Burckhardt Compression is one of the worldwide market leaders in the field of reciprocating compressors and the only manufacturer that covers a complete range of reciprocating compressor technologies. Its customized compressor systems are used in the upstream oil & gas, gas transport and storage, refinery, chemical, petrochemical and industrial gas sectors. Burckhardt Compression's leading technology, high-quality compressor components and the full range of services help customers to minimize life cycle costs of their reciprocating compressor systems around the world. Since 1844 its highly skilled workforce has crafted superior solutions and set the benchmark in the gas compression industry.

**WORLDWIDE PRESENCE**

- Worldwide 24/7 service network
- Whenever you need support, you get it

**IN-HOUSE EXPERTISE**

With hundreds of references, Burckhardt Compression has continuously improved the technology and components of Standard-High Pressure Compressors. Thanks to in-house engineering and manufacturing the high quality equipment and components guarantee longest MTBO (mean time between overhaul).
GAS TRANSPORT & STORAGE

- BOG handling
- Fuel gas injection (dual fuel engines)
- Bio Gas processing
- NGV/CNG refuelling stations
- Seismic research

INDUSTRIAL GASES

- Air compression & separation
- Bottling plants for industry gases
- Hydrogen
- Nitrogen
- Helium recovery systems
- Argon
- Natural Gas
- Electrolysis plants

H₂ He CH₄ N₂ Ar
CU compressor meeting high safety standards in a hydrogen bottling plant
STANDARD HIGH-PRESSURE COMPRESSOR
COMPACT PACKAGE FOR DEMANDING APPLICATIONS

Standard High-Pressure Compressors from Burckhardt Compression guarantee highest operational efficiency. Thanks to leading technology and in-house manufactured components, our customers can put their full trust in our highly reliable compressor systems. The variety of gases handled by our Standard High-Pressure Compressor, which includes critical and extremely light gases, makes it a powerful and unique solution.

NO GAS LOSS FOR SAFE AND ECONOMIC OPERATION

- No gas loss to the atmosphere, gas tight even for very light gases

HIGHER EFFICIENCY

- Low pressure ratio per stage
- Compression up to six stages for high pressure

IN-HOUSE COMPONENT MANUFACTURING

- High quality of components, developed and manufactured in-house, ensures longest MTBO and highest availability

MANIFOLD BENEFITS

- Trunk piston design for low spare part consumption
- Selection of materials, technology
- Handling of critical gases, many installations
- Reliable self-standing, small footprint

CERTIFICATIONS

Standard High-Pressure Compressors can be supplied with the following certifications:
- MD, PED, ATEX and CE
- KHK for Japanese market
- Gost and RTN
- Marine standard (DNV/GL, LR or equivalent)
- Others
DESIGN FEATURES
DEPENDABLE COMPRESSOR FOR DEMANDING APPLICATIONS

KEY COMPRESSOR COMPONENTS – FOR BEST PERFORMANCE AND LONGEST LIFETIME

PISTON RINGS
- Specially designed for high pressure
- Metallic for optimum cylinder lubrication and to limit the oil content in discharge gas
- Non metallic for special cases

CONCENTRIC VALVES
- Combined suction and discharge
- Compact in size
- Easy to assemble and dismantle
- Metallic/non metallic internals

SMALL END BEARINGS
- Cylindrical roller bearings/sleeve bearings with high reliability

SEALS
- Pressure-tight and pressure-relieved
- Oil seal for low suction pressure application
- Mechanical seal for high suction pressure application
- Available in two versions
- No gas loss

MAIN BEARINGS
- Specially designed journal type for H₂ application with high suction pressure
- Angular contact double roller bearings for other applications
STANDARD HIGH-PRESSURE COMPRESSORS

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– Speciall y designed for high pres sure
– Metallic for optimum c ylinder lubrication and
  to limit the oil content in discharge gas
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  – No gas los s

MAIN BEARINGS
– Speciall y designed journal t ype for H 2  application
  with high suction pres sure
– Angular contact double roller bearings for other applications

CRANKCASE
– R obust and compact design
– Suitable for elevated suction pressure

CRANK SHAFT
– Dynamicall y balanced

LUBRICATION PUMP
– Highl y reliable
– L obe type
– Crankshaft-driven

IN-HOUSE DESIGNED AND MANUFACTURED MAIN PARTS – FOR HIGHEST RELIABILITY

CYLINDER
– Single acting
– Specially coated for longer ring life
– No liner required
– Air cooled or water cooled

PISTON
– Wide range of sizes

CONNECTING ROD
– High strength material

RUGGED DESIGN – FOR HIGHEST DURABILITY

CRANKCASE
– Robust and compact design
– Suitable for elevated suction pressure

CRANKSHAFT
– Dynamically balanced

LUBRICATION PUMP
– Highly reliable
– Lobe type
– Crankshaft-driven
PERFORMANCE RANGE
A BROAD PORTFOLIO FOR ALL YOUR APPLICATIONS

The above mentioned models are available from 2 to 6 stage compression, as per application suction parameters and according to compressor sizing.
COMPACT PACKAGE
AIR COOLED OR WATER COOLED

CU compressor package

CU compressor package

CT compressor package
EASE OF INSTALLATION

The compressors are supplied as skid-mounted, factory assembled packages. The compressor can be started just by connecting it to the inlet connection, outlet connection and power supply through a control panel.

1. Inlet connection
2. Outlet connection
3. Anti-vibration foot mounts

COMPLETE SOLUTION PACKAGE

Standard High-Pressure Compressors are standardized packages with a fixed configuration within four frames (CB, CC, CU and CT). With these four frames with standardized operating speeds and standardized scope of supply we meet every customer’s enquiries.
UNEQUALED SERVICE CAPABILITIES
FOR EVERY RECIPROCATING COMPRESSOR

**REQUIREMENTS & SITUATION ANALYSIS**
- Process Gas Compressor condition change
- Damaged parts/failure
- Worn out parts
- Troublesome parts
- Improved design to replacement parts with excessive wear
- Precarious or unsafe operating condition
- Maintenance or spare parts logistic scheduling

**EVALUATION**
- Root cause analysis/failure analysis
- Risk analysis
- Condition analysis
- Material analysis
- Feasibility studies
- FEA studies
- Non-destructive testing (NDT)
- Stock recommendations

**ENGINEERING**
- On-site, and/or in-house measurements of components
- Reverse engineering
- Retrofit
- Recalculation and dimensioning
- Engineering for repair procedures
- Material selection and sizing

**MANUFACTURING**
- Highest quality assurance
- In-house precision manufacturing of capital parts
- Fast track production upon request
- Reproduction (1:1 replacement incl. integration of latest quality standards)
- OEM guarantee

**FIELD ACTIVITIES**
- Extensive service network with our specialized field service engineers/troubleshooters
- Dismantling/Reassembly of parts
- Large parts stock
- Spare parts frame agreements
- Worldwide distribution and service center network
- Burckhardt e-shop™ spare parts identification and ordering system

**INTERACTION WITH CUSTOMER REGARDING SPECIFICATIONS AND SCOPE OF WORK**
INCORPORATING FULL DOCUMENTATION OF REQUIRED GUIDELINES AND STANDARDS (API 618/NACE ETC.) INCL. CERTIFICATION