



ENVIRONMENTAL TECHNOLOGY

## Leakage problem solved with STS™

A global energy company was facing significant losses as a result of damage to the steam turbine housing at one of its ethylene plants.

The problem was persistent steam leakage, which meant that the steam turbine housing which holds the carbon bushes had been damaged beyond repair.

There was no backup turbine, and the original supplier had no spare parts. Failure to generate electricity onsite could have resulted in losses of as much as \$1 million a day. It appeared that the only way to solve the problem was by a process of lengthy and expensive reverse engineering.

However, AESSEAL® was able to provide a solution with the installation of its STS™ mechanical seals. Their design allowed the housing that supported the carbon bushes to be removed, and the seal retrofitted onto the existing turbine body.

The STS™ mechanical seal was developed specifically to replace the carbon ring seals normally fitted to steam turbines. It uses AESSEAL® dry running gas compressor seal technology, reducing steam leakage, and greatly improving turbine efficiency.

At the UK plant, the new STS™ seals will save 2,220,000 lbs of steam over the turbine's conservative life expectancy of six years, amounting to a financial saving of around £65,000, with a payback period of less than a year. LabTecta®ST bearing protection seals were also fitted to provide increased bearing reliability, ensuring that the seal will work effectively throughout its expected life span.



**‘Saving more than 2 million lbs of steam in 6 years’**

Industry:	Power
Product:	STS™ and LabTecta®ST
Application:	Steam turbine housing
Savings:	£65,000
Reference N.O:	TD3095456



[aes seal.com/info](http://aes seal.com/info)