

DYNA over the decades

Graeme Greaves has been the managing director of DYNA Engineering for more than 17 years. *ABHR* sat down with him to learn more about how the industry has changed.

WHEN GRAEME GREAVES LEFT

his engineering job in Sydney in 2000, he was making a move into a whole new industry.

Greaves had previously worked in the food, automotive and aerospace sectors, but decided to move across the country to Perth to go into business for himself. He soon purchased DYNA Engineering, a small manufacturer of scrapers and impact beds.

“When I bought DYNA, the team was about five people – including myself,” Greaves told *ABHR*.

“The mining industry was smaller in those days, it was a lot easier for a start-up to get jobs with the major miners.

“The technology used in the mining industry really took off. Computerisation made processes bigger, more efficient, and more professional.

“Reliability and proven downtime-reduction also became more important as the mining industry grew.”

Continuous development was key to DYNA’s survival. Every few years would see the company change how it did business, introducing new products, services and systems to ensure it stayed competitive. The company redesigned its cleaners and impact beds so they would

work better and be easier to manufacture.

Finding ways to improve on price was also critical, which is why the DYNA began using computer numerical control (CNC) machining. This not only made the manufacturing process cheaper, but it also made it more reliable and less reliant on manual labour.

Greaves said one of the key challenges facing the industry today is the skills shortage.

“There’s a labour shortage affecting everyone at the moment. Skills that used to be common are becoming harder to find,” he said. “For the mining industry, technology and new developments will help address this.

“The real challenge for us is to bring these new products to market.”

One of the new developments the company has created is its line of high-density polyethylene (HDPE) conveyor guards.

Mine sites traditionally used steel to manufacture conveyor guards, which meant they were often heavy and awkward to move. Site staff will often need to remove and re-install guards to maintain the conveyor, which can add repetitive stress and safety risks.

HDPE conveyor guards can be up

to 40 per cent lighter than their steel counterparts and can be removed in a matter of minutes, all without the need for special tooling. The guards simply slide into place and are fastened with two bolts, requiring no special skills.

During maintenance shutdowns, HDPE guards can be safely and easily secured on the conveyor handrail. This conveniently ensures they are out of harm’s way and reduces the likelihood of them being misplaced, which sometimes occurs amid the pressures of a maintenance shutdown.

Conventional steel guards also require a considerable amount of painting to maintain the safety yellow colour. The size of the mesh makes this a costly and often wasteful process – a lot of paint is used and a significant amount is lost in the process. Operators often resort to hand painting, which is time-consuming and expensive.

HDPE conveyor guards, on the other hand, are made from safety yellow-coloured material, so no painting is required, which greatly reduces conveying system maintenance hours and cost.

The plastic guards cannot rust and are recyclable, which Greaves said is a major benefit to an industry that is looking to continue building its environmental, social

No painting is required for DYNA’s HDPE conveyor guards.





and governance (ESG) credentials.

“The mining industry wants to become cleaner and greener,” he said. “The mines know how important their reputations are, and how important sustainability is.

“In 20 years’ time, there might not be any diesel trucks left operating in Australian mines.”

Because the HDPE guards are easier to manufacture, DYNA can scale their production at its Perth-based facility based on the needs of the client. Replacement guards can be built in a couple of days and delivered directly to the customer, providing faster turnarounds when compared with international markets.

Supply-chain shortages have highlighted the benefit of staying local, as these manufacturers are far more insulated from major interruptions.

Greaves said a strong Australian industry benefits everyone, which is why DYNA is committed to supporting its local customers.

“If you manufacture in Australia, it builds local jobs, expertise and experience,” he said.

“Stakeholders from industry and government need to recognise this and support that side of the industry – and we’re already seeing this happen.”

The most important lesson Greaves has learned throughout his career is to focus on delivering good engineering.

“If you can build something that is well designed, meets the client criteria and operates effectively, you will always be successful,” he said.

“Good engineering sets us apart, which is why we are always looking at new inventions and ways of doing things.” **B**