For a Reliable Compressor - Rely on Burckhardt Compression

Burckhardt Compression

Burckhardt Compression is one of the world's leading compressor manufacturers with more than 150 years of experience. Our products - your profit.

Labyrinth Piston Compressor (Laby®)

Design Features

- Oil-free compression
- Contact-free sealing of piston and piston rod
- Piston guidance by crosshead and guide bearing in the crankcase
- Simple and robust compressor design
- Suitable for long and uninterrupted service
- Large variety of standard units
- Discharge pressure up to 300 bar
- Flow up to 11'000 Nm3/h
- Shaft power up to 2'200 kW

Markets and Applications

Industrial Gas Applications

OXYGEN
- PSA/VSA air separation plants
- Cryogenic air separation plants

The contact-less sealing technique of the Laby® design guarantees highest possible safety when compressing oxygen.

NITROGEN
- Air separation plants

The Laby® with its labyrinth sealing elements easily compresses bone-dry gases.

CARBON DIOXIDE
- Applications such as production of ethylene oxide and ethylene glycol

CARBON MONOXIDE
- Applications in the production of acetic acid, polyurethane, polycarbonate, etc.

Labyrinth sealing elements as installed in the Laby® avoid gas decomposition.
The completely closed and, therefore, gas-tight crankcase of the Laby® keeps the toxic gas inside the compressor.

Boil-Off Gas Applications

The Laby® is particularly suited as a boil-off compressor for liquefied natural gas (LNG), liquefied petroleum gas (LPG), propylene, ethylene and other hydrocarbon gases.
- Outstanding reliability, very low maintenance, long intervals between overhauls
- Gas-tight design of the compressor crankcase
- Insensitive to sudden suction temperature changes; boil-off gas compressors for LNG receiving terminals are able to handle suction temperatures ranging from +40 to -160 °C.

LABY: Pressure at its Purest

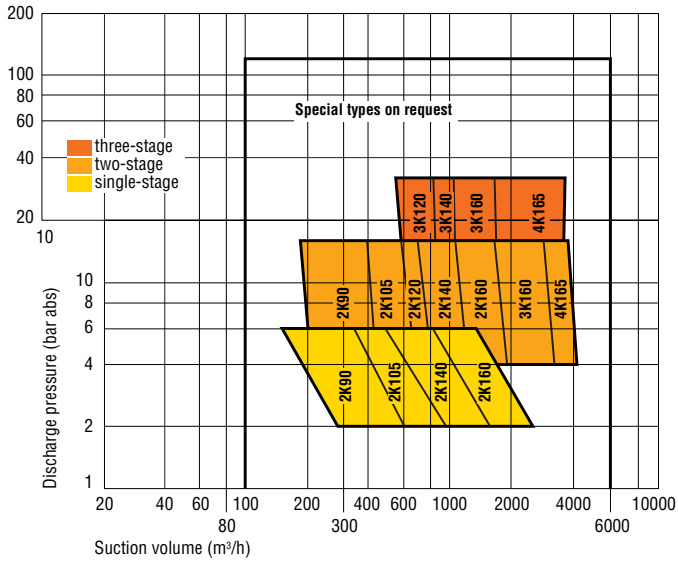
HPI Applications

PETROCHEMICAL INDUSTRY
- In many petrochemical plants recycle gases carry dust and other particles into the compressor which cause severe wear problems on ring sealing elements. The labyrinth seals in the Laby® are not affected by these impurities. Burckhardt Compression has experience with almost all processes known in the polypropylene and polyethylene market.
- The gas-tight Laby® without gas leakage to the atmosphere is the optimal solution for oil-free ethylene feed gas applications with suction pressures up to 25 bar.
- The Laby® is successfully used for special applications such as compression of fluorine-mixtures, VCM production, etc.

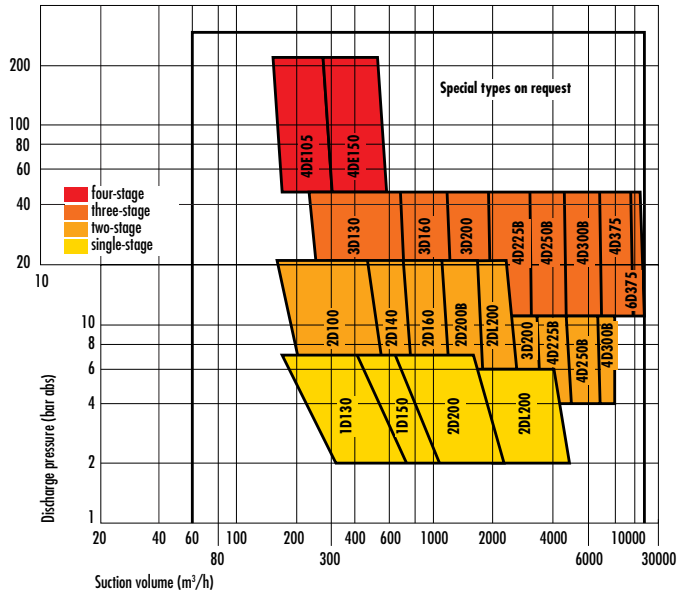
High-quality components for compressor servicing

Come to Original Equipment Manufacturer (OEM)Burckhardt Compression.
Burckhardt Compression's Total Quality Management system complies with ISO 9001:2000. All products and services meet predefined standards.

K-Type compressors
- Performance range based on diatomic gases with molecular mass between 10 and 50 kg/kmol
- Volume flow based on suction condition 1 bar abs, 20°C



D-Type compressors
- Performance range based on diatomic gases with molecular mass between 10 and 50 kg/kmol
- Volume flow based on suction condition 1 bar abs, 20°C



Process Gas Compressor

Design Features

- Oil-free or lubricated compression
- Vertical or horizontal balanced opposed design
- Single and/or double compartment distance piece
- Advanced tribological technology for oil-free applications such as hydrogen compression
- Large variety of compressor sizes
- Simple and robust compressor design
- According to API 618 specification
- Designed for long life and easy maintenance
- Discharge pressure up to 1'000 bar
- Flow up to 100'000 m^3/h
- Shaft power up to 9'700 kW

Markets and Applications

Industrial Gas Applications

- Hydrogen compression for bottle filling, pipelines and other applications
- Carbon dioxide
- High pressure air for process applications

Hydrocarbon Processing Industry (HPI)

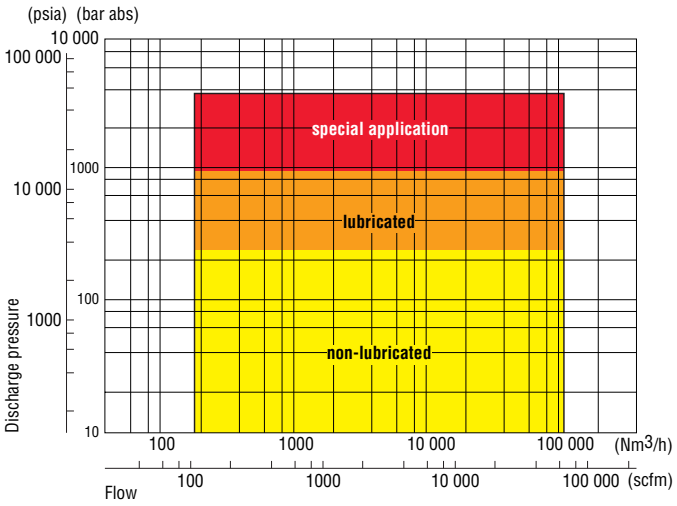
OIL AND GAS
- Gas re-injection for special applications (corrosive gases, low speed requirements, etc.)

REFINERIES
- Hydrogen and hydrogen mix gases for hydro processing, including HDS

PETROCHEMICAL INDUSTRY
- Process applications for hydrocarbon gases
- Booster/primary compressors for low density polyethylene (ldPE) plants

CHEMICAL INDUSTRY
- Difficult gas applications such as chlorine, hydrogen chloride, hydrogen sulfide, etc.

Performance range of Burckhardt Compression reciprocating process gas compressors



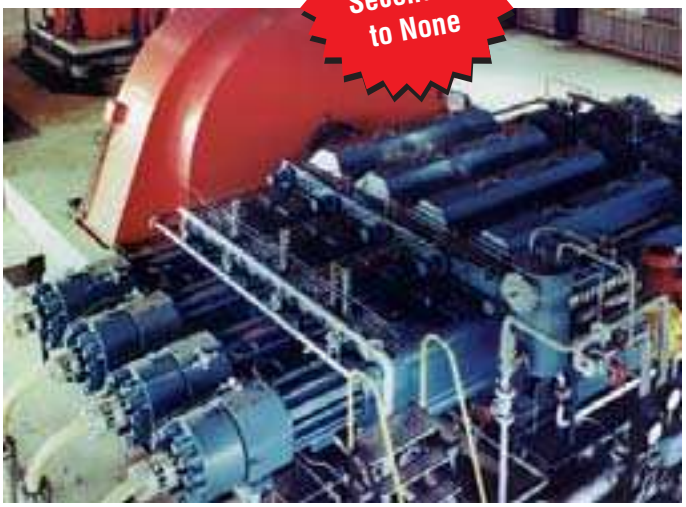
Hyper Compressor

Design Features

- Components designed for long lifetime and high safety requirements
- Easy maintenance
- High availability of compressor (crucial for continuous process operation)
- Auxiliary crosshead to assure safe operation and extended lifetime of high pressure packing
- Distance pieces avoid gas leakage to the crankcase
- Discharge pressure up to 3'500 bar
- Flow more than 100'000 Nm3/h
- Shaft power up to 35'000 kW

Markets and Applications

- Petrochemical industry for low density polyethylene (ldPE) plants



Valves and compressors from the same supplier

Burckhardt Compression ensures long and trouble-free operating times by manufacturing the appropriate valves:

Burckhardt Compression valves
- For clean and dry gases, frictionless valve plate guiding, various materials available

Manley® valves, licensed by Burckhardt Compression
- For gases bearing liquid or hard solid particles, various materials available

Burckhardt Compression is your partner for all crosshead piston compressors in the field of oil refining, chemical and petrochemical industries, air separation, as well as gas transport and storage.

Up-dated addresses and further information:
www.burckhardtcompression.com

Your Local Partner

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20.15.14.40 - 30 Printed in Switzerland