



# CPG Rotary Screw

375 – 475 HP

High Performance Products.  
Designed for you !



# Compressor Evolution



**CPG Mission: Superior energy savings with maximum performance**

Advanced energy savings

Advanced electronic control with integrated connectivity

Robust look and feel

# Standard Features



- Low Sound Enclosure
- 100 -175 psig
- Microprocessor Controller
- Continuous Operating Capability
- Wye-Delta Starter
- TEFC Motor
- Space Saving Design
- Load/No Load With Intelligent Shutdown
- 5 Year CP SECURE Warranty\*
- NEMA 1 Electrical Protection
- Vibration Isolated Assembly

\* requires startup by authorized CP distributor

# Standard Features

Several versions available to meet all your needs.

- Pressure versions: 100, 125/150, 175 psi
  - 150 psi unit same as 125 psi on CPG-380 and CPG-450
  - CPG-480 contains unique gear sets for 125 psi and 150 psi

• Operation : Load/Unload with timed shutdown








• Ambient temp : 46°C / 115°F

• Water-cooled

• Water separator drain included

• No integrated dryer

• Machines compliant with ASME & UL

	100 psi	125/150 psi	175 psi
CPG-380			
CPG-450			
CPG-480			

# CPG Applications

Approximately 60-70% of the manufacturing processes can run with compressed air produced by oil-injected compressors. Top applications for processes requiring high volumes of compressed air typically include:



- Cement



- Chemicals/ Power plants



- Automotive



- Paper



- Glass Industries



- Oil and Gas

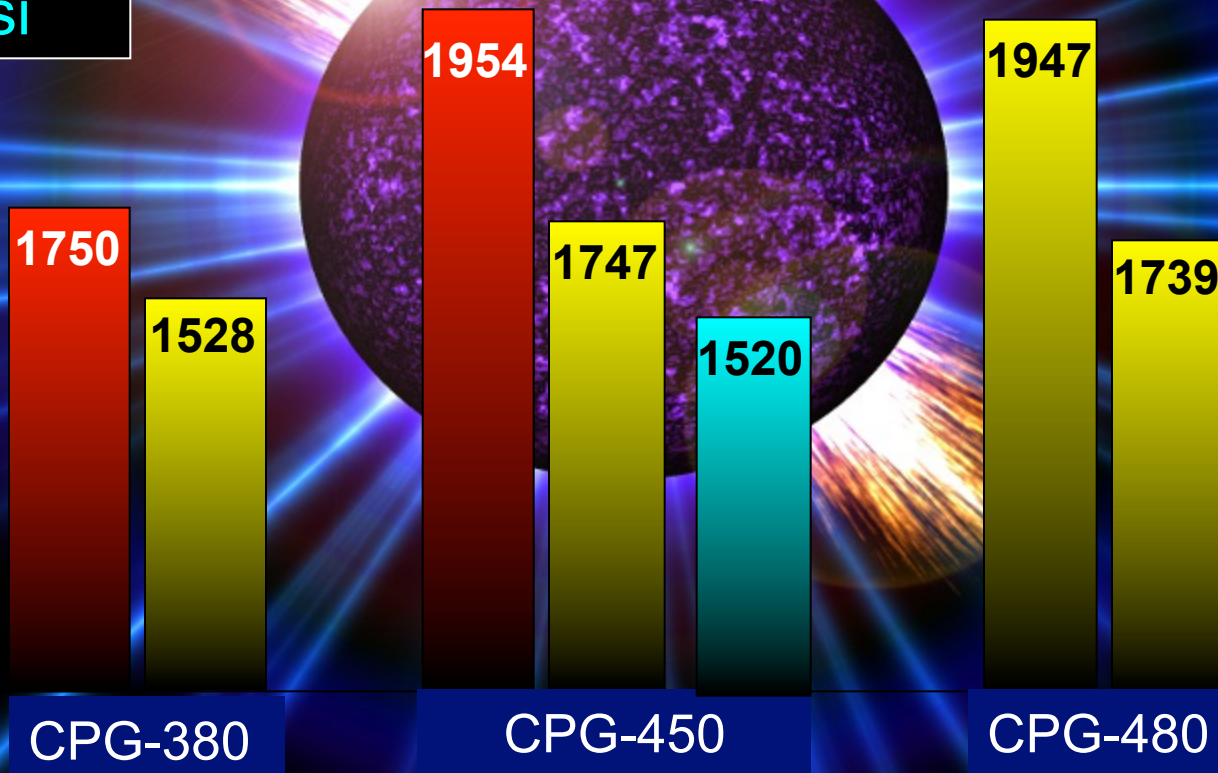


# Leading Performance

100 psi

125/150 psi

175 psi



# Low Noise Level

## Respect for the environment & the workplace



Low noise level by design:

- High-quality sound attenuating foam
- Low rotation speed of the fan and compressor element
- Compact, integrated low sound enclosure

# Whisper quiet

- = Reduce worker fatigue
- = Increase installation possibilities
  - Install at point of use
  - Reduce pressure drop
  - Save on installation costs

**CPG-380** → **77**

**CPG-450** → **78**

**CPG-480** → **80**

- = Reduce worker fatigue
- = Increase installation possibilities
  - Install at point of use
  - Reduce pressure drop
  - Save on installation costs

0	Hearing Threshold
10	Rustling Leaf
20	Quiet Recording Studio
30	Quiet Bedroom
40	Quiet Library
50	Ambient Home Noise
60	Conversational Speech, 1m
70	Vacuum Cleaner, 1m
80	Heavy Traffic, 5m
90	Diesel Truck, 10m
100	Lawn Mower, 1m
110	Chainsaw, 1m
120	Discomfort Threshold
130	Pain Threshold
140	Jet Aircraft, 50m



# 5 Year warranty

## THE COMMITMENT...

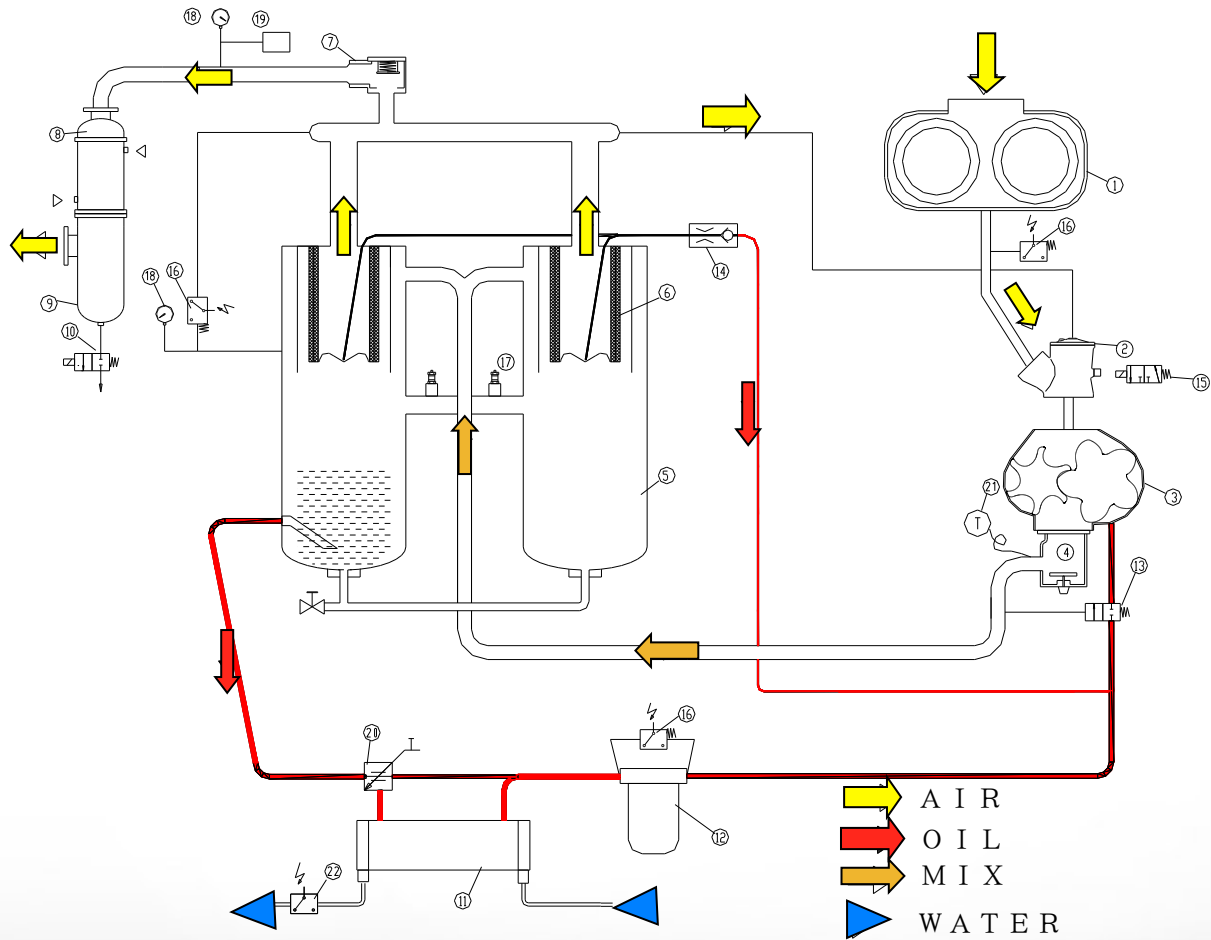
- High E
- Time-p
- Comp
- Preci
- Intellig



Global Leaders

The CP SECURE Warranty covers the air end and major components for 5 years. Our warranty is a promise to the customer and demonstrates our commitment to outstanding quality and reliability

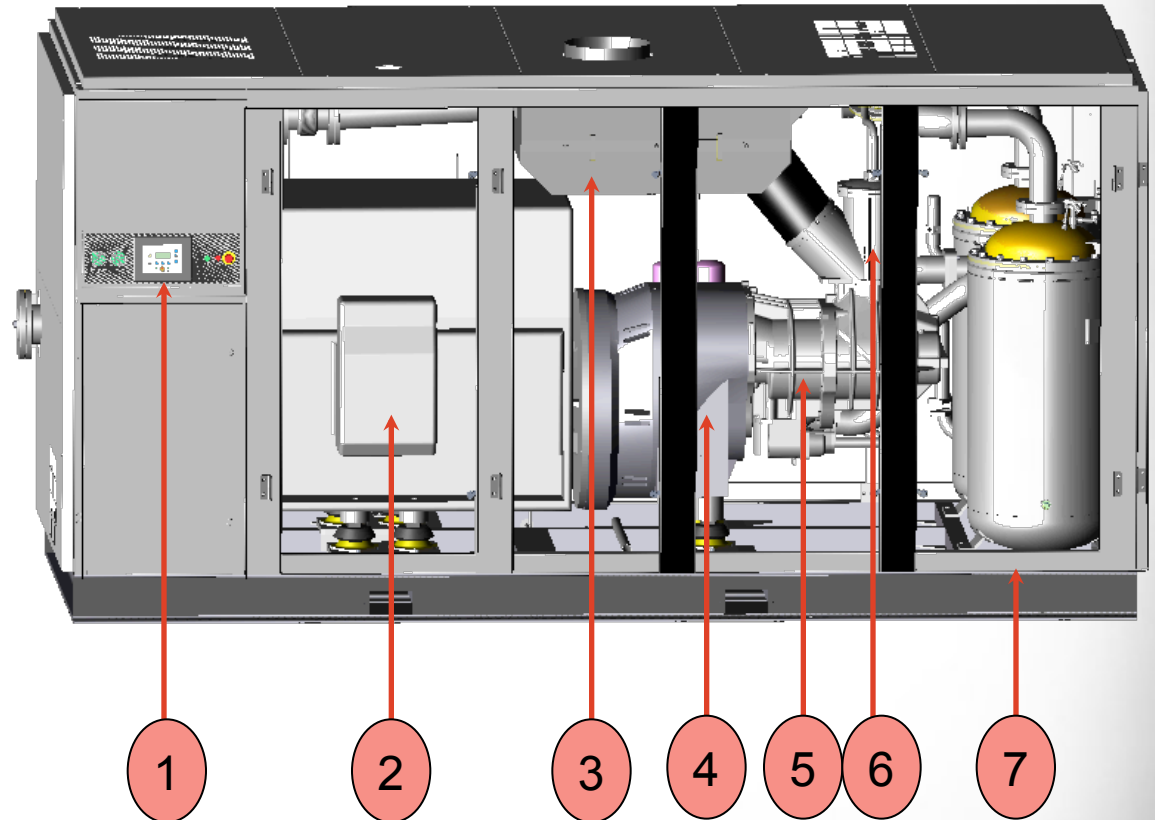
# Flow Diagram



# Compressor Layout

Front view

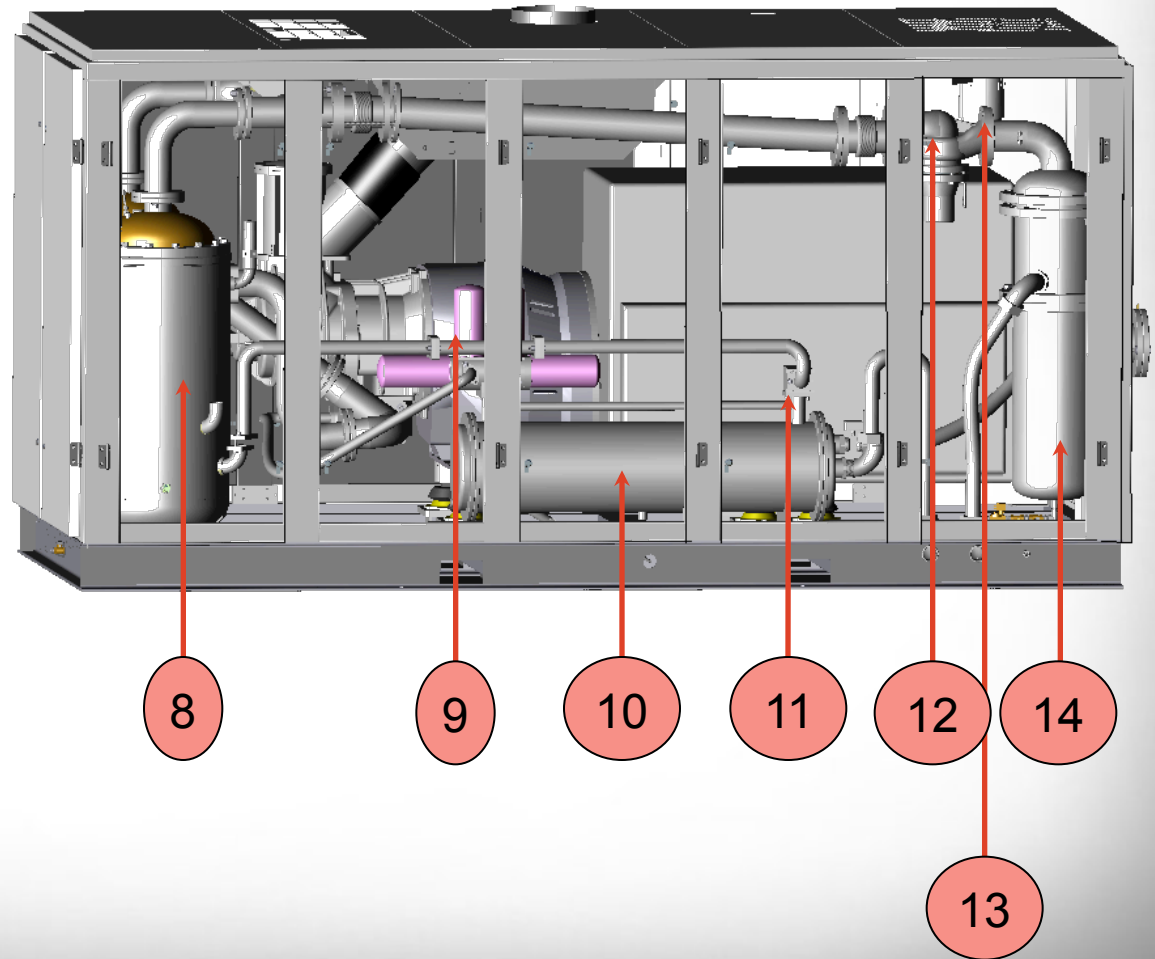
Description	
1	Controller
2	Motor
3	Air filter
4	Coupling
5	Screw element
6	Unloader valve
7	Frame



# Compressor Layout

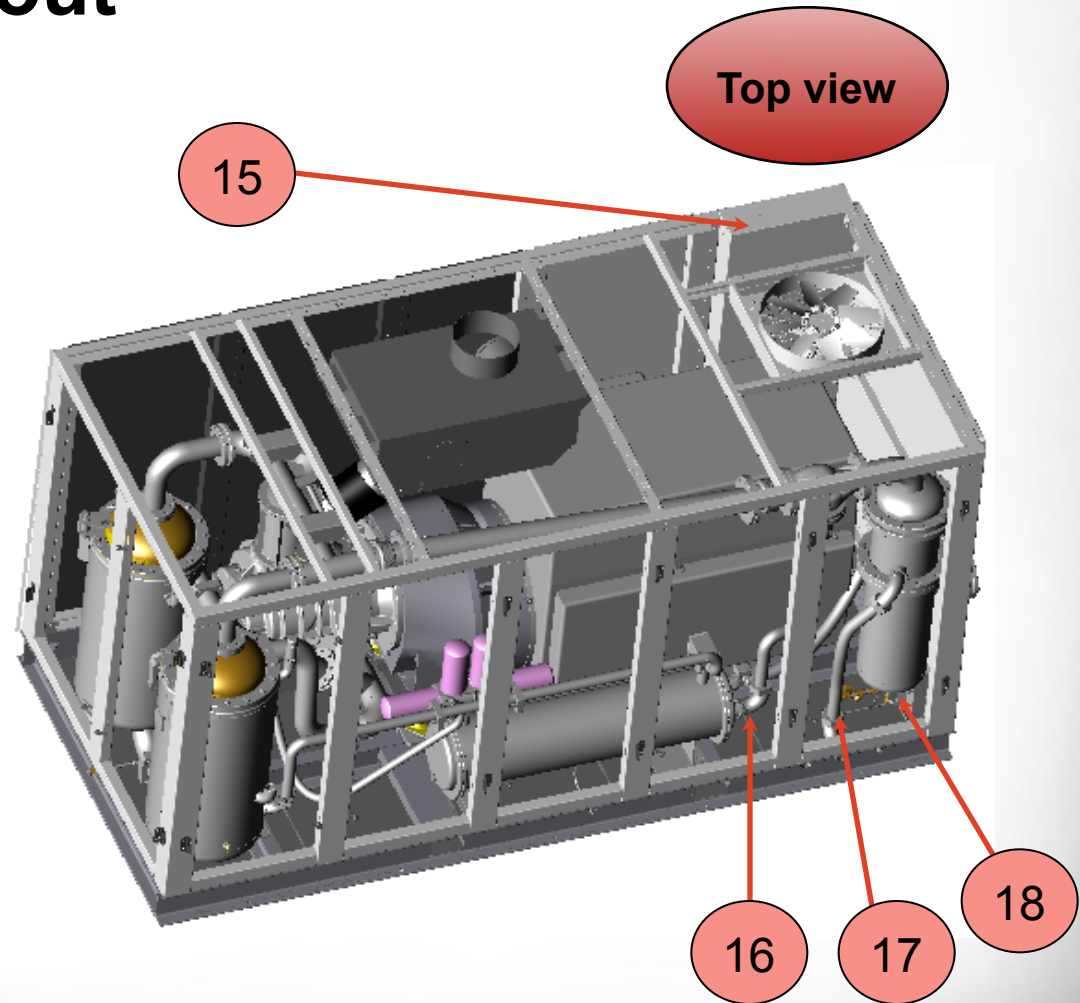
Back side

Description	
8	Receiver
9	Oil filter
10	Oil cooler
11	Thermostatic valve
12	Minimum pressure valve
13	Fan
14	Water separator



# Compressor Layout

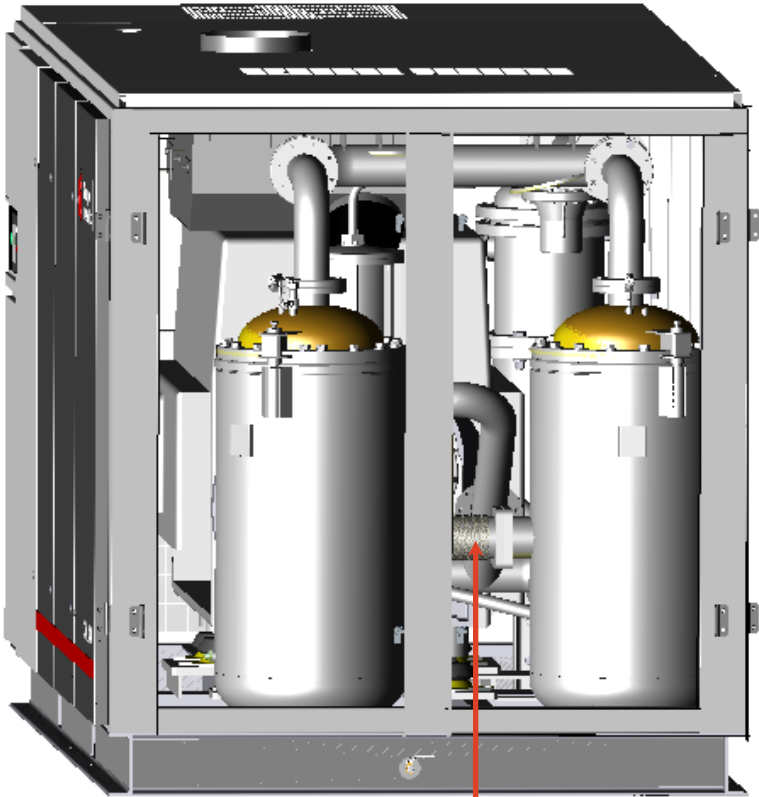
Description	
15	Electrical cubicle
16	Water outlet
17	Water inlet
18	Drain tap



# Compressor Layout

Right side

Description	
19	Safety valve

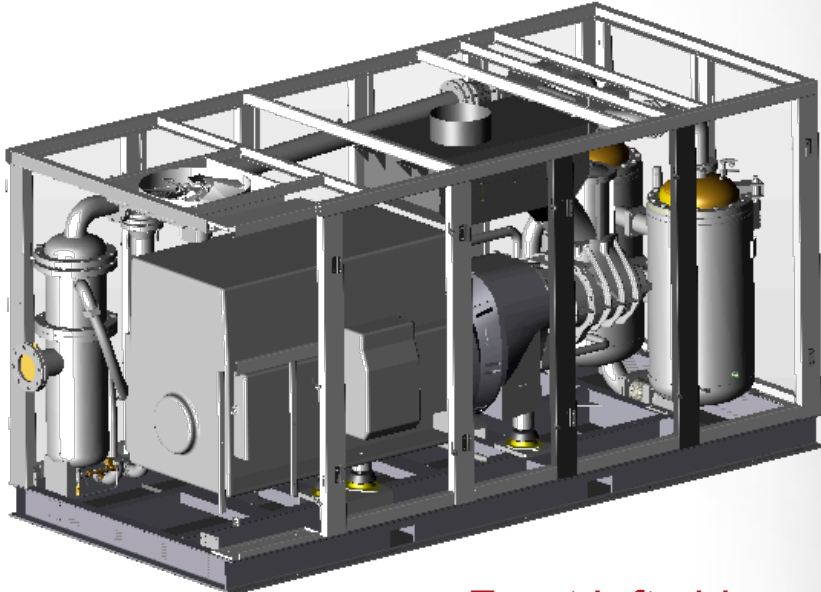
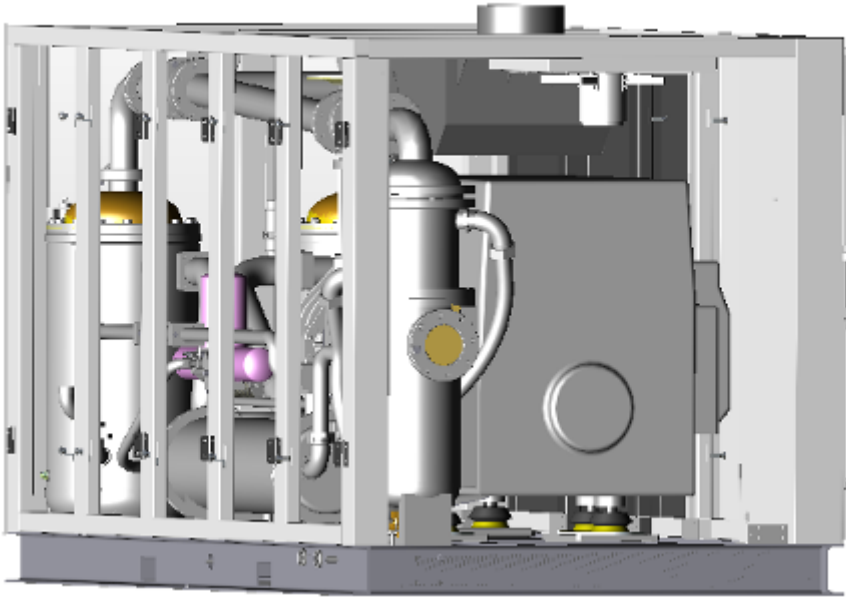


19



# Compressor Layout

Left back side



Front left side

# Enclosure

Function = Protection and sound attenuation

Robust, industrial grade steel

Large panels on the front and the back

Footprint = 102 sq. ft.

Saves vital production floor space



# High-efficiency air filtration

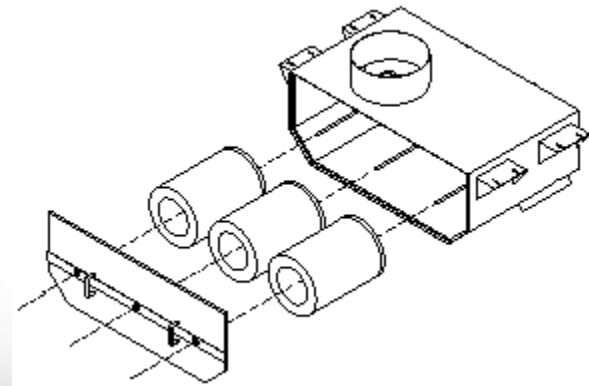
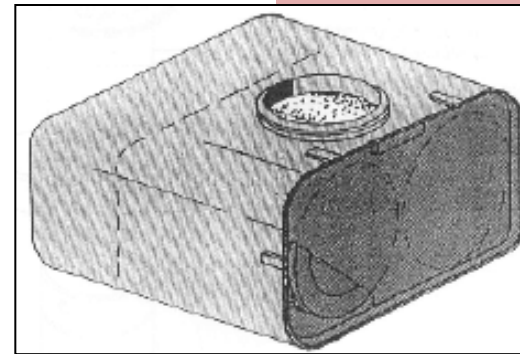
Function = Preserve and protect internal components

**Air inlet filter is composed of filter element and filter housing :**

- Larger filtration surface area
- Expand filter life time over 4000 h
- Rapid access for maintenance

**Protect your machine against dust contamination:**

- Cyclonic pre-filtration
- 2-micron pleated air filters
- Possible ducting of the air inlet



# Advanced controller for optimum efficiency

Function : Improved management of the compressor

## User friendly interface:

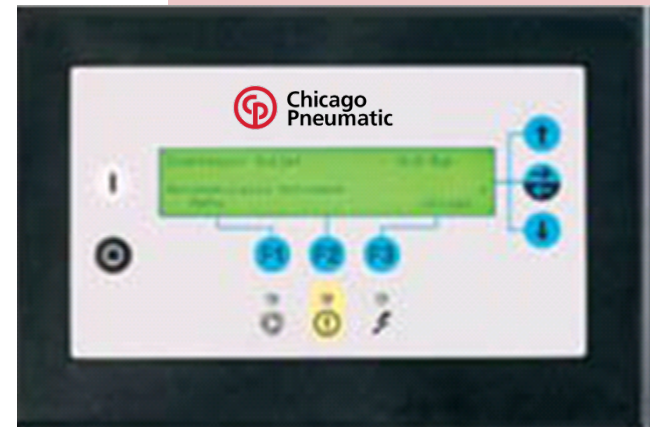
- Choice of 3 languages out of 27 available
- Service schedule with automatic warnings

## Advanced monitoring system:

- Permanent monitoring: temperature/outlet pressure
- Faults control : High oil T°C / overload / High pressure ...
- Automatic restart: Standard
- Start/Stop timers: Standard, up to 8/day

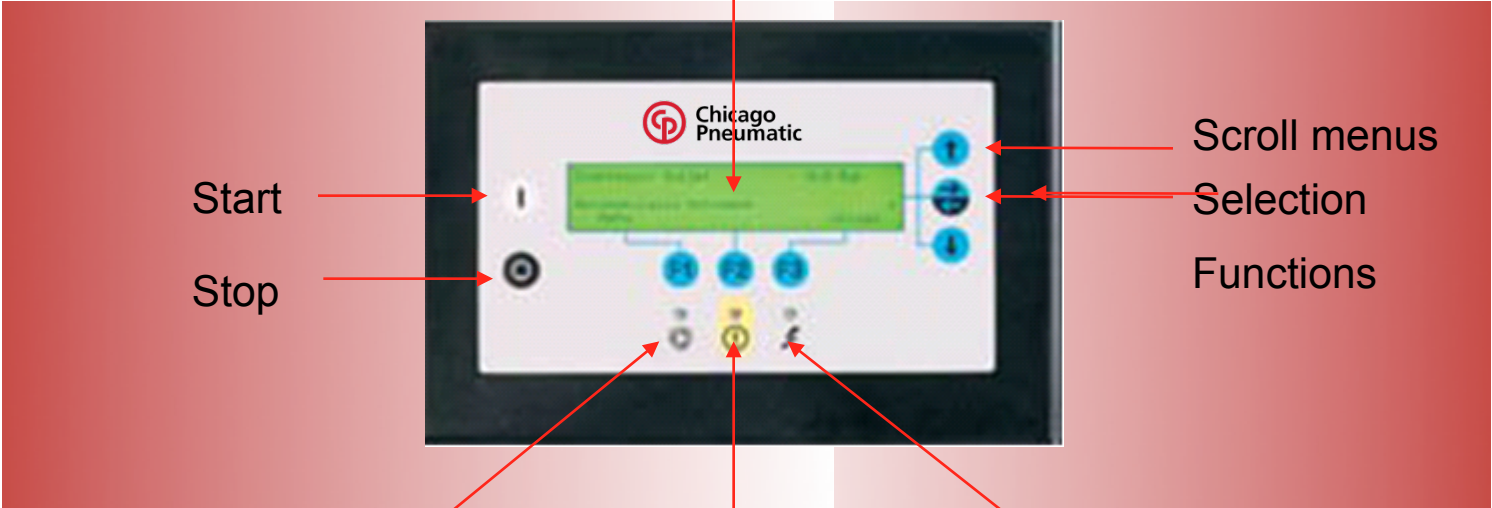
## Communication possibilities:

- CAN network (up to 4 compressors)



# Advanced controller for optimum efficiency

4 Line, LCD Display



Start  
Stop

Scroll menus  
Selection  
Functions

Automatic operation

General alarm

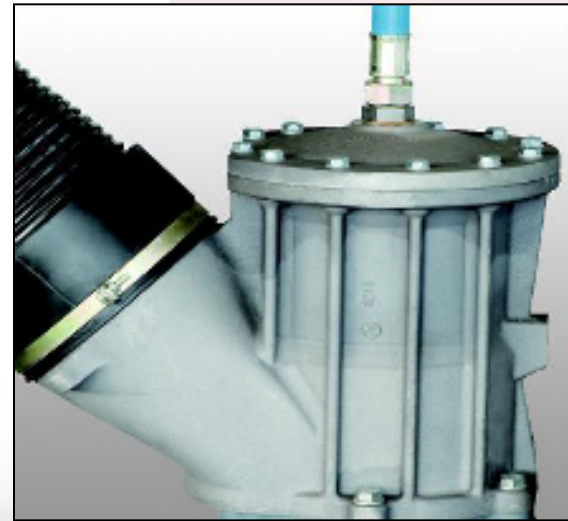
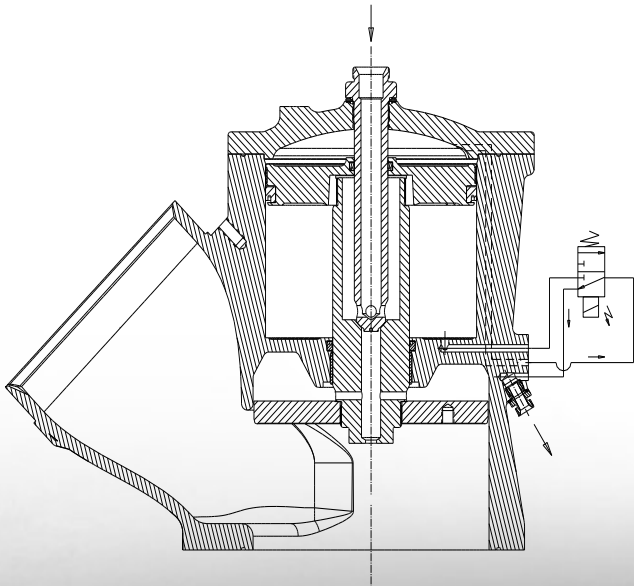
Voltage on

# Vacuum unloader

**Function : accurate regulation with a pneumatic suction valve**

## Built to last unloaders

- Simpler and less parts: valve housing, plunger, spring, seal rings and solenoid valve.
- Optimized design for accurate control
- Easy maintenance and improved lifetime (8000 hrs)





# Reliable oil separation system

Function = reliable oil separation for minimum residual oil at the outlet

- Efficient separation system
  - Oil separation by centrifugal forces
  - Oil carry over: less than 3 ppm
  - Easy replacement of the separation system
- Receiver approvals: CE, ASME

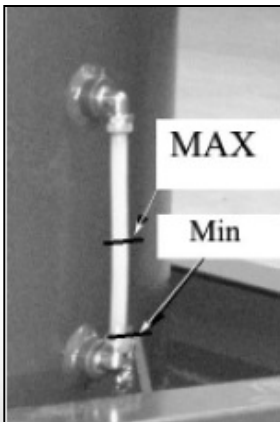


# Reliable oil separation system

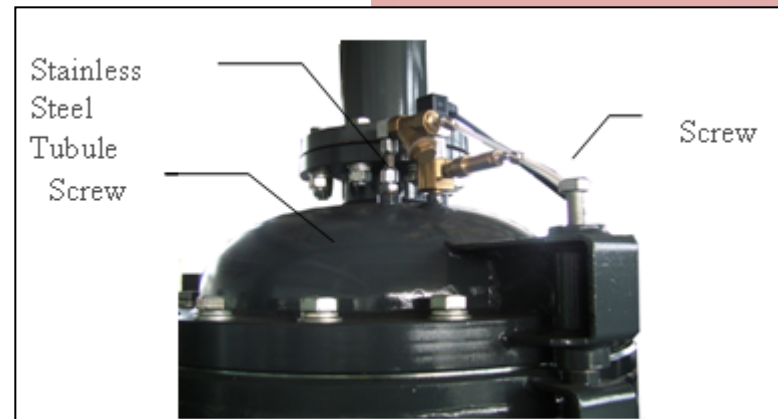
Function = reliable oil separation for minimum residual oil at the outlet

## Quick maintenance:

- Oil level indicator on the vessel
- Easy access to oil drains and filler plugs
- Oil separator element @ 4000 hrs



Easy visibility of the oil level

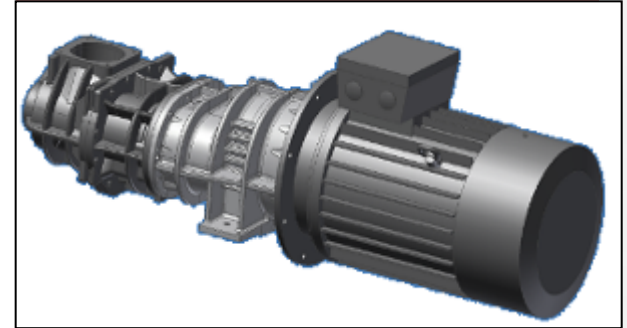


# Gear-drive transmission for total reliability

Function : energy efficiency and reliability over lifetime

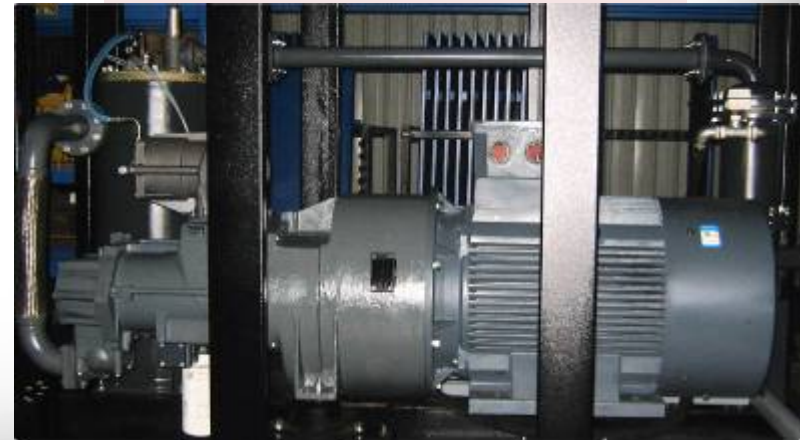
## Increased efficiency:

- 3% higher efficiency compared with belt driven machine
- No loss in a long term running



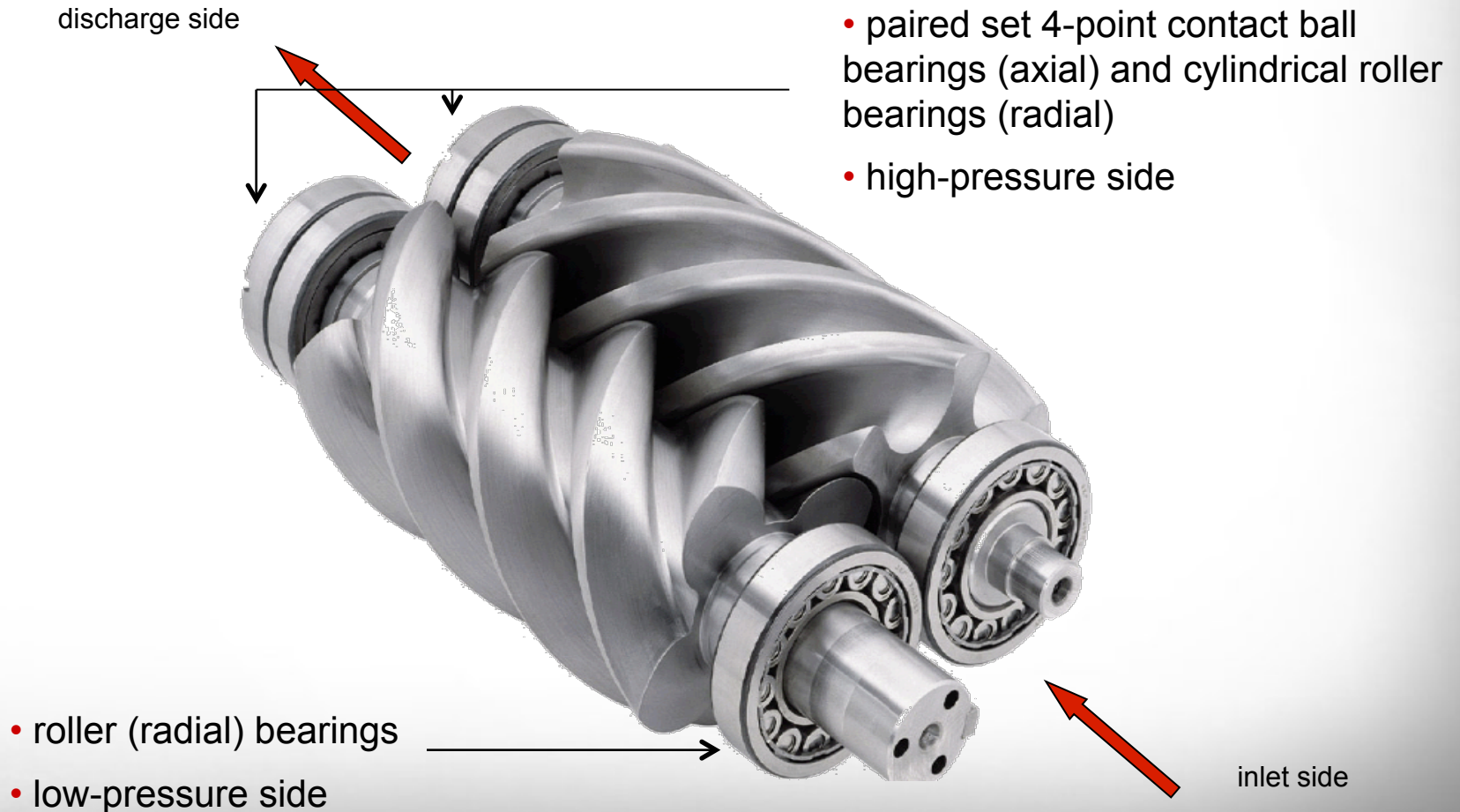
## Total reliability over time:

- No risk of misalignment
- Increase lifetime of the element (the most expensive component in a compressor) thanks to anti-vibration pads
- Reduced maintenance costs. No periodic change



# High efficiency element

Function : deliver the most compressed air at minimum energy consumption



# High efficiency element

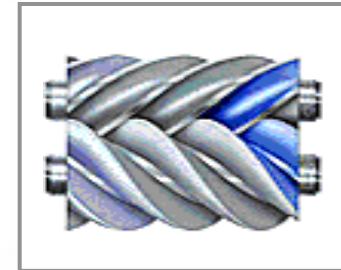
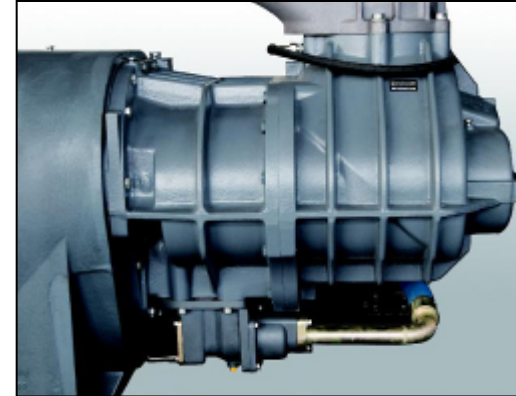
**Function : deliver the most compressed air at minimum energy consumption**

## High level of reliability:

- Highest industrial grade material use on the rotors, bearings and housing
- Oil injection flow for long operating life

## Energy efficiency:

- Low speed air end for delivering more compressed air at same power
- State of the art technology with minimum specific energy requirement

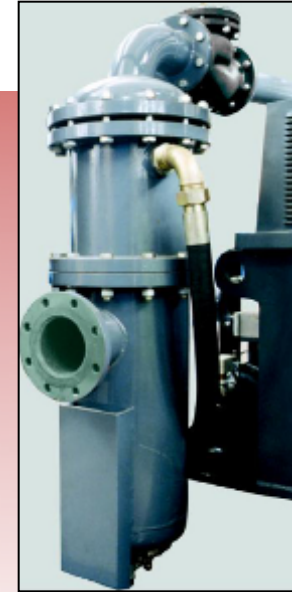


# Water separator for high air quality

**Function : ensure water is removed from compressed air**

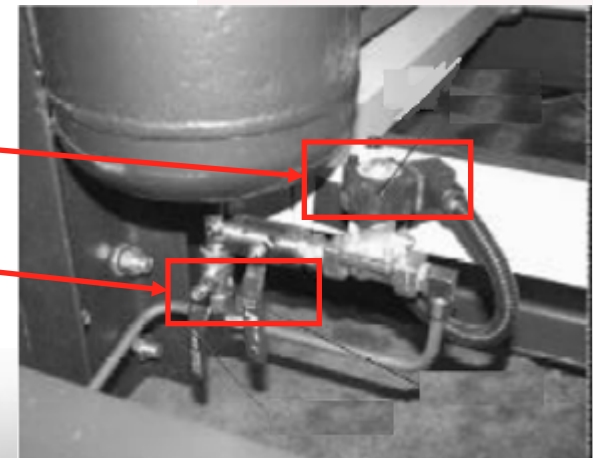
## Separator fitted as standard

- Mounted as standard after the cooler system: no need for additional cost for external condensate treatment
- Protect the reliability on the customer installation: air in contact with products is clean and dry.



## Cyclonic separator

- Automatic drain (solenoid valve) or
- Manual drain (ball valve)
- Protect the work environment





# Cooling system: Tube-in-shell heat exchanger

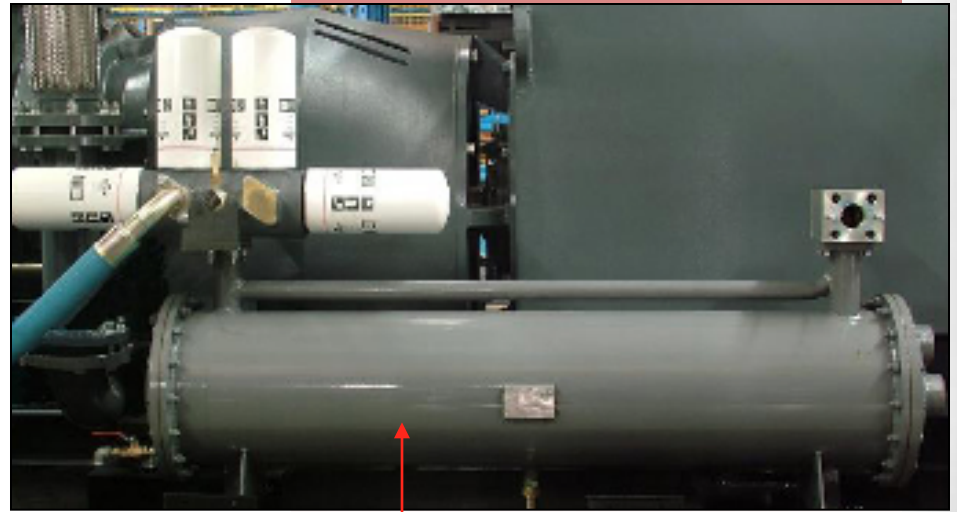
Function: integrated water cooling system for improved operating temperature

## Long life solution

- Tubular system
- Simple, easy to maintain and repair
- Large exchange surface
- High thermal efficiency rate

## Technology that fulfills the needs:

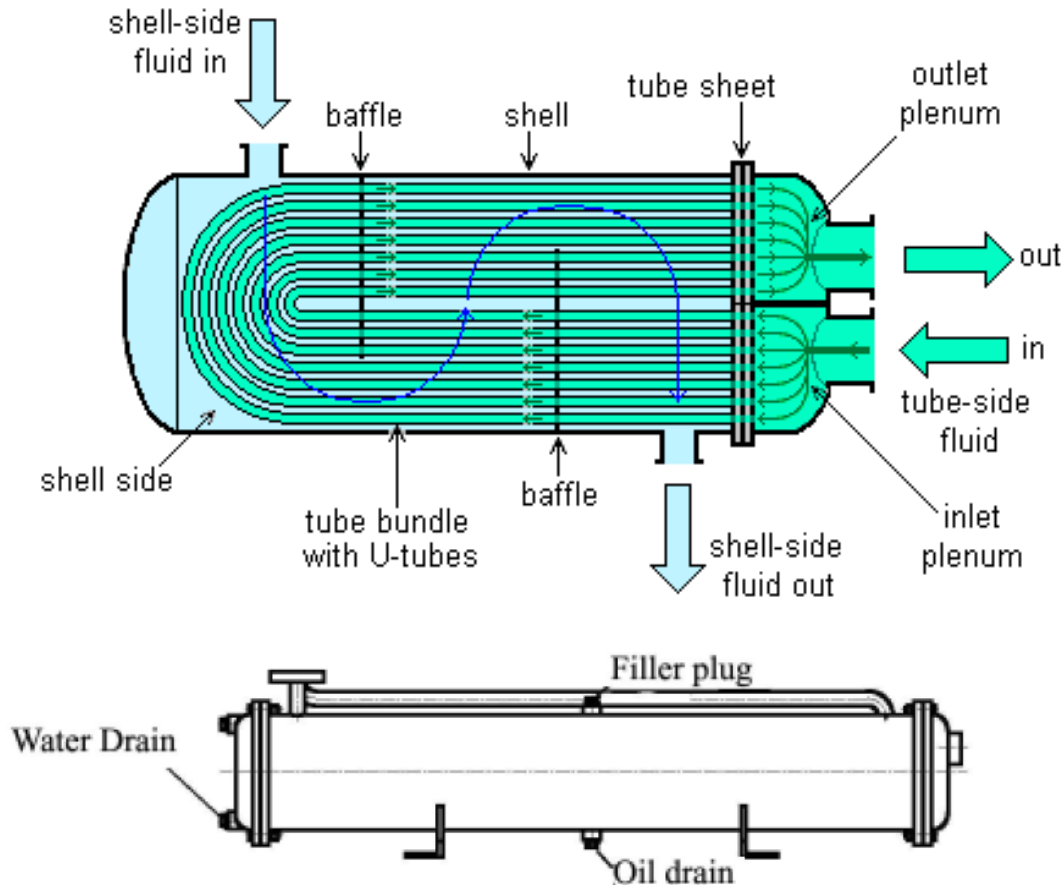
- Proven technology
- ASME certified pressure vessel
- Compact solution – no separate cooling for compressed air required
- Fulfills requirements for fluid under pressure, and system with temperature variation



Water-cooled heat exchanger

# Cooling system: Tube-in-shell heat exchanger

**Function: integrated water cooling system for improved operating temperature**



## High efficiency tube-in-shell cooling system:

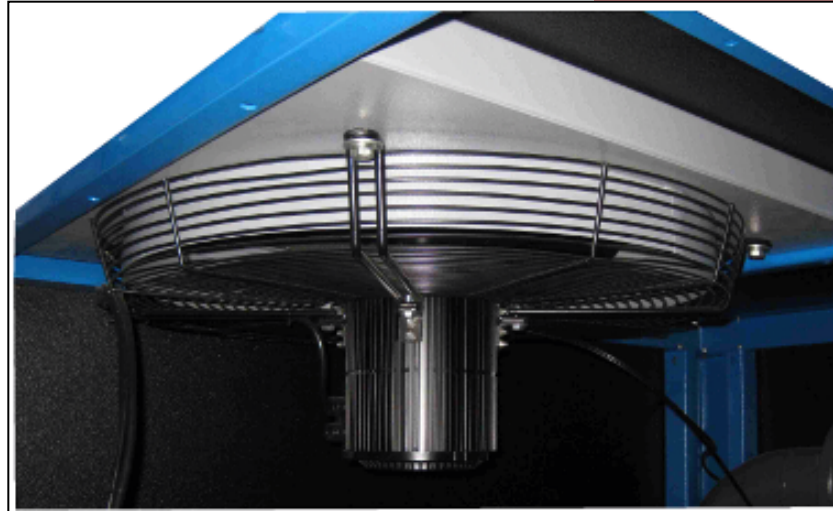
- Saves customer floor space
- Easy to clean
- No need for additional cooling of compressor air
- 2" inlet/outlet connections

## Water drain tap:

In the winter, the water must be drained to protect the system from freezing. 1/2" connection.

# Cooling system: optimal air ventilation

Function: large axial fan for optimized cooling flow



Improved efficiency (low energy consumption fan motor)

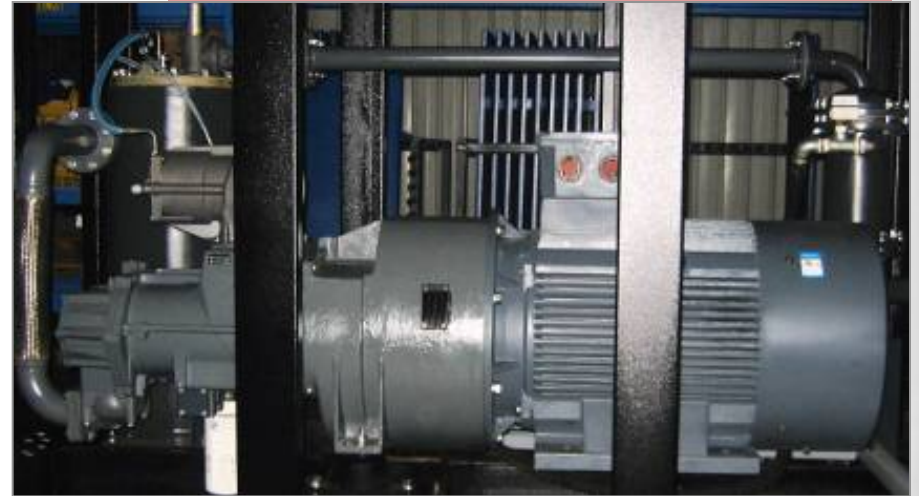
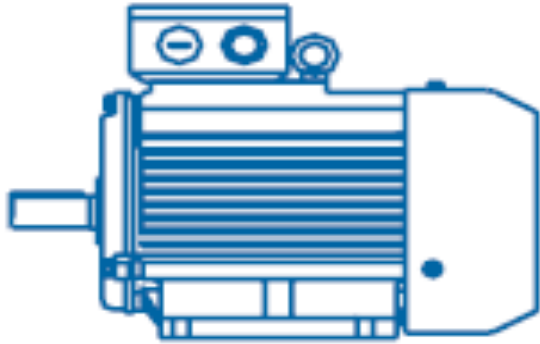
Easy maintenance and cleaning

Low noise level

Optimal ventilation capacity

# High efficiency motor

Function: motor with high efficiency and reliability



Internal fan increase motor cooling capacity

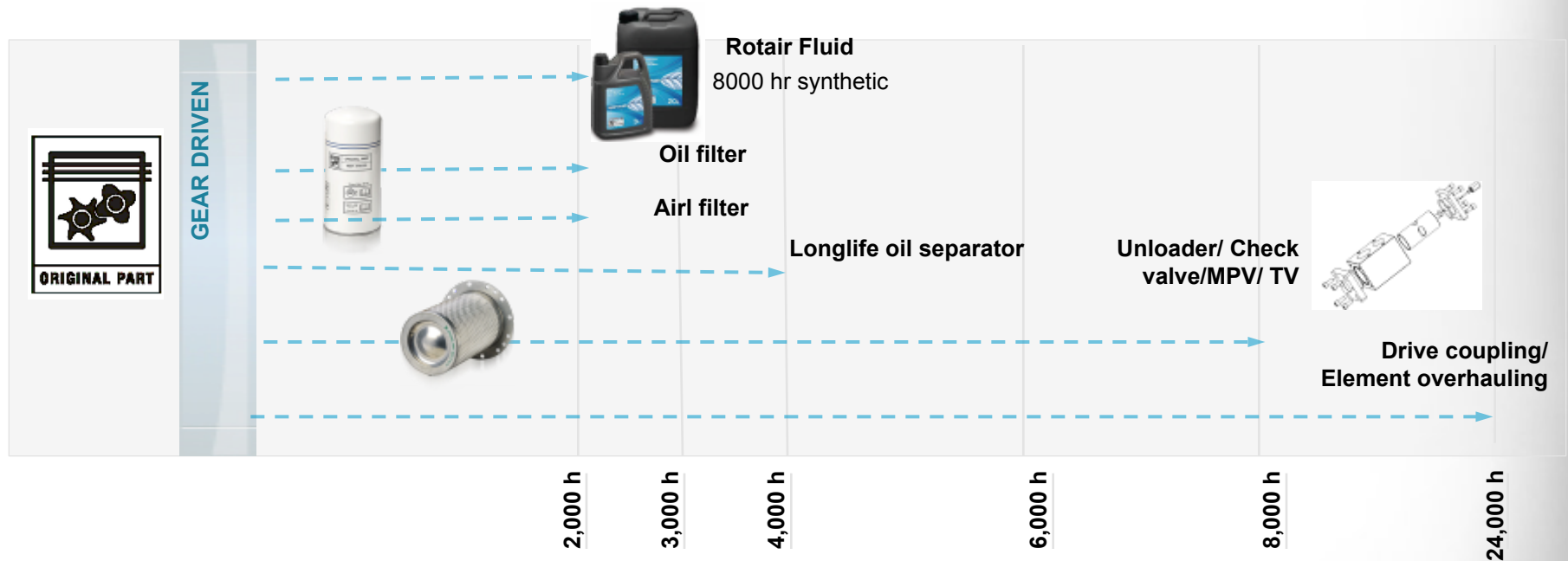
High efficiency motor with efficiency ratio @ 0.95.

4 pole motor, SF= 1.15

CE and UL approved

# Life cycle cost

Function : clear maintenance schedule to keep max efficiency over lifetime



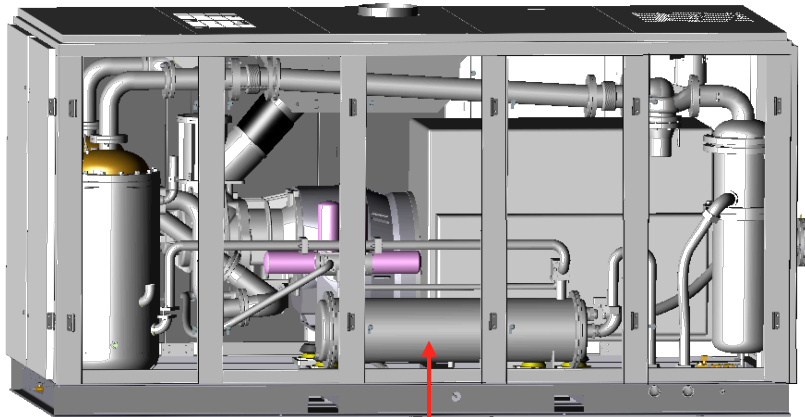
Service kits for easier management

Identifier parts: original and qualified components

Schedule given in the electronic controller

# Quick maintenance / repair

Function: increase production time, save labor hours



Easy access panels on the front



Easy access panels on the front



# Summary: key benefits

**Function: provide a world-class compressor for our customers**

- Reliable and time-proven compressed air system
- Advanced electronic microprocessor for optimized management
- High efficiency cooling system for low operating temperatures
- Energy savings: low energy consumption and ability for energy recovery system
- Easy to install with simple connections for compressed air and electrical supply
- Low noise level reduces worker fatigue and protects the environment
- Easy to maintain and small footprint saves operating costs





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Pneumatic