



Customer : Power plant
 Product group : Rubber Technology
 Market : Energy and water
 Application : Seals for flue gas system
 Savings : € 65,000 PA

ERIKS DEVELOPS LEAKAGE-PROOF SOLUTION FOR HOT AIR SYSTEM

IsoBRASS Intum Schwarz 3mm flange produces cost savings for customer



CUSTOMER PROFILE

The power plant is a so-called coal/bio-mass plant with a total capacity of 590 MW. In addition to coal, the plant also uses biomass as fuel, such as clean wood. The plant consequently emits less CO₂. Part of the residual heat is supplied to companies in the area.

CHALLENGE

For years, the power plant had suffered from the residual products of coal incineration leaking through the seals in a hot air system. The annual costs of keeping the flue gas system leakage-proof and clearing up the severe contamination, consisted of the price of new seals, the rental of scaffolding and the person-hours for hired workers. However, the highest costs were those associated with cleaning up the serious local contamination.

The leakages were easy to explain. The seals were made using standard IsoBRASS material, which is not suitable for the constantly 300°C high temperatures. In addition, insufficient surface pressure played a role in the leaks. The large flanges were only 6 mm thick. Moreover, the seal faces were no longer of an optimal quality. Rust and unevenness ensured that the IsoBRASS material was not compressed evenly or sufficiently on the large diameters and so leaks developed.

SOLUTION

ERIKS recommended that the power plant should use 3-mm thick IsoBRASS Intum Schwarz. This material is made of glass fibre, clad on both sides with expanded graphite. At temperatures of 270°C and above, the graphite accommodates all of the unevenness. As a result, the IsoBRASS Intum Schwarz seals function even better at high temperatures.

ERIKS supplied several test seals for a practical trial. This trial was successful and the power plant has since fitted the IsoBRASS Intum Schwarz material to all of the 600 flanged connections.

SAVINGS

■ € 65,000 PA

OTHER BENEFITS

- Safer production environment
- Reduced cleaning costs
- The seals on the hot air system are now preventively replaced every two years