



A chlorine plant with four identical vertical Process Gas Compressors encountered some problems due to the low reliability of the over 25 year-old compressors. The plant operator turned to Burckhardt Compression for a complete overhaul of all four compressors, which was performed at one of our state-of-the-art Service Centers. After the successful overhaul project, a preventive maintenance schedule was established and implemented together with the customer.

## **PROJECT CHALLENGES**

- Major overhaul of the compressor systems was needed after 25 years of compressing aggressive and hazardous chlorine  $\text{Cl}_2$
- Unforeseen compressor downtimes were absorbing valuable resources and eroding the plant's margins
- Growing risk of a complete plant shutdown due to low compressor reliability
- Logistical challenges for the customer's maintenance team on-site due to the extreme temperatures and the hazardous applications involved
- Best practices for planned preventive maintenance had to be established and implemented

## APPLICATION DESCRIPTION

Overhaul of four vertical Process Gas Compressors at a chlorine plant			
Type	Vertical Process Gas Compressors	Gas	Chlorine Cl <sub>2</sub>
Power	299 kW / 400 hp	Suction pressure Discharge pressure	0.85 bara / 12.32 psia 12.8 bara / 185.64 psia
Speed	335 rpm	Lubrication	Dry-running

## **BURCKHARDT COMPRESSION SOLUTION**

- Complete overhaul of four compressors at state-of-the-art Service Center
- Detailed compressor components inspection
- Change of valve technology, upgrade to Burckhardt Poppet Valve™
- Periodical project progress reports and customer inspections during defined milestones
- Mechanical test run at Burckhardt Compression test facility
- Extensive installation services
- Implementation of a preventive maintenance program according to Burckhardt Compression recommendations

## **CUSTOMER BENEFITS**

- Like-new warranty on overhauled compressors
- Significant improvement in system reliability, attractive return on capital investment
- 45% lower investment cost compared to a new compressor solution
- Lower plant operating costs thanks to a preventive maintenance schedule
- Reliable and safe off-site project execution at the certified Service Center
- Pre-tested compressors minimized risks during start-up phase
- Project time to repair the fourth compressor was reduced by more than onethird compared to the first compressor



Ready for the mechanical test run



During installation