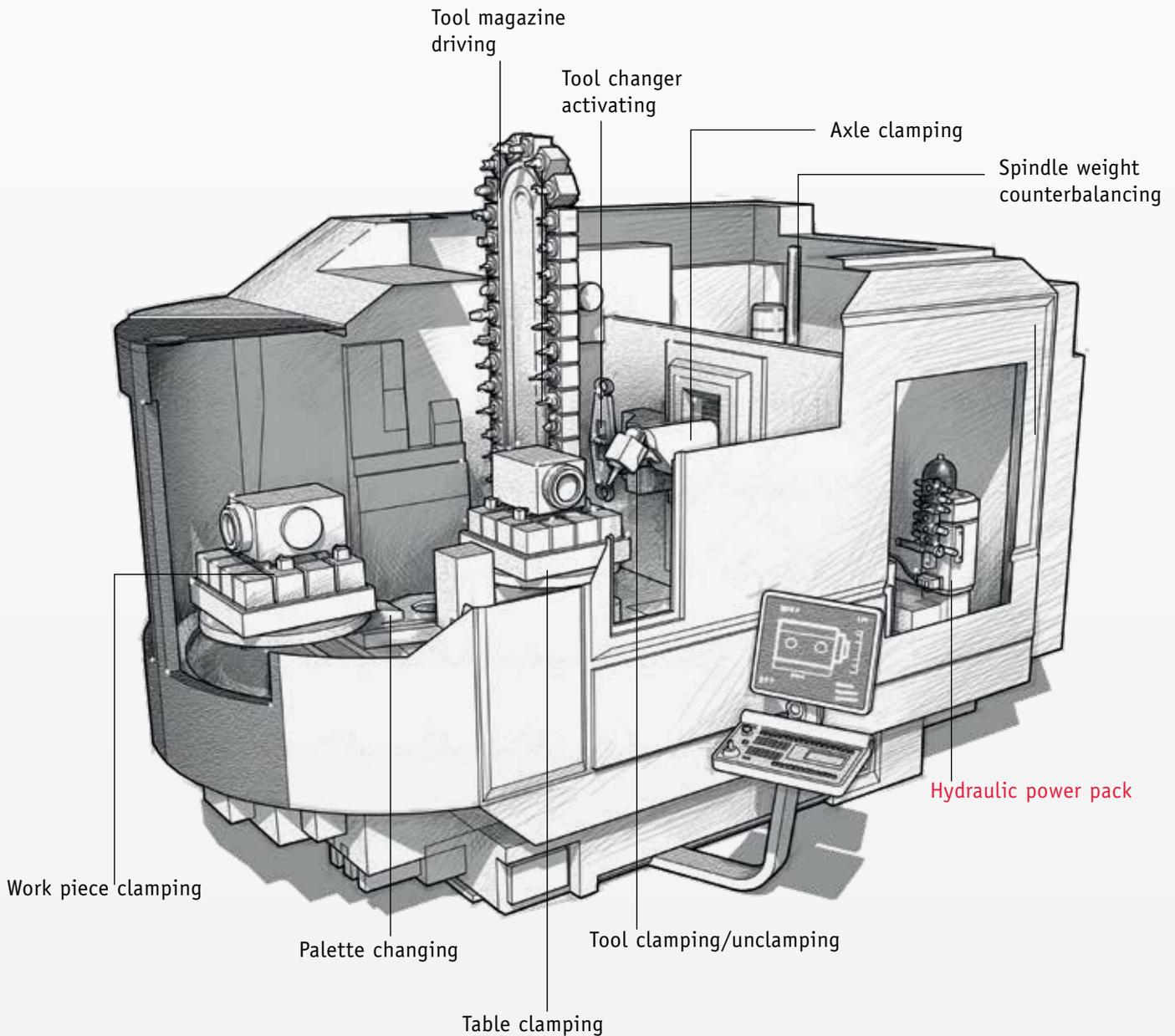


Highly efficient and requiring little floor space.



When required, hydraulics, with its high power density, can really play to your advantage. For carrying out clamping and drive functions, it is the key to high precision and speed when operating work pieces in modern machining centres.

HAWE Hydraulik: ideas for increased efficiency.

Batch production – high precision with short machining time.

Tailored solutions for the efficient production of various batch sizes, work-piece geometries and materials are increasingly at the heart of machining centres' demands. However, the need for precision, speed and efficiency is on the increase too. As a manufacturer and specialist, you are required to fulfil all of these requirements. If you regard us as your supplier and partner, you will access external expertise as we develop solutions together as a team. Furthermore, the sooner we start to work with each other on a project, the greater the potential savings we can make together, in all the areas mentioned.

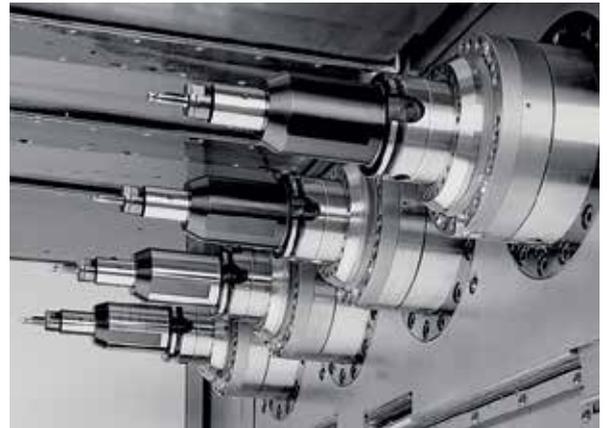


Photo: Schwäbische Werkzeugmaschinen

HAWE Hydraulik: around the clock commitment.

Of course that applies first and foremost to our hydraulic solutions, which supply power according to requirements and thereby use only as much energy as is necessary. HAWE Hydraulik offers a wide variety of tried-and-tested concepts for improving efficiency, productivity and reliability, with these concepts our hydraulics offer key advantages, especially when compared to electromechanics. Thanks to the high power density of hydraulics, our solutions are so compact that they are cleverly hidden inside the machine housing, thereby reducing the machine's floor space, transport costs and installation time on site.

Optimization concepts include:

- Hydraulic pumps in intermittent operation
- Accumulator charging operation
- Dual-stage pumps in one housing
- Zero-leakage directional seated valves instead of directional spool valves
- 8-Watt valve technology
- Decentralized control of functions

Together we can make a difference.

HAWE Hydraulik is your experienced partner for machining centres and turning, sawing and grinding machines. Sustained production is part of our philosophy. Our solutions offer unique design and flexibility, thanks to our modular system, which is essential for your clients.



Comparison of energy consumption from left to right: conventional hydraulic power pack; with frequency converter; HAWE compact power pack with intermittent operation and accumulator charging operation

All that matters – precision and efficiency.

Our sophisticated hydraulic solutions work seamlessly together, and have a compact, state-of-the-art design: built according to a modular system, they offer you maximum flexibility and significant financial benefits. Examples from our product range:

A compact, multifunctional drive:

With the compact hydraulic power pack type KA2, hydraulic pump and a submerged motor are combined in one housing (tank). It can be used vertically or horizontally and is suitable for short-time (S2) and intermittent operation (S3). The compact design means that the power pack can be integrated into the machine housing and even run on one axle.

■ Maximum motor power:	1.4 kW	
	Radial piston pump	Gear pump
■ Operating pressure (p_{max}):	700 bar	170 bar
■ Delivery flow (Q_{max}):	10 lpm	22 lpm

Even greater oil volume:

With the compact hydraulic power pack type KA4, the larger housing means a greater filling volume, which in turn means that larger motors and pumps can be fitted to provide a larger displacement volume. Fitted with an external ventilator, the KA4 power pack can also be used for permanent operation (S1). Directional valves are fitted as a bank directly to the power pack.

■ Maximum motor power:	5.7 kW	
	Radial piston pump	Gear pump
■ Operating pressure (p_{max}):	700 bar	170 bar
■ Delivery flow (Q_{max}):	25 lpm	40 lpm

Flexibility even in the valve bank:

The valve bank type BVH can be directly fitted to the compact power pack with a connection block. The individual sections are mounted via a banjo bolt at connection port P. Replacement of tension rods is not necessary in the case of extensions. The directional seated valve bank is compact and has zero-leakage.

■ Operating pressure (p_{max}):	400 bar
■ Max. flow (Q_{max}):	20 lpm

Directional seated valve with industrial standard connection:

The leak-proof directional seated valves type NBVP can be mounted on industrial standard connection plates (Cetop NG6). The valves are available as 2/2, 3/2, 3/3, 4/3 and even 4/4 directional valves. Compact valve banks with numerous optional and safety functions, such as a switching position monitoring can be installed.

■ Operating pressure (p_{max}):	400 bar
■ Max. flow (Q_{max}):	20 lpm



End-to-end service.

With five sales offices in Germany, 17 subsidiaries worldwide and around 30 expert partner companies, HAWE Hydraulik is bound to have a presence in your area.

HAWE Hydraulik offers the following benefits:

- Comprehensive individual advice and assistance
- Customized solutions
- Products designed and manufactured using state-of-the-art technology
- Many years of experience and expertise in hydraulic products and their uses
- Tailored service and maintenance contracts
- Design, set-up and maintenance/servicing on-site

If you have any questions, please get in touch. Our experts are always happy to help.

