

**NORTON**

SAINT-GOBAIN®

**WINTER**



# VITRON<sup>7</sup> COOL CUTTING IS JUST THE TIP OF THE ICEBERG

Our new vitrified cBN Norton Winter Vitron<sup>7</sup> 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](http://www.nortonabrasives.com)

**NORTON**

SAINT-GOBAIN

**WINTER**VITRON<sup>7</sup> 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 defection, consistent roundness, minimized taper and maximized part straightness

**SOLUTIONS FOR TRUING AND DRESSING VITRON<sup>7</sup> WHEELS**

Vitron<sup>7</sup> 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

**AVAILABILITY**

All Vitron<sup>7</sup> 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 Vitron<sup>7</sup> and other cBN superabrasive bonded wheels or call Customer Service at (800) 551-4413.



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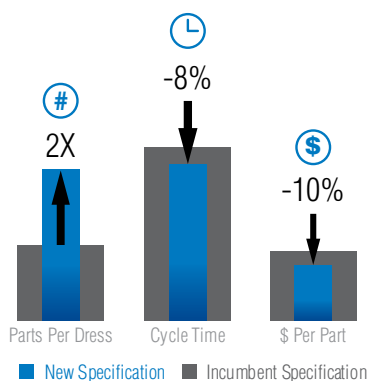
**WINTER**VITRON<sup>7</sup> VITRIFIED  
cBN WHEELS

## CASE STUDY #1 ID GRINDING

NEW VITRON<sup>7</sup> 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

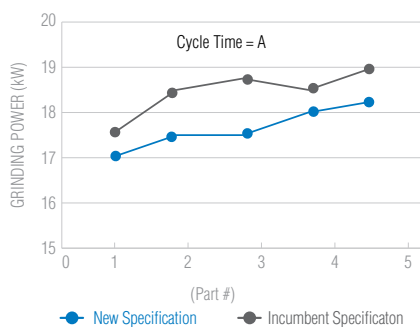


## CASE STUDY #2 OD GRINDING

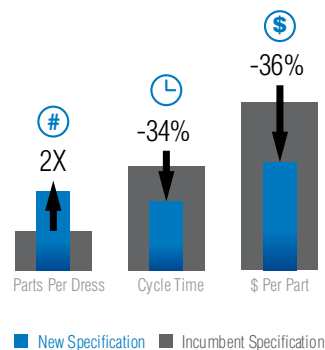
NEW VITRON<sup>7</sup> WHEEL  
VS FORMER T2 WHEEL

**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



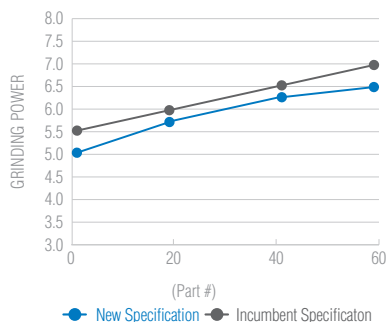
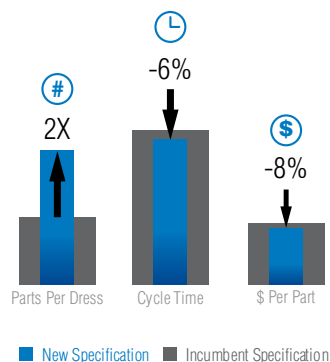


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**WINTER****VITRON<sup>7</sup> VITRIFIED  
cBN WHEELS**

## CASE STUDY #3 OD GRINDING

**NEW VITRON<sup>7</sup> 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 Vitron<sup>7</sup> 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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**NO-RISK TEST**