

A detailed view of a hydraulic system panel. The panel is densely packed with various components including a large red accumulator at the top center, a vertical stack of six solenoid valves, a pressure relief valve, and several pressure gauges. A large grey motor is visible on the left side. The entire system is mounted on a metal frame with various pipes and fittings. The background is a solid blue color.

HYDAC INTERNATIONAL

■ **System Engineering.**



HYDAC Germany



HYDAC France



HYDAC China



HYDAC India



HYDAC Brazil



HYDAC Poland



HYDAC Denmark



Your Professional Partner for Systems Technology.

With over 6,000 employees worldwide, HYDAC is one of the leading suppliers of fluid technology, hydraulic and electronic equipment.

Our wide range of products, combined with expertise in development, manufacturing, sales and service, has for decades enabled the most diverse challenges in systems technology to be overcome, in almost all sectors of the industry.

Global and yet local

With more than 45 overseas companies and over 500 distributors and service partners, HYDAC is your reliable partner worldwide.

System solutions. One supplier. One contact.

Wherever you need us, we are there to help you find the most effective solution – for every application, from components to a complete system.

Worldwide specifications and approvals.





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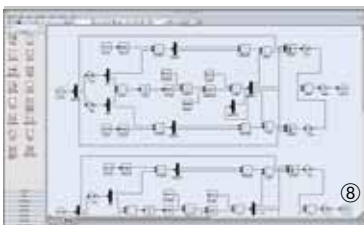
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⑧

Product Range

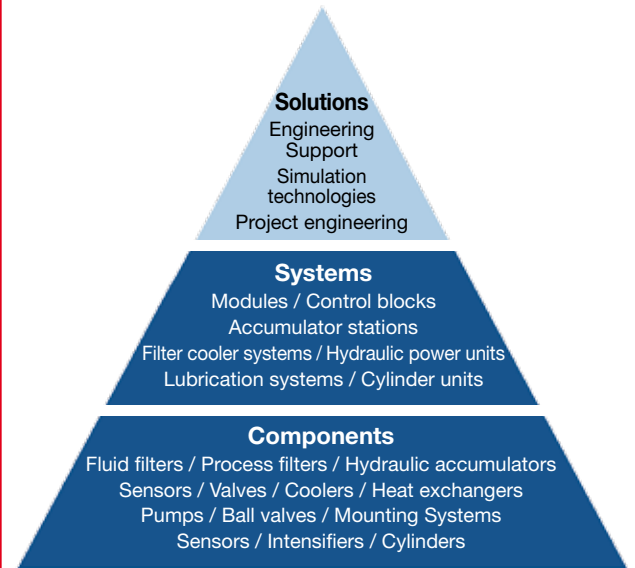
The breadth of our product range together with many years' experience equips us to offer tailor-made solutions for almost all sectors.

We design and supply turnkey hydraulic control and drive systems, including electronic controls for mobile and stationary machines and systems.

The complete package from a single source:

- Hydraulic power units ①
- Hydraulic actuators ②
- Hydraulic tools
- Circulation lubrication systems ③
- Filtration and cooling systems ④
- Accumulator stations ⑤
- Nitrogen high-pressure systems ⑥
- Patented electro-hydraulic safety controls in compliance with IEC 61508 and IEC 61511 - SIL 3. ⑦
- Complete analysis programs for electrohydraulic controls ⑧
- Hydraulic controls in modular design
- Installation, pipe installation, commissioning on both hydraulic / electrical sides

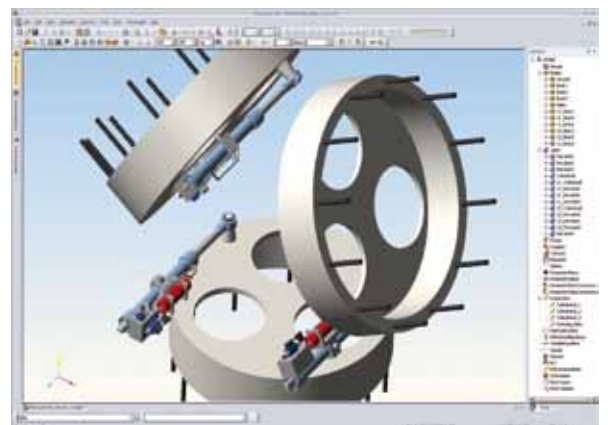
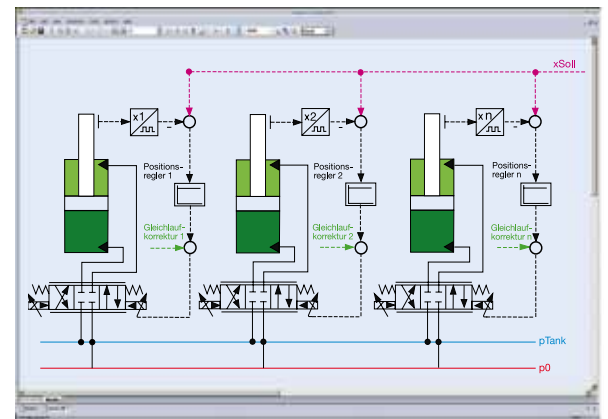
System Engineering



In order to ensure that high quality components also give the best result when used in combination, a careful and systematic approach when designing the system is crucial.

This approach, starting at the design stage, and using modern simulation methods, eventually leads to the desired result – perfect control of your process!

Hydraulic simulation, multi-body dynamics, control circuit optimization and virtual prototypes are just some of the tools used daily in our development work.



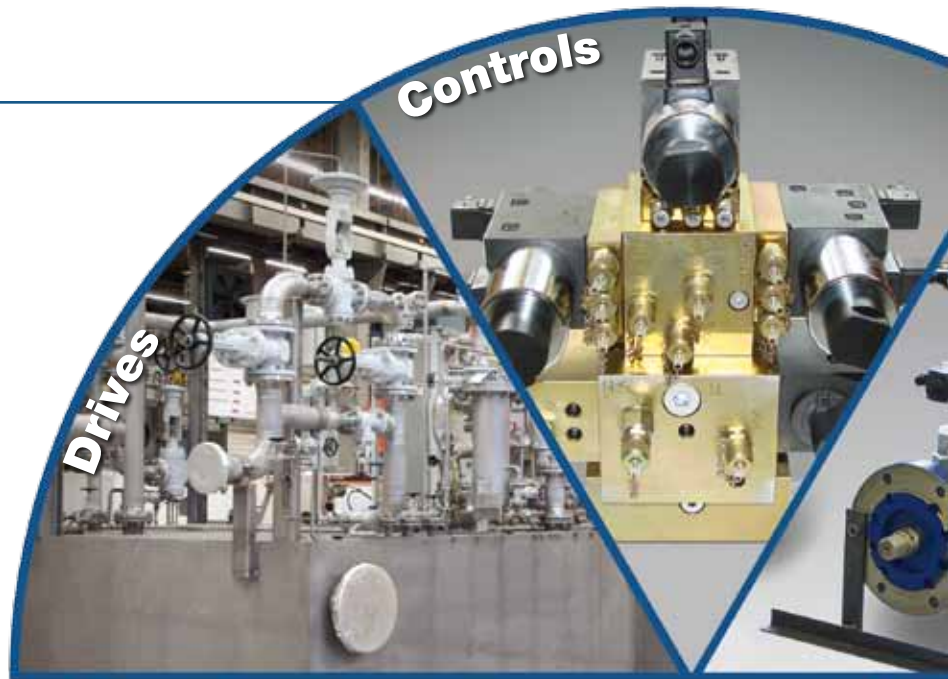
ounded on Proven Solutions and New Ideas.

The Complete Package for Hydraulic Systems from One Supplier.

In order to guarantee the best possible availability, an integrated system approach is required, where possible, from design to support, over the whole life cycle of the product.

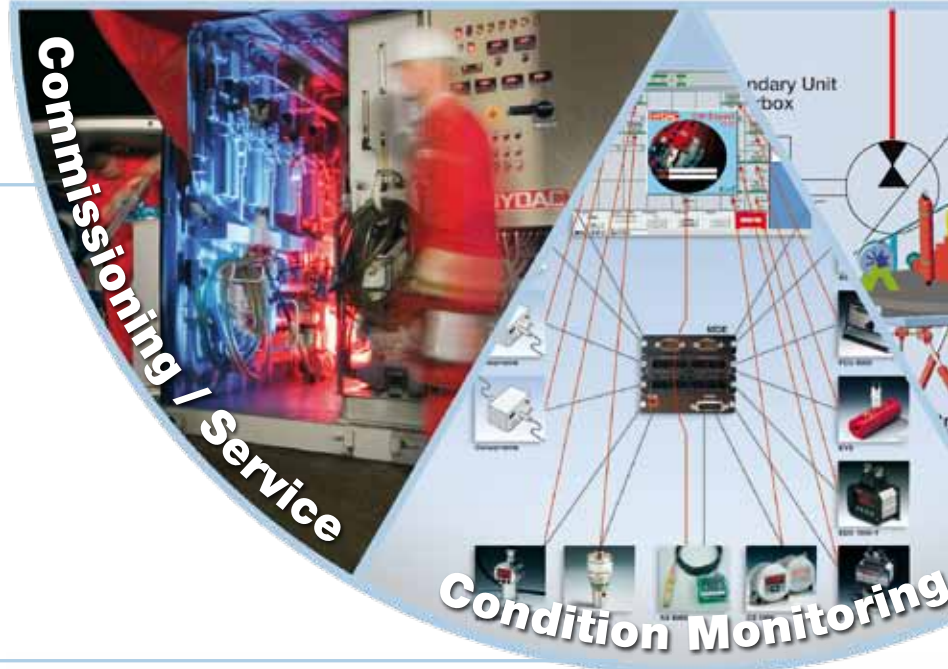
Drives / Controls & Controls / Actuators

Pumping stations (hydraulic energy producers), hydraulic controls (hydraulic energy dosage) and actuators (converting hydraulic energy back into mechanical energy) have to be optimally adjusted to each other to suit the particular drive task.



Commissioning / Service

Set-up, installation, long-distance pipelines, pipelines, system flushing, pressure tests and commissioning round off our complete system range. Simple follow-up service right up to maintenance contracts worldwide can be included in our service package.



Condition monitoring

HYDAC Condition Monitoring systems are designed to monitor the condition of machines and systems and, combined with our knowledge of operating fluids, complete the integrated approach to Fluid Engineering. Ideally CM systems will already be included in the design for a new system.

Machine building



- Presses
- Machine tools
- Test rigs



Fluid panel, for machining centres



Accumulator station for press line



Test bench, Airbus testing

Energy production



- In coal power stations (coal transport, coal mills, de-slagging, grate drives, water-steam circuit, flue gas scrubbing, gas and steam turbines)



Control oil supply for steam turbine



System for steam valve control



Slam-shut valve to protect against turbine overspeed



Electrohydraulically controlled shut-off valve

Renewable energies



- Wind turbines
- Solar power stations
- Biomass combustion plants
- Hydroelectric power plants



Solar thermal power plant: Power unit for parabolic reflector adjustment



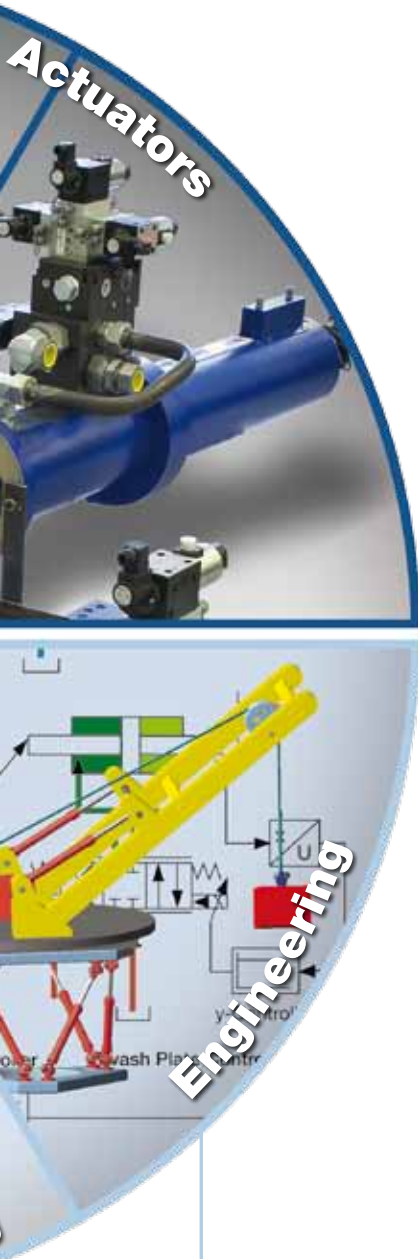
Wind turbine: Hydraulic power unit for braking function and yaw adjustment



Wind turbine: Hydraulic power unit for braking function and yaw adjustment



Hydroelectric power plant: Power unit for gravity actuated butterfly valve in cooling water circuit



Engineering

Only careful engineering with the aid of the most modern calculation tools guarantees optimum drive motion in your production process. On request, we can also design the drive control (axis control), or provide suitable hardware components, including integration in your higher-level machine control.

References. In Use Around the World.

Iron and steel production



- In steelworks (continuous casting plants, strip-winding plants, blast furnace gas expansion, coking plants)



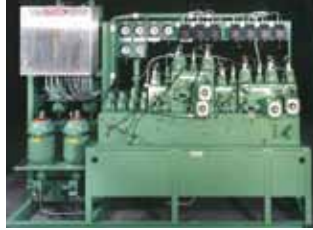
Pump station for strip-winding plant



Bypass heating / cooling circuit for continuous casting plant



Blast furnace gas valve adjustment



Valve station for continuous slab casting plant

Offshore / Process technology



- Hydraulic equipment
- Loading systems
- Ship stabilisers



Oil system of compressor plant



Compressor system



Systems for ship loaders



Hydraulic systems for dredgers



Refinery: Hydraulic equipment



Hydraulics for ship stabilisers

And many other applications ...

- Cement plants
- Material handling technology
- Mining machinery
- Maintenance contracts for complete systems ...



Cement mill: Hydraulic power unit



Cement mill: Lubrication system



Bucket wheel excavator: Hydraulic cylinder

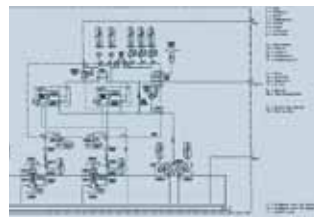


Bucket wheel excavator: Hydraulic power unit

Service / Service systems



- Individual designs
- Installation worldwide
- System support



System Expertise. Local Availability – Worldwide

System Know-How

HYDAC Systems are not designed and built exclusively in the main plant in Germany. The worldwide HYDAC organisation has built up its system knowledge over the last 40 years and as a result, challenging projects can be implemented at many locations in Europe, Asia and America.



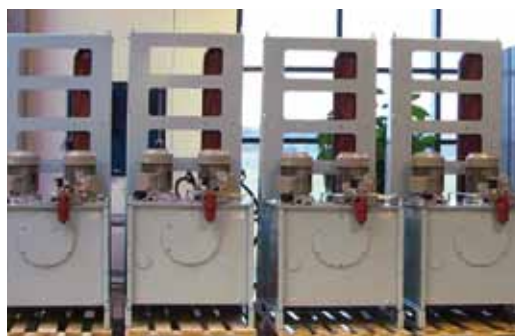
System Engineering – Germany



HYDAC Czech Republic



HYDAC India



HYDAC Denmark



HYDAC Poland



HYDAC China



HYDAC Brazil



Accumulators E 30.000



Filtration Technology E 70.000



Process Technology E 77.000



Filter Systems E 79.000



Compact Hydraulics E 53.000



Accessories E 61.000



Electronics E 180.000



Cooling Systems DEF 57.000

Global Presence. Local Expertise. www.hydac.com



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