

# PCD Endmills



Center Cutting



Side Cutting



Staggered Cut Special design used for cutting edges longer than 1".

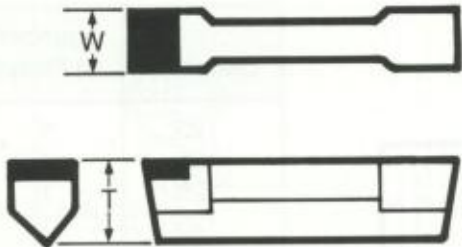
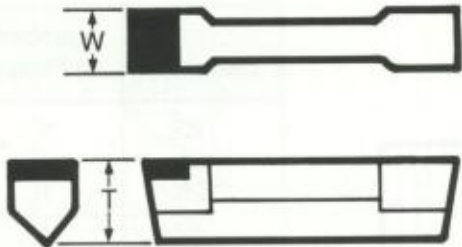
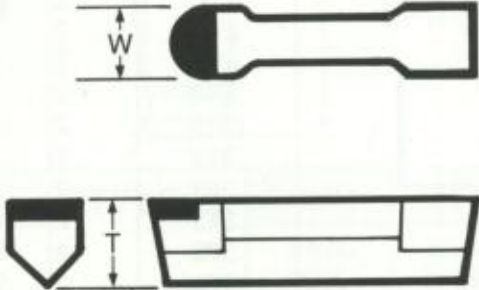
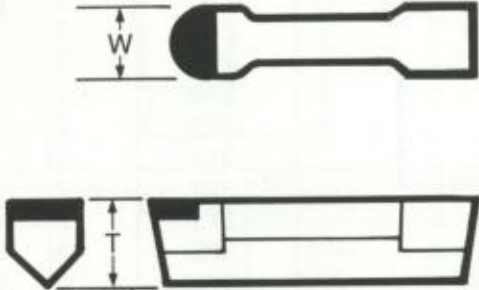
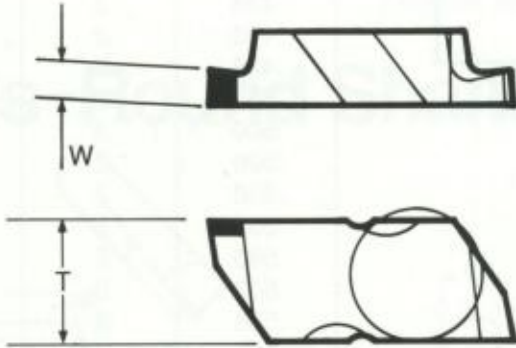
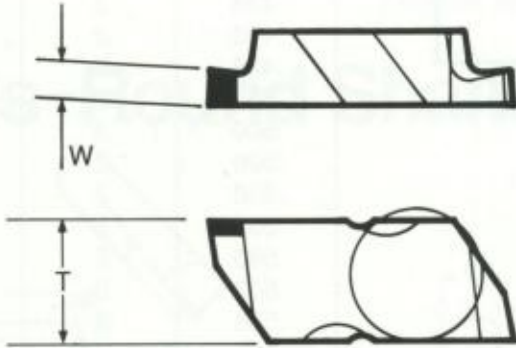
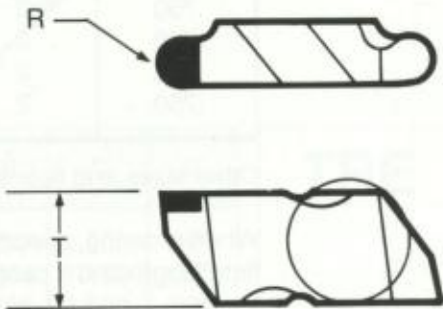
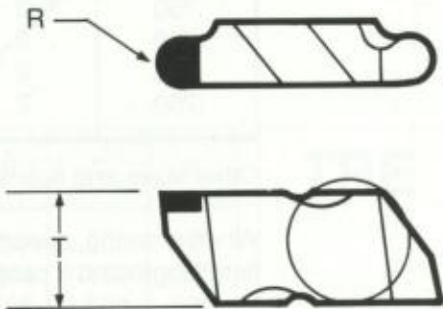
Diameter	Number Of Flutes	Flute Length	Center or Side Cutting
.125	1	.156	center cutting
.125	1	.250	center cutting
.125	1	.313	center cutting
.125	1	.313	side cut only
.188	2	.156	center cutting
.188	2	.250	center cutting
.188	2	.500	center cutting
.250	2	.156	center cutting
.250	2	.250	center cutting
.250	2	.375	center cutting
.250	2	.500	center cutting
.250	2	.500	side cut only
.313	2	.250	center cutting
.313	2	.375	center cutting
.313	2	.500	center cutting
.313	2	.500	side cut only
.375	2	.250	center cutting
.375	2	.375	center cutting
.375	2	.500	center cutting
.375	2	.500	side cut only
.438	2	.250	center cutting
.438	2	.375	center cutting
.438	2	.500	center cutting
.438	2	.500	side cut only
.438	2	1.000	side cut only
.500	2	.250	center cutting
.500	2	.500	center cutting
.500	2	1.000	center cutting
.500	2	1.000	side cut only
.563	2	.250	center cutting
.563	2	.500	center cutting
.563	2	1.000	center cutting
.563	2	1.000	side cut only
.625	2	.250	center cutting
.625	2	.500	center cutting
.625	2	1.000	center cutting
.625	2	1.000	side cut only
.750	2	.250	center cutting
.750	2	.500	center cutting
.750	2	1.000	center cutting
.750	2	1.000	side cut only

Other sizes and flute lengths available

When ordering, specify: diameter, number of flutes, flute length and if center cutting or side cut only.

# Grooving Tools

PCD or CBN

VDB - A & B		Insert Number	W	T	
		VDB-125-A-015	.125	.250	
		VDB-156-A-015	.156	.250	
VDB-188-A-015		.188	.250		
VDB-250-A-015		.250	.250		
VDB-250-B-015		.250	.337		
VDB-312-B-015		.312	.337		
VDB-375-B-015		.375	.337		
VDB - RA & RB		Insert Number	W	T	
		VDB-125-RA	.125	.250	
		VDB-156-RA	.156	.250	
VDB-188-RA		.188	.250		
VDB-218-RA		.218	.250		
VDB-250-RA		.250	.250		
VDB-250-RB		.250	.337		
VDB-281-RB		.281	.337		
VDB-312-RB		.312	.337		
VDB-344-RB		.344	.337		
VDB-375-RB		.375	.337		
NG (Right and Left)		Insert Number	W	T	
		NG-2031-R&L	.031	.219	
		NG-2047-R&L	.047	.219	
NG-2062-R&L		.062	.219		
NG-2094-R&L		.094	.219		
NG-2125-R&L		.125	.219		
NG-3047-R&L		.047	.344		
NG-3062-R&L		.062	.344		
NG-3094-R&L		.094	.344		
NG-3125-R&L		.125	.344		
NG-3189-R&L		.189	.344		
NG-4125-R&L		.125	.375		
NG-4189-R&L		.189	.375		
NG-4250-R&L		.250	.375		
Right Hand Shown. Left Hand Opposite.					
NR (Right and Left)		Insert Number	R	T	
		NR-3031-R&L	.031	.344	
		NR-3047-R&L	.047	.344	
NR-3062-R&L		.062	.344		
NR-3078-R&L		.078	.344		
NR-3094-R&L		.094	.344		
NR-4062-R&L		.062	.375		
NR-4094-R&L		.094	.375		
NR-4125-R&L		.125	.375		
Right Hand Shown. Left Hand Opposite.					

Other sizes and styles of grooving tools available.

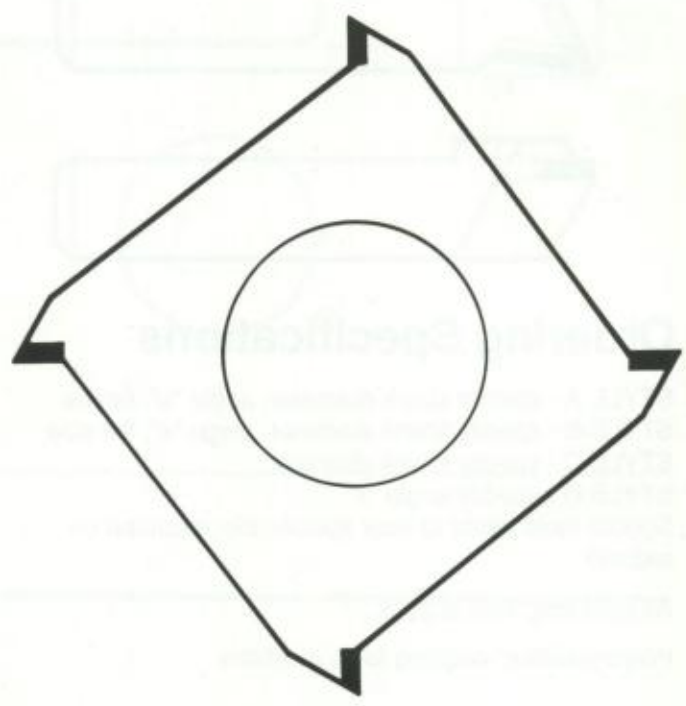
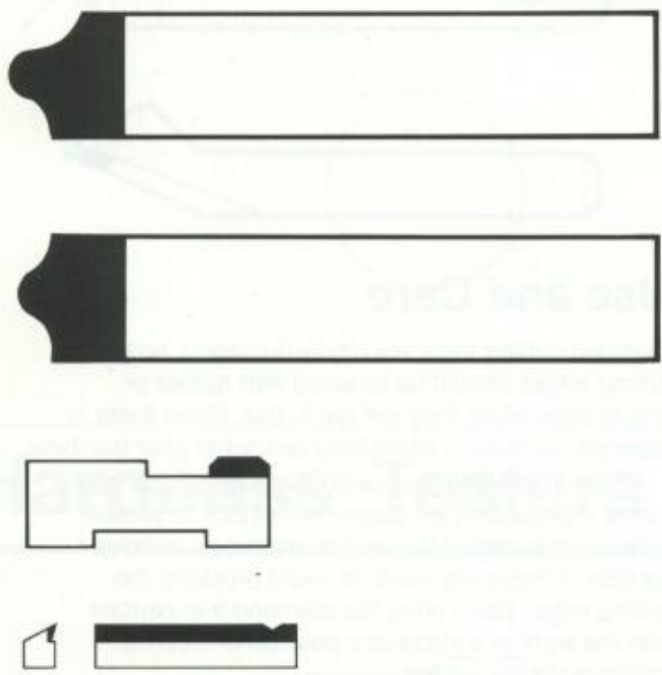
## Other Standard Inserts

CCMM	CPGM	DNGP	EPMT	SCMT	SNE	TBEA	TFG	TPGA	VCMW
CCMT	CPMA	DNMG	NPL	SCMW	SNEA	TBEE	TM	TPGM	VNGA
CCMW	CPMT	DNMM	NPR	SDE	SNMA	TBGD	TNC	TPMA	VNGP
CDCD	CPMW	DNMP	NPT	SDEB	SNMG	TBGE	TNEA	TPMC	VNMG
CNG	DCMM	DPG	NT	SEEN	SNMM	TCMM	TNMA	TPMM	VNMP
CNGA	DCMT	DPGA	NTB	SEG	SPC	TCMT	TNMC	TPMT	VPGA
CNMG	DCMW	DPGR	PM	SFA	SPCE	TCMW	TNMG	TPMW	VPGR
CNMM	DDG	DPGT	PNC	SFE	SPE	TD	TPC	TPV	VPMA
CNMP	DDGA	DPMT	PNG	SFG	SPEA	TDED	TPCE	TX	VPMT
CPGA	DDGB	DPMW	PPC	SM	SPMA	TEC	TPEA	U3	VTGA
CPGB	DNEA	DTGA	PPG	SNC	SPMW	TEEN	TPEE	VCMT	

## Other Grooving Inserts

CC	TLG	TLRP
NGP	TLGP	TNMC
NRP	TLR	

## Form Tools, Routers and Cutters



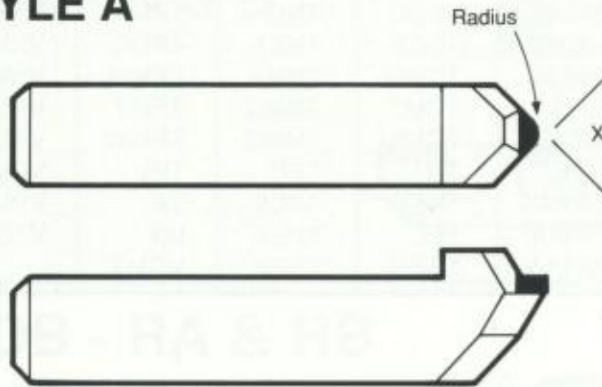
Special miscellaneous form tools and cutters shown are made to your specifications.

Tooth detail of various cutter shapes available.



# Lens Turning Tools

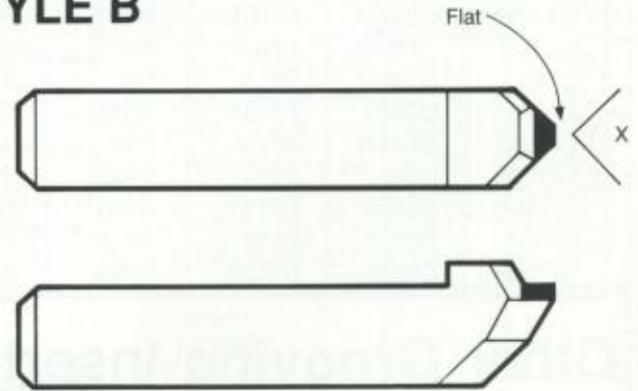
## STYLE A



Above tools available in 3/16, 1/4, 5/16 and 3/8" square shanks

Included angle "x" available 60°, 70°, 80°, 90°

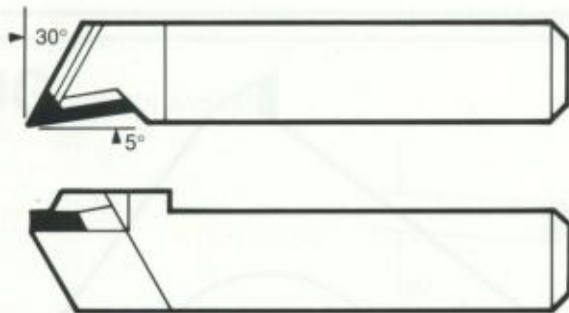
## STYLE B



STYLE A Radius available - .005, .010, .015, .020, .030

STYLE B Flat available - .010, .015, .020, .030

## STYLE C



## Ordering Specifications

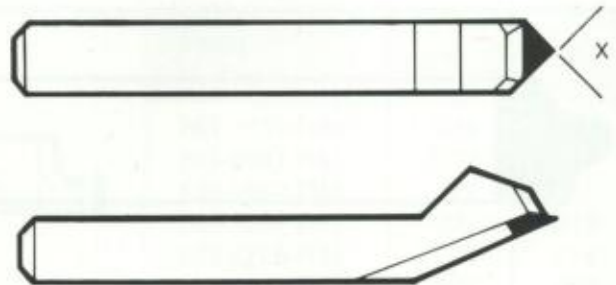
STYLE A - specify shank diameter, angle "x", radius  
 STYLE B - specify shank diameter, angle "x", flat size  
 STYLE C - specify shank diameter  
 STYLE D - specify angle "x"

Special tools made to your specifications quoted on request

All tools chip free at 250x

Polycrystalline roughing tools available

## STYLE D



## Use and Care

Diamond cutting tools are easily damaged, so the cutting edges should be covered with rubber or plastic caps when they are not in use. Store them in separate containers when they are not in your machine.

When inspecting and setting up, use optical instruments if possible. Use copper shimstock or plastic between the cutting tool and micrometers or height gauges, if these are used, to avoid breaking the cutting edge. Don't bring the diamond into contact with the work in a stationary position or stop the machine during the cut.

High speed reduces cutting edge pressure; low speed increases it, causing diamonds to break down more rapidly.

Vibration also shortens tool life, so machine tools should be in good condition.

# Commutator Turning Tools

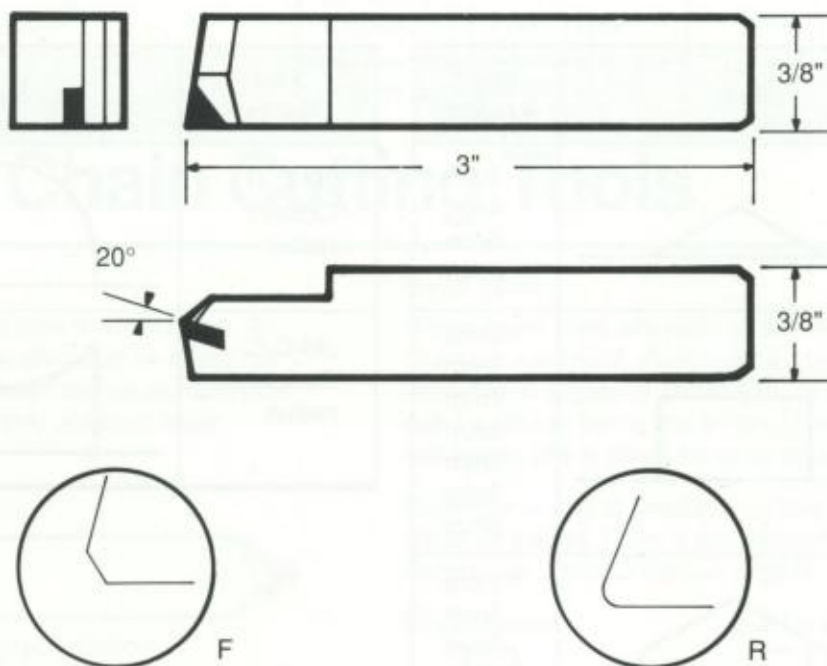
## Commutator Turning

Diamond tools are used for turning the commutators of fractional horsepower electric motors, such as motors used for vacuum cleaners, electric power tools, etc. The tool is traversed at a feed rate of .0005" to .0015" per revolution, taking a depth of cut from .001" to .005". A controlled finish can be produced.

## Tool type

CT-N-F	Natural diamond with flat
CT-N-R	Natural diamond with radius
CT-S-F	Synthetic diamond with flat
CT-S-R	Synthetic diamond with radius

Custom-made tools to your specifications quoted on request



## Hardness Testers



For use with Rockwell method

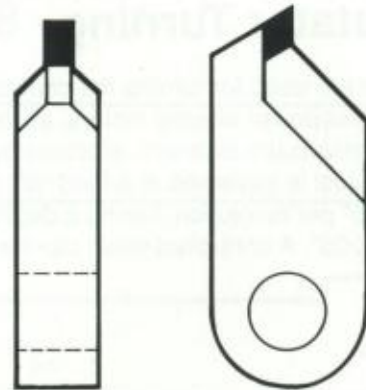
Available in "A" "C" or "N" scale

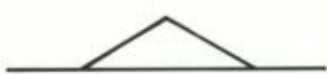
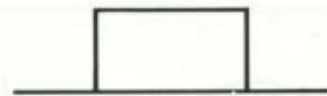

# Flycutting Faceting Tools


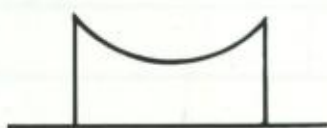
For decorative finishing of all kinds of jewelry such as rings, bracelets, earrings, charms, cigarette lighters, etc. They can also be used for the faceting of gold chain on automatic milling machines.

When ordering specify part number, angle or radius and diamond width

Special sizes and shapes available  
All tools available in carbide  
Serrated carbide background tools available

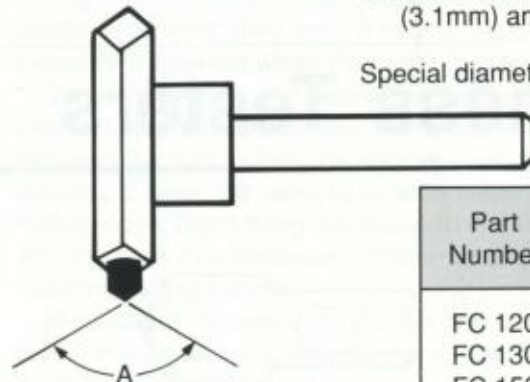


Part Number	Style	Width Available
JM-2-F two edges		3mm 4mm 5mm 6mm
JM-3-F three flat edges		1/2mm 1mm 2mm 3mm 4mm 5mm 6mm
JM-4-F four edges straight sides	 available 90° to 160° Inc	1/2mm 1mm 2mm 3mm 4mm 5mm

Part Number	Style	Width Available
JM-C-R Convex radius		1mm 2mm 3mm 4mm
JM-C-C Concave radius		1mm 2mm 3mm 4mm

## Diamond Flywheels

Create brilliant diamond cuts for stone settings and designing. Anyone can diamond facet a variety of jewelry items by using a flexible shaft motorized machine. Create your own designs on earrings, charms, pendants, wedding rings, and many more items.



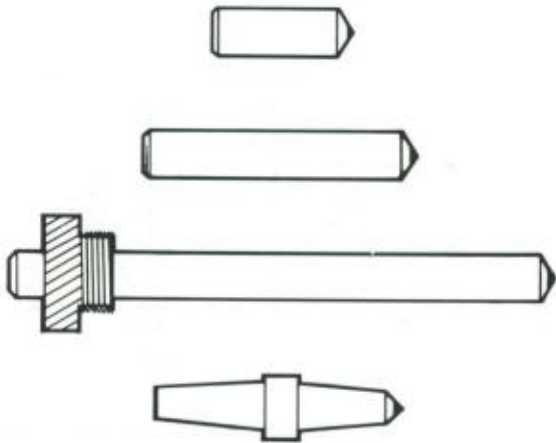
Standard shank diameter 1/8"  
(3.1mm) and 5/32" (4mm).

Special diameters available

Part Number	Angle
FC 120	120°
FC 130	130°
FC 150	150°
FC 180	180° flat



# Diamond Engravers



## Drag engravers

Part Number	Shank Size
DR-125-5	1/8 x 1/2
DR-125-1	1/8 x 1-1/8
DR-125-4	1/8 x 4
DR-156	4mm x 110mm
DR-171	11/64 x 6
DR-236	6mm x 160mm
DR-250-15	1/4 x 1-1/2
DR-250-6	1/4 x 6
DR-PRTS	Preis Taper

Angles available 90° to 160°

## Rotating engravers

Part Number	Shank Size
RT-250-15	1/4 x 1-1/2
RT-156	4mm x 110mm
RT-187	3/16 x 1-1/2

Angles available 100° to 150°  
 Number of facets 4 or 6  
 Special shanks available  
 Specify part number and angle when ordering

# Diamond Chain Cutting Tools

## Ice Lathe Tools

For use on the Ice-diamond Lathe to facet chain. A polycrystalline diamond is usually used as a first cut to remove the ice and is followed by natural diamond finish tools to produce the highly polished finish required of fine quality chain.



ICE LATHE ROUGHING Polycrystalline  
 Part number ICER-60



ICE LATHE FINISHING Natural

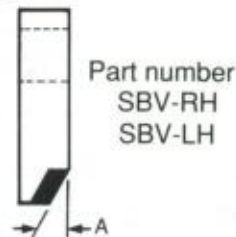
Part Number	Diamond Width
ICE-3mm	3mm
ICE-4mm	4mm
ICE-5mm	5mm
ICE-6mm	6mm

## Bevel Tools

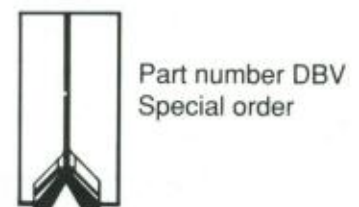
Single bevel tools are used to bevel the edges of chain on automatic chain milling machines. They are available in angles of 15° to 45°. J&M has also developed a double bevel tool which allows you to bevel two edges of the chain simultaneously.

Eccentric - used to produce ornamental designs on chain by milling. Point is cut off-center by varying degrees to produce various effects.

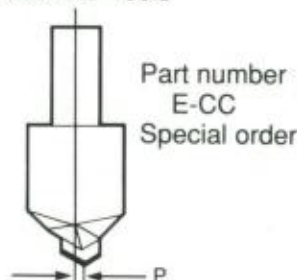
### Single Bevel



### Double Bevel



### Eccentric Tools

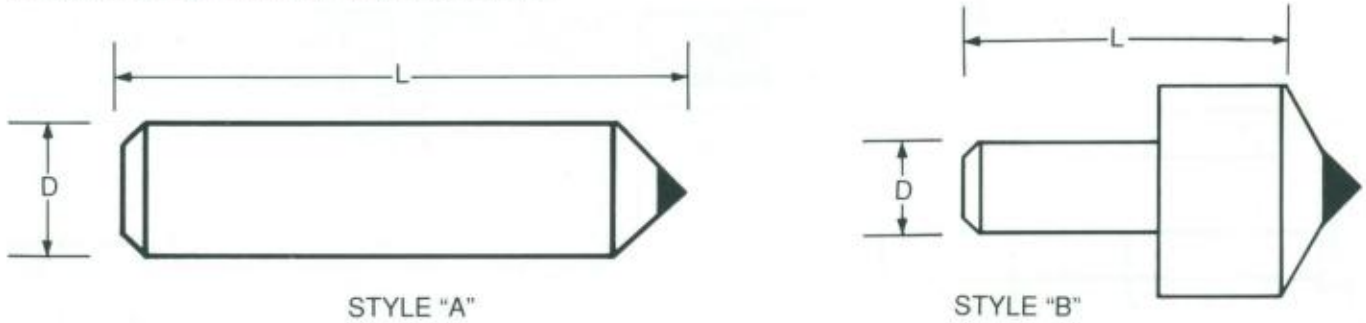


When ordering single bevel tools, specify: LEFT hand (LH) or RIGHT hand (RH)

Specify Angle "A" 15°, 20°, 25°, 30°, 45°

# Single Point Natural Dressers

## Natural Point Diamonds



When ordering please specify Style "A" or "B". Specify - Diameter "D" and Length "L".



### GRADE A

Specially selected diamonds for shape and structure. These diamonds, because of their many points, may be reset several times which more than pays for the higher initial cost.



### GRADE B

These diamonds are less expensive initially because they have fewer cutting edges. Grade B stones approximate grade A quality, but have fewer points and therefore cannot be reset as many times.



### GRADE C

These stones, although in some cases may be reset, are referred to as "throw aways". These are lesser quality stones than A or B and therefore have less dressing time expectancy.

CARAT WEIGHT	GRADE (A)	GRADE (B)	GRADE (C)
1/4 ct.	Cat. # 25SPA	Cat. # 25SPB	Cat. # 25SPC
1/3 ct.	Cat. # 33SPA	Cat. # 33SPB	Cat. # 33SPC
1/2 ct.	Cat. # 50SPA	Cat. # 50SPB	Cat. # 50SPC
3/4 ct.	Cat. # 75SPA	Cat. # 75SPB	Cat. # 75SPC
1 ct.	Cat. # 100SPA	Cat. # 100SPB	Cat. # 100SPC
1 1/2 ct.	Cat. # 150SPA	Cat. # 150SPB	Cat. # 150SPC
2 ct.	Cat. # 200SPA	Cat. # 200SPB	Cat. # 200SPC
3 ct.	Cat. # 300SPA	Cat. # 300SPB	Cat. # 300SPC

WHEEL DIAMETER										
WHEEL WIDTH	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
1/2"	.25		.33		.50		.75	1.00	1.25	1.50
1"	.25	.33		.50		.75		1.25		1.50
1-1/2"			.50		.75		1.00		1.50	
2-1/4"	.33			.75		1.00		1.50	1.75	2.00
2-1/2"		.50		.75		1.00				
3"			.75		1.00		1.50		2.00	
4"										3.00

### POINT SIZE SELECTION CHART

Shows optimum size diamond point (carats) for various combinations of wheel diameter and width.

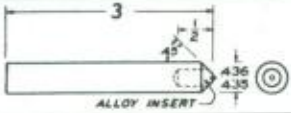
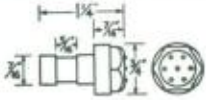
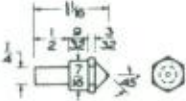


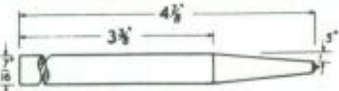
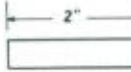
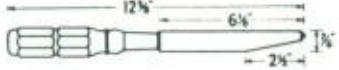
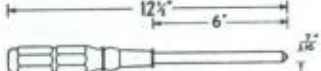

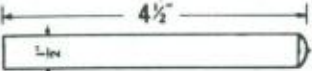
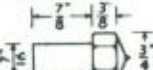
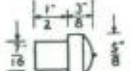


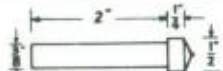
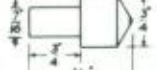
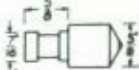
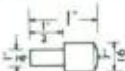

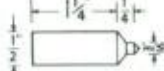
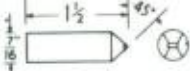
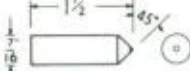
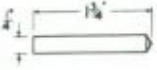
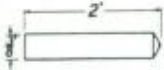
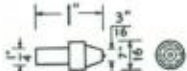
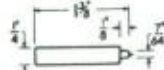
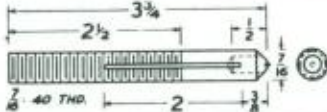
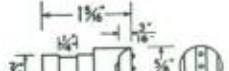
# Standard Diamond Dresser Shanks

DRESSER TYPE	TOOL NO.
	HALL
	DETROIT CENTERLESS
	VINCO
	KWIK-WAY
	PRATT & WHITNEY GEAR GRINDER
	P & W GEAR grinder
	CARBOLOY 3C NIB
	CARBOLOY 4D NIB
	No. 14 CINCINNATI
	J & L NX-574-75
	BROWN & SHARPE SHAPER GRINDER

DRESSER TYPE	TOOL NO.
	EX-CELLO L-26-A76
	EX-CELLO 40-426
	EX-CELLO 46-52
	EX-CELLO 48-4105
	EX-CELLO 48-4105-1
	EX-CELLO 48-3014
	EX-CELLO 48-3212
	EX-CELLO 48-4126
	EX-CELLO 48-4128
	EX-CELLO 48-4128-1
	EX-CELLO 48-356-50

# Standard Diamond Dresser Shanks

DRESSER TYPE	TOOL NO.
	No. 100-240 ROTOREX
	MULTI-STONE
	HYATT
	BLACK DIAMOND DRILL GRINDER
	No. 67 HEALD
	No. 68 HEALD
	No. 69 CINCINNATI
	No. 72 LATHE TOOL
	No. 73 HAND TOOL
	No. 74 HEALD
	No. 76 NORTON HEALD B & S
	No. 77 HEALD
	No. 78 LANDIS

DRESSER TYPE	TOOL NO.
	No. 80 HEALD
	No. 82
	No. 83
	NO. 60 LANDIS
	NO. 61 NORTON
	NO. 62 PERMASET
	NO. 63 CHISEL EDGE
	NO. 64 CONICAL DIAMOND
	NO. 65
	NO. 66
	BRYANT CHUCKING GRINDER
	No. 81 HEALD BORE GRINDER
	No. 100-125A ROTOREX
	MULTI-STONE