Components and Systems for the Automotive Industry
The Professional Partner for the Automotive Industry

With over 6,000 staff worldwide, HYDAC is one of the leading companies in fluid technology, hydraulics and electronics and has many years experience in the automotive industry.

1990: Solenoids and filters for Active Rear-Axle Kinematics in top range car
1991: Switching solenoids for camshaft phasing
1992: Diaphragm accumulator for automatic clutch system
1994: Diaphragm accumulator in the rear axle steering system
1996: Switching solenoid for truck engine braking system
1997: Proportional solenoid for camshaft phasing
1998: Diaphragm accumulator for automatic gear shift system
2001: Valve / sensor block and filter for active roll stabilization in top range car
2002: Mounting clamps for gas tanks
2003: Piston accumulator and solenoid valve for camshaft phasing
2006: Valve / sensor block and filter for active roll stabilization in SUV
2007: Switching solenoid for crash active head restraints
2008: Valve / sensor block and filter for active roll stabilization in top range vehicles
2009: Valve / sensor block and filter for active roll stabilization in sports car
2010: On/off valve for energy efficient pump drive

Global and yet local

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

Worldwide specifications and approvals

Our quality certification to ISO 9001 and ISO 16949 denote first class quality and responsible management of our resources.
**Engine and transmission**

Solenoids and valves for camshaft phasing
- Good dynamics
- Improved controllability
- High level of function integration

Hydraulic accumulators for energy storage and supply for adjustment and switching processes

Hydraulic filters for high level of fluid cleanliness for clutch, transmission and engine hydraulics

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**Solenoids/solenoid valves**

- Proportional and ON/Off type.
- Various electrical connections available.

- Good controllability and high flow rate

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**Hydraulic accumulators**

- Piston accumulator for camshaft phasing

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**Hydraulic filters**

(synthetic, glass or metal fibre)

- Engine hydraulics
- Dual clutch transmission
- Clutch and braking systems
- Automatic transmission
Chassis
Active roll stabilization and steering

- Electro-hydraulic systems for active roll stabilization.
  - Good dynamics
  - Improved controllability
  - High level of function integration

- Hydraulic filters in steering and suspension systems
  - High rate of contamination retention
  - High contamination retention capacity
  - Filter mesh pack in glass fibre or synthetic fibre
  - Plastic housing
  - Integrated bypass valve
  - Flow rate up to 25 l/min

Solenoid actuators for crash-active roll-over protection.
- Switching time: < 2 ms
- Ambient temperature: -30 to 90 °C
- Weight: 60 g
- High level of corrosion resistance.
Pedestrian protection:
Solenoid low energy actuator for crash active bonnet/hood release
- Switching time: < 2 ms.
- Ambient temperature: -30 to 120 °C
- Weight: 140 g

Electro-hydraulic systems for active roll stabilization for top range car
Electro-hydraulic systems for active roll stabilization for sports car
Electro-hydraulic systems for active roll stabilization for SUV

Electro-hydraulic systems for active roll stabilization for SUV

On/off valve for energy efficient pump operation.
10 million switching cycles.

Safety
Fast switching solenoid actuators with low energy requirement for activation via airbag control unit

Pedestrian protection:
Solenoid low energy actuator for crash active bonnet/hood release
- Switching time: < 2 ms.
- Ambient temperature: -30 to 120 °C
- Weight: 140 g

Crash-active head restraints
Solenoid actuators for crash active systems.
Environment
Emission reduction
Energy efficiency
HYBRID Technology

- Mounting technology and shut-off valves for gas tanks (CNG/LPG)
- Filter elements and valves for SCR technology
- Dieselfiltration HYDC Diesel PreCare
- Lightweight hydraulic accumulators for hybrid applications

Hydraulic filters
- Deep-bed filter element for SCR technology
- High contamination retention rate and contamination retention capacity due to innovative multi-layer filter media structure
- High strength and durable polymer fibre matrix due to thermoplastic bonding of the fibre structure
- Structural weak points eliminated (e.g., no seam)
- Low pressure drop
- Compact design

Hydraulic accumulators
- TÜV certified, patented mounting clamps with quick release fastenings.
- CNG shut-off valve
- Solenoid for tank vent valve

Diesel filtration
- Manual water discharge (BestCost Design)
  The conventional, operator-dependent solution.
- Fully automatic discharge (Plug & Play (HighTech design))
  The innovative solution for fully automatic dewatering, independent of the operator, even during suction side operating.
- 2-stage water separation
- Suction side pre-filter
- Protects all pumps and components in the fuel system from water and contamination
Development expertise – worldwide

Advice, development support, system responsibility and expertise

If required, HYDAC will support the customer throughout the product development cycle, from design and simulation up until the product is ready to go into production.

Development tools
MATLAB/SIMULINK
AMESim
ANSYS

Prototype construction / Laboratory
HYDAC is an innovative development partner and a series production supplier for the automotive industry, providing:
- in-house prototype construction
- individual function and service life test rigs
Global presence. Local expertise.
www.hydac.com

HYDAC Headquarters
HYDAC Companies
HYDAC Distributors and Service Partners