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Case Study

Retrofit Blast Wheel Cuts Cycle Time, Pays Back in 2 Months

Steel caster Monett Metals Inc., Monett, Mo., was looking to improve the performance of its blast equipment, which had cycle times reaching 15 minutes.

Blast equipment relies on its wheel's ability to clean parts correctly. Wheel parts are the highest wear components of any surface preparation system. A poorly operating wheel due to misalignment of the internal wheel parts results in expensive downtime and maintenance time, longer cycle times and re-cleaning of parts.

Rather than replacing its blast equipment, Monett Metals assigned Wheelabrator Plus, La Grange, Ga., the task of providing a retrofit replacement EZEFIT wheel with a cast manganese housing that met the following criteria:

1. greatly reduce blast cycle times;
2. greatly reduce or eliminate the need to re-clean parts by cleaning parts to satisfaction the first time;
3. be retrofit on equipment not made by Wheelabrator;
4. be installed by Monett Metals employees to further save money.

The first EZEFIT wheel was installed 18 months ago, according to Monett Metals President Jay Triplett. The investment in the retrofit wheel was paid back in less than two months.

"For minimal payback investment, we received an excellent return. Normally we look for payback in one year from capital investments," Triplett said. "We have greatly reduced our cycle times from 15 minutes to three minutes.

In other words, our capacity has increased five times."

Monett Metals installed the second wheel six months ago. Installation took less than a day.

"This was an easy installation for us," Triplett said. "We wished we had done this two years ago."

Castings are noticeably cleaner after a three-minute blast cycle with the retrofit wheels, according to maintenance manager Steve Rowden.

"Because part cleaning is that much better, we are able to find important defects that we would not have otherwise seen," he said. "The cleaning process opened up voids in the casting that we wouldn't have caught before. It's important to catch these

quality issues internally to properly solve them."

Triplett said prior to the retrofit wheels, the blast equipment always seemed to have longer cycle times, but the company had to accept it because replacing the equipment was expensive. The new wheels have made the shotblasting portion of Monett Metals operation more efficient and cost-effective.

"It is amazing how much one badly performing part can cost a foundry," Rowden said. "Our retrofit equipment now works better than the equipment did when we originally put it on the floor years ago—making this upgrade a no-brainer."

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Visit www.wheelabratorgroup.com for more information.



Wheelabrator's EZEFIT replacement wheels can be retrofit on blast equipment machinery not made by Wheelabrator.