

# Premium Carbide Burrs

## SA Style

Cylinder Shape - No End Cut . . . . . 87

## SB Style

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## Premium Carbide Burrs Sets

### Double Cut Sets

Set A - 9 pcs . . . . . 91

Set B - 9 pcs . . . . . 91

Set C - 9 pcs . . . . . 91

Set D - 9 pcs . . . . . 91

Set E - 8 pcs . . . . . 91

Set F - 8 pcs . . . . . 91

### Double Cut Display

48 pcs.

Double Cut- 1/8 Shank . . . . . 91

Double Cut- 1/4 Shank . . . . . 91

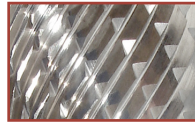
Aluma Cut- 1/4 Shank . . . . . 91

24 pcs.

Double Cut- 1/4 Shank . . . . . 91

## Double Cut

The most popular burr for ferrous applications.

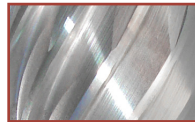


The flutes are ground in both the left and right hand directions, offering better operator control and rapid stock removal in harder materials.

The double cut geometry reduces the size of the chips and can be used at slower than normal speeds.

## Aluma Cut

Designed for used on aluminum, non-ferrous metals, soft steel, reinforced plastics and other soft materials.



The burrs are designed with a high flute finish for easy chip flow and fast stock removal and excellent work piece finish.

MATERIALS	Aluma Cut	Double Cut
Aluminum	✓	
Brass		✓
Bronze		✓
Copper		✓
Cast Iron		✓
Plastics	✓	
Steel (40-50 RC)		✓
Steel (55-60 RC)		✓
Steel (Carbon)		✓
Steel (Nickel Chrome)		✓
Stainless Steel		✓
Steel Weldments		✓
Titanium		✓
Zinc	✓	

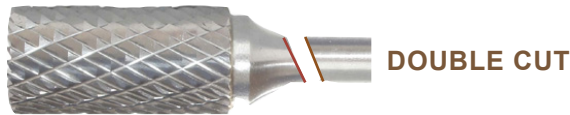
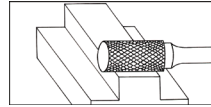
## Recommended RPM

Diameter	Standard Materials	Stainless Steel	Diameter	Standard Materials	Stainless Steel
1/16	72500	97500	5/16	28000	28000
3/32	65500	89000	3/8	25000	25000
1/8	56000	76000	7/16	22000	22000
5/32	46000	70000	1/2	18800	18800
3/16	40000	65500	5/8	17000	17000
1/4	35000	61000	3/4	14900	14900
			1"	12600	12600

# Premium Carbide Burrs

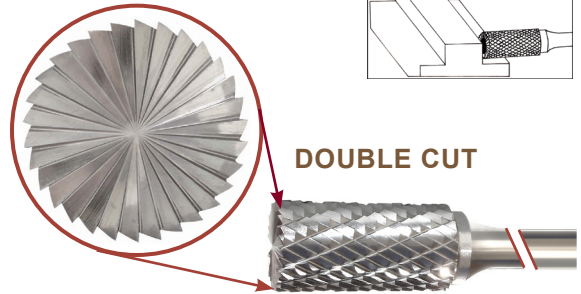
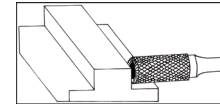
## SA CYLINDER SHAPE - NO END CUT

Application: Deburring



## SB CYLINDER SHAPE - WITH END CUT

Application: Peripheral Milling & Face Milling



### SA - CYLINDER SHAPE - NO END CUT - DOUBLE CUT

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17079	SA-41	1/16	1/4	1/8	1
17089	SA-42	3/32	7/16	1/8	1
17099	SA-43	1/8	9/16	1/8	1
17109	SA-11	1/8	1/2	1/4	1
17119	SA-12	1/8	5/8	1/4	1
17129	SA-52	5/32	1/2	1/8	1
17139	SA-13	5/32	5/8	1/4	1
17149	SA-14	3/16	5/8	1/4	1
17159	SA-51	1/4	1/2	1/8	1
17169	SA-1	1/4	5/8	1/4	1
17179	SA-1L	1/4	1	1/4	1
17209	SA-2	5/16	3/4	1/4	1
17219	SA-3	3/8	3/4	1/4	1
17229	SA-3L	3/8	1	1/4	1
17249	SA-3X	3/8	1-1/2	1/4	1
17269	SA-4	7/16	1	1/4	1
17279	SA-5	1/2	1	1/4	1
17309	SA-6	5/8	1	1/4	1
17329	SA-15	3/4	1/2	1/4	1
17339	SA-16	3/4	3/4	1/4	1
17349	SA-7	3/4	1	1/4	1
17369	SA-8	7/8	1	1/4	1
17379	SA-9	1	1	1/4	1

### SA - CYLINDER SHAPE - NO END CUT - ALUMA

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17199	SA-1NF	1/4	5/8	1/4	1
17259	SA-3NF	3/8	3/4	1/4	1
17299	SA-5NF	1/2	1	1/4	1
17319	SA-6NF	5/8	1	1/4	1
17359	SA-7NF	3/4	1	1/4	1

### SA - CYLINDER SHAPE - NO END CUT 6" EXTENDED SHANK LENGTH

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17189	SA-1L6	1/4	5/8	1/4	1
17239	SA-3L6	3/8	3/4	1/4	1
17289	SA-5L6	1/2	1	1/4	1

### SB - CYLINDER SHAPE - WITH END CUT - DOUBLE CUT

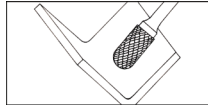
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17409	SB-41	1/16	1/4	1/8	1
17419	SB-42	3/32	7/16	1/8	1
17429	SB-43	1/8	9/16	1/8	1
17439	SB-11	1/8	1/2	1/4	1
17449	SB-12	1/8	5/8	1/4	1
17459	SB-13	5/32	5/8	1/4	1
17469	SB-14	3/16	5/8	1/4	1
17479	SB-51	1/4	3/16	1/8	1
17489	SB-1	1/4	5/8	1/4	1
17499	SB-1L	1/4	1	1/4	1
17509	SB-2	5/16	3/4	1/4	1
17519	SB-3	3/8	3/4	1/4	1
17529	SB-3L	3/8	1	1/4	1
17539	SB-3X	3/8	1-1/2	1/4	1
17549	SB-4	7/16	1	1/4	1
17559	SB-5	1/2	1	1/4	1
17569	SB-6	5/8	1	1/4	1
17579	SB-15	3/4	1/2	1/4	1
17589	SB-16	3/4	3/4	1/4	1
17599	SB-7	3/4	1	1/4	1
17619	SB-8	7/8	1	1/4	1
17629	SB-9	1	1	1/4	1

SA / SB - Cylinder Shape - with End Cut & No End Cut

# Premium Carbide Burrs

## SC CYLINDER SHAPE - RADIUS END

Application: Surface Milling & Contouring



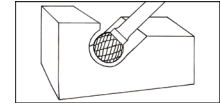
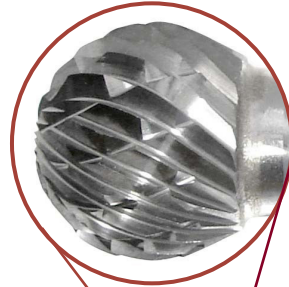
DOUBLE CUT



ALUMA CUT

## SD - BALL SHAPE

Application: Contouring, Hole Deburring, Build-up Welding preparation



SC - Cylinder Shape - Radius End / SD - Ball Shape

### SC - CYLINDER SHAPE - RADIUS END - DOUBLE CUT

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17659	SC-41	3/32	7/16	1/8	1
17669	SC-42	1/8	9/16	1/8	1
17679	SC-11	1/8	1/2	1/4	1
17689	SC-12	1/8	5/8	1/4	1
17699	SC-52	5/32	1/2	1/8	1
17709	SC-13	5/32	5/8	1/4	1
17719	SC-53	3/16	1/2	1/8	1
17729	SC-14	3/16	5/8	1/4	1
17739	SC-51	1/4	1/2	1/8	1
17749	SC-1	1/4	5/8	1/4	1
17759	SC-1L	1/4	1	1/4	1
17789	SC-2	5/16	3/4	1/4	1
17799	SC-3	3/8	3/4	1/4	1
17809	SC-3L	3/8	1	1/4	1
17829	SC-3X	3/8	1-1/2	1/4	1
17849	SC-4	7/16	1	1/4	1
17859	SC-5	1/2	1	1/4	1
17889	SC-6	5/8	1	1/4	1
17909	SC-15	3/4	1/2	1/4	1
17919	SC-16	3/4	3/4	1/4	1
17929	SC-7	3/4	1	1/4	1
17949	SC-9	1	1	1/4	1

### SC - CYLINDER SHAPE - RADIUS END - ALUMA

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17779	SC-1NF	1/4	5/8	1/4	1
17839	SC-3NF	3/8	3/4	1/4	1
17879	SC-5NF	1/2	1	1/4	1
17899	SC-6NF	5/8	1	1/4	1
17939	SC-7NF	3/4	1	1/4	1

### SC-CYLINDER SHAPE - RADIUS END - 6" EXTENDED SHANK LENGTH

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17769	SC-1L6	1/4	5/8"	1/4	1
17819	SC-3L6	3/8	3/4"	1/4	1
17869	SC-5L6	1/2	1	1/4	1

### SD - BALL SHAPE

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
17979	SD-41	3/32	3/32	1/8	1
17989	SD-42	1/8	1/8	1/8	1
18009	SD-11	1/8	1/8	1/4	1
18019	SD-53	3/16	3/16	1/8	1
18029	SD-14	3/16	3/16	1/4	1
18039	SD-51	1/4	1/4	1/8	1
18049	SD-1	1/4	1/4	1/4	1
18079	SD-2	5/16	5/16	1/4	1
18089	SD-3	3/8	3/8	1/4	1
18119	SD-4	7/16	7/16	1/4	1
18129	SD-5	1/2	1/2	1/4	1
18159	SD-6	5/8	5/8	1/4	1
18179	SD-7	3/4	3/4	1/4	1
18199	SD-9	1	1	1/4	1

### SD - BALL SHAPE - ALUMA

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18069	SD-1NF	1/4	1/4	1/4	1
18109	SD-3NF	3/8	3/8	1/4	1
18149	SD-5NF	1/2	1/2	1/4	1
18169	SD-6NF	5/8	5/8	1/4	1
18189	SD-7NF	3/4	3/4	1/4	1

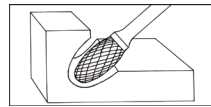
### SD - BALL SHAPE - 6" EXTENDED SHANK LENGTH

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18059	SD-1L6	1/4	7/32	1/4	1
18099	SD-3L6	3/8	5/16	1/4	1
18139	SD-5L6	1/2	7/16	1/4	1

# Premium Carbide Burrs

## SE - OVAL / EGG SHAPE

Application: Contouring



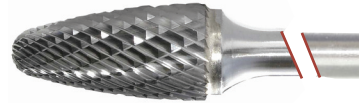
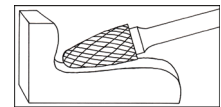
DOUBLE CUT



ALUMA CUT

## SF - TREE SHAPE RADIUS

Application: Narrow Contours



DOUBLE CUT



ALUMA CUT

### SE - OVAL/EGG SHAPE

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18239	SE-41	1/8	7/32	1/8	1
18249	SE-53	3/16	9/32	1/8	1
18259	SE-11	3/16	5/16	1/4	1
18269	SE-51	1/4	3/8	1/8	1
18279	SE-1	1/4	3/8	1/4	1
18299	SE-3	3/8	5/8	1/4	1
18329	SE-5	1/2	7/8	1/4	1
18359	SE-6	5/8	1	1/4	1
18379	SE-7	3/4	1	1/4	1

### SE - OVAL/EGG SHAPE - ALUMA

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18319	SE-3NF	3/8	5/8	1/4	1
18349	SE-5NF	1/2	7/8	1/4	1
18369	SE-6NF	5/8	1	1/4	1
18389	SE-7NF	3/4	1	1/4	1

### SE - OVAL/EGG 6" EXTENDED SHANK LENGTH

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18289	SE-1L6	1/4	3/8	1/4	1
18309	SE-3L6	3/8	19/32	1/4	1
18339	SE-5L6	5/8	7/8	1/4	1

### SF - TREE SHAPE RADIUS

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18429	SF-41	1/8	1/4	1/8	1
18439	SF-42	1/8	1/2	1/8	1
18449	SF-11	1/8	1/2	1/4	1
18459	SF-53	3/16	1/2	1/8	1
18469	SF-51	1/4	1/2	1/8	1
18479	SF-1	1/4	5/8	1/4	1
18509	SF-3	3/8	3/4	1/4	1
18539	SF-4	7/16	1	1/4	1
18549	SF-13	1/2	3/4	1/4	1
18559	SF-5	1/2	1	1/4	1
18589	SF-6	5/8	1	1/4	1
18609	SF-7	3/4	1	1/4	1
18629	SF-14	3/4	1-1/4	1/4	1
18649	SF-15	3/4	1-1/2	1/4	1

### SF - TREE SHAPE RADIUS - ALUMA

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18499	SF-1NF	1/4	5/8	1/4	1
18529	SF-3NF	3/8	3/4	1/4	1
18579	SF-5NF	1/2	1	1/4	1
18599	SF-6NF	5/8	1	1/4	1
18619	SF-7NF	3/4	1	1/4	1
18639	SF-14NF	3/4	1-1/4	1/4	1

### SF - TREE SHAPE RADIUS 6" EXTENDED SHANK LENGTH

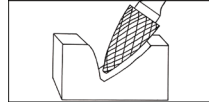
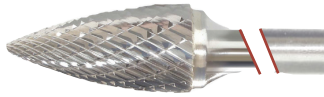
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18489	SF-1L6	1/4	5/8	1/4	1
18519	SF-3L6	3/8	3/4	1/4	1
18569	SF-5L6	1/2	1	1/4	1

SE - Oval/Egg Shape / SF - Tree Shape

# Premium Carbide Burrs

## SG - POINTED TREE SHAPE

**Application:** Milling, Acute Angle, Narrow Contouring



DOUBLE CUT

### SG - POINTED TREE SHAPE

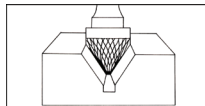
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18679	SG-41	1/8	1/4	1/8	1
18689	SG-42	1/8	5/16	1/8	1
18699	SG-43	1/8	3/8	1/8	1
18709	SG-44	1/8	1/2	1/8	1
18719	SG-53	3/16	1/2	1/8	1
18729	SG-51	1/4	1/2	1/8	1
18739	SG-1	1/4	5/8	1/4	1
18759	SG-2	5/16	3/4	1/4	1
18769	SG-3	3/8	3/4	1/4	1
18789	SG-13	1/2	3/4	1/4	1
18799	SG-5	1/2	1	1/4	1
18819	SG-6	5/8	1	1/4	1
18829	SG-7	3/4	1	1/4	1
18839	SG-15	3/4	1-1/2	1/4	1

### SG - POINTED TREE SHAPE 6" EXTENDED SHANK LENGTH

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18749	SG-1L6	1/4	5/8	1/4	1
18779	SG-3L6	3/8	3/4	1/4	1
18809	SG-5L6	1/2	1	1/4	1

## SJ - 60° CONE SHAPE

**Application:** Acute Angle Matching



DOUBLE CUT

### SJ - 60° CONE SHAPE

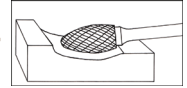
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18979	SJ-42	1/8	3/32	1/8	1
18989	SJ-1	1/4	3/16	1/4	1
18999	SJ-3	3/8	5/16	1/4	1
19009	SJ-5	1/2	7/16	1/4	1
19019	SJ-6	5/8	9/16	1/4	1
19029	SJ-7	3/4	11/16	1/4	1
19039	SJ-9	1	15/16	1/4	1

## SH - FLAME SHAPE

**Contouring & Milling**



DOUBLE CUT



### SH - FLAME SHAPE

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18869	SH-41	1/8	1/4	1/8	1
18879	SH-53	3/16	3/8	1/8	1
18889	SH-1	1/4	5/8	1/4	1
18899	SH-2	5/16	3/4	1/4	1
18919	SH-5	1/2	1-1/4	1/4	1
18939	SH-6	5/8	1-7/16	1/4	1
18949	SH-7	3/4	1-5/8	1/4	1

### SH - FLAME SHAPE 6" EXTENDED SHANK LENGTH

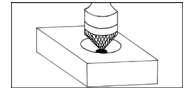
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
18909	SH-2L6	5/16	3/4	1/4	1
18929	SH-5L6	1/2	1-1/4	1/4	1

## SK - 90° CONE SHAPE

**Application:** Acute Angle Machining Chamfering, Countersinking



DOUBLE CUT



### SK - 90° CONE SHAPE

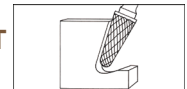
Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
19069	SK-42	1/8	1/16	1/8	1
19079	SK-1	1/4	1/8	1/4	1
19089	SK-3	3/8	3/16	1/4	1
19099	SK-5	1/2	1/4	1/4	1
19109	SK-6	5/8	5/16	1/4	1
19119	SK-7	3/4	3/8	1/4	1
19129	SK-9	1	1/2	1/4	1

## SL - TAPER SHAPE RADIUS 14° INCLUDED ANGLE

**Application:** Surface Machining, Narrow Contours and Surfaces



DOUBLE CUT



### SL - TAPER SHAPE RADIUS 14° INCLUDED ANGLE

Part #	Size	Cut Diameter	Length of Cut	Shank Diameter	Qty.
19159	SL-41	1/8	3/8	1/8	1
19169	SL-42	1/8	1/2	1/8	1
19179	SL-53	3/16	1/2	1/8	1
19189	SL-1	1/4	5/8	1/4	1
19209	SL-2	5/16	7/8	1/4	1
19219	SL-3	3/8	1-1/16	1/4	1
19249	SL-4	1/2	1-1/8	1/4	1
19279	SL-5	5/8	1-3/16	1/4	1
19299	SL-6	5/8	1-5/16	1/4	1
19329	SL-7	3/4	1-1/2	1/4	1

### SL - TAPER SHAPE RADIUS 14° INCLUDED ANGLE - ALUMA CUT

19239	SL-3NF	3/8	1-1/16	1/4	1
19269	SL-4NF	1/2	1-1/8	1/4	1
19289	SL-5NF	5/8	1-3/16	1/4	1
19309	SL-6NF	5/8	1-5/16	1/4	1
19329	SL-7NF	3/4	1-1/2	1/4	1

### SL - TAPER SHAPE RADIUS 14° INCLUDED ANGLE - EXTRA LENGTH

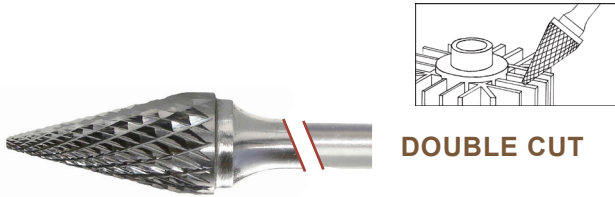
19199	SL-1L6	1/4	5/8	1/4	1
19229	SL-3L6	3/8	1-1/16	1/4	1
19259	SL-4L6	1/2	1-1/8	1/4	1



# Premium Carbide Burrs

## SM - POINTED CONE SHAPE

**Application:** Surface Machining, Narrow Contours



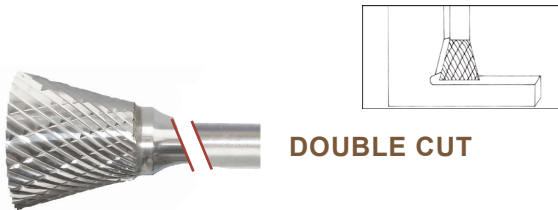
DOUBLE CUT

### SM - POINTED CONE SHAPE

Product #	Size	Cut Diameter	Length of Cut	Shank Diameter	Included Angle	Qty.
19359	SM-41	1/8	11/32	1/8	12°	1
19369	SM-42	1/8	7/16	1/8	14°	1
19379	SM-43	1/8	5/8	1/8	7°	1
19389	SM-53	3/16	1/2	1/8	16°	1
19399	SM-51	1/4	1/2	1/8	22°	1
19409	SM-1	1/4	1/2	1/4	22°	1
19419	SM-2	1/4	3/4	1/4	14°	1
19429	SM-3	1/4	1	1/4	10°	1
19439	SM-4	3/8	5/8	1/4	28°	1
19449	SM-5	1/2	7/8	1/4	28°	1
19459	SM-6	5/8	1	1/4	31°	1

## SN - INVERTED CONE SHAPE

**Application:** Edge Milling, Rear Machining on difficult to reach areas



DOUBLE CUT

### SN - INVERTED CONE SHAPE

Product #	Size	Cut Diameter	Length of Cut	Shank Diameter	Included Angle	Qty.
19489	SN-41	3/32	1/8	1/8	10°	1
19499	SN-42	1/8	3/16	1/8	10°	1
19509	SN-53	3/16	1/4	1/8	10°	1
19519	SN-51	1/4	1/4	1/8	10°	1
19529	SN-1	1/4	5/16	1/4	10°	1
19539	SN-2	3/8	3/8	1/4	13°	1
19549	SN-4	1/2	1/2	1/4	28°	1
19559	SN-6	5/8	3/4	1/4	18°	1
19569	SN-7	3/4	5/8	1/4	30°	1

## PREMIUM CARBIDE DOUBLE CUT BURR SETS

**Set A Burrs - 9pc.** . . . . .Part #19669  
SA-51, SB-51, SC-51, SD-51, SE-51, SF-51, SG-51, SM-51, SN-51

**Set B Burrs - 9pc.** . . . . .Part #19649  
SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SF-1, SF-3, SF-5

**Set C Burrs - 9pc.** . . . . .Part #19639  
SB-1, SB-3, SB-5, SD-1, SD-3, SD-5, SE-1, SE-3, SE-5

**Set D Burrs - 9pc.** . . . . .Part #19629  
SB-1, SB-3, SB-5, SC-1, SC-3, SC-5SF-1, SF-3, SF-5

**Set E Burrs - 8pc.** . . . . .Part #19619  
SA-5, SC-5, SD-5, SE-5, SG-5, SH-5, SK-5, SM-5

**Set F Burrs - 8pc.** . . . . .Part #19609  
SB-5, SC-5, SD-5, SF-5, SG-5, SH-5, SJ-5, SK-5

## PREMIUM CARBIDE DOUBLE & ALUMA CUT BURR DISPLAYS



11-1/2" x 6-1/2" (H) x 12" (W)

### 48 pc. Burrs Display - . . .Part #19689

**Double Cut: (1/8 SHANK)**  
SA-51, SB-5, SC-51, SD-51, SE-51, SF-51, SG-51, SM-51, SN-51

**Double Cut: (1/4 SHANK)**  
SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SD-1, SD-3, SD-5, SE-1, SE-3, SE-5, SF-1, SF-3, SF-5, SG-1, SG-3, SG-5 SL-4, SL-3, SL-1, SM-5, SM-4, SM-3

**Aluma Cut: (1/4 SHANK)**  
SA-1NF, SA-3NF, SA-5NF, SC-1NF, SC-3NF, SC-5NF  
SD-5NF, SD-3NF, SE-5NF, SE-3NF, SF-5NF, SF-3NF  
SF-1NF, SL-4NF, SL-3NF



9" x 6-1/2" (H) x 9-1/2" (W)

### 24 pc. Burrs Display

Part #19679

**Double Cut: (1/4 SHANK)**  
SA-5, SA-3, SA-1, SC-5, SC-3, SC-1, SD-5, SD-3, SD-1, SE-5, SE-3, SE-1SF-5, SF-3, SF-1, SG-5, SG-3, SG-1 SL-4, SL-3, SL-1, SM-5, SM-4, SM-3

SM - Pointed Cone Shape / SN - Inverted Cone Shape / Sets / Displays