



Rail industry supplier
Vortok International
scooped a prestigious
Queen's Award for their
VSR Stressing Roller.
We played our part in
creating some of the key
components for this
international success
story.

Vortok stressing roller: our part in a Queen's Award- winning innovation

The Vortok Stressing Roller makes a tangible difference in its industry, and in everyday life – not least to every person who has ever journeyed by train!

Railway tracks, being made of metal, react to heat. In order to prevent the tracks suddenly buckling on a hot day, they need to be carefully stressed to keep them centrally aligned. Failure to do so could result in warped tracks (see picture right), and a rail catastrophe.



Problem-solving engineering

The stressing process – which involves lifting a section of the track – was typically time consuming, requiring three separate tools: a jack, under roller and side roller. Maintenance staff were also at risk of crushing their fingers.

Vortok's VSR Stressing Roller has replaced the three tools with just one, prompting a marked increase in efficiency and a reduction in the cost of the process. It reduces the rail installation and removal time by an impressive 44% while halving the manpower required for the job - and fingers are kept safer, too.



Worldwide acclaim

The product, which began life in Plymouth, has won industry accolades for Vortok, together with the Queen's Award for Innovation in 2010. It is now exported worldwide from Canada to Saudi Arabia to Australia, and many points in between, leading to strong growth for Vortok in the last four years.



Local and helpful

Aldermans became involved with Vortok in 2006, when Procurement Manager Ron Goldsmith was seeking a reliable supplier who could provide parts for the product in volume. Having researched local suppliers, Ron met with Bill Alderman and visited our factory at nearby Newnham Industrial Estate.

Being local and helpful certainly played a part in winning the business; as did our ability to combine toolroom expertise with volume manufacture, to tight quality tolerances. Aldermans was awarded an initial order of 2000 components, and since then has enjoyed many years of repeat business.

Tooling and materials

Vortok had already designed the parts, but it was over to us to produce the tooling and to run the parts. A press tool was produced to roll the shape of the staple bar accurately and further parts were added for us to manufacture including three separate turned pins and a disc, plus a lasered plate formed and threaded from EN8 Mild Steel. All parts are then zinc and clear plated and assembled.

In the picture below you can see the parts we manufacture, and the finished assembly.

We're delighted that our expertise has helped this small but very clever product become a giant in its industry. Next time you travel by train, thank Vortok, and us.



“Aldermans has been a key supplier during a rapid period of growth for Vortok, responding to significant increases in demand at very short notice, with great success. We are also grateful for the level of engineering support we receive as part of the service. This collaboration has enabled both companies to reduce product cost and boost competitiveness.”

Richard Robertson, MD,
Vortok International



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