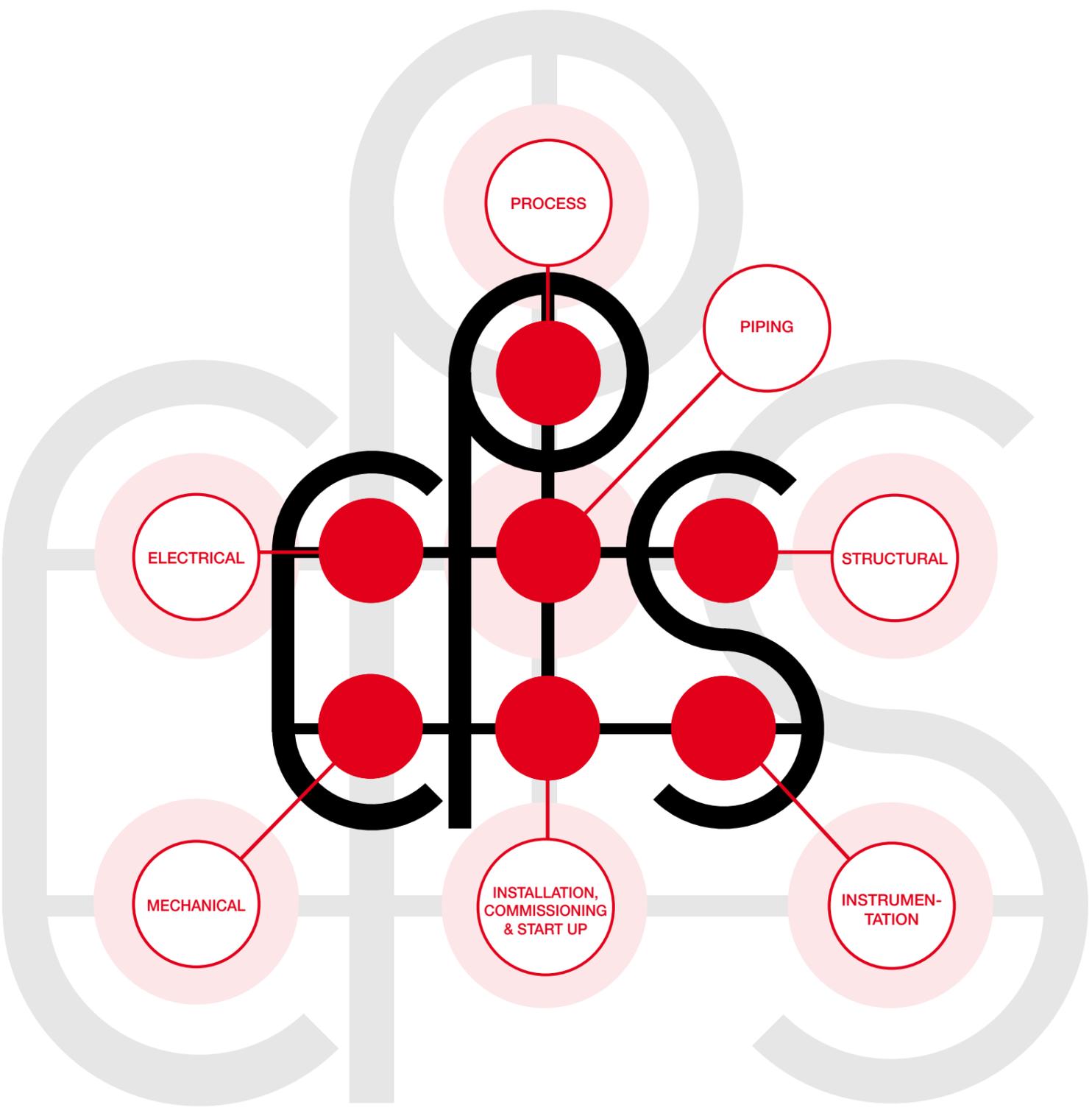




# ConPackSys

*Your partner for tailored gas compression systems*





## Introduction

We welcome you to ConPackSys and we thank you for taking an interest in our company. With this brochure, we take the opportunity to proudly introduce our accomplishments and capabilities, as well as to give you inside information about our company.

First of all, the name ConPackSys is a contraction of "Consultants and Contractors for Packaging and Systems integration".

ConPackSys is an ISO9001 and SCC\* (SHE management system) certified engineering, procurement and contracting company, specialized in **tailored gas compression systems**. We are located in Dordrecht, The Netherlands, in the centre of the industrial area Rotterdam - Antwerp.

ConPackSys serves both the oil & gas - and the process industry, with centrifugal - and reciprocating compression systems.

Compression systems: that is what we do best!



## Mission: closing the gap

### The Manufacturer

International competition, new management philosophies and the demand for higher efficiency results in a 'back to the core approach' of all major compressor manufacturers.

In other words, the (often) expensive engineering; the design of the support systems and the supply of equipment other than the bare compressor, do not fit the strategy of these compressor manufacturers.



### The Gap

Between the demands of the customer to obtain a complete working compressing unit and the preference of the compressor manufacturer to supply (only) his speciality remains a considerable gap of:

- The DESIGN
- The ENGINEERING
- The PRODUCTION
- The ASSEMBLING

of supportive systems of all disciplines and the TOTAL SYSTEM RESPONSIBILITY.



### The Customer

Customers prefer to avoid the need of a heavy engineering department, for basically the same reasons as compressor manufacturers. Instead, purchasing a complete working system to their own standard is preferred.

To achieve this, a reliable engineering consultant and packaging contractor is required, familiar with the customers needs and standards.



BARE  
COMPRESSOR



SUPPORTIVE  
SYSTEMS &  
EQUIPMENT



COMPRESSION  
SYSTEM



COMPRESSOR  
MANUFACTURER



CUSTOMER

## How to find us



### From Schiphol International Airport (by car, 85km, about 1 hour drive)

from Schiphol at the Hague at Rotterdam at Dordrecht

take A4, direction Rotterdam/The Hague  
take A13, direction Rotterdam  
take A20, direction Dordrecht/Utrecht  
take A16, direction Dordrecht  
take exit 21, Dordrecht Centrum (see below)



### Located opposite of Dordrecht Central station with excellent rail connection to Schiphol International Airport (about 1 hour travel)



### From A16/E19 Amsterdam/Rotterdam or Breda/Antwerp to Dordrecht

At A16/E19 take exit 21 Dordrecht Centrum  
Enter into Dordrecht  
Follow the sign



Drive along the railway track.  
Pass the railway station.  
(you see the office on your left hand).  
Take a U-turn at the 2nd traffic light.  
After 100m, turn right by the barriers.  
Enter our parking place,  
ConPackSys parking is located behind the office building.

### From A15/E31 Utrecht to Dordrecht

At A16/E19 take exit 23 Dordrecht  
Enter into Dordrecht  
Follow the sign



Drive along the railway track.  
Take the 2nd railway crossing on the right.  
Turn left at the traffic lights.  
Continue driving along the rail way track.  
Pass the road crossing and drive straight ahead  
After 100 m, turn right by the barriers.  
Enter our parking place.  
ConPackSys parking is located behind the office building.

PIPERACK 6 m WIDE  
TOS.EL+113.300  
PLATFORM  
TOG.EL+113.330

S 627.200

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Dordrecht, The Netherlands

Phone: +31 (0)78 639 11 11  
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## Company | History

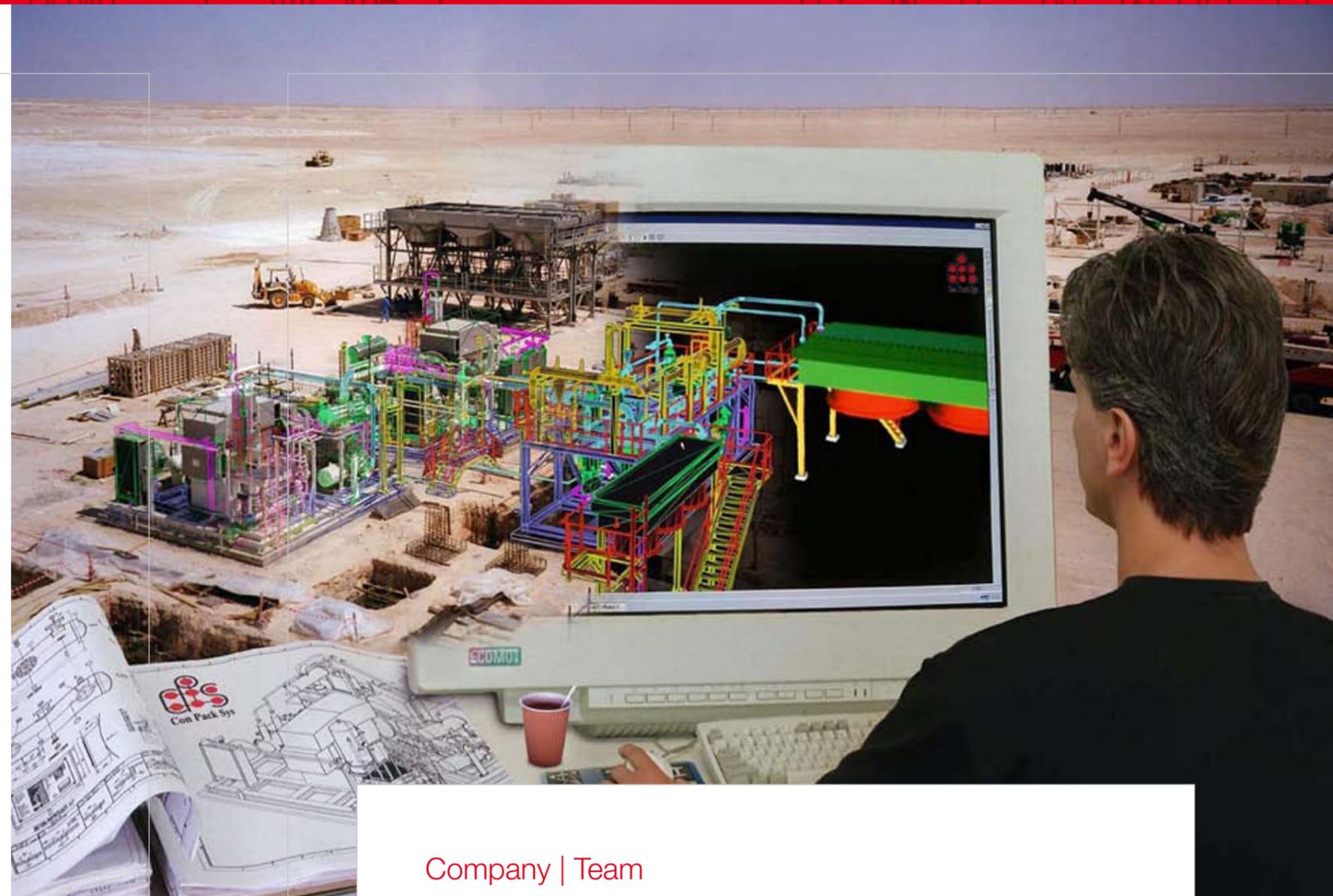
Over the years, ConPackSys has engineered, designed and built numerous centrifugal and reciprocating compression systems, varying from 0,2MW to 40MW!

In 1976 we started serving the oil & gas - and process industry initially as a part of another company. After a management buy-out in 1990, ConPackSys became an independent company. The first projects were related to Shell and Shell operating companies. For these projects, ConPackSys worked together with the former Sulzer compressor group for both centrifugal and reciprocating compressors.

Over the years ConPackSys extended its relationship with other compressor manufactures. Nowadays we work together with: **MAN Turbo** (former Sulzer Turbo), **Burckhardt Compression** (former Sulzer Burckhardt), **Ariel**, **Kobelco**, **Japanese Steel Works**, **Thomassen** etc. These are all esteemed compressor manufacturers and each compressor is serving its own special part of the compressor market. Also the number of end-users we work for has been extended. The list of our clients include but is not limited to: **Shell**, Shell OPCO 's **NAM**, **DSM**, **Borealis**, **Chevron**, **Agip**, **Gaz de France**, **SBM/Gusto**, **BP** etc.

Over the years, ConPackSys has always invested in skilled people and the best tools to carry out the work.

We can conclude that ConPackSys, with over 30 years of experience, has established a well known reputation within the oil, gas and process industry as well as other industries for its quality of engineering and end products.



## Company | Team

The ConPackSys team consists of management; engineers and supporting staff. Our highly skilled engineers have advanced technical and engineering education in disciplines such as: process, mechanical, instrumentation, electrical, piping and structural. Their experience covers design, engineering, construction, testing, commissioning and start-up.

ConPackSys makes use of specialized and state of the art software tools such as: **Hysys** (process simulation static and dynamic), **HTFS** (Heat exchanger design), HTFS tools such as **Acol** (air colled heat exchangers) and **Tasc** (shell & tube exchangers), **Pulsim** (pulsation damper design), **PVElite** (pressure vessel design), **Matrix frame** (steel frame design), **Ceasar II** (pipe stress calculations), **Ansys** (finite element analysis), **Autoplant** (3-dimensional design), **Intools** (instrument database), **Samson** (valve calculations), **Instrument** calculations (flow calculations for instrumentation) etc.

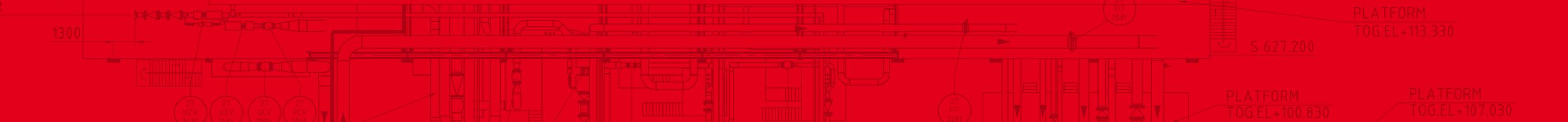


## Off shore Compression Module

End User : Gaz de France Suez  
Application : Booster Compressor Module  
Location : K2b-A, North Sea, Dutch Economic Zone  
Delivery : 2008

### Key facts

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/ Testing.
- Two (2\*50%) Ariel reciprocating JGD/4 compressors.
- Each compressor driven by a Caterpillar gas engine G3606 (1324 bkW).
- Suction pressure 30 bar (g); discharge pressure 110 bar (g).
- Including various auxiliary systems/ components (oil lubrication system, cooling water, pulsation dampers, etc.).
- Compliant with all off-shore conditions.
- Build on one module floor designed for single lift.
- Total weight of skid 150 tones.



## Depletion compressor systems

End User : NAM  
 Application : Depletion Compressor Systems  
 Location : Barendrecht, The Netherlands  
 Delivery : 2001/2002/2003

### Project 1: Design and Delivery

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/Testing.
- 1 stage Sulzer Hofim centrifugal compressor with magnetic bearings.
- Direct driven by an Alstom 4700 kW VSDS.
- Including gas coolers and liquid gas separators.
- Completion 2001.

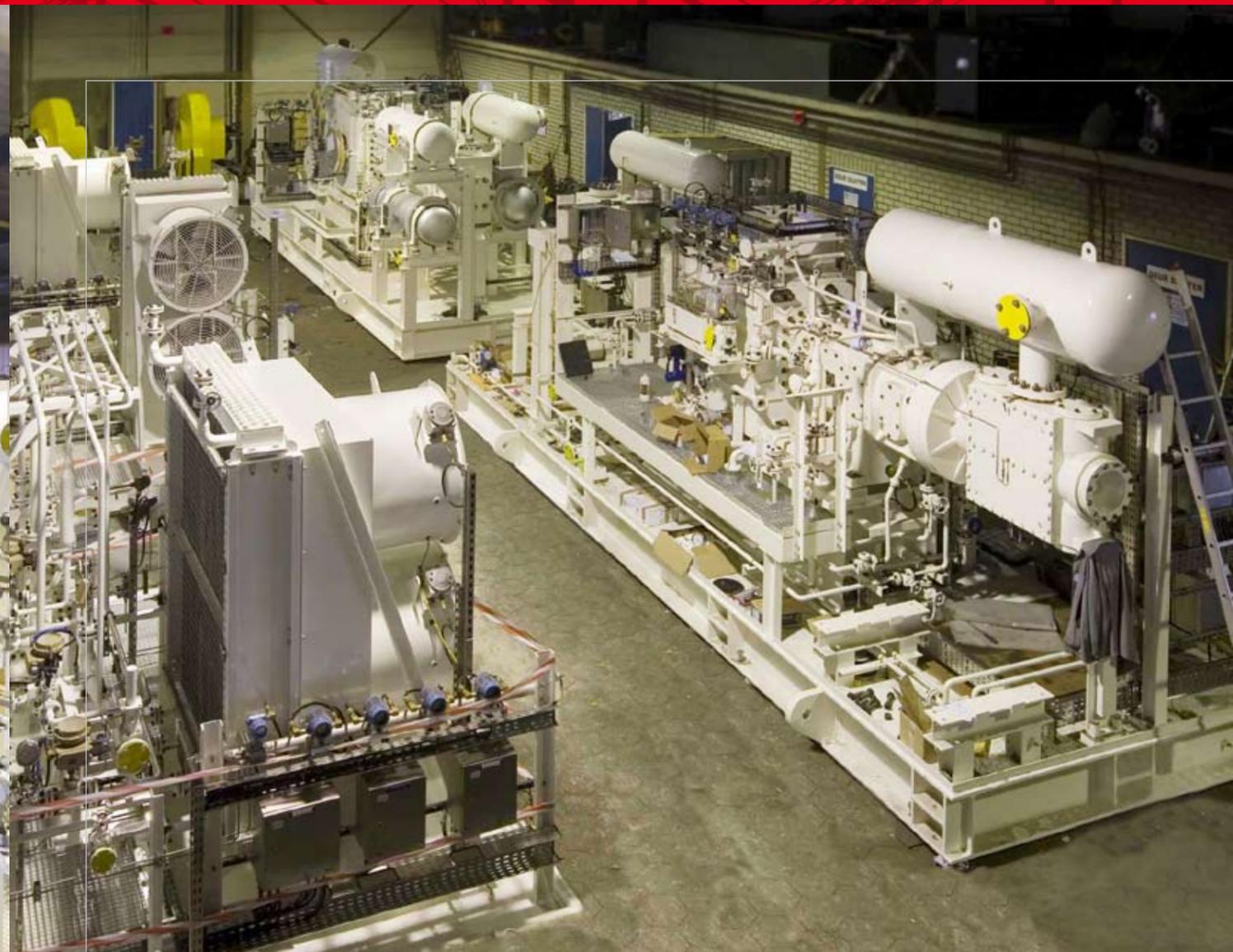
### Project 2: Re-wheeling

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/Testing.
- Re-wheeling of depletion centrifugal compressor.
- Completion 2002.

### Project 3: Modification

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/Testing.
- Complete modification from one to two stage compression.
- Completion 2003.



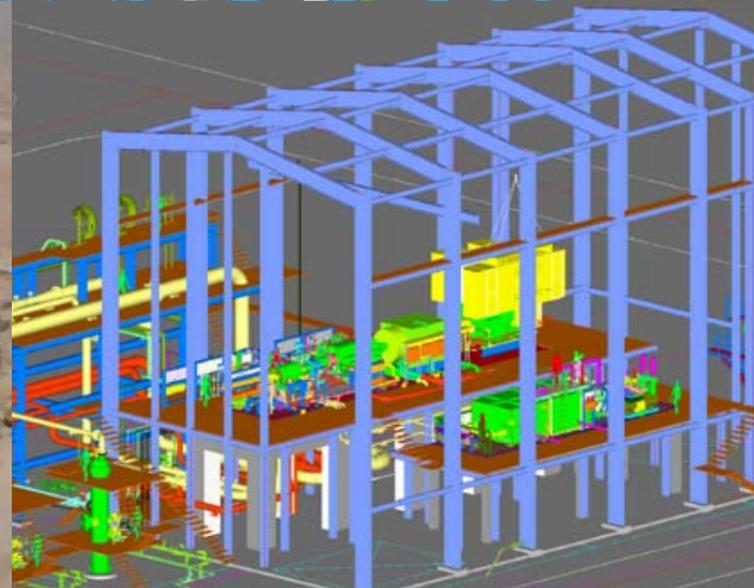
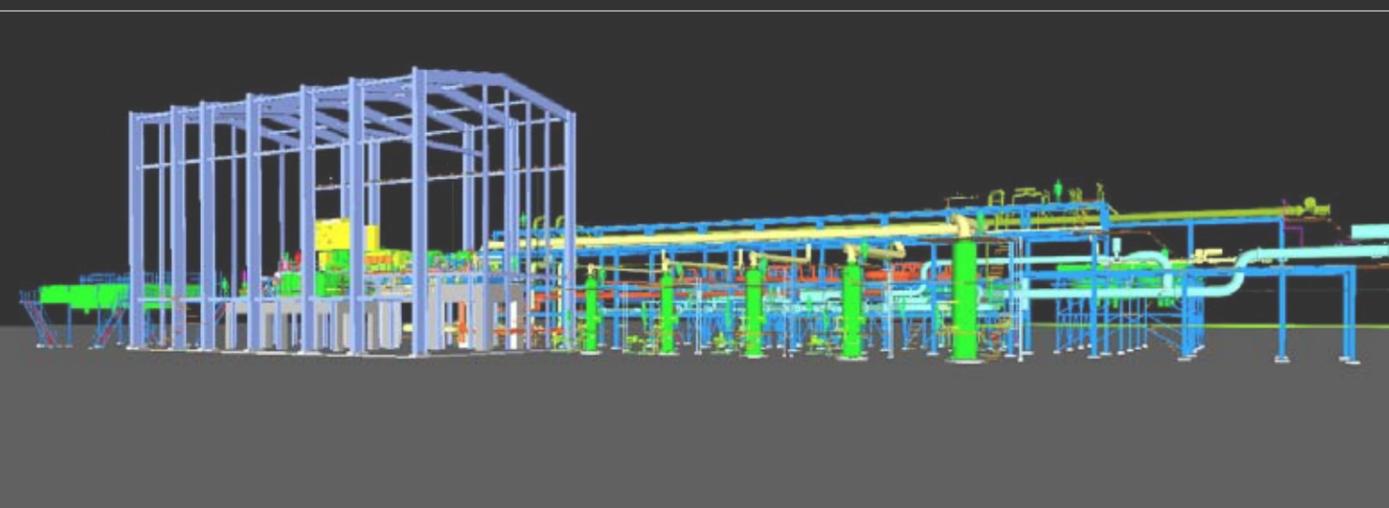
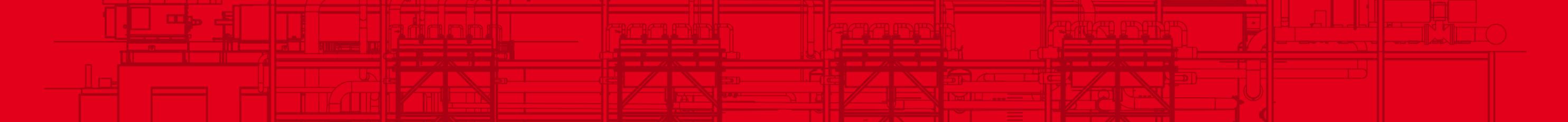


## Seal Gas Compressor system

End User : Petroleum Development Oman (PDO)  
 Application : Seal Gas supply for Compressor System  
 Location : Zalzala, Desert of Oman  
 Delivery : 2007

### Key facts

- Design, Engineering, Procurement, Delivery.
- Two (2 x 100%) identical reciprocating Thomassen C-35.2 compressor systems.
- Driven by an Alstom 900kW fixed speed electrical driver.
- 321 bar(g) discharge pressure.
- Including all process equipment, piping, instrumentation and auxiliary systems.
- Units are used to feed several large Centrifugal re-injection compressors with sweet sealgas.



## Produced gas compressor system

End User : Petroleum Development Oman (PDO)  
 Application : Fuel Gas & Lift Gas  
 Location : Qarn Alam, Desert of Oman  
 Delivery : 2009

### Key facts Engineering

- Detailed Design complete compressor plant.
- 4-stage centrifugal compressor system (ManTurbo).
- Driven by a 12,2 MW electrical drive.
- Total plot area size: 140 m x 70 m.

### Key facts Delivery:

- Packaging of 2 compressors in series (RH56; RB35) and 1 gear box.
- Compressors and gear on common Base Plate.
- Lube Oil System on separate skid.
- Including seal gas rack, piping and Instrumentation.



## CO<sub>2</sub> Injection compressor

End User : Gaz de France Suez  
 Application : CO<sub>2</sub> injection Compressor system  
 Location : K12-B, North Sea, Dutch Economic Zone  
 Delivery : 2003

### Key facts

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/Testing.
- 4 stage Ariel JGR/4 reciprocating compressor.
- Driven by an ABB VSDS motor (355 kW).
- Including skid frame, associated equipment, piping, instrumentation and control system.

### Constraints

- 100% wet CO<sub>2</sub>.
- discharge pressure 90 bar (g).

### Results

- 8 months delivery time (!)
- From order to running machine.
- Delivery in 2003.

**First CO<sub>2</sub> injection in the Netherlands!**



## Underground Gas Storage

End User : NUON  
Application : Two natural gas injection compressor systems  
Location : Epe Germany  
Delivery : 2006

### Key facts

- Design, Engineering, Procurement, Delivery, Construction, Commissioning/Testing.
- 2x identical natural gas injection compression systems.
- Ariel compressors, JGC-4, four cylinder two stage.
- Direct driven by a Loher 2.1 MW VSDS.
- Up to 207 bar(g) discharge pressure.
- Including all process piping, coolers, separators, pulsation dampers, and instrumentation.
- From suction valve to discharge valve.



ISO 9001 Certified



SCC (SHE) Certified

For further information: [www.conpacksys.com](http://www.conpacksys.com)