



# SERVICING: NEW HYDRA® BELLOWS ELEMENTS FOR REFINERY EXPANSION JOINT

## Application

Olefin plant in a refinery

## Technical data

- DN 900
- Design pressure  $p = 4.5$  bar, test pressure = 25 bar
- Max. temperature 550 °C
- Lateral movement  $\pm 300$  mm
- Overall length 6,150 mm axial dimensions, external dimensions approx. 8 m
- Weight approx. 3,225 kg

## Special features

- Rapid implementation due to high production outage costs!
- Replacement of the bellows elements by Hydra-bellows with new safety concept
- 2-layer bellows element made of Inconel 625 with integrated leak monitoring
- Every bellows layer pressure-bearing
- Connection technology for remote diagnostics
- Tangentially rotating steam injection to prevent deposits and reduce bellows temperature
- Tie bar outside of the insulation, ensuring no axial extension of the expansion joint



Ring line for the injection. This prevents the bellows becoming carbonised and reduces the bellows temperature



Adjustment orifice plate for regulation of the amount of steam for the injection



8 metres long and 3.2 tons in weight – a lateral expansion joint in maintenance