



CASE STUDY
Norton Stellar
Disc Grinding Wheels

APPLICATION: DOUBLE DISC GRINDING OF GEARED WASHER | MARKET: AUTOMOTIVE

THE CUSTOMER'S CHALLENGE

A precision grinding company which produces automotive components of various sizes and shapes was having difficulty grinding a particular round part. The incumbent double disc grinding wheels were not producing the desired finish and required frequent dressing and adjustment. The customer was looking to qualify a new wheel specification which could achieve the desired finish while reducing overall cost per part.

APPLICATION INFORMATION

MACHINE TYPE: Gardner SDG5 Thru-Feed Double Disc Wheel Grinder
60HP Motors
Wheel Speed: 3,600 RPM (Both Wheels)

COOLANT Water Sol. Oil (5%) – Central System

COMPONENT

Mild Steel Geared Washer
Part is 3.970" OD x 2.120" ID (Area = 8.849 in²)
0.5 Ra Max / 0.020" Stock Removal per Pass (2 Passes)

NORTON WHEEL:

2A60-KBDVX, 30" x 3" x 1" (D x T x H)

INCUMBENT WHEEL:

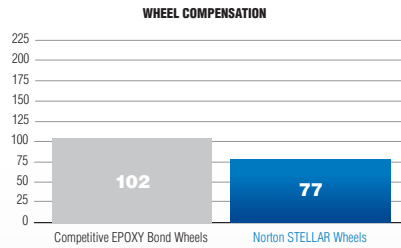
Epoxy Bond Wheels, 30" x 2" x 1" (D x T x H)

Norton Wheel Achievements

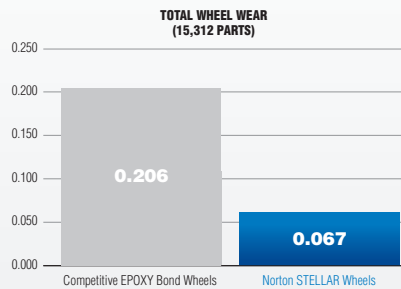
The washer being ground had very large burr which typically caused heavy wheel wear and resulted in the grinding wheels needing frequent truing and dressing to maintain flatness. The Stellar wheels held flatness for the whole part run and wore less than the incumbent epoxy bond wheel.

The Stellar wheels also required less compensation. Current wheels needed an adjustment every 150 parts, while the Stellar wheels ran for 200 parts before requiring an adjustment.

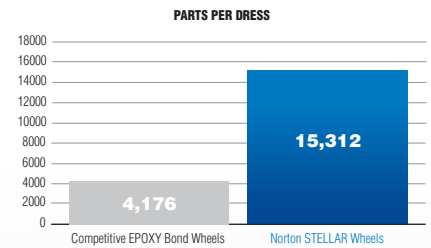
The customer was very pleased with the performance of the wheels and will be testing Stellar wheels at their facility on their additional grinding lines.



Comps Required (15,312 parts)



Total Wheel Wear (Wheel Wear From Grinding & Dressing)



Competitive Wheel Needed To Be Dressed Every Couple Bins (1,392 Parts / Bin). Norton STELLAR wheels were Only Dressed Between Rough Pass and Finish Pass (11 Bins)!

FORM #8816

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