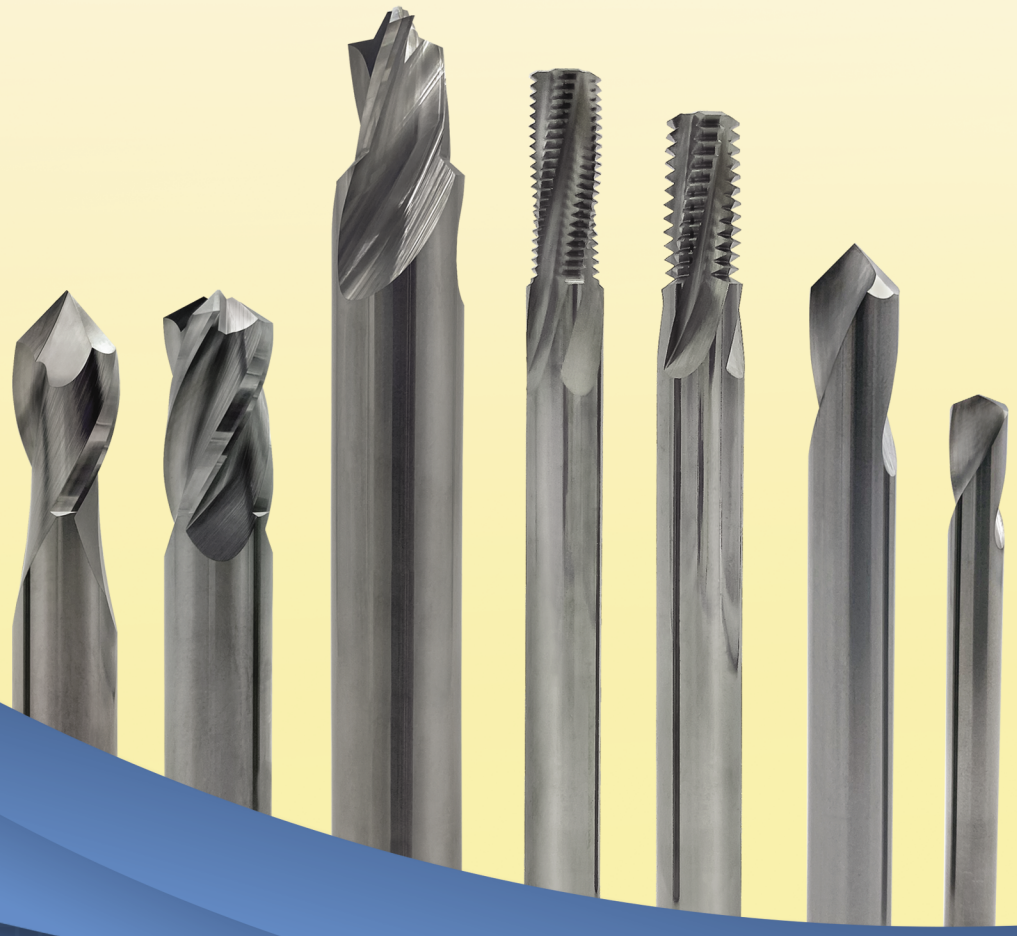
Scientific Cutting Tools



New Product Preview

Featuring: NPS Thread Mills, Autoclave Port Tools, AS5202 Port Tools

SAE J1926 Port Tools, ISO 1179 Port Tools, Drill Mills, Spotting Drills and more

In February 2020, Scientific Cutting Tools celebrated a momentous milestone moving into a brand new facility. The new site features a significantly larger manufacturing floor, custom designed systems for boosting production, an expanded warehouse, and larger office spaces.

Premium Carbide Cutting Tools that Deliver Value

Scientific Cutting Tools, Inc. was **established 59 years ago** as an innovative cutting tool manufacturer. SCT entered the cutting tool manufacturing field with innovative cutting tool designs, an inspired ambition to succeed, and **one driving goal—to deliver unprecedented value to our customers**.

Over the years, SCT has developed new tool lines and refined existing product groups. Through aggressive research and development, SCT has the capability of developing specialized tools for specific customer projects, as well as the ability to modify existing stock tools to meet individual customer needs. SCT has an excellent reputation as a manufacturer of an **extensive line of cutting tools including thread mills, port tools, cavity tools, indexable and solid carbide boring bars, threading tools, grooving tools, and more**. We stock coated (ALTiN+) and uncoated versions of our products and all carbide used in our processes must pass stringent quality tests.

Our commitment to quality control, unparalleled craftsmanship, and customer satisfaction continue to set us above the competition. Scientific Cutting Tools will continue to position itself to be the cutting edge of tomorrow's product design while still offering competitively priced products. The goal of **delivering superior quality tools backed by 100% customer satisfaction** is SCT's guarantee.

Complimentary Technical Assistance

SCT offers complimentary technical assistance during our business hours. Call **800-383-2244** or **805-584-9495**.

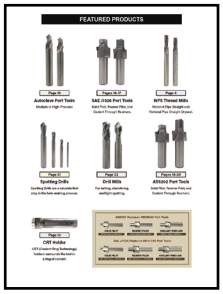
Stay Connected with the Monthly Newsletter

As a subscriber you'll get first access to new product information and updates including exclusive interactive PDF guides. Learn more about our product lines and which trade shows and events Scientific Cutting Tools is attending. Visit **www.sct-usa.com** or the **SCT facebook page** and look for the **newsletter sign-up**.

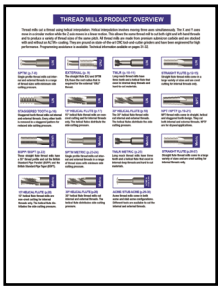
A New Way to Order Products

Order products using either the original **SCT product order #** or the **EDP #**.

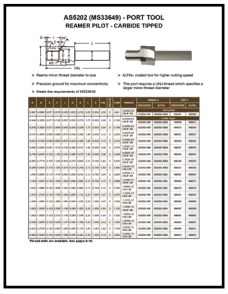
IN THIS BROCHURE:



Featured Tools

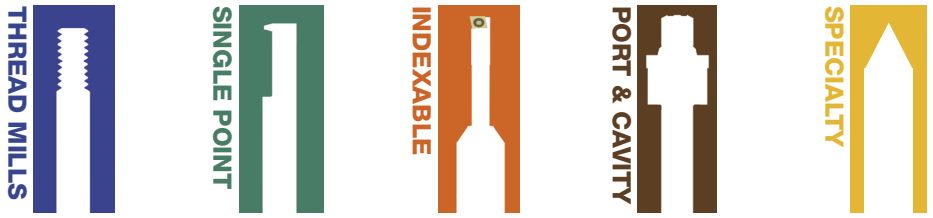


Tool Group Overviews



New Products

Product Videos



SCT manufactures over **8,000 products**. For ease of use, products are color coded by product group.

THE COMPLETE PRODUCT CATALOG IS AVAILABLE ONLINE TO VIEW AND/OR DOWNLOAD AT WWW.SCT-USA.COM

US Made Tools

www.sct-usa.com
sales@sct-usa.com
SCTCuttingTools
Scientific Cutting Tools, Inc.
SCTcuttingtools
Scientific Cutting Tools

FEATURED PRODUCTS

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Autoclave Port Tools

Medium or High-Pressure

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SAE J1926 Port Tools

Solid Pilot, Reamer Pilot, and Coolant Through Reamers.

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NPS Thread Mills

National Pipe Straight and National Pipe Straight Dryseal.

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Spotting Drills

Spotting Drills are a valuable first step in the hole-making process.

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Drill Mills

For milling, chamfering, and light spotting.

Pages 18-20

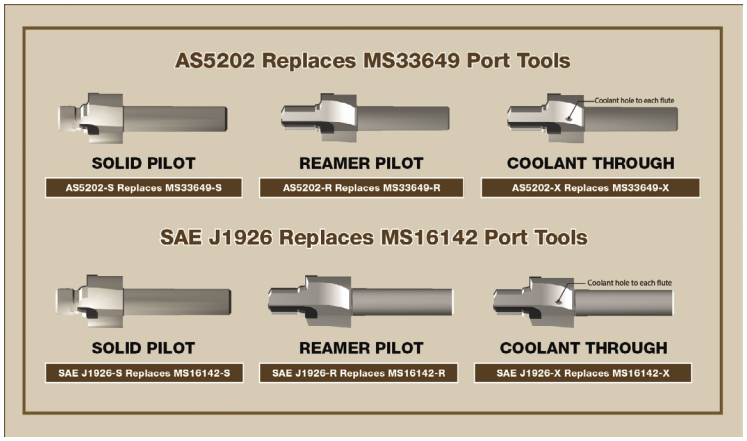
AS5202 Port Tools

Solid Pilot, Reamer Pilot, and Coolant Through Reamers.

Page 13

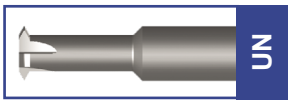
CRT Holder

CRT (Coolant Ring Technology) holders surround the tool in a ring of coolant.

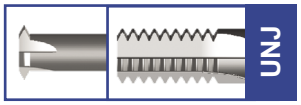


THREAD MILLS PRODUCT OVERVIEW

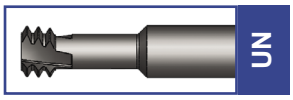
Thread mills cut a thread using helical interpolation. Helical interpolation involves moving three axes simultaneously. The X and Y axes move in a circular motion while the Z axis moves in a linear motion. This allows the same thread mill to cut both right and left-hand threads and to produce a variety of thread sizes of the same pitch. All thread mills are made from premium submicron carbide and are stocked with and without an ALTiN+ coating. They are ground on state-of-the-art CNC tool-and-cutter grinders and have been engineered for high performance. Programming assistance is available. Technical information is available.



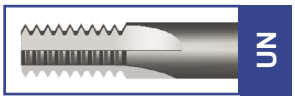
SPTM
Single profile thread mills cut internal and external threads in a range of thread sizes with minimum side cutting pressure.



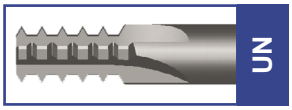
EXTERNAL
The straight flute EXJ and SPTM EXJ have the root radius that is required for the external "UNJ" thread.



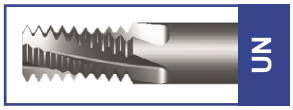
TMLR
Long reach thread mills have three teeth and a helical flute that excel in internal deep threads and hard-to-cut materials.



STRAIGHT FLUTE
Straight flute thread mills come in a large variety of sizes and are crest cutting for internal threads only.

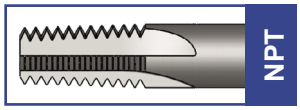


STAGGERED TOOTH
Staggered tooth thread mills cut internal and external threads. Every other tooth is removed in a staggered pattern for reduced side cutting pressure.

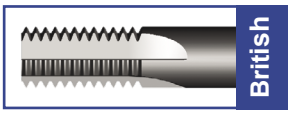


15° HELICAL FLUTE
15° helical flute thread mills are non-crest cutting and for internal threads only. The helical flutes distribute the side cutting pressure.

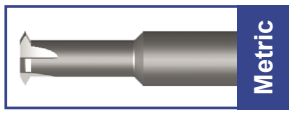
30° HELICAL FLUTE
The 30° helical flute thread mills cut internal and external threads. The helical flutes distribute the side cutting pressure.



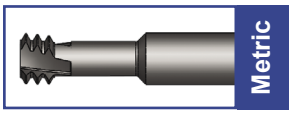
NPT / NPTF
NPT thread mills come in straight, helical and staggered tooth design. They cut both internal and external threads. NPTF are for dryseal applications.



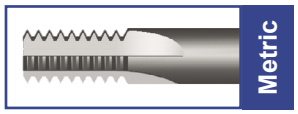
BSPP / BSPT
These straight flute thread mills have a 55° thread profile and cut the British Standard Pipe Parallel (BSPP) and the British Standard Pipe Taper (BSPT).



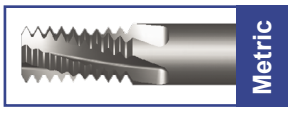
SPTM METRIC
Single profile thread mills cut internal and external threads in a range of thread sizes with minimum side cutting pressure.



TMLR METRIC
Long reach thread mills have three teeth and a helical flute that excel in internal deep threads and hard to cut materials.

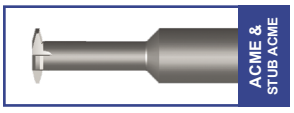


STRAIGHT FLUTE
Straight flute thread mills come in a large variety of sizes and are crest cutting for internal threads only.



15° HELICAL FLUTE
15° helical flute thread mills are non-crest cutting for internal threads only. The helical flute distributes the side cutting pressure.

30° HELICAL FLUTE
30° helical flute thread mills cut internal and external threads. The helical flute distributes side cutting pressure.



ACME / STUB ACME
Acme thread mills come in both acme and stub acme configurations. Different tools are available to cut the internal and external threads.

New Product

NPS/NPSF
NPS thread mills cut NPSC, NPSL, and NPSH straight pipe threads. NPSF thread mills cut NPSF and NPSI straight pipe dryseal threads.

View product pages or the complete product catalog at www.sct-usa.com

SINGLE POINT TOOLS PRODUCT OVERVIEW

All single point tools are designed for internal machining on a lathe. The helical boring bars can be used for both lathe and mill applications. All cutting tools are made from premium submicron carbide and are stocked with and without an ALTiN+ coating. Technical information is available.

CRT Holders

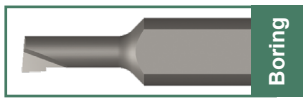
CRT (Coolant Ring Technology) Holders are made with heat-treated steel, feature two lock-down screws for max rigidity, and have coolant flow that surrounds the tool for maximum cooling.

DH/DHF Holders

Our economic holders come in two styles. DH Holders have two set screws and no flats. DHF Holders have two set screws and a flat.

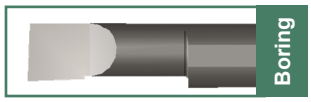
QHC Holders

QHC Holders have two flats on the shank, two coolant holes, and four set screws. QHC Holders can be used with a back stop. Available in inch or metric.



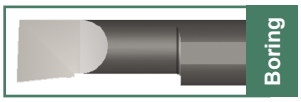
Mini Boring Bars

Mini Boring Bars range in diameter from 0.015 to 0.045 inch. They are fluted for maximum strength.



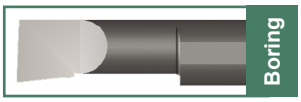
Radial Relief

Radial Relief Boring Bars have a radial relief behind the cutting edge that provides for a strong cutting edge.



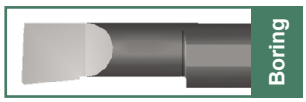
Qualified Boring Bars

Qualified Boring Bars have an overall length that is qualified to ± 0.001 and a minimum bore diameter that is qualified to ± 0.0005.



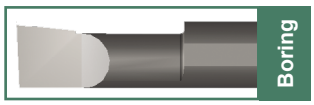
Boring Bars

Boring Bars range in diameter from 0.050" to 0.490" and many different bore depths to achieve max rigidity.



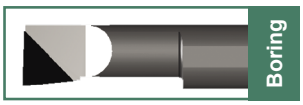
Radius

Radius boring bars feature a corner radius that provides an improved surface finish.



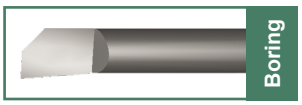
Left-Hand

Left-Hand Boring Bars range in diameter from 0.050 to 0.490 inch and many different bore depths to achieve max rigidity.



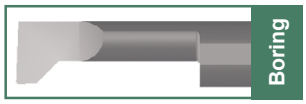
Diamond Tipped

PCD-Tipped Boring Bars cut abrasive non-ferrous materials. CBN-Tipped Boring Bars are for cutting ferrous metal over 45 RC.



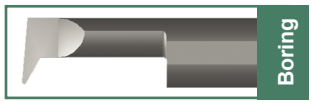
Helical

Helical Boring Bars have a helical flute that produces less side cutting pressure, ideal for the cutting of unfavorable length-to-diameter ratios.



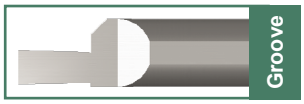
Back Chamfer

Back Chamfer Boring Bars are designed to bore, cut a chamfer at the end of a hole, and cut thread reliefs.



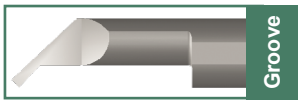
Profile Boring Bars

Profile Boring Bars are ideal tools for internal profiling on CNC lathes.



Face Groove

Face Groove Tools cut a groove in the face of the part.



Undercut Groove

Undercut Groove Tools come with and without a radius. The radius style can be used as a profile tool.

O-Ring Groove Tools

O-Ring Groove Tools are ideal for machining a groove with tapered sides.

Retaining Ring

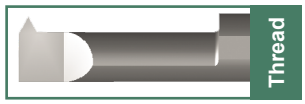
Retaining Ring Groove Tools cut an internal groove with straight edges.

Groove - Full Radius

Full Radius Groove Tools cut an internal groove with straight edges and a full radius.

Thread Tools

Threading Tools come in many different sizes. This facilitates selecting the tool with maximum rigidity.

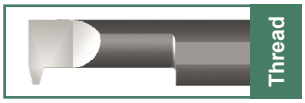


Left Hand Threading

Threading Tools come in many different sizes. This facilitates selecting the tool with maximum rigidity.

Thread Tools Qualified

Thread Tools Qualified have a positive top rake on the flute and a qualified length to facilitate quick tool changes.



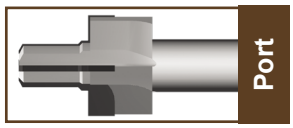
Acme Thread Tools

These threading tools are available with acme or stub acme profiles.

View product pages or the complete product catalog at www.sct-usa.com

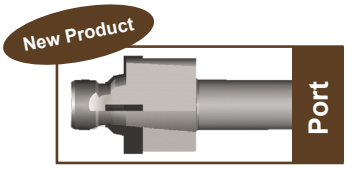
PORT TOOL PRODUCT OVERVIEW

All Port Tools are ground between centers to ensure absolute concentricity. They are made from heat-treated alloy steel with brazed carbide inserts. They are designed to enlarge a pre-drilled hole and easily produce a complex form. Port Tools can be used for both lathe and mill applications. Technical information is available. Modified Port Tools and Specials quoted upon request.



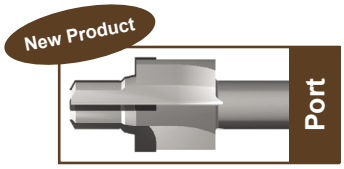
MS33651

This carbide tipped port tool also meets the requirements of the AND10071 port.



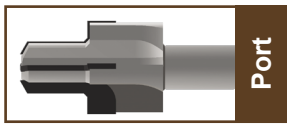
SAE J1926-S

This port is also called the O-Ring Boss or ORB, SAEJ1926-1, SAEJ514. The solid pilot design does not cut the minor-thread diameter.



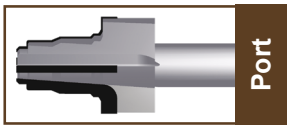
SAE J1926-R

This port is also called the O-Ring Boss or ORB, SAEJ1926-1, SAEJ514. The reamer pilot design cuts the minor-thread diameter.



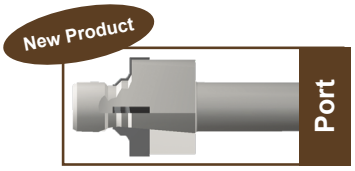
BSPP- Pipe Reamer

British standard parallel pipe port tools (PT-BSPP) cut the minor-thread diameter, the 45º angle, and the spot face.



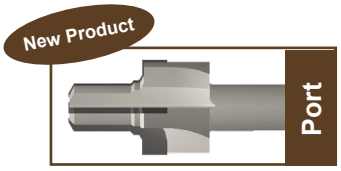
BACD2036

BACD2036 carbide tipped port tools are designed to cut this otherwise difficult-to-cut port.



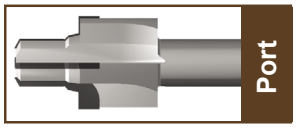
AS5202-S

This port also meets the requirements of MS33649. The solid pilot design does not cut the minor-thread diameter.



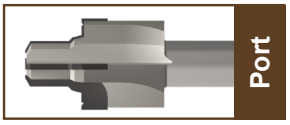
AS5202-R

This port also meets the requirements of MS33649. The reamer pilot design cuts the minor-thread diameter.



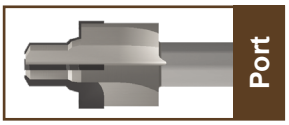
ISO 6149/1

This is also called the SAEJ2244-1. This port does not have the identification notch that identifies it as a metric port.



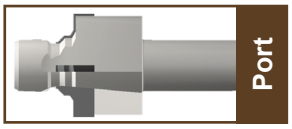
ISO 6149/1 (ID)

This port is also called the SAEJ2244-1. This port has the identification notch that identifies it as a metric port.



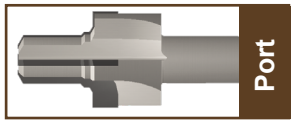
ISO 6149/1 (SF)

This port is also called the SAEJ2244-1. This port has a larger spot face without the identification notch.



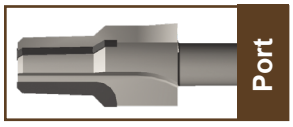
AND10050-S

The solid pilot design does not cut the minor-thread diameter.



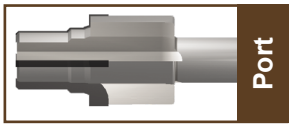
AND10050-R

The reamer pilot design cuts the minor-thread diameter.



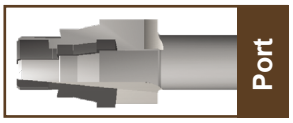
Tapered Pipe Reamer

The (PRSS) tapered pipe reamers cut taper minor diameter of the NPT (1º47' angle) and the 45º countersink for the thread.



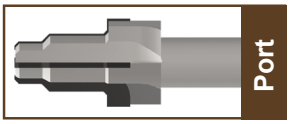
RPT/RFPT

RPT/RFPT port tool will cut a Rosan cavity per AS1300 specification. Another name for this port is PS10035.



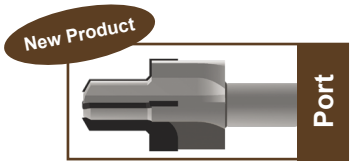
MS33514

This port will cut the AS33514, MS33514 and MS33515 in both style "E" and "G" configurations.



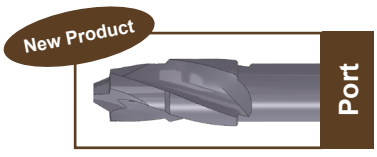
MS21921

MS21921 port tools are made with the same quality heat-treated steel and carbide as the rest of our port tools.



ISO 1179

1179 port tools cut the minor thread (BSPP) diameter, 90 degree included angle, and the spot face per the requirements of ISO 1179.



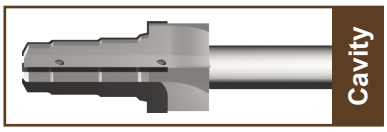
Autoclave (Medium, High)

Completes the port profile per the Parker Autoclave standard. The medium-pressure or high-pressure tools cut the opening chamfer, minor thread diameter, and the port seat.

View product pages or the complete product catalog at www.sct-usa.com

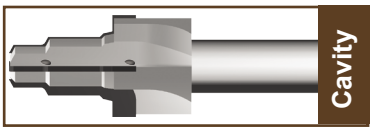
CAVITY TOOL PRODUCT OVERVIEW

All Cavity Tools are ground between centers to ensure absolute concentricity. They are made from heat-treated alloy steel with brazed carbide inserts. They are designed to enlarge a pre-drilled hole and easily produce a complex form. Cavity Tools can be used for both lathe and mill applications. Technical information is available.



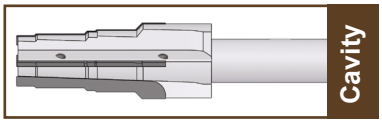
Parker Common Cavity

Parker Common Cavity tools are carbide tipped and are stocked in both roughing and finishing versions.



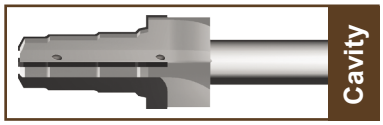
Hydraforce

Hydraforce (VC) carbide tipped cavity tools are stocked in both roughing and finishing versions.



Sun Hydraulic

Sun Hydraulic cavity tools are stocked in both HSS roughing step drills and carbide tipped finishing and roughing versions.



Eaton Vickers

Eaton Vickers cavity tools are carbide tipped and stocked in both roughing and finishing versions.

SPECIALTY END MILL PRODUCT OVERVIEW

Specialty end mills feature the same premium submicron carbide as the rest of the product lines. They are ground on modern CNC tool-and-cutter grinders to tight tolerances and have been engineered for high performance.

Helical Chamfer Mills

Helical Chamfer Mills are made to mill a chamfer on an edge. The diameter sizes range from 1/8" to ¾", and have included angles of 60, 90, and 120 degrees. The tools are not recommended for plunging countersinks.

Corner Rounding End Mills

Corner Rounding End Mills have three flutes and are double ended to provide maximum value. The cutter diameter and the cut depth are held to ±0.001 inch tolerance to provide ease of set-up.

Engraving Tools

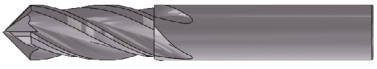
Engraving Tools come in a large variety of angles and sizes. These solid carbide tools will engrave on a large variety of materials. The tool tip is held to ±0.001 inch tolerance for uniformity.

New Product

Spotting Drills

Spotting drills are a valuable first step in the holemaking process. The tool is solid carbide with a precise point angle that is held to a one-degree tolerance for true centering. It is available in 82, 90, 100, 120 and 142 degree point angles.

New Product

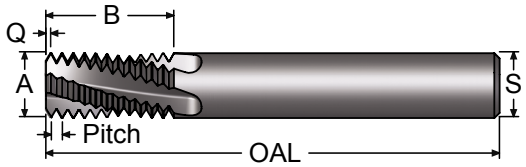


Drill Mills

Drill Mills are designed for milling, chamfering, and light spotting applications. They come with two or four helical flutes each offered in included angles of 90 or 120 degrees. The cutter diameter sizes range from 1/8" to 1½".

View product pages or the complete product catalog at www.sct-usa.com

THREAD MILLS - NPS/NPSF - HELICAL - SOLID CARBIDE



- Helical flute reduces side cutting pressure
- Precision ground for maximum concentricity
- ALTiN+ for longevity and higher SFM

NPS THREAD MILLS - (NATIONAL PIPE STRAIGHT)

- Cuts NPSC, NPSM, NPSL and NPSH straight pipe threads

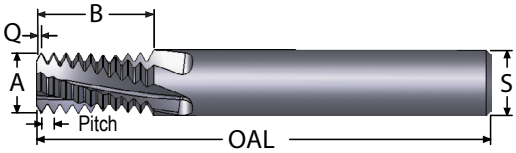
THREAD DIA/PITCH	"A" TOOL DIA.	"B" LENGTH OF CUT	"Q" LENGTH OF CUT	"S" SHANK DIA.	OAL	FLUTES	ORDER #		EDP #	
							UNCOATED	ALTiN+	UNCOATED	ALTiN+
							INTERNAL THREADS ONLY			
1/8-27	0.280	0.507	0.018	0.3125	3.00	4	TM280-27NPS-H	TM280-27NPS-HA	121000	121001
1/4, 3/8-18	0.370	0.693	0.027	0.3750	3.50	4	TM370-18NPS-H	TM370-18NPS-HA	121004	121005
1/2, 3/4-14	0.490	0.893	0.035	0.5000	3.50	4	TM490-14NPS-H	TM490-14NPS-HA	121008	121009
1 to 2 - 11.5	0.620	1.172	0.043	0.6250	4.00	4	TM620-11.5NPS-H	TM620-11.5NPS-HA	121012	121013
2-1/2 up - 8	0.740	1.561	0.062	0.7500	4.00	4	TM740-8NPS-H	TM740-8NPS-HA	121016	121017

NPSF THREAD MILLS - (NATIONAL PIPE STRAIGHT DRYSEAL)

- Cuts NPSF and NPSI straight pipe dryseal threads

THREAD DIA/PITCH	"A" TOOL DIA.	"B" LENGTH OF CUT	"Q" LENGTH OF CUT	"S" SHANK DIA.	OAL	FLUTES	ORDER #		EDP #	
							UNCOATED	ALTiN+	UNCOATED	ALTiN+
							INTERNAL THREADS ONLY			
1/8-27	0.280	0.507	0.018	0.3125	3.00	4	TM280-27NPSF-H	TM280-27NPSF-HA	121002	121003
1/4, 3/8-18	0.370	0.693	0.027	0.3750	3.50	4	TM370-18NPSF-H	TM370-18NPSF-HA	121006	121007
1/2, 3/4-14	0.490	0.893	0.035	0.5000	3.50	4	TM490-14NPSF-H	TM490-14NPSF-HA	121010	121011
1 to 2 - 11.5	0.620	1.172	0.043	0.6250	4.00	4	TM620-11.5NPSF-H	TM620-11.5NPSF-HA	121014	121015
2-1/2 up - 8	0.740	1.561	0.062	0.7500	4.00	4	TM740-8NPSF-H	TM740-8NPSF-HA	121018	121019

UN THREAD MILLS
15° HELICAL FLUTE SOLID CARBIDE



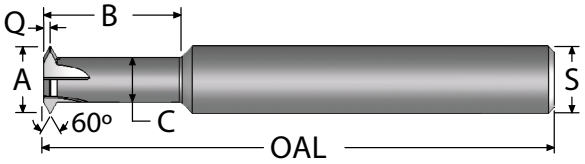
- Cuts UNC, UNF, UNEF, UNS and UNJ (internal only)
- Non-crest cutting allows maximum flexibility for plated and non-standard threads
- Long length-of-cut

MORE SIZES AVAILABLE: 7/16-14 to 1.0-16 UN, as well as Metric tools are online at SCT-USA.COM

MIN ID THREAD / PITCH*	"A" TOOL DIA.	"B" LENGTH OF CUT	"Q" LENGTH	"S" SHANK DIA.	OAL	FLUTES	ORDER #		EDP #	
							UNCOATED	ALTiN+	UNCOATED	ALTiN+
							INTERNAL THREADS ONLY			
4-40	0.079	0.185	0.011	0.250	2.50	2	TMI079-40H	TMI079-40HA	102901	102937
6-32	0.100	0.263	0.014	0.250	2.50	3	TMI100-32H	TMI100-32HA	102904	102940
8-32	0.115	0.263	0.014	0.250	2.50	3	TMI115-32H	TMI115-32HA	102907	102943
10-24	0.120	0.351	0.019	0.250	2.50	3	TMI120-24H	TMI120-24HA	102910	102946
10-28	0.120	0.336	0.016	0.250	2.50	3	TMI120-28H	TMI120-28HA	102913	102949
10-32	0.120	0.326	0.014	0.250	2.50	3	TMI120-32H	TMI120-32HA	102916	102952
1/4-20	0.180	0.521	0.023	0.250	2.50	3	TMI180-20H	TMI180-20HA	102919	102955
1/4-28	0.180	0.515	0.016	0.250	2.50	3	TMI180-28H	TMI180-28HA	102922	102958
5/16-18	0.234	0.632	0.025	0.250	2.50	3	TMI234-18H	TMI234-18HA	102925	102961
5/16-24	0.234	0.641	0.019	0.250	2.50	3	TMI234-24H	TMI234-24HA	102928	102964
5/16-32	0.234	0.638	0.014	0.250	2.50	3	TMI234-32H	TMI234-32HA	102931	102967
5/16-40	0.234	0.635	0.011	0.250	2.50	3	TMI234-40H	TMI234-40HA	102934	102970
3/8-16	0.285	0.775	0.028	0.3125	3.00	4	TMI285-16H	TMI285-16HA	102973	102988
3/8-20	0.285	0.770	0.023	0.3125	3.00	4	TMI285-20H	TMI285-20HA	102976	102991
3/8-24	0.285	0.766	0.019	0.3125	3.00	4	TMI285-24H	TMI285-24HA	102979	102994
3/8-32	0.285	0.763	0.014	0.3125	3.00	4	TMI285-32H	TMI285-32HA	102982	102997

***Thread mills can cut any larger size internal thread of the same pitch**

UN THREAD MILLS
SINGLE PROFILE (SPTM) - SOLID CARBIDE



Fine and coarse threads ranging from #00 to 1¼ + can be milled using the 21 varieties of these single profile thread mills.

MIN INTERNAL THREAD*	"A" TOOL DIA.	"B" LENGTH OF CUT	"C" NECK DIA.	"Q" LENGTH	"S" SHANK DIA.	OAL	FLUTES	INTERNAL LIMITS TPI	EXTERNAL LIMITS TPI	ORDER #		EDP #	
										UNCOATED	AlTiN+	UNCOATED	AlTiN+
										INTERNAL OR EXTERNAL THREADS			
#00	0.032	0.060	0.018	0.005	0.1250	1.50	2	90 to 120	-----	SPTM032	SPTM032A	120001	120067
#00	0.032	0.100	0.018	0.005	0.1250	1.50	2	90 to 120	-----	SPTM032L	SPTM032LA	120004	120070
#0	0.040	0.090	0.022	0.006	0.1250	1.50	2	80 to 100	90 to 100	SPTM040	SPTM040A	120007	120073
#0	0.040	0.109	0.022	0.006	0.1250	1.50	2	80 to 100	90 to 100	SPTM040ML	SPTM040MLA	120013	120079
#0	0.040	0.125	0.022	0.006	0.1250	1.50	2	80 to 100	90 to 100	SPTM040L	SPTM040LA	120010	120076
#1	0.050	0.100	0.028	0.007	0.1250	1.50	3	64 to 80	72 to 80	SPTM050	SPTM050A	120016	120082
#1	0.050	0.125	0.028	0.007	0.1250	1.50	3	64 to 80	72 to 80	SPTM050ML	SPTM050MLA	120022	120088
#1	0.050	0.150	0.028	0.007	0.1250	1.50	3	64 to 80	72 to 80	SPTM050L	SPTM050LA	120019	120085
#1	0.050	0.210	0.028	0.007	0.1250	1.50	3	64 to 80	72 to 80	SPTM050XL	SPTM050XLA	120020	120086
#2	0.059	0.125	0.034	0.008	0.1250	1.50	3	56 to 80	72 to 80	SPTM059	SPTM059A	120025	120091
#2	0.059	0.165	0.034	0.008	0.1250	1.50	3	56 to 80	72 to 80	SPTM059ML	SPTM059MLA	120031	120097
#2	0.059	0.200	0.034	0.008	0.1250	1.50	3	56 to 80	72 to 80	SPTM059L	SPTM059LA	120028	120094
#2	0.059	0.250	0.034	0.008	0.1250	1.50	3	56 to 80	72 to 80	SPTM059XL	SPTM059XLA	120029	120095
#2	0.060	0.125	0.034	0.009	0.1875	2.00	3	56 to 80	72 to 80	SPTM060	SPTM060A	120100	120214
#2	0.060	0.165	0.034	0.009	0.1875	2.00	3	56 to 80	72 to 80	SPTM060ML	SPTM060MLA	120106	120220
#2	0.060	0.200	0.034	0.009	0.1875	2.00	3	56 to 80	72 to 80	SPTM060L	SPTM060LA	120103	120217
#3	0.072	0.150	0.040	0.010	0.1875	2.00	3	48 to 80	56 to 80	SPTM072	SPTM072A	120109	120223
#3	0.072	0.250	0.040	0.010	0.1875	2.00	3	48 to 80	56 to 80	SPTM072L	SPTM072LA	120112	120226
#3	0.072	0.300	0.040	0.010	0.1875	2.00	3	48 to 80	56 to 80	SPTM072XL	SPTM072XLA	120113	120227
#4	0.080	0.190	0.045	0.011	0.1875	2.00	3	40 to 80	48 to 80	SPTM080	SPTM080A	120115	120229
#4	0.080	0.250	0.045	0.011	0.1875	2.00	3	40 to 80	48 to 80	SPTM080ML	SPTM080MLA	120121	120235
#4	0.080	0.300	0.045	0.011	0.1875	2.00	3	40 to 80	48 to 80	SPTM080L	SPTM080LA	120118	120232
#4	0.080	0.375	0.045	0.011	0.1875	2.00	3	40 to 80	48 to 80	SPTM080XL	SPTM080XLA	120119	120233
#5	0.090	0.200	0.048	0.013	0.1875	2.00	3	36 to 56	40 to 56	SPTM090	SPTM090A	120422	120425
#5	0.090	0.300	0.048	0.013	0.1875	2.00	3	36 to 56	40 to 56	SPTM090L	SPTM090LA	120431	120434
#5	0.090	0.400	0.048	0.013	0.1875	2.00	3	36 to 56	40 to 56	SPTM090XL	SPTM090XLA	120440	120443
#6	0.098	0.250	0.050	0.015	0.1875	2.00	3	32 to 56	36 to 56	SPTM098	SPTM098A	120124	120238
#6	0.098	0.330	0.050	0.015	0.1875	2.00	3	32 to 56	36 to 56	SPTM098ML	SPTM098MLA	120130	120244
#6	0.098	0.400	0.050	0.015	0.1875	2.00	3	32 to 56	36 to 56	SPTM098L	SPTM098LA	120127	120241
#8	0.120	0.300	0.070	0.016	0.1875	2.00	3	32 to 56	32 to 56	SPTM120	SPTM120A	120133	120247
#8	0.120	0.400	0.070	0.016	0.1875	2.00	3	32 to 56	32 to 56	SPTM120ML	SPTM120MLA	120139	120253
#8	0.120	0.500	0.070	0.016	0.1875	2.00	3	32 to 56	32 to 56	SPTM120L	SPTM120LA	120136	120250
#10	0.138	0.400	0.075	0.020	0.1875	2.00	3	24 to 48	28 to 48	SPTM138	SPTM138A	120142	120256
#10	0.138	0.500	0.075	0.020	0.1875	2.00	3	24 to 48	28 to 48	SPTM138ML	SPTM138MLA	120148	120262
#10	0.138	0.600	0.075	0.020	0.1875	2.00	3	24 to 48	28 to 48	SPTM138L	SPTM138LA	120145	120259
#12	0.160	0.400	0.080	0.025	0.1875	2.00	3	20 to 48	24 to 48	SPTM160	SPTM160A	120151	120265
#12	0.160	0.650	0.080	0.025	0.1875	2.00	3	20 to 48	24 to 48	SPTM160L	SPTM160LA	120154	120268

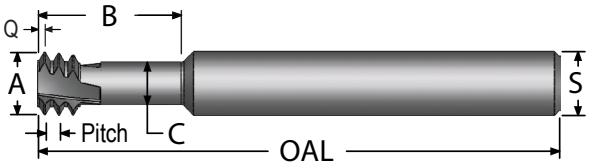
***Single profile thread mills can cut any larger diameter internal thread within the TPI limits**

Additional SPTM Options

All SPTM UN | Metric | ACME | External UNJ | Stub ACME

Additional SPTM Options

UN THREAD MILLS
LONG REACH (TMLR) - SOLID CARBIDE
FULL PROFILE



- Small thread milling is made easy with TMLR tools
- Economical cost per hole
- Minimal cutting pressure
- ALTiN+ coating for higher Surface Feet per Minute

MIN ID THREAD /PITCH*	"A" TOOL DIA.	"B" LENGTH OF CUT	"C" NECK DIA.	"Q" LENGTH	"S" SHANK DIA.	OAL	FLUTES	ORDER #		EDP #	
								UNCOATED	ALTiN+	UNCOATED	ALTiN+
								INTERNAL THREADS ONLY			
2-56	0.065	0.150	0.039	0.009	0.250	2.50	3	TMLR065-56	TMLR065-56A	110501	110603
2-56	0.065	0.200	0.039	0.009	0.250	2.50	3	TMLR065-56EL	TMLR065-56ELA	110504	110606
4-40	0.082	0.225	0.046	0.013	0.250	2.50	3	TMLR082-40	TMLR082-40A	110507	110609
4-40	0.082	0.300	0.046	0.013	0.250	2.50	3	TMLR082-40EL	TMLR082-40ELA	110510	110612
6-32	0.100	0.260	0.056	0.016	0.250	2.50	3	TMLR100-32	TMLR100-32A	110513	110615
6-32	0.100	0.400	0.056	0.016	0.250	2.50	3	TMLR100-32EL	TMLR100-32ELA	110516	110618
6-40	0.100	0.260	0.065	0.013	0.250	2.50	3	TMLR100-40	TMLR100-40A	110519	110621
6-40	0.100	0.400	0.065	0.013	0.250	2.50	3	TMLR100-40EL	TMLR100-40ELA	110522	110624
8-32	0.126	0.300	0.080	0.016	0.250	2.50	3	TMLR126-32	TMLR126-32A	110525	110627
8-32	0.126	0.500	0.080	0.016	0.250	2.50	3	TMLR126-32EL	TMLR126-32ELA	110528	110630
8-36	0.126	0.300	0.085	0.014	0.250	2.50	3	TMLR126-36	TMLR126-36A	110531	110633
8-36	0.126	0.500	0.085	0.014	0.250	2.50	3	TMLR126-36EL	TMLR126-36ELA	110534	110636
10-24	0.139	0.400	0.080	0.021	0.250	2.50	3	TMLR139-24	TMLR139-24A	110537	110639
10-24	0.139	0.600	0.080	0.021	0.250	2.50	3	TMLR139-24EL	TMLR139-24ELA	110540	110642
10-32	0.139	0.400	0.093	0.016	0.250	2.50	3	TMLR139-32	TMLR139-32A	110543	110645
10-32	0.139	0.600	0.093	0.016	0.250	2.50	3	TMLR139-32EL	TMLR139-32ELA	110546	110648
10-48	0.139	0.400	0.106	0.010	0.250	2.50	3	TMLR139-48	TMLR139-48A	110549	110651
10-48	0.139	0.600	0.106	0.010	0.250	2.50	3	TMLR139-48EL	TMLR139-48ELA	110552	110654
1/4-20	0.186	0.500	0.112	0.025	0.250	2.50	3	TMLR186-20	TMLR186-20A	110555	110657
1/4-20	0.186	0.700	0.112	0.025	0.250	2.50	3	TMLR186-20EL	TMLR186-20ELA	110558	110660
1/4-28	0.186	0.500	0.130	0.018	0.250	2.50	3	TMLR186-28	TMLR186-28A	110561	110663
1/4-28	0.186	0.700	0.130	0.018	0.250	2.50	3	TMLR186-28EL	TMLR186-28ELA	110564	110666
1/4-32	0.186	0.500	0.140	0.016	0.250	2.50	3	TMLR186-32	TMLR186-32A	110567	110669
1/4-32	0.186	0.700	0.140	0.016	0.250	2.50	3	TMLR186-32EL	TMLR186-32ELA	110570	110672
5/16-18	0.234	0.600	0.156	0.028	0.250	2.50	3	TMLR234-18	TMLR234-18A	110573	110675
5/16-18	0.234	0.850	0.156	0.028	0.250	2.50	3	TMLR234-18EL	TMLR234-18ELA	110576	110678
5/16-24	0.234	0.600	0.176	0.021	0.250	2.50	3	TMLR234-24	TMLR234-24A	110579	110681
5/16-24	0.234	0.850	0.176	0.021	0.250	2.50	3	TMLR234-24EL	TMLR234-24ELA	110582	110684
5/16-28	0.234	0.600	0.180	0.018	0.250	2.50	3	TMLR234-28	TMLR234-28A	110585	110687
5/16-28	0.234	0.850	0.180	0.018	0.250	2.50	3	TMLR234-28EL	TMLR234-28ELA	110588	110690
5/16-32	0.234	0.600	0.188	0.016	0.250	2.50	3	TMLR234-32	TMLR234-32A	110591	110693
5/16-32	0.234	0.850	0.188	0.016	0.250	2.50	3	TMLR234-32EL	TMLR234-32ELA	110594	110696
5/16-40	0.234	0.600	0.194	0.013	0.250	2.50	3	TMLR234-40	TMLR234-40A	110597	110699
5/16-40	0.234	0.850	0.194	0.013	0.250	2.50	3	TMLR234-40EL	TMLR234-40ELA	110600	110702

***Long reach thread mills can cut any larger size internal thread within the recommended TPI**

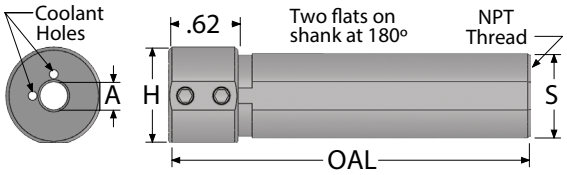
Additional TMLR Options

Metric

All TMLR UN

Additional TMLR Options

SINGLE POINT COOLANT HOLDERS



- Made with heat-treated steel
- Four lock-down screws for maximum rigidity
- Engineered for maximum coolant flow

QHC HOLDERS (INCH)

"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP#
0.1250	0.375	0.500	1/16-27NPT	2.50	QHC37-1/8	200252
0.1562	0.375	0.500	1/16-27NPT	2.50	QHC37-5/32	200258
0.1875	0.375	0.500	1/16-27NPT	2.50	QHC37-3/16	200255
0.1250	0.500	0.625	1/8-27NPT	2.75	QHC50-1/8	200267
0.1875	0.500	0.625	1/8-27NPT	2.75	QHC50-3/16	200270
0.2500	0.500	0.625	1/8-27NPT	2.75	QHC50-1/4	200264
0.1250	0.625	0.750	1/4-18NPT	3.25	QHC62-1/8	200279
0.1562	0.625	0.750	1/4-18NPT	3.25	QHC62-5/32	200285
0.1875	0.625	0.750	1/4-18NPT	3.25	QHC62-3/16	200282
0.2187	0.625	0.750	1/4-18NPT	3.25	QHC62-7/32	200288
0.2500	0.625	0.750	1/4-18NPT	3.25	QHC62-1/4	200276

QHC HOLDERS (INCH)

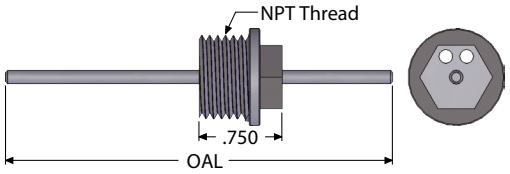
"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP #
0.1250	0.750	0.865	3/8-18NPT	3.25	QHC75-1/8	200297
0.1562	0.750	0.865	3/8-18NPT	3.25	QHC75-5/32	200309
0.1875	0.750	0.865	3/8-18NPT	3.25	QHC75-3/16	200300
0.2187	0.750	0.865	3/8-18NPT	3.25	QHC75-7/32	200312
0.2500	0.750	0.865	3/8-18NPT	3.25	QHC75-1/4	200294
0.3125	0.750	0.865	3/8-18NPT	3.25	QHC75-5/16	200306
0.3750	0.750	0.865	3/8-18NPT	3.25	QHC75-3/8	200303
0.1250	1.000	1.115	1/2-14NPT	3.25	QHC10-1/8	200207
0.1875	1.000	1.115	1/2-14NPT	3.25	QHC10-3/16	200210
0.2500	1.000	1.115	1/2-14NPT	3.25	QHC10-1/4	200204
0.3125	1.000	1.115	1/2-14NPT	3.25	QHC10-5/16	200216
0.3750	1.000	1.115	1/2-14NPT	3.25	QHC10-3/8	200213
0.5000	1.000	1.115	1/2-14NPT	3.25	QHC10-1/2	200201

QHC HOLDERS (METRIC)

"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP#
0.1250	20mm	0.865	3/8-18NPT	3.25	QHC20-1/8	200225
0.1875	20mm	0.865	3/8-18NPT	3.25	QHC20-3/16	200228
0.2500	20mm	0.865	3/8-18NPT	3.25	QHC20-1/4	200222
0.3125	20mm	0.865	3/8-18NPT	3.25	QHC20-5/16	200234
0.3750	20mm	0.865	3/8-18NPT	3.25	QHC20-3/8	200231

QHC HOLDERS (METRIC)

"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP#
0.1250	22mm	0.865	3/8-18NPT	3.25	QHC22-1/8	200240
0.1875	22mm	0.865	3/8-18NPT	3.25	QHC22-3/16	200243
0.2500	22mm	0.865	3/8-18NPT	3.25	QHC22-1/4	200237
0.3125	22mm	0.865	3/8-18NPT	3.25	QHC22-5/16	200249
0.3750	22mm	0.865	3/8-18NPT	3.25	QHC22-3/8	200246



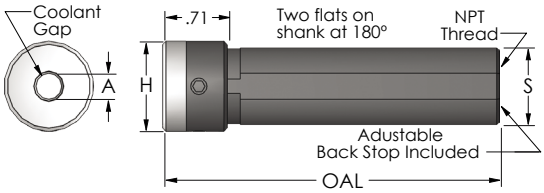
- Adjustable back stop for quick tool change
- Ideal for qualified threading tools
- Engineered for maximum coolant flow
- Ideal for qualified boring bars

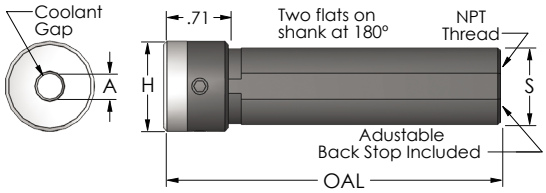
BACK STOPS (QHC SERIES)

NPT THREAD	STOP ROD DIAMETER	STOP ROD OAL	HOLDER SERIES	ORDER #	EDP#
1/16-27NPT	0.093	2.75	QHC37	QHC37-BKS	200261
1/8-27NPT	0.125	3.00	QHC50	QHC50-BKS	200273
1/4-18NPT	0.125	3.00	QHC62	QHC62-BKS	200291
3/8-18NPT	0.125	3.00	QHC75	QHC75-BKS	200315
1/2-14NPT	0.125	3.50	QHC10	QHC10-BKS	200219

COOLANT RING TECHNOLOGY
CRT HOLDERS

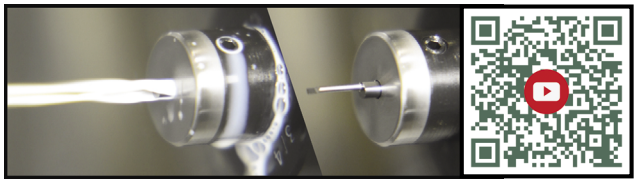
- Made with heat-treated steel
- Use with SCT qualified tools for quicker tool changes
- Features two lock-down screws for max rigidity
- Coolant flow surrounds the tool for maximum cooling





CRT HOLDERS
INCH

"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP #
0.1250	0.500	0.625	1/8-27NPT	2.84	CRT500-125	200500
0.1875	0.500	0.625	1/8-27NPT	2.84	CRT500-187	200503
0.2500	0.500	0.625	1/8-27NPT	2.84	CRT500-250	200506
0.1250	0.625	0.750	1/4-18NPT	3.34	CRT625-125	200509
0.1875	0.625	0.750	1/4-18NPT	3.34	CRT625-187	200512
0.2500	0.625	0.750	1/4-18NPT	3.34	CRT625-250	200515
0.3125	0.625	0.750	1/4-18NPT	3.34	CRT625-312	200518
0.1250	0.750	0.865	3/8-18NPT	3.34	CRT750-125	200521
0.1875	0.750	0.865	3/8-18NPT	3.34	CRT750-187	200524
0.2500	0.750	0.865	3/8-18NPT	3.34	CRT750-250	200527
0.3125	0.750	0.865	3/8-18NPT	3.34	CRT750-312	200530
0.3750	0.750	0.865	3/8-18NPT	3.34	CRT750-375	200533
0.1250	1.000	1.115	1/2-14NPT	3.34	CRT1000-125	200413
0.1875	1.000	1.115	1/2-14NPT	3.34	CRT1000-187	200416
0.2500	1.000	1.115	1/2-14NPT	3.34	CRT1000-250	200419
0.3125	1.000	1.115	1/2-14NPT	3.34	CRT1000-312	200422
0.3750	1.000	1.115	1/2-14NPT	3.34	CRT1000-375	200425
0.5000	1.000	1.1150	1/2-14NPT	3.34	CRT1000-500	200428

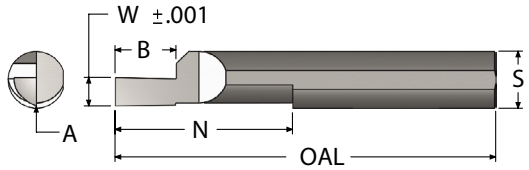


CRT HOLDERS
METRIC

"A" INSIDE DIA.	"S" SHANK DIA.	"H" HEAD DIA.	NPT THREAD	OAL	ORDER #	EDP #
0.1250	12 MM	0.625	1/8-27NPT	2.84	CRT12M-125	200431
0.1875	12 MM	0.625	1/8-27NPT	2.84	CRT12M-187	200434
0.2500	12 MM	0.625	1/8-27NPT	2.84	CRT12M-250	200437
0.1250	16 MM	0.750	1/4-18NPT	3.34	CRT16M-125	200440
0.1875	16 MM	0.750	1/4-18NPT	3.34	CRT16M-187	200443
0.2500	16 MM	0.750	1/4-18NPT	3.34	CRT16M-250	200446
0.3125	16 MM	0.750	1/4-18NPT	3.34	CRT16M-312	200449
0.1250	20 MM	0.865	3/8-18NPT	3.34	CRT20M-125	200452
0.1875	20 MM	0.865	3/8-18NPT	3.34	CRT20M-187	200455
0.2500	20 MM	0.865	3/8-18NPT	3.34	CRT20M-250	200458
0.3125	20 MM	0.865	3/8-18NPT	3.34	CRT20M-312	200461
0.3750	20 MM	0.865	3/8-18NPT	3.34	CRT20M-375	200464
0.1250	22 MM	0.937	3/8-18NPT	3.34	CRT22M-125	200467
0.1875	22 MM	0.937	3/8-18NPT	3.34	CRT22M-187	200470
0.2500	22 MM	0.937	3/8-18NPT	3.34	CRT22M-250	200473
0.3125	22 MM	0.937	3/8-18NPT	3.34	CRT22M-312	200476
0.3750	22 MM	0.937	3/8-18NPT	3.34	CRT22M-375	200479
0.1250	25 MM	1.115	1/2-14NPT	3.34	CRT25M-125	200482
0.1875	25 MM	1.115	1/2-14NPT	3.34	CRT25M-187	200485
0.2500	25 MM	1.115	1/2-14NPT	3.34	CRT25M-250	200488
0.3125	25 MM	1.115	1/2-14NPT	3.34	CRT25M-312	200491
0.3750	25 MM	1.115	1/2-14NPT	3.34	CRT25M-375	200494
0.5000	25 MM	1.115	1/2-14NPT	3.34	CRT25M-500	200497

Replacement adjustable back stops are available.

FACE GROOVE TOOLS - SOLID CARBIDE

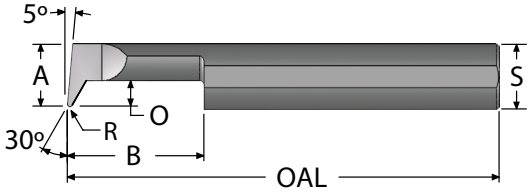


- ALTiN+ coating extends tool life
- Polished flute face for maximum performance
- Precision ground flat for guaranteed tool orientation
- Made with premium submicron grade carbide

"A" MIN. DIA.	"W" GROOVE WIDTH	"B" GROOVE DEPTH	"N" NECK RELIEF	"S" SHANK DIA.	OAL	ORDER #		EDP #	
						UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.135	0.015	0.040	0.400	0.125	1.50	FG125-015	FG125-015A	220001	220013
0.135	0.020	0.050	0.400	0.125	1.50	FG125-020	FG125-020A	220004	220016
0.135	0.025	0.050	0.400	0.125	1.50	FG125-025	FG125-025A	220007	220019
0.135	0.030	0.060	0.400	0.125	1.50	FG125-030	FG125-030A	220010	220022
0.195	0.035	0.070	0.500	0.1875	2.00	FG187-035	FG187-035A	220025	220037
0.195	0.040	0.080	0.500	0.1875	2.00	FG187-040	FG187-040A	220028	220040
0.195	0.045	0.090	0.500	0.1875	2.00	FG187-045	FG187-045A	220031	220043
0.195	0.050	0.100	0.500	0.1875	2.00	FG187-050	FG187-050A	220034	220046
0.260	0.021	0.050	0.750	0.250	2.50	FG250-020	FG250-020A	220049	220061
0.260	0.031	0.060	0.750	0.250	2.50	FG250-030	FG250-030A	220052	220064
0.260	0.041	0.080	0.750	0.250	2.50	FG250-040	FG250-040A	220055	220067
0.260	0.051	0.100	0.750	0.250	2.50	FG250-050	FG250-050A	220058	220070
0.320	0.031	0.060	1.000	0.3125	2.50	FG312-030	FG312-030A	220073	220085
0.320	0.041	0.080	1.000	0.3125	2.50	FG312-040	FG312-040A	220076	220088
0.320	0.051	0.100	1.000	0.3125	2.50	FG312-050	FG312-050A	220079	220091
0.320	0.063	0.130	1.000	0.3125	2.50	FG312-062	FG312-062A	220082	220094
0.385	0.031	0.060	1.125	0.375	2.50	FG375-030	FG375-030A	220097	220109
0.385	0.063	0.130	1.125	0.375	2.50	FG375-062	FG375-062A	220100	220112
0.385	0.094	0.190	1.125	0.375	2.50	FG375-093	FG375-093A	220103	220115
0.385	0.126	0.250	1.125	0.375	2.50	FG375-125	FG375-125A	220106	220118

MORE SIZES AVAILABLE: 0.510-0.760 minimum diameter tools can be found online

PROFILE BORING BARS - SOLID CARBIDE

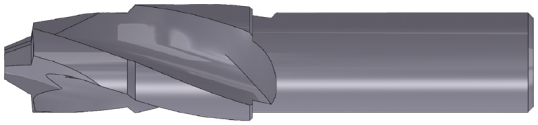


- Machines complex internal shapes with ease
- ALTiN+ coating allows higher Surface Feet per Minute
- Elliptically ground neck provides maximum strength
- Made with premium submicron grade carbide

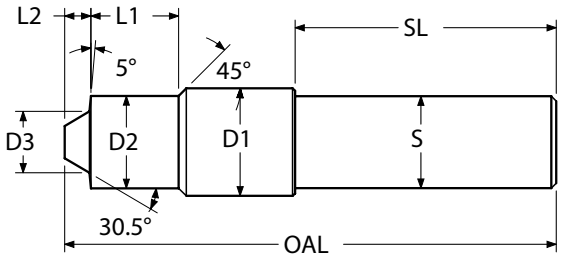
"A" MIN BORE	"B" MAX DEPTH	"O" OFF SET	"R" TOOL RADIUS	"S" SHANK DIA.	OAL	ORDER #		EDP #	
						UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.090	0.200	0.040	0.005	0.125	1.50	PB090200	PB090200A	217001	217070
0.090	0.300	0.040	0.005	0.125	1.50	PB090300	PB090300A	217004	217073
0.090	0.400	0.040	0.005	0.125	1.50	PB090400	PB090400A	217007	217076
0.120	0.250	0.050	0.007	0.125	1.50	PB120250	PB120250A	217010	217079
0.120	0.500	0.050	0.007	0.125	1.50	PB120500	PB120500A	217013	217082
0.120	0.750	0.050	0.007	0.125	1.50	PB120750	PB120750A	217016	217085
0.180	0.500	0.080	0.010	0.1875	2.00	PB180500	PB180500A	217022	217091
0.180	0.750	0.080	0.010	0.1875	2.00	PB180750	PB180750A	217025	217094
0.180	1.000	0.080	0.010	0.1875	2.00	PB1801000	PB1801000A	217019	217088
0.230	0.500	0.090	0.010	0.250	2.50	PB230500	PB230500A	217031	217100
0.230	0.750	0.090	0.010	0.250	2.50	PB230750	PB230750A	217034	217103
0.230	1.000	0.090	0.010	0.250	2.50	PB2301000	PB2301000A	217028	217097

"A" MIN BORE	"B" MAX DEPTH	"O" OFF SET	"R" TOOL RADIUS	"S" SHANK DIA.	OAL	ORDER #		EDP #	
						UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.290	0.500	0.110	0.015	0.3125	2.50	PB290500	PB290500A	217040	217109
0.290	0.750	0.110	0.015	0.3125	2.50	PB290750	PB290750A	217043	217112
0.290	1.000	0.110	0.015	0.3125	2.50	PB2901000	PB2901000A	217037	217106
0.360	0.500	0.140	0.015	0.375	2.50	PB360500	PB360500A	217052	217121
0.360	0.750	0.140	0.015	0.375	2.50	PB360750	PB360750A	217055	217124
0.360	1.000	0.140	0.015	0.375	2.50	PB3601000	PB3601000A	217046	217115
0.360	1.250	0.140	0.015	0.375	2.50	PB3601250	PB3601250A	217049	217118
0.490	0.500	0.180	0.015	0.500	3.00	PB490500	PB490500A	217064	217133
0.490	0.750	0.180	0.015	0.500	3.00	PB490750	PB490750A	217067	217136
0.490	1.000	0.180	0.015	0.500	3.00	PB4901000	PB4901000A	217058	217127
0.490	1.250	0.180	0.015	0.500	3.00	PB4901250	PB4901250A	217061	217130

AUTOCLAVE PORT TOOLS
SOLID CARBIDE AND CARBIDE-TIPPED



- Designed to produce ports per Parker Autoclave Standard
- Precision ground for maximum concentricity
- Polished flute face for optimum performance
- AlTiN+ coating for improved tool life



MEDIUM PRESSURE

D1	D2	D3	L1	L2	S	SL	OAL	FLUTES	FLUTE TYPE	TUBE	THREAD	CONNECTION TYPE	ORDER # AlTiN+	EDP # AlTiN+
Solid Carbide														
0.500	0.390	0.188	0.471	0.101	0.500	2.13	3.50	3	Helical	1/4	7/16-20	SF250CX	PT-SF0250CX-A	405006
0.625	0.511	0.310	0.599	0.134	0.500	2.13	3.50	3	Helical	3/8	9/16-18	SF375CX	PT-SF0375CX-A	405008
0.875	0.752	0.500	0.715	0.213	0.750	2.13	4.00	3	Helical	9/16	13/16-16	SF562CX10 SF562CX20	PT-SF0562CX-A	405010
Carbide-Tipped														
1.090	0.966	0.625	0.899	0.216	0.750	2.25	4.50	3	Straight	3/4	3/4-14 NPS	SF750CX10 SF750CX20	PT-SF0750CX-A	405012
1.438	1.297	0.875	1.266	0.418	0.750	2.25	4.75	3	Straight	1	1-3/8-12	SF1000CX10 SF1000CX20	*PT-SF1000CX-A	405014

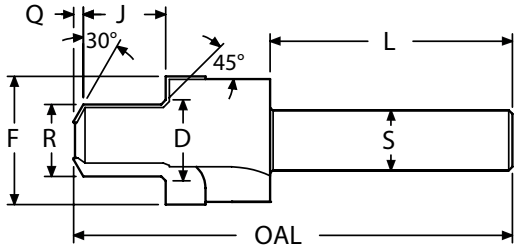
HIGH PRESSURE

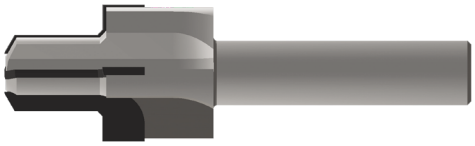
D1	D2	D3	L1	L2	S	SL	OAL	FLUTES	FLUTE TYPE	TUBE	THREAD	CONNECTION TYPE	ORDER # AlTiN+	EDP # AlTiN+
Solid Carbide														
0.625	0.511	0.170	0.405	0.096	0.500	2.13	3.50	3	Helical	1/4	9/16-18	F250C	PT-F0250C-A	405016
0.750	0.574	0.250	1.032	0.167	0.500	2.13	4.00	3	Helical	5/16	5/8-18	F312C150	PT-F0312C-A	405018
0.875	0.691	0.260	0.586	0.150	0.750	2.13	4.00	3	Helical	3/8	3/4-16	F375C	PT-F0375C-A	405020
Carbide-Tipped														
1.220	1.047	0.380	0.704	0.212	0.750	2.25	4.50	2	Straight	9/16	1-1/8-12	F562C F562C40 F562C40-312	PT-F0562C-A	405022
1.438	1.297	0.875	1.266	0.418	0.750	2.25	4.75	3	Straight	1	1-3/8-12	F1000C43	*PT-F1000C-A	405024

*** PT-SF1000CX-A and PT-F1000C-A are interchangeable tools.**

ISO 1179 - PORT TOOL

CARBIDE TIPPED



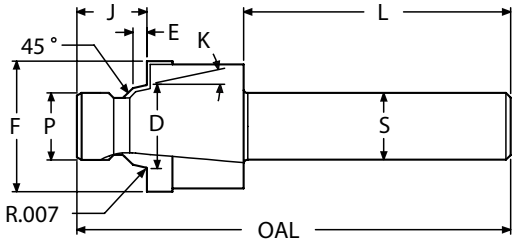


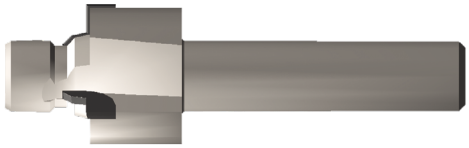
- Meets the requirements of the ISO1179
- Precision ground for maximum concentricity
- Polished flute face for optimum performance
- AlTiN+ coating for improved surface finish

D	F	J	R	Q	L	S	OAL	FLUTES	THREAD	ORDER #		EDP #	
										UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.398	0.681	0.445	0.345	0.045	2.00	0.500	3.50	3	G1/8	1179-G125	1179-G125A	402874	402875
0.524	0.819	0.683	0.459	0.065	2.00	0.500	3.62	3	G1/4	1179-G250	1179-G250A	402876	402877
0.662	0.969	0.683	0.597	0.080	2.00	0.500	3.62	4	G3/8	1179-G375	1179-G375A	402878	402879
0.831	1.169	0.801	0.741	0.090	2.00	0.750	3.62	4	G1/2	1179-G500	1179-G500A	402880	402881
1.048	1.457	0.880	0.958	0.120	2.50	0.750	4.37	4	G3/4	1179-G750	1179-G750A	402882	402883
1.319	1.819	0.998	1.201	0.120	2.50	1.000	4.62	4	G1	1179-G1000	1179-G1000A	402884	402885
1.662	2.130	1.078	1.541	0.125	2.50	1.000	4.62	4	G1-1/4	1179-G1250	1179-G1250A	402886	402887
1.894	2.386	1.200	1.774	0.125	2.50	1.000	4.88	4	G1-1/2	1179-G1500	1179-G1500A	402888	402889

SAE J1926 (MS16142) O-RING BOSS PORT TOOL

SOLID PILOT - CARBIDE TIPPED



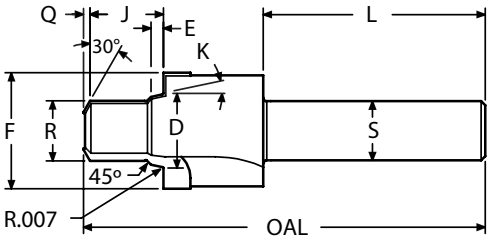


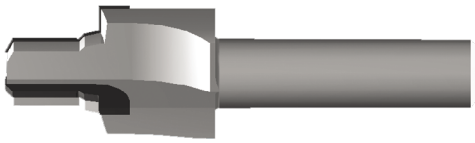
- Ideal for non-standard minor diameter lengths
- Often called ORB (followed by port size number)
- Meets the requirements of SAEJ1926/1
- Polished flute face for optimum performance
- ALTiN+ coating for improved surface finish
- Meets the requirements of MS16142

K	D	E	F	P	J	L	S	OAL	FLUTES	TUBE	THREAD	SAE#	ORDER #		EDP #	
													UNCOATED	ALTiN+	UNCOATED	ALTiN+
12°	0.3605	0.082	0.682	0.270	0.365	2.00	0.500	3.00	3	0.125	0.3125-24UNF-2B	SAE#2	SAEJ1926-02S	SAEJ1926-02SA	406301	406303
12°	0.4235	0.082	0.760	0.331	0.415	2.00	0.500	3.00	3	0.188	0.3750-24UNF-2B	SAE#3	SAEJ1926-03S	SAEJ1926-03SA	406305	406307
12°	0.4895	0.101	0.838	0.385	0.445	2.00	0.500	3.12	3	0.250	0.4375-20UNF-2B	SAE#4	SAEJ1926-04S	SAEJ1926-04SA	406309	406311
12°	0.5525	0.101	0.916	0.448	0.465	2.00	0.500	3.12	3	0.312	0.5000-20UNF-2B	SAE#5	SAEJ1926-05S	SAEJ1926-05SA	406313	406315
12°	0.6185	0.105	0.990	0.504	0.495	2.00	0.500	3.25	3	0.375	0.5625-18UNF-2B	SAE#6	SAEJ1926-06S	SAEJ1926-06SA	406317	406319
15°	0.8135	0.108	1.198	0.685	0.560	2.12	0.750	3.57	3	0.500	0.7500-16UNF-2B	SAE#8	SAEJ1926-08S	SAEJ1926-08SA	406321	406323
15°	0.9445	0.108	1.354	0.801	0.610	2.12	0.750	3.66	3	0.625	0.8750-14UNF-2B	SAE#10	SAEJ1926-10S	SAEJ1926-10SA	406325	406327
15°	1.1505	0.138	1.635	0.975	0.640	2.12	0.750	3.75	3	0.750	1.0625-12UN-2B	SAE#12	SAEJ1926-12S	SAEJ1926-12SA	406329	406331
15°	1.2755	0.138	1.775	1.101	0.710	2.25	1.000	4.00	3	0.875	1.1875-12UN-2B	SAE#14	SAEJ1926-14S	SAEJ1926-14SA	406333	406335
15°	1.4005	0.138	1.935	1.225	0.710	2.25	1.000	4.05	3	1.000	1.3125-12UN-2B	SAE#16	SAEJ1926-16S	SAEJ1926-16SA	406337	406339
15°	1.7155	0.140	2.290	1.537	0.750	2.25	1.000	4.20	3	1.250	1.6250-12UN-2B	SAE#20	SAEJ1926-20S	SAEJ1926-20SA	406341	406343
15°	1.9645	0.140	2.570	1.787	0.750	2.25	1.000	4.20	3	1.500	1.8750-12UN-2B	SAE#24	SAEJ1926-24S	SAEJ1926-24SA	406345	406347
15°	2.5895	0.140	3.490	2.412	0.800	2.50	1.250	4.60	3	2.000	2.5000-12UN-2B	SAE#32	SAEJ1926-32S	SAEJ1926-32SA	406349	406351

SAE J1926 (MS16142) O-RING BOSS PORT TOOL

REAMER PILOT - CARBIDE TIPPED





- Reams minor thread diameter to size
- Often called ORB (followed by port size number)
- Meets the requirements of SAEJ1926/1
- Precision ground for maximum concentricity
- ALTiN+ coating extends tool life
- Meets the requirements of MS16142

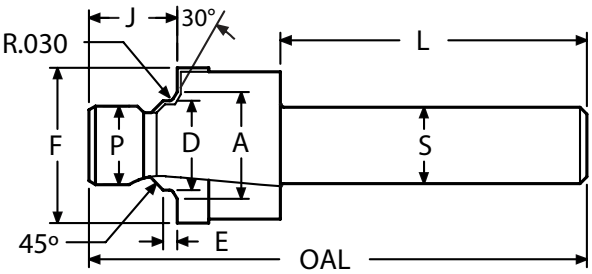
K	D	E	F	R	J	Q	L	S	OAL	FLUTES	TUBE	THREAD	SAE#	ORDER #		EDP #	
														UNCOATED	ALTiN+	UNCOATED	ALTiN+
12°	0.3605	0.082	0.682	0.271	0.479	0.032	1.75	0.500	3.00	3	0.125	0.3125-24 UNF-2B	SAE#2	SAEJ1926-02R	SAEJ1926-02RA	406001	406003
12°	0.4235	0.082	0.760	0.333	0.479	0.040	1.75	0.500	3.00	3	0.188	0.3750-24 UNF-2B	SAE#3	SAEJ1926-03R	SAEJ1926-03RA	406007	406009
12°	0.4895	0.101	0.838	0.388	0.558	0.045	1.88	0.500	3.12	3	0.250	0.4375-20 UNF-2B	SAE#4	SAEJ1926-04R	SAEJ1926-04RA	406013	406015
12°	0.5525	0.101	0.916	0.450	0.558	0.045	1.88	0.500	3.12	3	0.312	0.5000-20 UNF-2B	SAE#5	SAEJ1926-05R	SAEJ1926-05RA	406019	406021
12°	0.6185	0.105	0.990	0.507	0.620	0.055	1.88	0.500	3.38	3	0.375	0.5625-18 UNF-2B	SAE#6	SAEJ1926-06R	SAEJ1926-06RA	406025	406027
15°	0.8135	0.108	1.198	0.688	0.699	0.070	2.12	0.750	3.70	3	0.500	0.7500-16 UNF-2B	SAE#8	SAEJ1926-08R	SAEJ1926-08RA	406031	406033
15°	0.9445	0.108	1.354	0.804	0.792	0.080	2.12	0.750	3.80	3	0.625	0.8750-14 UNF-2B	SAE#10	SAEJ1926-10R	SAEJ1926-10RA	406037	406039
15°	1.1505	0.138	1.635	0.979	0.917	0.080	2.12	0.750	3.94	3	0.750	1.0625-12 UN-2B	SAE#12	SAEJ1926-12R	SAEJ1926-12RA	406043	406045
15°	1.2755	0.138	1.775	1.104	0.917	0.090	2.25	1.000	4.21	3	0.875	1.1875-12 UN-2B	SAE#14	SAEJ1926-14R	SAEJ1926-14RA	406049	406051
15°	1.4005	0.138	1.935	1.229	0.917	0.090	2.25	1.000	4.25	3	1.000	1.3125-12 UN-2B	SAE#16	SAEJ1926-16R	SAEJ1926-16RA	406055	406057
15°	1.7155	0.140	2.290	1.542	0.917	0.095	2.25	1.000	4.35	3	1.250	1.6250-12 UN-2B	SAE#20	SAEJ1926-20R	SAEJ1926-20RA	406061	406063
15°	1.9645	0.140	2.570	1.792	0.917	0.095	2.25	1.000	4.54	3	1.500	1.8750-12 UN-2B	SAE#24	SAEJ1926-24R	SAEJ1926-24RA	406067	406069
15°	2.5895	0.140	3.490	2.417	0.917	0.095	2.50	1.250	5.15	3	2.000	2.5000-12 UN-2B	SAE#32	SAEJ1926-32R	SAEJ1926-32RA	406073	406075

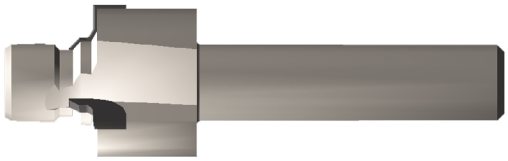
SAE J1926 O-RING BOSS REAMER PILOT: COOLANT THROUGH

COOLANT HOLE TO EACH FLUTE

K	D	E	F	R	J	Q	L	S	OAL	FLUTES	TUBE	THREAD	SAE#	ORDER #			
														UNCOATED	ALTiN+	UNCOATED	ALTiN+
12°	0.3605	0.082	0.682	0.271	0.479	0.032	1.75	0.500	3.00	3	0.125	0.3125-24 UNF-2B	SAE#2	SAEJ1926-02R-X3	SAEJ1926-02R-X3A	406201	406203
12°	0.4235	0.082	0.760	0.333	0.479	0.040	1.75	0.500	3.00	3	0.188	0.3750-24 UNF-2B	SAE#3	SAEJ1926-03R-X3	SAEJ1926-03R-X3A	406205	406207
12°	0.4895	0.101	0.838	0.388	0.558	0.045	1.88	0.500	3.12	3	0.250	0.4375-20 UNF-2B	SAE#4	SAEJ1926-04R-X3	SAEJ1926-04R-X3A	406209	406211
12°	0.5525	0.101	0.916	0.450	0.558	0.045	1.88	0.500	3.12	3	0.312	0.5000-20 UNF-2B	SAE#5	SAEJ1926-05R-X3	SAEJ1926-05R-X3A	406213	406215
12°	0.6185	0.105	0.990	0.507	0.620	0.055	1.88	0.500	3.38	3	0.375	0.5625-18 UNF-2B	SAE#6	SAEJ1926-06R-X3	SAEJ1926-06R-X3A	406217	406219
15°	0.8135	0.108	1.198	0.688	0.699	0.070	2.12	0.750	3.70	3	0.500	0.7500-16 UNF-2B	SAE#8	SAEJ1926-08R-X3	SAEJ1926-08R-X3A	406221	406223
15°	0.9445	0.108	1.354	0.804	0.792	0.080	2.12	0.750	3.80	3	0.625	0.8750-14 UNF-2B	SAE#10	SAEJ1926-10R-X3	SAEJ1926-10R-X3A	406225	406227
15°	1.1505	0.138	1.635	0.979	0.917	0.080	2.12	0.750	3.94	3	0.750	1.0625-12 UN-2B	SAE#12	SAEJ1926-12R-X3	SAEJ1926-12R-X3A	406229	406231
15°	1.2755	0.138	1.775	1.104	0.917	0.090	2.25	1.000	4.21	3	0.875	1.1875-12 UN-2B	SAE#14	SAEJ1926-14R-X3	SAEJ1926-14R-X3A	406233	406235
15°	1.4005	0.138	1.935	1.229	0.917	0.090	2.25	1.000	4.25	3	1.000	1.3125-12 UN-2B	SAE#16	SAEJ1926-16R-X3	SAEJ1926-16R-X3A	406237	406239

AS5202 (MS33649) - PORT TOOL
SOLID PILOT - CARBIDE TIPPED



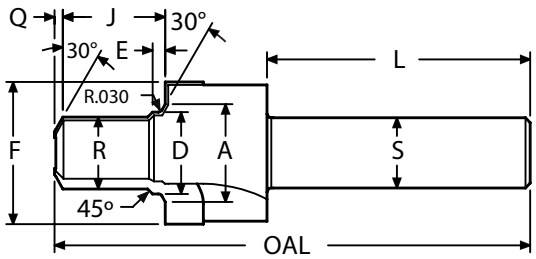


- Ideal for non-standard minor diameter lengths
- Polished flute face for optimum performance
- Meets the requirements of MS33649 & AS5202
- ALTiN+ coating for improved surface finish
- This port requires a UNJ thread which will specify a larger minor thread diameter

A	D	E	F	J	P	L	S	OAL	FLUTES	TUBE	THREAD	ORDER #		EDP #	
												UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.367	0.2665	0.071	0.575	0.345	0.217	2.00	0.500	3.00	3	N/A	0.2500-28 UNJF-3B	AS5202-01S	AS5202-01SA	406701	406703
0.446	0.3305	0.071	0.742	0.365	0.274	2.00	0.500	3.00	3	0.125	0.3125-24 UNJF-3B	AS5202-02S	AS5202-02SA	406705	406707
0.508	0.3925	0.071	0.805	0.415	0.337	2.00	0.500	3.00	3	0.188	0.3750-24 UNJF-3B	AS5202-03S	AS5202-03SA	406709	406711
0.570	0.4565	0.083	0.888	0.445	0.392	2.00	0.500	3.12	3	0.250	0.4375-20 UNJF-3B	AS5202-04S	AS5202-04SA	406713	406715
0.633	0.5195	0.083	0.950	0.465	0.454	2.00	0.500	3.12	3	0.312	0.5000-20 UNJF-3B	AS5202-05S	AS5202-05SA	406717	406719
0.696	0.5825	0.091	1.012	0.495	0.511	2.00	0.500	3.25	3	0.375	0.5625-18 UNJF-3B	AS5202-06S	AS5202-06SA	406721	406723
0.758	0.6455	0.102	1.105	0.495	0.574	2.00	0.500	3.25	3	0.438	0.6250-18 UNJF-3B	AS5202-07S	AS5202-07SA	406725	406727
0.883	0.7715	0.102	1.240	0.560	0.692	2.12	0.750	3.57	3	0.500	0.7500-16 UNJF-3B	AS5202-08S	AS5202-08SA	406729	406731
0.946	0.8345	0.115	1.300	0.590	0.755	2.12	0.750	3.61	3	0.562	0.8125-16 UNJ-3B	AS5202-09S	AS5202-09SA	406733	406735
1.008	0.8985	0.115	1.415	0.610	0.809	2.12	0.750	3.66	3	0.625	0.8750-14 UNJF-3B	AS5202-10S	AS5202-10SA	406737	406739
1.164	1.0255	0.133	1.602	0.640	0.923	2.12	0.750	3.75	3	0.688	1.0000-12 UNJF-3B	AS5202-11S	AS5202-11SA	406741	406743
1.242	1.0885	0.133	1.665	0.640	0.983	2.12	0.750	3.75	3	0.750	1.0625-12 UNJ-3B	AS5202-12S	AS5202-12SA	406745	406747
1.370	1.2135	0.133	1.790	0.710	1.110	2.25	1.000	4.00	3	0.875	1.1875-12 UNJ-3B	AS5202-14S	AS5202-14SA	406749	406751
1.495	1.3385	0.133	1.965	0.710	1.233	2.25	1.000	4.05	3	1.000	1.3125-12 UNJ-3B	AS5202-16S	AS5202-16SA	406753	406755
1.808	1.6505	0.133	2.310	0.750	1.547	2.25	1.000	4.20	3	1.250	1.6250-12 UNJ-3B	AS5202-20S	AS5202-20SA	406757	406759
2.058	1.9005	0.133	2.628	0.750	1.797	2.25	1.000	4.20	3	1.500	1.8750-12 UNJ-3B	AS5202-24S	AS5202-24SA	406761	406763
2.433	2.2755	0.133	3.050	0.800	2.172	2.25	1.250	4.50	3	1.750	2.2500-12 UNJ-3B	AS5202-28S	AS5202-28SA	406765	406767
2.683	2.5265	0.133	3.520	0.800	2.422	2.50	1.250	4.60	3	2.000	2.5000-12 UNJ-3B	AS5202-32S	AS5202-32SA	406769	406771

Thread mills are available.

AS5202 (MS33649) - PORT TOOL
REAMER PILOT - CARBIDE TIPPED

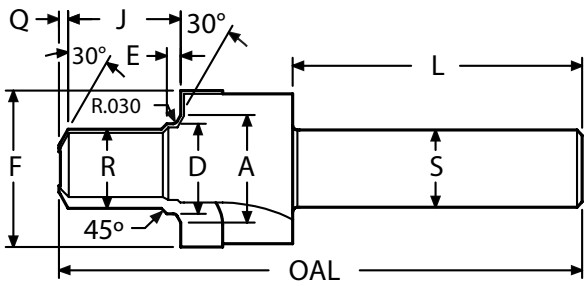


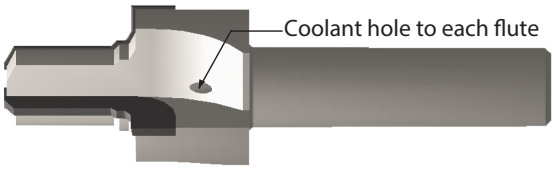
- Reams minor thread diameter to size
- Precision ground for maximum concentricity
- Meets the requirements of MS33649 & AS5202
- ALTiN+ coated tool for higher cutting speed
- This port requires a UNJ thread which specifies a larger minor-thread diameter

A	D	E	F	J	Q	R	L	S	OAL	FLUTES	TUBE	THREAD	ORDER #		EDP #	
													UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.367	0.2665	0.071	0.575	0.425	0.025	0.219	2.00	0.500	3.00	3	N/A	0.2500-28 UNJF-3B	Solid Carbide			
													AS5202-01R	AS5202-01RA	406501	406503
0.446	0.3305	0.071	0.742	0.597	0.032	0.276	1.75	0.500	3.00	3	0.125	0.3125-24 UNJF-3B	Carbide Tipped			
													AS5202-02R	AS5202-02RA	406505	406511
0.508	0.3925	0.071	0.805	0.603	0.040	0.339	1.75	0.500	3.00	3	0.188	0.3750-24 UNJF-3B	AS5202-03R	AS5202-03RA	406513	406519
0.570	0.4565	0.083	0.888	0.676	0.040	0.393	1.88	0.500	3.12	3	0.250	0.4375-20 UNJF-3B	AS5202-04R	AS5202-04RA	406521	406527
0.633	0.5195	0.083	0.950	0.676	0.045	0.455	1.88	0.500	3.12	3	0.312	0.5000-20 UNJF-3B	AS5202-05R	AS5202-05RA	406529	406535
0.696	0.5825	0.091	1.012	0.729	0.060	0.513	1.88	0.500	3.38	3	0.375	0.5625-18 UNJF-3B	AS5202-06R	AS5202-06RA	406537	406543
0.758	0.6455	0.102	1.105	0.745	0.060	0.575	1.88	0.500	3.38	3	0.438	0.6250-18 UNJF-3B	AS5202-07R	AS5202-07RA	406545	406547
0.883	0.7715	0.102	1.240	0.854	0.070	0.693	2.12	0.750	3.84	3	0.500	0.7500-16 UNJF-3B	AS5202-08R	AS5202-08RA	406549	406555
0.946	0.8345	0.115	1.300	0.870	0.070	0.758	2.12	0.750	3.84	3	0.562	0.8125-16 UNJ-3B	AS5202-09R	AS5202-09RA	406557	406559
1.008	0.8985	0.115	1.415	0.950	0.080	0.810	2.12	0.750	3.94	3	0.625	0.8750-14 UNJF-3B	AS5202-10R	AS5202-10RA	406561	406567
1.164	1.0255	0.133	1.500	1.084	0.080	0.925	2.12	0.750	4.12	3	0.688	1.0000-12 UNJF-3B	AS5202-11R	AS5202-11RA	406569	406571
1.242	1.0885	0.133	1.665	1.084	0.080	0.985	2.12	0.750	4.12	3	0.750	1.0625-12 UNJ-3B	AS5202-12R	AS5202-12RA	406573	406579
1.370	1.2135	0.133	1.790	1.084	0.090	1.112	2.25	1.000	4.37	3	0.875	1.1875-12 UNJ-3B	AS5202-14R	AS5202-14RA	406581	406587
1.495	1.3385	0.133	1.965	1.084	0.090	1.235	2.25	1.000	4.37	3	1.000	1.3125-12 UNJ-3B	AS5202-16R	AS5202-16RA	406589	406595
1.683	1.5265	0.133	2.090	1.136	0.090	1.425	2.25	1.000	4.53	3	1.125	1.5000-12 UNJF-3B	AS5202-18R	AS5202-18RA	406597	406599
1.808	1.6505	0.133	2.310	1.136	0.090	1.549	2.25	1.000	4.54	3	1.250	1.6250-12 UNJ-3B	AS5202-20R	AS5202-20RA	406601	406603
2.058	1.9005	0.133	2.628	1.147	0.095	1.799	2.25	1.000	4.54	3	1.500	1.8750-12 UNJ-3B	AS5202-24R	AS5202-24RA	406605	406607
2.433	2.2755	0.133	3.050	1.263	0.095	2.174	2.50	1.250	4.92	3	1.750	2.2500-12 UNJ-3B	AS5202-28R	AS5202-28RA	406609	406611
2.683	2.5265	0.133	3.520	1.388	0.095	2.424	2.50	1.250	5.15	3	2.000	2.5000-12 UNJ-3B	AS5202-32R	AS5202-32RA	406613	406615

Thread mills are available.

AS5202 (MS33649) - REAMER PILOT PORT TOOL
COOLANT THROUGH - CARBIDE TIPPED





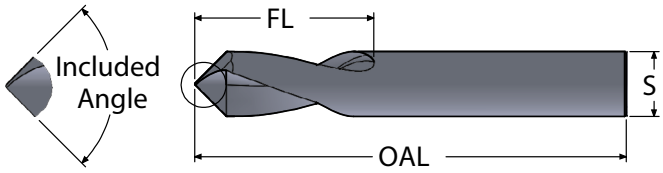
- Reams minor thread diameter to size
- Precision ground for maximum concentricity
- Meets the requirements of MS33649 & AS5202
- ALTiN+ coated tool for higher cutting speed
- This port requires a UNJ thread which specifies a larger minor thread diameter

A	D	E	F	J	Q	R	L	S	OAL	FLUTES	TUBE	THREAD	ORDER #		EDP #	
													UNCOATED	ALTiN+	UNCOATED	ALTiN+
0.446	0.3305	0.071	0.742	0.597	0.032	0.276	1.75	0.500	3.00	3	0.125	0.3125-24 UNJF-3B	AS5202-02R-X3	AS5202-02R-X3A	406507	406509
0.508	0.3925	0.071	0.805	0.603	0.040	0.339	1.75	0.500	3.00	3	0.188	0.3750-24 UNJF-3B	AS5202-03R-X3	AS5202-03R-X3A	406515	406517
0.570	0.4565	0.083	0.888	0.676	0.040	0.393	1.88	0.500	3.12	3	0.250	0.4375-20 UNJF-3B	AS5202-04R-X3	AS5202-04R-X3A	406523	406525
0.633	0.5195	0.083	0.950	0.676	0.045	0.455	1.88	0.500	3.12	3	0.312	0.5000-20 UNJF-3B	AS5202-05R-X3	AS5202-05R-X3A	406531	406533
0.696	0.5825	0.091	1.012	0.729	0.060	0.513	1.88	0.500	3.38	3	0.375	0.5625-18 UNJF-3B	AS5202-06R-X3	AS5202-06R-X3A	406539	406541
0.883	0.7715	0.102	1.240	0.854	0.070	0.693	2.12	0.750	3.84	3	0.500	0.7500-16 UNJF-3B	AS5202-08R-X3	AS5202-08R-X3A	406551	406553
1.008	0.8985	0.115	1.415	0.950	0.080	0.810	2.12	0.750	3.94	3	0.625	0.8750-14 UNJF-3B	AS5202-10R-X3	AS5202-10R-X3A	406563	406565
1.242	1.0885	0.133	1.665	1.084	0.080	0.985	2.12	0.750	4.12	3	0.750	1.0625-12 UNJ-3B	AS5202-12R-X3	AS5202-12R-X3A	406575	406577
1.370	1.2135	0.133	1.790	1.084	0.090	1.112	2.25	1.000	4.37	3	0.875	1.1875-12 UNJ-3B	AS5202-14R-X3	AS5202-14R-X3A	406583	406585
1.495	1.3385	0.133	1.965	1.084	0.090	1.235	2.25	1.000	4.37	3	1.000	1.3125-12 UNJ-3B	AS5202-16R-X3	AS5202-16R-X3A	406591	406593

Thread mills are available.

View SCT
Technical Data Charts

SPOTTING DRILLS - SOLID CARBIDE

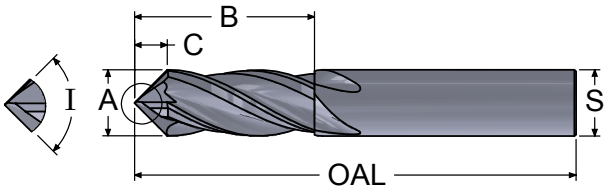


- Designed with a 4-facet point and constant web
- Point angle is held to ± 1° tolerance
- 20° helical flute
- ALTiN+ coating extends tool life

INCLUDED ANGLE	"S" SHANK DIA.	OAL	"FL" FLUTE LENGTH	FLUTES	ORDER #		EDP #	
					UNCOATED	ALTiN+	UNCOATED	ALTiN+
82°	0.1250	2.00	0.40	2	SPD125-082	SPD125-082A	501000	501080
82°	0.1875	2.00	0.50	2	SPD187-082	SPD187-082A	501010	501090
82°	0.2500	2.50	0.70	2	SPD250-082	SPD250-082A	501020	501100
82°	0.3125	2.50	0.90	2	SPD312-082	SPD312-082A	501030	501110
82°	0.3750	3.00	1.00	2	SPD375-082	SPD375-082A	501040	501120
82°	0.5000	3.00	1.10	2	SPD500-082	SPD500-082A	501050	501130
82°	0.6250	3.50	1.20	2	SPD625-082	SPD625-082A	501060	501140
82°	0.7500	4.00	1.30	2	SPD750-082	SPD750-082A	501070	501150
90°	0.1250	2.00	0.40	2	SPD125-090	SPD125-090A	501002	501082
90°	0.1875	2.00	0.50	2	SPD187-090	SPD187-090A	501012	501092
90°	0.2500	2.50	0.70	2	SPD250-090	SPD250-090A	501022	501102
90°	0.3125	2.50	0.90	2	SPD312-090	SPD312-090A	501032	501112
90°	0.3750	3.00	1.00	2	SPD375-090	SPD375-090A	501042	501122
90°	0.5000	3.00	1.10	2	SPD500-090	SPD500-090A	501052	501132
90°	0.6250	3.50	1.20	2	SPD625-090	SPD625-090A	501062	501142
90°	0.7500	4.00	1.30	2	SPD750-090	SPD750-090A	501072	501152
100°	0.1250	2.00	0.40	2	SPD125-100	SPD125-100A	501004	501084
100°	0.1875	2.00	0.50	2	SPD187-100	SPD187-100A	501014	501094
100°	0.2500	2.50	0.70	2	SPD250-100	SPD250-100A	501024	501104
100°	0.3125	2.50	0.90	2	SPD312-100	SPD312-100A	501034	501114
100°	0.3750	3.00	1.00	2	SPD375-100	SPD375-100A	501044	501124
100°	0.5000	3.00	1.10	2	SPD500-100	SPD500-100A	501054	501134
100°	0.6250	3.50	1.20	2	SPD625-100	SPD625-100A	501064	501144
100°	0.7500	4.00	1.30	2	SPD750-100	SPD750-100A	501074	501154
120°	0.1250	2.00	0.40	2	SPD125-120	SPD125-120A	501006	501086
120°	0.1875	2.00	0.50	2	SPD187-120	SPD187-120A	501016	501096
120°	0.2500	2.50	0.70	2	SPD250-120	SPD250-120A	501026	501106
120°	0.3125	2.50	0.90	2	SPD312-120	SPD312-120A	501036	501116
120°	0.3750	3.00	1.00	2	SPD375-120	SPD375-120A	501046	501126
120°	0.5000	3.00	1.10	2	SPD500-120	SPD500-120A	501056	501136
120°	0.6250	3.50	1.20	2	SPD625-120	SPD625-120A	501066	501146
120°	0.7500	4.00	1.30	2	SPD750-120	SPD750-120A	501076	501156
142°	0.1250	2.00	0.40	2	SPD125-142	SPD125-142A	501008	501088
142°	0.1875	2.00	0.50	2	SPD187-142	SPD187-142A	501018	501098
142°	0.2500	2.50	0.70	2	SPD250-142	SPD250-142A	501028	501108
142°	0.3125	2.50	0.90	2	SPD312-142	SPD312-142A	501038	501118
142°	0.3750	3.00	1.00	2	SPD375-142	SPD375-142A	501048	501128
142°	0.5000	3.00	1.10	2	SPD500-142	SPD500-142A	501058	501138
142°	0.6250	3.50	1.20	2	SPD625-142	SPD625-142A	501068	501148
142°	0.7500	4.00	1.30	2	SPD750-142	SPD750-142A	501078	501158

For optimal performance choose a spotting drill angle that is equal or greater than the angle of the following drill

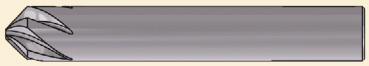
DRILL MILLS - SOLID CARBIDE



- For milling, chamfering and light spotting applications
- ALTiN+ coating for higher cutting speed
- Precision ground for maximum concentricity

"I" INCLUDED ANGLE	"A" TOOL DIA.	"B" LENGTH OF CUT	"C" TIP LENGTH	"S" SHANK DIA.	OAL	FLUTES	ORDER #		EDP #	
							UNCOATED	ALTiN+	UNCOATED	ALTiN+
90°	0.125	0.500	0.061	0.125	1.50	2	DRM12502-090	DRM12502-090A	502000	502002
90°	0.125	0.500	0.061	0.125	1.50	4	DRM12504-090	DRM12504-090A	502008	502010
90°	0.1875	0.625	0.092	0.1875	2.00	2	DRM18702-090	DRM18702-090A	502016	502018
90°	0.1875	0.625	0.092	0.1875	2.00	4	DRM18704-090	DRM18704-090A	502024	502026
90°	0.250	0.750	0.123	0.250	2.50	2	DRM25002-090	DRM25002-090A	502032	502034
90°	0.250	0.750	0.123	0.250	2.50	4	DRM25004-090	DRM25004-090A	502040	502042
90°	0.3125	0.812	0.155	0.3125	2.50	2	DRM31202-090	DRM31202-090A	502048	502050
90°	0.3125	0.812	0.155	0.3125	2.50	4	DRM31204-090	DRM31204-090A	502056	502058
90°	0.375	1.000	0.186	0.375	2.50	2	DRM37502-090	DRM37502-090A	502064	502066
90°	0.375	1.000	0.186	0.375	2.50	4	DRM37504-090	DRM37504-090A	502072	502074
90°	0.500	1.000	0.248	0.500	3.00	2	DRM50002-090	DRM50002-090A	502080	502082
90°	0.500	0.100	0.248	0.500	3.00	4	DRM50004-090	DRM50004-090A	502088	502090
120°	0.125	0.500	0.035	0.125	1.50	2	DRM12502-120	DRM12502-120A	502004	502006
120°	0.125	0.500	0.035	0.125	1.50	4	DRM12504-120	DRM12504-120A	502012	502014
120°	0.1875	0.625	0.053	0.1875	2.00	2	DRM18702-120	DRM18702-120A	502020	502022
120°	0.1875	0.625	0.053	0.1875	2.00	4	DRM18704-120	DRM18704-120A	502028	502030
120°	0.250	0.750	0.071	0.250	2.50	2	DRM25002-120	DRM25002-120A	502036	502038
120°	0.250	0.750	0.071	0.250	2.50	4	DRM25004-120	DRM25004-120A	502044	502046
120°	0.3125	0.812	0.089	0.3125	2.50	2	DRM31202-120	DRM31202-120A	502052	502054
120°	0.3125	0.812	0.089	0.3125	2.50	4	DRM31204-120	DRM31204-120A	502060	502062
120°	0.375	1.000	0.107	0.375	2.50	2	DRM37502-120	DRM37502-120A	502068	502070
120°	0.375	1.000	0.107	0.375	2.50	4	DRM37504-120	DRM37504-120A	502076	502078
120°	0.500	1.000	0.143	0.500	3.00	2	DRM50002-120	DRM50002-120A	502084	502086
120°	0.500	0.100	0.143	0.500	3.00	4	DRM50004-120	DRM50004-120A	502092	502094

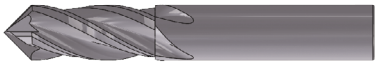
Helical Chamfer Mills



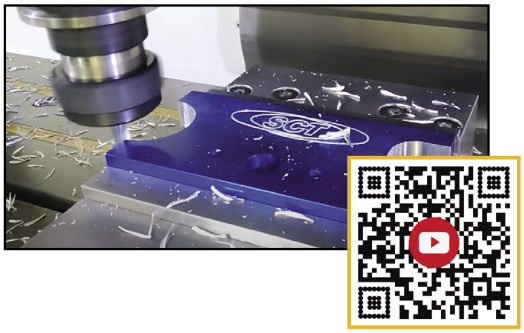
Drill mills are versatile tools. For more extensive chamfering, Scientific Cutting Tools recommends helical chamfer mills. The diameter sizes range from 1/8" to ¾", and have included angles of 60, 90, and 120 degrees.

PRODUCT VIDEOS

Drill Mills



- For milling, chamfering, and light spotting applications
- Two or four helical flutes, included angles of 90° or 120°
- Cutter diameter sizes range from 1/8” to 1/2”



Helical Chamfer Mills

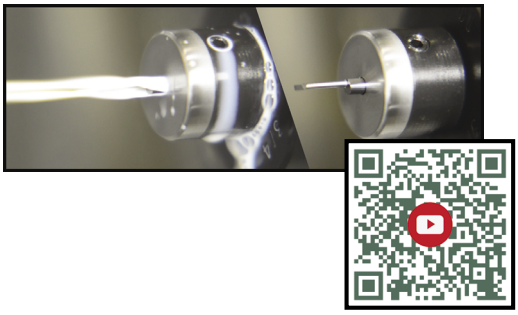
- 3 or 5 flute design for most effective application
- Tool tip diameter held to +/- 0.002 for fast set-ups
- Positive high shear design for reduced cutting forces

Coolant Through Thread Mills

- Coolant hole to each flute
- Choose ALTiN+ coating for higher cutting speeds
- Made with premium submicron grade carbide

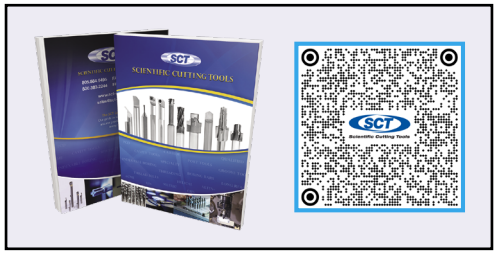
Coolant Ring Technology (CRT) Holder

- Surrounds the tool in a ring of coolant
- Use with qualified tools as a quick-change system
- Made with heat-treated steel



IMPORTANT LINKS

Complete SCT Product Catalog



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www.sct-usa.com sales@sct-usa.com
(805) 584-9495 Fax: (805) 584-9629
(800) 383-2244 Fax: (888) 728-3295

PRODUCT OVERVIEW

Use this chart to find out more about our tool collection and locate each tool in our catalog.
You can also view the tools and catalog online at **www.sct-usa.com** or call **(805) 584-9495** or **(800) 383-2244**.

THREAD MILLS


SPTM - UN & EXJ


TMLR - UN


Straight Flute - UN


External - UNJ


Staggered Tooth - UN


15º Helical Flute - UN


30º Helical Flute - UN


NPT / NPTF


BSPP / BSPT


SPTM - METRIC


TMLR - METRIC


Straight Flute - METRIC


15º Helical Flute - METRIC


30º Helical Flute - METRIC


SPTM - ACME / STUB ACME


NPS/NPSF

SPECIALTY TOOLS


Spotting Drills


Helical Chamfer Mills


Drill Mills


Corner Rounding End Mills


Engraving Tools

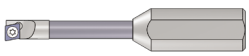
SCT INDEXABLE BORING

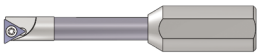

Diamond Insert Indexable Bars

3/16" RIGHT OR LEFT HAND
1/4" RIGHT OR LEFT HAND
5/16" RIGHT OR LEFT HAND
3/8" RIGHT OR LEFT HAND
1/2" RIGHT OR LEFT HAND
SOLID OR COOLANT THROUGH


Triangle Insert Indexable Bars

3/16" RIGHT OR LEFT HAND
1/4" RIGHT OR LEFT HAND
5/16" RIGHT OR LEFT HAND
3/8" RIGHT OR LEFT HAND
1/2" RIGHT OR LEFT HAND
SOLID OR COOLANT THROUGH


Diamond Insert Step Bars


Triangle Insert Step Bars


Flat Top Inserts


Chip Control Inserts


PCD/CBN Inserts

SINGLE POINT TOOLS


DH/DHF Holder


QHC Holder


CRT (Cool Ring) Holder


Mini Boring Bars


Radial Relief Boring Bars


Boring Bars Qualified


Boring Bars


Radius Boring Bars


Left-Hand Boring Bars


Diamond Tipped Boring


Helical Boring Bars


Back Chamfer Boring

Profile Boring Bars

Face Groove Tools

Undercut Groove Tools

Groove Retaining Ring

Groove Full Radius

O-Ring Groove Tools

Thread Tools

Left-Hand Thread Tools

Thread Tools Qualified

Acme Threading Tools

PORT & CAVITY TOOLS

MS33651

SAE J1926-S

SAE J1926-R

AS5202-S

AS5202-R

ISO 6149-1 Lrg. Spot Face

ISO 6149-1

ISO 6149-1 (ID)

AND10050-S

AND10050-R

Tapered Pipe Reamer

BSPP- Pipe Reamer

RPT – Rosan Cavity

MS33514

MS21921

BACD2036

Hydraforce

Sun Hydraulic

Parker Common Cavity

Eaton Vickers Cavity

ISO 1179

Autoclave

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