Over 50 Years of Expertise, Innovation and Quality.

With 7,000+ employees, 50 overseas subsidiaries and 1,000 sales and service partners worldwide, we are in close contact with our customers, providing engineering advice, production support, expert installation and superior service.

We are well-positioned to fulfill the exacting demands of the international market. Our interdisciplinary network links expertise, innovation, quality standards, customization and service all over the world. The knowledge and skill we have gained in over 50 years in the most demanding and diverse projects means HYDAC industry and product specialists speak your language.

No matter what the job entails and irrespective of location, we are able to help you find the best solution. With HYDAC's innovative engineering, our quality components and systems and our outstanding service, we've got you covered.
Components, Systems and Service. All from one Company.

Our fluid engineering solutions are defined by the scope and complexity of our customers’ requirements. Our products range from individually designed components in the fields of fluid engineering, hydraulics and electronics right up to complete systems for specific functions.

All components and systems are conceived and designed in-house. Experienced industrial and product specialists develop innovative products and efficient solutions for high-quality, cost-effective production. Throughout the globe, our production facilities share one common goal: quality. We take great pride in both our products and solutions.
**Filter Systems Technology**

Mobile and stationary components and equipment for:
- Separation of solid, liquid, and gaseous contaminants from hydraulic fluids, lubricating oils and emulsions.
- Extended maintenance intervals and service life of operating fluids.
- Monitoring, analysis, diagnostics and documentation of the operating conditions for original equipment and for retrofitting machines and systems.
- Condition monitoring using fluid sensors.

**The Products**

- Mobile filtration systems
- Stationary filtration systems
- Automatic filtration units
- Dewatering systems FAM & MAFH
- Oil condition sensors CS
- Water sensors AS
- Contamination controllers FCU
- Measuring and analysis kits
- Digital analysis equipment
- Portable data recorders HMG
- Component analysis equipment
- Ion eXchange unit IXU
- Sampling systems and laboratory equipment
- Transformer care units TCU

**Typical Applications**

- Iron and Steelworks
- Wind Turbines
- Foundry Equipment
- Cement Works
- Paper Mills
- Large Transmissions
- Turbines
- Large Compressors
- Construction, Agricultural, Forestry Machinery
- Plastics Processing
- Machine Tools
- Offshore, Shipbuilding
- Transformers
- Mobile Equipment
- Automotive
- Oil & Gas
- Mining

**Filtration Technology**

Components and systems for filtering solid, liquid, and gaseous contamination and for extracting water from hydraulic, lubricating, flame-resistant and biodegradable operating fluids.

**HYDAC Filtration products meet market demands for:**
- High particle removal over a wide differential pressure range
- Low pressure drop, also during cold starts
- High collapse stability
- High contamination retention, longer service intervals
- Reduced installation dimensions & machine specific housings
- Ultra-modern laboratory & test rig technology

**The Products**

- Inline filters up to 7500 psi / 517 bar, flows up to 4,000 gpm / 15,000 l/min
- Off-line filters for extreme contamination
- Filter elements, materials: glass fiber, metal fiber, wire mesh, paper and incinerable all-plastic
- Filtration ratings: 3 µm– 200 µm
- Clogging indicators: visual, electrical, and electronic
- Tank breather filters, filtration rating : 3 µm – 10 µm
- Stat-free elements
- Guaranteed reliability through quality protection
- Diesel pre-filtration

**Typical Applications**

- Hydraulics and Lubrication Systems
- Machine Tools
- Plastics Machinery
- Foundry Machines
- Mobile Machinery, Automotive
- Steel Construction, Hydro-engineering
- Oil & Gas
- Offshore, Shipbuilding
- Power Plants
- Transmission Systems
- Paper Mills
- Stage / Platform Engineering
- Test Rigs & Test Stands
- Cleaning Systems
- Mining
Process Filtration Technology

Components, elements and systems for separating low and high viscosity fluids, aggressive fluids and gaseous media.

Process-specific engineering, computer-aided, simultaneous designs, as well as testing and certification are undertaken in laboratories and on test rigs specially equipped for process technology.

The Products

- Performance filters made of stainless or carbon steel - pressures up to 9,500 psi and temperatures up to 1,000°F
- Filter elements made of stainless steel (cleanable) for differential pressures up to 6,000 psi and temperatures up to 825°F
- Automatic back flushing filters for the filtration of machining lubricants, parts washing fluids, and process waters with flows up to 30,000 gpm

Typical Applications

- Chemical and Petrochemical Industries
- Plastics Production
- Water Cooling Systems
- Washing Systems
- Waste Water and Sewage Treatment Plants
- Municipal Water Facilities
- Lubrication Systems
- Paper Mills
- Power Generation Plants
- Steel Mills
- Automotive Plants
- Machine Tools
- Cooling Lubricants
- Offshore, Shipbuilding
- Snow Blowing Equipment
- Agricultural Irrigation Systems
- Food and Beverage
- Mining

Cooling Systems

Modular series of components and systems in cooling technology.

Application-based engineering designs, developed and manufactured in product-oriented laboratories, testing and production facilities for applications in mobile and industrial machines and systems.

The Products

- Oil air coolers up to 100+ hp
- Oil water coolers up to 100+ hp
- Liquid air cooling systems
- Cooling systems with filters
- Oil air coolers with pumps, filter, motors
- Oil air coolers with electronic fan controls (fan arrays)
- Compressor cooler units
- Air coolers with ATEX certification for gases and dust

Typical Applications

- Machine Tools
- Hydraulic Systems
- Hydrostatic Drives
- Mechanical Drives
- Wind Power Systems
- Plastic and Die Cast Machines
- Railroad Technology
- Mobile Equipment
- Gas Turbines
- Industrial Compressors
- Factory Level Cooling Systems
- Gas Turbine Cooling Systems
**Accumulator Technology**

Components and systems of all types of hydraulic accumulator – bladder, piston and diaphragm accumulators, hydraulic dampers, silencers – the most comprehensive accumulator range worldwide, providing the best solution for every application drawn from over 50 years experience.

HYDAC accumulators are manufactured and supplied with approval certification in accordance with the pressure equipment directive and laws of the relevant country.

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**Hydraulic Cylinders**

Custom-engineered welded hydraulic cylinders for a broad range of applications. HYDAC specializes in value-added solutions for both large bore and heavy duty cylinders. Engineering expertise is available to assist with all integration, position sensing and custom mounting needs.

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**The Products**
- Bladder Accumulators
- Diaphragm Accumulators
- Piston Accumulators
- Pulsation Dampeners
- Suction flow stabilizers
- Shock absorbers
- Silencers
- Safety and Shut-off Blocks
- Charging and Testing Equipment
- Nitrogen Charging Units
- Accumulator Charging Stations
- Accumulator Stands

**Typical Applications**
- Energy Storage
- Power Supply to test equipment
- Volume Stabilization and Compensation
- Leak Oil Compensation
- Constant Pressure Maintenance
- Temperature Compensation
- Pump Pulsation Minimization
- Pressure Surge Dampening
- Noise Dampening
- Media Separation in lubrication systems
- Weight Compensation

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**The Products**
- Single and double acting
- Integrated
- Position sensing
- Piggyback

**Typical Applications**
- Construction
- Mining
- Mobile Equipment
- Cranes
- Offshore
- Oil & Gas
- Material Handling
- Forestry
- Earth Moving
- Balers
- Steelworks
- Dams
- Military

Photo courtesy of Taylor Lifts.
System Engineering

Complete systems, sub-systems and complex, controlled drive units, including electrical equipment and electronics for mobile and industrial machines and systems.

- System-oriented advice and simulation
- Application-based engineering
- Customized, application-oriented and economic solutions
- Function integration and standardization concepts
- Documentation and international production standard

Compact Hydraulics

Cartridge Valves, Standard and Custom Manifolds, Power units for Mobile and Industrial applications.

- Comprehensive range of cartridge valves for mobile and industrial applications.
- Industrial valves range with industry standard interfaces, on/off and proportional
- High pressure valves and pumps (up to 700 bar)
- Custom manifolds and standard line bodies
- Power Units

Typical Applications

- Vibration absorbing suspension systems with ride control for agricultural, forest, and construction machines
- Compact modular drive units with integrated control valves, as well as, multi-function components for mobile and stationary applications
- Hydraulic power units and control blocks for power plants, steel industry, presses and marine technology, etc., of every size and level of complexity
- Compact servo systems and actuators
- Accumulator stations for power supply, emergency energy operation and crash test systems
- Central lubrication systems with tank volumes up to 8,000 gallons for turbines, compressors, and paper machines
- Cooler filtration plants
- Complete pump series for industrial system technology

The Products

- Cartridge valves for pressure, flow, load control, on/off directional poppet and spool valves hydraulically and solenoid operated, proportional flow, pressure and directional control in UNF cavities sizes 06 to 16 and various metric cavities, of every size and level of complexity
- Compact servo systems and actuators
- Accumulator stations for power supply, emergency energy operation and crash test systems
- Central lubrication systems with tank volumes up to 8,000 gallons for turbines, compressors, and paper machines
- Cooler filtration plants
- Complete pump series for industrial system technology

Typical Applications

- Agricultural Equipment
- Forestry Machines
- Construction Equipment
- Aerial Work Platforms
- Fork Lifts
**Control Technology**

Directional control valves in sectional or monoblock design with standard operators from mechanical to electro proportional. Open and closed center designs for fixed or variable pump systems. Multifunctional integrated systems for complex machine control solutions. HYDAC's design process is a tool for our customers to maximize the synergy of all our products providing a new state of the art system through the coordination of applications, engineering and product development.

**The Products**
- Directional Control Valves in OPEN and CLOSED Center (OC & CC)
- Hybrid Valve Systems
- Mobile Controllers and Displays
- Wireless Remote Controls
- Application Specific Solutions

**Typical Applications**
- Cranes
- Road Construction Machinery
- Municipal Vehicles - including snow & ice
- Refuse Vehicles
- Agricultural Machinery
- Oil & Gas Equipment
- Work Trucks

**Electronics and Diagnostic Technology**

Components and systems in electronic measurement technology, control, feedback and solenoid technology for stationary and mobile applications. Solutions for standard applications and applications with increased safety (e.g. ISO 13849, IEC 61508). Adapted standard products and customized solutions, and system development for control and feedback tasks.

**The Products**
- Measurement technology:
  - Pressure Transmitters
  - Electronic Pressure and Temperature switches
  - Temperature Transmitters
  - Flow Rate Transmitters
  - Electromechanical Flow Switches
  - Electronic Level Switches
  - Ultrasonic Distance Sensors
  - Linear Position Sensor Systems
  - Inductive Displacement Transducers and Position Monitoring
  - Portable Data Recorders
  - Proportional Control Amplifiers
  - Mobile Controllers
  - Solenoid Technology
  - Switching / Proportional Solenoids, EX version solenoids

**Vehicle technology:**
- Valves and Systems

**Typical Applications**
- Presses
- Plastic Injection Machinery
- Machine Tools
- Test Rigs
- Mobile Machines
- Automotive
- Paper Machinery
- Power Plants
- Steelworks Equipment
- Oil & Gas
Fluid Service

HYDAC Fluid Engineering is a total concept of technical services for our end-use customers which aims to increase machine availability and optimize hydraulic equipment and systems, as well as reduce operational costs.

We offer full maintenance and commissioning services as well as inspections, modifications and repairs through our Service Center. For this purpose we have a comprehensive range of products for all fluids, such as oils, lubricants, cooling lubricants, water, air and gases.

Service Center
• In-house repairs
• Analysis and oil analysis (component cleanliness analysis)
• Commissioning, inspections and repairs worldwide
• Contracting (optimization and conversion projects)
• Fluid handling (filling with new oil, tank cleaning, oil changes)

The Products
• Two-way ball valves
• Three-way ball valves
• Three- and four-way ball valves
• Three- and four-way function blocks in carbon steel and stainless steel in threaded, flange and cartridge designs
• Fluid Level Gauges with visual and visual/electronic indication
• Breathers
• Mounting Elements to DIN 3015
• Quick Release Swivel Bolt Clamp
• Swivel Bolt Clamping Band
• Hose Clamps
• Supports
• Clamps for Cylinders
• Clamp Assemblies
• Bell Housings
• Piston Valves
• Coaxial Valves

Typical Applications
• System Engineering in hydraulics, gas, lubrication, chemical and petrochemical technology
• General Machine Building
• Pipeline Construction
• Vehicle and Rail Technology
• Agricultural, Construction and Forestry Machinery
• Offshore and Marine
• Machine Tools

Accessories

Ball valves and ball valve controls for fluid and gaseous media. Indicators and monitoring equipment for fluid level and pressure. Rigid and flexible mounting elements and systems for pipes, hoses, cables, reservoirs and machine components. Piston and coaxial valves to control gaseous, fluid, colloidal, abrasive, contaminated and aggressive media, at negative and positive pressure. Standardized products and customized solutions.

The Products

Vehicle and Rail Technology

Agricultural, Construction and Forestry Machinery

Offshore and Marine

Machine Tools
Economical solutions across diverse industries.

Utilizing the experience gained from numerous international projects, our industry and product specialists quickly arrive at the most economical solution, however new and challenging the problem may be. It makes no difference whether it is a case of developing and manufacturing individual stationary or mobile systems, or implementing series production solutions.

Your systems are further protected by worldwide approvals from the relevant certifying bodies, both national and international.