



# A VERSATILE GRINDING SOLUTION

- FOR MULTIPLE APPLICATIONS
- INCREASES WORKPIECE QUALITY
- FEWER WHEEL CHANGES AND PARAMETER ADJUSTMENTS
- LOWER ENERGY CONSUMPTION REDUCES CARBON FOOTPRINT



## APPLICATIONS

- OD GRINDING
- SURFACE GRINDING
- SAW & TOOL SHARPENING

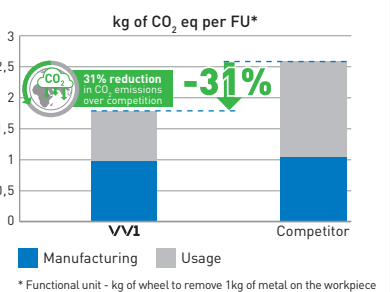
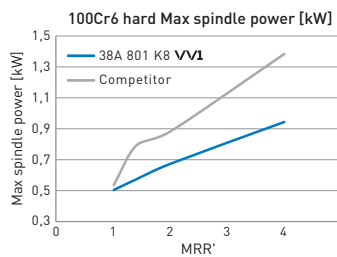
## Engineered with small and medium customers in mind

- Compatible with multiple alloys
- Stock inventory reduction
- Reduced wheel glazing for better surface finish, less wear and less downtime for dressing
- Ideal for running many jobs on one machine, with no time wasted in changing wheels and adjusting parameters



### CASE STUDY #1 OD GRINDING - PERFORMANCE IMPROVEMENT & CO<sub>2</sub> REDUCTION

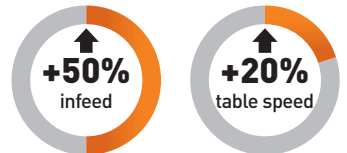
|                                      |  |
|--------------------------------------|--|
| APPLICATION                          | OD grinding  |
| MATERIAL                             | 100Cr6 hardened                                      |
| HARDNESS                             | 60 HRC   |
| PART DIMENSIONS                      | Disc Ø160 x 5 mm                                     |
| COOLANT                              | Emulsion 4 bars, 200 l/min                           |
| WHEEL DIMENSIONS                     | 400 x 30 x 127 mm                                    |
| MACHINE                              | Blohm MT408  |
| COMPETITION                          | Competitor standard catalogue specification          |
| NORTON SPEC                          | 38A80 K 8 VV1  |
| FIXED SURFACE FINISH                 | Ra = 0.57 µm   |
| CO <sub>2</sub> VARIABLES CALCULATED | Manufacturing energy savings<br>Usage energy savings |



### CASE STUDY #2 SURFACE GRINDING

|                   |                      |                  |  |
|-------------------|----------------------|------------------|--|
| APPLICATION       | Surface grinding     | COOLANT          | Emulsion                                   |
| MATERIAL          | XC68                 | WHEEL DIMENSIONS | 400 x 40 x 127 mm                          |
| HARDNESS          | 48Hrc max            | WHEEL SPEED      | 35 m/s                                     |
| PART DIMENSIONS   | 200 x 100 mm         | MACHINE          | GER SR120/60 CNC 22kW                      |
| STOCK REMOVAL     | 0,5 mm               | DRESSER          | Single point                               |
| DEPTH OF CUT (mm) | Rough 0,02/fin. 0,01 | COMPETITION      | Norton previous generation SGB 46 G 10 VXP |
| TABLE SPEED       | 25 000 mm/min        | NORTON SPEC      | SGB 46 G 10 VV1P                           |

#### VV1 PERFORMANCE:



### CASE STUDY #3 OD GRINDING

|                 |  |                  |  |
|-----------------|--|------------------|--|
| APPLICATION     | OD grinding  | COOLANT          | Emulsion                               |
| MATERIAL        | Steel with hard chromium coating   | WHEEL DIMENSIONS | Ø1_300x32x127                          |
| WORKPIECE       | Pump shaft   | WHEEL SPEED      | 35 m/s                                 |
| HARDNESS        | 67-70 HRC  | MACHINE          | Basic OD grinder                       |
| PART DIMENSIONS | Ø 50 x 450 mm  | DRESSER          | Single point                           |
| STOCK REMOVAL   | ~0,4 mm  | COMPETITION      | Norton previous generation 3SG 60 K VX |
| CYCLE           | Traverse grinding, ae=0,01mm, work until vibration occurs (no vibration = no dressing) | NORTON SPEC      | 3SG 60 K VV1                           |

#### VV1 PERFORMANCE:

- Improved Surface Roughness (Ra) from 0.32µm to 0.17µm
- Elimination of glazing



Saint-Gobain Abrasifs  
European Headquarters  
251 rue de l'Ambassadeur  
78700 Conflans  
France

Tel: +33 (0)1 34 90 40 00  
Fax: +33 (0)1 34 90 43 97

[www.nortonabrasives.com](http://www.nortonabrasives.com)

[www.saint-gobain-abrasives.com](http://www.saint-gobain-abrasives.com)

[www.youtube.com/NortonAbrasiveSEMA](http://www.youtube.com/NortonAbrasiveSEMA)

Norton is a registered trademark of Saint-Gobain Abrasives.  
Form # 4169

