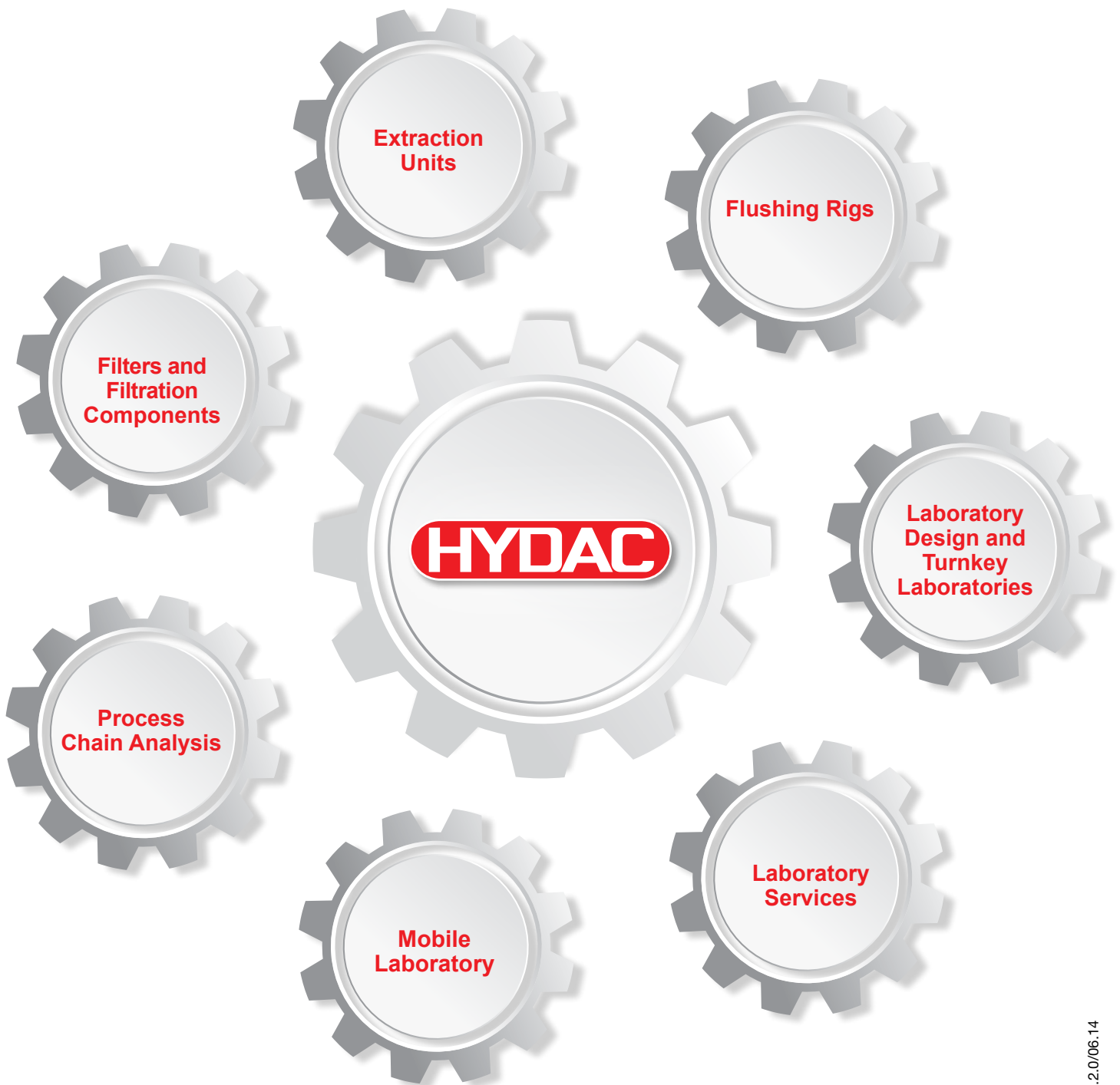


Technical Cleanliness





Automotive Production



Part washing system

Your Partner for Expertise in Technical Cleanliness



Machine tools

Not an option, but an obligation.

With over 7,500 employees worldwide, HYDAC is one of the leading suppliers for fluid technology, hydraulic and electronic equipment.

With the breadth and depth of its product range and with its recognised expertise in development, manufacturing, sales and service, Hydac provides cutting-edge and reliable solutions for all aspects of technical cleanliness.



Mobile hydraulics

Global and yet local.

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

System solutions.

One supplier.

One contact.

Wherever you need us, we will work with you to find the most effective solution – for every application, from components to a complete system.



Aviation

Worldwide approvals.

Our quality and environment certification to ISO 9001/2000 and ISO 14001 denote first class quality and responsible management of our resources.

Clean components and clean systems.

As a partner for highly automated production techniques, we are continually developing new products and systems in order to comply with the cleanliness values and ensure process reliability, including quality assurance in relevant cleanliness laboratories. In addition we will support you by carrying out specific investigations and process analyses in order to reduce damaging particles in cleanliness-critical components and process media. New measurement techniques, sensors, visualisations and measures for reducing the level of damaging particles in operating media, on components and in the process chain are becoming increasingly important.

HYDAC will support you throughout the production process with products, systems and services designed to achieve the technical cleanliness targets.



Approvals

E 10.11.19.2.0/06.14





More efficient components and systems, increasing warranty claims and the reduction in start-up breakdowns are steadily driving up the demands for cleanliness management and cleanliness monitoring of production components. Tracing the source of damaging particles on surfaces which are in contact with the fluid, the removal and appropriate analysis of these particles are areas where HYDAC does extensive research within the framework of technical cleanliness

The specially developed extraction units CTU (ContaminationTest Unit) and CTM (ContaminationTest Module) for analyzing technical cleanliness have numerous applications in a wide variety of industries. Individually designed adaptations for carrying out cleanliness analysis provide solutions from the same company.

■ ContaminationTest Unit CTU

The ContaminationTest Unit CTU 1000 is designed to analyze the technical cleanliness of components and systems in accordance with VDA 19 Guideline (ISO 16232 or ISO 18413).



Contamination Test Unit (CTU)

■ ContaminationTest Module CTM

The ContaminationTest Module CTM is a modular system designed to analyze the technical cleanliness of components. The CTM series consists of different modules:

Supply Module CTM-SC (Supply and Control):

Module for fluid supply, control and data storage.

Extraction Module CTM-EB:

The modules vary according to the size / model and extraction process. They feature four types of extraction in different combinations.

Extraction Flushing CTM-EF:

By adapting to the geometry of the components being sampled, the module can be used for flushing components in contact with fluid.

Fluid Analyzer CTM-FA:

Module for determining the particle count according to ISO 16232 by preparing the fluid and evaluating via optical particle counter



CTM-SC 1000



CTM-EB 1000



CTM-EB 1400



CTM-EB 2000



CTM-EF 1200



CTM-FA



Filters and Filtration Components



Flushing Rigs

HYDAC designs and develops flushing rigs to ensure a defined cleanliness level following final cleaning by flushing internal cavities of components for which cleanliness is a key requirement. The flushing rigs are custom-manufactured to suit customers' needs and ensure compliance with the most stringent production cleanliness requirements.

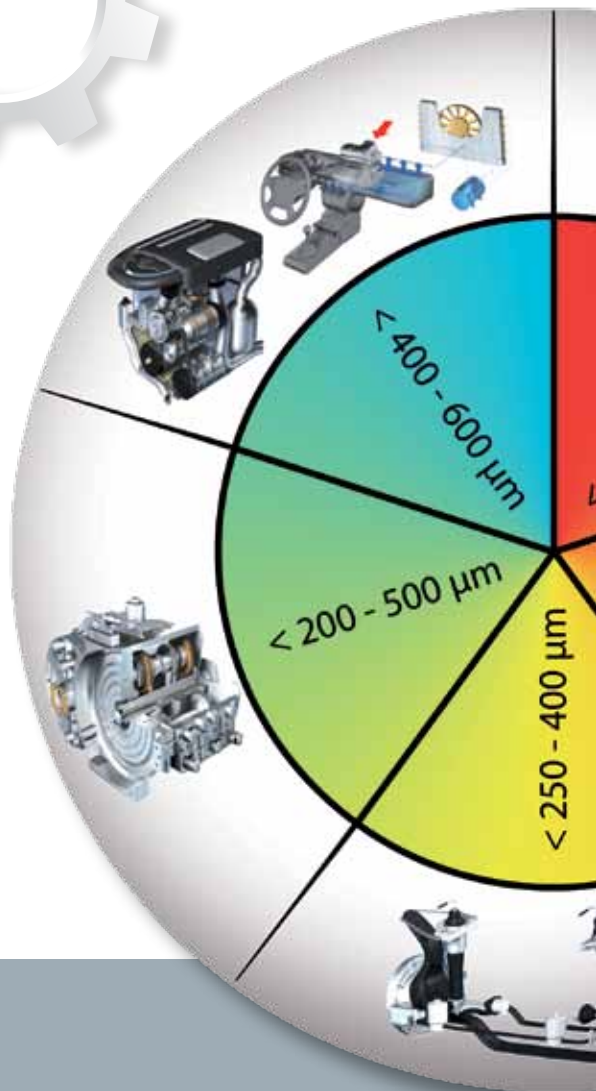
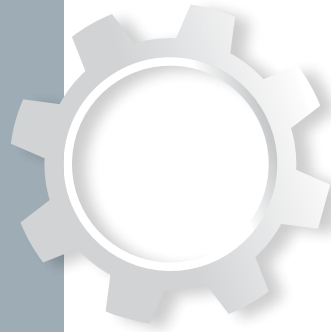
Technical Cleanliness

Engineering and Advice

Components and Systems

Steadily increasing requirements for technical cleanliness demand new cleaning techniques and highly efficient filtration systems with consistent, defined filtration performance.

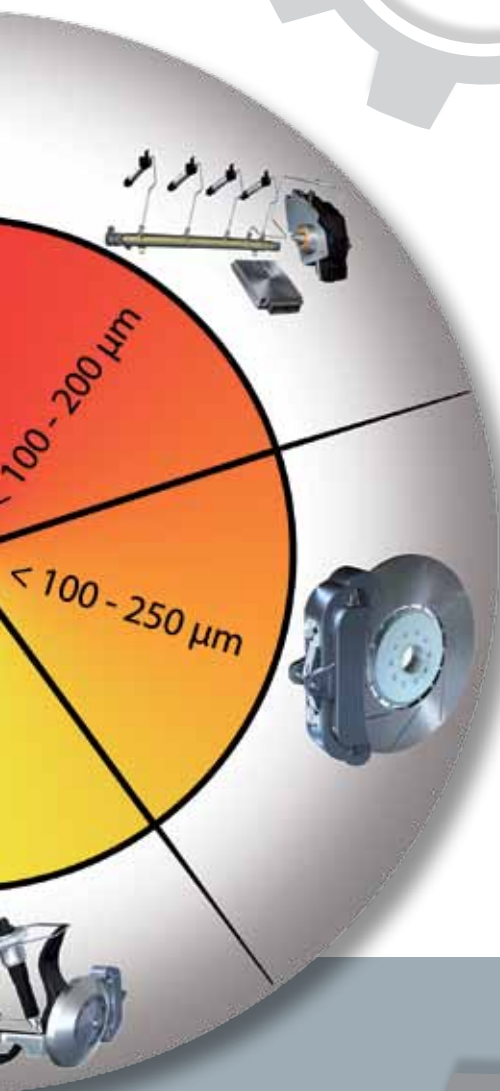
- The Flexmicron candle filter elements are ideal for optimizing the filtration efficiency in existing systems.
- The Wombat bag filter elements are premium filter elements, which can be retrofitted in existing bag filter housings.
- The PLF-1 filter series has been developed for the most stringent requirements. Low pressure losses, high contamination retention capacities and filtration efficiency as well as a special design to protect the system from particles at all times. Changing the filter element on this system is quick and safe and minimises maintenance expenditure.



Process Chain Analysis

As an active contributor to VDA 19 / ISO 16232 and as a partner for highly automated production techniques we provide customer support in managing cleanliness throughout the production process. HYDAC carries out process chain analysis in a wide variety of production lines to meet specified cleanliness values for process reliability.

The cleanliness level during production is analyzed and documented. In conjunction with the customer, we then formulate and prioritize measures to optimize the production processes in respect of technical cleanliness. Once implemented the efficacy of the measures is monitored.




As a specialist in the area of technical cleanliness, HYDAC offers you professional support, including complete solutions for the construction of your laboratory. HYDAC provides everything from individual extraction units, to laboratory design through to the fully fitted laboratory.



Laboratory Service



Laboratory Design and Turnkey Laboratories



HYDAC's own laboratories offer an analysis service to determine the technical cleanliness of components. Experienced laboratory staff guarantee expert analysis of component cleanliness based on established standards (ISO 16232 or VDA Band 19, internal company standards and customer specifications). On request we also offer analysis by scanning electron microscope (SEM) and energy dispersive X-ray spectroscopy (EDX).



Mobile Laboratory

HYDAC's mobile laboratory offers you expert advice and proactive support for the different aspects of technical cleanliness. Component cleanliness analysis based on ISO 16232, VDA 19, internal company standards or customer specifications can be carried out in the air-conditioned vehicle, on samples taken directly on-site.



Accumulator Technology E 30.000



Filter 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 5.700

Global Presence. Local Expertise.



-  HYDAC Head Office
-  HYDAC Companies
-  HYDAC Sales and Service Partners

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