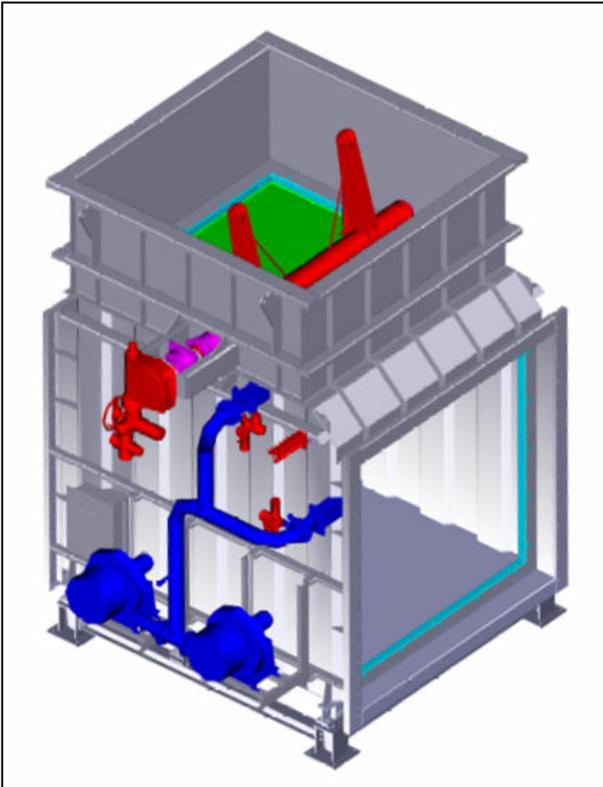


Three **DIVERTERS** for the combined cycle power station **KAYSERI - Turkey**

Juni 2004

RAUMAG - JANICH Systemtechnik GmbH



RAUMAG – JANICH secured an order for supply of three diverters, ND 3048 x 3048 mm required at the **KAYSERI** combined cycle power station. The diverters are made entirely of heat resisting stainless steel.

On site external insulation will be fitted which means that during operation all internal parts as well as the blade shall be exposed to the hot turbine gas.

The diverter blade will be of the patented, lattice structure reinforced blade design.

The diverter is actuated by an internal toggle lever system.

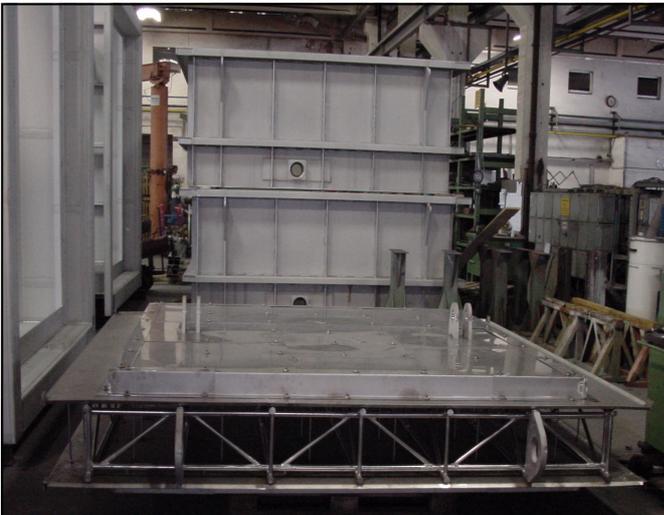
A seal air facility with standby provides, in conjunction with the patented **NICROFLEX – HIPERFORM** sealing system, a gastight shut – off of both end positions.

The illustration on the left depicts the design of the diverter.

The photo below shows the diverter casings fabricated of heat resisting stainless steel.



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.

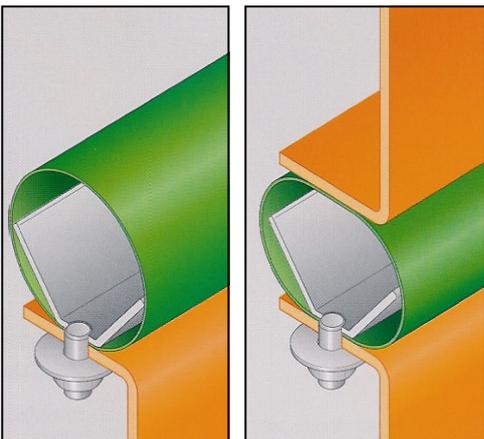
In this context please refer to our publication "**TECHNOLOGY 6**".

The picture above, on the left shows one of the diverter blades and in the background the casing which shall accommodate the drive shaft, the toggle lever mechanism and the electric actuator.



The picture on the left shows a diverter drive shaft with toggle levers.

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**".

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