



#### BENEFITS:

- Increased safety
- Increased cutting action - Better ergonomics and less fatigue
- Longer wheel life - Higher productivity and lower costs
- No loss of wheel diameter or peripheral wheel speed due to wheel wear
- Virtually no grinding dust from wheel wear

## ENGIS INNOVATION MAKES WAUPACA CLEANING ROOM SAFER AND MORE PRODUCTIVE

Proving that increased safety and productivity really can go hand-in-hand, the change to Engis Corporation's Dia-ForZ™ diamond abrasive grinding wheels in the Cleaning Room at the Waupaca Foundry in Marinette, WI is providing real safety benefits to operators as well as boosting the plant's competitiveness.

In these difficult economic days, every company is searching for ways to improve productivity, but in a harsh manufacturing situation such as a large foundry Cleaning Room, maintaining operator safety is a top priority. Everyone at Waupaca's Marinette Plant is aware of the potential dangers of working in such a harsh environment. Daily meetings are held to ensure that safety issues are kept at the forefront of everyone's mind.

One topic that had been raised was the potential for the bonded abrasive wheels used for hand-grinding parts in the Cleaning Room to break during operation. The company was, therefore, actively looking for a way of removing this potential hazard.

Furthermore, with 25 hand-grinding operators cleaning the considerable volume of ductile iron castings produced by the plant every day, abrasive wheel performance has a significant impact on productivity. When Engis' Technical Representative, Joe Esch, proposed that a move to Engis diamond abrasive grinding wheels. This would remove the risk of grinding wheel breakage, and each wheel would last much longer than the standard bonded abrasive wheels, Waupaca staff were more than interested.

## THE STORY

Marinette Cleaning Room Supervisor, Al Basak, takes up the story; “Naturally, before we made such a significant change to one of our critical production operations, we needed to be convinced that the new wheels would live up to Engis’ predictions.

“So, we started with a small-scale trial cleaning brake caliper castings. Right away, we could see the benefits the Engis diamond wheels ran much faster and did indeed last at least 15 times longer. That automatically saved us the two or three minutes of wheel-change time each hour, for each operator. When multiplied across the whole Cleaning Room that would provide us with an additional significant, productivity gain.

“Also, we received very positive operator feedback. Because the wheels run with less vibration, the work itself results in greater operator comfort and reduced fatigue.”

Having proved the benefits of the new wheels with the small scale test, the management and staff of the Marinette Plant Cleaning Room soon extended the use of the 3" and 4" diamond wheels to a six week trial on a broader range of production tasks including removing burrs from both calipers and anchors for the automotive sector, including Class 8 trucks and farm implements. Operator buy-in was rapid, not only due to the wheels’ better ergonomic performance but also because of the much-reduced level of dust created during grinding, which, in a plant casting 1 million tons of metal components each day - every one of which needs to pass through the Cleaning Room - makes a substantial difference to working conditions and the environmental impact of the process itself.

Al Basak sums up; “The move to Engis Dia-ForZ™ wheels has been a win-win-win for us at the Marinette Plant, giving us increased safety, decreased environmental impact, and higher productivity – and what’s more, we are saving money too.”



## DiaForZ<sup>®</sup> Wheels

- Increased safety
- Increased cutting action - Better ergonomics and less fatigue
- Longer wheel life - Higher productivity and lower costs
- No loss of wheel diameter or peripheral wheel speed due to wheel wear
- Virtually no grinding dust from wheel wear

Engis Corporation is a world-wide organization, established in 1938, which manufactures and markets superabrasive finishing systems for operations that demand precision surface polishing and close tolerance requirements. Engis provides products, services and technological advances in several key areas including: diamond flat lapping/polishing, diamond and CBN-plated tools, bore finishing tools and machines, tool room products and accessories along with R&D and technical support.

### We offer Re-plate Service and Technical Support.

- Wide range of grit sizes available
- All grades and types of CBN (Cubic Boron Nitride), Synthetic or Natural Diamond
- Compatible with Alloys, Aluminum, Tool Steels, Composites

### Leader in Superabrasive Finishing Systems

105 West Hintz Road | Wheeling, IL 60090

P. 847-808-9400

info@engis.com | www.engis.com