



Michigan-based foundry has seen a dramatic improvement in the lifespan of wear parts in its tumblast machines after fitting a Wheelabrator blast wheel.

American Axle & Manufacturing (formerly Grede Iron Mountain) has been manufacturing grey and ductile iron castings for transportation and industrial applications at its foundry in Kingsford, MI, for 70 years and today processes around 42,600t per year. After casting, all these parts are desanded and cleaned in three tumblast machines from Wheelabrator in a three-shift operation.

For some time, the maintenance team at American Axle had been trialling a non-Wheelabrator, single-sided blast wheel on one of its three blast machines. However, the wheel components weren't durable enough to withstand the demands placed on them, with tune-up kit (TUK) parts – including blades, impellor and control cage – failing and needing to be replaced every few weeks, causing frequent disruptions to production.

In some cases, parts were only lasting a few days, and there were even incidents of blades coming apart in the wheel housing while a machine was running.

After initially trying to work with the previous supplier to resolve the issue, the foundry eventually approached Wheelabrator about the problems.

Wheelabrator upgraded the machine with a new 50HP EZEFIT 35 EZ160 blast wheel (the imperial counterpart to our metric SATURN wheels). This wheel model is double-sided, which keeps abrasive moving around the wheel chamber, improving blade life. It also features thick blades which are more durable, and machining that reduces grinding and allows blades to fit more securely to reduce any unsteady movement.

As a result, the foundry's maintenance crew are now replacing tune up kit parts only every six to seven weeks – a significant improvement – and the service life of wear parts has been increased four-fold.

Brian Lorson, regional account manager, and Butch Hansen, blast service specialist for Wheelabrator, worked with the maintenance team at American Axle when fitting the new wheel in August last year.

Brian explains: “By the time the customer came to us, they had already seen sufficient proof that these competitive parts don't necessarily save you money. Replacing the blast wheels with our much more durable, more balanced EZEFIT wheel has quickly paid off – especially when downtime losses and costs for large numbers of spare parts are taken into account.”

Bill Buchkuski, maintenance director at American Axle, adds: “The short lifespan of the blast wheels we used before was causing too much downtime and expense to be sustainable. After replacing them with Wheelabrator wheels and parts, we've seen reliability and replacement rates improve significantly.”