

A RUBIX Company

# COMPANY PROFILE







HYDRAULICS - PNEUMATICS - GASKETS
DESIGN - MANUFACTURING - SERVICE



## HISTORY OF OUR COMPANY



SEALL company was founded in January 1991. At the beginning the Company concentrated on production of sealing elements for hydraulic and pneumatic systems.

In 1993 the Company became the authorised suplier of **PARKER HANIFFIN Corporation**, a leading world manufacturer of elements for fluid technology, **and is currently its largest distributor in the Czech Republic.** 

Our company provides manufacturing and sales of hydraulic and pneumatic systems with manufacturing of sealing elements and hoses. We provide consulting and advisory services, diagnostic measurement and design services. We also offer manufacturing, repair and service works associated with hydraulic and pneu- matic drives. The sales, manufacturing and service activities of the Company is not focused solely on Parker products, but on all leading world manufacturers of hydraulics and pneumatics, such as BOSCH-REXROTH, YUKEN, AKG, KTR, GARLOCK, LOCTITE, SERTO and many others. Our largest customers are especially power-generation facilities, manufacturers of parts, machinery and mobile equipment, extraction and processing plants, the chemical and food industries, mining industry and many others.

SEALL s.r.o. has a certified quality management system according to ČSN EN ISO 9001:2016







Plzeň



Praha



Brno



Kroměříž

**SEALL s.r.o.** currently belongs among the best and largest suppliers of hydraulic, pneumatic and sealing elements. General profile of our company, including more information on supplied products and services is available on our website.

## PARKER HANNIFIN includes the following brands

ADVANCED, FAIREY ARLON, MAXAM CLIMAX, SEMPRESS, A-LOK, SCHRADER BELLOWS, FINITE, NIEHLER NF, ATLAS AUTOMATION, FINN FILTER, OLAER, SINCLAIR COLLINS, ORIGA, BALSTON, GOLD RING, SKINNER, HONEYWELL - LUCIFER, COMMERZIAL, PARFLEX, SNAPTILE, HYDRAULIK RING, TELEMECANIQUE, CONDOR, PIRELLI, POLARSEAL, CONVUM, ITR, TEMA, TOWLER, CHELSEA, JBL, POLYFLEX, CHOMERICS, KV AUTOMATION, PRADIFA, UCC, VOAC, DENISON, LEGRIS, RACOR, DOMNICK HUNTER, MANAPAK, RECTUS, WILKERSON AIR PREPA-ERMETO ORIGINAL, MANATROL, SCEM, **RATION** 

#### **Pneumatics**

**-**Parker

A wide range of pneumatic elements from Parker satisfies all customers' needs. The elements are designed for standard operations, but also for more demanding applications, such as aviation, extraction or defence industry. Parker elements combine reliability and proven design with the latest technologies, representing high power and friendly price. Linear and rotary drives.

The most commonly supplied elements are:

- linear, radial, tilting air drives,
- drives for automation technology,
- air bellows.
- universal arms,
- accessories for pneumatic cylinders,
- valves and distributors,
- two-hand controlled units,
- air conditioning units,
- proportional regulators,
- vacuum technology,
- air-blowing pistols,
- shock absorbers.





### **Hydraulics**

**-**Parker

We supply a wide range of elements for industrial and mobile hydraulics from power elements, to distribution, to control electronic circuits.

Parker hydraulic elements excel with power efficiency.

- Hydraulic piston, vane and gear motors and hydro generators,
- Classical and proportional distributors,
- Hydraulic cylinders and servo drives,
- Valves for pressure and flow regulation,
- Built-in and module valves,
- Accumulators, radiators and accessories,
- Diagnostic equipment,
- Pressure gauges and pressure-gauge hoses,
- Couplings, holders, tanks and other accessories,
- Water and air coolers.

















### **Elements for distribution**

**-**⊋arker

Complete range of elements designed for building hydraulic and pneumatic distribution systems, including:

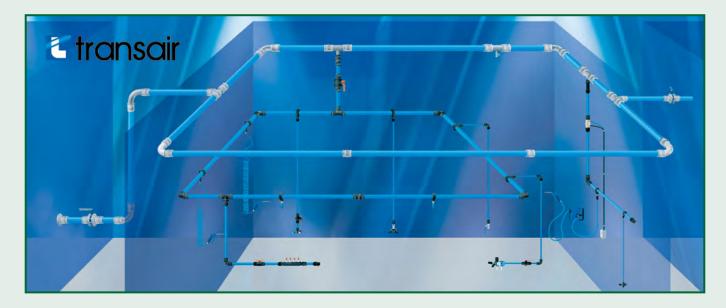
- Hydraulic fittings of all world standards, e.g. Ermeto Original (DIN), O-lok (ORFS), Triple-lok (37°Flare), JIS adapters, BSPP 60° adapters, flange fittings, couplings, adapters, rotary fittings, pipes, clamps, valves, welded fittings. Materials steel and stainless steel.
- Hydraulic hoses rubber and plastic with fittings.
- Industrial hoses for transport of liquids, gases, loose and abrasive materials, for high temperatures, etc.
- Water high-pressure and sewage cleaning hoses.
- Quick-couplings agricultural, industrial, leak free, pneumatic, for mould pre-heating, etc.
- Pneumatic pipes, metric and imperial, from PA, PE, PTFE, PUR materials.
- Pneumatic slip on, crimped fittings, with lock ring, adapters, plastic and brass versions.
- Quick-couplings pneumatic, quick-coupling for mould pre-heating.





### **Elements for technical distribution systems**

Sales of elements for pressurised air distribution systems of the **transair system from** Legris division. This system is designed as a modular system, with quick installation, simple disassembly, easy expansion, system rigidity with air purity maintained and preventing the transfer of condensate. Transair guarantees 10 years of tightness, low pressure losses and no corrosion. The entire distribution system can be used for vacuum, pres- surised air, inert gases and liquids.



### Seals

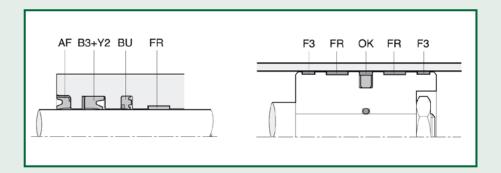
#### -Parker

#### **Parker Prädifa**

Represents a wide range of quality seals and sealing systems for liquid mechanisms. The range is divided into three basic groups:

- Hydraulic seals,
- Pneumatic seals,
- PTFE seals.

Each group contains basic profiles, such as piston and piston rod rings, scraper rings, guiding and backup rings. They differ in geometry and materials. Sealing elements for mining and extraction technology, where extreme operating conditions and strict requirements on safety require the highest quality, form a special group.









#### **O-Rings**

Parker manufactures O-rings and special moulded seals in different hardness, colours, mechanical and chemical properties. The dimension range includes inch and metric dimensions. With the wide spectrum of materials you can find Parker O-rings in the automobile industry, healthcare, electrical engineering, refrigeration and air conditioning technology, hydraulics, pneumatics, aerospace and rocket industry.

#### **Chomerics**

Parker Chomerics is a leading supplier of EMI shielding and heat conductive seals for electronics. EMI shielding materials include conductive elastomers and plastics, metal and extruded seals with conductive coating, glues and laminated plates. Parker Chomerics products can be found in military and space applications, telecommuni- cation, automotive industry, consumer electronics and information technologies.



### **Pressurised air treatment**

**-**Parker

#### Parker domnick hunter pressurised air and gases filtration

**Parker domnick hunter** is a leading world brand in the field of development and manufacturing of equipment for micro-filtration of pressurised air and gases. The guarantee of quality of pressurised air according to the highest classes of filtration as per ISO8573.1-2001 is provided by OIL-X Evolution, the energetically most efficient filters on the world market (distinguished by full compliance with requirements of the ISO12500 standard) together with the patented design of Pneudri absorption dryers. Parker domnick hunter high-quality filtration is used especially in demanding operations and for critical applications, such as food and pharmaceutical production, micro-electronic components, testing, finishing, treatment of breathing and medicinal air, etc.



# Parker Hiross pressurised air treatment for compressor stations and pressurised air distribution

Parker Hiross, a traditional manufacturer of quality equipment for basic treatment of pressurised air, is represented on the compressor technology market by the widest range of condensation dryers, air- and water-cooled final coolers and condensate separators. Parker Hiross products are used especially in operations, where the priority is reliability, durability, low operating costs and environmental aspects (automotive industry, power and heat generation, consumer industry, glass works, cement works, electrical engineering, etc.).



#### Parker domnick hunter Industrial Nitrogen generators

The design solution of nitrogen generators with a pressure cyclic absorption system and with diaphragm modules, manufactured by the Parker domnick hunter division, received many international prizes. It provides unique innovative solutions of reliable and safe gaseous nitrogen. A replacement for more costly high-pressure gas containers or large liquefied gas containers. Installation of a Parker domnick hunter compressor provides the operator with a source of high-quality nitrogen, available 24/7, without the risk of manufacturing time losses due to gas supply exhaustion. The most frequent applications are for protective atmospheres for manufacturing and packaging of beverages and food, soldering waves, plastic injection or laser cutting.



#### **Parker Hiross Industrial Liquid Cooling**

The utilisation of machine-cooled water in industrial technologies is currently very common. Water with very low temperature increases productivity, ensures an optimal run of technological processes and reduces costs. These units are used for plastic processing, food production, in the chemical industry, for welding, laser cutting, etc.



#### **Filters**

-Parker

**PARKER Hydraulic filters** include low-pressure, medium-pressure, high-pressure filters, filtering stations, filter inserts, tank accessories, duplex filters, filters for lubrication aggregates, filtering and refrigeration aggregates.

**RACOR filters for fuels and air** represent a complete range of filtration elements applied in production, distribution and consumption of driving materials, fuels and air.



#### Parfit – quality filtering inserts programme from Parker

- Replacement of filter insert form another manufacturer,
- Available replacements at: http://www.parkerhfde.com/parfit/

#### Monitoring of level of liquids

Includes equipment and systems, enabling online monitoring in running processes and sufficient analyses of samples in laboratory conditions.

- Oil analysis devices particle counters, measurement of water in oil,
- Stationary (online) particle counter, humidity sensor,
- Programming equipment for data evaluation.



#### Solenoid valves



Solenoid valves for shutting liquid and gas flows in automated processes, distribution of air, hot and cold water, steam, gases and fuels. The valves are manufactured as two-position two-way and multi-way. The valves are made of brass or stainless steel and the connection threads can be inch cylindrical BSPP or taper NPT. Solenoid valves are manufactured as directly or indirectly controlled, with assisted diaphragm lift. The coils are supplied for standard or explosive environments.



### Industrial glues and putties



A wide range of high-quality and reliable sealing and adhesive materials solve design tasks of all types, such as securing and sealing of threads, securing cylindrical parts, gluing and sealing of flat surfaces, casting and reinforcing parts, cleaning and washing.



#### **SERTO**

SERTO

# Manufacturer of fittings and elements for distribution with patented assembly and disassembly in radial direction.

- Fittings and regulating elements (stopcocks, needle valves, backflow valves, quick-couplings, etc.) for distribution of air, gas, oil and other industrial media.
- Stainless steel, brass, steel, PVDF plastic and polyamide.
- Radial connection of elements ensures perfect tightness and easy assembly and disassembly of a pipe distribution system, especially in confined spaces.
- SERTO components are especially used in the chemical and food industry, healthcare, laboratories, mechanical engineering and power generation. Certified by TÜF, Lloyd's Register, DVGW, etc.



### **Garlock - gaskets and sealing systems**



Manufacturer of sealing elements for industrial solutions in power generation, chemistry, aerospace, paper industry and metallurgy.

- Flat asbestos-free gaskets for oils, gasolines, gases, hydrocarbons, steam and diluted chemicals (BLUE GARD, IFG 5500, HTC-9850, G-9900Ti, THERMaPUR 4122 for permanent temperatures up to 1,000°C 34 bar). Comply with fire certificate API589.
- **GYLON flat gaskets** (modfied PTFE) patented material with cold flow reduction. Use for extreme chemicals, for oxygen and chlorine. Temperatures up to 250°C. Complies with TA-Luft emissions.
- **Graphite and metallic gaskets** for very high pressures and temperatures (scroll, comb, etc.).
- EVSP 9000 and Quick set 9001 packing graphite rings the cup and cone configuration graphite rings with different density for valves and pumps. Comply with safety fire certificate according to API589 and emission TA-Luft.



- **Shaft seals KLOZURE** low-pressure rotary seals NBR, FPM, MVQ, with diameter up to 2,000 mm.
- **PS-SEAL** rotary seal with stainless steel housing and Gylon lip. Use at high temperatures, pressures, for pharma and food industry and clean plants.

## SERVICES

# Hydraulic and pneumatic elements store

Parker Store is a specialised store with elements for hydraulic and pneu- matic systems. **The SEALL Company** operates these stores in Chomutov, Plzeň, Praha, Brno and Kroměříž. Wide range of stock items and connec- tion to PARKER European distribution centre (EDCN) ensures almost immediate delivery of the required elements and tools for construction of hydraulic and pneumatic systems.

In the Parker Store we will provide you with comprehensive services – crimping hoses, manufacture of custom seals, we will give advice on building and connecting distribution systems and we will repair and reseal hydraulic and pneumatic elements..





### Pressure hose manufacture

The manufacture uses mostly **PARKER HANNIFIN Corp**. components. The range of semi-finished hoses and fittings allow making low- and high-pressure hoses from rubber or plastic in compliance with all world standards and versions.

We have **No-skive**, **Compact**, **Push-lok** rubber hoses in stock as standard as well as selected types of **Parflex** and **Polyflex** plastic hoses, including **PTFE** hoses.



# Manufacture of sealing elements using SEAL-jet technology Seal Maker The system for flexible seal production

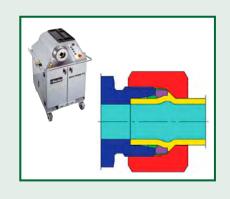
**SEAL-jet** and **SEAL Maker** machines in our branches allow us to manufacture seals and rotary flange-type parts from rubber and plastics with a max. diam- eter of 500 mm. The most common products, are cuffs, scraping rings, guide and backup rings. Short delivery terms with guarantee of high quality and durability of products is an advantage.



### Supply of finished pipes

**SEALL s.r.o.** supplies complete installation sets. Which, together with fittings, hoses and other elements, include finished pipes as well. Precise hydraulic pipes are shortened, deburred and cleaned, bent to the required shape and the ends of pipes are fitted with nuts.

We recently added treating the ends of pipes with cold-moulding on an **EO2-FORM** machine. Use of moulded ends combines the advantages of soldering, welding and sealing with an **EO-2** rubber gasket. This type of connection provides the advantage of increased durability against ripping and the application has thus become a standard, e.g., in water construction, cranes, elevators and hydraulic presses and moulds.



# SERVICES

### Manufacture and repair of hydraulic aggregates

**The SEALL** Company manufactures and repairs hydraulic aggregates from the smallest portable with a simple function, all the way to the most complex equipment with high flow rates, pressures and different levels of regulation and control. The elements used in construction and refitting are based on the requirements and needs of the customer, but usually we use elements from European divisions of **PARKER HANNIFIN Corp.**, which guarantee high quality, reliability and durability.



### Manufacture and repair of cylinders

Refitting hydraulic and pneumatic cylinders is a common service, which represents replacement of seals, eyes, bearings all the way to replace- ment of piston rods or tubes.

We make atypical cylinders to order according to the original sample or customer's requirements.



# Installation and repair of hydraulic and pneumatic circuits and elements

Our activity includes installation of hydraulic and pneumatic elements, connection of aggregate units to machines, installation supplies of oil, air, paint and other media, building single-purpose machines, equipped with control systems, electric motors, hydraulic drives, valves, filters, tanks, piping distribution. We offer comprehensive reconstruction of machines, including electrical equipment, machining and surface finishes.



We install, commission, adjust elements and train the operators. We repair pumps, hydraulic cylinders, distributors, valves and aggregates.

#### Service

Our qualified team of service specialists can quickly and efficiently identify defects and potential problems. We can manufacture low- and medium- pressure hoses and repair pipelines directly at customer's plants, check circuit conditions and maintain systems. The mobile service also performs preventive inspections. Based on agreement with a customer, we can offer a permanent cooperation, including regular inspections and service interventions, which increase reliability and durability of device.



### MANUFACTURE AND SERVICE

# Bosch Rexroth hydraulic and pneumatic elements



As part of the comprehensive services to our customers we also repair Bosch Rexroth hydraulic generators and hydraulic motors.

The Supplier is a leading manufacturer of industrial hydraulics and components. Bosch Rexroth elements perfectly compliment the Parker range in certain applications, such as pumps for closed circuits. You can find special and custom solutions in our range.

- Hydraulic generators and hydraulic motors piston, vane and geared.
- Hydraulic cylinders bolted and with round lids, with proximity switches upon order, track measurement systems and together with control blocks and regulation valves a complete hydraulic axis can be built.
- Directly and indirectly controlled distributors, from NG6 to NG32 size.
- Pressure, flow and shut-off valves. NG6 to NG32 connections.
- Proportional valves and servo valves, used for regulation of pressure and flow.





## **YUKEN hydraulic elements**



We use Yuken elements to service machines and equipment from Asian countries.

Yuken is a manufacturer of standard and highly specialised hydraulic components and is among the top manufacturers of hydraulics in the World. Yuken is a Japanese company and is well known for the quality of its products and low price. The history of Yuken starts in 1928 and the Company has since built its firm position in the World, especially in Asian Countries, and has expanded its business to European Countries.

- Axial piston regulating hydraulic generators.
- Vane non-regulating hydraulic generators.
- Pressure and regulation valves.
- Shut-off valves.
- Hydraulic distributors.
- Proportional electric-hydraulic valves.
- Servo valves.
- Modular elements.





## MANUFACTURE AND SERVICE

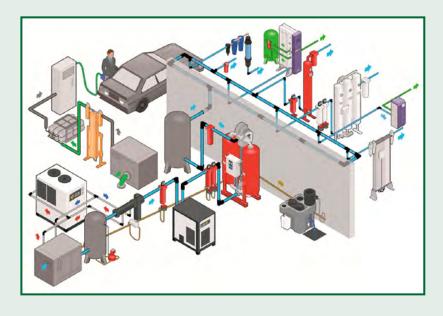
### Fluid systems diagnostics

Using state-of-the-art diagnostic devices, we are able to measure all key values of a hydraulic system (pressure, flows, speed, noise, voltage on control elements, etc.). Based on our experiences and knowledge of the time flow of the measured values we can better assess the current condition of the system and identify the defect. This enables us to significantly decrease the time for identification of an issue and its efficient solution.



# Comprehensive solutions in the compressed air field

Comprehensive solutions and delivery of the entire equipment in the field of compressed air, such as filtration, drying, refrigeration and nitrogen manufacture using a generator. The delivery can contain a compressor with an air accumulator. For compressed air treatment we use Parker, Dominick hunter division, elements, which are among world leaders in the field of compressed air treatment. We build compressed air distribution systems from the Parker Legris division transair system.



# Design and manufacture of single-purpose machines and equipment

Our engineers will prepare design documentation according to the client's specifications for manufacture of hydraulic cylinders, hydraulic distribution systems, single-purpose machines and equipment. We use 3D modelling in CAD programs to achieve solutions. Each part is then manufactured, assembled and tested, to verify 100% functionality. We also design electric installation according to customer's requirements, followed by manufacture of electrical distributors, electrical installation and programming of the control PLC. Most of the manufactured single- purpose machines are designed for manufacturing lines for assembly parts for the automotive industry.



## REFERENCES

## Hydraulic aggregates manufacture

Aggregates for presses for coated welding electrodes manufacture with diameter 2.5 - 8 mm, length 300 - 450 mm.

The tank volume 630 l, power consumption 37 kW, operating pressure 350 bar. The drive of the hydraulics is provided by a Parker PV032 axial piston hydraulic generator with proportional pressure regulation in tandem with two geared pumps with volume of 80 cm3 per rev. The hydraulic circuit comprises of a hydraulic block with NG25 clearance. The aggregate has a separate filtering and refrigeration circuit.



## Repair of Stacker undercarriage hydraulics

Out task was the complete overhaul of the walking undercarriage of a machine with a weight of app. 3,000 tons. The drive is provided by six 75 kW electric motors. Pressure is provided with axial piston pumps with three filling pumps. Walking is provided by four hydraulic cylinders with a diameter of 630 mm.



## **Welding line hydraulics**

Multi-functional welding benches for semi-trailer chasses working in automatic mode. The delivery included the design and manufacture of an aggregate with a digital switch set to two pressure levels, the tank has a volume of 150 l, engine power 7.5 kW. The hydraulic distribution system is divided into four sections and 36 segments. The overall length of pipeline and hoses is over 800 m.



## REFERENCES

# Hydraulic regulator for control of the I Francis turbine and conduit gate valve

The regulator is fitted with a proportional distributor for tilting of the stator blades and an electromagnetic distributor for the hydraulic brake and gate valve on the turbine input. The assembly of the hydraulic generator and 24 DCV electric motor is inserted into the output leg, which can be controlled for short periods of time from a back-up source (batteries), for the start-up without voltage. Emergency pressurising of the accumulator is possible with a manual hydraulic generator.



### **Emergency aircraft evacuation simulator**

The simulator is used to train the actions necessary for evacuation of an aircraft in the air and on the ground. We designed and delivered the hydraulic and pneumatic system for the simulator. Proportionally controlled hydraulics ensure "ejection" of the seat on a 1.45 m track with 2 G gravity load. The pneumatics control the tilting and arresting of the cabin, tightens safety belts on the pilots seats at the moment of ejection and slides the canopy away from the seats trajectory.



# Paste application equipment

Robotised workstation for application of soldering paste on the front ends of stainless steel heat exchangers. In the course of the work cycle paste is applied on three exchangers at the same time. The equipment comprises a three-axial robot, working with 0.02 mm accuracy, a massive steel plate, Perspex enclosed working space, light safety guards with 14 mm resolution, dosing equipment and a control system. The flow of the soldering paste is controlled by solenoid valves.



# OTHER SERVICES

#### **Breadman**

We prepare installation kits, containing fittings, hoses, pipe elbows, machinery parts and other elements, which we supply for manufacturing lines in the required time (Just in time).

#### Repair consignment warehouse

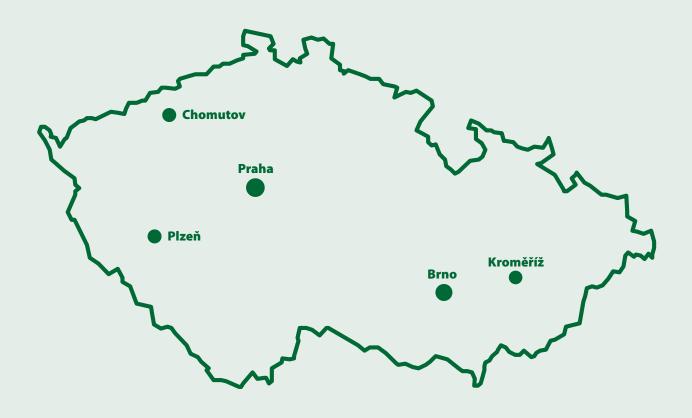
For important and long-term customers we establish consignment warehouses with parts selected in advance and in case of machinery defect the parts are immediately available.

#### **Consulting**

We provide professional consultation and advice in the field of fluid systems.

#### **Training**

We organise training on hydraulics and pneumatics fundamentals for maintenance and service engineers.



**Chomutov** 

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