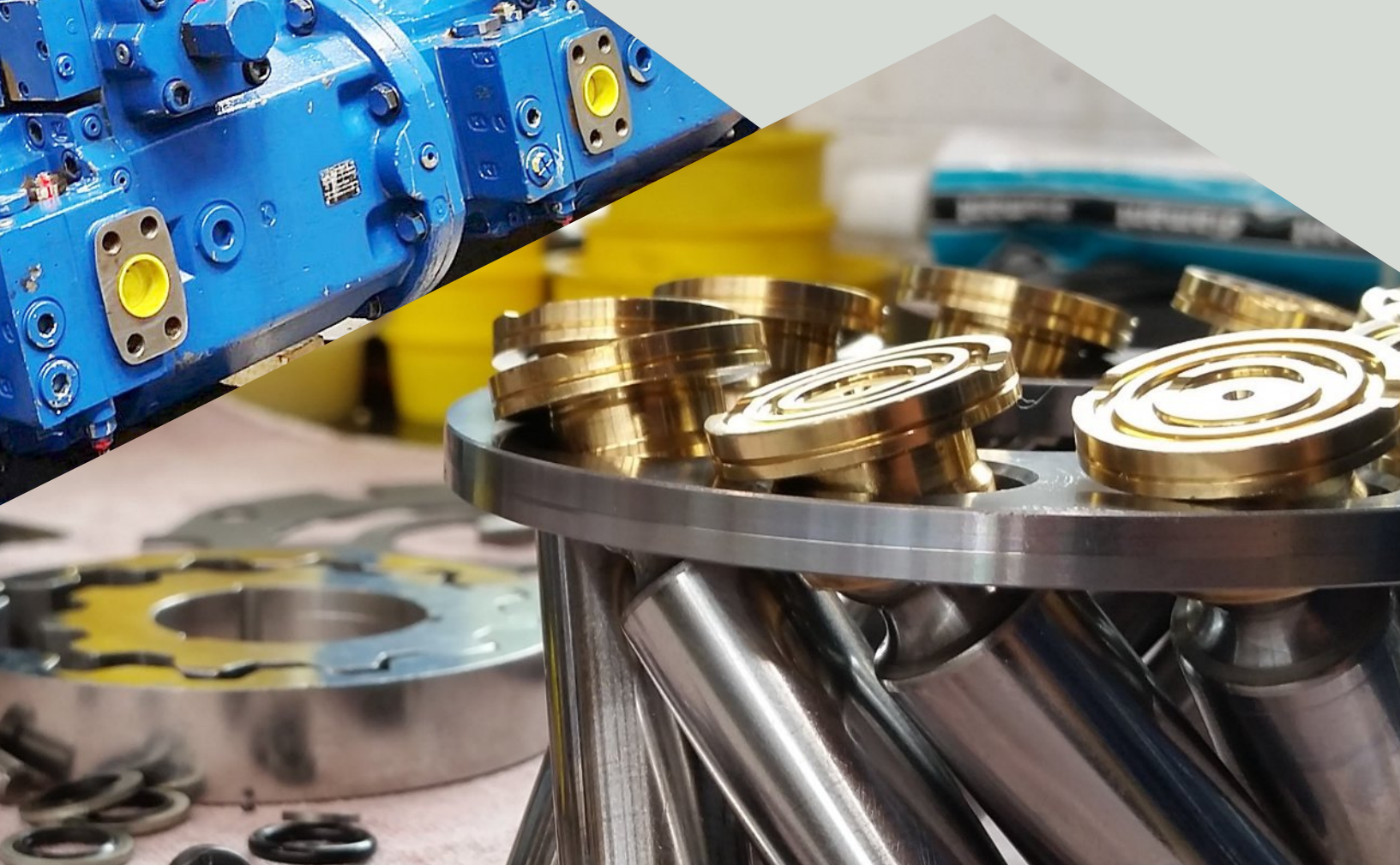




fpeHydraulik

fluid power engineering

www.fpe-hydraulik.de



fpe Hydraulik GmbH

Gewerbering 25
09337 Hohenstein-Ernstthal

Phone: +49 3723 6671-0
Fax: +49 3723 6671-18
E-Mail: kontakt@fpe-hydraulik.de

NL Rheinland

Carl-Leverkus-Str. 20
40764 Langenfeld

Phone: +49 2173 200404-0
Fax: +49 2173 200404-8
E-Mail: kontakt.lev@fpe-hydraulik.de

You can find all the information you need to protect your data online on our website
www.fpe-hydraulik.de.

Technical Sales



Our back office technicians consult with you about the products offered by the manufacturers and find the right components for you. No matter if you plan for a new application or spare parts.

You will receive the appropriate product, technically checked and bought in for a reasonable price.

Sustainability and customer satisfaction is our highest priority. We would like to support your enquiry with our technical know-how.



Product range

- pumps
- engines
- valves
- cylinders
- accumulators
- coolers
- tanks
- heat exchanger
- filter
- tubes
- electrohydraulics
- e-engines
- measuring technology

Excerpt from our manufacturers range

A

- Allweiler
- AMCA
- Archimedes Voulgaris
- ATOS

B

- Beinlich
- Berarma
- Bosch-Rexroth
- Boudioli & Pavesi HP Hydraulic
- Bonfiglioli Trasmital
- Brevini Group
- Bucher-Hydraulik
- Bühler
- Brüninghaus

C

- Calzoni
- Cassappa
- Caterpillar
- Char Lynn
- Comatrol
- Commercial Hydraulics
- Comer Industries

D

- Daikin
- Danfoss
- Denison
- Düsterloh

E

- Eaton
- Eckerle
- emmegi
- Enerpac

H

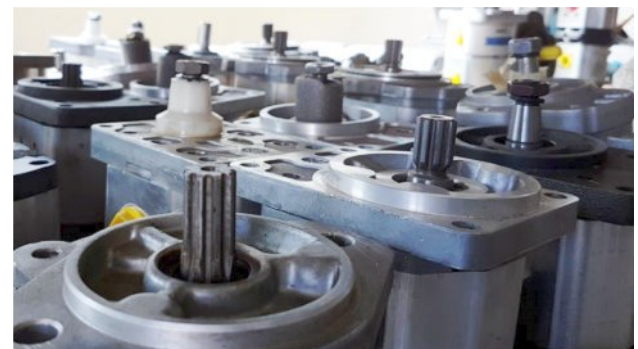
- Hägglunds
- Haldex Hydraulik
- Hansa TMP
- Hawe
- Hawe Inline
- HBE
- Hennlich
- Hitachi
- Hydac
- Hydro Leduc
- Hydromatic

J

- Jahns Hydraulik

K

- Kawasaki
- Kayaba
- Kinshofer
- Komatsu
- Kracht-Hydraulik
- Kral
- KTR



L

- Liebherr
- Linde

M

- Mahle
- Marzocchi
- Meiller
- MOOG
- MP Filtri
- Mannesmann Rexroth

N

- Nachi

O

- Oilgear
- ORSTA-Hydraulik

P

- Parker-Hydraulik
- Pleiger
- Poclain-Hydraulik

R

- Rollstar AG
- Rotary Power
- RSV Rotator Systems

S

- sai Hydraulik
- SAM-Hydraulik
- Sauer Danfoss
- Sauer Sundstrand

U

- Uchida Rexroth

V

- Vickers
- Voith
- Volvo
- Voac

W

- White Hydraulic

Engineering

Manufacturing hydraulic power units and systems

From the idea to the final product - everything from a single source

- price-optimized modular system for standard units
- use of branded products
- joint task elaboration in technical dialogue
- use of perfectly matching quality and cost-effectiveness
- documentation according to current machinery directives
- design using modern CAD technology from Autodesk

Individually planned and manufactured perfectly matched to your application



Hydraulic power units

tank types

- steel
- stainless steel
- plastic
- ATEX

pump types

- submersible pumps
- on-top pumps
- beside-tank pumps
- constant volume flows
- variable volume flows

drive types

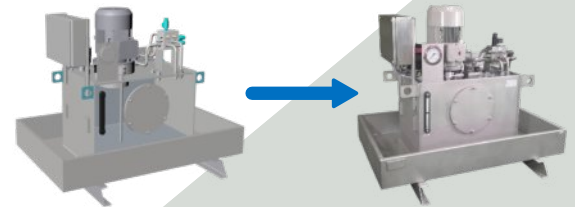
- electrical drive
- combustion engine drive
- electrical frequency-controlled drive

documentation

- CAD circuit plan
- parts list
- manuals
- maintenance plan
- component overview
- certificates

parameter

- pressure up to 700 bar
- unlimited volume
- unlimited nominal sizes



Systems

systems types

- open hydraulic circuit
- closed hydraulic circuit
- for mobile application
- for stationary application

range of performance

- new design of entire plants
- optimizing existing plants
- comprehensive, international documentation
- electrical control and regulation
- use of control blocks, vertical stack systems, servo and proportional

- valves as well as 2-ways and cartridge blocks
- installation by our employees
- own piping and tubing, preferably with System Parker EO2,EO2 Form and Parkrimp
- commissioning, instruction and maintenance



Repair of pumps and engines

Your device will be expertly repaired in our pump and engine department according to manufacturers directives.

Our own comprehensive spare parts storage and a direct access to the major manufacturers storages enable a good supply of spare parts. The use of original spare parts is a matter of course for us.

On our dynamometers, the new value character of the repair device is by means of existing manufacturer setpoints. Within short time, we can process a high device volume, as it is necessary for revisions of large machines, by using optimized repair processes, longstanding experience and several assembly work stations.

Benefit from our high competence in this field of repair.



Fixed and variable displacement pumps

types

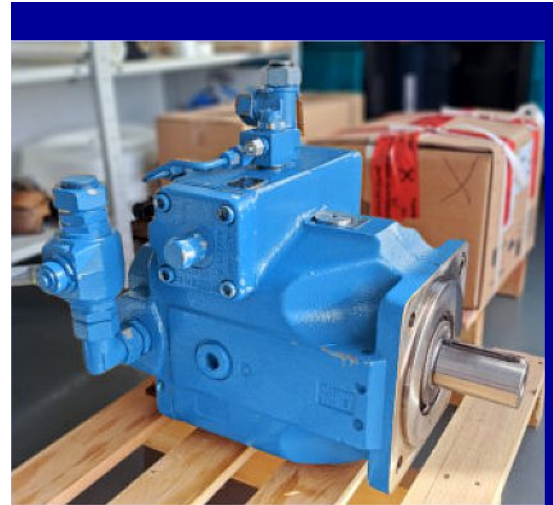
- axial piston pumps
 - for open circuits
 - for closed circuits
- radial piston pumps
- gear pumps
 - internal gear pump
 - external gear pump
- vane pumps
- rotary piston pump
- spindle pumps

pump accessories

- pump safety blocks
- couplings
- connections
- electrical amplifiers
- analogue and digital controls
- adaptors

versions in all

- control types
- drives
- sizes
- combinations



Fixed and variable engines

types

- axial piston engines
 - for open circuits
 - for closed circuits
- radial piston engines
- gerotormotors
- gear engines
- vane engines
- rotary engines
- slewing engines

engine accessories

- travel brake valves
- lowering brake valve
- connections
- electrical amplifiers

versions in all

- control types
- drives
- sizes



Quality inspection on the test bench

One of the most powerful test benches in Germany

performance data

- pressure up to 500 bar
- feed rate up to 800 l/min
- rotational speed up to 4000 rpm
- 500 kW pure testing performance
- 700 kW system power



Repair of cylinders

We offer manufacturer and size independent repair of hydraulic and pneumatic work cylinders in our cylinder department.

Spare parts can be manufactured in different material qualities and versions depending on design or individual case. A final function and leakage test is performed and recorded with every device.

Certainly, we can conduct part services such as piston rod replacement and cylinder tube honing individually.

Our range of services is round up by batch production according to design or drawing and additionally by the sale of accessories.



In detail

types

- round cylinder
- tie-rod cylinder
- servo cylinder
- ganged cylinder
- plunger cylinder
- telescopic cylinder
- pneumatic cylinder
- block cylinder
- rotary drive
- rotary transmission
- heavy load cylinder
- gripper cylinder

cylinder accessories

- pivot bearings
- plain bearing bushing
- joint and swivel heads
- cylinder components
 - o welding flange
 - o tube plates
 - o guide head
 - o piston
 - o trunnions
 - o bearings

sealings

- stripper
- guide rings
- o-rings
- back up rings
- rotary seals
- piston seals
- rod seals
- shaft seals
- moulded parts
- seal material in polyurethan, PTFE, elastomere, polyamide, acetal resin, phenolic resin



Quality standards

welding quality

- MAG and WIG-welding
- with test certificate if required

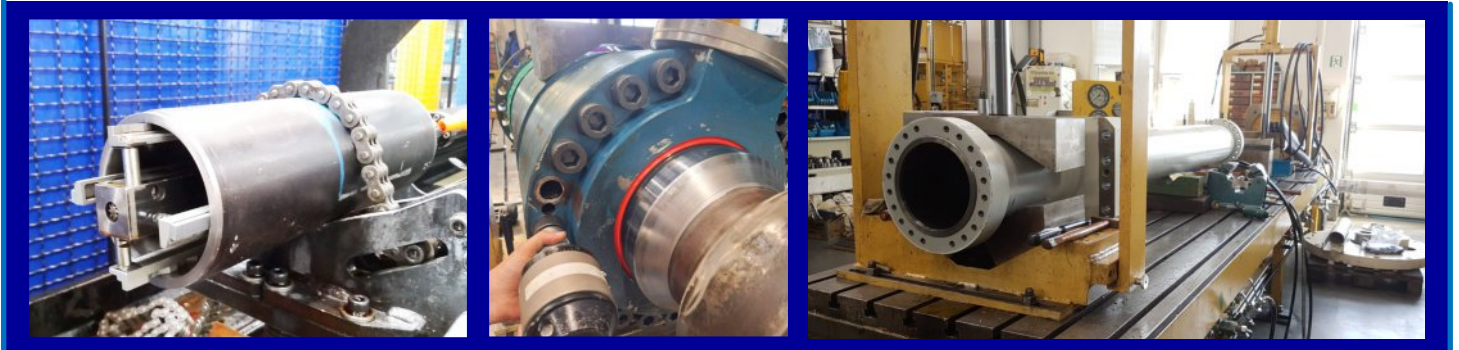
piston rod quality

- piston rod materials
 - o Ck45
 - o Ck45 inductive-hardened
 - o 20 Mn V6
 - o 20 Mn V6 Ni
 - o 42 Cr Mo4 V
 - o 42 Cr Mo4 V inductive-hardened
- chrome layer thickness
 - o diameter up to 17 mm min 10 µm
 - o diameter up to 18mm min 20 µm

- chrome layer hardness 63 to 68 HRC
- surface roughness R_a max. 0.25 µm

cylinder tube quality

- cylinder tube materials
 - o E355 + SR (St52 BK + S)
 - o E355 (St52.0)
- tolerance outside diameter
 - o according to EN10305-1 for cold drawn tubes
 - o according to EN10297-1/EN10220 for hot rolled tubes
- tolerance inside diameter
 - o according to ISO H8 to H11
- inside surface honed or rolled
- roughness R_a max. 0.5 µm
- straightness directed at 1:1000mm
- measured at the outside diameter

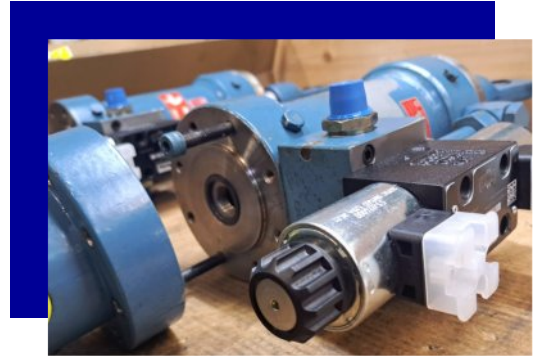


Repair of valves and accumulators

Repair of accumulators

According to the valid Industrial Safety Regulation, your accumulator has to be checked at regular intervals. We can keep costs for this checkup low by applying an efficient test procedure and therefore reducing expert costs.

Spare parts are mostly available immediately on demand. When required, the accumulator is filled with nitrogen when delivered.



In detail

types

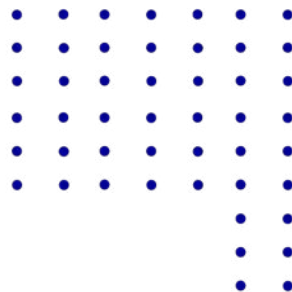
- diaphragm accumulators
- bladders accumulators
- piston accumulators

accumulator accessories

- accumulator charging valve
- safety equipment
- filling valve
- holders

services

- recurring check-up according to pressure equipment directive
- bladder change
- seal change
- prefilling with nitrogen
- on-site check during stand-still times

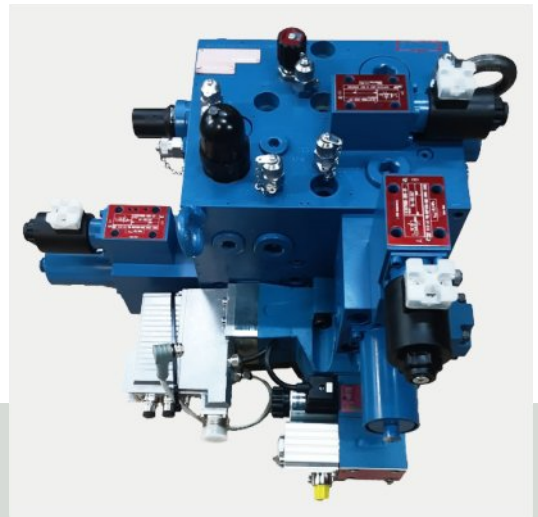


Repair of valves

We check and repair your components from simple hand control blocks to complex 2-way blocks with high nominal numbers.

Most times, cost intensive proportional and servo valves can be repaired economically.

We also conduct a function and leakage test for quality assurance.



Types of valves

way valves

- control blocks
- inter-plate valves
- vertical stacked valve
- proportional valve
- control valve
- servo valve

flow valves

- throttle
- flow divider
- proportional throttle valve
- flow control valve

pressure valves

- relief valve
- reduction valve
- pressure control valves

2-way blocks

- way function
- pressure function
- pilot control



Special Services



Hydraulic machine revision

You would like to hydraulically overhaul your machine completely or partly? And don't want to coordinate part services and different suppliers? Then you can benefit from our know-how and longstanding experience in this field.

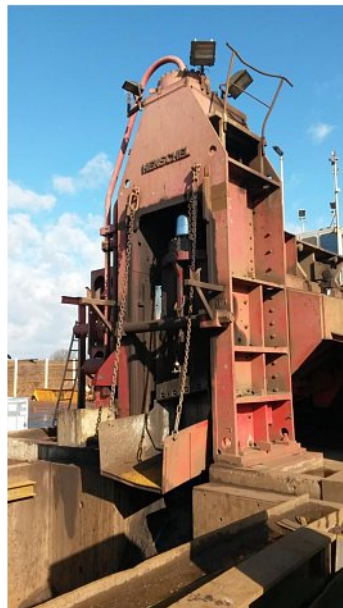
We have the resources for the check-up and repair of a large number of hydraulic components in a stated time period. In cases of planned standstills and large construction machine revisions, we can supply complete service from disassembly to recommissioning to a previously fixed check-up price.



In detail

machine revisions for

- railway construction machines
- presses
 - scrap presses
 - industry presses
- production lines
 - pump rooms
 - accumulator stations
 - valve stations
 - pipelines
- scrap shears
- shredders
- drilling devices
- tunnel boring machines
- surface mining machines
- underground mining machines



General repairs of polyurethane pumps

The polyurethane industry uses modified axial piston pumps as dosing pumps for producing raw material polyol and isocyanate.

We have been in charge of these special pumps' expert maintenance for many years. Our dedicated test bench with the testing medium mesamol is used for the function test. We proudly offer the whole range from spare sealing to repair and rebuilding as well as equipment with permanent magnet coupling and further on to the delivery of entire drive units.



Range of manufacturers

Bosch-Rexroth

- A 2 VK 12 11,6 cm³
- A 2 VK 28 28,1 cm³
- A 2 VK 55 54,8 cm³
- A 2 VK 107 107 cm³
- A 7 VK 12 11,6 cm³
- A 7 VK 28 28,1 cm³

Rotary-Power

- C 01 MDP R (L) 2 cm³
- C 04 MDP R (L) 6 cm³
- C 07 MDP R (L) 11,5 cm³
- C 20 MDP R (L) 33 cm³
- C 38 MDP R (L) 62 cm³
- C 56 MDP R (L) 92 cm³
- C 76 MDP R (L) 125 cm³



Customer service

There is an experienced team of hydraulic assemblers for on-site jobs at your service. We always have the necessary basic equipment at hand due to our well-equipped workshop van. Depending on task and job conditions, the equipment can be expanded and specialist employees can be sent. We successfully support well-known companies at planned standstills or conduct complete hydraulic machine repairs. We are your contact in mobile and stationary customer service.



We are in mobile as well as stationary customer service your competent partner.

Range of service

Repair and maintenance

- fault diagnosis
- on-site repair
- preventive maintenance
- maintenance

Service

- check of hydraulic components
- change of hydraulic components
- oil change
- filter change
- liquid analysis
- system related pollution control

Service for systems

Mobile Device Technology

- construction machines
- railway construction technology
- crushing plants
- asphalt technology
- recycling technology
- drilling devices
- municipal technology
- forestry equipment
- agricultural machines

Large Appliances

- presses
- paper machinery
- printing machinery
- plastic machinery
- tool machinery
- foundry machinery

Industrial plants

- ship building
- mining
- smelting plants
- rolling mills

