

cBN VITRIFIED GRINDING WHEELS

TARGET MARKETS

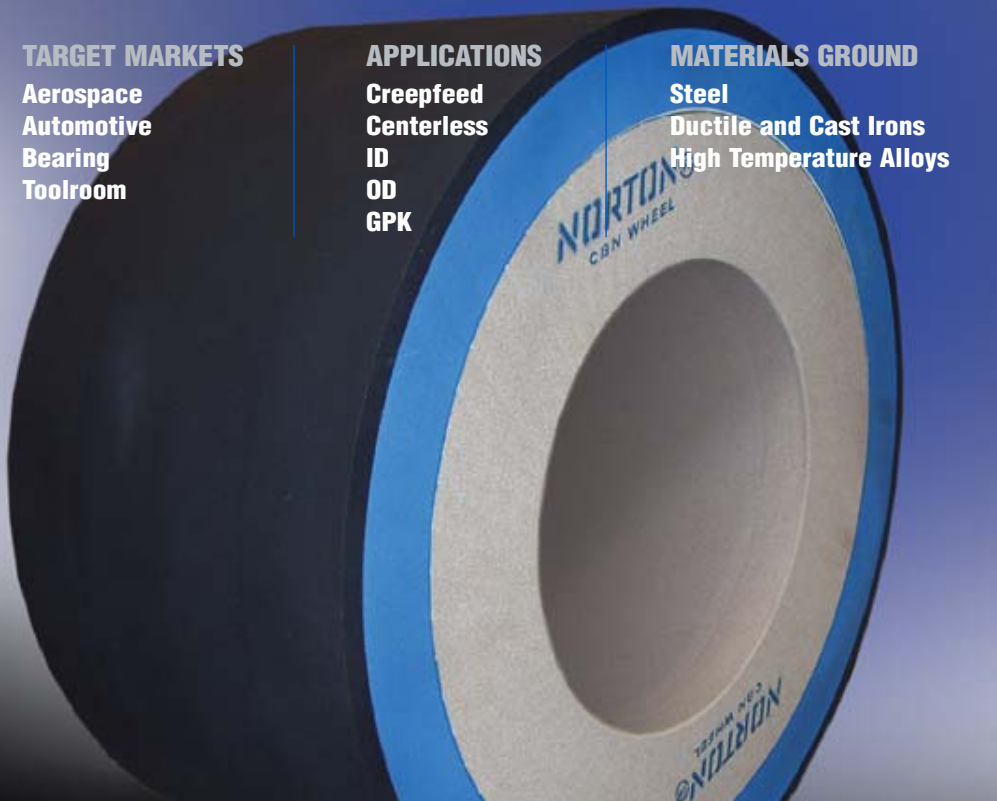
Aerospace
Automotive
Bearing
Toolroom

APPLICATIONS

Creepfeed
Centerless
ID
OD
GPK

MATERIALS GROUND

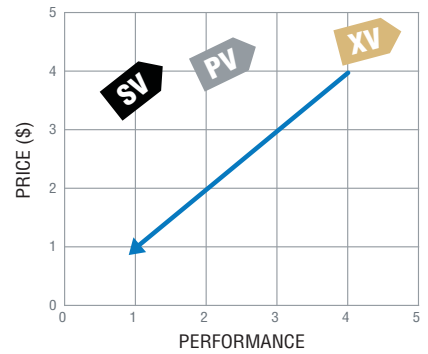
Steel
Ductile and Cast Irons
High Temperature Alloys



Ultimate Performance and Value in Three Performance/Price Levels

The Precise Performance at the Right Price.

Whatever the application, competitive situation, or purchasing criteria, Norton cBN Vitrified grinding wheels will meet all your performance (and pricing) requirements.



GOOD | SV (THE ENTRY-LEVEL STANDARD VALUE) THE ECONOMICAL SOLUTION FOR A WIDE RANGE OF APPLICATIONS

NEW!

- Value-priced grain, newly available to the marketplace
- Tried and tested bond system
- Very user-friendly; forgiving
- Versatile specifications
- Available as continuous rim or segmental products and in a wide range of competitively-priced cores

- Ideal when low initial price is a major purchasing consideration and/or customer will not be testing performance or life
- Easily dressed using single/multi-point tools and roller dressers
- Less operator knowledge needed; easy error correction
- Ideal for many toolroom applications
- Suitable for wet and dry grinding applications

BETTER | PV (PREMIUM VALUE) EXCELLENT BLEND OF PERFORMANCE AND PRICE

- Most widely-used, premium cBN grains
- Preferred, durable bond system
- Sharp-acting wheels
- Versatile; perform well on numerous applications

- Strong performance-to-price ratio
- Longer runs on CNC grinding machines and demanding applications requiring close profile tolerances
- Designed to maximize wheel life
- Efficient cutting action with low grinding forces
- Dress-able with CNC or plunge profile dressers
- Work across a broad range of hard-to-grind materials

BEST | XV (EXTREME VALUE) FIRST CHOICE FOR COMPLETELY AUTOMATED PRECISION LONGEST PRODUCTION RUNS

- Optimum cBN grains
- Strong, shock-resistant high-performance ceramic bond systems
- Made to the tightest tolerances
- Designed for ultra-precision ID/OD grinding of ferrous materials

- Best performance/price value with longest wheel life (2X PV wheel life and 4X SV wheel life)
- Engineered for hard-to-grind jobs and/or high part-per-dress production applications with minimal operator interaction
- Dressed with CNC rotary dressers containing high quality diamonds
- Lowest total cost per component ground
- Highest stock removal rates
- 50% - 200% higher life; short cycle time

NORTON cBN VITRIFIED GRINDING WHEELS

There is a Norton cBN Vitrified Grinding Wheel to Answer Any and All Purchasing Criteria

Consider all your cBN Vitrified wheel application parameters: final product requirements, your machinery, material being ground, operator knowledge, dressing set-up, ability to measure performance, budget, etc. With three tiers of performance/pricing, our Norton cBN Vitrified grinding wheel line will fulfill the requirements of all your operations and significantly lower your grinding costs.

Product Availability

CBN TYPE	GRIT SIZE (FEPA)	MICRON SIZE (FEPA APPROX.)	GRADE	CONCENTRATION	ABRASIVE DEPTH
SB, PB, XB	100 grit (181) – 400 grit (046)	40/60 mic (M63)	B - M	50 - 200	3mm - 25mm

Norton cBN Vitrified Grinding Wheel Selection Guide

INDUSTRIES / APPLICATIONS	STOCK REMOVAL RATES	MACHINERY	DRESSING	WHEEL DESIGN AVAILABILITY	WHEEL SPEED (m/s)
GOOD SV					
High operator interface: Toolroom – Face & surface grinding Short run GPK Short run ID Short run OD	Low to Medium	Easily adapted to older, less rigid machinery Good transition from conventional to superabrasive wheels	Concentration: Low: Single point High: Rotary	Continuous rim Pellet Pie Segmental	33-60
BETTER PV					
Bearing Aerospace Gear Short run automotive Long run GPK Centerless and creepfeed OD and ID	Medium to High	Machinery w/ fairly rigid spindles	Rotary plunge CNC rotary Other special purpose	Continuous rim Pellet Pie Segmental	50-80
BEST XV					
Long run automotive – Camshaft & crankshaft Long run ID and OD Other high precision/stock removal industries Peel	High	Stiffest machines w/ in-process gauging	CNC rotary, using high quality diamonds	Segmental	80-200

ALL NORTON cBN VITRIFIED WHEELS ARE NON-STOCK.

LEAD-TIME FOR RECOATING OF ID GRINDING AND SEGMENTAL PRODUCTS: 2 WEEKS

HELP US HELP YOU: APPLICATION CHECK LIST

Your goals and objectives for process improvement

Workpiece details: material, dimensions, desired tolerance

Application, machine and dresser set-up

Coolant type, delivery, filtration, etc.

Current wheel specifications, operating speeds and parameters

Blueprints

Grind process details: cycle time, feed rates, etc.

To put Norton abrasives to work for you, call your local Norton distributor or visit our website at www.nortonabrasives.com to view our online catalog and learn about our latest products and applications.



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