



CONVOLUTE WHEELS

**NORTON
ADVANTAGE**

Convolute Wheels

For polishing, deburring & finishing

Beartex Convolute Wheels are formed by wrapping Beartex material around a central core and bonding the layers together to form a convolute wheel. This design offers higher resistance to wear and imparts glossy finish to components. Grindwell Norton offers a wide range of convolute wheels ranging from cleaning rust and oxide removal to heavy duty deburring.



TYPICAL APPLICATIONS

- ▶ Polishing, Deburring and Finishing of metallic and non-metallic components

Industry	SS & Fabr.	Steel Mills	Watch Strap	Surgical/Cutlery	Auto Component	Centreless
Usage	●	●	●	●	●	●
Industry	OEM-Grinders	Jewellery	Batteries	Ordnance Factory	Needle Industries	
Usage	●	●	●	●	●	

● High Usage ● Medium Usage ● Low Usage

SpecCheck



Convolute Wheel can be divided into two categories based on its type of usage as indicated below:

CLEANING & FINISHING

- ▶ Removal of Rust & Oxides
- ▶ Blending weld areas on stainless steel to #4 finish or hairline finish or matt finish
- ▶ Generating decorative finishes, SS, brass, zinc, copper etc.

DEBURRING/BLENDING/POLISHING

- ▶ Burr removal
- ▶ Finishing in Centreless applications
- ▶ Surface roughness reduction
- ▶ Edge radiusing
- ▶ Weld polishing

Convolute Wheel Marking System

1 - 9 S F

Position 1

Bond System

1 = Series 1000 Long Life Bond

4 = Series 4000 Bond

Position 2

Density

6 Open or Conformable
7
8
9 Dense & Durable

8
9 Dense & Durable

Position 3

Abrasive

S = Silicon Carbide
A = Aluminium Oxide

S = Silicon Carbide
A = Aluminium Oxide

Position 4

Grit Size

VF = Very Fine
F = Fine
M = Medium

F = Fine
M = Medium



CONVOLUTE WHEELS

Series 1000 Long Life Convolute Wheels

The newest addition to the Beartex Convolute Wheel is the Series 1000 Long Life Wheels, designed with a completely new resin system. These wheels are recommended for high performance applications, where customer demand consistent high quality results. Series 1000 Long Life Wheels are available in four different densities, two minerals and three grit sizes to cover a wide range of deburring, blending, polishing and finishing applications.



BETTER BEARTEX SEIRES 1000 LONG LIFE WHEELS

FEATURES

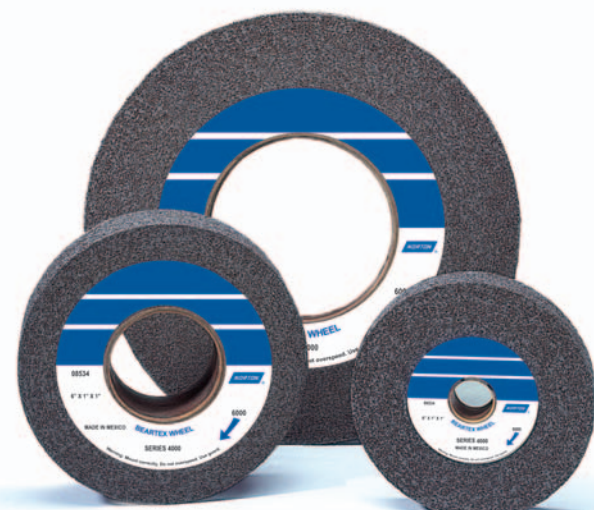
- ▶ Water proof
- ▶ Dense web construction (Density 9)
- ▶ Dense web construction (Density 8)

BENEFITS

- ▶ Can be used with water or dry
- ▶ Long life and suited for heavy duty deburring
- ▶ Suited for clearing and light duty deburring

Series 4000 Convolute Wheels

Series 4000 Convolute Wheels are harder than Series 1000 Convolute Wheels. They are recommended for heavy duty deburring applications. 4-8AM and 4-9SF are the range of products available in the Series 4000 Convolute Wheels range.





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STOCK AVAILABILITY

Convolute Wheels

Type	Size	Stock Code
150X25X25.4mm	1-9SF LONG LIFE	CX52
150X12.5X25.4mm	1-9SF LONG LIFE	CX573
200X12.5X76.2mm	1-9SF LONG LIFE	CX544
150X25X25.4mm	4-8AM	CX535
150X12.5x25.4mm	4-8AM	CX574
200X12.5X76.2mm	4-8AM	CX572
300X100X127mm	1-9SF LONG LIFE	CX127

SpecCheck

APPLICATIONS OF CONVOLUTE WHEELS

TOOL/EQUIPMENT

APPLICATIONS/RECOMMENDED STARTING POINT

Bench Grinder/
Centerless
Machine

DEBURRING

1-9SF 4-8AM
Long Life

- Deburring of mild components (Auto & Electrical components)
- Deburring/Sprue Cutting of Jewellery
- Deburring of miled components
- Polishing of SS and Aerospace components like turbine blades

BLENDING:

1-7SF
Long Life

- Blending of upstream grinding wheel lines
- Polishing of profiles, weld areas and machined parts
- Light duty deburring

FINISHING:

1-7SF
Long Life

- High point removal of plated components
- Impart glossy finish as in centreless applications
- Finishing of computer parts

SURFACE PREPARATION:

6AM Metal
Conditioning
Wheels

- Dent removal on aluminium sheets
- Blending of coated belt lines in hand tool industry

CLEANING:

Clean & Finish
Wheels

- Cleaning of Zinc plates imparting matt finishing on SS

TechTips



Get the most out of Beartex Convolute Wheels

Maximum wheel life and the best surface conditioning results can be achieved by closely adhering to the following conditions.

- ▶ Convolute wheel must be run in one direction as indicated by the arrow printed on the side of the wheel.
- ▶ Wheel speed must be an important factor that affects cut rate, finish and wheel life. In general, a fast wheel speed gives a harder action and a finer finish whereas a slow wheel speed delivers a softer action and a coarser finish.

▶ Surface Speed Range:

- Cleaning and Surface Preparation Applications: 11 to 30 metres per sec
- Cutting and Polishing on Metal Surfaces: 32 to 40 metres/sec
- Deburring: 27 to 40 metres per sec
- Oxide Removal: 17 to 33 metres per sec

Note: Never exceed the RPM rating of the wheel.

- ▶ Light or medium pressure is recommended for most operations.