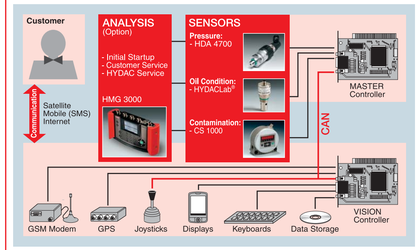
Systems and Service – worldwide.

Service, commissioning, analysis and diagnosis.

70 - 80% of all breakdowns in hydraulic and lubrication systems are due to excess contamination of the fluids and components used. In practice, this is often not sufficiently recognized.
HYDAC offers a comprehensive range of easy-to-use measurement and analysis equipment to monitor fluid and component cleanliness.
Fluid laboratory vehicles are at your service worldwide.

Condition monitoring, remote data transfer.



Constantly growing demands for operational availability, the reduction of downtimes, detailed load and service management (economy, wear and tear, service, warranty) require innovative collective monitoring, service and control concepts.

A variety of sensors provides the ideal basis for the construction of such system solutions.

- Oil condition / oil ageing via temperature, moisture, viscosity, dielectric constant (HYDACLab®), water content (AS), temperature (ETS)
- Particle contamination (CS)
- Pressure (HDA)
- Flow rate (EVS)
- Fluid level (ENS)

When used in conjunction with the Portable Data Recorders of the HMG series, this data can be displayed and analysed, to supplement the electronics of the machine (servicing).

Brochure: Accumulators DEF 3.000 /...

Brochure: Filtration Range DEF 7.000 /...

Bx: Filters for Industrial Processing DEF 7.700 /...

Brochure: Systematic Fluid Service DEF 7.929 /...

Brochure: Compact Hydraulics DEF 5.500 /...

Brochure: Accessories DEF 6.100 /...

Brochure: Electronics 18.000 /...

Brochr. Cooling Systems DEF 5.700 /...

Global presence. Local expertise. www.hydac.com

- HYDAC Headquarters
- HYDAC Companies
- HYDAC Distributors and Service Partners

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HYDAC INTERNATIONAL

Components, Systems and Service for Agricultural Technology.

E 10.121.001.07

HYDAC Germany

HYDAC France

HYDAC USA

HYDAC England

HYDAC Czech Republic

HYDAC Austria

HYDAC Italy

E 10.121.001.07

HYDAC

Your professional Partner for Agricultural Technology.

With more than 4,000 employees worldwide, HYDAC is one of the leading suppliers of fluid technology, hydraulic and electronic equipment.

Our wide range of products, combined with our expertise in development, manufacturing, sales and service enables the agricultural technology industry worldwide to overcome the most diverse problems.

Our quality and environment certification to ISO 9001/2000 and ISO 18001 denote first class quality and responsible management of our resources.

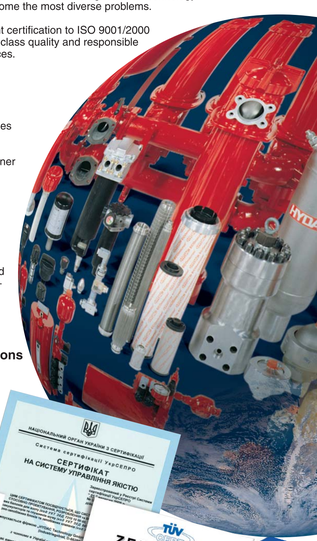
Global yet local.

With 40 overseas subsidiaries 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.



HYDAC in Agricultural Technology.

From the components to the system
Whether in hydraulics, electronics or mechanics

Your demand for the best solution is our challenge:

- **Higher level of comfort due to reduced vibration and noise**
- **Improved usability due to optimised design and combination of components**
- **Increased operational safety by reducing the number of interfaces**
- **Integration of reliable electronic systems and components**
- **Optimising costs by standardisation and modular construction**
- **Active co-operation in a close development partnership**
- **Worldwide commercial and technical support through our global presence**

Electronic Controls, Sensors

To complete the system electronics:

- Max. load regulation
- Electro-hydraulic load sensing
- Integral acquisition of operating data
- Controls of special equipment
- Cut-off devices to protect vehicle systems
- Safety cut-off to protect the driver and machine
- Application-compatible sensors:
  - Up to IP 67 K
  - Vibration resistant through use of potted components
  - All common connections available

For preventive fluid servicing and to enhance operational safety:

- Signals to customised software or external hand-held measuring units
  - Pressure and temperature
  - Oil condition
  - Particle contamination and moisture
  - Fluid level

Pressure Transmitters

HYDACLab® / CS 1000

Portable Data Recorders

Fluid Level Sensor

Temperature Switch

1 Accumulator Technology

Accumulators of all major types for every application:

- Energy storage
- Minimising pump pulsations
- Damping of pressure spikes and noise
- Chassis suspension
- Weight compensation
- Boom suspension

2 Input Control Block

The input control block supplies the control block for working hydraulics, the steering cylinder and the hydro-pneumatic axle suspension.

Input Control Block

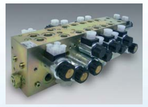
Accessories

For the completion of hydraulic systems:

- Standard ball valves (high pressure)
- Tamper-proof inductive proximity switches (high pressure resistant)
- Fluid level sensors
- Temperature switch TSE
- Standard clamps 3015
- Air / water reservoir clamping bands
- Test point connections
- Quick release couplings

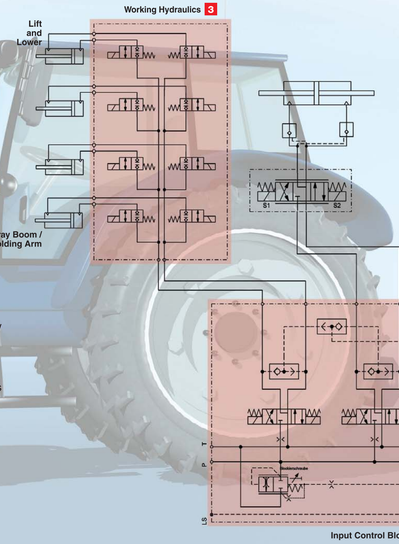
3 Working Hydraulics for Agricultural Equipment

Trailed agricultural machines carry out numerous tasks including mowing, sowing, ploughing, spraying, pressing, spreading, etc. There are therefore a variety of functions which have to be controlled, e.g. tramline markers, boom extension and folding, adjustment of the working depth, compressed density, winch speed and many more. All these functions can be achieved by the design of individual control blocks, the modular stacking block system "HYFLEX" or a combination of the two. The agricultural machinery manufacturer then has complete freedom when supplying the operator with customised equipment.


Working Hydraulics

Control Block System HYFLEX

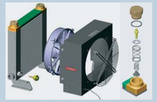
Proportional and Solenoid Valves



Cooling Systems

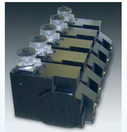
To comply with legal requirements for noise emissions (EURO 4, TIER 3) and fuel economy, high capacity and easy-to-install cooling systems are available.

- Integral thermally controlled bypass valves
- Electrical / hydraulic fan drives available with proportional speed control
- Multiple combined cooling systems available



Tank Filter Solutions from one Company

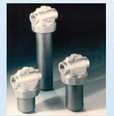
Ready-to-install complete systems, optimised for component protection, system cleanliness and venting.


Steel Tank with built-in filter

Plastic Tank Solution with patented, leak-free connection between tank-top filter and tank surface. Possible to separate suction and return line sides.

Tank-mounted Filters

Inline Filter MFM


Inline Filter LPF

Filter Clogging Indicators

Filter Elements with brand labelling

Filtration Solutions

A comprehensive range of hydraulic and breather filters, fitted with high-quality filter element materials, ensure a high level of operating safety and extended maintenance intervals, for example:

- **Return line filtration** using return line filter RFM: as tank-top or in-tank filter.
- **Supply circuit filtration** using inline filter LPF
- **Pressure filtration** using inline filter MFM
- **Transmission oil filtration** Suction filter for transmission and hydraulic oil
- **Removal of coarse contamination** using inline filter ILF
- **Air filtration** using air breather filters BF, ELF, ELFL, BD: extensive standard product range, optionally with check valve for tank pre-charge, anti-splash protection possible, version with dehumidifier.
- **Filter clogging indicators** to improve the operational safety and to indicate maintenance intervals, if required.
- **Brand labelling to safeguard spare parts business** Labelling of filter elements to improve product identification and to guarantee the demand for replacement elements.

4 Suspension Systems to meet increased demands for Comfort and to enhance Stability.

- Hydro-pneumatic chassis suspension, irrespective of load, with level control, axle-lift, shut-off function, roll stabilisation and automatic error indication
- Optimum adjustment of the chassis to the load condition (level control)
- Hydro-pneumatic cab suspension with adaptive damping and level control for full utilisation of the spring travel of the cab (Human Response to Vibration guideline ISO 8041)
- Suspension of the spraying boom
- Standardised hydro-pneumatic suspension system for articulated drawbars
- Standard and customised system electronics

Axle Suspension

Cab Suspension

Drawbar Suspension

Electro-hydraulic components and systems solutions for:

Self-propelled, trailed and mounted Sprayers

- **Suspension and level control systems:** Cab suspension, boom suspension, drawbar suspension, distance level control
- **Steering systems:** Additional steering for trailing axles
- **Working hydraulics** to control the cylinder adjustment functions
- **Filter systems:** Suction-return line filters, tank filter solutions, pressure filters
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Accumulators:** Piston accumulators, diaphragm accumulators, bladder accumulators
- **Accessories** for the completion of the system

Rotary Swather

- **Relief systems:** Support pressure relief system
- **Working hydraulics** to control the cylinder position functions and spinner height adjustment
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Accumulators:** Piston accumulators; diaphragm accumulators
- **Accessories** for the completion of the system

Ploughs

- **Comfort:** Stone strike protection
- **Accumulators:** Piston accumulators; diaphragm accumulators; bladder accumulators
- **Accessories** for the completion of the system

Forage Harvesters

- **Suspension and level control systems:** Axle suspension systems, level control systems
- **Working hydraulics** to control the cylinder position functions, hydraulic motors, hydraulic couplings
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Filter systems:** Suction-return line filters, tank filter solutions; pressure filters
- **Accumulators:** Piston accumulators; diaphragm accumulators; bladder accumulators
- **Accessories** for the completion of the system

Agricultural Trailers

- **Suspension and level control systems:** Axle suspension systems; level control systems; drawbar suspension
- **Steering systems:** Additional steering for trailing axles
- **Working hydraulics** to control the cylinder position functions
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Accumulators:** Piston accumulators; diaphragm accumulators; bladder accumulators
- **Accessories** for the completion of the system

Round and Square Balers

- **Working hydraulics** to control the cylinder position functions, hydraulic motors and press pressure control
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Accumulators:** Piston accumulators; diaphragm accumulators; bladder accumulators
- **Accessories** for the completion of the system

Mowers

- **Relief systems:** Support pressure relief system
- **Accessories** for the completion of the system

Combine Harvester

- **Suspension and level control systems:** Axle suspension systems; level control systems
- **Working hydraulics** to control the cylinder adjustment functions; hydraulic motors; hydraulic couplings
- **Sensors:** Pressure, temperature and contamination; standard and customised system electronics
- **Filter systems:** Suction-return line filters, tank filter solutions; pressure filters
- **Accumulators:** Piston accumulators; diaphragm accumulators; bladder accumulators
- **Accessories** for the completion of the system