

FULL RANGE OF SERVICES

FOR ALL RECIPROCATING COMPRESSORS



BURCKHARDT COMPRESSION

THOROUGH IN-HOUSE EXPERTISE ENSURING COMPREHENSIVE SUPPORT

Burckhardt Compression is one of the market leaders in the field of reciprocating compressors and the only manufacturer that offers a complete range of Laby® (labyrinth piston), Laby®-GI, Process Gas and Hyper Compressors.

Compressors often are crucial for high plant availability. For us as a leading compressor manufacturer, it is essential:

- to maximize your mean time between overhaul (MTBO)
- to minimize your downtimes
- that your compressors provide economic and reliable operation for decades

We support you with all services ranging from spare parts logistics to comprehensive overhauls for all brands of reciprocating compressors.

RESEARCH & DEVELOPMENT

Tribology incl. test beds
Finite element analysis
Mechatronics

SERVICES

Engineering services
Spare parts logistics
Revamps
Field service
Valve service
Component repair
Technical support
Monitoring and diagnostics
Training

MANUFACTURING

CAM in-house machining
Purchasing
Assembly
Test beds
Quality assurance

BURCKHARDT COMPRESSION'S ENHANCED SERVICE CAPABILITIES:

- Specialists with extensive OEM know-how
- Expertise in all specific fields of compression technology
- Solid experience with and therefore excellent support for demanding applications handling cryogenic, abrasive, corrosive, toxic or explosive gases and for applications with very high pressures up to 3'500 bara (50'000 psia)
- In-house engineering and manufacturing expertise and state-of-the-art analysis tools
- Since the 1990s, in-house tribology research conducted on our own test compressors in up-to-date laboratories using cutting-edge measurement equipment

Our solutions offer guaranteed maximum efficiency and durability.



COMPRESSOR DESIGN

Instationary fluid dynamics
Pre-sales support
Engineering analysis
Feasibility study
Selection and sizing
Pulsation and vibration studies
3D CAD
Compressor valves
Rings and packings

PLANT ENGINEERING

Contracting
Customer and standard specifications
Compressor and auxiliaries on modules
Cooling water system
Instrument and control, motors
PLC programming
Turn-key projects

COMPRESSOR SOLUTIONS – OEM WITH OVER 160 YEARS OF DESIGN AND MANUFACTURING EXPERIENCE

Burckhardt Compression is recognized as the global technology leader in the reciprocating compressor world. As an OEM with over 160 years of in-house experience in developing, engineering, and manufacturing compressors, we are committed to highest reliability and

best quality. Our four compressor product lines cover almost all applications for gas transport and storage, oil refining, petrochemical/chemical and industrial gas industries.



Laby® – Labyrinth Piston Compressor

Contactless labyrinth sealing for highest availability

- Unique contact-less labyrinth sealing technology
- Insensitive to particles and contaminated gases
- No contamination of the pure gas with abrasives or oil



Laby®-GI Compressor

Fully balanced reciprocating compressor with highest operational flexibility

- No vibrations due to the fully balanced design
- Non-complex compressor system for lowest maintenance costs and simple operation
- Flexible solution for a wide range of applications such as ME-GI, FSRU and LNG FPSO



Process Gas Compressor

API 618 – Designed for lowest life cycle costs

- Simple and robust compressor design
- Lubricated up to 1'000 bara (14'500 psia), non-lubricated up to 300 bara (4'300 psia)
- Designed for lowest life cycle costs



Hyper Compressor

For LDPE production – customers' choice since 1951

- Design with lowest number of cylinders in the market
- High quality key components designed for safe operation and long lifetime

KEY COMPRESSOR COMPONENTS – LATEST TECHNOLOGIES FOR BEST PERFORMANCE AND LONGEST LIFETIME FOR ALL RECIPROCATING COMPRESSORS



Always having the best MTBO in mind, we provide a wide range of in-house engineered top quality compressor components with OEM guarantee according to your application specific requirements and operating conditions:

- Valves: We offer three types of custom-engineered valves for your specific application:
 - Burckhardt Poppet Valve™
 - Burckhardt Plate Valve™
 - Manley® valve, licensed by Burckhardt Compression

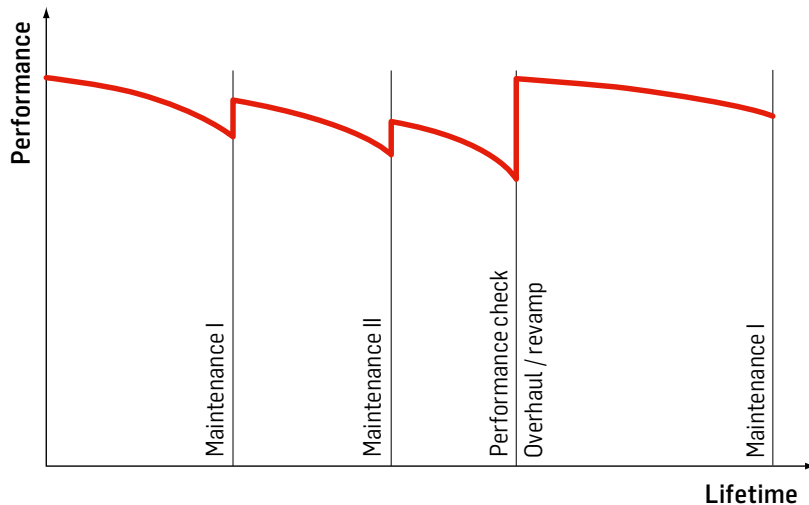


- Piston rings: various patented designs and materials
- Guide rings: pressure relieved
- Piston rod packings: application specific systems
- Packing rings: tribology research and laboratory tests
- Oil scrapers: application-specific material selection
- Hyper/secondary compressor parts: continuous development to optimize design

REDUCE OPERATING COSTS

FOR ALL YOUR RECIPROCATING COMPRESSORS

LIFETIME OF A COMPRESSOR



DOES YOUR COMPRESSOR STILL ACHIEVE THE EXCELLENT PERFORMANCE YOU REQUIRE?

BURCKHARDT VALVE SERVICE



Burckhardt Compression has over 120 years of experience in valve design and manufacturing and offers its own leading in-house valve technology.

- Analysis of valve condition
- Tracking of valve history
- OEM valve engineering
- Valve cleaning and overhauls
- Complete quality inspection
- State-of-the-art leak test
- Root cause analysis
- Corrosion protection

FAST VALVE SERVICE WITH EXTENSIVE GUARANTEE

SPARE PARTS LOGISTICS



Highest Swiss quality OEM spare parts guarantee lowest life cycle costs. Our state-of-the-art in-house technology is incorporated in all components.

- Original spare parts with OEM guarantee
- Spare parts frame agreements
- Stock recommendations
- Express service for emergencies
- Over 16'000 parts on stock
- 12 month guarantee
- Save time and money!
Use the Burckhardt e-Shop™ –
the easy spare parts identification
and ordering system

**OEM GUARANTEE AND
BEST LIFE CYCLE COSTS**

FIELD SERVICE



Our professional field engineers have gained their reciprocating compressor know-how over many years and have extensive expertise in each particular application. Fast servicing and the highest level of commitment are guaranteed.

- On-site assembly and installation
- Erection/commissioning
- High safety standards – SCC and HUET certified
- Turn-key installations
- Start-up support
- Service contracts/preventive maintenance
- Plant overhaul/revision
- 12 month guarantee

**ONSHORE AND OFFSHORE:
BENEFIT FROM OUR SKILLED
RECIP EXPERTS**

TECHNICAL SUPPORT



Our experienced compressor professionals provide technical support on a 24/7 basis. Quick answers and sustainable solutions are guaranteed.

- Performance analysis for optimized and efficient compressor operation
- Start-up support
- Troubleshooting
- Root cause analysis
- Emergency availability 24/7
- On-site failure analysis
- Online diagnostic support
- Consulting

**PROFESSIONAL SUPPORT
FROM OUR WELL TRAINED AND
EXPERIENCED SPECIALISTS**

COMPONENT REPAIR

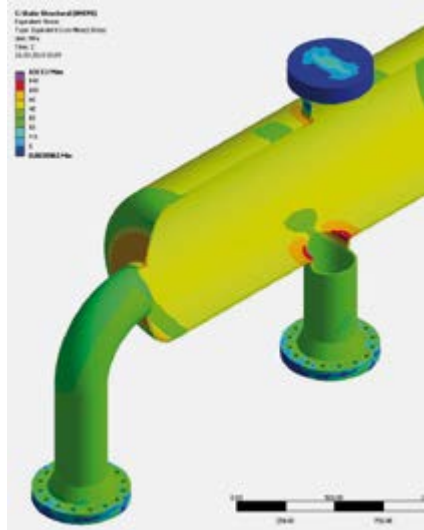


Our repair service with OEM background stands for high quality and rapid turnaround.

- Condition analysis
- Recommendations concerning which parts can be repaired or need to be replaced
- Incorporation of the latest technology where possible
- 12 month guarantee
- Repair of components, such as high pressure/low pressure packings, piston rod packings, high pressure lubrication pumps, guide bearings, crossheads, crankshafts, piston rods, cylinders

**SAVE MONEY AND GET
"AS NEW" GUARANTEE**

ENGINEERING SERVICES



Burckhardt Compression has over 40 years of experience in the field of structural analysis. With our latest in-house developed sophisticated sizing and analysis tools, we are able to provide mechanical and structural analysis from components to complete compressor systems, particularly in the event of new operating conditions and plant capacity increase.

- State-of-the-art pulsation and vibration analysis
- Finite element analysis
- Unique analysis models for high pressure application up to 3'500 bara (50'000 psia)
- Reverse engineering and reengineering for own as well as for other brand compressor systems
- Dynamic analysis for any compressor parts

**SOPHISTICATED IN-HOUSE
SIZING AND ANALYSIS TOOLS**

REVAMPS

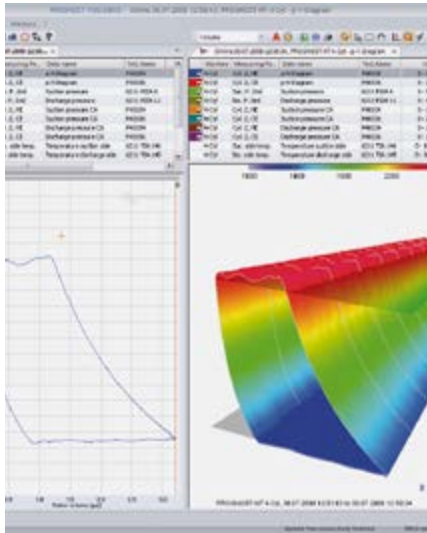


If your existing plant calls for productivity improvement, we are the reliable partner. Compressor revamps are carried out using the latest in-house technologies. We offer comprehensive service solutions: from logistics to commissioning.


- Modernizing
- Upgrades/retrofits
- Relocation of machines
- Debottlenecking
- Operation mode studies for own as well as for other brand compressor systems
- Lubricated to non-lubricated conversions
- Turn-key installations

**REJUVENATE OR TUNE
YOUR COMPRESSOR**

MONITORING & DIAGNOSTICS



Reciprocating compressors must operate 365 days per year without interruption and must maintain a high degree of efficiency. Avoid breakdowns and production loss and increase plant safety by using a qualified system for online condition monitoring and diagnostics.

- Support for system evaluation
- Comprehensive customized service from diagnostic service to predictive maintenance
- Full service agreements for maximum availability
- Data analysis from different compressors
- Broad experience due to compressor installations in various processes
- Online diagnostic services
- Burckhardt Compression recommends 

**MAXIMIZE RELIABILITY AND
EXTEND MEAN TIME BETWEEN
OVERHAUL**

COMPRESSOR TECHNOLOGY TRAINING



Visit our modern and fully equipped training facility in Switzerland. The workshop and assembly hall are located next door. Optimize your compressor operation and ensure plant safety.

- Theoretical and practical training from the compressor experts
- Full-size equipment (Laby®, Process Gas and Hyper Compressor)
- Standard trainings, customer specific programs on request

**HAVE YOUR OWN COMPRESSOR
SPECIALISTS**

YOUR BENEFITS FOR CHOOSING US AS YOUR SERVICE PARTNER

- Reduced operating and maintenance costs
- Minimized downtimes and longest MTBO
- In-house state-of-the-art sizing tools and latest technologies backed by our recognized OEM expertise for the best possible support and sustainable solutions
- Experienced support for compressors in demanding applications:
cryogenic, abrasive, corrosive, toxic or explosive gases and for applications with very high pressures up to 3'500 bara (50'000 psia).
- Extensive guarantees for spare parts, field service and component repair
- Our extensive service network enables us to offer a worldwide service, no matter where all your plants are located

RECIPROCATING COMPRESSORS

LEADING TECHNOLOGY FOR
LOWEST LIFE CYCLE COSTS

**Laby®
Compressors**
Contactless
and oil-free



**Laby®-GI
Compressors**
Fully balanced



**Process Gas
Compressors**
API 618 – lowest life
cycle costs



Hyper Compressors
Safe and reliable
up to 3'500 bara /
51'000 psia



**Standard
High Pressure
Compressors**
Compact package for
demanding applications



COMPRESSOR COMPONENTS

BEST PERFORMANCE
AND LONGEST LIFETIME

Compressor valves

Redura® rings & packings

Capacity control systems

Capital parts

Labyrinth piston compressor
components

Hyper/secondary compressor
components

SERVICES

THE FULL RANGE

Burckhardt Valve Service

Spare parts logistics

Field service

Technical support

Revamps & upgrades

Component repair

Condition monitoring &
diagnostics

Training

Burckhardt Compression AG

CH-8404 Winterthur

Switzerland

Tel.: +41 52 262 55 00

Fax: +41 52 262 00 51

24-hour emergency tel.: +41 52 262 53 53

aftersales@burckhardtcompression.com

www.burckhardtcompression.com

Your local contact

