HIGHLIGHTS
VOLUME 3

Airpack Nederland BV is a family owned, Dutch manufacturer of customized turnkey packages for the oil and gas industry. Our installations are designed and built according to customer specifications. We work together with our clients to provide specialized, cost-effective, efficient solutions. We are specialized in extreme environments and offshore applications. All of our equipment is engineered, manufactured and tested at our facilities in Zierikzee, the Netherlands. We are an ISO 9001 certified company and follow international standards and customer guidelines.

Airpack is able to meet unique specifications such as:

- *Hazardous area precautions: ATEX compliant & earthquake area solutions*
- *Redundant and SIL PLC's*
- *Special enclosures for extreme ambient conditions (arctic, desert, FPSO environment)*
- *And more!*

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IN THE MIDDLE OF THE PROCESS

OVERVIEW

One of Airpack's core principles is to provide a solution that meets your needs. This brochure highlights our capabilities in providing solutions for replacement packages and the revamping or the upgrade of existing equipment.

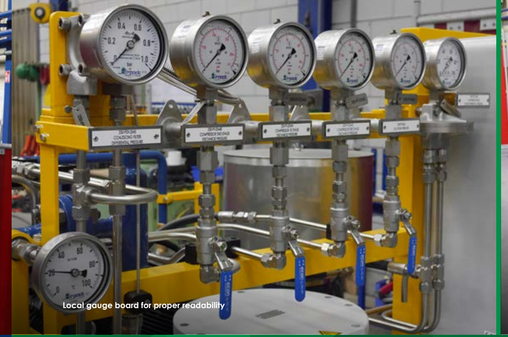
In such cases, we do not only use the operating conditions and applicable specifications when designing a package. We also look at the available space, position of existing tie-in points, power availability and existing control systems. Our dedicated team of experts can offer you a package that fits into the present location minimizing alterations to be done at site. Here we present two packages which demonstrate our ability to customize and deliver the best solution.

In 2005 Airpack supplied two oil free screw compressors and two heatless regenerated dryers to the Taweelah Receiving Facility (TRF). Eleven years later the plant decided to expand and needed more instrument air to accommodate their plans. Because the customer was so satisfied with the equipment and delivery, they awarded the TRF Expansion Project to Airpack. The project consisted of the delivery of a third compressor and dryer set.

The Central Complex Power Generation Platform Project required the replacement of four existing non-Airpack compressors with new Airpack packages maintaining all dimensions and tie-in point locations that had been previously established. For this project Airpack worked directly with the end client.

The completely interconnected package, with additional discharge after cooler mounted on top for optimal reachability

The local control panel contains a custom programmed PLC which communicates with other packages and DCS



Local gauge board for proper readability

Ex d certified local control panel integrated on a small footprint skid design

Replacement **packages** and **upgrades**

TAWEELA RECEIVING FACILITY (TRF) PROJECT, UNITED ARAB EMIRATES

For interchangeability purposes, the new unit needed to be a replica of the existing installations and had to be fully integrated in the existing compressor running philosophy of the plant. To realize this the old units were fitted with upgraded PLC's in the existing control panels. Our field engineers replaced all the hardware, software and HMI on site. Airpack also supplied a master switch panel allowing for changeover between the three compressors as per client request. Accordingly, a detailed mechanical and communication test followed to ensure smooth integration of the new compressor into the live instrument air system of the plant.

PROJECT SUMMARY

- Oil free screw compressor and heatless desiccant air dryer
- Compressor capacity: 300 Nm3/hr at 8,5 bar(g)
- Dryer capacity: 265 Nm3/hr at 8 bar(g)
- Dew point -10°C at 7,5 bar(g)
- Special sand trap inlet filter
- Airpack Dryer inlet valve
- Additional discharge cooler
- Dolphin Energy Ltd.
- Area classification Safe area

CENTRAL COMPLEX POWER GENERATION PLATFORM PROJECT, UNITED ARAB EMIRATES

Each package consists of an oil injected v-type piston starting air compressor. These packages were built to replace old and not functioning equipment on an existing offshore platform. To minimize changes at site, the footprint of the new packages was carefully designed to fit into the existing space. Everything from piping to floor space had to be carefully calculated and strictly followed when building the replacement packages. To ensure continuity of operations, the packages were replaced one at a time to reduce the impact on production to a bare minimum. All client specifications were adhered to including the paint specification, which was unique for this project.

PROJECT SUMMARY

- Oil injected v-type air compressor
- Compressor capacity: 116Nm3/hr at 34 bar(g)
- Stainless steel inlet filter
- Vibration free sub-skid
- Area classification zone 2 IIA/B T3
- ADNOC Offshore (ZADCO)