P5M2H-.625A125R015C	0.6250	0.015	1.250	2×	3.50	0.625
P5M2H-.625A187R015C	0.6250	0.015	1.875	3×	4.25	0.625
P5M2H-.625A250R015C	0.6250	0.015	2.500	4×	5.00	0.625
P5M2H-.625A125R030C	0.6250	0.030	1.250	2×	3.50	0.625
P5M2H-.625A187R030C	0.6250	0.030	1.875	3×	4.25	0.625
P5M2H-.625A250R030C	0.6250	0.030	2.500	4×	5.00	0.625
P5M2H-.625A125R060C	0.6250	0.060	1.250	2×	3.50	0.625
P5M2H-.625A187R060C	0.6250	0.060	1.875	3×	4.25	0.625
P5M2H-.625A250R060C	0.6250	0.060	2.500	4×	5.00	0.625
P5M2H-.625A125R125C	0.6250	0.125	1.250	2×	3.50	0.625
P5M2H-.625A187R125C	0.6250	0.125	1.875	3×	4.25	0.625
P5M2H-.625A250R125C	0.6250	0.125	2.500	4×	5.00	0.625
P5M2H-.750A150R015C	0.7500	0.015	1.500	2×	4.00	0.750
P5M2H-.750A225R015C	0.7500	0.015	2.250	3×	5.00	0.750
P5M2H-.750A300R015C	0.7500	0.015	3.000	4×	5.75	0.750
P5M2H-.750A150R030C	0.7500	0.030	1.500	2×	4.00	0.750
P5M2H-.750A225R030C	0.7500	0.030	2.250	3×	5.00	0.750
P5M2H-.750A300R030C	0.7500	0.030	3.000	4×	5.75	0.750
P5M2H-.750A150R060C	0.7500	0.060	1.500	2×	4.00	0.750
P5M2H-.750A225R060C	0.7500	0.060	2.250	3×	5.00	0.750
P5M2H-.750A300R060C	0.7500	0.060	3.000	4×	5.75	0.750
P5M2H-.750A150R125C	0.7500	0.125	1.500	2×	4.00	0.750
P5M2H-.750A225R125C	0.7500	0.125	2.250	3×	5.00	0.750
P5M2H-.750A300R125C	0.7500	0.125	3.000	4×	5.75	0.750

Shoulder Pocket Coolant

Series P5M2H *continued*

5-FLUTE SCEM 90° - CYLINDRICAL WITH COOLANT

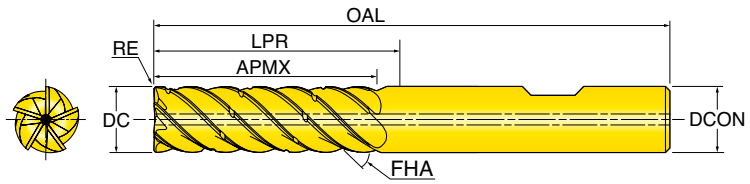


Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Diameter
INCH						
P5M2H-1.00A200R015C	1.0000	0.015	2.000	2×	4.50	1.000
P5M2H-1.00A300R015C	1.0000	0.015	3.000	3×	5.50	1.000
P5M2H-1.00A400R015C	1.0000	0.015	4.000	4×	6.50	1.000
P5M2H-1.00A200R030C	1.0000	0.030	2.000	2×	4.50	1.000
P5M2H-1.00A300R030C	1.0000	0.030	3.000	3×	5.50	1.000
P5M2H-1.00A400R030C	1.0000	0.030	4.000	4×	6.50	1.000
P5M2H-1.00A200R060C	1.0000	0.060	2.000	2×	4.50	1.000
P5M2H-1.00A300R060C	1.0000	0.060	3.000	3×	5.50	1.000
P5M2H-1.00A400R060C	1.0000	0.060	4.000	4×	6.50	1.000
P5M2H-1.00A200R125C	1.0000	0.125	2.000	2×	4.50	1.000
P5M2H-1.00A300R125C	1.0000	0.125	3.000	3×	5.50	1.000
P5M2H-1.00A400R125C	1.0000	0.125	4.000	4×	6.50	1.000

Shoulder Pocket Coolant

Series P5M2H

5-FLUTE SCEM 90° - WELDON WITH COOLANT



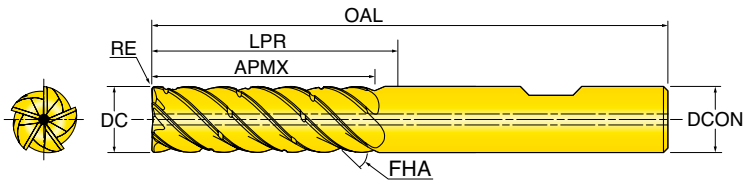
See pg 17 for Weldon flat dimensions

Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	LPR Projection Length	OAL Overall Length	DCON Shank Diameter
INCH							
P5M2H-.312A062R008W	0.3125	0.008	0.625	2×	1.120	2.50	0.313
P5M2H-.312A093R008W	0.3125	0.008	0.938	3×	1.370	2.75	0.313
P5M2H-.312A125R008W	0.3125	0.008	1.250	4×	1.620	3.00	0.313
P5M2H-.312A062R015W	0.3125	0.015	0.625	2×	1.120	2.50	0.313
P5M2H-.312A093R015W	0.3125	0.015	0.938	3×	1.370	2.75	0.313
P5M2H-.312A125R015W	0.3125	0.015	1.250	4×	1.620	3.00	0.313
P5M2H-.312A062R030W	0.3125	0.030	0.625	2×	1.120	2.50	0.313
P5M2H-.312A093R030W	0.3125	0.030	0.938	3×	1.370	2.75	0.313
P5M2H-.312A125R030W	0.3125	0.030	1.250	4×	1.620	3.00	0.313
P5M2H-.375A075R008W	0.3750	0.008	0.750	2×	1.220	2.75	0.375
P5M2H-.375A112R008W	0.3750	0.008	1.125	3×	1.720	3.25	0.375
P5M2H-.375A150R008W	0.3750	0.008	1.500	4×	1.970	3.50	0.375
P5M2H-.375A075R015W	0.3750	0.015	0.750	2×	1.220	2.75	0.375
P5M2H-.375A112R015W	0.3750	0.015	1.125	3×	1.720	3.25	0.375
P5M2H-.375A150R015W	0.3750	0.015	1.500	4×	1.970	3.50	0.375
P5M2H-.375A075R030W	0.3750	0.030	0.750	2×	1.220	2.75	0.375
P5M2H-.375A112R030W	0.3750	0.030	1.125	3×	1.720	3.25	0.375
P5M2H-.375A150R030W	0.3750	0.030	1.500	4×	1.970	3.50	0.375
P5M2H-.500A100R008W	0.5000	0.008	1.000	2×	1.230	3.00	0.500
P5M2H-.500A150R008W	0.5000	0.008	1.500	3×	1.730	3.50	0.500
P5M2H-.500A200R008W	0.5000	0.008	2.000	4×	2.230	4.00	0.500
P5M2H-.500A100R015W	0.5000	0.015	1.000	2×	1.230	3.00	0.500
P5M2H-.500A150R015W	0.5000	0.015	1.500	3×	1.730	3.50	0.500
P5M2H-.500A200R015W	0.5000	0.015	2.000	4×	2.230	4.00	0.500
P5M2H-.500A100R030W	0.5000	0.030	1.000	2×	1.230	3.00	0.500
P5M2H-.500A150R030W	0.5000	0.030	1.500	3×	1.730	3.50	0.500
P5M2H-.500A200R030W	0.5000	0.030	2.000	4×	2.230	4.00	0.500
P5M2H-.500A100R060W	0.5000	0.060	1.000	2×	1.230	3.00	0.500
P5M2H-.500A150R060W	0.5000	0.060	1.500	3×	1.730	3.50	0.500
P5M2H-.500A200R060W	0.5000	0.060	2.000	4×	2.230	4.00	0.500

Shoulder Pocket Coolant

Series P5M2H *continued*

5-FLUTE SCEM 90° - WELDON WITH COOLANT



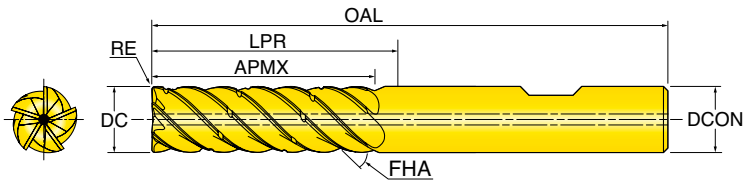
See pg 17 for Weldon flat dimensions

Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	LPR Projection Length	OAL Overall Length	DCON Shank Diameter
INCH							
P5M2H-.625A125R015W	0.6250	0.015	1.250	2×	1.610	3.50	0.625
P5M2H-.625A187R015W	0.6250	0.015	1.875	3×	2.360	4.25	0.625
P5M2H-.625A250R015W	0.6250	0.015	2.500	4×	3.110	5.00	0.625
P5M2H-.625A125R030W	0.6250	0.030	1.250	2×	1.610	3.50	0.625
P5M2H-.625A187R030W	0.6250	0.030	1.875	3×	2.360	4.25	0.625
P5M2H-.625A250R030W	0.6250	0.030	2.500	4×	3.110	5.00	0.625
P5M2H-.625A125R060W	0.6250	0.060	1.250	2×	1.610	3.50	0.625
P5M2H-.625A187R060W	0.6250	0.060	1.875	3×	2.360	4.25	0.625
P5M2H-.625A250R060W	0.6250	0.060	2.500	4×	3.110	5.00	0.625
P5M2H-.625A125R125W	0.6250	0.125	1.250	2×	1.610	3.50	0.625
P5M2H-.625A187R125W	0.6250	0.125	1.875	3×	2.360	4.25	0.625
P5M2H-.625A250R125W	0.6250	0.125	2.500	4×	3.110	5.00	0.625
P5M2H-.750A150R015W	0.7500	0.015	1.500	2×	1.990	4.00	0.750
P5M2H-.750A225R015W	0.7500	0.015	2.250	3×	2.990	5.00	0.750
P5M2H-.750A300R015W	0.7500	0.015	3.000	4×	3.740	5.75	0.750
P5M2H-.750A150R030W	0.7500	0.030	1.500	2×	1.990	4.00	0.750
P5M2H-.750A225R030W	0.7500	0.030	2.250	3×	2.990	5.00	0.750
P5M2H-.750A300R030W	0.7500	0.030	3.000	4×	3.740	5.75	0.750
P5M2H-.750A150R060W	0.7500	0.060	1.500	2×	1.990	4.00	0.750
P5M2H-.750A225R060W	0.7500	0.060	2.250	3×	2.990	5.00	0.750
P5M2H-.750A300R060W	0.7500	0.060	3.000	4×	3.740	5.75	0.750
P5M2H-.750A150R125W	0.7500	0.125	1.500	2×	1.990	4.00	0.750
P5M2H-.750A225R125W	0.7500	0.125	2.250	3×	2.990	5.00	0.750
P5M2H-.750A300R125W	0.7500	0.125	3.000	4×	3.740	5.75	0.750

Shoulder Pocket Coolant

Series P5M2H *continued*

5-FLUTE SCEM 90° - WELDON WITH COOLANT



See pg 17 for Weldon flat dimensions

Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	LPR Projection Length	OAL Overall Length	DCON Shank Diameter
INCH							
P5M2H-1.00A200R015W	1.0000	0.015	2.000	2×	2.240	4.50	1.000
P5M2H-1.00A300R015W	1.0000	0.015	3.000	3×	3.240	5.50	1.000
P5M2H-1.00A400R015W	1.0000	0.015	4.000	4×	4.240	6.50	1.000
P5M2H-1.00A200R030W	1.0000	0.030	2.000	2×	2.240	4.50	1.000
P5M2H-1.00A300R030W	1.0000	0.030	3.000	3×	3.240	5.50	1.000
P5M2H-1.00A400R030W	1.0000	0.030	4.000	4×	4.240	6.50	1.000
P5M2H-1.00A200R060W	1.0000	0.060	2.000	2×	2.240	4.50	1.000
P5M2H-1.00A300R060W	1.0000	0.060	3.000	3×	3.240	5.50	1.000
P5M2H-1.00A400R060W	1.0000	0.060	4.000	4×	4.240	6.50	1.000
P5M2H-1.00A200R125W	1.0000	0.125	2.000	2×	2.240	4.50	1.000
P5M2H-1.00A300R125W	1.0000	0.125	3.000	3×	3.240	5.50	1.000
P5M2H-1.00A400R125W	1.0000	0.125	4.000	4×	4.240	6.50	1.000

Shoulder Pocket

Series P6M1H

6-FLUTE SCEM 90° - CYLINDRICAL

Figure 1

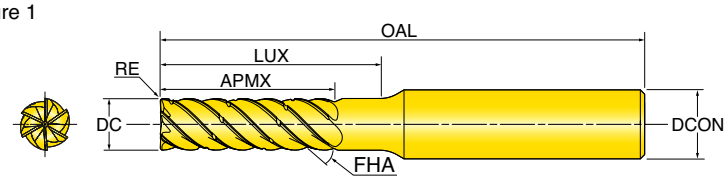
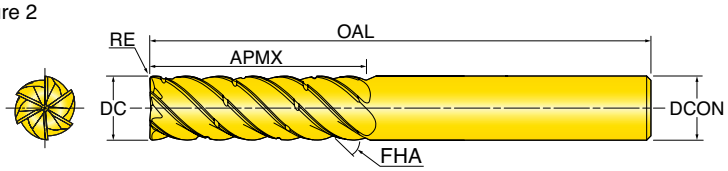


Figure 2

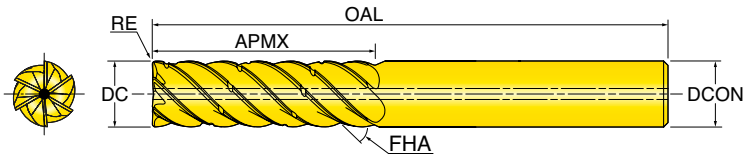


Part Number	DC Cutting Dia.	RE Corner Radius	APMX Depth of Cut Max.	LUX Usable Length Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Dia.	Figure
INCH								
P6M1H-.125A025L037R004C	0.1250	0.004	0.250	0.375	2×	2.00	0.250	1
P6M1H-.125A037L050R004C	0.1250	0.004	0.375	0.500	3×	2.25	0.250	1
P6M1H-.125A050L062R004C	0.1250	0.004	0.500	0.625	4×	2.25	0.250	1
P6M1H-.125A025L037R008C	0.1250	0.008	0.250	0.375	2×	2.00	0.250	1
P6M1H-.125A037L050R008C	0.1250	0.008	0.375	0.500	3×	2.25	0.250	1
P6M1H-.125A050L062R008C	0.1250	0.008	0.500	0.625	4×	2.25	0.250	1
P6M1H-.187A037L050R004C	0.1875	0.004	0.375	0.500	2×	2.00	0.250	1
P6M1H-.187A056L068R004C	0.1875	0.004	0.562	0.688	3×	2.25	0.250	1
P6M1H-.187A075L087R004C	0.1875	0.004	0.750	0.875	4×	2.50	0.250	1
P6M1H-.187A037L050R008C	0.1875	0.008	0.375	0.500	2×	2.00	0.250	1
P6M1H-.187A056L068R008C	0.1875	0.008	0.562	0.688	3×	2.25	0.250	1
P6M1H-.187A075L087R008C	0.1875	0.008	0.750	0.875	4×	2.25	0.250	1
P6M1H-.250A050R004C	0.2500	0.004	0.500	-	2×	2.00	0.250	2
P6M1H-.250A075R004C	0.2500	0.004	0.750	-	3×	2.25	0.250	2
P6M1H-.250A100R004C	0.2500	0.004	1.000	-	4×	2.50	0.250	2
P6M1H-.250A050R008C	0.2500	0.008	0.500	-	2×	2.00	0.250	2
P6M1H-.250A075R008C	0.2500	0.008	0.750	-	3×	2.25	0.250	2
P6M1H-.250A100R008C	0.2500	0.008	1.000	-	4×	2.50	0.250	2
P6M1H-.250A050R015C	0.2500	0.015	0.500	-	2×	2.00	0.250	2
P6M1H-.250A075R015C	0.2500	0.015	0.750	-	3×	2.25	0.250	2
P6M1H-.250A100R015C	0.2500	0.015	1.000	-	4×	2.50	0.250	2
P6M1H-.250A050R030C	0.2500	0.030	0.500	-	2×	2.00	0.250	2
P6M1H-.250A075R030C	0.2500	0.030	0.750	-	3×	2.25	0.250	2
P6M1H-.250A100R030C	0.2500	0.030	1.000	-	4×	2.50	0.250	2

Shoulder Pocket Coolant

Series P6M2H

6-FLUTE SCEM 90° - CYLINDRICAL WITH COOLANT

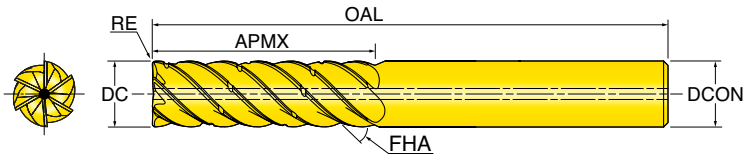


Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Diameter
INCH						
P6M2H-.312A062R008C	0.3125	0.008	0.625	2×	2.50	0.313
P6M2H-.312A093R008C	0.3125	0.008	0.938	3×	2.75	0.313
P6M2H-.312A125R008C	0.3125	0.008	1.250	4×	3.25	0.313
P6M2H-.312A062R015C	0.3125	0.015	0.625	2×	2.50	0.313
P6M2H-.312A093R015C	0.3125	0.015	0.938	3×	2.75	0.313
P6M2H-.312A125R015C	0.3125	0.015	1.250	4×	3.25	0.313
P6M2H-.312A062R030C	0.3125	0.030	0.625	2×	2.50	0.313
P6M2H-.312A093R030C	0.3125	0.030	0.938	3×	2.75	0.313
P6M2H-.312A125R030C	0.3125	0.030	1.250	4×	3.25	0.313
P6M2H-.375A075R008C	0.3750	0.008	0.750	2×	2.75	0.375
P6M2H-.375A112R008C	0.3750	0.008	1.125	3×	3.25	0.375
P6M2H-.375A150R008C	0.3750	0.008	1.500	4×	3.50	0.375
P6M2H-.375A075R015C	0.3750	0.015	0.750	2×	2.75	0.375
P6M2H-.375A112R015C	0.3750	0.015	1.125	3×	3.25	0.375
P6M2H-.375A150R015C	0.3750	0.015	1.500	4×	3.50	0.375
P6M2H-.375A075R030C	0.3750	0.030	0.750	2×	2.75	0.375
P6M2H-.375A112R030C	0.3750	0.030	1.125	3×	3.25	0.375
P6M2H-.375A150R030C	0.3750	0.030	1.500	4×	3.50	0.375
P6M2H-.500A100R008C	0.5000	0.008	1.000	2×	3.25	0.500
P6M2H-.500A150R008C	0.5000	0.008	1.500	3×	3.75	0.500
P6M2H-.500A200R008C	0.5000	0.008	2.000	4×	4.25	0.500
P6M2H-.500A100R015C	0.5000	0.015	1.000	2×	3.25	0.500
P6M2H-.500A150R015C	0.5000	0.015	1.500	3×	3.75	0.500
P6M2H-.500A200R015C	0.5000	0.015	2.000	4×	4.25	0.500
P6M2H-.500A100R030C	0.5000	0.030	1.000	2×	3.25	0.500
P6M2H-.500A150R030C	0.5000	0.030	1.500	3×	3.75	0.500
P6M2H-.500A200R030C	0.5000	0.030	2.000	4×	4.25	0.500
P6M2H-.500A100R060C	0.5000	0.060	1.000	2×	3.25	0.500
P6M2H-.500A150R060C	0.5000	0.060	1.500	3×	3.75	0.500
P6M2H-.500A200R060C	0.5000	0.060	2.000	4×	4.25	0.500

Shoulder Pocket Coolant

Series P6M2H *continued*

6-FLUTE SCEM 90° - CYLINDRICAL WITH COOLANT

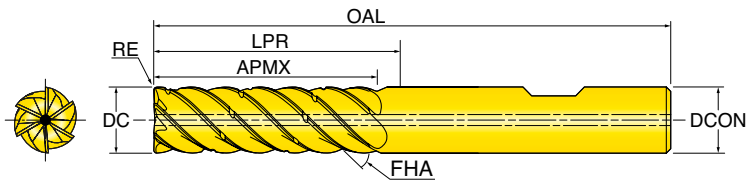


Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	OAL Overall Length	DCON Shank Diameter
INCH						
P6M2H-.625A125R015C	0.6250	0.015	1.250	2×	3.75	0.625
P6M2H-.625A187R015C	0.6250	0.015	1.875	3×	4.25	0.625
P6M2H-.625A250R015C	0.6250	0.015	2.500	4×	5.00	0.625
P6M2H-.625A125R030C	0.6250	0.030	1.250	2×	3.75	0.625
P6M2H-.625A187R030C	0.6250	0.030	1.875	3×	4.25	0.625
P6M2H-.625A250R030C	0.6250	0.030	2.500	4×	5.00	0.625
P6M2H-.625A125R060C	0.6250	0.060	1.250	2×	3.75	0.625
P6M2H-.625A187R060C	0.6250	0.060	1.875	3×	4.25	0.625
P6M2H-.625A250R060C	0.6250	0.060	2.500	4×	5.00	0.625
P6M2H-.625A125R125C	0.6250	0.125	1.250	2×	3.75	0.625
P6M2H-.625A187R125C	0.6250	0.125	1.875	3×	4.25	0.625
P6M2H-.625A250R125C	0.6250	0.125	2.500	4×	5.00	0.625
P6M2H-.750A150R015C	0.7500	0.015	1.500	2×	4.25	0.750
P6M2H-.750A225R015C	0.7500	0.015	2.250	3×	5.00	0.750
P6M2H-.750A300R015C	0.7500	0.015	3.000	4×	5.75	0.750
P6M2H-.750A150R030C	0.7500	0.030	1.500	2×	4.25	0.750
P6M2H-.750A225R030C	0.7500	0.030	2.250	3×	5.00	0.750
P6M2H-.750A300R030C	0.7500	0.030	3.000	4×	5.75	0.750
P6M2H-.750A150R060C	0.7500	0.060	1.500	2×	4.25	0.750
P6M2H-.750A225R060C	0.7500	0.060	2.250	3×	5.00	0.750
P6M2H-.750A300R060C	0.7500	0.060	3.000	4×	5.75	0.750
P6M2H-.750A150R125C	0.7500	0.125	1.500	2×	4.25	0.750
P6M2H-.750A225R125C	0.7500	0.125	2.250	3×	5.00	0.750
P6M2H-.750A300R125C	0.7500	0.125	3.000	4×	5.75	0.750

Shoulder Pocket Coolant

Series P6M2H

6-FLUTE SCEM 90° - WELDON WITH COOLANT



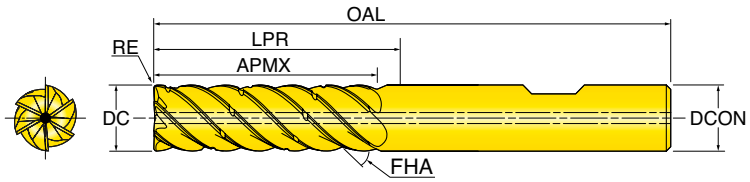
See pg 17 for Weldon flat dimensions

Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	LPR Projection Length	OAL Overall Length	DCON Shank Diameter
INCH							
P6M2H-.312A062R008W	0.3125	0.008	0.625	2×	1.120	2.50	0.313
P6M2H-.312A093R008W	0.3125	0.008	0.938	3×	1.370	2.75	0.313
P6M2H-.312A125R008W	0.3125	0.008	1.250	4×	1.870	3.25	0.313
P6M2H-.312A062R015W	0.3125	0.015	0.625	2×	1.120	2.50	0.313
P6M2H-.312A093R015W	0.3125	0.015	0.938	3×	1.370	2.75	0.313
P6M2H-.312A125R015W	0.3125	0.015	1.250	4×	1.870	3.25	0.313
P6M2H-.312A062R030W	0.3125	0.030	0.625	2×	1.120	2.50	0.313
P6M2H-.312A093R030W	0.3125	0.030	0.938	3×	1.370	2.75	0.313
P6M2H-.312A125R030W	0.3125	0.030	1.250	4×	1.870	3.25	0.313
P6M2H-.375A075R008W	0.3750	0.008	0.750	2×	1.220	2.75	0.375
P6M2H-.375A112R008W	0.3750	0.008	1.125	3×	1.720	3.25	0.375
P6M2H-.375A150R008W	0.3750	0.008	1.500	4×	1.970	3.50	0.375
P6M2H-.375A075R015W	0.3750	0.015	0.750	2×	1.220	2.75	0.375
P6M2H-.375A112R015W	0.3750	0.015	1.125	3×	1.720	3.25	0.375
P6M2H-.375A150R015W	0.3750	0.015	1.500	4×	1.970	3.50	0.375
P6M2H-.375A075R030W	0.3750	0.030	0.750	2×	1.220	2.75	0.375
P6M2H-.375A112R030W	0.3750	0.030	1.125	3×	1.720	3.25	0.375
P6M2H-.375A150R030W	0.3750	0.030	1.500	4×	1.970	3.50	0.375
P6M2H-.500A100R008W	0.5000	0.008	1.000	2×	1.480	3.25	0.500
P6M2H-.500A150R008W	0.5000	0.008	1.500	3×	1.980	3.75	0.500
P6M2H-.500A200R008W	0.5000	0.008	2.000	4×	2.480	4.25	0.500
P6M2H-.500A100R015W	0.5000	0.015	1.000	2×	1.480	3.25	0.500
P6M2H-.500A150R015W	0.5000	0.015	1.500	3×	1.980	3.75	0.500
P6M2H-.500A200R015W	0.5000	0.015	2.000	4×	2.480	4.25	0.500
P6M2H-.500A100R030W	0.5000	0.030	1.000	2×	1.480	3.25	0.500
P6M2H-.500A150R030W	0.5000	0.030	1.500	3×	1.980	3.75	0.500
P6M2H-.500A200R030W	0.5000	0.030	2.000	4×	2.480	4.25	0.500
P6M2H-.500A100R060W	0.5000	0.060	1.000	2×	1.480	3.25	0.500
P6M2H-.500A150R060W	0.5000	0.060	1.500	3×	1.980	3.75	0.500
P6M2H-.500A200R060W	0.5000	0.060	2.000	4×	2.480	4.25	0.500

Shoulder Pocket Coolant

Series P6M2H *continued*

6-FLUTE SCEM 90° - WELDON WITH COOLANT



See pg 17 for Weldon flat dimensions

Part Number	DC Cutting Diameter	RE Corner Radius	APMX Depth of Cut Max.	ULDR Usable Length Diameter Ratio	LPR Projection Length	OAL Overall Length	DCON Shank Diameter
INCH							
P6M2H-.625A125R015W	0.6250	0.015	1.250	2×	1.860	3.75	0.625
P6M2H-.625A187R015W	0.6250	0.015	1.875	3×	2.360	4.25	0.625
P6M2H-.625A250R015W	0.6250	0.015	2.500	4×	3.110	5.00	0.625
P6M2H-.625A125R030W	0.6250	0.030	1.250	2×	1.860	3.75	0.625
P6M2H-.625A187R030W	0.6250	0.030	1.875	3×	2.360	4.25	0.625
P6M2H-.625A250R030W	0.6250	0.030	2.500	4×	3.110	5.00	0.625
P6M2H-.625A125R060W	0.6250	0.060	1.250	2×	1.860	3.75	0.625
P6M2H-.625A187R060W	0.6250	0.060	1.875	3×	2.360	4.25	0.625
P6M2H-.625A250R060W	0.6250	0.060	2.500	4×	3.110	5.00	0.625
P6M2H-.625A125R125W	0.6250	0.125	1.250	2×	1.860	3.75	0.625
P6M2H-.625A187R125W	0.6250	0.125	1.875	3×	2.360	4.25	0.625
P6M2H-.625A250R125W	0.6250	0.125	2.500	4×	3.110	5.00	0.625
P6M2H-.750A150R015W	0.7500	0.015	1.500	2×	2.240	4.25	0.750
P6M2H-.750A225R015W	0.7500	0.015	2.250	3×	2.990	5.00	0.750
P6M2H-.750A300R015W	0.7500	0.015	3.000	4×	3.740	5.75	0.750
P6M2H-.750A150R030W	0.7500	0.030	1.500	2×	2.240	4.25	0.750
P6M2H-.750A225R030W	0.7500	0.030	2.250	3×	2.990	5.00	0.750
P6M2H-.750A300R030W	0.7500	0.030	3.000	4×	3.740	5.75	0.750
P6M2H-.750A150R060W	0.7500	0.060	1.500	2×	2.240	4.25	0.750
P6M2H-.750A225R060W	0.7500	0.060	2.250	3×	2.990	5.00	0.750
P6M2H-.750A300R060W	0.7500	0.060	3.000	4×	3.740	5.75	0.750
P6M2H-.750A150R125W	0.7500	0.125	1.500	2×	2.240	4.25	0.750
P6M2H-.750A225R125W	0.7500	0.125	2.250	3×	2.990	5.00	0.750
P6M2H-.750A300R125W	0.7500	0.125	3.000	4×	3.740	5.75	0.750

Weldon Flat Dimensions

Fig. 1
Standard

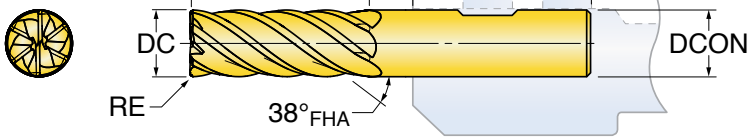
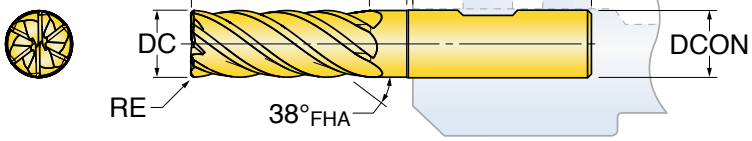
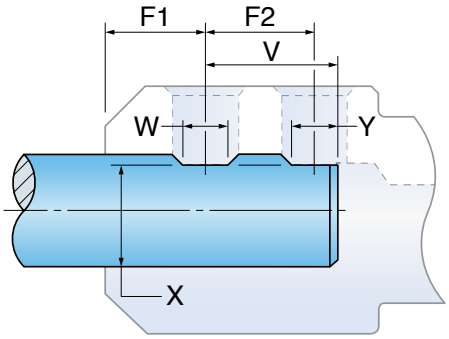


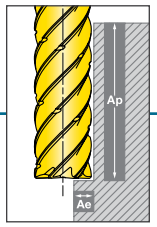
Fig. 2
Necked





DCON Diameter	Modified Weldon Flat Dimensions (inch)				F1 Nose to Center of 1st Flat	F2 1st Flat to 2nd Flat
	V	W	X	Y		
.125	-	-	-	-	.38	-
.187	-	-	-	-	.50	-
.250	.781	.187	.207	-	.38	-
.312	.781	.250	.267	-	.60	-
.375	.781	.280	.325	-	.75	-
.437	-	-	-	-	.75	-
.500	.891	.330	.440	-	.88	-
.625	.953	.400	.560	-	.94	-
.750	1.015	.455	.675	-	1.00	-
.875	1.015	.455	.810	.500	1.00	.866
1.000	1.141	.515	.925	.500	1.12	1.000
1.250	1.141	.515	1.156	.500	1.12	1.000

Operating Guidelines • HEM/Trochoidal Milling



Materials				Vc Cutting Speed SFM	*fz = IPT for Ae = .05xD~.15xD • Ap = 2xD								
					DC Cutting Diameter (inch)								
ISO	Material Group #VDI 3323	Type	Trade Name Examples		.125	.188	.250	.313	.375	.500	.625	.750	1.00
M	12-14	Stainless steel (austenitic & ferritic)	416, 303, 430F	590-787	.0009-.0017	.0011-.0021	.0014-.0027	.0017-.0035	.0023-.0047	.0027-.0059	.0039-.0071	.0047-.0098	.0057-.0115
		Stainless steel (austenitic & martensitic)	420, 304, 316, 440C	415-649									
		Stainless steel (PH)	15-5 PH, 17-4 PH	375-531	.0007-.0015	.0009-.0019	.0012-.0025	.0015-.0033	.0023-.0044	.0027-.0055	.0039-.0065	.0047-.0091	.0057-.0104
		Stainless steel (duplex)	Duplex 2205, 329	197-374									

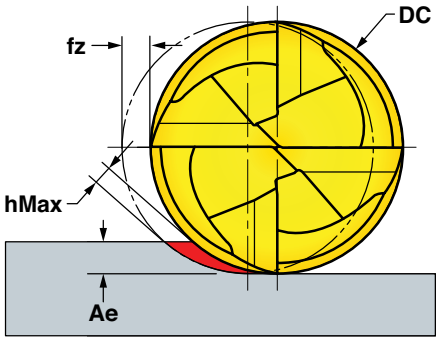
- As Ap increases to maximum 4xD, use fz from lower end of chart.
- When Ae< .10xD, use speed from the higher end of chart.

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may necessitate adjustments in speed or feed. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

***fz = chip thinning calculations are included in the chip load above, especially when Ae ≤ .15xD.**

- High pressure coolant is highly recommended, as it will provide optimal chip evacuation and performance.
- A power milling chuck, or coolant thru (CX series) holder (for tools with Weldon flats) is highly recommended, starting at .500" DC or larger. Using a weak holder impacts performance.

Chip Thinning



- Due to the lower radial engagement, *chip thinning* is accentuated, and a much higher feed-per-tooth (fz) can be applied in order to arrive at the true chip thickness (hMax).
- When Ae ≤ .25xD, recommend use of **Chip Thinning Calculator** ▶ to ensure hMax is within fz range.
- If needed, Chip Thinning Calculator can be found on our website Machining App.

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