

## SUPER SPEEDY QUARRY SERVICE

When gearbox failure brought the main conveyor to an abrupt halt at a Roadstone quarry in Waterford, Ireland, operators faced a 16 week wait for a replacement unit. But thanks to the innovative modular design concept of its gearboxes, David Brown defied the odds by supplying the new unit within just 5 days.



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engage the excellence

Quarry engineers had shut down operation at the plant for routine maintenance checks on a Friday afternoon. However when they came to restart the main conveyor, the mechanism inside one of the gearboxes virtually disintegrated, bringing production to a standstill.

Desperately seeking a replacement gearbox, Roadstone engineers called motion technology specialist The Reliance Bearing and Gear Company Ltd in Cork, which is a core David Brown Swift gearbox centre.

Mark Kenworthy from Reliance, who dealt with the order, takes up the story: "The original gearbox driving the conveyor had totally blown, and there was very little of it remaining when we inspected the damage. To get the plant operating again with minimal downtime we needed a large gearbox operating to a ratio of 25:1 that could be fitted immediately. The normal delivery time for such a gearbox is between 14 and 16 weeks."

Engineers at David Brown pulled out all the stops by building a replacement gearbox over the weekend, tailoring one of its Series G bevel helical right angle drive gear units to fit the specifications and replace the original 17" right angle worm reducer.

The order was placed on Friday, the gearbox was finished on Sunday, shipped to Ireland on Monday, and on site on Tuesday morning. Says Mark, "The work carried out on this project by David Brown was truly impressive, and the quarry was back up and running by Tuesday noon. I can't think of any other manufacturer that could have delivered a replacement gearbox in such a short timescale."

Designed to meet the requirements of applications including bulk handling, mixing, water treatment, and conveyor drives, Series G units can be specified in parallel shaft helical and right angle shaft bevel/helical units in double, triple, and quadruple reduction gear stages.

Modular design and construction, a high degree of interchangeability of parts and sub assemblies, and a universally machined, horizontally split casing has created a family of speed reducing gear units that can be quickly manufactured and is simple to maintain with obvious delivery and cost benefits for customers.

The innovative modular construction of the inherently reliable Series G units minimises part count to maximise availability of product. Less than 160 major components meet 10,000 drive solutions. This enables order and delivery within days compared to weeks for a comparable competitor unit. It not only produces a radical reduction in potential down-time of vital plant, but also enables end-users to reduce stock levels.

Strength and efficiency of Series G units is maximised, and noise and vibration kept to a minimum by case hardened and ground helical gears and hard finished spiral bevel gears. A patented end-cover, which improves bearing lubrication, together with a redesigned casing offers a 30% improvement in thermal capacity.



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