

IMCO

Single-End End Mills
Carbide - Center Cutting

High-strength wear-resistant micrograin carbide end mills for milling exotic metals. Spiral flutes aid chip disposal and reduce cutting pressures. Tolerances: cutter dia. 1/32"-1/4" +.000/-0.002"; 1/64"-1" +.003/-0.003; shank dia. +.0000/-0.0005.



Series 1800 - 2 RHS Flutes - Square End

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/32	1/8	3/32	1 1/2
.....	3/64	1/8	1/8	1 1/2
.....	1/16	1/8	3/16	1 1/2
.....	5/64	1/8	3/16	1 1/2
.....	3/32	1/8	3/8	1 1/2
.....	7/64	1/8	3/8	1 1/2
12RECS/1800	1/8	1/8	1/2	1 1/2
.....	9/64	3/16	9/16	2
.....	5/32	3/16	9/16	2
.....	11/64	3/16	5/8	2
18RECS/1800	3/16	3/16	5/8	2
.....	13/64	1/4	5/8	2 1/2
.....	7/32	1/4	5/8	2 1/2
.....	15/64	1/4	3/4	2 1/2
25RECS/1800	1/4	1/4	3/4	2 1/2
.....	17/64	5/16	3/4	2 1/2
.....	9/32	5/16	3/4	2 1/2
.....	19/64	5/16	3/4	2 1/2
31RECS/1800	5/16	5/16	3/4	2 1/2
.....	11/32	3/8	7/8	2 1/2
37RECS/1800	3/8	3/8	7/8	2 1/2
.....	13/32	7/16	7/8	2 1/2
43RECS/1800	7/16	7/16	7/8	2 1/2
.....	15/32	1/2	1	3
50RECS/1800	31/64	1/2	1	3
.....	1/2	1/2	1	3
62RECS/1800	9/16	9/16	1 1/4	3 1/2
.....	5/8	5/8	1 1/4	3 1/2
.....	11/16	3/4	1 1/2	4
75RECS/1800	3/4	3/4	1 1/2	4
87RECS/1800	7/8	7/8	1 1/2	4
100RECS/1800	1	1	1 1/2	4



Series 1800B - 2 RHS Flutes - Ball End

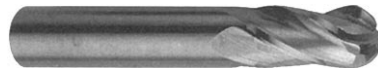
No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/32	1/8	3/32	1 1/2
.....	3/64	1/8	1/8	1 1/2
.....	1/16	1/8	3/16	1 1/2
.....	5/64	1/8	3/16	1 1/2
.....	3/32	1/8	3/8	1 1/2
.....	7/64	1/8	3/8	1 1/2
.....	1/8	1/8	1/2	1 1/2
.....	9/64	3/16	9/16	2
.....	5/32	3/16	9/16	2
.....	3/16	3/16	5/8	2
.....	7/32	1/4	5/8	2
25RECS/1800B	1/4	1/4	3/4	2 1/2
.....	9/32	5/16	3/4	2 1/2
.....	5/16	5/16	3/4	2 1/2
.....	11/32	3/8	7/8	2 1/2
.....	3/8	3/8	7/8	2 1/2
.....	25/64	7/16	7/8	2 1/2
.....	13/32	7/16	7/8	2 1/2
.....	7/16	7/16	7/8	2 1/2
.....	15/32	1/2	1	3

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/2	1/2	1	3
.....	9/16	9/16	1 1/4	3 1/2
.....	5/8	5/8	1 1/4	3 1/2
.....	11/16	3/4	1 1/2	4
.....	3/4	3/4	1 1/2	4
.....	7/8	7/8	1 1/2	4
.....	1	1	1 1/2	4



Series 1850 - 4 RHS Flutes - Square End

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
3RECS/1850	1/32	1/8	3/32	1 1/2
4RECS/1850	3/64	1/8	1/8	1 1/2
6RECS/1850	1/16	1/8	3/16	1 1/2
7RECS/1850	5/64	1/8	3/16	1 1/2
9RECS/1850	3/32	1/8	3/8	1 1/2
10RECS/1850	7/64	1/8	3/8	1 1/2
12RECS/1850	1/8	1/8	1/2	1 1/2
14RECS/1850	9/64	3/16	9/16	2
15RECS/1850	5/32	3/16	9/16	2
17RECS/1850	11/64	3/16	5/8	2
18RECS/1850	3/16	3/16	5/8	2
20RECS/1850	13/64	1/4	5/8	2 1/2
21RECS/1850	7/32	1/4	5/8	2 1/2
.....	15/64	1/4	3/4	2 1/2
25RECS/1850	1/4	1/4	3/4	2 1/2
.....	17/64	5/16	3/4	2 1/2
28RECS/1850	9/32	5/16	3/4	2 1/2
.....	19/64	5/16	3/4	2 1/2
31RECS/1850	5/16	5/16	3/4	2 1/2
.....	21/64	3/8	7/8	2 1/2
.....	11/32	3/8	7/8	2 1/2
37RECS/1850	23/64	3/8	7/8	2 1/2
.....	3/8	3/8	7/8	2 1/2
.....	25/64	7/16	7/8	2 1/2
.....	13/32	7/16	7/8	2 1/2
.....	27/64	7/16	7/8	2 1/2
43RECS/1850	7/16	7/16	7/8	2 1/2
.....	29/64	1/2	1	3
.....	15/32	1/2	1	3
.....	31/64	1/2	1	3
50RECS/1850	1/2	1/2	1	3
.....	9/16	9/16	1 1/4	3 1/2
62RECS/1850	5/8	5/8	1 1/4	3 1/2
.....	11/16	3/4	1 1/2	4
75RECS/1850	3/4	3/4	1 1/2	4
.....	13/16	7/8	1 1/2	4
87RECS/1850	7/8	7/8	1 1/2	4
.....	15/16	1	1 1/2	4
100RECS/1850	1	1	1 1/2	4



Series 1850B - 4 RHS Flutes - Ball End

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/32	1/8	3/32	1 1/2
.....	3/64	1/8	1/8	1 1/2
6RECS/1850B	1/16	1/8	3/16	1 1/2
.....	5/64	1/8	3/16	1 1/2
9RECS/1850B	3/32	1/8	3/8	1 1/2
.....	7/64	1/8	3/8	1 1/2
12RECS/1850B	1/8	1/8	1/2	1 1/2
.....	9/64	3/16	9/16	2
15RECS/1850B	5/32	3/16	9/16	2
18RECS/1850B	3/16	3/16	5/8	2
21RECS/1850B	7/32	1/4	5/8	2 1/2
25RECS/1850B	1/4	1/4	3/4	2 1/2
28RECS/1850B	9/32	5/16	3/4	2 1/2
31RECS/1850B	5/16	5/16	3/4	2 1/2

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
34RECS/1850B	11/32	3/8	7/8	2 1/2
37RECS/1850B	3/8	3/8	7/8	2 1/2
.....	13/32	7/16	7/8	2 1/2
43RECS/1850B	7/16	7/16	7/8	2 1/2
.....	15/32	1/2	1	3
50RECS/1850B	1/2	1/2	1	3
.....	9/16	9/16	1 1/4	3 1/2
62RECS/1850B	5/8	5/8	1 1/4	3 1/2
.....	11/16	3/4	1 1/2	4
75RECS/1850B	3/4	3/4	1 1/2	4
.....	7/8	7/8	1 1/2	4
.....	1	1	1 1/2	4

IMCO

Double-End End Mills
Carbide - RH Cutting - Stub



General purpose end mill with set screw flat for Weldon type holders. For use in most materials. Tolerances: cutter dia. 1/32"-1/4" +.000/-0.002 1/64"-1" +.000/-0.003; shank dia. +.0000/-0.0005.

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	OA Lgth. In.
.....	1/8	3/8	3/8	3
.....	5/32	3/8	1/2	3
.....	3/16	3/8	1/2	3
.....	7/32	3/8	5/8	3 1/2
.....	1/4	3/8	5/8	3 1/2
.....	9/32	3/8	3/4	3 1/2
.....	5/16	3/8	3/4	3 1/2
.....	11/32	3/8	3/4	3 1/2
.....	3/8	3/8	3/4	3 1/2
.....	7/16	1/2	7/8	4
.....	1/2	1/2	1	4
.....	9/16	9/16	1 1/4	5
.....	5/8	5/8	1 1/4	5
.....	3/4	3/4	1 1/2	5
.....	1	1	1 1/2	5

Series 3000B - 2 RHS Flutes - Ball End

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/8	3/8	3/8	3
.....	5/32	3/8	1/2	3
.....	3/16	3/8	1/2	3
.....	7/32	3/8	5/8	3 1/2
.....	1/4	3/8	5/8	3 1/2
.....	9/32	3/8	3/4	3 1/2
.....	5/16	3/8	3/4	3 1/2
.....	11/32	3/8	3/4	3 1/2
.....	3/8	3/8	3/4	3 1/2
.....	7/16	1/2	7/8	4
.....	1/2	1/2	1	4
.....	3/4	3/4	1 1/2	5

Series 2000 - 4 RHS Flutes - Square End

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	Lgth. In.
.....	1/8	3/8	3/8	3
.....	5/32	3/8	1/2	3
.....	3/16	3/8	1/2	3
.....	7/32	3/8	5/8	3 1/2
.....	1/4	3/8	5/8	3 1/2
.....	9/32	3/8	3/4	3 1/2
.....	5/16	3/8	3/4	3 1/2
.....	11/32	3/8	3/4	3 1/2
.....	3/8	3/8	3/4	3 1/2
.....	7/16	1/2	7/8	4
.....	1/2	1/2	1	4
.....	9/16	9/16	1 1/4	5
.....	5/8	5/8	1 1/4	5
.....	3/4	3/4	1 1/2	5
.....	1	1	1 1/2	5

Continued on next page

Continued from previous page

No.	Tool Dia. In.	Shank Dia. In.	Flute Lgth. In.	OA Lgth. In.
Series 2000B - 4 RHS Flutes - Ball End				
.....	1/8	3/8	3/8	3
.....	5/32	3/8	1/2	3
.....	3/16	3/8	1/2	3
.....	7/32	3/8	5/8	3 1/2
.....	1/4	3/8	5/8	3 1/2
.....	9/32	3/8	3/4	3 1/2
.....	5/16	3/8	3/4	3 1/2
.....	11/32	3/8	3/4	3 1/2
.....	3/8	3/8	3/4	3 1/2
.....	7/16	1/2	7/8	4
.....	1/2	1/2	1	4

**IMCO
End Mills**

Series 6100 - Carbide Tipped

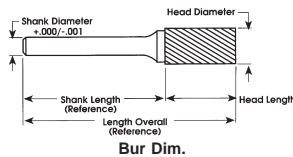


For cast iron and nonferrous metals. Use when power permits increased metal removal rates.

No.	Flutes	Cutter Size In.	Shank Size In.	Tip Lgth. In.	OA Lgth. In.
50RECT/6100	4	1/2	1/2	1	3 1/4
.....	4	9/16	1/2	1	3 3/8
62RECT/6100	4	5/8	1/2	1	3 3/8

**IMCO
Carbide Burs**

Basic Fluting Styles - Information



Right hand cut. Meet ANSI specifications.



Double Cut. Right and left hand flutes create chisel-type cutting edge. Allow faster penetration and stock removal. Reduce operator fatigue. Tool can run at slower speeds if necessary.



Standard Cut. General purpose. Right hand spiral flutes. Use on cast iron, steel, copper alloys, brass alloys, other ferrous materials. Provide good stock removal and surface finish.



Diamond Cut. For heat treated and tough alloy steel. Right and left hand flutes form diamond pattern. Create small, granular chips. Provide better operator control. Reduced tool life and surface finish.



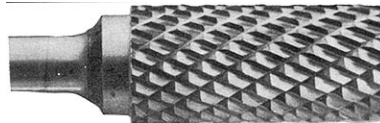
Aluminum Cut. For rapid stock removal. Use on soft and nonferrous metals including aluminum, magnesium, brass, zinc alloys, lead, hard rubber, most plastics. Wide flutes for easy chip removal. Flute relief design for more strength and longer life.

Complete Information Available on Request.

**IMCO
Carbide Burs**

Cylindrical Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Provide fast stock removal, less operator fatigue, good surface finish. Create granular chip. Use on cast iron, steel, other ferrous metals.



Series SA

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SA41	SA-41	1/8	1/16	1/4	1 1/2
/615SA42	SA-42	1/8	3/32	7/16	1 1/2
/615SA43	SA-43	1/8	1/8	9/16	1 1/2
.....	SA-43L2	1/8	1/8	9/16	2
.....	SA-43L3	1/8	1/8	9/16	3
/615SA53	SA-53	1/8	3/16	1/2	1 1/2
.....	SA-50	1/8	1/4	3/16	1 11/16
/615SA51	SA-51	1/8	1/4	1/2	2
.....	SA-81	3/16	3/16	5/8	2
/615SA11	SA-11	1/4	1/8	1/2	2
/615SA14	SA-14	1/4	3/16	5/8	2
/615SA1	SA-1	1/4	1/4	5/8	2
.....	SA-1L6	1/4	1/4	1/2	6 1/2
/615SA1A	SA-1A	1/4	1/4	1	2
/615SA2	SA-2	1/4	5/16	3/4	2 1/2
/615SA3	SA-3	1/4	3/8	3/4	2 1/2
.....	SA-3L6	1/4	3/8	3/4	6 3/4
.....	SA-3A	1/4	3/8	1	2 3/4
/615SA4	SA-4	1/4	7/16	1	2 3/4
/615SA5	SA-5	1/4	1/2	1	2 3/4
.....	SA-5L6	1/4	1/2	1	7
/615SA6	SA-6	1/4	5/8	1	2 3/4
/615SA7	SA-7	1/4	3/4	1	2 3/4
/615SA9	SA-9	1/4	1	1	2 3/4

Series SB. End cutting.

Series SB

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SB43	SB-43	1/8	1/8	9/16	1 1/2
.....	SB-50	1/8	1/4	3/16	1 11/16
/615SB51	SB-51	1/8	1/4	1/2	2
/615SB81	SB-81	3/16	3/16	5/8	2
/615SB11	SB-11	1/4	1/8	1/2	2
.....	SB-14	1/4	3/16	5/8	2
/615SB1	SB-1	1/4	1/4	5/8	2
/615SB1A	SB-1A	1/4	1/4	1	2
/615SB2	SB-2	1/4	5/16	3/4	2 1/2
/615SB3	SB-3	1/4	3/8	3/4	2 1/2

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SB-3A	1/4	3/8	1	2 3/4
/615SB5	SB-5	1/4	1/2	1	2 3/4
/615SB6	SB-6	1/4	5/8	1	2 3/4
/615SB7	SB-7	1/4	3/4	1	2 3/4

IMCO

Carbide Burs

Tree Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Radius with sectional fluting. Provide fast stock removal, less operator fatigue, good surface finish. Create granular chip. Use on cast iron, steel, other ferrous metals.



Series SF. Radius end.

Series SF

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SF41	SF-41	1/8	1/8	1/4	1 1/2
/615SF42	SF-42	1/8	1/8	1/2	1 1/2
.....	SF-42L2	1/8	1/8	1/2	2
.....	SF-42L3	1/8	1/8	1/2	3
/615SF53	SF-53	1/8	3/16	1/2	1 1/2
/615SF51	SF-51	1/8	1/4	1/2	2
.....	SF-81	3/16	3/16	1/2	2
/615SF1	SF-1	1/4	1/4	5/8	2
.....	SF-1L6	1/4	1/4	1/2	6 1/2
/615SF3	SF-3	1/4	3/8	3/4	2 1/2
.....	SF-3L6	1/4	3/8	3/4	6 3/4
/615SF4	SF-4	1/4	7/16	1	2 3/4
/615SF13	SF-13	1/4	1/2	3/4	2 1/2
/615SF5	SF-5	1/4	1/2	1	2 3/4
.....	SF-5L6	1/4	1/2	1	7
/615SF6	SF-6	1/4	5/8	1	2 3/4
/615SF7	SF-7	1/4	3/4	1	2 3/4
/615SF14	SF-14	1/4	3/4	1 1/4	3
/615SF15	SF-15	1/4	3/4	1 1/2	3 1/4



Series SG. Pointed end.

Series SG

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SG41	SG-41	1/8	1/8	1/4	1 1/2
.....	SG-42	1/8	1/8	5/16	1 1/2
/615SG43	SG-43	1/8	1/8	3/8	1 1/2
/615SG44	SG-44	1/8	1/8	1/2	1 1/2
.....	SG-44L2	1/8	1/8	1/2	2
.....	SG-44L3	1/8	1/8	1/2	3
/615SG53	SG-53	1/8	3/16	1/2	1 1/2
/615SG51	SG-51	1/8	1/4	1/2	2
.....	SG-81	3/16	3/16	1/2	2
/615SG1	SG-1	1/4	1/4	5/8	2
.....	SG-1L6	1/4	1/4	1/2	6 1/2
/615SG2	SG-2	1/4	3/16	3/4	2 1/2
/615SG3	SG-3	1/4	3/8	3/4	2 1/2
.....	SG-3L6	1/4	3/8	3/4	6 3/4
/615SG13	SG-13	1/4	1/2	3/4	2 1/2
/615SG5	SG-5	1/4	1/2	1	2 3/4
.....	SG-5L6	1/4	1/2	1	7
/615SG6	SG-6	1/4	5/8	1	2 3/4
/615SG7	SG-7	1/4	3/4	1	2 3/4

IMCO

Carbide Burs

Ball End Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Radius with sectional fluting. Provide fast stock removal, less operator fatigue, good surface finish. Create granular chip. Use on cast iron, steel, other ferrous metals.



Series SC

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SC41	SC-41	1/8	3/32	7/16	1 1/2
/615SC42	SC-42	1/8	1/8	9/16	1 1/2
.....	SC-42L2	1/8	1/8	9/16	2
.....	SC-42L3	1/8	1/8	9/16	3
/615SC53	SC-53	1/8	3/16	1/2	1 1/2
/615SC51	SC-51	1/8	1/4	1/2	2
.....	SC-81	3/16	3/16	1/2	2
/615SC11	SC-11	1/4	1/8	1/2	2
/615SC14	SC-14	1/4	3/16	5/8	2
/615SC1	SC-1	1/4	1/4	5/8	2
.....	SC-1L6	1/4	1/4	1/2	6 1/2
.....	SC-1A	1/4	1/4	1	2
/615SC2	SC-2	1/4	5/16	3/4	2 1/2
/615SC3	SC-3	1/4	3/8	3/4	2 1/2
.....	SC-3L6	1/4	3/8	3/4	6 3/4
.....	SC-3A	1/4	3/8	1	2 3/4
/615SC4	SC-4	1/4	7/16	1	2 3/4
/615SC5	SC-5	1/4	1/2	1	2 3/4
.....	SC-5L6	1/4	1/2	1	7
/615SC6	SC-6	1/4	5/8	1	2 3/4
/615SC7	SC-7	1/4	3/4	1	2 3/4
/615SC9	SC-9	1/4	1	1	2 3/4



Series SD

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SD41	SD-41	1/8	3/32	3/32	1 1/2
/615SD42	SD-42	1/8	1/8	1/8	1 1/2
.....	SD-42L2	1/8	1/8	1/8	2
.....	SD-42L3	1/8	1/8	1/8	3
/615SD53	SD-53	1/8	3/16	3/16	1 1/2
/615SD51	SD-51	1/8	1/4	1/4	1 23/32
.....	SD-81	3/16	3/16	3/16	2
/615SD11	SD-11	1/4	1/8	3/32	2
/615SD14	SD-14	1/4	3/16	1/8	2
/615SD1	SD-1	1/4	1/4	3/16	2
.....	SD-1L6	1/4	1/4	3/16	6 3/16
/615SD2	SD-2	1/4	5/16	1/4	2 1/32
/615SD3	SD-3	1/4	3/8	5/16	2 5/64
.....	SD-3L6	1/4	3/8	5/16	6 5/16
/615SD4	SD-4	1/4	7/16	3/8	2 5/64
/615SD5	SD-5	1/4	1/2	7/16	2 13/64
.....	SD-5L6	1/4	1/2	7/16	6 7/16
/615SD6	SD-6	1/4	5/8	9/16	2 5/16
/615SD7	SD-7	1/4	3/4	1 1/16	2 7/16
/615SD9	SD-9	1/4	1	1 5/16	2 11/16

IMCO

Carbide Burs

Elliptical Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Radius with sectional fluting. Provide fast stock removal, less operator fatigue, good surface finish. Create granular chip. Use on cast iron, steel, other ferrous metals.



Series SE

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SE41	SE-41	1/8	1/8	7/32	1 1/2
.....	SE-41L2	1/8	1/8	7/32	2
.....	SE-41L3	1/8	1/8	7/32	3
/615SE53	SE-53	1/8	3/16	9/32	1 1/2
/615SE51	SE-51	1/8	1/4	3/8	1 7/8
.....	SE-81	3/16	3/16	9/32	2
/615SE1	SE-1	1/4	1/4	3/8	2
.....	SE-1L6	1/4	1/4	3/8	6 3/8
/615SE3	SE-3	1/4	3/8	5/8	2 3/8
.....	SE-3L6	1/4	3/8	5/8	6 5/8
/615SE5	SE-5	1/4	1/2	7/8	2 5/8
.....	SE-5L6	1/4	1/2	7/8	6 7/8
/615SE6	SE-6	1/4	5/8	1	2 3/4
/615SE7	SE-7	1/4	3/4	1	2 3/4

Note: Burs with head diameters over 1/4" have hardened steel shank.



Series SH

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SH41	SH-41	1/8	1/8	1/4	1 1/2
.....	SH-41L2	1/8	1/8	1/4	2
.....	SH-41L3	1/8	1/8	1/4	3
/615SH53	SH-53	1/8	3/16	3/8	1 1/2
.....	SH-81	3/16	3/16	3/8	2
/615SH1	SH-1	1/4	1/4	5/8	2
/615SH2	SH-2	1/4	5/16	3/4	2 1/2
.....	SH-2L6	1/4	5/16	3/4	6 3/4
/615SH5	SH-5	1/4	1/2	1 1/4	3
.....	SH-5L6	1/4	1/2	1 1/4	7 1/4
/615SH6	SH-6	1/4	5/8	1 7/16	3 3/16
/615SH7	SH-7	1/4	3/4	1 5/8	3 3/8

Note: Burs with head diameters over 1/4" have hardened steel shank.

IMCO

Carbide Burs

Chamfer Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Countersink holes in hardened steel and hard materials. Double cut. Fast stock removal. Reduce operator fatigue. Provide good surface finish. Reduce chatter. Create granular chip in most materials.



Series SJ. 60° taper.

Series SJ

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SJ42	SJ-42	1/8	1/8	3/32	1 1/2
.....	SJ-81	3/16	3/16	9/64	2
/615SJ1	SJ-1	1/4	1/4	3/16	2
/615SJ3	SJ-3	1/4	3/8	5/16	2 3/16
/615SJ5	SJ-5	1/4	1/2	7/16	2 9/32
/615SJ6	SJ-6	1/4	5/8	9/16	2 7/16
/615SJ7	SJ-7	1/4	3/4	1 1/16	2 17/32



Series SK. 90° taper.

Series SK

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
/615SK42	SK-1	1/8	1/8	1/16	1 1/2
.....	SK-3	3/16	3/16	3/32	2
/615SK1	SK-42	1/4	1/4	1/8	2
/615SK3	SK-5	1/4	3/8	3/16	2 1/16
/615SK5	SK-6	1/4	1/2	1/4	2 1/8
/615SK6	SK-7	1/4	5/8	5/16	2 7/32
/615SK7	SK-81	1/4	3/4	3/8	2 9/32

IMCO

Carbide Burs

Cone Shapes - Double Cut

Machine ground. Positive rake flutes. Controlled flute depth. Radius with sectional fluting. Provide fast stock removal, less operator fatigue, good surface finish. Create granular chip. Use on cast iron, steel, other ferrous metals.



Series SL. 14° taper shape. Radius end.

Series SL

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.	Inc. Angle Deg.
/615SL41	SL-41	1/8	1/8	3/8	1 1/2	8
/615SL42	SL-42	1/8	1/8	1/2	1 1/2	8
.....	SL-42L2	1/8	1/8	1/2	2	8
.....	SL-42L3	1/8	1/8	1/2	3	8
/615SL53	SL-53	1/8	3/16	1/2	1 1/2	14
.....	SL-81	3/16	3/16	7/16	2	14
/615SL1	SL-1	1/4	1/4	5/8	2	14
.....	SL-1L6	1/4	1/4	5/8	6 5/8	14
/615SL2	SL-2	1/4	5/16	7/8	2 3/4	14
/615SL3	SL-3	1/4	3/8	1 1/16	2 5/16	14
.....	SL-3L6	1/4	3/8	1 1/16	7 1/16	14
/615SL4	SL-4	1/4	1/2	1 1/8	3	14
.....	SL-4L6	1/4	1/2	1 1/8	7 1/8	14
/615SL6	SL-6	1/4	5/8	1 5/16	3 3/16	14
/615SL7	SL-7	1/4	3/4	1 1/2	3 3/8	14



Series SM

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.	Inc. Angle Deg.
/615SM41	SM-41	1/8	1/8	3/8	1 1/2	12
/615SM42	SM-42	1/8	1/8	7/16	1 1/2	14
.....	SM-42L2	1/8	1/8	7/16	2	14
.....	SM-42L3	1/8	1/8	7/16	3	14
/615SM43	SM-43	1/8	1/8	5/8	1 1/2	7
/615SM53	SM-53	1/8	3/16	1/2	1 1/2	16
/615SM51	SM-51	1/8	1/4	1/2	2	22
.....	SM-81	3/16	3/16	5/8	2	12
/615SM1	SM-1	1/4	1/4	1/2	2	22
/615SM2	SM-2	1/4	1/4	3/4	2	14
/615SM3	SM-3	1/4	1/4	1	2	10
/615SM4	SM-4	1/4	3/8	5/8	2 1/2	28
/615SM5	SM-5	1/4	1/2	7/8	2 3/4	28
/615SM6	SM-6	1/4	5/8	1	2 7/8	31

Continued on next page

Continued from previous page



Series SN. Inverted cone.

Series SN						
No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.	Inc. Angle Deg.
/615SN41	SN-41	1/8	3/32	1/8	1 1/2	10
/615SN42	SN-42	1/8	1/8	3/16	1 1/2	10
/615SN53	SN-53	1/8	3/16	1/4	1 1/2	10
/615SN51	SN-51	1/8	1/4	1/4	1 3/4	10
.....	SN-81	3/16	3/16	7/16	2	14
/615SN1	SN-1	1/4	1/4	5/16	2	10
/615SN2	SN-2	1/4	3/8	3/8	2 1/8	13
/615SN4	SN-4	1/4	1/2	1/2	2 1/4	28
/615SN6	SN-6	1/4	5/8	3/4	2 1/2	18

IMCO

**Carbide Burs
Aluminum Cut**

For nonferrous metals. Machine ground. Positive rake flutes. Controlled flute depth. Smooth flute finish increases chip flow and metal removal rate.



Series SA. Cylindrical shape.

Series SA					
No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SA-1-NF	1/4	1/4	3/4	2
.....	SA-3-NF	1/4	3/8	3/4	2 1/2
.....	SA-5-NF	1/4	1/2	1	2 3/4
.....	SA-6-NF	1/4	5/8	1	2 3/4
.....	SA-7-NF	1/4	3/4	1	2 3/4



Series SC. Cylindrical radius end shape.

Series SC

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SC-1-NF	1/4	1/4	3/4	2
.....	SC-3-NF	1/4	3/8	3/4	2 1/2
.....	SC-5-NF	1/4	1/2	1	2 3/4
.....	SC-6-NF	1/4	5/8	1	2 3/4
.....	SC-7-NF	1/4	3/4	1	2 3/4



Series SD. Ball shape.

Series SD

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SD-1-NF	1/4	1/4	3/16	2
.....	SD-3-NF	1/4	3/8	5/16	2 5/64
.....	SD-5-NF	1/4	1/2	7/16	2 13/64
.....	SD-6-NF	1/4	5/8	9/16	2 5/16
.....	SD-7-NF	1/4	3/4	1 1/16	2 7/16



Series SE. Oval shape.

Series SE

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SE-3-NF	1/4	3/8	5/8	2 3/8
.....	SE-5-NF	1/4	1/2	7/8	2 5/8
.....	SE-6-NF	1/4	5/8	1	2 3/4
.....	SE-7-NF	1/4	3/4	1	2 3/4



Series SF. Radius end tree shape.

Series SF

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SF-1-NF	1/4	1/4	3/4	2
.....	SF-3-NF	1/4	3/8	3/4	2 1/2
.....	SF-5-NF	1/4	1/2	1	2 3/4
.....	SF-6-NF	1/4	5/8	1	2 3/4
.....	SF-14-NF	1/4	3/4	1 1/4	3



Series SL. 14° taper radius end cone shape.

Series SL

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SL-3-NF	1/4	3/8	1 1/16	2 15/16
.....	SL-5-NF	1/4	1/2	1 1/8	3
.....	SL-6-NF	1/4	5/8	1 5/16	3 3/16
.....	SL-7-NF	1/4	3/4	1 1/2	3 3/8

IMCO

**Internal Grinding Tools
Series 1901 - Solid Carbide**



Single end. Double cut. No end cut. For precision jig grinding and profiling in hardened steel dies, bushings and similar applications. Require rigid setups and solid workpiece fixturing to be most effective. Special cuts, lead angles or radii available upon request.

No.	Shank Size In.	Head Size In.	Neck Lgth. In.	Cut Lgth. In.	OA Lgth. In.
.....	1/8	1/16	3/8	1/8	1 1/2
.....	1/8	5/64	3/8	5/32	1 1/2
.....	1/8	3/32	1/2	5/32	1 1/2
.....	1/8	7/64	1/2	3/16	1 1/2
.....	1/8	1/8	1/2	3/16	1 1/2
.....	3/16	9/64	5/8	7/32	2
.....	3/16	5/32	5/8	7/32	2
.....	3/16	11/64	5/8	1/4	2
.....	3/16	3/16	5/8	1/4	2
.....	1/4	13/64	3/4	9/32	2
.....	1/4	7/32	3/4	9/32	2
.....	1/4	15/64	3/4	5/16	2
.....	1/4	1/4	3/4	5/16	2
.....	1/4	9/32	...	11/32	2 1/2
.....	1/4	5/16	...	11/32	2 1/2
.....	1/4	11/32	...	3/8	2 1/2
.....	1/4	3/8	...	3/8	2 1/2

IMCO

Chucking Reamers

Series 9000 - Short Series - Solid Carbide



For all general purpose reaming applications in ferrous metals and most nonferrous materials. 45° lead. Straight shank. Straight flute. Retain hole size. Shank dia. .005" under total dia.

No.	Size	Flute Lgth. In.	OA Lgth. In.	No. Flutes	Dia. Tol.
6RRCS/9000	1/32"	1/4	1 1/4	4	+ .0003/- .0000
9RRCS/9000	1/16"	3/8	1 1/2	4	+ .0003/- .0000
12RRCS/9000	3/32"	1/2	2	4	+ .0003/- .0000
15RRCS/9000	1/8"	5/8	2 1/4	4	+ .0003/- .0000
18RRCS/9000	5/32"	3/4	2 1/2	4	+ .0003/- .0000
21RRCS/9000	3/16"	7/8	2 3/4	4	+ .0003/- .0000
25RRCS/9000	7/32"	1	3	6	+ .0003/- .0000
.....	1/4" & E	1	3	6	+ .0003/- .0000
.....	3/8"	1 1/4	3 1/2	6	+ .0004/- .0000
.....	7/16"	1 1/2	4	6	+ .0004/- .0000
.....	1/2"	1 1/2	4	6	+ .0004/- .0000

IMCO DIV.

Chuckling Reamers

Series 8000 - Carbide Tipped - Straight Flute



Straight, polished flutes. Straight shank. General purpose carbide. Hardened steel tool bodies. Ream holes. For general purpose reaming of steel, cast iron, nonferrous metals, plastics, nonmetals. Dia. tolerance +.0003/-.0000

No.	Tool Size In.	Dec. Equiv. In.	Flute Lgth. In.	OA Lgth. In.	Shank Size In.	No. Flutes
18RRCS/8000	3/16	.1875	1 1/8	4 1/2	1 1/64	4
25RRCS/8000	1/4	.2500	1 1/2	6	15/64	4
31RRCS/8000	5/16	.3125	1 1/2	6	9/32	4
37RRCS/8000	3/8	.3750	1 3/4	7	5/16	4
43RRCS/8000	7/16	.4375	1 3/4	7	3/8	4
50RRCS/8000	1/2	.5000	2	8	7/16	6
62RRCS/8000	3/8	.6250	2 1/4	9	9/16	6
75RRCS/8000	3/4	.7500	2 1/2	9 1/2	5/8	6
.....	7/8	.8750	2 5/8	10	3/4	6

IMCO

Twist Drills

Series 1810 - Solid Carbide - Standard Length



Point 118°. Straight shank. Standard spiral. Precision ground. High speed and temperature capability. Applications: cast iron, aluminum, plastics, nonferrous alloys, machineable abrasive materials.

No.	Drill Size	Dec. Equiv. In.	Flute Lgth. In.	Lgth. In.
.....	80	.0135	3/16	3/4
.....	79	.0145	3/16	3/4
.....	78	.0160	3/16	3/4
.....	77	.0180	3/16	3/4
.....	76	.0200	1/4	7/8
.....	75	.0210	1/4	7/8
.....	74	.0225	1/4	7/8
.....	73	.0240	1/4	7/8
.....	72	.0250	5/16	1
.....	71	.0260	5/16	1
.....	70	.0280	1/2	1 1/4
.....	69	.0292	1/2	1 1/4
.....	68	.0310	1/2	1 1/4
3RDCS	1/32"	.0312	1/2	1 1/4
.....	67	.0320	1/2	1 1/4
.....	66	.0330	1/2	1 1/4
.....	65	.0350	5/8	1 3/8
.....	64	.0360	5/8	1 3/8
.....	63	.0370	5/8	1 3/8
.....	62	.0380	5/8	1 3/8
.....	61	.0390	5/8	1 3/8
.....	1.0 mm	.0394	5/8	1 3/8
.....	60	.0400	3/4	1 1/2
.....	59	.0410	3/4	1 1/2
.....	58	.0420	3/4	1 1/2
.....	57	.0430	3/4	1 1/2
.....	56	.0465	3/4	1 1/2
4RDCS	3/64"	.0469	3/4	1 1/2
.....	55	.0520	3/4	1 1/2
.....	54	.0550	3/4	1 1/2
.....	1.5 mm	.0591	3/4	1 1/2
.....	53	.0595	3/4	1 1/2
6RDCS	1/16"	.0625	3/4	1 1/2
.....	52	.0635	3/4	1 1/2
.....	51	.0670	3/4	1 1/2
.....	50	.0700	7/8	1 3/4

No.	Drill Size	Dec. Equiv. In.	Flute Lgth. In.	Lgth. In.
.....	49	.0730	7/8	1 3/4
.....	48	.0760	7/8	1 3/4
7RDCS	5/64"	.0781	7/8	1 3/4
.....	47	.0785	7/8	1 3/4
.....	2.0 mm	.0787	7/8	1 3/4
.....	46	.0810	7/8	1 3/4
.....	45	.0820	7/8	1 3/4
.....	44	.0860	1	2
.....	43	.0890	1	2
.....	42	.0935	1	2
9RDCS	3/32"	.0938	1	2
.....	41	.0960	1	2
.....	40	.0980	1	2
.....	2.5 mm	.0984	1	2
.....	39	.0995	1 1/4	2 1/4
.....	38	.1015	1 1/4	2 1/4
.....	37	.1040	1 1/4	2 1/4
.....	36	.1065	1 1/4	2 1/4
10RDCS	7/64"	.1094	1 1/4	2 1/4
.....	35	.1100	1 1/4	2 1/4
.....	34	.1110	1 1/4	2 1/4
.....	33	.1130	1 1/4	2 1/4
.....	32	.1160	1 1/4	2 1/4
.....	3.0 mm	.1181	1 1/4	2 1/4
.....	31	.1200	1 1/4	2 1/4
12RDCS	1/8"	.1250	1 1/4	2 1/4
.....	30	.1285	1 1/4	2 1/4
.....	29	.1360	1 3/8	2 1/2
.....	3.5 mm	.1378	1 3/8	2 1/2
.....	28	.1405	1 3/8	2 1/2
14RDCS	9/64"	.1406	1 3/8	2 1/2
.....	27	.1440	1 3/8	2 1/2
.....	26	.1470	1 3/8	2 1/2
.....	25	.1495	1 3/8	2 1/2
.....	24	.1520	1 3/8	2 1/2
.....	23	.1540	1 3/8	2 1/2
15RDCS	5/32"	.1562	1 3/8	2 1/2
.....	22	.1570	1 3/8	2 1/2
.....	4.0 mm	.1575	1 3/8	2 1/2
.....	21	.1590	1 3/8	2 1/2
.....	20	.1610	1 3/8	2 1/2
.....	19	.1660	1 5/8	2 3/4
.....	18	.1695	1 5/8	2 3/4
17RDCS	1 1/64"	.1719	1 5/8	2 3/4
.....	17	.1730	1 5/8	2 3/4
.....	16	.1770	1 5/8	2 3/4
.....	4.5 mm	.1772	1 5/8	2 3/4
.....	15	.1800	1 5/8	2 3/4
.....	14	.1820	1 5/8	2 3/4
.....	13	.1850	1 5/8	2 3/4
18RDCS	3/16"	.1875	1 5/8	2 3/4
.....	12	.1890	1 5/8	2 3/4
.....	11	.1910	1 5/8	2 3/4
.....	10	.1935	1 5/8	2 3/4
.....	9	.1960	1 3/4	3
.....	5.0 mm	.1968	1 3/4	3
.....	8	.1990	1 3/4	3
.....	7	.2010	1 3/4	3
20RDCS	1 3/64"	.2031	1 3/4	3
.....	6	.2040	1 3/4	3
.....	5	.2055	1 3/4	3
.....	4	.2090	1 3/4	3
.....	3	.2130	1 3/4	3
.....	5.5 mm	.2165	1 3/4	3
21RDCS	7/32"	.2188	1 3/4	3
.....	2	.2210	1 3/4	3
.....	1	.2280	1 3/4	3
.....	A	.2340	2	3 1/4
23RDCS	1 5/64"	.2344	2	3 1/4
.....	6.0 mm	.2362	2	3 1/4
.....	B	.2380	2	3 1/4
.....	C	.2420	2	3 1/4
.....	D	.2460	2	3 1/4
25RDCS	1/4" & E	.2500	2	3 1/4
.....	6.4 mm	.2520	2	3 1/4
.....	6.5 mm	.2559	2	3 1/4
.....	F	.2570	2	3 1/4
.....	G	.2610	2 1/8	3 1/2

No.	Drill Size	Dec. Equiv. In.	Flute Lgth. In.	Lgth. In.
26RDCS	1 7/64"	.2656	2 1/8	3 1/2
.....	H	.2660	2 1/8	3 1/2
.....	I	.2720	2 1/8	3 1/2
.....	7.0 mm	.2756	2 1/8	3 1/2
.....	J	.2770	2 1/8	3 1/2
.....	K	.2810	2 1/8	3 1/2
28RDCS	9/32"	.2812	2 1/8	3 1/2
.....	L	.2900	2 1/8	3 1/2
.....	M	.2950	2 3/8	3 3/4
.....	7.5 mm	.2953	2 3/8	3 3/4
29RDCS	1 9/64"	.2969	2 3/8	3 3/4
.....	N	.3020	2 3/8	3 3/4
31RDCS	5/16"	.3125	2 3/8	3 3/4
.....	8.0 mm	.3150	2 3/8	3 3/4
.....	O	.3160	2 3/8	3 3/4
.....	P	.3230	2 3/8	3 3/4
32RDCS	2 1/64"	.3281	2 1/2	4
.....	Q	.3320	2 1/2	4
.....	8.5 mm	.3346	2 1/2	4
.....	R	.3390	2 1/2	4
34RDCS	1 1/32"	.3438	2 1/2	4
.....	S	.3480	2 1/2	4
.....	9.0 mm	.3543	2 3/4	4 1/4
.....	T	.3580	2 3/4	4 1/4
35RDCS	2 3/64"	.3594	2 3/4	4 1/4
.....	U	.3680	2 3/4	4 1/4
.....	9.5 mm	.3740	2 3/4	4 1/4
37RDCS	3/8"	.3750	2 3/4	4 1/4
.....	V	.3770	2 3/4	4 1/4
.....	W	.3860	2 7/8	4 1/2
39RDCS	2 5/64"	.3906	2 7/8	4 1/2
.....	10.0 mm	.3937	2 7/8	4 1/2
.....	X	.3970	2 7/8	4 1/2
.....	Y	.4040	2 7/8	4 1/2
40RDCS	1 3/32"	.4062	2 7/8	4 1/2
.....	Z	.4130	2 7/8	4 1/2
42RDCS	2 7/64"	.4219	2 7/8	4 1/2
.....	11.0 mm	.4331	2 7/8	4 1/2
43RDCS	7/16"	.4375	2 7/8	4 1/2
45RDCS	2 9/64"	.4531	3	4 3/4
46RDCS	1 5/32"	.4688	3	4 3/4
.....	12.0 mm	.4724	3	4 3/4
48RDCS	3 1/64"	.4844	3	4 3/4
50RDCS	1/2"	.5000	3	4 3/4
56RDCS	9/16"	.5625	3 1/4	5
62RDCS	5/8"	.6250	3 1/4	5
75RDCS	3/4"	.7500	3 3/4	6

IMCO

Twist Drills

Series 2850 - Standard Jobber Length - Carbide Tipped



118° Point. Straight shank. Standard spiral. For production drilling of cast iron, non-ferrous metals, composites, plastics, non-metals. Not recommended for drilling steels. Hardened high speed steel bodies.

No.	Drill Size	Dec. Equiv. In.	Flute Lgth. In.	OA Lgth. In.
12RDCT	1/8"	.1250	1 5/8	2 3/4
18RDCT	3/16"	.1875	2 5/16	3 1/2
25RDCT	1/4" & E	.2500	2 3/4	4
31RDCT	5/16"	.3125	3 3/16	4 1/2
37RDCT	3/8"	.3750	3 5/8	5
43RDCT	7/16"	.4375	4 1/16	5 1/2
50RDCT	1/2"	.5000	4 1/2	6



MASONRY DRILL BITS

Carbide Tipped



Tips of cutting plates have beveled edges. Use in regular rotary drill motor as well as percussion type.

No.	Dia. In.	OA Lgth. In.	Shank In.
/607JRPSP01	1/8	3	1/8
/607JRPSP02	5/32	3	5/32
/607JRPSP04	3/16	3 1/2	3/16
/607JRPSP05	3/16	6	3/16
/607JRPSP08	15/64	4	15/64
/607JRPSP09	1/4	4 1/4	1/4
/607JRPSP10	1/4	6	1/4
/607JRPSP11	1/4	13	1/4
/607JRPSP16	9/32	4 1/4	1/4
/607JRPSP18	5/16	4 3/4	5/16
.....	5/16	4 3/4	1/4
/607JRPSP20	5/16	6	5/16
.....	5/16	6	1/4
/607JRPSP22	5/16	13	5/16
.....	5/16	13	1/4
.....	5/16	24	1/4
/607JRPSP29A	3/8	4 1/2	3/8
.....	3/8	4 1/2	1/4
/607JRPSP30	3/8	6	3/8
.....	3/8	6	1/4
/607JRPSP32	3/8	13	3/8
.....	3/8	13	1/4
.....	7/16	6 1/4	3/8
/607JRPSP42	7/16	6 1/4	1/4
/607JRPSP45	1/2	6 3/4	1/2
/607JRPSP46	1/2	6 3/4	3/8
/607JRPSP47	1/2	6 3/4	1/4
.....	1/2	13	1/2
/607JRPSP49	1/2	13	3/8
.....	1/2	13	1/4
/607JRPSP61	9/16	7	3/8
/607JRPSP62	5/8	6	1/2
.....	5/8	6	3/8
/607JRPSP64	5/8	13	1/2
.....	5/8	13	3/8
.....	1 1/16	10	1/2
/607JRPSP71	3/4	6	1/2
.....	3/4	6	3/8
/607JRPSP73	3/4	13	1/2
.....	3/4	13	3/8
/607JRPSP80	7/8	6	1/2
/607JRPSP81	7/8	13	1/2
/607JRPSP85	1	6	1/2
/607JRPSP86	1	13	1/2

CONCRETE SCREW DRILL BITS



1/tube.

No.	Dia. In.	OA Lgth. In.
/607JRCSD1	5/32	3 1/2
/607JRCSD2	5/32	4 1/2
/607JRCSD3	5/32	5 1/2
/607JRCSD4	3/16	3 1/2
/607JRCSD5	3/16	4 1/2
/607JRCSD6	3/16	5 1/2
/607JRCSD7	3/16	6 1/2
/607JRCSD8	3/16	7 1/2

IMCO

Brazed Tool Bits
Carbide Tipped - Premium Single Point

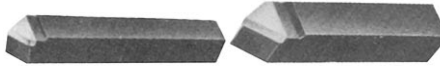


Types AR & AL

Types BR & BL



Type C



Type D

Type E

Grade IC20. For cast iron and nonferrous metals.

Grade IC55. For general purpose use in steels.

Grade IC67. For finish cuts and boring operations in steels.

No.	Style	Grade	Pkg. Qty.
/610AL04C2	AL-4	IC20	10
/610AL04C5	AL-4	IC55	10
.....	AL-4	IC67	10
/610AL05C2	AL-5	IC20	10
/610AL05C5	AL-5	IC55	10
.....	AL-5	IC67	10
/610AL06C2	AL-6	IC20	10
/610AL06C5	AL-6	IC55	10
.....	AL-6	IC67	10
/610AL07C2	AL-7	IC20	10
/610AL07C5	AL-7	IC55	10
/610AL08C2	AL-8	IC20	10
/610AL08C5	AL-8	IC55	10
.....	AL-8	IC67	10
/610AL10C2	AL-10	IC20	10
/610AL10C5	AL-10	IC55	10
/610AL12C2	AL-12	IC20	10
/610AL12C5	AL-12	IC55	10
.....	AL-16	IC20	5
/610AL16C5	AL-16	IC55	5

Style AR

No.	Style	Grade	Pkg. Qty.
/610AR04C2	AR-4	IC20	10
/610AR04C5	AR-4	IC55	10
.....	AR-4	IC67	10
/610AR05C2	AR-5	IC20	10
/610AR05C5	AR-5	IC55	10
.....	AR-5	IC67	10
/610AR06C2	AR-6	IC20	10
/610AR06C5	AR-6	IC55	10
.....	AR-6	IC67	10
/610AR07C2	AR-7	IC20	10
/610AR07C5	AR-7	IC55	10
/610AR08C2	AR-8	IC20	10
/610AR08C5	AR-8	IC55	10
.....	AR-8	IC67	10
/610AR10C2	AR-10	IC20	10
/610AR10C5	AR-10	IC55	10
/610AR12C2	AR-12	IC20	10
/610AR12C5	AR-12	IC55	10
.....	AR-16	IC20	5
/610AR16C5	AR-16	IC55	5

Style BL

No.	Style	Grade	Pkg. Qty.
/610BL04C5	BL-4	IC20	10
.....	BL-4	IC55	10
.....	BL-5	IC20	10

No.	Style	Grade	Pkg. Qty.
/610BL05C5	BL-5	IC55	10
.....	BL-6	IC20	10
/610BL06C5	BL-6	IC55	10
.....	BL-7	IC20	10
/610BL07C5	BL-7	IC55	10
.....	BL-8	IC20	10
/610BL08C5	BL-8	IC55	10
.....	BL-10	IC20	10
/610BL10C5	BL-10	IC55	10
.....	BL-12	IC20	10
/610BL12C5	BL-12	IC55	10
.....	BL-16	IC20	5
/610BL16C5	BL-16	IC55	5

Style BR

No.	Style	Grade	Pkg. Qty.
.....	BR-4	IC20	10
/610BR04C5	BR-4	IC55	10
.....	BR-5	IC20	10
/610BR05C5	BR-5	IC55	10
.....	BR-6	IC20	10
/610BR06C5	BR-6	IC55	10
.....	BR-7	IC20	10
/610BR07C5	BR-7	IC55	10
.....	BR-8	IC20	10
/610BR08C5	BR-8	IC55	10
.....	BR-10	IC20	10
/610BR10C5	BR-10	IC55	10
.....	BR-12	IC20	10
/610BR12C5	BR-12	IC55	10
.....	BR-16	IC20	5
/610BR16C5	BR-16	IC55	5

Style C

No.	Style	Grade	Pkg. Qty.
/610C04C2	C-4	IC20	10
/610C04C5	C-4	IC55	10
.....	C-4	IC67	10
/610C05C2	C-5	IC20	10
/610C05C5	C-5	IC55	10
/610C06C2	C-6	IC20	10
/610C06C5	C-6	IC55	10
.....	C-6	IC67	10
/610C07C2	C-7	IC20	10
/610C07C5	C-7	IC55	10
/610C08C2	C-8	IC20	10
/610C08C5	C-8	IC55	10
.....	C-8	IC67	10
/610C10C2	C-10	IC20	10
/610C10C5	C-10	IC55	10
/610C12C2	C-12	IC20	10
/610C12C5	C-12	IC55	10
/610C16C2	C-16	IC20	5
.....	C-16	IC55	5

Style CT/CTR

No.	Style	Grade	Pkg. Qty.
.....	CT (CTR)-111	IC20	5
.....	CT (CTR)-111	IC55	5
.....	CT (CTR)-111	IC67	5
.....	CT (CTR)-120	IC20	5
.....	CT (CTR)-120	IC55	5
.....	CT (CTR)-120	IC67	5
.....	CT (CTR)-121	IC20	5
.....	CT (CTR)-121	IC55	5
.....	CT (CTR)-121	IC67	5
.....	CT (CTR)-122	IC20	5
.....	CT (CTR)-122	IC55	5
.....	CT (CTR)-122	IC67	5
.....	CT (CTR)-130	IC20	5
.....	CT (CTR)-130	IC55	5
.....	CT (CTR)-130	IC67	5
.....	CT (CTR)-140	IC20	5
.....	CT (CTR)-140	IC55	5
.....	CT (CTR)-140	IC67	5

Continued on next page

Continued from previous page

Style CTL				Style FR			
No.	Style	Grade	Pkg. Qty.	No.	Style	Grade	Pkg. Qty.
.....	CTL-111	IC20	5	.....	FR-8	IC20	5
.....	CTL-111	IC55	5	.....	FR-8	IC55	5
.....	CTL-111	IC67	5	.....	FR-10	IC20	5
.....	CTL-120	IC20	5	.....	FR-10	IC55	5
.....	CTL-120	IC55	5	.....	FR-12	IC20	5
.....	CTL-120	IC67	5	.....	FR-12	IC55	5
.....	CTL-121	IC20	5	.....	FR-16	IC20	5
.....	CTL-121	IC55	5	.....	FR-16	IC55	5
.....	CTL-121	IC67	5				
.....	CTL-122	IC20	5				
.....	CTL-122	IC55	5				
.....	CTL-122	IC67	5				
.....	CTL-130	IC20	5				
.....	CTL-130	IC55	5				
.....	CTL-130	IC67	5				
.....	CTL-140	IC20	5				
.....	CTL-140	IC55	5				
.....	CTL-140	IC67	5				


Style D				Style EL			
No.	Style	Grade	Pkg. Qty.	No.	Style	Grade	Pkg. Qty.
/610D04C2	D-4	IC20	10	.....	EL-5	IC20	10
/610D04C5	D-4	IC55	10	.....	EL-5	IC55	10
/610D05C2	D-5	IC20	10	.....	EL-6	IC20	10
/610D05C5	D-5	IC55	10	.....	EL-6	IC55	10
/610D06C2	D-6	IC20	10	.....	EL-8	IC20	10
/610D06C5	D-6	IC55	10	.....	EL-8	IC55	10
.....	D-6	IC67	10	.....	EL-8	IC20	10
/610D07C2	D-7	IC20	10	.....	EL-8	IC55	10
/610D07C5	D-7	IC55	10	.....	EL-10	IC20	10
/610D08C2	D-8	IC20	10	.....	EL-10	IC55	10
/610D08C5	D-8	IC55	10	.....	EL-12	IC20	10
.....	D-8	IC67	10	.....	EL-12	IC55	10
/610D10C2	D-10	IC20	10				
/610D10C5	D-10	IC55	10				
/610D12C2	D-12	IC20	10				
/610D12C5	D-12	IC55	10				
.....	D-16	IC20	5				
.....	D-16	IC55	5				

Style E				Style ER			
No.	Style	Grade	Pkg. Qty.	No.	Style	Grade	Pkg. Qty.
.....	E-4	IC20	10	.....	ER-5	IC20	10
/610E04C5	E-4	IC55	10	.....	ER-5	IC55	10
/610E05C2	E-5	IC20	10	.....	ER-6	IC20	10
/610E05C5	E-5	IC55	10	/610ER06C5	ER-6	IC55	10
.....	E-6	IC20	10	.....	ER-8	IC20	10
/610E06C5	E-6	IC55	10	.....	ER-8	IC55	10
.....	E-6	IC67	10	.....	ER-10	IC20	5
				.....	ER-10	IC55	5
				.....	ER-12	IC20	5
				.....	ER-12	IC55	5

Style FL				Style GL			
No.	Style	Grade	Pkg. Qty.	No.	Style	Grade	Pkg. Qty.
.....	FL-8	IC20	5	.....	GL-8	IC20	5
.....	FL-8	IC55	5	.....	GL-8	IC55	5
.....	FL-10	IC20	5	.....	GL-10	IC20	5
.....	FL-10	IC55	5	.....	GL-10	IC55	5
.....	FL-12	IC20	5	.....	GL-12	IC20	5
.....	FL-12	IC55	5	.....	GL-12	IC55	5
.....	FL-16	IC20	5	.....	GL-16	IC20	5
.....	FL-16	IC55	5	.....	GL-16	IC55	5

Style GR					
No.	Style	Grade	Pkg. Qty.		
.....	GR-8	IC20	5		
.....	GR-8	IC55	5		
.....	GR-10	IC20	5		
.....	GR-10	IC55	5		
.....	GR-12	IC20	5		
.....	GR-12	IC55	5		
.....	GR-16	IC20	5		
.....	GR-16	IC55	5		

IMCO
Center Laps
Solid Carbide



Clean hardened metal internal centers after heat treating. Restore angles of damaged centers.

No.	Indust. Code	Shank Size In.	Head Size In.	Cut Lgth. In.	OA Lgth. In.
.....	SCL-4	1/4	1/4	3/16	1 1/2
.....	SCL-6	3/8	3/8	5/16	1 1/2
.....	SCL-8	1/2	1/2	7/16	1 1/2

INDEXABLE CARBIDE INSERTS
Grade Application Chart

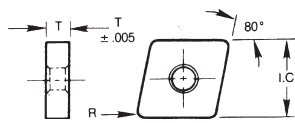
Indust. Class	Grade	Application	Materials and Conditions
C-2	PL2	Turning, Boring, Milling, Threading, Grooving	General purpose for cast iron, nonferrous alloys, high temp. alloys. Excellent wear resistance at low to medium speeds.
C-5	PL5	Turning, Boring, Milling, Threading, Grooving	General purpose steel cutting grade for heavy feeds and med. speeds. Good crater resistance and edge strength.
C-2 Thru C-7	PC8	Turning, Boring, Milling, Threading, Grooving	Tin coated grade. Cover many materials at med. to high cutting speeds. Excellent crater and impact resistance.

Complete Information Available on Request.

Our order desk is always ready to assist you.

INDEXABLE INSERTS

CNMA - 80° Diamond - Negative Rake

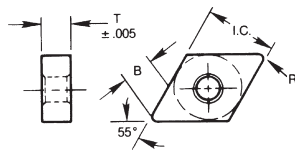


No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
CNMA-432	CNMA-432	1/2	±.003	3/16	1/32
CNMA-433	CNMA-433	1/2	±.003	3/16	3/64
CNMA-543	CNMA-543	5/8	±.003	1/4	3/64
CNMA-643	CNMA-643	3/4	±.003	1/4	3/64
CNMA-644	CNMA-644	3/4	±.003	1/4	1/16

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

DNGA - 55° Diamond - Positive Rake



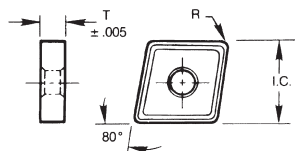
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
DNGA-532	DNGA-532	3/8	±.001	3/16	1/32	.328
DNGA-533	DNGA-533	5/8	±.001	3/16	3/64	.310
DNGA-542	DNGA-542	5/8	±.001	1/4	1/32	.328

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

CNMG - 80° Diamond - Negative Rake



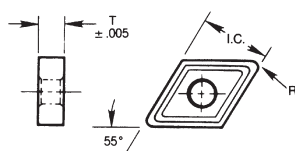
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
CNMG-431	CNMG-431	1/2	±.003	3/16	1/64
CNMG-432	CNMG-432	1/2	±.003	3/16	1/32
CNMG-433	CNMG-433	1/2	±.003	3/16	3/64
CNMG-543	CNMG-543	5/8	±.003	1/4	3/64
CNMG-642	CNMG-642	3/4	±.003	1/4	1/32
CNMG-643	CNMG-643	3/4	±.003	1/4	3/64
CNMG-644	CNMG-644	3/4	±.003	1/4	1/16

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

DNMG - 55° Diamond - Negative Rake

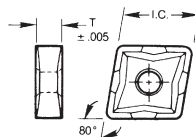


With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
DNMG-432	DNMG-432	1/2	±.003	3/16	1/32
DNMG-433	DNMG-433	1/2	±.003	3/16	3/64
DNMG-532	DNMG-532	5/8	±.003	3/16	1/32

INDEXABLE INSERTS

CNMP - 80° Diamond - Negative/Positive Rake



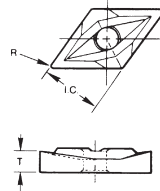
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
CNMP-431C	CNMP-431C	1/2	±.003	3/16	1/64
CNMP-432C	CNMP-432C	1/2	±.003	3/16	1/32
CNMP-642C	CNMP-642C	3/4	±.003	1/4	1/32
CNMP-643C	CNMP-643C	3/4	±.003	1/4	3/64
CNMP-644C	CNMP-644C	3/4	±.003	1/4	1/16

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

DNMP - 55° Diamond - Negative/Positive Rake



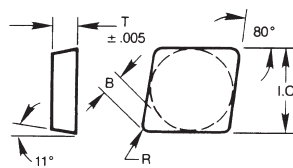
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
DNMP-431E	DNMP-431E	1/2	±.003	3/16	1/64
DNMP-432E	DNMP-432E	1/2	±.003	3/16	1/32

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

CPG - 80° Diamond - Positive Rake



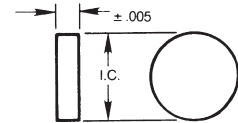
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
CPG-422	CPG-422	1/2	±.001	1/8	1/32	.122
CPG-633	CPG-633	3/4	±.001	3/16	3/64	.182

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

RNG - Round - Negative Rake



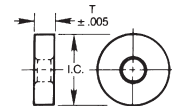
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.
RNG-32	RNG-32	3/8	±.001	1/8
RNG-42	RNG-42	1/2	±.001	1/8

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

RNMA - Round - Negative Rake

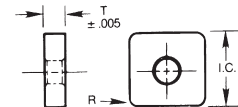


No.	Style No.	I.C. In.	Tol. In.	T In.
RNMA-32	RNMA-32	3/8	±.002	1/8
RNMA-43	RNMA-43	1/2	±.003	3/16
RNMA-54	RNMA-54	5/8	±.003	1/4
RNMA-64	RNMA-64	3/4	±.003	1/4

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

SNMA - Square - Negative Rake

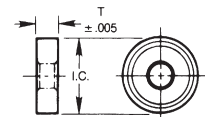


No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
SNMA-322	SNMA-322	3/8	±.002	1/8	1/32
SNMA-432	SNMA-432	1/2	±.002	3/16	1/32
SNMA-433	SNMA-433	1/2	±.003	3/16	3/64
SNMA-543	SNMA-543	5/8	±.003	1/4	3/64
SNMA-643	SNMA-643	3/4	±.003	1/4	3/64
SNMA-644	SNMA-644	3/4	±.003	1/4	1/16

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

RNMG - Round - Negative Rake



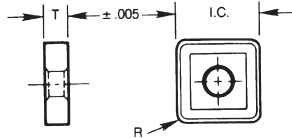
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.
RNMG-32	RNMG-32	3/8	±.002	1/8
RNMG-43	RNMG-43	1/2	±.002	3/16
RNMG-54	RNMG-54	5/8	±.003	1/4
RNMG-64	RNMG-64	3/4	±.003	1/4
RNMG-86	RNMG-86	1	±.004	3/8

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

SNMG - Square - Negative Rake



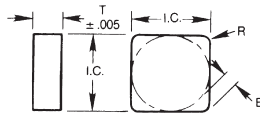
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
SNMG-322	SNMG-322	3/8	±.002	1/8	1/32
SNMG-432	SNMG-432	1/2	±.003	3/16	1/32
SNMG-433	SNMG-433	1/2	±.003	3/16	3/64
SNMG-434	SNMG-434	1/2	±.003	3/16	1/16
SNMG-543	SNMG-543	5/8	±.003	1/4	3/64
SNMG-544	SNMG-544	5/8	±.003	1/4	1/16
SNMG-643	SNMG-643	3/4	±.003	1/4	3/64
SNMG-644	SNMG-644	3/4	±.003	1/4	1/16
SNMG-866	SNMG-866	1	±.004	3/8	3/32

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

SNG - Square - Negative Rake



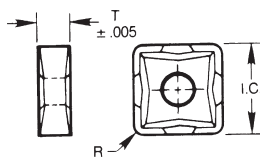
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
SNG-322	SNG-322	3/8	±.001	1/8	1/32	.065
SNG-323	SNG-323	3/8	±.001	1/8	3/64	.058
SNG-422	SNG-422	1/2	±.001	1/8	1/32	.091
SNG-432	SNG-432	1/2	±.001	3/16	1/32	.091
SNG-433	SNG-433	1/2	±.001	3/16	3/64	.084
SNG-434	SNG-434	1/2	±.001	3/16	1/16	.078
SNG-633	SNG-633	3/4	±.001	3/16	3/64	.136
SNG-634	SNG-634	3/4	±.001	3/16	1/16	.129

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

SNMP - Square - Negative/Positive Rake



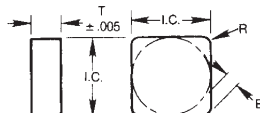
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
SNMP-432C	SNMP-432C	1/2	±.003	3/16	1/32
SNMP-543C	SNMP-543C	5/8	±.003	1/4	3/64
SNMP-643C	SNMP-643C	3/4	±.003	1/4	3/64

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

SNU - Square - Negative Rake

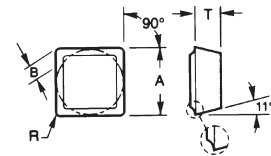


Utility tolerance.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
SNU-322	SNU-322	3/8	±.005	1/8	1/32	.065
SNU-422	SNU-422	1/2	±.005	1/8	1/32	.091

INDEXABLE INSERTS

SPMR - Square - 11° Relief



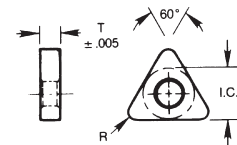
One side chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
SPMR-321-1A	SPMR-321-1A	3/8	±.002	1/8	1/64	.071
SPMR-322-1A	SPMR-322-1A	3/8	±.002	1/8	1/32	.065
SPMR-421-1A	SPMR-421-1A	1/2	±.002	1/8	1/64	.097
SPMR-422-1A	SPMR-422-1A	1/2	±.002	1/8	1/32	.091
SPMR-423-1A	SPMR-423-1A	1/2	±.002	1/8	3/64	.084

Note: Available grades C-2, C-5 and TiN coated.

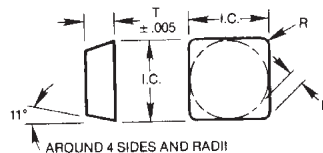
INDEXABLE INSERTS

TNMA - Triangular - Negative Rake



INDEXABLE INSERTS

SPG - Square - Positive Rake



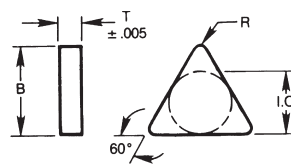
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
SPG-322	SPG-322	3/8	±.001	1/8	1/32	.065
SPG-422	SPG-422	1/2	±.001	1/8	1/32	.091
SPG-424	SPG-424	1/2	±.001	1/8	1/16	.078
SPG-432	SPG-432	1/2	±.001	3/16	1/32	.091
SPG-433	SPG-433	1/2	±.001	3/16	3/64	.084
SPG-632	SPG-632	3/4	±.001	3/16	1/32	.142
SPG-633	SPG-633	3/4	±.001	3/16	3/64	.136
SPG-634	SPG-634	3/4	±.001	3/16	1/16	.129

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TNG - Triangular - Negative Rake



Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TNG-221	TNG-221	1/4	±.001	1/8	1/64	.359
TNG-222	TNG-222	1/4	±.001	1/8	1/32	.344
TNG-321	TNG-321	3/8	±.001	1/8	1/64	.547
TNG-322	TNG-322	3/8	±.001	1/8	1/32	.531
TNG-332	TNG-332	3/8	±.001	3/16	1/32	.531
TNG-333	TNG-333	3/8	±.001	3/16	3/64	.516
TNG-334	TNG-334	3/8	±.001	3/16	1/16	.500
TNG-432	TNG-432	1/2	±.001	3/16	1/32	.719
TNG-433	TNG-433	1/2	±.001	3/16	3/64	.703
TNG-434	TNG-434	1/2	±.001	3/16	1/16	.688

Note: Available grades C-2, C-5 and TiN coated.

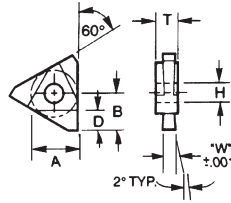
WE OFFER YOU

- Price
- Product
- Availability

WE SOLICIT YOUR

- Inquiries
- Suggestions
- Business

INDEXABLE INSERTS
TNMA-NG - Triangular - On-Edge - Grooving



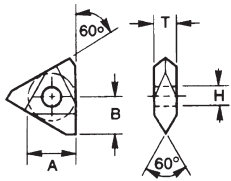
Provided with sharp corners.

No.	Style No.	I.C. In.	Tol. In.	T In.	H In.	B In.	W In.*
TNMA-32NG	TNMA-32NG	3/8	±.002	1/8	.150	.306	.125
TNMA-43NG	TNMA-43NG	1/2	±.002	3/16	.202	.415	.187
TNMA-54NG	TNMA-54NG	5/8	±.002	1/4	.251	.522	.250

*Tolerance ±.001".

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS
TNMA-NV - Triangular - On-Edge - Threading

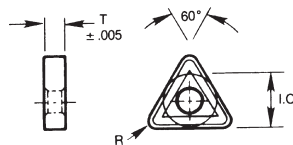


V-Thread inserts provided with .003" to .005" flat.

No.	Style No.	I.C. In.	Tol. In.	T In.	H In.	B In.
TNMA-32NV	TNMA-32NV	3/8 ±.002	1/8	.150	.306	
TNMA-43NV	TNMA-43NV	1/2 ±.002	3/16	.202	.415	
TNMA-54NV	TNMA-54NV	5/8 ±.002	1/4	.251	.522	

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS
TNMG - Triangular - Negative Rake



With chip control.

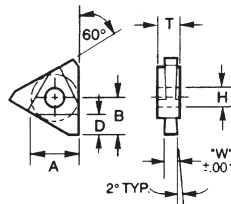
No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
TNMG-222	TNMG-222	1/4	±.002	1/8	1/32
TNMG-321	TNMG-321	3/8	±.002	1/8	1/64
TNMG-322	TNMG-322	3/8	±.002	1/8	1/32
TNMG-323	TNMG-323	3/8	±.002	1/8	3/64
TNMG-324	TNMG-324	3/8	±.002	1/8	1/16
TNMG-332	TNMG-332	3/8	±.002	3/16	1/32
TNMG-333	TNMG-333	3/8	±.002	3/16	3/64
TNMG-431	TNMG-431	1/2	±.003	3/16	1/64

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
TNMG-432	TNMG-432	1/2	±.003	3/16	1/32
TNMG-433	TNMG-433	1/2	±.003	3/16	3/64
TNMG-434	TNMG-434	1/2	±.003	3/16	1/16
TNMG-438	TNMG-438	1/2	±.003	3/16	1/8
TNMG-542	TNMG-542	5/8	±.003	1/4	1/32
TNMG-543	TNMG-543	5/8	±.003	1/4	3/64
TNMG-544	TNMG-544	5/8	±.003	1/4	1/16
TNMG-548	TNMG-548	5/8	±.003	1/4	1/8
TNMG-666	TNMG-666	3/4	±.003	3/8	3/32

Note: Available grades C-2, C-5 and TiN coated.

We welcome the opportunity to quote on any special tools which you may require.

INDEXABLE INSERTS
TNMC-NG - Triangular - On-Edge - Grooving



Provided with sharp corners.

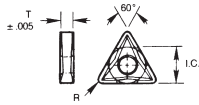
No.	Style No.	I.C. In.	Tol. In.	T In.	H In.	B In.	W In.*
TNMC-32NG	TNMC-32NG	3/8	±.002	1/8	.150	.306	.125
TNMC-43NG	TNMC-43NG	1/2	±.002	3/16	.202	.415	.187
TNMC-54NG	TNMC-54NG	5/8	±.002	1/4	.251	.522	.250

*Tolerance ±.001".

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TNMP - Negative/Positive Rake



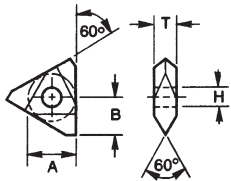
With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
TNMP-321C	TNMP-321C	3/8	±.001	1/8	1/64
TNMP-322C	TNMP-322C	3/8	±.001	1/8	1/32
TNMP-323C	TNMP-323C	3/8	±.001	1/8	3/64
TNMP-431C	TNMP-431C	1/2	±.003	3/16	1/64
TNMP-432C	TNMP-432C	1/2	±.003	3/16	1/32
TNMP-433C	TNMP-433C	1/2	±.003	3/16	3/64
TNMP-434C	TNMP-434C	1/2	±.003	3/16	1/16
TNMP-542C	TNMP-542C	5/8	±.003	1/4	1/32
TNMP-543C	TNMP-543C	5/8	±.003	1/4	3/64
TNMP-544C	TNMP-544C	5/8	±.003	1/4	1/16
TNMP-666C	TNMP-666C	3/4	±.003	3/8	3/32

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TNMC-NV - Triangular - On-Edge - Threading



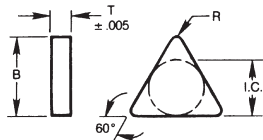
V-Thread inserts provided with .003" to .005" flat.

No.	Style No.	I.C. In.	Tol. In.	T In.	H In.	B In.
TNMC-32NV	TNMC-32NV	3/8	±.002	1/8	.150	.306
TNMC-43NV	TNMC-43NV	1/2	±.002	3/16	.202	.415
TNMC-54NV	TNMC-54NV	5/8	±.002	1/4	.251	.522

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TNU - Triangular - Negative Rake



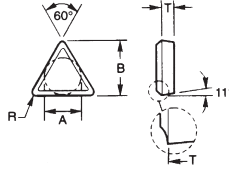
Utility tolerance.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TNU-322	TNU-322	3/8	±.005	1/8	1/32	.531
TNU-323	TNU-323	3/8	±.005	1/8	3/64	.516
TNU-332	TNU-332	3/8	±.005	3/16	1/32	.531
TNU-333	TNU-333	3/8	±.005	3/16	3/64	.516
TNU-432	TNU-432	1/2	±.005	3/16	1/32	.719
TNU-433	TNU-433	1/2	±.005	3/16	3/64	.703
TNU-434	TNU-434	1/2	±.005	3/16	1/16	.688

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TPMR - Triangular - 11° Relief



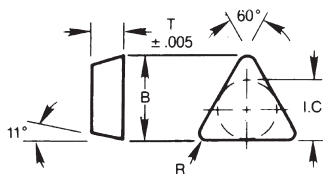
One side chip control. No hole.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TPMR-221-2A	TPMR-221-2A	1/4	±.002	1/8	1/64	.359
TPMR-222-2A	TPMR-222-2A	1/4	±.002	1/8	1/32	.344
TPMR-321-1A	TPMR-321-1A	3/8	±.002	1/8	1/64	.547
TPMR-322-1A	TPMR-322-1A	3/8	±.002	1/8	1/32	.531
TPMR-432-1A	TPMR-432-1A	1/2	±.002	3/16	1/32	.719
TPMR-433-1A	TPMR-433-1A	1/2	±.002	3/16	3/64	.703

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TPG - Triangular - Positive Rake



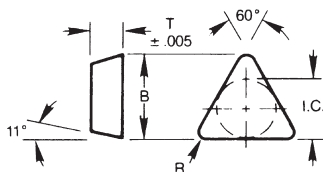
Precision ground.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TPG-221	TPG-221	1/4	±.001	1/8	1/64	.359
TPG-222	TPG-222	1/4	±.001	1/8	1/32	.344
TPG-320	TPG-320	3/8	±.001	1/8	.005	.562
TPG-321	TPG-321	3/8	±.001	1/8	1/64	.547
TPG-322	TPG-322	3/8	±.001	1/8	1/32	.531
TPG-323	TPG-323	3/8	±.001	1/8	3/64	.516
TPG-324	TPG-324	3/8	±.001	1/8	1/16	.500
TPG-430	TPG-430	1/2	±.001	3/16	.005	.750
TPG-431	TPG-431	1/2	±.001	3/16	1/64	.734
TPG-432	TPG-432	1/2	±.001	3/16	1/32	.719
TPG-433	TPG-433	1/2	±.001	3/16	3/64	.703
TPG-434	TPG-434	1/2	±.001	3/16	1/16	.688
TPG-532	TPG-532	5/8	±.001	3/16	1/32	.906
TPG-533	TPG-533	5/8	±.001	3/16	3/64	.891

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TPU - Triangle - Positive Rake



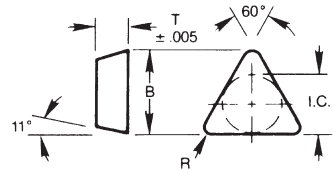
Utility tolerance.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TPU-222	TPU-222	1/4	±.005	1/8	1/32	.344
TPU-322	TPU-322	3/8	±.005	1/8	1/32	.531
TPU-432	TPU-432	1/2	±.005	3/16	1/32	.719
TPU-433	TPU-433	1/2	±.005	3/16	3/64	.703

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

TPU - Triangle - Positive Rake



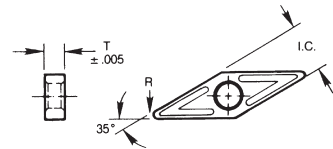
Utility tolerance.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.	B In.
TPU-222	TPU-222	1/4	±.005	1/8	1/32	.344
TPU-322	TPU-322	3/8	±.005	1/8	1/32	.531
TPU-432	TPU-432	1/2	±.005	3/16	1/32	.719
TPU-433	TPU-433	1/2	±.005	3/16	3/64	.703

Note: Available grades C-2, C-5 and TiN coated.

INDEXABLE INSERTS

VNMG - 35° Diamond - Negative Rake



With chip control.

No.	Style No.	I.C. In.	Tol. In.	T In.	R In.
VNMG-332	VNMG-332	3/8	±.002	3/16	1/32
VNMG-432	VNMG-432	1/2	±.003	3/16	1/32

Note: Available grades C-2, C-5 and TiN coated.

IMCO

Ground Rods

Premium high strength micrograin carbide. Cut to length. Ground rod tolerance dia. +.0000"/-.0005", splits +.001"/-.000" above center.

Style GM. Cut to length sizes.

Style RRG. 12" random rod.

Complete Information Available on Request.

IMCO

Random Rods

Style RR - Unground

Premium high strength micrograin carbide.

Complete Information Available on Request.

IMCO

Engraving Blanks

Premium high strength micrograin carbide.

Style SET. Single end split.

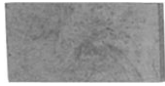
Style DET. Double end split.

Complete Information Available on Request.

IMCO
Reamer Tips
Information



Style RT



Style RRT

Grade C2. Tough WC/Co unalloyed grade. Recommend for use in stainless steels, cast irons, nonferrous metals, nonmetals, most high temperature alloys.

Complete Information Available on Request.

IMCO
Tool Blanks
Ground - Information



Style SS - Square

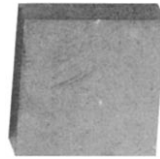


Style SR - Round

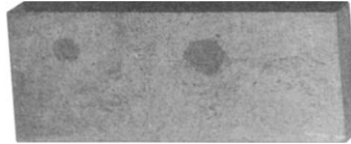
Grade C2. Tough WC/Co unalloyed grade. Recommended for use in stainless steels, cast irons, nonferrous metals, nonmetals, most high temperature alloys. Other grades available by request.

Complete Information Available on Request.

IMCO
Rectangular Blanks
Unground - Information



Style 1000



Style STB

For wear strips or tool manufacturing.

Grade C2. Tough WC/Co unalloyed grade. Recommend for use in stainless steels, cast irons, nonferrous metals, nonmetals, most high temperature alloys.

Grade C5. Alloyed grade recommended for soft to moderately hard steels.

Complete Information Available on Request.

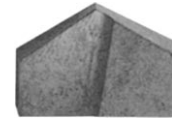
IMCO
Radius Corner Blanks
Style 2000



Grade C2. Tough WC/Co unalloyed grade. For use in stainless steels, cast irons, nonferrous metals, nonmetals, most high temperature alloys. Other grades available on request.

Complete Information Available on Request.

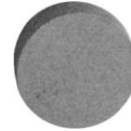
IMCO
Drill Tips
Style TD - Information



Drill sizes 1/8" to 1 5/32" are grade C2. Drill sizes 1/2" to 1 1/2" are grade C1.

Complete Information Available on Request.

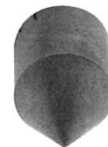
IMCO
Discs
Style DSP - Information



Grade C2. Tough WC/Co unalloyed grade. Recommend for use in stainless steels, cast irons, nonferrous metals, nonmetals, most high temperature alloys. Other grades available on request.

Complete Information Available on Request.

IMCO
Center Blanks
Style CT



Include standard grade C1. Other grades available upon request.

Complete Information Available on Request.

IF YOU CAN'T FIND IT HERE . . .

Let us know!

Many of the goods and services we can offer are not listed in this catalog. Don't give up looking for the hard-to-find.

We are ready to serve you at all times.