

# SHUR-BRITE® Convolute

## Convolute Characteristics

Used for deburring, cleaning, blending and polishing SHUR-BRITE® Convolute Deburring Wheels utilize their compressed nonwoven structure as a three-dimensional cutting tool. Fresh abrasive grains are continually exposed, providing a consistent, uniform finish on various materials, including ferrous, non-ferrous, stainless and exotic alloys.

Nylon fibers, abrasive grains and resins are bonded together in thin layers, then convolutely wrapped around a center core. The tension of the wrap controls the density of the wheel. Due to the convolutely wrapped design, deburring wheels are one-directional and used with stationary machines.

► Understanding Material Grades		
<b>Wheel Density</b>	Wheel density also translates to flexibility and conformity. Lower densities will not alter workpiece geometry, whereas higher densities will work and remove material faster.	<p>2 Softer, more conformable Harder, more durable 9</p> <p>Masking/Finishing Light Deburring/Cleaning/Finishing Heavy Deburring</p>
<b>Grain Type</b>	Aluminum oxide grains are denser, allowing higher pressure, and recommended for softer ferrous or non-ferrous materials. Silicon carbide grains are harder and sharper, yet brittle and used with lighter pressure on harder materials, like stainless or titanium.	<p>A Durable, long lasting Sharper, finer scratch pattern S</p> <p>Aluminum Oxide Silicon Carbide</p>
<b>Grain Size</b>	The abrasive grain size used in each wheel controls the depth and refinement of the scratch. Due to the nonwoven construction, convolute wheels will usually finish 2-3 grits finer than the grain size.	<p>Coarse (60-80) Medium (100-150) Fine (180-220)</p> <p>Faster cut, rougher finish Reduced cut rate, finer finish</p>

## Convolute Features

- ▶ Continual exposure of cutting grains & consistent finishing ability throughout extended product life
- ▶ Quality nylon fiber with high (+500°F) melting point
- ▶ Smear & heat resistant to reduce risk of discoloration
- ▶ Can be used with oils & lubricants to further reduce heat or smearing
- ▶ Free of contaminants and metallic ingredients

## Applications

- ▶ Edge breaking or radiusing
- ▶ Light corrosion, rust or oxidation removal
- ▶ Surface polishing
- ▶ Grinding of junctions on turbine blades
- ▶ Mold & die polishing
- ▶ Removal of processing traces on medical instruments

Compressed nonwoven abrasives are wrapped convolutely around a center core, producing a harder, one-directional wheel. Resin ratios and winding tension determine wheel density.



2SC

5AM

8SF

9SF

▶ Performance	2	5	7	8	9
Cut	○	○	◐	◐	●
Life	○	○	◐	◐	●
Finish	●	◐	◐	○	○
Flexibility	●	◐	◐	○	○
Pressure	○	○	○	◐	●
Density	○	○	◐	◐	●

● Best ◐ Better ○ Good



## CLEANING & DEBURRING WHEELS

Results of convolute wheels range from high luster polishing to moderate deburring, with each combination of density, grain type and size specialized in its function. The conformability of softer densities will not disrupt workpiece tolerances, while harder densities easily remove burrs or parting lines.

- ▶ Consistent, long lasting performance throughout life
- ▶ Soft densities for finishing and polishing
- ▶ Hard densities accurately remove material
- ▶ Easily access, clean and prep channels or extrusions

### ▶ Superior Support

'-R' represents added rigidity, due to the additional resin content, making 9SF-R better for heavier deburring and other operations on less intricate parts.

Diameter	Width	Arbor	Max RPM	Optimal RPM	Std. Pkg.	2SM	2SC	5AM	7SF	8SF	8AM	9SF	9SF-R
6"	1/2"	1"	6,000	2,500	4	-	-	-	-	<b>54680</b>	<b>55343</b>	<b>54681</b>	<b>55350</b>
6"	1"	1"	6,000	2,500	2	<b>54682</b>	<b>55344</b>	<b>54683</b>	<b>54684</b>	<b>54686</b>	<b>54685</b>	<b>54687</b>	<b>55351</b>
6"	2"	1"	6,000	2,500	1	<b>54688</b>	<b>55345</b>	<b>55346</b>	-	-	-	-	-
8"	1/2"	3"	4,500	1,900	4	-	-	-	<b>55356</b>	<b>54689</b>	<b>55347</b>	<b>54690</b>	<b>55348</b>
8"	1"	3"	4,500	1,900	2	-	-	<b>55349</b>	<b>54691</b>	<b>54693</b>	<b>54692</b>	<b>54694</b>	<b>55352</b>
8"	2"	3"	4,500	1,900	1	-	-	-	-	<b>54695</b>	-	<b>54696</b>	<b>55357</b>
12"	1/2"	5"	3,000	1,500	4	-	-	-	-	-	-	<b>55380</b>	<b>55381</b>
12"	1"	5"	3,000	1,500	2	<b>55359</b>	<b>55358</b>	<b>55360</b>	<b>55361</b>	<b>55362</b>	-	<b>55363</b>	<b>55364</b>

● Ferrous ● Non-Ferrous ● Stainless ● Exotic Alloys ● Plastics ○ Composites

## FINAL POLISHING CONVOLUTE WHEELS



Specifically designed to produce a high luster on stainless steel and mirror finishes on a variety of metals.

- ▶ Sharp silicon grains produce very fine scratch patterns
- ▶ Extra conformable for intricate parts or channels
- ▶ Consistent results throughout life
- ▶ Can be used with compounds for fine polishing



Diameter	Width	Arbor	Max RPM	Optimal RPM	Std. Pkg.	6SVF
6"	1/2"	1"	6,000	2,500	1	<b>45108</b>
6"	1"	1"	6,000	2,500	1	<b>45109</b>

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### ▶ Superior Support

Reduce wheel speed for higher luster or mirror polishing.

## ARBOR REDUCER BUSHINGS



Arbor Diameter	Reduced Diameter	Std. Pkg.	Part #
1"	3/4"	1 Pair	10391
1"	5/8"	1 Pair	<b>10392</b>
1"	1/2"	1 Pair	<b>10393</b>

