

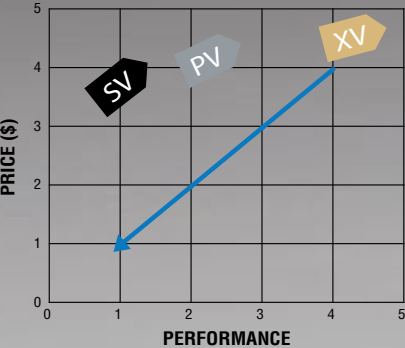


cBN VITRIFIED GRINDING WHEELS

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.



TARGET MARKETS

- Aerospace
- Automotive
- Bearing
- Toolroom

APPLICATIONS

- Creepfeed
- Centerless
- ID
- OD
- GPK

MATERIALS GROUND

- Steel
- Ductile and Cast Irons
- High Temperature Alloys

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

www.nortonindustrial.com





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.

BEST - FEATURES & BENEFITS

- Optimum cBN grains provide best performance/price value with longest wheel life (2X PV wheel life and 4X SV wheel life)
- Strong, shock-resistant high-performance ceramic bond systems 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
- Made to tightest tolerances for lowest total cost per component ground
- Designed for ultra-precision ID/OD grinding of ferrous materials offering highest stock removal rates; 50% - 200% higher life; short cycle time

BETTER - FEATURES & BENEFITS

- Most widely-used, premium cBN grains provide strong performance-to-price ratio
- Longer runs on CNC grinding machines and demanding applications requiring close profile tolerances
- Preferred, durable bond system designed to maximize wheel life
- Sharp-acting wheels for efficient cutting action with low grinding forces
- Dress-able with CNC or plunge profile dressers
- Versatile; perform well on numerous applications to work across a broad range of hard-to-grind materials

GOOD - FEATURES & BENEFITS

- Value-priced grain, newly available to the marketplace is ideal when low initial price is a major purchasing consideration and/or customer will not be testing performance or life
- Tried and tested bond system is easily dressed using single/multi-point tools and roller dressers
- Very user-friendly; forgiving so less operator knowledge needed; easy error correction
- Versatile specifications are ideal for many toolroom applications
- Available as continuous rim or segmental products and in a wide range of competitively-priced cores
- Suitable for wet and dry grinding applications

NORTON cBN VITRIFIED GRINDING WHEEL SELECTION GUIDE

INDUSTRIES / APPLICATIONS	STOCK REMOVAL RATES	MACHINERY	DRESSING	WHEEL DESIGN AVAILABILITY	WHEEL SPEED (m/s)
BEST XV					
Long run automotive – Camshaft & crankshaft Long run ID and OD Other high precision/stock removal industries Peel	High	Stiffest machines with in-process gauging	CNC rotary, using high quality diamonds	Segmental	80-200
BETTER PV					
Bearing Aerospace Gear Short run automotive Long run GPK Centerless and creepfeed OD and ID	Medium to High	Machinery with fairly rigid spindles	Rotary plunge CNC rotary Other special purpose	Continuous rim Pellet Pie Segmental	50-80
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

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.
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TECHNICAL HELP: Thomas.W.Tripp@saint-gobain.com | Local Phone: (630) 868-8060 | Local Fax: (630) 868-8061

BEST

NORTON XV (Extreme Value)

BETTER

NORTON PV (Premium Value)

GOOD

NORTON SV (Standard Value)

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Toll Free Fax: 1 (800) 551-4416

CANADA CUSTOMER SERVICE:

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Toll Free Fax: 1 (800) 561-9490

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