

RAUMAG – JANICH supplied shut – off and modulating dampers for the world´s largest liquid gas plant.

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RAUMAG - JANICH Systemtechnik GmbH

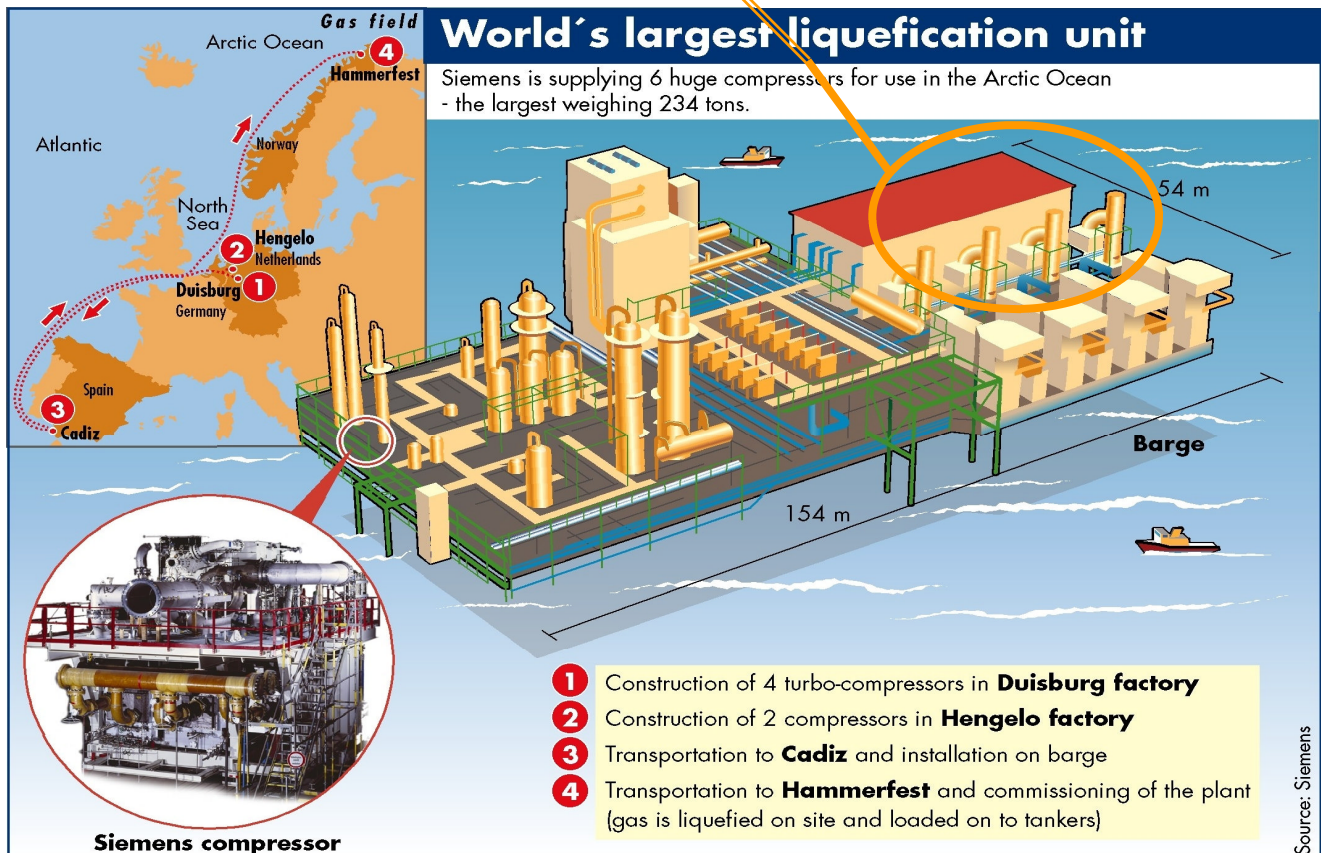


The picture above depicts one of the **RAUMAG - JANICH** supplied dampers during trial runs at the Rauenstein works. They will be used for flow modulation and rerouting operations of the turbine exhaust gas. With seal air, a gastight, man safe shut – off can be achieved.

RAUMAG – JANICH secured an order from **ALSTOM POWER UK** for the design, manufacture and supply of 10 tandem shut – off and modulation dampers required for the gas turbines of the world´s largest liquid gas plant. Decisive in awarding the order to **RAUMAG – JANICH** have been the new ,innovative, patented techniques which have been introduced during the last few years. The proposed solution of the modulation requirements received particular consideration as well as its suitability in view of the severe operating and climatic operating conditions.

The total of 10 units, each ND 3300 x 3300mm have been manufactured at the Rauenstein works and subsequently delivered via Rotterdam to Cadiz in Spain where they were fitted into the plant. The whole plant itself was erected on a 54 x 154 m large, special purpose barge and towed to Hammerfest in Norway where commissioning takes place.

The plant, operated by **STATOIL**, is designed to process 5,67 billion cbm of gas annually from 2005 onwards.

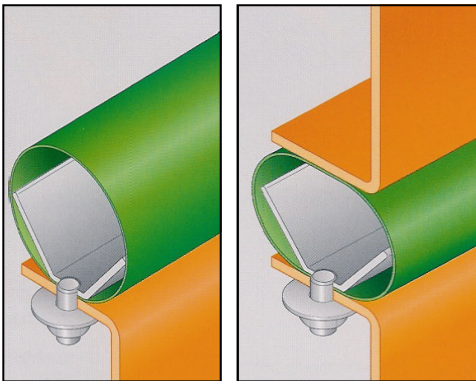




Erection of liquid gas plant upon a special purpose barge at Cadiz.

The illustration depicts the 5 waste heat recovery boilers and gasturbines complete with the exhaust system of which the RAUMAG – JANICH dampers are an integral part. Their purpose is to effect the gastight isolation of either the boiler or the waste gas stack. In addition they facilitate gas flow control.

The patented, high resilience NICROFLEX – HIPERFORM seal.



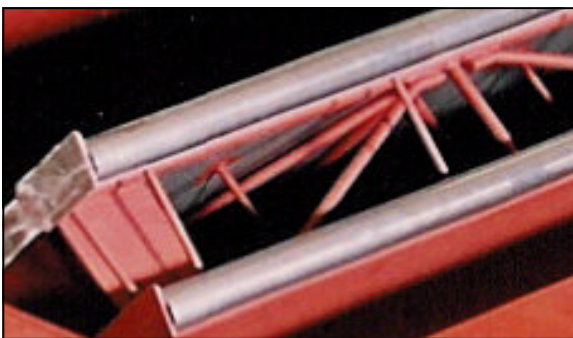
The illustrations depict the new NICROFLEX – HIPERFORM sealing system, in the open (uncompressed) and in closed (compressed) condition.

In uncompressed condition the vee – shaped internal stabilizer supports the tubular seal on the inside thereby providing the necessary rigidity against vibrations. Thus damage of the seal is avoided irrespective of the damper operating mode.

The sealing system is notable for its high resilience by which it is able to compensate for misalignments or fabrication tolerances of even the largest dampers.

In this context please refer to our publication
“ **TECHNOLOGY 4** ”.

The patented, lattice structure reinforced damper blade design.



The lattice structure reinforced blade with cardanically attached, free floating cover plates remains free of distortions when exposed to high and rapidly changing temperatures. High temperature gas flows continuously through the blade's latticed support structure, all parts of which heat up uniformly.

The design of the lattice structure is based upon the “ finite element “ method.

In this context please refer to our publication
“ **TECHNOLOGY 6** ”.

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