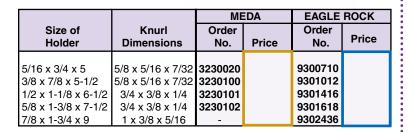
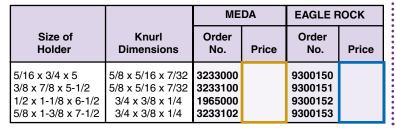


Knurling tool with double knurl, self-centering head for manual lathes. Includes one set of Medium Pitch Diagonal (BL and BR) pattern knurls to produce a 30° diamond pattern on your part.



REVOLVING HEAD KNURLING TOOLS

Revolving head knurling tool with double knurl and self-centering head for manual lathes. Includes one set each of Coarse, Medium and Fine pitch diagonal (BL and BR) pattern knurls to produce a 30° diamond pattern on your part.



Superior Import **AGLE ROCK**

EAGLE ROCK





SERIES 930:



These knurling tools fit regular toolposts and square toolpost turrets of any lathes including CNC lathes and chuckers. Since

knurling pressure is absorbed between the two knurls there is no pressure on the lathe, compound, centers or cross feed screw. Depth of knurling can be pre-set for production work before start of operation. Knurling pattern (straight of diamond) is clear and sharp. Easily removable pins make it simple to change knurls. Furnished with one set of medium diamond pattern knurls but can be used with any other knurls. Knurl dimensions for both models: 3/4" Dia. x 3/8" Width x 1/4" Bore.

Knurls and Knurl Pins are now quickly and easily replaced while still in your machine to minimize down time. Tool strength has been greatly increased to endure even your worst CNC application. Our exclusive CNC shanks are solid, one piece construction that are offset to allow for virtually no turret overhang of the knurls. Knurling pressures are absorbed by the tool not your bed, compound, centers or feed screw. This new generation of Scissor is certainly one of the best knurling tools you can buy.

Capacity	Shank	Knurl Size	Order No.	Price
0-2 1/8"	5/8 Center	3/4 x 3/8 x 1/4	9300112	
0-2 1/8"	3/4 Round	3/4 x 3/8 x 1/4	9300115	
0-2 1/8"	3/4 RH	3/4 x 3/8 x 1/4	9300116	
0-2 1/8"	3/4 LH	3/4 x 3/8 x 1/4	9300117	
0-2 1/8"	1" Round	3/4 x 3/8 x 1/4	9300118	
0-2 1/8"	1" RH	3/4 x 3/8 x 1/4	9300119	
0-2 1/8"	1" LH	3/4 x 3/8 x 1/4	9300120	
2 1/8-4"	3/4 Center	3/4 x 3/8 x 1/4	9300121	
2 1/8-4"	3/4 Round	3/4 x 3/8 x 1/4	9300122	
2 1/8-4"	3/4 RH	3/4 x 3/8 x 1/4	9300123	
2 1/8-4"	3/4 LH	3/4 x 3/8 x 1/4	9300124	
2 1/8-4"	1" Round	3/4 x 3/8 x 1/4	9300127	
2 1/8-4"	1" RH	3/4 x 3/8 x 1/4	9300128	
2 1/8-4"	1" LH	3/4 x 3/8 x 1/4	9900130	

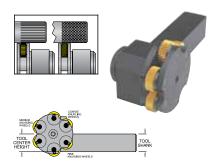




TOOLS FOR YOUR CNC

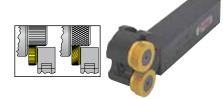
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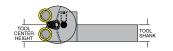


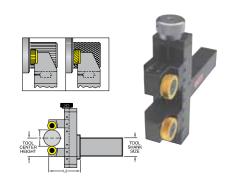












SWFKT - Single Wheel Fixed Knurling Tool for Manual or CNC Lathes

Precision square shank with preset center height. Single knurl wheel for straight and diamond pattern. Knurl wheel is mounted between the thrust washers to ensure smooth and even rotation of the knurl while knurling is performed. Best used for straight patterns or bump knurling a diamond pattern.

Center Height	Shank Size	Desc.	Order No	Price	Knurl Wheel Supplied	Knurl Pin Set	Order No.	Price
.500	.500 x .500	SWFKT-50-D	6121730					
.750	.750 x .750	SWFKT-75-M	6121740		MDR/L-25C	KPS-31-75	6128840	
1.00	1.00 x 1.00	SWFKT-100-O	6121750		ODR/L-25C	KPS-31-100	6128845	

Tool supplied with one 25 or 30 TPI knurling wheels for straight pattern. A complete selection of knurl wheel pitches available.

3SHKT - Three Swivel Head Knurling Tool

Designed to knurl multiple applications with one tool. Precision square shank with preset center height. Twin knurl wheels for straight and diamond pattern. Knurl wheels are mounted between the thrust washers to ensure a smooth and even rotation of the knurls while knurling is performed. Self-centering knurling head for precise alignment to the working part.

Center Height	Shank Size	Desc.	Order No	Price	Knurl Wheel Supplied	Knurl Pin Set	Order No.	Price
.500	.500 x .750	3SHKT-50-D	6121510		DDR/L-30C	KPS-18-50	6128805	
.750	.750 x 1.00	3SHKT-75-M	6121530		MDR/L-16C			
1.00	1.00 x 1.00	3SHKT-100-M	6121540		MDR/L-25C	KPS-31-100	6128845	

A complete selection of knurl wheel pitches available.

SCK - Self-Centering Knurling Tool for CNC Lathe

Specifically designed for CNC lathe. Precision square shank with preset center height. Twin knurl wheels for straight and diamond pattern. Knurl wheels are mounted between the thrust washers to ensure a smooth and even rotation of the knurls while knurling is performed. Self-centering knurling head for a precise alignment to the working part.

Center Height		Desc.	Order No	Price	Knurl Wheel Supplied	Knurl Pin Set	Order No.	Price
.500	.500 x .750	SCK-50-D	6122111		DDR/L-30C	KPS-18-50	6128805	
.750 1.00		SCK-75-D SCK-100-D	6122121 6122131		MDR/L-25C	KPS-31-75	6128845	

Tool supplied with one set of 25 or 30 TPI knurling wheels for diamond pattern. A complete selection of knurl wheel pitches available.

SSCK - Shoulder Self-Centering Knurling Tool for CNC Lathe

Specifically designed for CNC lathe. Designed to knurl against a square shoulder. Precision square shank with preset center height. Twin knurl wheels for straight and diamond pattern. Knurl wheels are mounted between the thrust washers to ensure a smooth and even rotation of the knurls while knurling is performed. Supplied with Cobalt TIC/N Coated SW series knurl wheels. Self-centering knurling head for a precise alignment to the working part.

Center Height		Desc.	Order No.	Price	Knurl Wheel Supplied	Knurl Pin Set	Order No.	Price
.500	.500 x .625	SSCK-50-2	6122220		SW2R/L-30C	SW2.0P-2S	6129055	
.750 1.00		SSCK-75-4 SSCK-100-4	6122240 6122250		SW4R/L-25C	SW4.0P-2S	6129085	

Tool supplied with one set of 25 or 30 TPI knurling wheels for diamond pattern. A complete selection of knurl wheel pitches available.

KTW109 - Diametral Shoulder Knurling Tool with a Self-Centering Adjustable Floating Straddle

This tool is designed when pressure and deflection are a problem. The knurling heads are able to "float" somewhat and center on the workpiece, compensating for any off-centering. Precise square shank with preset center height. A diametrical adjustment screw regulates the depth of the knurl pattern and diameter size. Refer to the CNC-000-7 when tool clearance is a problem.

Center Height	 D Max	L2	Desc.	Order No	Price	Knurl Wheel Style & size	Knurl Pin Set	Order No.	Price
0.75 1.00			KTW109-75-2-4 KTW109-100-2-4			SW4R/L-25C	SW4.0P-2S	6129085	

Tool supplied with one set of 25 TPI knurling wheels for diamond pattern. A complete selection of knurl wheel pitches available.

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Modular Versatility

IDULAR KNURLING TOOLS FOR YOUR CNC SERIES 930:



Modular Versatility The CNC Modular Knurling Tool is a tooling system which combines exceptional versatil- ity, rigidity, ease of handling, and simplicity. Knurl wheels, heads, and shanks can be combined to build your own knurling tool to fit any work ap- plication and machine.	r Knurling the tool will be rigid and adjustable yet easy to use. By turning the adjustment screw clockwise or counterclock- f handling, rl wheels, s can be your own y work ap- ne. Knurl forming action displaces the perfect knurl pattern while sacrific The force applied through forming diameters making knurling difficult Knurling cutting action displaces the perfect knurl pattern while sacrific The force applied through forming diameters making knurling difficult Knurling cutting action cuts a perfec- times faster than a forming knurl to for CNC use. It is engineered to kn ing thin wall tubing, with minimur- and compound lathe.								nd feeds I in larger n 10 to 20 applicable al, includ-
 Precision squa preset center h Right or Left har One shank fits 	eight. nd applications.	Easy set-up. Center height adjustment. E			High producti Best knurl qu Low producti Cutting - 10 t	ality. on cost.	faster.		
One shank fits all heads.			\sum	S			-	ie hea II shai	-
 Precision square shank preset center height. Right or Left hand applicati Easy set-up. 	Left Hand	jus • Int	enter height ad- stment. erchangeable url heads.	Right	Hand	 Best k Low p 	productiv murl qua roduction g - 10 to	llity. n cost.	s faster.
CNC-000-1-2		to 1-1/2".	• • • • • • • • • • • • • • • • • • • •	•••••	· · · · · · · · · · · · · · · · · · ·	0.1			
U U		achine, and	Supplied with SW2S-30)C co-	Desc.	Order No.	Price	Shank Size	Tool Length
R G	 faster than knurl forming a Twin straight SW series k for diamond pattern. All knurl close to a square sh 	nurl wheels ows tool to	balt knurl wheels - Tin of Adds longer life and bett formance to the knurl whe	er per-	CNC-75-1-2 CNC-100-1-2 CNC-125-1-2	6120410 6120420 6120430		.750 1.00 1.25	5.500 6.750 7.250
CNC-000-2-R		1" to 5".				•			
UT T	Minimum stress on the ma	,	thrust washers. Ensures		Desc.	Order No.	Price	Shank Size	Tool Length
S S S S S S S S S S S S S S S S S S S		url wheels plies more s	wheels • Supplied with RS-25-C co knurl wheels - Tin coated. A longer life and better performa		CNC-75-2-R CNC-100-2-R CNC-125-2-R	6120510 6120520 6120530		.750 1.00 1.25	5.50 6.75 7.25
	Extra heavy duty cutting ra	2000- <u>2" 8</u> 1							
CNC-000-3-M	Minimum stress on the ma	achine, and	thrust washers. Ensures and even rotation of the kni		Desc.	Order No.	Price	Shank Size	Tool Length
The second secon	 Twin straight M series kn for diamond pattern. Sup rigidity for larger diameter 	url wheels plies more s	• Supplied with MS-25-C knurl wheels - Tin coated longer life and better perfo to the knurl wheels.	cobalt I. Adds	CNC-75-3-M CNC-100-3-M CNC-125-3-M	6120610 6120620 6120630		.750 1.00 1.25	5.625 6.875 7.375
CNC-000-5-0	Straight bump.								
O R	 Great quality of knurl patt 		and even rotation of the ki		Desc.	Order No.	Price	Shank Size	Tool Length
M I N G	 straight or diamond patter knurl applications, up to Knurl wheel is mounted 	rn. Narrow 394" wide d between	 Supplied with OS25-C knurl wheel - Tin coated longer life and better perfo to the knurl wheel. 	d. Adds	CNC-75-5-0 CNC-100-5-0 CNC-125-5-0	6120710 6120720 6120730		.750 1.00 1.25	5.50 6.75 7.25
CNC-000-7 F					Dest	Order	D - 1	Shank	Tool
B	 Better quality of knurl patt 	ern.	 Supplied with RDR/L-30-0 	C cobalt	Desc.	No.	Price	Size	Length

• Better quality of knurl pattern. R Compact design. Allows more clear-Μ ance for the tool head.

- Т • Twin R series knurl wheels for Ν straight or diamond pattern. Supplies • Self-centering knurling head. Pre-
- G more rigidity for compact design.
- Supplied with RDR/L-30-C cobalt knurl wheels - Tin coated. Adds longer life and better performance to the knurl wheel.
- cise alignment to the working part.

Desc.	Order No.	Price	Shank Size	Tool Length
CNC-75-7-R CNC-100-7-R CNC-125-7-R			.750 1.00 1.25	5.75 7.00 7.50

	4	95



Teeth

Per Inch

14

21

33

14

21

33

Straight

4590140

4590210

4590330

2550140

2550210

2550330

Superior Import

Price

LH

Diagonal

4590142

4590212

4590332

2550142

2550212

2550332

RH

Diagonal

4590141

4590211

4590331

2550141

2550211

2550331



KNURL WHEELS

SERIES 916:

Dimensions

5/8 x 5/16 x 7/32"

3/4 x 3/8 x 1/4"

Dia. x Thick. x Hole Dia.



HIGH SPEED STEEL

Knurls are individually cut to obtain sharp, per-

fectly formed teeth - then heat treated

Available with: 14 (coarse), 21 (medium),

RH and LH Knurls in pairs.

NOTE: RH Knurling is produced with LH Knurls.

LH Knurling is produced with RH Knurls.

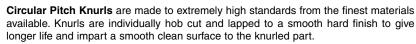
Male Diamond Knurling is produced by

and 33 (fine) teeth per inch.

KNURLS

SERIES 459:

and tempered.



Diagonal Right

Straight

Diagonal

Right

Diagonal

Left

Knurls available in High Speed, Cobalt, TIC/N - Coated, beveled, and diametral pitch.

				Order No.	
"C" Series		Included		Pattern	
High Speed		Tooth		Diagonal	Diagonal
	TPI	Angle	Straight	Right	Left
1	16	90°	0024502	0024610	0024718
	20	90°	0024504	0024612	0024720
*	25	90°	0024506	0024614	0024722
3/16" 1/2"	30	90°	0024508	0024616	0024724
•	35	90°	0024510	0024618	0024726
· ·	40	90°	0024512	0024620	0024728
	50	70°	0024514	0024622	0024730
- 3/16" -	80	70°	0024516	0024624	0024732
	Price				

Diagonal

Left

					Order No.	
"A" Se	rioe		Included		Pattern	
High Sp			Tooth		Diagonal	Diagonal
riigii O		TPI	Angle	Straight	Right	Left
	1	10	90°	0023502	9923634	0023766
		12	90°	0023504	0023636	0023768
· _		14	90°	0023506	0023638	0023770
1/4"	3/4"	16	90°	0023508	0023640	0023772
1		20	90°	0023510	0023642	0023774
1		25	90°	0023512	0023644	0023776
		30	90°	0023514	0023646	0023778
3/8"	-	35	90°	0023516	0023648	0023780
		40	90°	0023518	0023650	0023782
		50	70°	0023520	0023652	0023784
		80	70°	0023522	0023654	0023786
		Price				

"O" Series			Order No. Pattern			
High Speed	ТРІ	Tooth Angle	Straight	Male Diamond	Female Diamond	
	12	90°	0025606	-	-	
	14	90°	9925608	-	-	
5/16" 1.0"	16 20	90° 90°	0025610 0025612	9926008	- 0026074	
•	20	90°	0025612	9026010	0026074	
	30	90°	0025616	9926012	0026078	
3/8"	Price					

"S"		Included	Order No. Pattern		
Series High Speed	ТРІ	Tooth	Straight	Diagonal	Diagonal Left
. ngn opeed		Angle	Straight	Right	
-	16	90°	0026808	0026930	0027054
	20	90°	0026810	9926932	0027056
·	25	90°	0026812	9926934	0027058
1/4" 3/4"	30	90°	0026814	9926936	0027060
1	40	90°	0026818	0026940	0027064
	50	70°	0026820	0026942	0027066
- 1/4" -	Price				

"D" Ser	ios .					
Cobalt,				Order No. Pattern		
TiN Coated			Included			
	+		Tooth		Diagonal	Diagonal
		TPI	Angle	Straight	Right	Left
		20	90°	25031	925085	25139
3/16"	1/2"	30	90°	25035	25089	25143
+		40	90°	25039	25093	25147
		Price				
	-					

+ .157* -



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Circular Pitch Knurls are made to extremely high standards from the finest materials available. Knurls are individually hob cut and lapped to a smooth hard finish to give longer life and impart a smooth clean surface to the knurled part.

Knurls available in High Speed, Cobalt, TIC/N - Coated, beveled, and diametral pitch.

				Order No.		
"R"		Included	Pattern			
Series Cobalt	TPI	Tooth Angle	Straight	Diagonal Right	Diagonal Left	
	10	90°	0026502	0026564	0026626	
	12	90°	0026504	0026566	0026628	
	14	90°	0026506	0026568	0026630	
<u>+</u>	16	90°	0026508	0026570	0026632	
1/4" 3/4"	20	90°	0026510	0026572	0026634	
1	25	90°	0026512	0026574	0026636	
	30	90°	0026514	0026576	0026638	
197" -	35	90°	0026516	0026578	0026640	
	40	90°	0026518	9926580	0026642	
	50	70°	0026520	0026582	0026644	
	Price					

"M" Series			Included	Order No. Pattern		
Cobalt			Tooth		Diagonal	Diagonal
	Ŧ	TPI	Angle	Straight	Right	Left
		12	90°	0025306	0025372	0025438
<u> </u>		14	90°	0025308	0025374	0025440
5/16" 1	1.0"	16	90°	9925310	0025376	0025442
T		20	90°	0025312	0025378	0025444
· ·		25	90°	0025314	0025380	0025446
		30	90°	9925316	0025382	0025448
236"	-	Price				

While we show some of the most popular KNURLS we can supply many more styles; please inquire.



- "SW" knurling wheels are technically designed to knurl against a square shoulder.
- With super precise workmanship, the wheels are made of heat treated High Cobalt Steel to withstand severe knurling operation.
- Knurl wheels are Titanium Nitrate coated to reduce the coefficient of friction when knurling, increasing the quality and the force of knurling as well as the life of the knurl wheels.
- All SW Series knurl wheels are available only in cobalt and tin coated.

"SW2"			Order No.			
		Included	Pattern			
Series		Tooth		Diagonal	Diagonal	
Cobalt	TPI	Angle	Straight	Right	Left	
•	16	90°	0027402	-	-	
	20	90°	0027404	-	-	
/2* 1/4*	25	90°	0027406	0027456	0027506	
/2 1/4	30	90°	0027408	0027458	0027508	
	35	90°	0027410	-	-	
*	40	90°	0027412	-	-	
- 1/4°	50	70°	0027414	-	-	
	Price					

"SW3.5" Series		Included	Order No. Pattern				
Cobalt	трі	Tooth Angle	Straight	Diagonal Right	Diagonal Left		
7/8" 3/8	14 20 25	90° 90° 90°	- 9927706 9927708	0027756 0027760 0027762	0027810 - 0027816		
1 28 1	Price						

"SW4"			Order No.		
	Included		Pattern		
Series		Tooth		Diagonal	Diagonal
Cobalt	TPI	Angle	Straight	Right	Left
	14	90°	0028002	0028056	0028110
	16	90°	0028004	0028058	0028112
	20	90°	0028006	0028060	0028114
0* 1/2*	25	90°	0028008	0028062	0028116
	30	90°	0028010	0028064	0028118
	35	90°	0028012	0028066	0028120
- 3/8" -	40	90°	0028014	0028068	0028122
	Price				

1.0