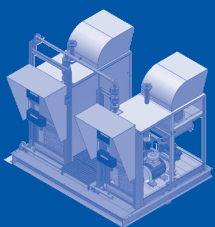
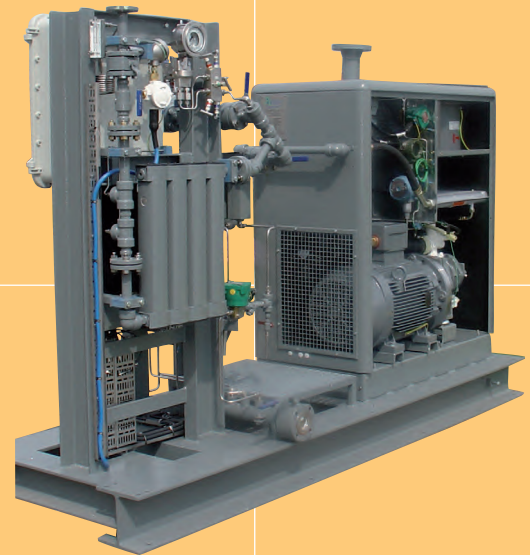
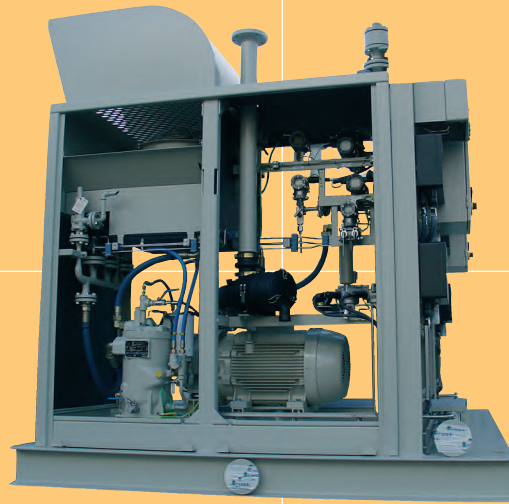


# oil flooded screw compressors



# oil flooded screw compressors

## AIR COMPRESSOR PACKAGES WITH OIL FLOODED SCREW COMPRESSORS

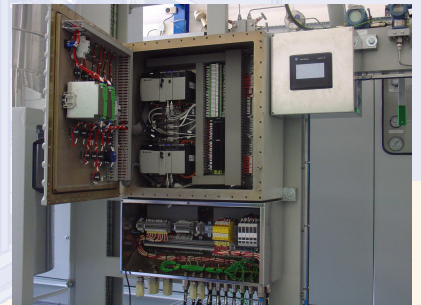
Screw compressors operate on the principle of positive displacement. Each screw compressor consists of a male and female screw. The male screw with driven shaft drives the female screw. For lubrication and cooling, oil is injected during compression. As the cooling takes place during the compression the discharge temperature can be maintained around 100°C, which results in a higher efficiency.

Each compressor is provided with an oil/air cooler in order to keep the temperature at 100°C in order to avoid condensation during the compression. An after cooler is placed downstream the compressor to cool the compressed air to a workable level and to condensate the surplus of water in the air. A separator with auto drain is mounted downstream the cooler. The cooler can be air- or water cooled.

Each oil free rotary screw compressor is designed specially according to customers specifications and applicable climate conditions (e.g. hazardous area, very low or high ambient temperatures, offshore environment).

To decrease the total investment costs and to increase practical use of an oil flooded screw compressor versus an oil free screw compressor, the following items should be considered:

- **Combination with dryer:**  
Higher pressure and capacity (maximum pressure of an oil free screw compressor is 10 bar(g)).
- **Ambient conditions:**  
An oil free screw compressor should not be applied in an earthquake sensible area or in a high ambient temperature environment, because of its small tolerance opening between the touch free screws.
- **Capital investments:**  
Considerable lower for oil flooded screw compressors.
- **Reliability:**  
Oil flooded screw compressors are better heat resistant.
- **Space requirements:**  
Due to the small air end (compressor block) space requirements are kept to a minimum.
- **Nitrogen production:**  
For nitrogen production oil free air must be applied (breathing air quality: Class 1 of ISO 8573). Oil free screw or centrifugal compressors should be applied. Above a pressure of 10 bar(g) oil free piston compressors are the correct choice.



### AIRPACK OPTIONS

- Compressor drive by LV, MV or HV electric motor, diesel engine or turbine
- Stainless steel components like enclosure panels, oil system, process piping, coolers and separators (e.g. offshore applications)
- ATEX explosion proof, suitable for operation in Zone 1 or Zone 2 environment
- Control by redundant and/or SIL certified PLC with HMI (human machine interface) for operation via touch screen
- Hydrogen Sulfide (H<sub>2</sub>S) compressor intake filters
- Winterization enclosure, for extreme low temperatures (-45°C)
- Tropicalization for extreme high ambient temperature up to 60°C
- Control by DCS (distributed control system)
- Vibration monitoring system by 4-20 mA detectors or sophisticated Bently Nevada monitoring system
- Provision of complete closed cooled water system with water chiller (if required)

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## AIR COMPRESSOR PACKAGES WITH OIL FLOODED SCREW COMPRESSORS

The available oil flooded screw compressors are mentioned in the table below.

Model	Capacity [Nm <sup>3</sup> /hr] at working pressure			Cooling	Sound level [dB(A)]
	8	10	13		
COMP-6	33	29	22	Air	70
COMP-8	50	43	35	Air	72
COMP-10	71	64	55	Air	72
COMP-15	81	87	75	Air	74
COMP-20	144	124	102	Air	76
COMP-25	168	147	123	Air	76
COMP-30	201	171	147	Air	76
COMP-40	303	258	222	Air	76
COMP-50	360	324	267	Air	76
COMP-60	408	366	315	Air	76
COMP-75	546	468	408	Air	76
COMP-100	726	630	552	Air	76
COMP-125	942	822	720	Air	76
COMP-150	1104	978	852	Air	76
COMP-180	1398	1248	1068	Air	76
COMP-220	1674	1506	1302	Air	77
COMP-270	1956	1740	1542	Air	77
COMP-360	2350	1950	-	Water	72
COMP-400	2450	2250	1850	Water	73
COMP-460	2950	2550	2150	Water	74
COMP-520	3250	2850	2450	Water	75
COMP-575	3550	3150	2650	Water	76

*Special constructions can be offered on request.*



oiled screw  
compressors

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