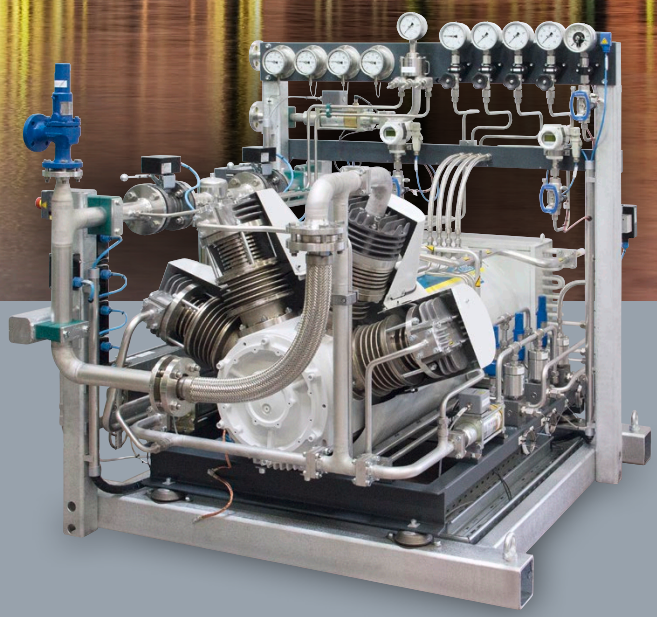
HAUG Sauer Compressors



Oil-free piston compressor

- 7.5 – 30 kW
- Suction pressure max. 16 barg
- Final pressure max. 100 barg
- Max. 400 – 1000 Nm^3/h
- Gas-tight with magnetic coupling

HAUG.Sirius

Dependable up to 500 bar – anywhere, anytime, anygas.

Haug twin-booster compressor system
HAUG.Sirius, 4 cylinder, air-cooled
(3000 x 2085 x 1850 mm, approx. 1700 kg)

1-stage version

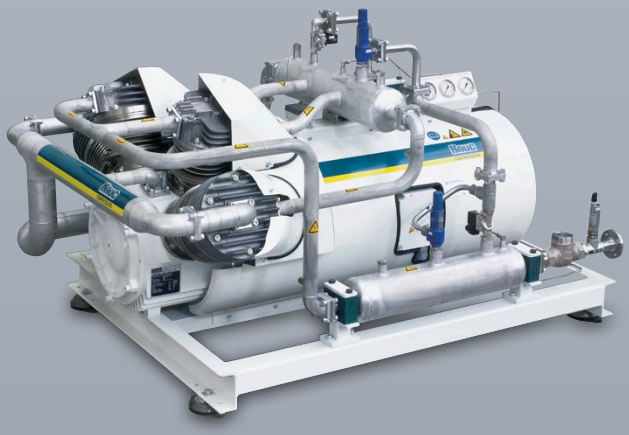
The 1-stage type is used in particular for high delivery rates. Suction pressure is selectable up to a maximum of 16 barg. The pressure ratio depends on the gas compressed and ranges from 3:1 to 8:1. The types used are always dependent on the gases to be compressed. The flow rate increases in proportion to the suction pressure. The maximum final pressure is about 60 barg for 1-stage design.

2-stage version

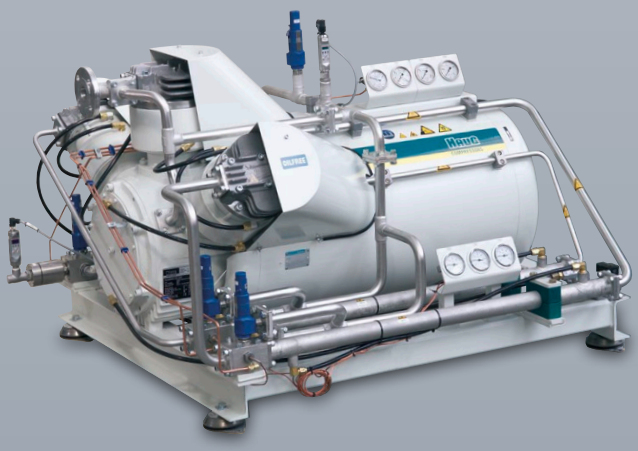
The 2-stage type allows pressure ratios of 9:1 to 30:1, depending on the gas compressed. Suction pressure can be selected up to a maximum of 16 barg. The 2-stage compression arrangement with intercooling improves efficiency and lowers compression temperatures.

3- and 4-stage version

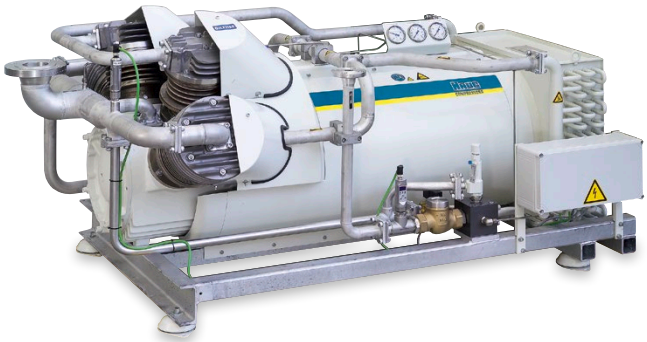
The 3-stage type allows pressure ratios of 27:1 to 90:1, depending on the gas compressed. This type is used in particular for storage of gases, such as natural gas, helium, hydrogen and air. For gases with high compression temperatures such as helium or for high delivery pressures a 4-stages compressor is being used.



HAUG.Sirius for C_3F_8 compression
4 cylinders, air-/water-cooled
(1800 x 1300 x 1100 mm, approx. 800 kg)



HAUG.Sirius for helium recovery
3 cylinders, 3-stage, water-cooled
(1600 x 1050 x 1100 mm, approx. 650 kg)



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-fee 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 gas-tight 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.Sirius 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.Sirius 21 G 100 LM-L	4.0	5.0	6.0	11	266	15.0
HAUG.Sirius 21 G 120 LM-L	4.5	5.3	6.0	11	386	18.5
HAUG.Sirius 31 G 120 LM-L	4.5	5.3	6.0	11	573	30.0
HAUG.Sirius 22 G 90-60 LM-L	4.0	5.0	6.0	26	104	11.0
HAUG.Sirius 42 G 90-60 LM-L	4.0	5.0	6.0	26	203	22.0
HAUG.Sirius 22 G 160-90 LM-L	1.0	1.2	1.4	11	76	15.0
HAUG.Sirius 42 G 160-90 LM-L	1.0	1.2	1.4	11	148	30.0

HAUG.Sirius 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 Nm³/h at average suction pressure and motor speed of 1450 rpm	Motor power in kW
HAUG.Sirius 21 G 120 LM-L	6.0	7.5	9.0	12	590	18.5
HAUG.Sirius 31 G 120 LM-L	6.0	7.5	9.0	12	877	30.0
HAUG.Sirius 21 G 100 LM-L	6.0	8.0	10.0	15	428	18.5
HAUG.Sirius 31 G 100 LM-L	6.0	8.0	10.0	15	635	30.0
HAUG.Sirius 22 G 80-50 LM-L	6.0	7.5	9.0	36	120	15.0
HAUG.Sirius 42 G 80-50 LM-L	6.0	7.5	9.0	36	235	30.0

Oil-free recovery and compression of SF_6 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.

HAUG.Sirius compressors for compression of SF_6 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.Sirius 21 G 90 LM-L	1.0	3.0	5.0	13.0	105	11.0
HAUG.Sirius 22 G 75-35 LM-L	1.0	3.0	5.0	51.0	34	11.0
HAUG.Sirius 22 G 90-40 LM-L	1.0	2.0	3.0	51.0	34	11.0
HAUG.Sirius 42 G 100-45 LM-L	1.0	1.8	2.5	51.0	76	22.0

Oil-free booster compression of natural gas and biomethane

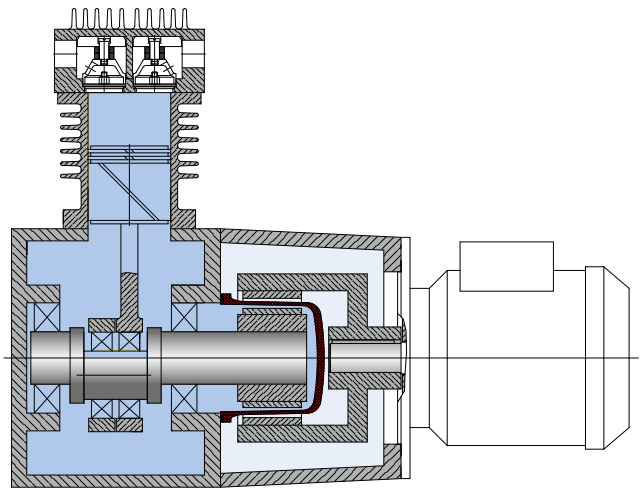
HAUG biomethane and natural gas booster compressors are used to feed natural gas networks or to raise the pressure between two natural gas network lines. An alternative use is the storage and use of biomethane or natural gas in a gas motor or in a thermal power station. Thanks to their oil-free and gas-tight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

HAUG.Sirius 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.Sirius 21 G 90 LM-L	5.0	6.0	7.0	17	240	15.0
HAUG.Sirius 21 G 120 LM-L	5.0	6.0	7.0	10	470	15.0
HAUG.Sirius 31 G 90 LM-L	5.0	6.0	7.0	17	360	22.0
HAUG.Sirius 31 G 120 LM-L	5.0	6.0	7.0	10	700	22.0
HAUG.Sirius 41 G 90 LM-L	5.0	6.0	7.0	17	480	30.0
HAUG.Sirius 41 G 120 LM-L	5.0	6.0	7.0	10	930	30.0

HAUG.Sirius with magnetic coupling

The HAUG.Sirius series has been used since 1973 for compression of air and gases and is a very mature compressor concept which, over the decades, has been continuously improved and developed. In the meantime, countless variants have been made available for different applications.

HAUG.Sirius compressors with magnetic coupling were developed by HAUG Sauer and provide compression of gases without leaks. This hermetically sealed and entirely wear-free drive was first employed by HAUG Sauer in a piston compressor in 1989 and can be used for suction pressures up to 16 bar.



Magnetic coupling

With the HAUG compressor design, a permanent leak rate of less than 0.001 mbar l/s is achieved

- Permanent, hermetic gas-tight compressors at standstill and in operation
- The hermetically sealed piston compressor is achieved by a magnetic coupling drive
- No wear of the sealing element
- No sealing gas
- No loss of energy

High suction pressure

- Suction pressure up to 16 bar
- Hermetically gas-tight, no gas loss and wearout
- Low energy consumption, better efficiency, lower power requirements
- Compact compressor

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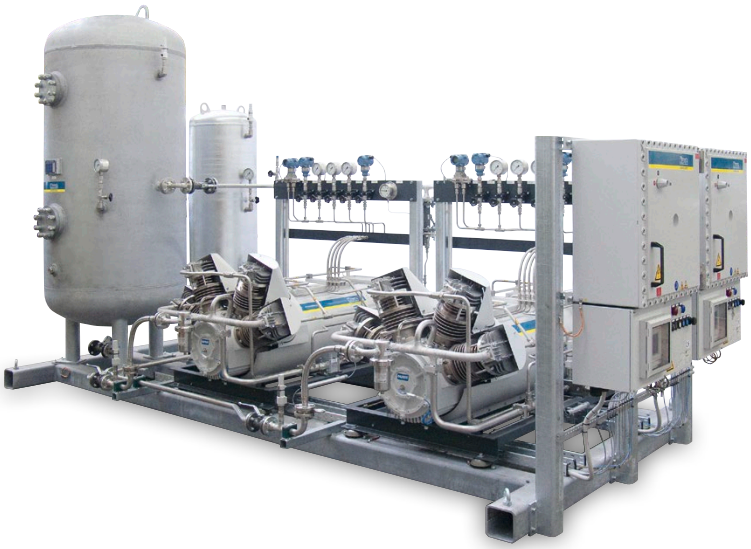

Compressor system for nitrogen booster compression in ATEX design

Features

- Complete oil-free piston compressor
- Gas-tight design with magnetic coupling
- HAUG.Sirius compressor block leak rate < 0.001 mbar l/s
- Air-cooled or water-cooled versions
- Motor power from 7.5 to 30 kW
- Rotary speed range 970 to 1450 1/min
- Suction pressure max. 16 bar
- Final discharge pressure max. 100 bar
- Modular cylinder configuration with cylinder diameter up to 180 mm
- Versions with 2, 3 or 4 cylinders with 1-, 2-, 3- or 4-stages execution
- Maximum flow rate at atmospheric intake pressure ca. 400 m^3/h
- Booster compressor version flow rate max. ca. 1000 m^3/h
- Explosion-proof compressor version (conform with ATEX zone 1 or zone 2)
- Very robust and long-lasting construction
- Compact and foundation-free installation