



## A UNIQUE VOLTAGE OPTIMISATION SYSTEM



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Powerstar is an approved energy savings system. This product may qualify for an interest-free Energy Efficiency Loan from the Carbon Trust. Powerstar® is a registered Trademark by EMSc (UK) Limited.

Registered with the DTI MAS as a Centre of Expertise in Manufacturing.

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**AESSEAL** manufactures mechanical seals and support systems at its Rotherham global headquarters. The company is serious about the environment and is a "Climate Change Champion" in the Business in the Community Yorkshire and Humber Environmental Index 2009 benchmarking programme. Following on from an introduction by the Rotherham MP Denis MacShane, Powerstar were invited to demonstrate how their voltage optimisation system could reduce AESSEAL's energy consumption and CO2 emissions.

### THE CUSTOMER

AESSEAL is one of the major specialists in the design and manufacture of mechanical seals and support systems. Mechanical seals are used in pumps and rotating equipment to prevent liquids and gases from escaping into the equipment.

AESSEAL is the only major international new entrant to the mechanical seals industry in the last 20 years. Its current range of products is also expanding to cover new markets and niches. Continued improvement of existing products and design excellence is helping AESSEAL achieve superior product performance.

### THE CHALLENGE

AESSEAL has a progressive stance towards improving its environmental performance. In particular the company is committed to reducing its CO2 emissions from the use of electricity. It has an impressive track record in becoming more efficient in managing CO2 emissions and is continually looking to find new ways to use energy more efficiently.

During a visit to the company local MP Denis MacShane recommended near neighbours Powerstar as a potential solution that would both save money through lower electricity costs and reduce the company's carbon footprint. As a result AESSEAL invited Powerstar to carry out an onsite survey and to demonstrate the benefits of voltage optimisation.



*"not only were Powerstar local, but they were also the best value for money supplier and their customer service, project management and installation support service were exemplary"*

Chris Rea,  
Managing Director, AESSEAL



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### THE SOLUTION

Voltage optimisation works by reducing the voltage supplied by the National Grid - which typically averages 242 volts - to a 'normal' level of 230 volts. Motors and other pieces of rotating equipment in particular are designed to work at the lower level and the Powerstar system also helps equipment to work more efficiently and last longer, as well as cutting energy costs.

Following the site survey a Powerstar unit was installed at AESSEAL's Bradmarsh Business Park operation. Denis MacShane MP said: "At a time when climate change and the reduction of energy consumption and CO2 emissions is at the top of the world's political agenda it is great news that AESSEAL in Rotherham are putting theory absolutely into practice with the installation of this voltage optimisation system."

### THE BUSINESS BENEFITS

An immediate energy saving of just under 6% and resultant reduction in electricity costs were achieved following the installation of Powerstar. AESSEAL received a loan from The Carbon Trust and expect a 3 year return on investment. For AESSEAL an added benefit was that they were able to purchase from a local business. The company also expect a potential positive benefit to equipment life. An online monitoring and targeting tool is a standard feature of all Powerstar units and this is enabling AESSEAL to take further steps on their own to reduce overall electricity consumption.

### QUOTATION FROM CUSTOMER

*"Powerstar in particular and voltage optimisation equipment in general deserves to be higher up the business and political agenda and possibly needs to be if the UK is to achieve our targeted CO2 emission reductions. Our thanks also to Denis MacShane as not only were Powerstar local, but they were also the best value for money supplier and their customer service, project management and installation support service were exemplary."*

Chris Rea, Managing Director, AESSEAL.



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