



# SAWS

## H1 - H20

**24 HOUR SAW PROGRAM** H2

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**FEATURES & BENEFITS** H4 - H5

**SOLID CARBIDE SAWS** H6 - H18

SAWS	3/4" - 4" Diameters	H6 - H11
	20mm - 100mm Diameters	H12 - H18

**RECOMMENDED CUTTING CONDITIONS** H19 - H20

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## **24-HOUR SERVICE!**

*Inch & Metric Sizes!*

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✓ **24-HOUR SHIPMENT** of premium quality SOLID CARBIDE “*THIN SAWS*”

- Diameter Range - INCH: 3/4” through 4” • METRIC: 20mm through 100mm
- Thickness Range - INCH: 0.008” through 0.250” • METRIC: .20mm through 6.35mm
- Arbor hole sizes - INCH: 1/4”, 5/16”, 3/8”, 1/2”, 5/8”, 7/8”, 1”  
METRIC: 5mm, 8mm, 10mm, 13mm, 16mm, 22mm
- Tolerances - INCH: +0.0005”/ -0.0000” on ID and thickness; O.D. tolerance = +0.005”/-0.000”  
METRIC: +0.013mm/ -0.0000mm on ID and thickness; O.D. tolerance = +0.13mm/-0.000mm

- ✓ Up to 6-pieces in 24-hours.
- ✓ Unsurpassed accuracy and tolerances provide consistent, dependable performance.
- ✓ Standard square tooth configurations available.
- ✓ Technical expertise to solve difficult or unusual sawing, slitting, slotting and cutting operations.
- ✓ For Special Applications, see “**Saws Test Application Data Sheet**” and Contact us at **1.888.848.8449** to request a quote.
- ✓ Our tool designers will be pleased to assist with your specific needs.

SAWS TEST APPLICATION DATA SHEET

Kyocera Sales Rep.: \_\_\_\_\_  
Customer Name: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
City/State: \_\_\_\_\_ Distributor: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
Contact: \_\_\_\_\_ Title: \_\_\_\_\_ Extn.: \_\_\_\_\_

**GENERAL INFORMATION**

(Application) B/P or Job # \_\_\_\_\_  
 SC  C-Tipped  H.S.S. Saw Dia. \_\_\_\_\_ Saw Width \_\_\_\_\_ Tolerance \_\_\_\_\_  
Arbor Hole Dia. \_\_\_\_\_ # Teeth \_\_\_\_\_ Special Tooth Form \_\_\_\_\_  
Keyway (Y/N) \_\_\_\_\_ Keyway Dimension \_\_\_\_\_ Hub (Y/N) \_\_\_\_\_  
Hub Dimension: Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ Rake Angle \_\_\_\_\_  
Positive / Negative \_\_\_\_\_ Surface Treatment \_\_\_\_\_  
Unique Job Details \_\_\_\_\_

**JOB APPLICATION**

Operation \_\_\_\_\_ Slot Width \_\_\_\_\_ Tolerance \_\_\_\_\_  
Depth of Cut \_\_\_\_\_ Tolerance \_\_\_\_\_ Material \_\_\_\_\_  
Hardness \_\_\_\_\_ Machine Tool \_\_\_\_\_ Condition \_\_\_\_\_  
Speed \_\_\_\_\_ Feed \_\_\_\_\_ Coolant Type \_\_\_\_\_ Mix \_\_\_\_\_  
Are saws ganged? (Y/N) \_\_\_\_\_ If yes, tolerance required \_\_\_\_\_  
Form to be generated \_\_\_\_\_ (Sketch or B/P helpful)

**COMPETITION**

Brand Name \_\_\_\_\_ Price (\$) \_\_\_\_\_  
Delivery \_\_\_\_\_ Annual Usage \_\_\_\_\_  
Current performance info. or problem \_\_\_\_\_  
Criteria for successful test \_\_\_\_\_

**TEST EVALUATION**

PO# \_\_\_\_\_ Date \_\_\_\_\_ Dist. PO# \_\_\_\_\_  
Results \_\_\_\_\_  
Were you present for test? Y/N \_\_\_\_\_ Comments \_\_\_\_\_

## FEATURES AND BENEFITS

*Solid Carbide Saws*

### SOLID CARBIDE THIN SAWS & CUTTERS

*Designed and manufactured to your exact specifications.*

- Solid Carbide Saws as THIN as .0020"
- As THICK as 1.000"
- O.D.'s to 7.5"
- Tolerances to: +.0005"  
- .0000"
- Modified and Special Saws available, with tighter tolerances when required.



### EXTREME THINNESS

Our solid carbide saws can be manufactured as thin as .0020" (a human hair is about .0040" thick!). This extreme miniaturization is made possible through our numerous years of experience, a dedicated team of saw-makers unparalleled the world over, and our service-oriented approach to meeting your cutting tool requirements. We're prepared to work with you on your specific saw application.

### EXTREME PRECISION AND MINIATURIZATION

The miniature saw shown at left has an O.D. of .5000" with 24 precision teeth. We take pride in producing saws with precision and tolerances unexcelled by any other manufacturer. We will provide saws with any degree of precision and tolerance required by your job application.



A	DRILLS
B	END MILLS
C	ROUTERS
D	THREAD MILLS & TAPS
E	ENGRAVERS
F	BORING BARS
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**FEATURES AND BENEFITS**

*Solid Carbide Saws*



Our cutters are manufactured with dish towards the arbor hole to avoid dragging in the cut, thereby reducing side friction. This feature is especially helpful in deep cuts, cutting copper, certain plastics and where parts tend to compress on the saw blade from cutting pressures.

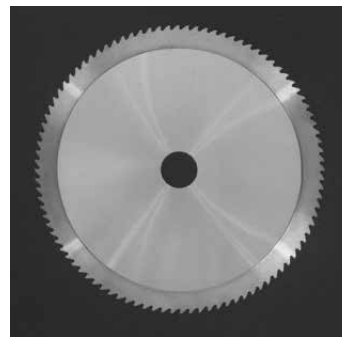
Our solid carbide saws excel in overcoming the abrasive action encountered in individual and gang slotting of tough steels, cast irons and exotic non-ferrous and non-metallic materials such as fiberglass, epoxies and composites.

Use of solid carbide saws permits a far greater number of teeth in a given saw size than is possible with carbide tipped saws. A greater number of teeth allows reduced chip load, higher speeds and feeds, and improved quality of the finished cut.

Titanium Nitride (TiN) coating and other surface treatments can be added to all cutters for superior cutting performance and finish, providing up to 8 times increase in tool life in many materials.

Cutters with an O.D. of 2" or larger are stocked with standard hubs and keyways to give you the highest performance. Cutters may be ordered without hubs or keyways.

Timely shipment of your tooling is of paramount importance because we believe that customer satisfaction is our most important goal. We realize that we can gain the highest degree of customer confidence by manufacturing and shipping only the best saws and cutters available.



*Our precision solid carbide saws provide the ultimate combination of:*

- *Maximum cutting speeds for minimum cost per unit of production and maximum output;*
- *Maximum tool life (up to 100 times the life of high speed steel), giving dramatic savings in machine downtime, regrinding and tool costs;*
- *Maximum precision and finish of cut (generally burr-free);*
- *Maximum precision of saw tolerances; +.0005" / -.0000" on thickness, and +.005" / -.000" outside diameter. (Tighter tolerances are available as specials.)*

DRILLS	<b>A</b>
END MILLS	<b>B</b>
ROUTERS	<b>C</b>
THREAD MILLS & TAPS	<b>D</b>
ENGRAVERS	<b>E</b>
BORING BARS	<b>F</b>
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<b>A</b>	DRILLS
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Standard Tolerances	Saw Dia. (in)	Arbor Hole Dia. (in)	Saw Width			No. of Teeth	Part Number	Stock
			Fraction (in)	Decimal (in)	Metric (mm)			
Saw Dia. +0.005" -0.000"	3/4	1/4	1/32	0.0313	0.795	18	SC075002500031-18	◆
			3/64	0.0469	1.191	18	SC075002500047-18	◆
			1/16	0.0625	1.588	18	SC075002500063-18	◆
Arbor Hole Size +0.0005" -0.0000"	1	3/8	-	0.0080	0.203	20	SC100003750008-20	◆
			-	0.0100	0.254	20	SC100003750010-20	◆
			-	0.0120	0.305	20	SC100003750012-20	◆
			-	0.0140	0.356	20	SC100003750014-20	◆
			1/64	0.0156	0.396	20	SC100003750015-20	◆
			-	0.0180	0.457	20	SC100003750018-20	◆
Side Run-Out < 0.0005"	1	3/8	-	0.0200	0.508	20	SC100003750020-20	◆
			-	0.0230	0.584	20	SC100003750023-20	◆
			-	0.0250	0.635	20	SC100003750025-20	◆
Thickness +0.0005" -0.0000"	1	3/8	-	0.0280	0.711	20	SC100003750028-20	◆
			-	0.0300	0.762	20	SC100003750030-20	◆
			1/32	0.0313	0.795	20	SC100003750031-20	◆
Standard Tolerances	1	3/8	-	0.0350	0.889	20	SC100003750035-20	◆
			-	0.0394	1.000	20	SC100003750039-20	◆
			-	0.0400	1.016	20	SC100003750040-20	◆
			3/64	0.0469	1.191	20	SC100003750047-20	◆
			-	0.0500	1.270	20	SC100003750050-20	◆
			-	0.0510	1.295	20	SC100003750051-20	◆
			-	0.0600	1.524	20	SC100003750060-20	◆
			1/16	0.0625	1.588	20	SC100003750063-20	◆
			-	0.0700	1.778	20	SC100003750070-20	◆
			5/64	0.0781	1.984	20	SC100003750078-20	◆
			-	0.0787	2.000	20	SC100003750079-20	◆
			-	0.0800	2.032	20	SC100003750080-20	◆
Standard Tolerances	1	3/8	-	0.0900	2.286	20	SC100003750090-20	◆
			3/32	0.0938	2.383	20	SC100003750094-20	◆
			-	0.1000	2.540	20	SC100003750100-20	◆
			-	0.1100	2.794	20	SC100003750110-20	◆
			-	0.1181	3.000	20	SC100003750118-20	◆
			-	0.1200	3.048	20	SC100003750120-20	◆
			1/8	0.1250	3.175	20	SC100003750125-20	◆
			-	0.1300	3.302	20	SC100003750130-20	◆
			-	0.1400	3.556	20	SC100003750140-20	◆
			-	0.1500	3.810	20	SC100003750150-20	◆
			5/32	0.1563	3.970	20	SC100003750156-20	◆
			-	0.1575	4.001	20	SC100003750158-20	◆
Standard Tolerances	1	3/8	-	0.1600	4.064	20	SC100003750160-20	◆
			-	0.1700	4.318	20	SC100003750170-20	◆
			-	0.1800	4.572	20	SC100003750180-20	◆
			3/16	0.1875	4.763	20	SC100003750188-20	◆
			-	0.1900	4.826	20	SC100003750190-20	◆
			-	0.1969	5.000	20	SC100003750197-20	◆
			-	0.2000	5.080	20	SC100003750200-20	◆
			-	0.2100	5.334	20	SC100003750210-20	◆
			7/32	0.2188	5.558	20	SC100003750219-20	◆
			-	0.2200	5.588	20	SC100003750220-20	◆
			-	0.2300	5.842	20	SC100003750230-20	◆
			-	0.2362	6.000	20	SC100003750236-20	◆
Standard Tolerances	1	3/8	-	0.2400	6.096	20	SC100003750240-20	◆
			1/4	0.2500	6.350	20	SC100003750250-20	◆

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Saw Dia. (in)	Arbor Hole Dia. (in)	Saw Width			No. of Teeth	Part Number	Stock	Standard Tolerances
		Fraction (in)	Decimal (in)	Metric (mm)				
1-1/4	5/16	1/32	0.0313	0.795	24	SC125003130031-24	◆	<b>Saw Dia.</b> +0.005" -0.000"  <b>Arbor Hole Size</b> +0.0005" -0.0000"  <b>Side Run-Out</b> < 0.0005"  <b>Thickness</b> +0.0005" -0.0000"
		3/64	0.0469	1.191	24	SC125003130047-24	◆	
		1/16	0.0625	1.588	24	SC125003130063-24	◆	
		3/32	0.0938	2.383	24	SC125003130094-24	◆	
	1/2	1/8	0.1250	3.175	24	SC125003130125-24	◆	
		1/32	0.0313	0.795	24	SC125005000031-24	◆	
		3/64	0.0469	1.191	24	SC125005000047-24	◆	
		1/16	0.0625	1.588	24	SC125005000063-24	◆	
1-1/2	1/2	3/32	0.0938	2.383	24	SC125005000094-24	◆	
		1/8	0.1250	3.175	24	SC125005000125-24	◆	
		1/32	0.0313	0.795	32	SC150005000031-32	◆	
		3/64	0.0469	1.191	32	SC150005000047-32	◆	
		1/16	0.0625	1.588	32	SC150005000063-32	◆	
1-3/4	1/2	3/32	0.0938	2.383	32	SC150005000094-32	◆	
		1/8	0.1250	3.175	32	SC150005000125-32	◆	
		1/32	0.0313	0.795	36	SC175005000031-36	◆	
		3/64	0.0469	1.191	36	SC175005000047-36	◆	
	5/8	1/16	0.0625	1.588	36	SC175005000063-36	◆	
		1/32	0.0313	0.795	36	SC175006250031-36	◆	
		3/64	0.0469	1.191	36	SC175006250047-36	◆	
		1/16	0.0625	1.588	36	SC175006250063-36	◆	
	7/8	1/32	0.0313	0.795	36	SC175008750031-36	◆	
		3/64	0.0469	1.191	36	SC175008750047-36	◆	
		1/16	0.0625	1.588	36	SC175008750063-36	◆	
		3/32	0.0938	2.383	36	SC175008750094-36	◆	
2	1/2	1/8	0.1250	3.175	36	SC175008750125-36	◆	
		-	0.0080	0.203	36	SC200005000008-36	◆	
		-	0.0100	0.254	36	SC200005000010-36	◆	
		-	0.0120	0.305	36	SC200005000012-36	◆	
		-	0.0140	0.356	36	SC200005000014-36	◆	
		1/64	0.0156	0.396	36	SC200005000015-36	◆	
		-	0.0180	0.457	36	SC200005000018-36	◆	
		-	0.0200	0.508	36	SC200005000020-36	◆	
		-	0.0230	0.584	36	SC200005000023-36	◆	
		-	0.0250	0.635	36	SC200005000025-36	◆	
		-	0.0280	0.711	36	SC200005000028-36	◆	
		-	0.0300	0.762	36	SC200005000030-36	◆	
		1/32	0.0313	0.795	36	SC200005000031-36	◆	
		-	0.0350	0.889	36	SC200005000035-36	◆	
		-	0.0394	1.001	36	SC200005000039-36	◆	
		-	0.0400	1.016	36	SC200005000040-36	◆	
		3/64	0.0469	1.191	36	SC200005000047-36	◆	
		-	0.0500	1.270	36	SC200005000050-36	◆	
		-	0.0510	1.295	36	SC200005000051-36	◆	
		-	0.0600	1.524	36	SC200005000060-36	◆	
		1/16	0.0625	1.588	36	SC200005000063-36	◆	
		-	0.0700	1.778	36	SC200005000070-36	◆	
		5/64	0.0781	1.984	36	SC200005000078-36	◆	
		-	0.0787	1.999	36	SC200005000079-36	◆	
		-	0.0800	2.032	36	SC200005000080-36	◆	
		-	0.0900	2.286	36	SC200005000090-36	◆	
		3/32	0.0938	2.383	36	SC200005000094-36	◆	
		-	0.1000	2.540	36	SC200005000100-36	◆	

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◆ : Usually Ships in 24-48 Hours  
Depending on Size and Quantity

(U.S.) 1.888.848.8449  
(International) 001.714.428.3636  
Pricing & Availability at [KyoceraPrecisionTools.com](http://KyoceraPrecisionTools.com)



<b>A</b>	DRILLS
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Standard Tolerances		Saw Dia. (in)	Arbor Hole Dia. (in)	Fraction (in)	Saw Width Decimal (in)	Metric (mm)	No. of Teeth	Part Number	Stock
Saw Dia. +0.005" -0.000"	2	1/2	-	0.1100	2.794	36	SC200005000110-36	◆	
			-	0.1181	3.000	36	SC200005000118-36	◆	
			-	0.1200	3.048	36	SC200005000120-36	◆	
			1/8	0.1250	3.175	36	SC200005000125-36	◆	
Arbor Hole Size +0.0005" -0.0000"	2	1/2	-	0.1300	3.302	36	SC200005000130-36	◆	
			-	0.1400	3.556	36	SC200005000140-36	◆	
			-	0.1500	3.810	36	SC200005000150-36	◆	
			5/32	0.1563	3.969	36	SC200005000156-36	◆	
Side Run-Out < 0.0005"	2	1/2	-	0.1575	4.000	36	SC200005000158-36	◆	
			-	0.1600	4.064	36	SC200005000160-36	◆	
			-	0.1700	4.318	36	SC200005000170-36	◆	
			-	0.1800	4.572	36	SC200005000180-36	◆	
Thickness +0.0005" -0.0000"	2	1/2	3/16	0.1875	4.763	36	SC200005000188-36	◆	
			-	0.1900	4.826	36	SC200005000190-36	◆	
			-	0.1969	5.000	36	SC200005000197-36	◆	
			-	0.2000	5.080	36	SC200005000200-36	◆	
2	1/2	-	0.2100	5.334	36	SC200005000210-36	◆		
		7/32	0.2188	5.556	36	SC200005000219-36	◆		
		-	0.2200	5.588	36	SC200005000220-36	◆		
		-	0.2300	5.842	36	SC200005000230-36	◆		
		-	0.2362	6.000	36	SC200005000236-36	◆		
		-	0.2400	6.096	36	SC200005000240-36	◆		
		1/4	0.2500	6.350	36	SC200005000250-36	◆		
		1	1/16	0.0625	1.588	24	SC200010000063-24	◆	
			3/32	0.0938	2.381	24	SC200010000094-24	◆	
			1/8	0.1250	3.175	24	SC200010000125-24	◆	
			1/32	0.0313	0.794	36	SC200010000031-36	◆	
			3/64	0.0469	1.191	36	SC200010000047-36	◆	
			1/16	0.0625	1.588	36	SC200010000063-36	◆	
			3/32	0.0938	2.381	36	SC200010000094-36	◆	
			1/8	0.1250	3.175	36	SC200010000125-36	◆	
		1	3/16	0.1875	4.763	36	SC200010000188-36	◆	
1/4	0.2500		6.350	36	SC200010000250-36	◆			
1/16	0.0625		1.588	48	SC200010000063-48	◆			
3/32	0.0938		2.381	48	SC200010000094-48	◆			
1/8	0.1250		3.175	48	SC200010000125-48	◆			
1/32	0.0313		0.794	40	SC225005000031-40	◆			
3/64	0.0469		1.191	40	SC225005000047-40	◆			
1/16	0.0625		1.588	40	SC225005000063-40	◆			
2-1/4	1/2	3/32	0.0938	2.381	40	SC225005000094-40	◆		
		1/8	0.1250	3.175	40	SC225005000125-40	◆		
		5/32	0.1563	3.969	40	SC225005000156-40	◆		
		1/16	0.0625	1.588	28	SC225006250063-28	◆		
		3/32	0.0938	2.381	28	SC225006250094-28	◆		
		1/8	0.1250	3.175	28	SC225006250125-28	◆		
		1/16	0.0625	1.588	56	SC225006250063-56	◆		
		3/32	0.0938	2.381	56	SC225006250094-56	◆		
	5/8	1/8	0.1250	3.175	56	SC225006250125-56	◆		
		1/32	0.0313	0.794	40	SC225010000031-40	◆		
		3/64	0.0469	1.191	40	SC225010000047-40	◆		
		1/16	0.0625	1.588	40	SC225010000063-40	◆		
		3/32	0.0938	2.381	40	SC225010000094-40	◆		
		1/8	0.1250	3.175	40	SC225010000125-40	◆		
		5/32	0.1563	3.969	40	SC225010000156-40	◆		

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Saw Dia. (in)	Arbor Hole Dia. (in)	Fraction (in)	Saw Width Decimal (in)	Metric (mm)	No. of Teeth	Part Number	Stock	Standard Tolerances
2-1/2	5/8	-	0.0080	0.203	48	SC250006250008-48	◆	Saw Dia. +0.005" -0.000"
		-	0.0100	0.254	48	SC250006250010-48	◆	
		-	0.0120	0.305	48	SC250006250012-48	◆	
		-	0.0140	0.356	48	SC250006250014-48	◆	
		1/64	0.0156	0.397	48	SC250006250015-48	◆	Arbor Hole Size +0.0005" -0.0000"
		-	0.0180	0.457	48	SC250006250018-48	◆	
		-	0.0200	0.508	48	SC250006250020-48	◆	
		-	0.0230	0.584	48	SC250006250023-48	◆	
		-	0.0250	0.635	48	SC250006250025-48	◆	Side Run-Out < 0.0005"
		-	0.0280	0.711	48	SC250006250028-48	◆	
		1/32	0.0300	0.762	48	SC250006250030-48	◆	
		-	0.0313	0.794	48	SC250006250031-48	◆	
		-	0.0350	0.889	48	SC250006250035-48	◆	Thickness +0.0005" -0.0000"
		-	0.0394	1.000	48	SC250006250039-48	◆	
		-	0.0400	1.016	48	SC250006250040-48	◆	
		3/64	0.0469	1.191	48	SC250006250047-48	◆	
		-	0.0500	1.270	48	SC250006250050-48	◆	DRILLS A
		-	0.0510	1.295	48	SC250006250051-48	◆	
		-	0.0600	1.524	48	SC250006250060-48	◆	
		1/16	0.0625	1.588	48	SC250006250063-48	◆	
		-	0.0700	1.778	48	SC250006250070-48	◆	END MILLS B
		5/64	0.0781	1.984	48	SC250006250078-48	◆	
		-	0.0787	2.000	48	SC250006250079-48	◆	
		-	0.0800	2.032	48	SC250006250080-48	◆	
		-	0.0900	2.286	48	SC250006250090-48	◆	ROUTERS C
		3/32	0.0938	2.381	48	SC250006250094-48	◆	
		-	0.1000	2.540	48	SC250006250100-48	◆	
		-	0.1100	2.794	48	SC250006250110-48	◆	
		-	0.1181	3.000	48	SC250006250118-48	◆	THREAD MILLS & TAPS D
		-	0.1200	3.048	48	SC250006250120-48	◆	
		1/8	0.1250	3.175	48	SC250006250125-48	◆	
		-	0.1300	3.302	48	SC250006250130-48	◆	
	-	0.1400	3.556	48	SC250006250140-48	◆	ENGRAVERS E	
	-	0.1500	3.810	48	SC250006250150-48	◆		
	5/32	0.1563	3.969	48	SC250006250156-48	◆		
	-	0.1575	4.000	48	SC250006250158-48	◆		
	-	0.1600	4.064	48	SC250006250160-48	◆	BORING BARS F	
	-	0.1700	4.318	48	SC250006250170-48	◆		
	-	0.1800	4.572	48	SC250006250180-48	◆		
	3/16	0.1875	4.763	48	SC250006250188-48	◆		
	-	0.1900	4.826	48	SC250006250190-48	◆	REAMERS G	
	-	0.1969	5.000	48	SC250006250197-48	◆		
	-	0.2000	5.080	48	SC250006250200-48	◆		
	-	0.2100	5.334	48	SC250006250210-48	◆		
	7/32	0.2188	5.556	48	SC250006250219-48	◆	SAWS H	
	-	0.2200	5.588	48	SC250006250220-48	◆		
	-	0.2300	5.842	48	SC250006250230-48	◆		
	-	0.2362	6.000	48	SC250006250236-48	◆		
-	0.2400	6.096	48	SC250006250240-48	◆	TECHNICAL I		
1/4	0.2500	6.350	48	SC250006250250-48	◆			
1/16	0.0625	1.588	28	SC250010000063-28	◆			
3/32	0.0938	2.381	28	SC250010000094-28	◆			
1/8	0.1250	3.175	28	SC250010000125-28	◆	INDEX J		
5/32	0.1563	3.969	28	SC250010000156-28	◆			

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◆ : Usually Ships in 24-48 Hours  
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		Standard Tolerances	Saw Dia. (in)	Arbor Hole Dia. (in)	Fraction (in)	Saw Width Decimal (in)	Metric (mm)	No. of Teeth	Part Number	Stock				
A	DRILLS	Saw Dia. +0.005" -0.000"	2-1/2	1	1/32	0.0313	0.794	48	SC250010000031-48	◆				
					3/64	0.0469	1.191	48	SC250010000047-48	◆				
					1/16	0.0625	1.588	48	SC250010000063-48	◆				
					3/32	0.0938	2.383	48	SC250010000094-48	◆				
B	END MILLS	Arbor Hole Size +0.0005" -0.0000"			2-1/2	1	1/8	0.1250	3.175	48	SC250010000125-48	◆		
							5/32	0.1563	3.969	48	SC250010000156-48	◆		
							3/16	0.1875	4.763	48	SC250010000188-48	◆		
							1/4	0.2500	6.350	48	SC250010000250-48	◆		
C	ROUTERS	Side Run-Out < 0.0005"					2-1/2	1	1/16	0.0625	1.588	56	SC250010000063-56	◆
									3/32	0.0938	2.381	56	SC250010000094-56	◆
									1/8	0.1250	3.175	56	SC250010000125-56	◆
									5/32	0.1563	3.969	56	SC250010000156-56	◆
D	THREAD MILLS & TAPS	Thickness +0.0005" -0.0000"	2-3/4	1					1/16	0.0625	1.588	30	SC275010000063-30	◆
									3/32	0.0938	2.381	30	SC275010000094-30	◆
									1/8	0.1250	3.175	30	SC275010000125-30	◆
									5/32	0.1563	3.969	30	SC275010000156-30	◆
E	ENGRAVERS				2-3/4	1			-	0.0080	0.203	60	SC275010000008-60	◆
									-	0.0100	0.254	60	SC275010000010-60	◆
									-	0.0120	0.305	60	SC275010000012-60	◆
									-	0.0140	0.356	60	SC275010000014-60	◆
							1/64	0.0156	0.397	60	SC275010000015-60	◆		
							-	0.0180	0.457	60	SC275010000018-60	◆		
							-	0.0200	0.508	60	SC275010000020-60	◆		
							-	0.0230	0.584	60	SC275010000023-60	◆		
			-	0.0250			0.635	60	SC275010000025-60	◆				
			-	0.0280			0.711	60	SC275010000028-60	◆				
			-	0.0300			0.762	60	SC275010000030-60	◆				
			1/32	0.0313			0.794	60	SC275010000031-60	◆				
			-	0.0350	0.889	60	SC275010000035-60	◆						
			-	0.0394	1.000	60	SC275010000039-60	◆						
			-	0.0400	1.016	60	SC275010000040-60	◆						
			F	BORING BARS		2-3/4	1	3/64	0.0469	1.191	60	SC275010000047-60	◆	
-	0.0500	1.270						60	SC275010000050-60	◆				
-	0.0510	1.295						60	SC275010000051-60	◆				
-	0.0600	1.524						60	SC275010000060-60	◆				
1/16	0.0625	1.588						60	SC275010000063-60	◆				
-	0.0700	1.778						60	SC275010000070-60	◆				
5/64	0.0781	1.984						60	SC275010000078-60	◆				
-	0.0787	2.000						60	SC275010000079-60	◆				
-	0.0800	2.032						60	SC275010000080-60	◆				
-	0.0900	2.286						60	SC275010000090-60	◆				
3/32	0.0938	2.381						60	SC275010000094-60	◆				
-	0.1000	2.540						60	SC275010000100-60	◆				
-	0.1100	2.794				60	SC275010000110-60	◆						
-	0.1181	3.000				60	SC275010000118-60	◆						
-	0.1200	3.048				60	SC275010000120-60	◆						
G	REAMERS					2-3/4	1	1/8	0.1250	3.175	60	SC275010000125-60	◆	
			-	0.1300	3.302			60	SC275010000130-60	◆				
			-	0.1400	3.556			60	SC275010000140-60	◆				
			-	0.1500	3.810			60	SC275010000150-60	◆				
			5/32	0.1563	3.969			60	SC275010000156-60	◆				
			-	0.1575	4.000			60	SC275010000158-60	◆				
			-	0.1600	4.064			60	SC275010000160-60	◆				
			-											
H	SAWS		2-3/4	1										
			I	TECHNICAL		2-3/4	1							
J	INDEX					2-3/4	1							

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Saw Dia. (in)	Arbor Hole Dia. (in)	Saw Width			No. of Teeth	Part Number	Stock	Standard Tolerances
		Fraction (in)	Decimal (in)	Metric (mm)				
2-3/4	1	-	0.1700	4.318	60	SC275010000170-60	◆	Saw Dia. +0.005" -0.000"
		-	0.1800	4.572	60	SC275010000180-60	◆	
		3/16	0.1875	4.763	60	SC275010000188-60	◆	
		-	0.1900	4.826	60	SC275010000190-60	◆	
		-	0.1969	5.000	60	SC275010000197-60	◆	Arbor Hole Size +0.0005" -0.0000"
		-	0.2000	5.080	60	SC275010000200-60	◆	
		-	0.2100	5.334	60	SC275010000210-60	◆	
		7/32	0.2188	5.556	60	SC275010000219-60	◆	
		-	0.2200	5.588	60	SC275010000220-60	◆	Side Run-Out < 0.0005"
		-	0.2300	5.842	60	SC275010000230-60	◆	
		-	0.2362	6.000	60	SC275010000236-60	◆	
		-	0.2400	6.096	60	SC275010000240-60	◆	
		1/4	0.2500	6.350	60	SC275010000250-60	◆	Thickness +0.0005" -0.0000"
3	1	1/16	0.0625	1.588	30	SC300010000063-30	◆	
		3/32	0.0938	2.381	30	SC300010000094-30	◆	
		1/8	0.1250	3.175	30	SC300010000125-30	◆	
		5/32	0.1563	3.969	30	SC300010000156-30	◆	
		1/32	0.0313	0.794	60	SC300010000031-60	◆	
		3/64	0.0469	1.191	60	SC300010000047-60	◆	
		1/16	0.0625	1.588	60	SC300010000063-60	◆	
		3/32	0.0938	2.381	60	SC300010000094-60	◆	
		1/8	0.1250	3.175	60	SC300010000125-60	◆	
		5/32	0.1563	3.969	60	SC300010000156-60	◆	
		3/16	0.1875	4.763	60	SC300010000188-60	◆	
		1/4	0.2500	6.350	60	SC300010000250-60	◆	
4	1	1/16	0.0625	1.588	36	SC400010000063-36	◆	
		3/32	0.0938	2.381	36	SC400010000094-36	◆	
		1/8	0.1250	3.175	36	SC400010000125-36	◆	
		5/32	0.1563	3.969	36	SC400010000156-36	◆	
		1/4	0.2500	6.350	36	SC400010000250-36	◆	
		1/32	0.0313	0.794	72	SC400010000031-72	◆	
		3/64	0.0469	1.191	72	SC400010000047-72	◆	
		1/16	0.0625	1.588	72	SC400010000063-72	◆	
		3/32	0.0938	2.381	72	SC400010000094-72	◆	
		1/8	0.1250	3.175	72	SC400010000125-72	◆	
		5/32	0.1563	3.969	72	SC400010000156-72	◆	
		3/16	0.1875	4.763	72	SC400010000188-72	◆	
1/4	0.2500	6.350	72	SC400010000250-72	◆			

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Standard Tolerances	Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock
			Fraction (in)	Decimal (in)	Metric (mm)			
Saw Dia. +0.1270mm -0.000mm	20	5	1/32	0.0313	0.794	10	SC20050794-10	◆
			3/64	0.0469	1.191	10	SC20051191-10	◆
			1/16	0.0625	1.588	10	SC20051588-10	◆
			1/32	0.0313	0.794	20	SC20050794-20	◆
			3/64	0.0469	1.191	20	SC20051191-20	◆
			1/16	0.0625	1.588	20	SC20051588-20	◆
Arbor Hole Size +0.0127mm -0.000mm	20	5	-	0.0080	0.203	10	SC25080203-10	◆
			-	0.0100	0.254	10	SC25080254-10	◆
			-	0.0120	0.305	10	SC25080305-10	◆
			-	0.0140	0.356	10	SC25080356-10	◆
			-	0.0156	0.396	10	SC25080396-10	◆
			-	0.0180	0.457	10	SC25080457-10	◆
Side Run-Out < 0.0127mm	20	5	-	0.0200	0.508	10	SC25080508-10	◆
			-	0.0230	0.584	10	SC25080584-10	◆
			-	0.0250	0.635	10	SC25080635-10	◆
			-	0.0280	0.711	10	SC25080711-10	◆
			-	0.0300	0.762	10	SC25080762-10	◆
			1/32	0.0313	0.795	10	SC25080795-10	◆
Thickness +0.0127mm -0.000mm	20	5	-	0.0350	0.889	10	SC25080889-10	◆
			-	0.0394	1.001	10	SC25081001-10	◆
			-	0.0400	1.016	10	SC25081016-10	◆
			3/64	0.0469	1.191	10	SC25081191-10	◆
			-	0.0500	1.270	10	SC25081270-10	◆
			-	0.0510	1.295	10	SC25081295-10	◆
	25	8	-	0.0600	1.524	10	SC25081524-10	◆
			1/16	0.0625	1.588	10	SC25081588-10	◆
			-	0.0700	1.778	10	SC25081778-10	◆
			-	0.0781	1.984	10	SC25081984-10	◆
			-	0.0787	1.999	10	SC25081999-10	◆
			-	0.0800	2.032	10	SC25082032-10	◆
	25	8	-	0.0900	2.286	10	SC25082286-10	◆
			3/32	0.0938	2.383	10	SC25082383-10	◆
			-	0.1000	2.540	10	SC25082540-10	◆
			-	0.1100	2.794	10	SC25082794-10	◆
			-	0.1181	3.000	10	SC25083000-10	◆
			-	0.1200	3.048	10	SC25083048-10	◆
	25	8	-	0.1250	3.175	10	SC25083175-10	◆
			-	0.1300	3.302	10	SC25083302-10	◆
			-	0.1400	3.556	10	SC25083556-10	◆
			-	0.1500	3.810	10	SC25083810-10	◆
			5/32	0.1563	3.970	10	SC25083970-10	◆
			-	0.1575	4.001	10	SC25084001-10	◆
	25	8	-	0.1600	4.064	10	SC25084064-10	◆
			-	0.1700	4.318	10	SC25084318-10	◆
			-	0.1800	4.572	10	SC25084572-10	◆
			3/16	0.1875	4.763	10	SC25084763-10	◆
			-	0.1900	4.826	10	SC25084826-10	◆
			-	0.1969	5.001	10	SC25085001-10	◆
	25	8	-	0.2000	5.080	10	SC25085080-10	◆
			-	0.2100	5.334	10	SC25085334-10	◆
			-	0.2188	5.558	10	SC25085558-10	◆
			-	0.2200	5.588	10	SC25085588-10	◆
			-	0.2300	5.842	10	SC25085842-10	◆
			-	0.2300	5.842	10	SC25085842-10	◆

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Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock	Standard Tolerances
		Fraction (in)	Decimal (in)	Metric (mm)				
25	8	-	0.2362	5.999	10	SC25085999-10	◆	Saw Dia. +0.1270mm -0.000mm
		-	0.2400	6.096	10	SC25086096-10	◆	
		-	0.2500	6.350	10	SC25086350-10	◆	
		-	0.0080	0.203	20	SC25080203-20	◆	
		-	0.0100	0.254	20	SC25080254-20	◆	Arbor Hole Size +0.0127mm -0.0000mm
		-	0.0120	0.305	20	SC25080305-20	◆	
		-	0.0140	0.356	20	SC25080356-20	◆	
		-	0.0156	0.396	20	SC25080396-20	◆	
		-	0.0180	0.457	20	SC25080457-20	◆	Side Run-Out < 0.0127mm
		-	0.0200	0.508	20	SC25080508-20	◆	
		-	0.0230	0.584	20	SC25080584-20	◆	
		-	0.0250	0.635	20	SC25080635-20	◆	
		-	0.0280	0.711	20	SC25080711-20	◆	Thickness +0.0127mm -0.0000mm
		-	0.0300	0.762	20	SC25080762-20	◆	
		1/32	0.0313	0.795	20	SC25080795-20	◆	
		-	0.0350	0.889	20	SC25080889-20	◆	
		-	0.0394	1.001	20	SC25081001-20	◆	D
		-	0.0400	1.016	20	SC25081016-20	◆	
		3/64	0.0469	1.191	20	SC25081191-20	◆	
		-	0.0500	1.270	20	SC25081270-20	◆	
		-	0.0510	1.295	20	SC25081295-20	◆	E
		-	0.0600	1.524	20	SC25081524-20	◆	
		1/16	0.0625	1.588	20	SC25081588-20	◆	
		-	0.0700	1.778	20	SC25081778-20	◆	
		-	0.0781	1.984	20	SC25081984-20	◆	F
		-	0.0787	1.999	20	SC25081999-20	◆	
		-	0.0800	2.032	20	SC25082032-20	◆	
		-	0.0900	2.286	20	SC25082286-20	◆	
		3/32	0.0938	2.383	20	SC25082383-20	◆	G
		-	0.1000	2.540	20	SC25082540-20	◆	
		-	0.1100	2.794	20	SC25082794-20	◆	
		-	0.1181	3.000	20	SC25083000-20	◆	
		-	0.1200	3.048	20	SC25083048-20	◆	H
		-	0.1250	3.175	20	SC25083175-20	◆	
		-	0.1300	3.302	20	SC25083302-20	◆	
		-	0.1400	3.556	20	SC25083556-20	◆	
		-	0.1500	3.810	20	SC25083810-20	◆	I
		5/32	0.1563	3.970	20	SC25083970-20	◆	
		-	0.1575	4.001	20	SC25084001-20	◆	
		-	0.1600	4.064	20	SC25084064-20	◆	
-	0.1700	4.318	20	SC25084318-20	◆	J		
-	0.1800	4.572	20	SC25084572-20	◆			
3/16	0.1875	4.763	20	SC25084763-20	◆			
-	0.1900	4.826	20	SC25084826-20	◆			
-	0.1969	5.001	20	SC25085001-20	◆			
-	0.2000	5.080	20	SC25085080-20	◆			
-	0.2100	5.334	20	SC25085334-20	◆			
-	0.2188	5.558	20	SC25085558-20	◆			
-	0.2200	5.588	20	SC25085588-20	◆			
-	0.2300	5.842	20	SC25085842-20	◆			
-	0.2362	5.999	20	SC25085999-20	◆			
-	0.2400	6.096	20	SC25086096-20	◆			
-	0.2500	6.350	20	SC25086350-20	◆			

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◆ : Usually Ships in 24-48 Hours  
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<b>A</b>	DRILLS
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Standard Tolerances	Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock
			Fraction (in)	Decimal (in)	Metric (mm)			
Saw Dia. +0.1270mm -0.000mm	30	8	1/32	0.0313	0.794	16	SC30080794-16	◆
			3/64	0.0469	1.191	16	SC30081191-16	◆
			1/16	0.0625	1.588	16	SC30081588-16	◆
			3/32	0.0938	2.383	16	SC30082383-16	◆
			1/8	0.1250	3.175	16	SC30083175-16	◆
			1/32	0.0313	0.794	32	SC30080794-32	◆
			3/64	0.0469	1.191	32	SC30081191-32	◆
			1/16	0.0625	1.588	32	SC30081588-32	◆
			3/32	0.0938	2.383	32	SC30082383-32	◆
			1/8	0.1250	3.175	32	SC30083175-32	◆
			1/32	0.0313	0.794	16	SC40100794-16	◆
			3/64	0.0469	1.191	16	SC40101191-16	◆
Arbor Hole Size +0.0127mm -0.0000mm	40	10	1/16	0.0625	1.588	16	SC40101588-16	◆
			3/32	0.0938	2.383	16	SC40102383-16	◆
			1/8	0.1250	3.175	16	SC40103175-16	◆
			1/32	0.0313	0.794	32	SC40100794-32	◆
			3/64	0.0469	1.191	32	SC40101191-32	◆
			1/16	0.0625	1.588	32	SC40101588-32	◆
			3/32	0.0938	2.383	32	SC40102383-32	◆
			1/8	0.1250	3.175	32	SC40103175-32	◆
			-	0.0080	0.203	20	SC50130203-20	◆
			-	0.0100	0.254	20	SC50130254-20	◆
			-	0.0120	0.305	20	SC50130305-20	◆
			-	0.0140	0.356	20	SC50130356-20	◆
Side Run-Out < 0.0127mm	50	13	-	0.0156	0.396	20	SC50130396-20	◆
			-	0.0180	0.457	20	SC50130457-20	◆
			-	0.0200	0.508	20	SC50130508-20	◆
			-	0.0230	0.584	20	SC50130584-20	◆
			-	0.0250	0.635	20	SC50130635-20	◆
			-	0.0280	0.711	20	SC50130711-20	◆
			-	0.0300	0.762	20	SC50130762-20	◆
			1/32	0.0313	0.795	20	SC50130795-20	◆
			-	0.0350	0.889	20	SC50130889-20	◆
			-	0.0394	1.001	20	SC50131001-20	◆
			-	0.0400	1.016	20	SC50131016-20	◆
			3/64	0.0469	1.191	20	SC50131191-20	◆
Thickness +0.0127mm -0.0000mm	50	13	-	0.0500	1.270	20	SC50131270-20	◆
			-	0.0510	1.295	20	SC50131295-20	◆
			-	0.0600	1.524	20	SC50131524-20	◆
			1/16	0.0625	1.588	20	SC50131588-20	◆
			-	0.0700	1.778	20	SC50131778-20	◆
			-	0.0781	1.984	20	SC50131984-20	◆
			-	0.0787	1.999	20	SC50131999-20	◆
			-	0.0800	2.032	20	SC50132032-20	◆
			-	0.0900	2.286	20	SC50132286-20	◆
			3/32	0.0938	2.383	20	SC50132383-20	◆
			-	0.1000	2.540	20	SC50132540-20	◆
			-	0.1100	2.794	20	SC50132794-20	◆
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Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock	Standard Tolerances
		Fraction (in)	Decimal (in)	Metric (mm)				
50	13	-	0.1500	3.810	20	SC50133810-20	◆	Saw Dia. +0.1270mm -0.000mm
		5/32	0.1563	3.970	20	SC50133970-20	◆	
		-	0.1575	4.001	20	SC50134001-20	◆	
		-	0.1600	4.064	20	SC50134064-20	◆	
		-	0.1700	4.318	20	SC50134318-20	◆	Arbor Hole Size +0.0127mm -0.000mm
		-	0.1800	4.572	20	SC50134572-20	◆	
		3/16	0.1875	4.763	20	SC50134763-20	◆	
		-	0.1900	4.826	20	SC50134826-20	◆	
		-	0.1969	5.001	20	SC50135001-20	◆	Side Run-Out < 0.0127mm
		-	0.2000	5.080	20	SC50135080-20	◆	
		-	0.2100	5.334	20	SC50135334-20	◆	
		-	0.2188	5.558	20	SC50135558-20	◆	
		-	0.2200	5.588	20	SC50135588-20	◆	Thickness +0.0127mm -0.000mm
		-	0.2300	5.842	20	SC50135842-20	◆	
		-	0.2362	5.999	20	SC50135999-20	◆	
		-	0.2400	6.096	20	SC50136096-20	◆	
		-	0.2500	6.350	20	SC50136350-20	◆	D
		-	0.0080	0.203	40	SC50130203-40	◆	
		-	0.0100	0.254	40	SC50130254-40	◆	
		-	0.0120	0.305	40	SC50130305-40	◆	
		-	0.0140	0.356	40	SC50130356-40	◆	E
		-	0.0156	0.396	40	SC50130396-40	◆	
		-	0.0180	0.457	40	SC50130457-40	◆	
		-	0.0200	0.508	40	SC50130508-40	◆	
		-	0.0230	0.584	40	SC50130584-40	◆	F
		-	0.0250	0.635	40	SC50130635-40	◆	
		-	0.0280	0.711	40	SC50130711-40	◆	
		-	0.0300	0.762	40	SC50130762-40	◆	
		1/32	0.0313	0.795	40	SC50130795-40	◆	G
		-	0.0350	0.889	40	SC50130889-40	◆	
		-	0.0394	1.001	40	SC50131001-40	◆	
		-	0.0400	1.016	40	SC50131016-40	◆	
		3/64	0.0469	1.191	40	SC50131191-40	◆	H
		-	0.0500	1.270	40	SC50131270-40	◆	
		-	0.0510	1.295	40	SC50131295-40	◆	
		-	0.0600	1.524	40	SC50131524-40	◆	
		1/16	0.0625	1.588	40	SC50131588-40	◆	I
		-	0.0700	1.778	40	SC50131778-40	◆	
		-	0.0781	1.984	40	SC50131984-40	◆	
		-	0.0787	1.999	40	SC50131999-40	◆	
-	0.0800	2.032	40	SC50132032-40	◆	J		
-	0.0900	2.286	40	SC50132286-40	◆			
3/32	0.0938	2.383	40	SC50132383-40	◆			
-	0.1000	2.540	40	SC50132540-40	◆			
-	0.1100	2.794	40	SC50132794-40	◆	INDEX		
-	0.1181	3.000	40	SC50133000-40	◆			
-	0.1200	3.048	40	SC50133048-40	◆			
-	0.1250	3.175	40	SC50133175-40	◆			
-	0.1300	3.302	40	SC50133302-40	◆			
-	0.1400	3.556	40	SC50133556-40	◆			
-	0.1500	3.810	40	SC50133810-40	◆			
5/32	0.1563	3.970	40	SC50133970-40	◆			
-	0.1575	4.001	40	SC50134001-40	◆			

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Standard Tolerances		Saw Dia. (mm)	Arbor Hole Dia. (mm)	Fraction (in)	Saw Width Decimal (in)	Metric (mm)	No. of Teeth	Part Number	Stock
<b>Saw Dia.</b> +0.1270mm -0.000mm	<b>Arbor Hole Size</b> +0.0127mm -0.0000mm	50	13	-	0.1600	4.064	40	SC50134064-40	◆
				-	0.1700	4.318	40	SC50134318-40	◆
				-	0.1800	4.572	40	SC50134572-40	◆
				3/16	0.1875	4.763	40	SC50134763-40	◆
				-	0.1900	4.826	40	SC50134826-40	◆
				-	0.1969	5.001	40	SC50135001-40	◆
				-	0.2000	5.080	40	SC50135080-40	◆
				-	0.2100	5.334	40	SC50135334-40	◆
				-	0.2188	5.558	40	SC50135558-40	◆
				-	0.2200	5.588	40	SC50135588-40	◆
				-	0.2300	5.842	40	SC50135842-40	◆
				-	0.2362	5.999	40	SC50135999-40	◆
<b>Side Run-Out</b> < 0.0127mm				-	0.2400	6.096	40	SC50136096-40	◆
				-	0.2500	6.350	40	SC50136350-40	◆
				-	0.0080	0.203	24	SC63160203-24	◆
				-	0.0100	0.254	24	SC63160254-24	◆
				-	0.0120	0.305	24	SC63160305-24	◆
				-	0.0140	0.356	24	SC63160356-24	◆
				-	0.0156	0.396	24	SC63160396-24	◆
				-	0.0180	0.457	24	SC63160457-24	◆
				-	0.0200	0.508	24	SC63160508-24	◆
				-	0.0230	0.584	24	SC63160584-24	◆
				-	0.0250	0.635	24	SC63160635-24	◆
				<b>Thickness</b> +0.0127mm -0.0000mm				-	0.0280
-	0.0300	0.762	24					SC63160762-24	◆
1/32	0.0313	0.795	24					SC63160795-24	◆
-	0.0350	0.889	24					SC63160889-24	◆
-	0.0394	1.001	24					SC63161001-24	◆
-	0.0400	1.016	24					SC63161016-24	◆
3/64	0.0469	1.191	24					SC63161191-24	◆
-	0.0500	1.270	24					SC63161270-24	◆
-	0.0510	1.295	24					SC63161295-24	◆
-	0.0600	1.524	24					SC63161524-24	◆
1/16	0.0625	1.588	24					SC63161588-24	◆
-	0.0700	1.778	24					SC63161778-24	◆
-	0.0781	1.984	24	SC63161984-24	◆				
-	0.0787	1.999	24	SC63161999-24	◆				
-	0.0800	2.032	24	SC63162032-24	◆				
-	0.0900	2.286	24	SC63162286-24	◆				
3/32	0.0938	2.383	24	SC63162383-24	◆				
-	0.1000	2.540	24	SC63162540-24	◆				
-	0.1100	2.794	24	SC63162794-24	◆				
-	0.1181	3.000	24	SC63163000-24	◆				
-	0.1200	3.048	24	SC63163048-24	◆				
-	0.1250	3.175	24	SC63163175-24	◆				
-	0.1300	3.302	24	SC63163302-24	◆				
-	0.1400	3.556	24	SC63163556-24	◆				
-	0.1500	3.810	24	SC63163810-24	◆				
5/32	0.1563	3.970	24	SC63163970-24	◆				
-	0.1575	4.001	24	SC63164001-24	◆				
-	0.1600	4.064	24	SC63164064-24	◆				
-	0.1700	4.318	24	SC63164318-24	◆				
-	0.1800	4.572	24	SC63164572-24	◆				

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Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock	Standard Tolerances
		Fraction (in)	Decimal (in)	Metric (mm)				
63	16	3/16	0.1875	4.763	24	SC63164763-24	◆	Saw Dia. +0.1270mm -0.000mm
		-	0.1900	4.826	24	SC63164826-24	◆	
		-	0.1969	5.001	24	SC63165001-24	◆	
		-	0.2000	5.080	24	SC63165080-24	◆	
		-	0.2100	5.334	24	SC63165334-24	◆	Arbor Hole Size +0.0127mm -0.000mm
		-	0.2188	5.558	24	SC63165558-24	◆	
		-	0.2200	5.588	24	SC63165588-24	◆	
		-	0.2300	5.842	24	SC63165842-24	◆	
		-	0.2362	5.999	24	SC63165999-24	◆	Side Run-Out < 0.0127mm
		-	0.2400	6.096	24	SC63166096-24	◆	
		-	0.2500	6.350	24	SC63166350-24	◆	
		-	0.0080	0.203	48	SC63160203-48	◆	
		-	0.0100	0.254	48	SC63160254-48	◆	Thickness +0.0127mm -0.000mm
		-	0.0120	0.305	48	SC63160305-48	◆	
		-	0.0140	0.356	48	SC63160356-48	◆	
		-	0.0156	0.396	48	SC63160396-48	◆	
		-	0.0180	0.457	48	SC63160457-48	◆	A
		-	0.0200	0.508	48	SC63160508-48	◆	
		-	0.0230	0.584	48	SC63160584-48	◆	
		-	0.0250	0.635	48	SC63160635-48	◆	
		-	0.0280	0.711	48	SC63160711-48	◆	B
		-	0.0300	0.762	48	SC63160762-48	◆	
		1/32	0.0313	0.795	48	SC63160795-48	◆	
		-	0.0350	0.889	48	SC63160889-48	◆	
		-	0.0394	1.001	48	SC63161001-48	◆	C
		-	0.0400	1.016	48	SC63161016-48	◆	
		3/64	0.0469	1.191	48	SC63161191-48	◆	
		-	0.0500	1.270	48	SC63161270-48	◆	
		-	0.0510	1.295	48	SC63161295-48	◆	D
		-	0.0600	1.524	48	SC63161524-48	◆	
		1/16	0.0625	1.588	48	SC63161588-48	◆	
		-	0.0700	1.778	48	SC63161778-48	◆	
		-	0.0781	1.984	48	SC63161984-48	◆	E
		-	0.0787	1.999	48	SC63161999-48	◆	
		-	0.0800	2.032	48	SC63162032-48	◆	
		-	0.0900	2.286	48	SC63162286-48	◆	
		3/32	0.0938	2.383	48	SC63162383-48	◆	F
		-	0.1000	2.540	48	SC63162540-48	◆	
		-	0.1100	2.794	48	SC63162794-48	◆	
		-	0.1181	3.000	48	SC63163000-48	◆	
		-	0.1200	3.048	48	SC63163048-48	◆	G
		-	0.1250	3.175	48	SC63163175-48	◆	
		-	0.1300	3.302	48	SC63163302-48	◆	
		-	0.1400	3.556	48	SC63163556-48	◆	
		-	0.1500	3.810	48	SC63163810-48	◆	H
		5/32	0.1563	3.970	48	SC63163970-48	◆	
		-	0.1575	4.001	48	SC63164001-48	◆	
		-	0.1600	4.064	48	SC63164064-48	◆	
-	0.1700	4.318	48	SC63164318-48	◆	I		
-	0.1800	4.572	48	SC63164572-48	◆			
3/16	0.1875	4.763	48	SC63164763-48	◆			
-	0.1900	4.826	48	SC63164826-48	◆			
-	0.1969	5.001	48	SC63165001-48	◆	J		

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	Standard Tolerances	Saw Dia. (mm)	Arbor Hole Dia. (mm)	Saw Width			No. of Teeth	Part Number	Stock
				Fraction (in)	Decimal (in)	Metric (mm)			
A DRILLS	Saw Dia. +0.1270mm -0.000mm	63	16	-	0.2000	5.080	48	SC63165080-48	◆
				-	0.2100	5.334	48	SC63165334-48	◆
				-	0.2188	5.558	48	SC63165558-48	◆
				-	0.2200	5.588	48	SC63165588-48	◆
				-	0.2300	5.842	48	SC63165842-48	◆
				-	0.2362	5.999	48	SC63165999-48	◆
				-	0.2400	6.096	48	SC63166096-48	◆
				-	0.2500	6.350	48	SC63166350-48	◆
B END MILLS	Arbor Hole Size +0.0127mm -0.000mm	63	16	-	0.2000	5.080	48	SC63165080-48	◆
				-	0.2100	5.334	48	SC63165334-48	◆
				-	0.2188	5.558	48	SC63165558-48	◆
				-	0.2200	5.588	48	SC63165588-48	◆
				-	0.2300	5.842	48	SC63165842-48	◆
				-	0.2362	5.999	48	SC63165999-48	◆
				-	0.2400	6.096	48	SC63166096-48	◆
				-	0.2500	6.350	48	SC63166350-48	◆
C ROUTERS	Side Run-Out < 0.0127mm	80	22	1/32	0.0313	0.794	30	SC80220794-30	◆
				3/64	0.0469	1.191	30	SC80221191-30	◆
				1/16	0.0625	1.588	30	SC80221588-30	◆
				3/32	0.0938	2.383	30	SC80222383-30	◆
				1/8	0.1250	3.175	30	SC80223175-30	◆
				5/32	0.1563	3.969	30	SC80223969-30	◆
				3/16	0.1875	4.763	30	SC80224763-30	◆
				1/4	0.2500	6.350	30	SC80226350-30	◆
D THREAD MILLS & TAPS	Thickness +0.0127mm -0.000mm	80	22	1/32	0.0313	0.794	60	SC80220794-60	◆
				3/64	0.0469	1.191	60	SC80221191-60	◆
				1/16	0.0625	1.588	60	SC80221588-60	◆
				3/32	0.0938	2.383	60	SC80222383-60	◆
				1/8	0.1250	3.175	60	SC80223175-60	◆
				5/32	0.1563	3.969	60	SC80223969-60	◆
				3/16	0.1875	4.763	60	SC80224763-60	◆
				1/4	0.2500	6.350	60	SC80226350-60	◆
E ENGRAVERS		100	22	1/32	0.0313	0.794	40	SC100220794-40	◆
				3/64	0.0469	1.191	40	SC100221191-40	◆
				1/16	0.0625	1.588	40	SC100221588-40	◆
				3/32	0.0938	2.383	40	SC100222383-40	◆
				1/8	0.1250	3.175	40	SC100223175-40	◆
				5/32	0.1563	3.969	40	SC100223969-40	◆
				3/16	0.1875	4.763	40	SC100224763-40	◆
				1/4	0.2500	6.350	40	SC100226350-40	◆
F BORING BARS		100	22	1/32	0.0313	0.794	80	SC100220794-80	◆
				3/64	0.0469	1.191	80	SC100221191-80	◆
				1/16	0.0625	1.588	80	SC100221588-80	◆
				3/32	0.0938	2.383	80	SC100222383-80	◆
				1/8	0.1250	3.175	80	SC100223175-80	◆
				5/32	0.1563	3.969	80	SC100223969-80	◆
				3/16	0.1875	4.763	80	SC100224763-80	◆
				1/4	0.2500	6.350	80	SC100226350-80	◆
G REAMERS		100	22	1/32	0.0313	0.794	80	SC100220794-80	◆
				3/64	0.0469	1.191	80	SC100221191-80	◆
				1/16	0.0625	1.588	80	SC100221588-80	◆
				3/32	0.0938	2.383	80	SC100222383-80	◆
				1/8	0.1250	3.175	80	SC100223175-80	◆
				5/32	0.1563	3.969	80	SC100223969-80	◆
				3/16	0.1875	4.763	80	SC100224763-80	◆
				1/4	0.2500	6.350	80	SC100226350-80	◆
H SAWS		100	22	1/32	0.0313	0.794	80	SC100220794-80	◆
				3/64	0.0469	1.191	80	SC100221191-80	◆
				1/16	0.0625	1.588	80	SC100221588-80	◆
				3/32	0.0938	2.383	80	SC100222383-80	◆
				1/8	0.1250	3.175	80	SC100223175-80	◆
				5/32	0.1563	3.969	80	SC100223969-80	◆
				3/16	0.1875	4.763	80	SC100224763-80	◆
				1/4	0.2500	6.350	80	SC100226350-80	◆
I TECHNICAL		100	22	1/32	0.0313	0.794	80	SC100220794-80	◆
				3/64	0.0469	1.191	80	SC100221191-80	◆
				1/16	0.0625	1.588	80	SC100221588-80	◆
				3/32	0.0938	2.383	80	SC100222383-80	◆
				1/8	0.1250	3.175	80	SC100223175-80	◆
				5/32	0.1563	3.969	80	SC100223969-80	◆
				3/16	0.1875	4.763	80	SC100224763-80	◆
				1/4	0.2500	6.350	80	SC100226350-80	◆
J INDEX		100	22	1/32	0.0313	0.794	80	SC100220794-80	◆
				3/64	0.0469	1.191	80	SC100221191-80	◆
				1/16	0.0625	1.588	80	SC100221588-80	◆
				3/32	0.0938	2.383	80	SC100222383-80	◆
				1/8	0.1250	3.175	80	SC100223175-80	◆
				5/32	0.1563	3.969	80	SC100223969-80	◆
				3/16	0.1875	4.763	80	SC100224763-80	◆
				1/4	0.2500	6.350	80	SC100226350-80	◆

Recommended cutting conditions [Page H19](#)

# RECOMMENDED CUTTING CONDITIONS

These are general cutting speed recommendations of SFM rates, and may vary from application to application.

Material* To Be Cut	Hardness Range (Bhn**)	Carbide Saw Cutting Speed SFM / (m/min.)	Material* To Be Cut	Hardness Range (Bhn**)	Carbide Saw Cutting Speed SFM / (m/min.)
Free Machining Carbon Steels-Wrought	100-425	130-555 (40-170)	Malleable Cast Irons	110-320	130-470 (40-145)
Carbon Steels- Wrought	85-425	105-530 (35-165)	Chromium-Nickel Alloy Castings	275-375	85-105 (25-35)
Carbon & Ferritic Alloy Steels (High Temp. Service)	150-200	320-425 (100-130)	Aluminum Alloys-Wrought	30-150	3400-4250 (1042-1300)
Free Machining Alloy Steels-Wrought	150-425	35-470 (11-145)	Aluminum Alloys-Cast	40-125	2125-5315 (640-1615)
Alloy Steels, Wrought	125-425	35-425 (11-130)	Magnesium Alloys-Wrought	40-125	5100-6375 (1555-1955)
High Strength Steels-Wrought	225-400	35-255 (11-80)	Magnesium Alloys-Cast	50-90	5100-6375 (1555-1955)
Maraging Steels- Wrought	275-425	35-215 (11-65)	Titanium Alloys-Wrought	110-440	65-530 (25-165)
Tool Steels- Wrought	100-375	35-470 (11-145)	Titanium Alloys-Cast	150-350	170-470 (55-145)
Nitriding Steels- Wrought	200-350	150-215 (50-65)	Copper Alloys-Wrought	10R <sub>B</sub> -100R <sub>B</sub>	340-2125 (105-640)
Armor Plate, Ship Plate, Aircraft Plate-Wrought	200-350	65-215 (25-65)	Copper Alloys-Cast	40-200	340-1700 (105-510)
Structural Steels- Wrought	100-400	35-255 (11-80)	Nickel Alloys- Wrought and Cast	80-360	65-300 (25-90)
Free Machining Stainless Steels-Wrought	135-425	150-470 (50-145)	Beryllium Nickel Alloys- Wrought and Cast	200-425 47-52R <sub>C</sub>	35-215 (11-65)
Stainless Steels- Wrought	135-425	35-425 (11-130)	High Temp. Alloys- Wrought and Cast	140-475	35-255 (11-80)
Precipitation Hardening Stainless Steels-Wrought	150-440	85-340 (25-105)	Refractory Alloys- Cast, P/M	170-320	150-300 (50-90)
Stainless Steels- Cast	135-425	105-425 (35-130)	Zinc Alloys- Cast	80-100	1380-1700 (425-510)
Precipitation Hardening Stainless Steels-Cast	325-450	65-130 (25-40)	Lead Alloys- Cast	5-20	1065-1275 (325-385)
Carbon Steels- Cast	100-300	170-530 (55-165)	TiN Alloys- Cast	15-30	1065-1275 (325-385)
Alloy Steels- Cast	150-400	105-340 (35-105)	Zirconium Alloys- Wrought	140-280	215-255 (65-80)
Tool Steels- Cast	150-375 & 48-50R <sub>C</sub>	35-300 (11-90)	Manganese- Wrought	140-220	105-130 (35-40)
Gray Cast Irons	120-320	105-470 (35-145)	P/M Alloys- Copper	50-70R <sub>F</sub>	170-215 (55-65)
Compacted Graphite Cast Irons	120-330	105-170 (35-55)	P/M Alloys- Brasses	35-81R <sub>H</sub>	215-255 (65-80)
Ductile Cast Irons	120-330	85-510 (25-160)	P/M Alloys- Bronzes	30-75R <sub>F</sub>	170-215 (55-65)

DRILLS	<b>A</b>
END MILLS	<b>B</b>
ROUTERS	<b>C</b>
THREAD MILLS & TAPS	<b>D</b>
ENGRAVERS	<b>E</b>
BORING BARS	<b>F</b>
REAMERS	<b>G</b>
SAWS	<b>H</b>
TECHNICAL	<b>I</b>
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(Continued on Next Page)

\*Materials list from Machining Data Handbook-3rd Edition, published by the Machinability Data Center. For specific metals/materials within each material category, refer to Machining Data Handbook.

\*\*Hardness range listed in Brinell unless otherwise noted. 'Range' covers all metals/materials listed within each material group.

\*\*\*Thermosetting plastics have various hardness scales. Refer to Machining Data Handbook.

# RECOMMENDED CUTTING CONDITIONS

A DRILLS  
B END MILLS  
C ROUTERS  
D THREAD MILLS & TAPS  
E ENGRAVERS  
F BORING BARS  
G REAMERS  
H SAWS  
I TECHNICAL  
J INDEX

Material* To Be Cut	Hardness Range (Bhn**)	Carbide Saw Cutting Speed SFM / (m/min.)
P/M Alloys- Copper-Nickel Alloys	22-100RH	170-215 55-65
P/M Alloys- Nickel and Nickel Alloys	70-83	170-215 55-65
P/M Alloys- Refractory Metal Base	101-260	405-510 124-160
P/M Alloys- Irons	50-67	215-255 65-80
P/M Alloys- Steels	101-426	150-255 50-80
P/M Alloys- Stainless Steels	107-285	170-215 55-65
P/M Alloys- Aluminum Alloys	55-98RH	510-640 160-195
Machinable Carbides	40-51Rc	35-45 11-13
Free Machining Magnetic Alloys	185-240	215-340 65-105
Magnetic Alloys	185-240	55-215 16-65
Free Machining Controlled Expansion Alloys	125-220	215-255 65-80
Controlled Expansion Alloys	125-250	35-45 11-13
Carbons and Graphites	8-100 Shore	150-215 50-65
Glasses and Ceramics- Machinable	250 Knoop	85-105 25-35
Plastics- Thermoplastics	60-120RM	1065-1490 325-450
Plastics- Thermosetting	50-120RR ***	340-1490 105-450

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\*\*Hardness range listed in Brinell unless otherwise noted. 'Range' covers all metals/materials listed within each material group.

\*\*\*Thermosetting plastics have various hardness scales. Refer to Machining Data Handbook.

## USEFUL METALWORKING FORMULAS

<b>SFM</b>	=	.262 X (CUTTER DIA. X RPM) (or) (RPM X CUTTER DIA.) ÷ .382
<b>RPM</b>	=	(3.82 X SFPM) ÷ CUTTER DIA. (or) SFPM ÷ (CUTTER DIA. X .262)
<b>IPM</b>	=	IPR X (# TEETH X RPM)
<b>IPT</b>	=	IPM ÷ (# TEETH X RPM)
<b>IPR</b>	=	IPM ÷ RPM
<b>CIM</b>	=	IPR X SPD. X DOC
<b>HP</b>	=	CIM X UHF
<b>FORCE</b>	=	(33,000 X HP) ÷ SFM

## FEED RATES:

Carbide Saws:

.0002"- .0015" (in.per tooth - IPT)  
or chip load per tooth - CLPT)

NOTE: This is a conservative recommendation as a starting point for feed rates, and may vary depending on material being cut and cutting speed (SFM).

## COATINGS FOR SAWS AND CUTTERS

Cutting tool surface coatings are available upon request. Tool coatings provide tool wear resistance while significantly improving the performance of saws in most applications, particularly when cutting ferrous materials. These coatings are extremely thin, harder than steel and greatly reduce friction and wear. The most common coatings available for carbide saws are:

**TiN: Titanium Nitride** - General purpose TiN hard coating. Best suited for iron-based materials, unalloyed and alloyed steels and hardened steels.

**TiCN: Titanium Carbonitride** - Enhanced hardness and wear resistance over TiN with better surface lubricity. Suited for difficult to machine materials such as cast iron, aluminum alloys, tool steels, copper, Inconel, titanium alloys and nonferrous materials.

**TiAlN: Titanium Aluminum Nitride** - Nano-layered coating, high toughness and oxidation resistance. Recommended for high temperature cutting, and a good choice when coating carbide. Suited for difficult materials like cast iron, aluminum alloys, tool steels and nickel alloys.

**AlCrN: Aluminum Chromium Nitride** - Expanded performance capabilities over titanium-based coatings. Highest oxidation resistance and hot hardness for high temperature wear resistance. Can be used in wet/dry cutting applications. Well suited for a wide range of materials - cast iron, unalloyed steels, high strength steels, high hardness steels.