

NORTON

SAINT-GOBAIN

WINTER



VITRON⁷

COOL CUTTING IS JUST
THE TIP OF THE ICEBERG

Our new vitrified cBN Norton Winter Vitron⁷ wheels grind cooler with lower Specific Grinding Energy (SGE) to minimize residual stress for superior part quality.

The uniform force per cBN particle results in lower grinding power and longer wheel life, while significantly reducing cost per part and overall manufacturing costs.

The high-precision vitrified bond was specifically designed for external grinding of cam and crank shafts and internal grinding applications in the automotive and bearing industries, producing reliable 30% longer life than any other vitrified cBN wheel – including our own Norton T2 wheels.

KEY APPLICATIONS
OD | ID GRINDING

KEY INDUSTRIES
AUTOMOTIVE | BEARING

www.nortonabrasives.com


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WINTERVITRON⁷ VITRIFIED
cBN WHEELS

Achieve All Your Grinding Part Quality Requirements and Productivity Objectives Versus Competitive and Previous Generation Wheels

**ID Grinding Applications:**

Bearing bore and race grind

**OD Grinding Applications:**

Steel and cast iron automotive camshafts and crankshafts

**Automotive Components:**

Lifter bodies; u-joint cups, fuel injector components...

FEATURES AND BENEFITS

- Better retention of cBN grains and uniform spacing distribution
- Cooler grinding with a lower Specific Grinding Energy
- Improved G-ratio/wheel wear reduction at given grinding power up to 30%
- When ID grinding, lower grinding power results in reduced grinding pressure
- Reduce the rate of surface roughness degradation by up to 30%
- Maximize parts per dress and significantly reduce cycle times
- Reduce overall power draw
- Cool grinding ensures minimal residual stress for superior part quality
- Allows you to gain up to 40% longer wheel life
- Superior part quality with less deflection, consistent roundness, minimized taper and maximized part straightness

SOLUTIONS FOR TRUING AND DRESSING VITRON⁷ WHEELSVitron⁷ wheels can be trued and dressed online for maximum productivity.**OD Grinding Wheels:**

- E-Form Reverse Plated Diamond Form Rolls
- Reverse Plated Diamond Form Rolls

ID Grinding Wheels:

- BPR or IDW Dressing Discs

AVAILABILITYAll Vitron⁷ wheels are made-to-order to your exact requirements. They're available in a variety of wheel sizes, and in continuous rim or segmental designs to meet your specific needs.

GRIT RANGE	GRADE	CONCENTRATION	DIAMETERS (IN MM)	WHEEL CONSTRUCTION
B040 µm to B252 µm	D - 0	150 - 184	OD Wheels: 90 to 1,000	Segmental or continuous rim
B040 µm to B252 µm	D - 0	150 - 184	ID Wheels: 2.3 to 90	Continuous rim



Ask your local Norton Winter sales rep about our re-coating services for Vitron⁷ and other cBN superabrasive bonded wheels or call Customer Service at (800) 551-4413.

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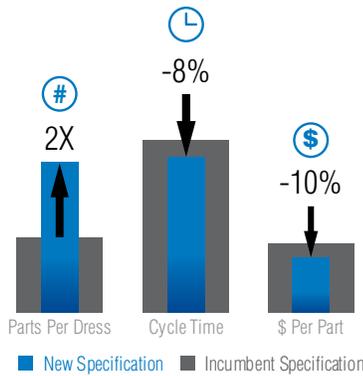
VITRON⁷ VITRIFIED
cBN WHEELS

CASE STUDY #1 ID GRINDING

NEW VITRON⁷ WHEEL
VS DX40 WHEEL

Application: Internal Diameter grinding
Material: High Speed Steel
Wheel Size: 11.5mm x 28mm x 7mm
New Specification: B076- VT5W
Incumbent Specification: B076- V640
Machine: NOVA
Coolant: Oil

New Specification Outperforms Baseline Specification
in parts per dress, cycle time and resulting cost per part

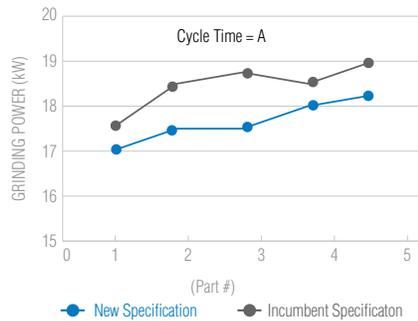


CASE STUDY #2 OD GRINDING

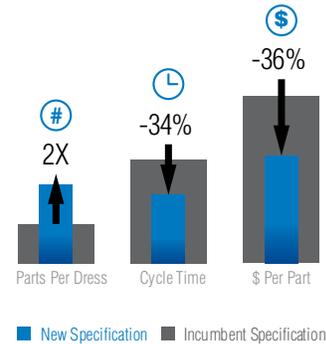
NEW VITRON⁷ WHEEL
VS FORMER T2 WHEEL

Application: Cam Lobe grinding
Material: Steel Rc. 60
Wheel Size: 400mm x 37.5mm x 127mm
New Specification: B126- VT5W
Incumbent Specification: B126- VT2W
Machine: Junker Jucam 6XL
Coolant: Synthetic grinding fluid

Grinding Power vs. Part #



New Specification Outperforms Baseline Specification
in parts per dress, cycle time and resulting cost per part

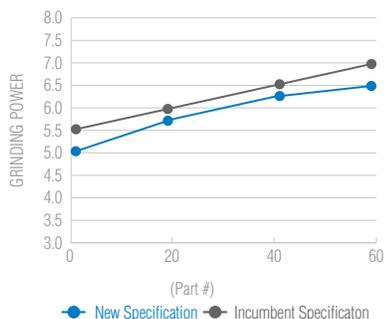
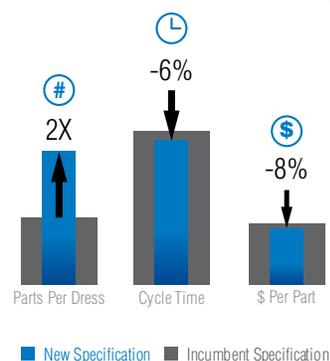


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SAINT-GOBAIN®

WINTER**VITRON⁷ VITRIFIED
cBN WHEELS**

CASE STUDY #3 OD GRINDING

**NEW VITRON⁷ WHEEL
VS FORMER T2 WHEEL****Application:** Cam Lobe grinding**Material:** Steel Rc. 60**Wheel Size:** 150mm x 24mm x 50mm**New Specification:** B126- VT5W**Incumbent Specification:** B126- VT2W**Machine:** Schaudt CamGrind L2**Coolant:** Straight Oil**Grinding Power vs. Part #****New Specification Outperforms Baseline Specification**
in parts per dress, cycle time and resulting cost per part

CARBON FORCE™

All Vitron⁷ OD wheels are available on Norton Winter CarbonForce cores. CarbonForce proprietary, lightweight, carbon fiber cores, give you all the safety and performance-enhancing benefits of a precision superabrasive wheel – without the negative drawbacks of a heavier (up to 75% heavier!) steel-hubbed wheel.



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USA CUSTOMER SERVICE:

Toll Free Phone: 1 (800) 551-4413
Toll Free Fax: 1 (800) 551-4416

CANADA CUSTOMER SERVICE:

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NO-RISK TEST