



SUCCESS STORY

DOWN TO ZERO LEAKAGES AFTER REVAMP

The Israeli government tightened its Health, Safety and Environment (HSE) regulations so that they now reflect the highest level in this field. As a result, PAZ Ashdod Refinery had to revamp their existing process gas compressors for hydrogen application in order to be compliant with the new strict HSE standards. PAZ entrusted Burckhardt Compression to both perform this task and to restore the performance of the compressors of another Original Equipment Manufacturer (OEM).

CUSTOMER ISSUE

- Government tightened the Health, Safety and Environment (HSE) regulations, high leakage of the machine became an issue
- Low valves reliability and short-lived Piston Rod Sealing System
- Energy loss due to low motor efficiency
- Maintenance unfriendly due to rigid coupling design and single bearing motor
- Old design of capacity control system, only manually activating

Compressors for a Lifetime™

APPLICATION DESCRIPTION

High leakage on compressor and tightened HSE regulations

Type	Other brand process gas compressor	Gas	Hydrogen
Power	737 hp / 550 kW	Suction pressure Discharge pressure	17.56 bara / 240 psia 62.03 bara / 885 psia
Speed	424 rpm	Lubrication	Dry-running

BURCKHARDT COMPRESSION SOLUTION

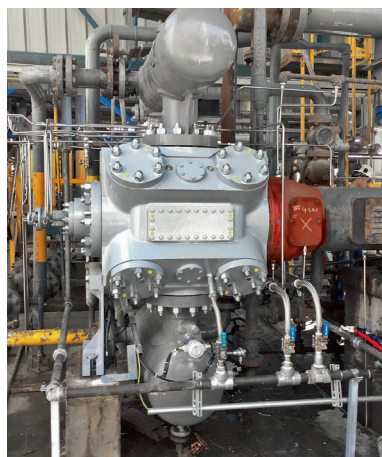
- Complete compressor revamp with latest technology incl. conformity of API 618
- Advanced design for 1st and 2nd stage cylinders with improved cooling effect
- Burckhardt Compression design applied to piston rod and piston, Redura® Sealing Systems, packing, rings and valves
- State-of-the-art buffer/purge system of the distance piece and packing
- New motor and flexible coupling for reduced maintenance and higher reliability
- Modern capacity control system with saver activation through control panel

CUSTOMER BENEFITS

- Compliant with latest Health, Safety and Environment regulations
- Leakage rate down to zero
- Increased reliability of the compressor systems, reduced MTBO
- Lower investment costs and shorter execution time compared to a new machine solution
- Improved maintainability and operation due to new applied design of Burckhardt Compression



Compressor before revamp with leaking indicators.



New cylinder of Burckhardt Compression designed according to API 618 5th edition during the revamp service installation.



"A beautiful project! Looking back to the beginning of the project and the situation we were confronted with, I am thrilled to see amazing low fugitive emissions results thanks to the new technology applied by Burckhardt Compression. Of course, I will recommend Burckhardt Compression to every other petrochemical and refinery plant."

Malachi Alper
CEO of the PAZ Ashdod Refinery

Burckhardt Compression AG

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