



**Your partner for
hydraulic system solutions**



We offer premium hydraulic components worldwide for progressive solutions.

Dear Readers,

A warm welcome to our world of hydraulics. Hydraulics – as we all know – is the lore of liquid flow characteristics for signal, force and energy transmission. For us this means that we always work with the pressure of hydraulic oil. Not just from a purely physical perspective, but also with respect to new ideas and adaptation to our customers' wishes. We focus our ideas on market requirements.

Under the influence of our hydraulics a fluid that is normally quite harmless in a stagnant state, i.e. oil, is transformed into a tremendously powerful and constant force. We harness this power not only for our exceptionally durable products but also to ensure Bucher Hydraulics' long-term and steady existence as a company. The satisfaction of our customers and also of our employees is at the very top of our priority list.

As it is our goal to be attentive to our customers' needs at all times, we have built very close relationships and we jointly work to find target-oriented solutions. This approach provides us with an unparalleled precision in communications and in implementing the various projects. This in turn results in cutting-edge product developments that fully reflect current trends. We are able to guarantee unmistakable quality in all aspects from the design stage to actual production.

So come on in - and join our world of hydraulics.

With kind regards from
Bucher Hydraulics



Daniel Waller
CEO Bucher Hydraulics





Construction Machines

From pipe-rupture valves or travel brake valves to complete system manifolds, we develop tailor-made hydraulic drive and control systems for every function.



Conveyor and Hoist

Materials handling equipment is powerful and economical thanks to our tailor-made hydraulic control systems.



Municipal Equipment

Several problems can arise during the design and use of municipal equipment, problems that must be overcome. We work out solutions for municipal manufacturers.

Your field of activity – our competence

As an internationally leading manufacturer of mobile and industrial hydraulics, Bucher Hydraulics develops and produces customer and application specific hydraulic drives and controls. Bucher Hydraulics assures the required proximity to customers with its production facilities and Sales Centers in Europe, India, China, Brazil and the United States.



Renewable Energy

Our high level of competence and the great operational reliability of the individual components have proved their worth in wind energy plants world-wide.



Agricultural Technology

Modern agricultural machines are at work day and night and their operators demand very high levels of reliability and flexibility on the hydraulic drive and control system.



Machine Construction

Manufacturers of industrial machinery place particular importance on the low noise level and long service life of their products.



Elevator Construction

For their vertical transport needs, many elevator companies worldwide trust in the reliable hydraulic elevator valve from Bucher Hydraulics.

Construction Machines Bucher Hydraulics offers suitable standard hydraulic components for asphalt paver, road rollers, excavators, wheel-loaders and other equipment used in road construction and also engineered custom solutions for specific requirements. Typical examples are manifold blocks for lifting and lowering functions, air blower control or system solutions for hydraulic drives and other functions of work hydraulics.

Conveyor and Hoist Technology Bucher Hydraulics offers made-to-order system solutions for mobile cranes, fork-lifts, dumpster trucks, telescopic loaders, aerial platforms and handling machines. A wide range of products is available for these purposes: Hydraulic power packs, cartridge valves for directional, pressure, flow and check operations, directional seat valves for leak-free operation and directional spool valves for proportional control and on/off functions, flow-control valves, hydraulic motors, valve manifolds, electronic controls and cylinders.

Municipal Equipment Bucher Hydraulics' wide selection of hydraulic pumps, valves, hydraulic motors, valve manifolds and electronic controls is especially suitable for municipal vehicles and equipment with their many different applications. These hydraulic components and systems are used in attachment and erection equipment, snow and ice clearance gear, ride-on mowers, fire-fighting vehicles, wood shredders, garbage trucks, sewer cleansing machines, road sweepers or compost works.

Renewable Energy Bucher Hydraulics is a component supplier to the wind, solar and water power industry. Our cartridge valves, small power packs, internal gear pumps and cylinders have a respected reputation because of their high reliability in a harsh environment. These components with high efficiency factor are used in the hydraulic main supply system, pitch control systems and brake systems. All these components feature fast response times, a low noise emission, an extremely low maintenance requirement and a long life to meet the high standards in this industry.



Agricultural Technology Thanks to their optimized hydraulic compensation and precise hydraulic operational control, the large number of hydraulic components suitable for tractors, farm loaders, harvesters, crop and plant protection equipment, trailers and forest tools stand out due to their high total efficiency factor. Their design and the materials used to make them ensure excellent technical properties and great durability in rough conditions while achieving an optimal quality to cost ratio.

Machine Construction Bucher Hydraulics is particularly competent in developing internal gear pumps, cylinders and valve systems for automation and fulfills the requirements of the manufacturers of hydraulic presses, plastic injection machines, pressure die-casting equipment as well as paper and textile machinery and robotics. Our products excel due to their unbeatable stable operation and durability. Additionally, they are characterized by a low noise level, low flow and pressure pulsation rate and their high resistance to fluid contamination.

Elevator Construction Bucher Hydraulics' extremely reliable hydraulic components are used in many passenger and freight elevator applications in airports, railway stations, shopping malls, residential buildings and business facilities for heights of up to 25 m (82 ft) and payloads from 320 kg (705 lbs) to over 40 000 kg (88 200 lbs). They can also be used to modernize existing elevators and they provide architects with welcome creative latitude, for example the machine-room-free MRL systems, which solve space problems. All this equipment is even more impressive when you consider its low maintenance requirements, high energy efficiency, excellent cost to benefit ratio and the extremely comfortable ride for the passengers.



Let's talk about first-class products that support protecting (y)our environment.



Environmental Issues, Health and Safety at Work in Accordance with ISO 14001 A company's excellence becomes apparent wherever sales success is not only ostensibly a determining factor. Bucher Hydraulics avow themselves to environmentally conscious production methods and are committed to complying with standard guidelines. Amongst other things this entails reducing raw material, operating supply item and water consumption, handling hazardous substances in an ecologically acceptable manner, using energy efficiently, minimizing emissions and wastage as well as exercising precautionary measures taken by their emergency management team to prevent hazards and accidents.



ECOdraulics

The more intelligent solution

Bucher Hydraulics is rising to the challenge to strive towards an ecological present and future. Like every idea, ECOdraulics starts off as a concept and continues with everyone acting in a tangible and deliberate way. Our products comply with at least one of the following criteria:

- Reduced energy consumption
- Lower emissions, such as noise or lost heat
- Protection of the environment
- Optimization through system design

High quality standards from initial development through to flexible series production in accordance with ISO 9001.





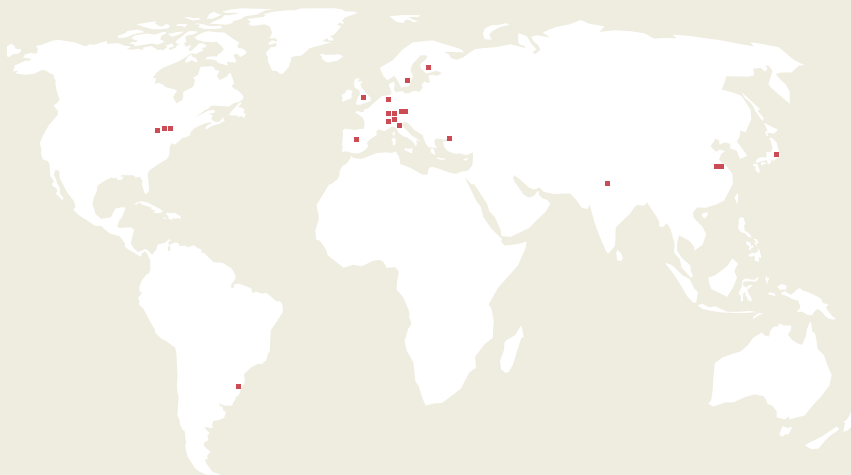
Bucher Hydraulics – At your service worldwide

Always a good address Our sales centers and distribution partners are particularly successful in finding solutions for you in conjunction with our competence centers in Europe, North America, South America and Asia. We offer you hydraulic systems, harmonized with your specific needs and requirements in all the different market places in mind.

Challenge us – around the globe!

Bucher Hydraulics
info@bucherhydraulics.com

For further information visit us at:
www.bucherhydraulics.com/contact



Pumps

Our Product Range

- External Gear Pumps
- Internal Gear Pumps
- Internal Gear Pumps (low viscosity)
- Metering Pumps
- Accessories

Features

- Add-on or integrated valve functions
- Multiple pumps also available with separate or common intakes
- Certified as compliant with ATEX, ABS, DNV, GL, LR, NK and many others

Advantages

- Low operating costs
- Excellent efficiency
- Very low noise level
- Can be used with flame-retardant liquids, fuel, biologically degradable and low viscosity fluids
- Insusceptible to impurities in the hydraulic fluid

| | Displacement | Operating Pressure | Displacement | Operating Pressure |
|-------------------------------------|----------------------------------|--------------------|---------------------------------|--------------------|
| External Gear Pumps | 0.25 - 93.0 cm ³ /rev | 250 bar | 0.02 - 5.8 in ³ /rev | 3 600 psi |
| Internal Gear Pumps | 5 - 500 cm ³ /rev | 320 bar | 0.3 - 30 in ³ /rev | 4 600 psi |
| Internal Gear Pumps (low viscosity) | 5 - 500 cm ³ /rev | 250 bar | 0.3 - 30 in ³ /rev | 3 600 psi |
| Metering Pumps | 3 - 500 cm ³ /rev | 250 bar | 0.2 - 30 in ³ /rev | 3 600 psi |



Motors

Our Product Range

- External Gear Motors
- Internal Gear Flow Dividers
- Internal Gear Motors (High Speed)
- Internal Gear Units (Pump/motor)

Features

- 1-, 2- and 4-quadrant operation
- Possible for applications with variable speed drives
- Add-on or integrated valve functions
- Suitable for special fluids and biologically degradable liquids

Advantages

- Up to 70 % energy saving
- Low operating costs
- Savings with emission protection measures
- Lower capital expenditure resulting from savings in valve technology and oil volume

| | Displacement | Operating Pressure | Displacement | Operating Pressure |
|-----------------------------------|---------------------------------|--------------------|------------------------------------|--------------------|
| External Gear Motors | 0.5 - 26 cm ³ /rev | 220 bar | 0.03 - 1.5 in ³ /rev | 3 600 psi |
| Internal Gear Flow Dividers | 5 - 250 cm ³ /rev | 250 bar | 0.3 - 15 in ³ /rev | 3 600 psi |
| Internal Gear Motors (Mobile) | 3 - 7 cm ³ /rev | 210 bar | 0.2 - 0.4 in ³ /rev | 3 000 psi |
| Internal Gear Motors (High Speed) | 20, 25, 32 cm ³ /rev | 240 bar | 1.2, 1.5, 2.0 in ³ /rev | 3 400 psi |
| Internal Gear Units (Pump/motor) | 5 - 500 cm ³ /rev | 320 bar | 0.3 - 30 in ³ /rev | 4 600 psi |



Please note that the figures in the blue type are U.S. units.

Valves

Our Product Range

- Pressure Valves
- Safety and Load Control Valves
- Check Valves
- Flow-control Valves
- Directional Spool Valves
- Directional Seat Valves
- Accessories

Features

- Cartridge, manifold-mounting, SAE-, sectional and monobloc construction
- Direct acting and pilot operated seat and spool designs
- Electrical, proportional, manual, hydraulic, pneumatic, explosion-protected

Advantages

- Compact designs for simple installation
- High power density with low pressure loss
- Activation types can be combined at will
- High operating reliability and stability under load
- Great durability with maximum performance values
- Simple to integrate in systems/valve manifolds

| | Flow Rate | Operating Pressure | Flow Rate | Operating Pressure |
|--------------------------------|-----------|--------------------|-----------|--------------------|
| Pressure Valves | 500 l/min | 700 bar | 130 gpm | 10 000 psi |
| Safety and Load Control Valves | 450 l/min | 500 bar | 120 gpm | 7 100 psi |
| Check Valves | 450 l/min | 1 200 bar | 120 gpm | 17 400 psi |
| Flow-control Valves | 420 l/min | 260 bar | 110 gpm | 3 700 psi |
| Directional Spool Valves | 420 l/min | 600 bar | 110 gpm | 8 600 psi |
| Directional Seat Valves | 420 l/min | 350 bar | 110 gpm | 5 000 psi |



Electronics

Our Product Range

- Electronic Control Units and Operating Mechanisms
- Remote Controls
- Amplifier and Control PCB's
- Accessories

Features

- Analogue or digital ECU's and operating mechanisms
- Micro controllers can be actuated with diagnosis and parameterization functions, PC interface, CAN-Bus and GPS compatibility
- Building block architecture with harmonized interfaces

Advantages

- A complete optimized program
- Simple, dependable operation
- Great reliability
- A fast and cost-effective total solution with no time-consuming or expensive hardware development

Hydraulic Components,
Electronic Components,
Joysticks, Terminals, Software



Please note that the figures in the blue type are U.S. units.

Cylinders

Our Product Range

- Boom Cylinders
- Axle Locking Cylinders
- Stabilizer Cylinders
- Dozer Blade Cylinders
- Suspension Cylinders
- Counterweight Cylinders
- Locking Cylinders
- Steering Cylinders
- Brake Cylinders
- Spring-Loaded Cylinders
- Lift / Tipping Cylinders
- Grab Cylinders
- Quick Couplers
- Metering Devices
- Cylinders for Tool Changer

Features

- Single- and double-acting cylinders
- Integrated valve functions and path measurement
- Nitrogen accumulator integrated in rod
- End position damping

Advantages

- High safety against leakage
- Consistent, temperature-independent gentle damping
- Use in harsh environments
- Long service life of bearings
- High profitability for the customer

Technical Data

| | | |
|-----------------------|-------------|-------------|
| Diameter Piston | 10 - 300 mm | 0.5 - 11 in |
| Diameter Rod | 10 - 300 mm | 0.5 - 11 in |
| Max. Stroke | 3 000 mm | 118 in |
| Max. Working Pressure | 1 000 bar | 14 000 psi |



Power Units

Our Product Range

- Electro Pumps
- Power Units

Features

- Pressure compensated and non-compensated pumps are run-in before final assembly of the complete power unit
- Integrated circuits for specific applications
- Compact design
- Conformity with a variety of international standards

Advantages

- High product reliability
- Compact
- Low noise emissions
- System modularity
- High efficiency

Power Units

| Displacement | 0.25 - 10.0 cm ³ /rev | 0.02 - 0.6 in ³ /rev |
|------------------------------|----------------------------------|---------------------------------|
| Pressure | 230 bar | 3 300 psi |
| Max. Pressure | 250 bar | 3 600 psi |
| 12 V DC e-motor power | 0.35 - 2.0 kW | 0.35 - 2.0 kW |
| 24 V DC e-motor power | 0.4 - 3.0 kW | 0.4 - 3.0 kW |
| 48 V DC e-motor power | 2.0 kW | 2.0 kW |
| 220 V/380 V AC e-motor power | 0.12 - 4.0 kW | 0.12 - 4.0 kW |
| Tank capacity | 0.5 - 18.0 l | 0.13 - 4.8 gal |

Electro Pumps

| Displacement | 0.25 - 10 cm ³ /rev | 0.02 - 0.6 in ³ /rev |
|-----------------------|--------------------------------|---------------------------------|
| Pressure | 210 bar | 3 000 psi |
| Max. Pressure | 250 bar | 3 600 psi |
| 12 V DC e-motor power | 0.35 - 1.7 kW | 0.35 - 1.7 kW |
| 24 V DC e-motor power | 0.4 - 2.2 kW | 0.4 - 2.2 kW |
| 48 V DC e-motor power | 2.0 kW | 2.0 kW |



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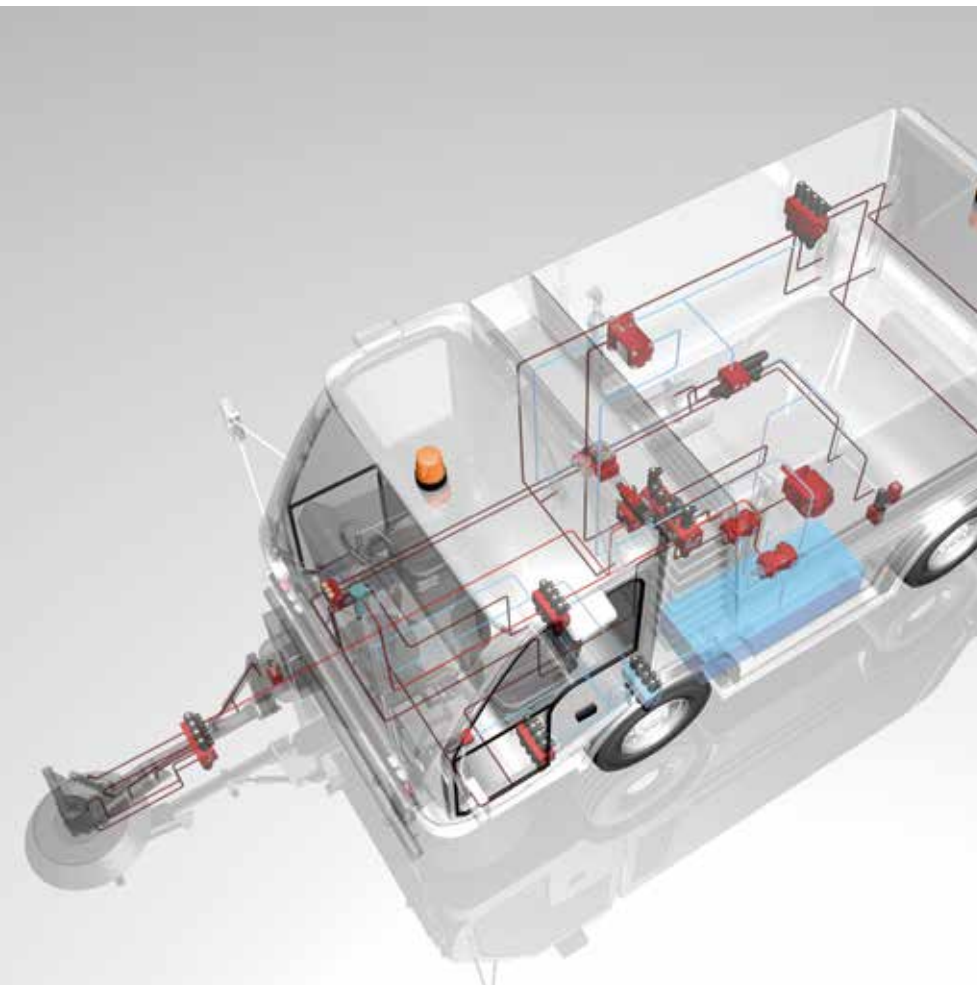
Electro-hydraulic system modules for **Mobile Applications**

Solutions for

- Self-propelled harvester
- Towed machines
- Tractors
- Multi-equipment carrier
- Municipal vehicles
- Winter service machines
- Wheel loader
- Telehandler
- Mobile Cranes

Advantages

- All components from one source
- Consulting during conception
- Broad know-how in hydraulics
- Long experience



Supply

- Power packs
- Pumps

Control input devices (HMI)

- Joysticks
- Electronic control systems

Controller

- Hard- and software modules
- Programmable procedures
- Preprogrammed modules for the hydraulics components

Valves

- Directional seat & spool valves
- Pressure valves
- Flow control valves
- Check valves
- Safety valves
- HIC (Highly Integrated Circuits)

Actuators

- Motors (rotating motion)
- Cylinder (linear motion)

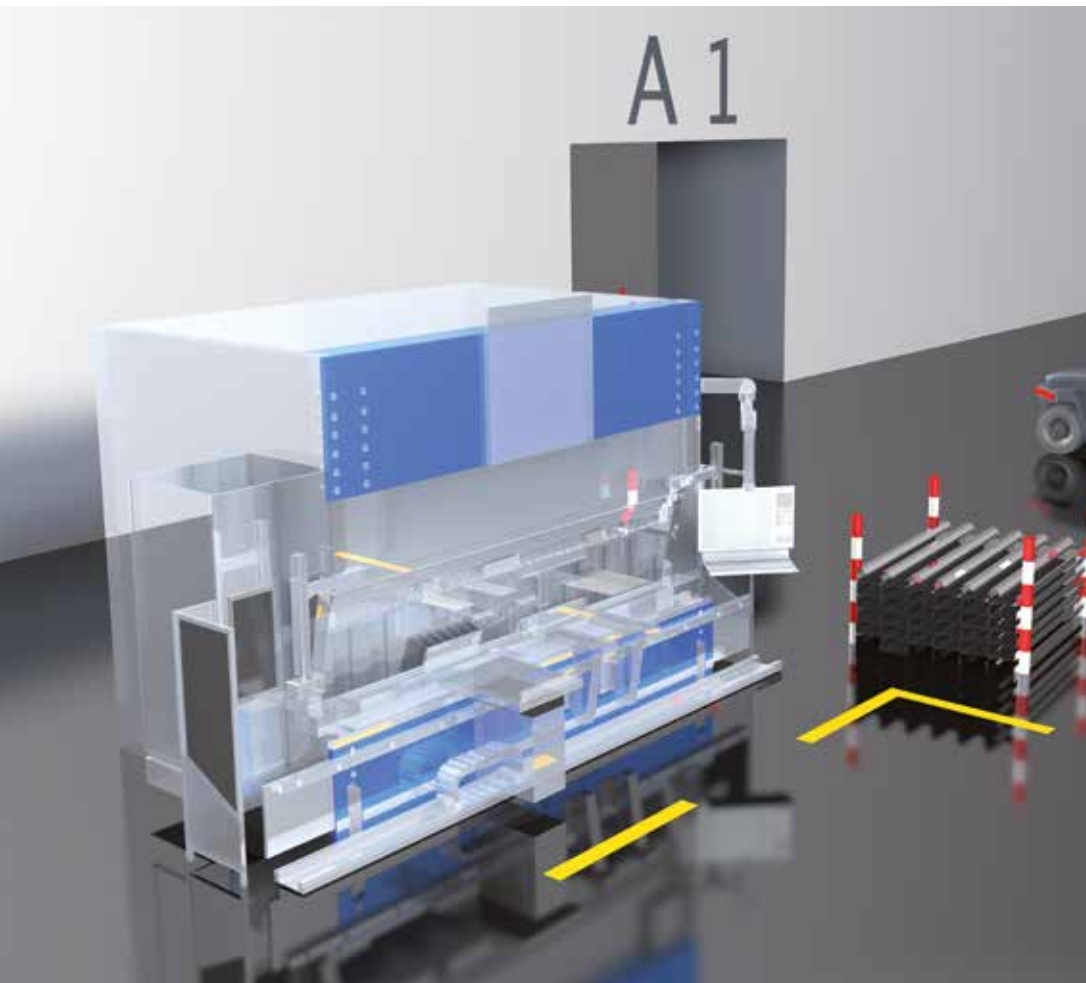
Electro-hydraulic system modules for **Industrial Applications**

Solutions for

- Plastic presses
- Presses
- High Voltage Switch Gears
- Wind energy
- Recycling presses
- Die casting machines
- Aggregat construction

Advantages

- A high degree of performance, reliability and stability
- Energy saving solutions
- Energy recuperation



Supply

- Power packs
- Internal gear units

Valves

- Directional seat & spool valves
- Pressure valves
- Flow control valves
- Check valves
- Safety valves
- HIC (Highly integrated circuits)

Actuators

- Motors (rotating motion)
- Cylinder (linear motion)

System Solutions for Elevators and Ergonomic Tables

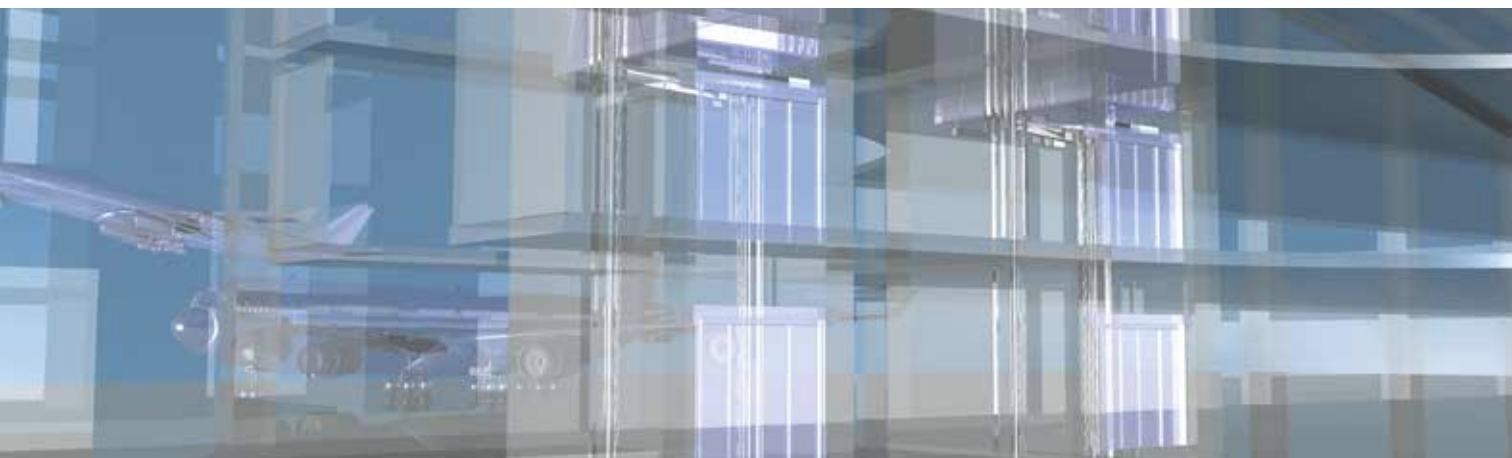
Elevator Hydraulics

Our Product Range

- Valves
- Power units
- Cylinders

Advantages

- A smooth elevator ride thanks to electronically controlled valves
- High performance levels with no overheating at peak times
- Loads from 200 kg to 40 000 kg (440 lbs to 88 185 lbs)
- Suitable for heights of up to 25 m (82 ft)
- Energy saving solutions



Dyna-Lift

| | | |
|--------------------|--------------|-----------------|
| Capacity | 110 - 680 kg | 250 - 1,500 lbs |
| Leg cylinders | 2 - 6 | 2 - 6 |
| Stroke lengths | 15 - 50 cm | 6 - 20 in |
| Operating pressure | 56 - 86 bar | 815 - 1200 psi |

Systems available in manual hand crank or with electric motor

Motor packages available in 115 VAC (60 Hz), 220 VAC (50 Hz), 115 VAC High speed, 12 VDC & 24 VDC

Electric units UL listed and CSA certified as well as ROHS compliant

Features

- Quickly converts a stationary structure to a height adjustable structure
- Complete ergonomic height adjustable systems

Advantages

- Improve productivity
- Ergonomically optimal

History

- 1923** Foundation of “Maschinenfabrik Johann Bucher Guyer Griessen” in what is today Klettgau (Germany).
- 1974** Bema-France is founded in Rixheim (France) to produce and market hydraulic systems.
- 1980** A sales subsidiary is founded in Neumarkt a.W. (Austria): BEMA-Hydraulik Vertriebsges.m.b.H.
- 1984** Bucher GmbH becomes a subsidiary of the newly formed Bucher AG (Switzerland).
- 1989** Foundation of a sales and marketing subsidiary in England called Bucher Hydraulics Ltd.
- 1992** Foundation of a sales and marketing subsidiary in the Netherlands called Bucher Hydrauliek.
- 1993** Joint venture in China (SBH).
- 1994** Incorporation of Hidroirma, Reggio Emilia (Italy).
- 1995** Merger of Barmag Hydraulics with Beringer Hydraulik.
- 1996** Incorporation of Beringer Hydraulik, Neuheim (Switzerland).
Formation of a corporate division called Bucher Hydraulik. The senior company is Bucher of Klettgau.
- 1997** Incorporation of Hydrotechnik, Frutigen (Switzerland). Incorporation of Dingkind, Taiwan.
Foundation of a Bucher Hydraulics sales and marketing subsidiary in the U.S.A.
- 1998** Foundation of Bucher Hydraulics sales and marketing subsidiary in Turkey.
- 2000** Incorporation of Truninger AG’s pump manufacturing operations (Switzerland).
The Chinese joint venture is transformed into a 100 % Bucher Hydraulics subsidiary.
- 2001** Bucher Hydraulics introduced as the joint trademark of the entire group.
- 2006** Foundation of Bucher Hydraulics India Pvt. Ltd.
- 2007** Incorporation of Monarch Hydraulics Inc. (USA).
- 2008** Incorporation of Command Controls Corp. (USA).
- 2012** Incorporation of Ölhydraulik Altenerding Dechamps & Kretz GmbH & Co. KG, Germany.
- 2013** Incorporation of Eco Sistemas Industrias de Máquinas Ltda., Brazil.
- 2015** New logo and implementation of the corporate identity of the family brand Bucher Industries.
- 2018** Acquisition Wuxi Deli Fluid Technology Co., Ltd., China

Johann Bucher



Smart Solutions. Superior Support.

Bucher Hydraulics

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For further information visit us at:

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