

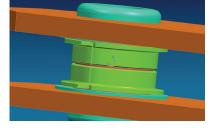
# HYDRA® ANGULAR EXPANSION JOINTS FOR USE IN REFINERIES

# **Application**

Refinery in Turkey. Transport pipelines for heavy hydrocarbons as well as oil/water mixtures. Supply pipelines to catalytic converter/regeneration tank.

# **Technical data**

- 102 Angular expansion joints, DN 80 – DN 600 in U-joint systems
- 4 Double angular expansion joints DN 600 for regeneration tower



PTFE bearings for the hinges



All stainless steel components and drill holes are masked for the multi-layer coating of the carbon steel parts

### **Materials**

Bellows: Alloy 625. Remaining parts: stainless steel, carbon steel. Double angular expansion joints: single-ply bellows made of alloy 800.

## **Special features**

- Transport pipelines are directly near the sea or even near the breakwater. For this reason, the bellows have been provided with an outer bellows protection that was calculated based on direct impact of sea waves.
- Circumferentially welded hammer-shaped anchor for protection against crevice corrosion
- Multiple coating system of the highest possible corrosiveness category C5m in accordance with ISO 12944
- Cooperation with Witzenmann subsidiary Idrosapiens



Group-wide production of expansion joints (Italy and Germany), central dispatch from Pforzheim



Circumferentially welded hammer-shaped anchor for the prevention of crevice corrosion.