

A detailed photograph of a hydraulic power unit (HPU) in an industrial setting. The unit is primarily blue and black, featuring a large black hydraulic pump, various hoses, and a cooling fan. The background is a plain white wall.

**fpe**Hydraulik  
fluid power engineering

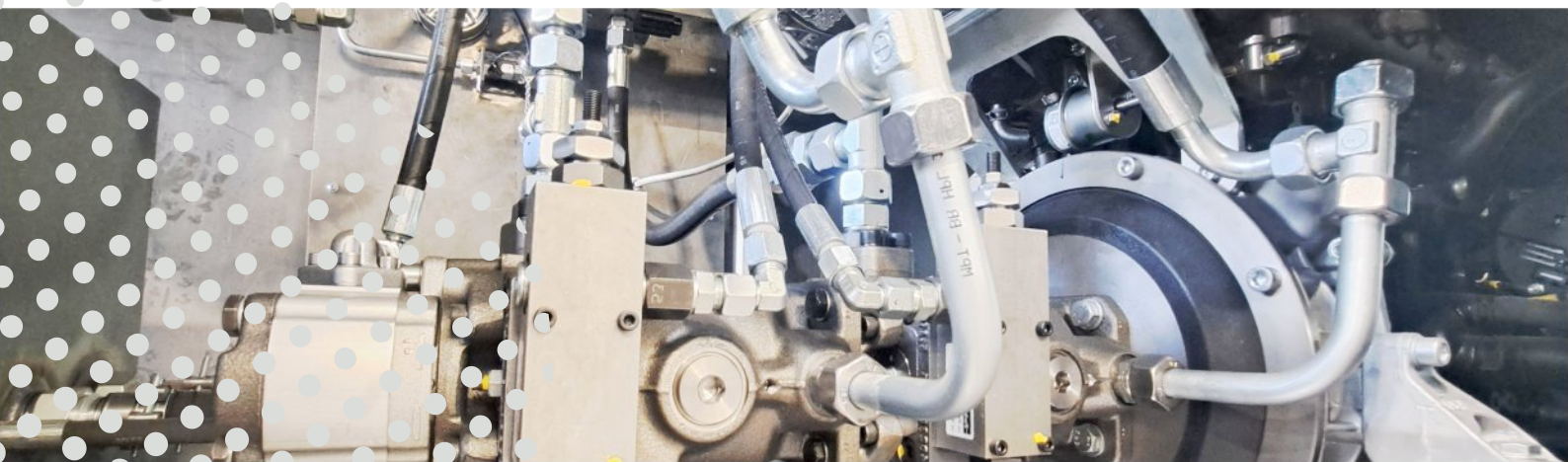
Hydraulic Power Units

**Efficiency and  
High Performance  
for Industries**

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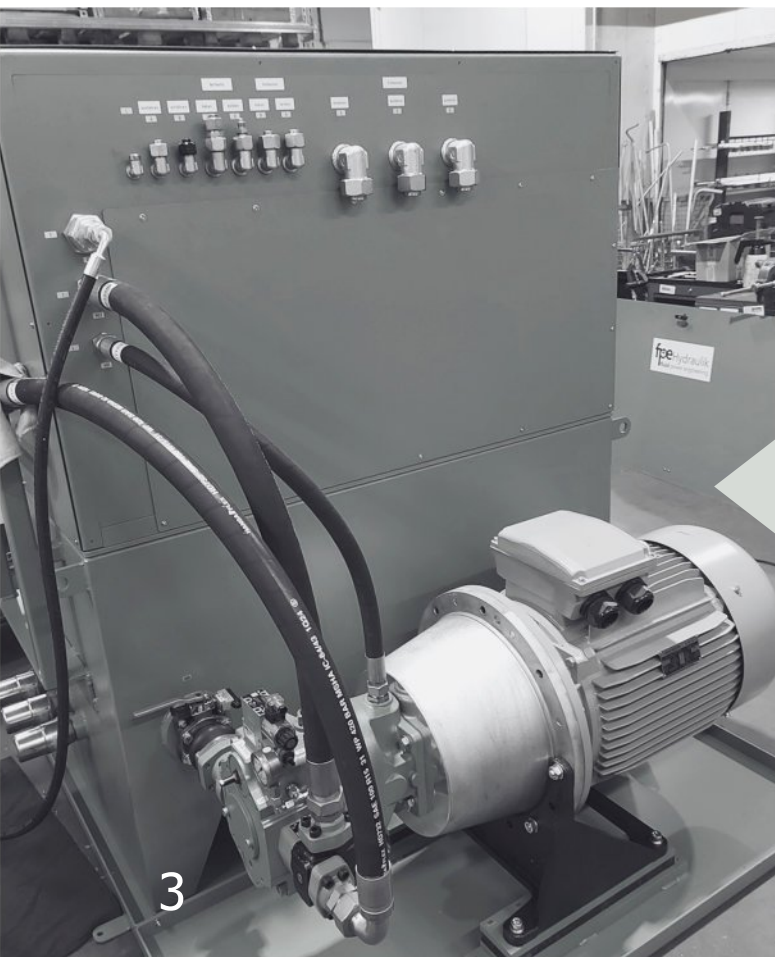
# HYDRAULICS MEETS ELECTRICS

## The Future of Industrial Drive Technology

Hydraulics have been an integral part of industrial processes for decades. Its ability to precisely transmit high forces and control complex motion sequences is unparalleled. However, with the advancement of electrical engineering, new opportunities are opening up to increase the efficiency and flexibility of hydraulic systems.

Our company offers customized hydraulic solutions that optimally combine the advantages of both technologies.

From the concept phase to commissioning, we support you step by step, ensuring seamless integration into your production process.



### Advantages of Electric Drives:

- high energy efficiency through precise power adjustment
- lower emissions and noise
- easy integration into existing control systems

### Our Solutions:

- electric servo motors for exact positioning and high dynamics
- frequency converter for variable speed control
- intelligent control systems for optimizing energy efficiency



# COMPACT ENERGY SUPPLY

## Hydraulic Power Units Are the Heart of Many Industrial Processes.

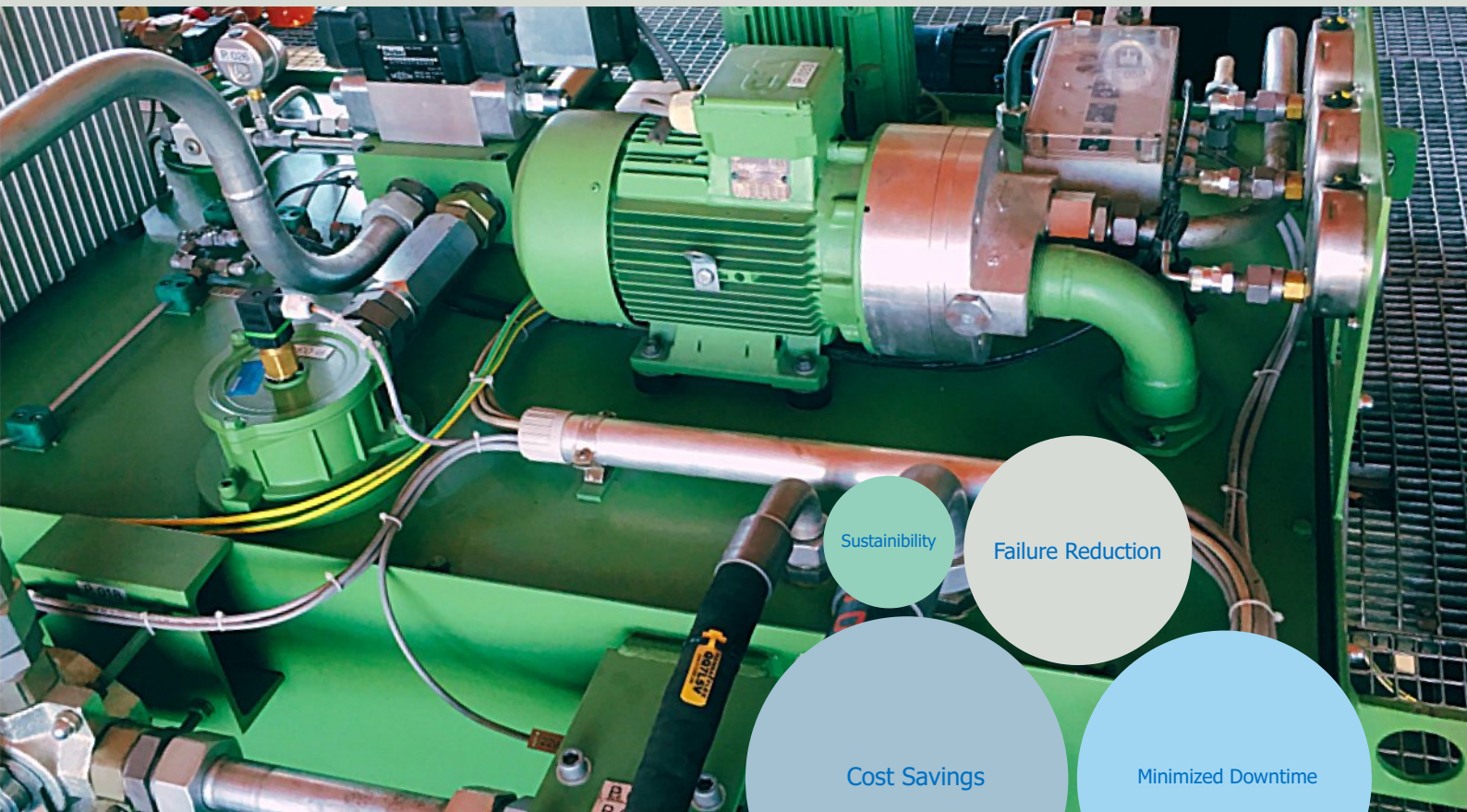
The ability to control fluids and pressure makes it possible to transmit high forces precisely and in a controlled manner. This makes hydraulic systems and components indispensable in sectors such as mechanical engineering, the steel industry, the energy sector and circular economy applications. Hydraulic systems can be classified according to various criteria. They can be classified, for example, by their application (mobile, stationary) or by the type of pump. High-quality components and regular maintenance ensure a long service life.

A hydraulic power unit typically consists of the following components:

- **Drive motor:** Converts electrical or mechanical energy into rotational motion.
- **Hydraulic pump:** Generates the required pressure and flow rate.
- **Oil tank:** Stores the hydraulic oil and serves for cooling.
- **Valves:** Control the oil flow and regulate pressure and flow rate.
- **Filters:** Clean the oil of impurities.

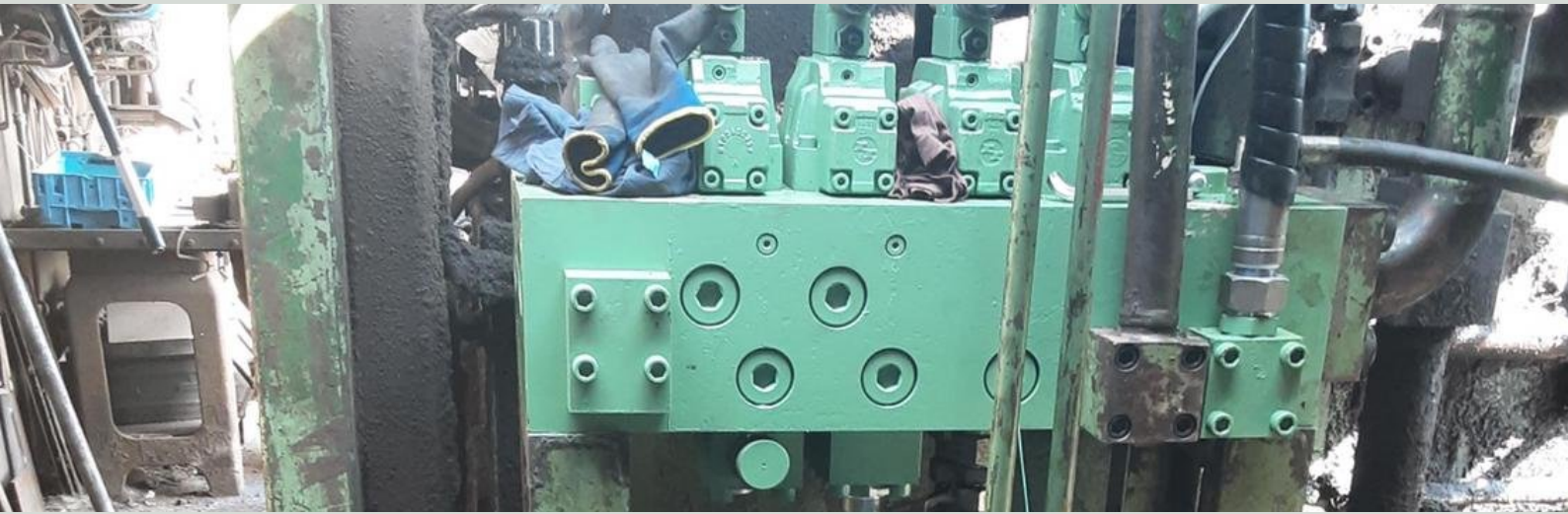
# RETROFIT:

## Modernization of Existing Hydraulic Systems



Many industrial plants still use older hydraulic systems that, while still functional, no longer meet current standards for efficiency, performance, and safety. Replacing these systems entirely often involves high costs and lengthy downtime. Retrofitting offers an economical and time-saving alternative in such cases.

### Advantages at a glance



## The Smart Alternative for Your Components

**RETROFIT** is significantly more cost-effective than purchasing new machinery or equipment. Existing structures and components can be used further. The modernization can often be carried out faster than a complete replacement, which leads to shorter production interruptions. By using energy-efficient pumps, intelligent controls and modern technologies, energy consumption can be reduced and system performance improved. Replacing worn-out parts minimizes the risk of failures and increases operational safety.

**RETROFIT therefore makes a significant contribution to sustainability: the service life of existing systems is extended and resources are conserved.**



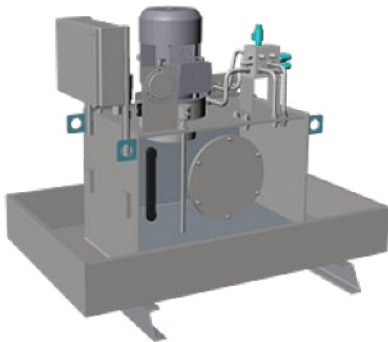
Retro Fit



# OUR SERVICES

## As Your Expert Partner for Hydraulic Solutions, We Offer a Comprehensive Range of Services:

- Creation of individual concepts based on your requirements
- Design/sizing of components and systems
- Creation of 3D models and simulations
- Precise manufacturing of hydraulic power units according to the highest quality standards
- Use of high-quality materials and components
- Flexible adaptation to customer-specific requirements



- Automation and remote maintenance
- Electrical control and regulation
- Energy and system optimization
- Cost-efficient modular systems
- Installation, commissioning and training
- Construction and documentation
- Proprietary piping and hosing



# INDUSTRIAL APPLICATIONS

## Individual Solutions – High Quality – Comprehensive Service

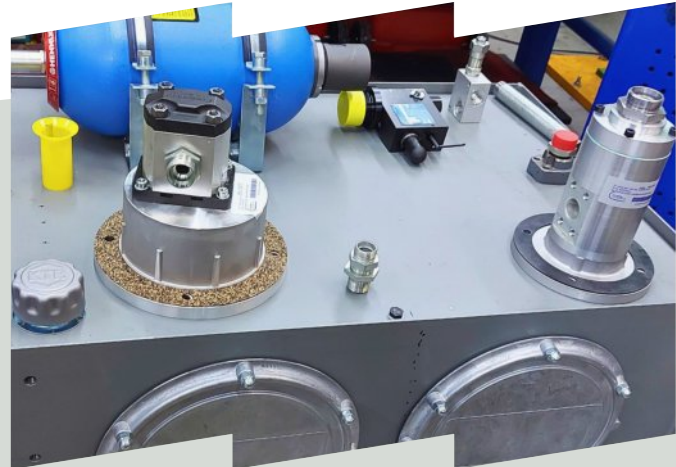
Hydraulic power units are powerful and versatile drive systems used in countless industrial applications. Thanks to continuous further development, they are becoming increasingly efficient and environmentally friendly.

We offer tailor-made hydraulic solutions that are precisely matched to your individual requirements. From planning and manufacturing to service, we support you throughout your project.

With our customized hydraulic solutions, you can increase the efficiency of your production processes, reduce your operating costs, and protect the environment.

# SELECTION CRITERIA AND ADVANTAGES

Choose the Best Option for Your Needs



| Criteria   | Application   |
|--|---|
| Performance:<br>Flow rate, Pressure, Motor power     | Mechanical Engineering: Test benches, Presses, Bending machines   |
| Size and Weight:<br>Adaptation to installation space | Industrial Hydraulics: Conveyor belts, Lifting platforms, Assembly systems, Presses, Test benches                   |
| Energy Efficiency:<br>Pump efficiency, Power loss    | Mobile Hydraulics:<br>Excavators, Cranes, Trucks etc.   |
| Noise Emission:<br>Sound pressure level, Insulation  | Other Industries: Energy generation, Recycling, Track construction, Mining, Paper industry, Steel construction etc. |

# DIVERSE DESIGNS

## From the Idea to the Final Product: Everything from a Single Source

### Tank versions

- Steel
- Stainless steel
- Plastic
- ATEX

### Drive types

- electric drive
- Internal combustion engine drive
- Electric frequency-controlled drive

### Pump types

- Submersible pumps
- Top-mounted pumps
- Deck-mounted pumps
- Constant volume flows
- Variable volume flows

### System types

- Open hydraulic circuit
- Closed hydraulic circuit
- For mobile applications
- For stationary applications



- Selection of suitable pumps, motors, valves and control systems
- Optimization of system parameters for maximum efficiency
- Adaptation to extreme environmental conditions (temperature, pressure, humidity)
- Various tank materials (steel, stainless steel, plastic, ATEX) for optimal adaptation to the area of application
- Electric, internal combustion engine or electric frequency-controlled drives
- Pressures up to 700 bar and unlimited volume flows

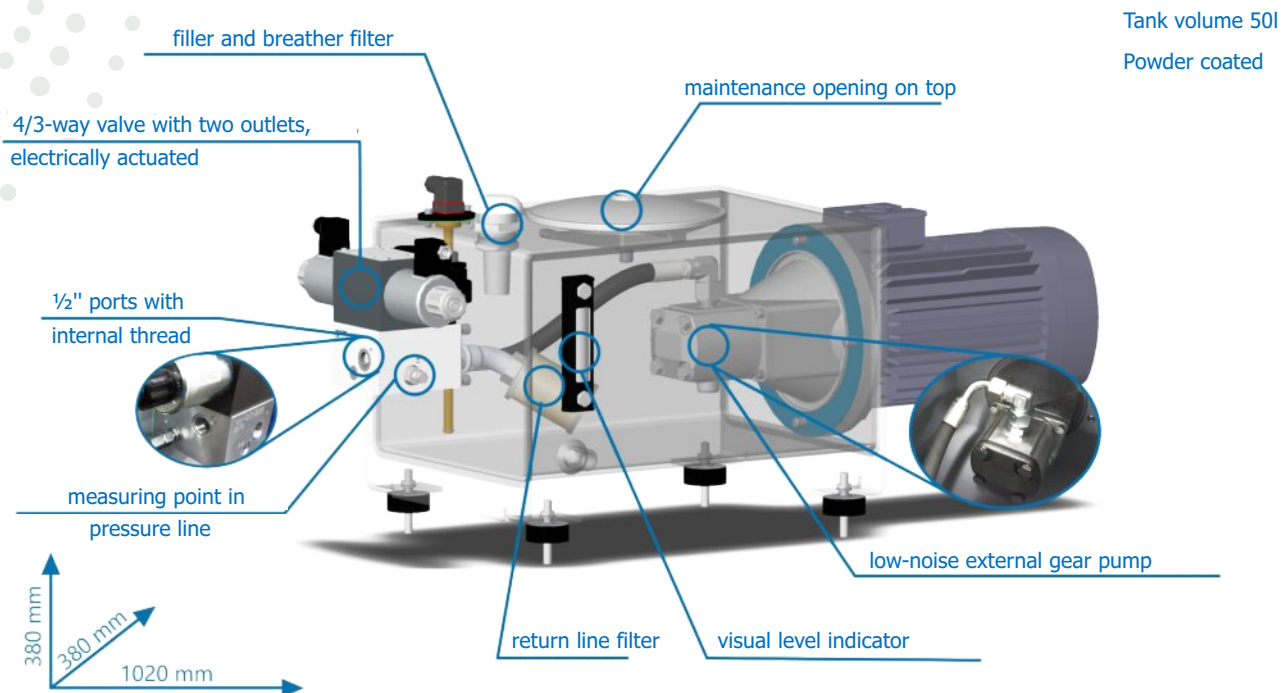
# PRECISION APPLICATIONS

## Planning Example: Hydraulic Power Unit for Low-Noise Production Environments

In modern production facilities, not only precision but also a pleasant working environment is crucial. Our planning example demonstrates how a tailor-made hydraulic power unit can be developed to optimally meet these requirements:

To ensure a pleasant working environment, a Silence pump is used, which **generates a noise level of only approx. 70 dB(A)**. This minimizes noise pollution and promotes employee concentration.

Despite its **compact design** and low-noise operation, the hydraulic power unit offers high performance. With a pressure of up to **200 bar** and a volume flow rate of **18 l/min**, even demanding assembly tasks can be reliably performed.



## Minimal Maintenance, Maximum Efficiency

To make maintenance as simple as possible, the power unit is equipped with an easily accessible **top-mounted maintenance opening**. This allows oil changes and other tasks to be performed quickly and without complications.

The use of high-quality components and a meticulous construction ensure the hydraulic power unit's high reliability and durability. This reduces the risk of failures and guarantees smooth production operation.



This customized hydraulic power unit combines precision, comfort and ease of maintenance in one compact and powerful solution.

It helps to increase productivity, improve working conditions and reduce operating costs.

**compact powerful**

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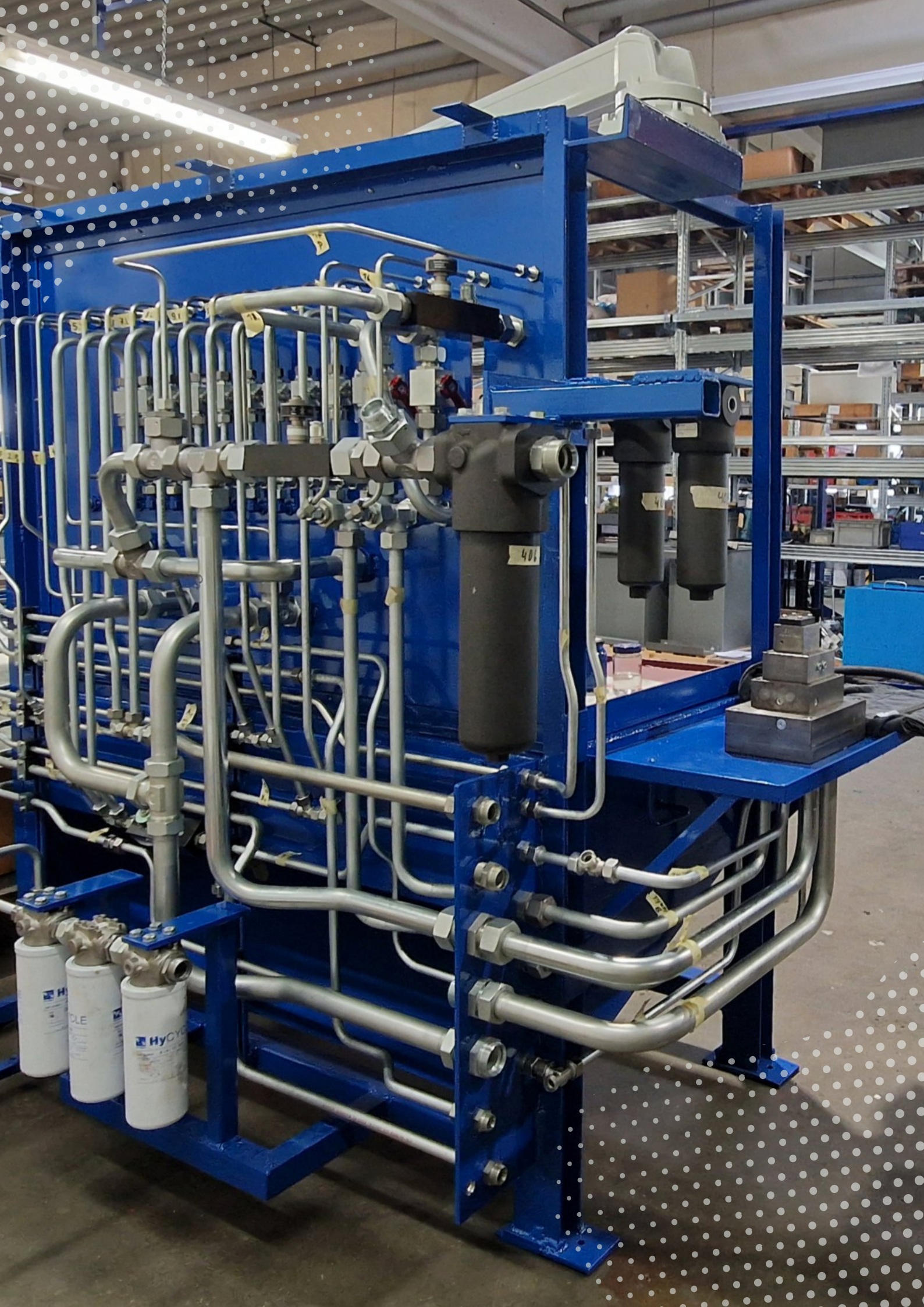
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