





### Oil-free booster compression of oxygen

HAUG oxygen compressors are used as boosters to an on-site gas production plant. Oxygen is generated using a PSA-, VPSA- or membrane system. Depending on the process, the pressure from gas generation plant is either at atmospheric pressure (VPSA) or at around 4 bar (PSA). Depending on the application for which the oxygen is being used, the pressure has to be increased. This is achieved using a booster compressor.

The oxygen compatibility is ensured by high quality materials and a completely oil-free compression. The compression components that come into contact with the medium are specially selected and cleaned for operation with oxygen.

## Oil-free booster compression of nitrogen and air (CDA = Clean Dry Air)

HAUG nitrogen compressors are used as boosters to an on-site gas production plant or for a pressure increase from an existing nitrogen network pressure. As a result of the oil-free and gastight construction, contamination of the gas by oil or ambient air is excluded.

Oil-free compressed air booster compressors are used for a local pressure increase at the workplace. Raising the pressure locally saves energy and money. The central compressed air supply is operated at a lower pressure. Only a partial compressed air flow is compressed to the higher final discharge pressure by the booster compressor.



HAUG.Mercure compressors for oxygen compression								
	min. suction pressure in bar(abs)	average suction pressure in bar(abs)	max. suction pressure in bar(abs)	max. final discharge pressure in bar(abs)	Flow rate in Nm³/h at average suction pressure and motor speed of 1450 rpm	Motor power in kW		
HAUG.Mercure 21 E 45 LM-L	5.0	6.0	7.0	16	36.8	4.0		
HAUG.Mercure 21 E 60 LM-L	4.0	5.0	6.0	11	58.9	4.0		
HAUG.Mercure 21 E 60 LM-L	5.0	6.0	7.0	16	68.0	4.0		
HAUG.Mercure 22 E 60-40 LM-L	4.0	5.0	6.0	26	28.3	4.0		
HAUG.Mercure 22 E 80-45 LM-L	1.0	1.2	1.4	11	11.4	4.0		

HAUG.Mercure compressors for compression of nitrogen and air							
	min. suction pressure in bar(abs)	average suction pressure in bar(abs)	max. suction pressure in bar(abs)	max. final discharge pressure in bar(abs)	Flow rate in $Nm^3/h$ at average suction pressure and motor speed of 1450 rpm	Motor power in kW	
HAUG.Mercure 21 E 45 LM-L	6.0	8.0	10.0	16	52.1	4.0	
HAUG.Mercure 21 E 60 LM-L	6.0	8.0	10.0	16	94.8	4.0	
HAUG.Mercure 22 E 60-40 LM-L	6.0	8.0	10.0	41	23.6	4.0	
HAUG.Mercure 22 E 80-45 LM-L	6.0	7.5	9.0	36	42.4	4.0	



# Oil-free recovery and compression of SF<sub>6</sub> gas

 $SF_6$  gas is a halogen compound which has a very negative impact on the environment. The greenhouse effect for  $SF_6$  is 23,900 times as large as for the same quantity of  $CO_2$ .  $SF_6$  gas is one of the six greenhouse gases which are prohibited from freely escaping into the atmosphere. The harmful effect on the environment makes the safe and gas-tight use of  $SF_6$  an important issue for the whole society. It is absolutely essential to use gas-tight equipment and gas-tight processes in connection with  $SF_6$ .

HAUG  $SF_6$  compressors are used throughout the world by leading manufacturers of  $SF_6$  recovery plants for gas-tight and oil-free compression.

## Oil-free booster compression of natural gas and biomethane

HAUG biomethane and natural gas booster compressors are used to feed natural gas networks or to raise the pressure between two natural gas network lines. An alternative use is the storage and use of biomethane or natural gas in a gas motor or in a thermal power station. Thanks to their oil-free and gas-tight operation mode, HAUG compressors are perfect to compress efficiently the climate-harming methane without leaks.



HAUG.Mercure compressors for compression of SF <sub>6</sub> gas							
	min. suction pressure in bar(abs)	average suction pressure in bar(abs)	max. suction pressure in bar(abs)	max. final discharge pressure in bar(abs)	Flow rate in $Nm^3/h$ at average suction pressure and motor speed of 1450 rpm	Motor power in kW	
HAUG.Mercure 22 E 45-26 LM-L	1.0	5.0	9.0	51	13.5	4.0	
HAUG.Mercure 22 E 60-30 LM-L	1.0	3.0	5.0	51	13.6	4.0	
HAUG.Mercure 21 E 80 LM-L	1.0	2.0	3.0	5.0	40	4.4	

HAUG.Mercure compressors for booster compression of natural gas and biomethane							
	min. suction pressure in bar(abs)	average suction pressure in bar(abs)	max. suction pressure in bar(abs)	max. final discharge pressure in bar(abs)	Flow rate in $Nm^3/h$ at average suction pressure and motor speed of 1450 rpm	Motor power in kW	
HAUG.Mercure 21 E 45 LM-L	3.5	5.0	6.5	15	29.2	4.0	
HAUG.Mercure 21 E 60 LM-L	3.5	5.0	6.5	15	54.6	4.0	
HAUG.Mercure 22 E 45-26 LM-L	1.0	2.0	3.0	15	5.5	4.0	
HAUG.Mercure 22 E 60-30 LM-L	1.0	2.0	3.0	15	10.1	4.0	

#### **Headquarters Switzerland:**

HAUG Sauer Kompressoren AG Industriestrasse 6 CH-9015 St. Gallen Tel. +41 71 313 99 55 Fax +41 71 313 99 50 info@haug.ch www.hauq.ch

#### **Branch office Germany:**

HAUG Kompressoren GmbH Altenhasslauer Str. 23 DE-63589 Linsengericht Tel. +49 6051 97570 Fax +49 6051 975729 info@hauq.ch

#### **Branch office China:**

HAUG China No. 526, 3<sup>rd</sup> East Fute Road Pilot Free Trade Zone 200131 Shanghai, China Tel. +8621 5442 4551 sales-china@haug.ch

HAUG Sauer is a part of the worldwide Sauer Compressors Group www.sauercompressors.com

### HAUG.Mercure compressors — oil-free and gas-tight Power range 3.0—4.4 kW

The HAUG.Mercure series is used for gas recovery and booster compression of gases such as helium, SF<sub>6</sub>, oxygen, nitrogen and Natural gas, as well as for booster compression of compressed air.

HAUG.Mercure compressors have the electric motor in the gas compartment. Power is supplied to the electric motor through a gas-tight connection in the crankcase. This construction, developed by HAUG Sauer, provides a permanent gas-tight compression without leaks. This hermetically sealed and completely wear-free drive was first employed in the HAUG.Mercure compressor in 1990 and can be used for suction pressures up to 20 bar.

Through the use of special measures, the HAUG.Mercure compressor can also be used for dry and explosive gases such as Natural gas.

The HAUG.Mercure compressor can also be used for SF<sub>6</sub> gas and with scope of delivery "Incomplete" for OEM applications, with integrated cooler over the electric motor and a minimal pipework and instrumentation for integration in an OEM system.

The modular HAUG.Mercure compressor concept allows highly individual and cost-effective adaptation of the compressor configuration to the customer's requirements. This allows development of technically, commercially and energetically optimum solutions.

#### **Features**

- Complete oil-free piston compressor
- Gas-tight design with integrated motor
- Compressor block leak rate < 0.0001 mbar 1/s</p>
- Air-cooled
- Motor power from 3.0 to 4.4 kW
- Rotary speed range 970 to 1450 1/min
- Intake pressure max. 20 bar
- Final discharge pressure max. 100 bar
- Modular cylinder configuration with cylinder diameter up to 100 mm
- Version with 2 cylinders and 1- or 2-stages execution
- Maximum flow rate at atmospheric intake pressure ca. 30 m<sup>3</sup>/h
- Booster compressor version flow rate max. ca. 70 m³/h
- Scope of delivery version "Incomplete" with integrated cooler over the electric motor and minimal pipework and instrumentation for integration into an OEM system.
- Explosion-proof compressor version (conform with ATEX zone 2 externally)
- Very robust and long-lasting construction
- Compact and foundation-free installation
- Very quiet and hence suitable for installation directly at the workplace

