



UNDER STEAM – HYDRA® PRESSURE BALANCED EXPANSION JOINTS

Application

Internal steam network of a chemical park, Germany

Technical data

- Axial expansion joint, "pressure chamber principle" – relieved from pressure
- Dimensions: DN 500; length 3290 mm
- Medium/temperature: steam/200 °C
- Design pressure: 5 bar
- Material: medium touched ply of the multilayer bellows made of Alloy C4 (2.4610)
- Weight: 1050 kg
- Flow velocity: 60m/s

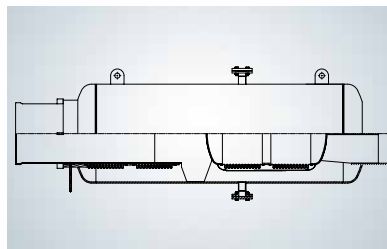
Special features

Pressure relief

The axial pressure reaction forces are compensated directly in the component. Thus, there is no force transmission to subsequent aggregates and the anchor points are smaller.

Safety

The medium touched bellows ply consists of Alloy C4 in order to prevent any corrosion damage as a result of contaminated steam. The expansion joints are additionally equipped with leak monitoring.



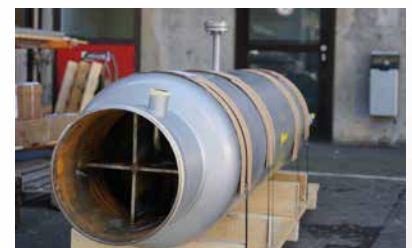
In the case of an pressure balanced expansion joint, the pressure compensation is achieved by means of a circular pressure chamber using two identical externally pressurized bellows. The flow is redirected.



Coating with zinc dust paint in the paint booth.



Verification of the technical details and visual quality assurance.



The bellows venting of the interior pressure chamber (thin inside tube) and the outgoing flanged connector outlets at the top for venting the expansion joint are visible.