

**HYDAC**

**INTERNATIONAL**

**Pre-Filtration for  
Ultimate Cleanliness  
and Efficiency:  
HYDAC Diesel PreCare.**



Dual function: Diesel filtration + Water removal







## Guaranteed HYDAC quality

thanks to HYDAC Quality Protection.



## TÜV certification

## Best cold start characteristics

ensured by low pressure drop  
and cup filter design.

## Environmentally responsible

through the use of incinerable elements.

## Outstanding water removal

achieved by the two-stage system.



## Recipe for success: Constant progress.

Continuous product improvement is our driving force.

It is through product innovation and efficient solutions that we meet the steadily growing demands of our customers as leaders in technology.

With over 8,000 employees and over 500 sales and service partners we are in close contact with our customers all over the world.

## Innovative solution and sound design.

Mobile machines and commercial vehicles are subject to the toughest working conditions all over the world. To ensure smooth running of vehicles and to protect both the engine and the whole drive system from damage, optimum diesel fuel conditioning is particularly important. With its new Diesel PreCare, HYDAC offers a modern system for diesel filtration which protects vehicle manufacturers and operators from failures, breakdowns and expensive service interventions.

Our solution "HYDAC Diesel PreCare", is a cup filter system available in two versions:

### Manual water discharge (BestCost design)

The conventional, operator-dependent solution.

### Fully automatic discharge Plug & Play (High Tech design)

The innovative solution for fully automatic dewatering, independent of the operator, even when operated on the suction side.

Outstanding performance data achieved by 2-stage water removal and superb filtration characteristics through the use of synthetic media – these are the special features of these filters.

Both systems are designed for use as pre-filters on the suction-side and as such protect all the pumps and components in the fuel system from water and contamination.



## Innovative diesel filter. In black and white:

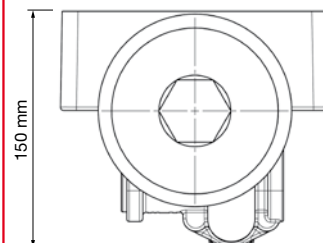
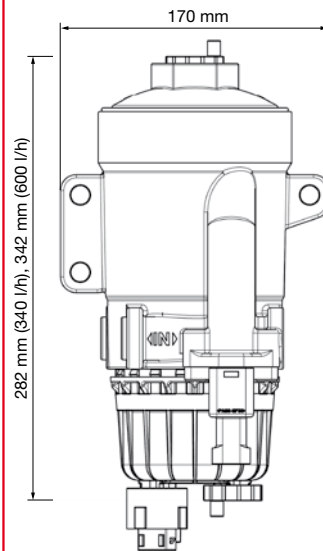
### Specifications

- Flow rate: BestCost design: up to 600 l/h  
HighTech design: up to 600 l/h
- Temperature range: BestCost design: -40 °C to +90 °C  
HighTech design: -20 °C to +90 °C
- Nominal voltage: 24 V DC (option 12 V)
- Rated power  
Fuel preheating: 300 W
- Filtration rating: Various (Standard: 10 µm)
- Water separation efficiency: > 95 % to ISO CD 16332
- Operating pressure: < 1 bar (suction-side application)

### BestCost design

- Inlet/Outlet: M22x1.5 (others on request)
- Water discharge: manual drain plug
- available in 2 sizes  
HDP BC 340 and  
HDP BC 600

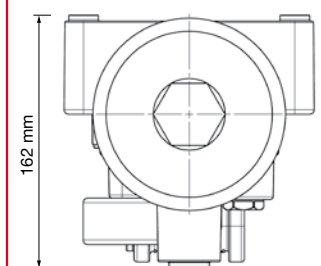
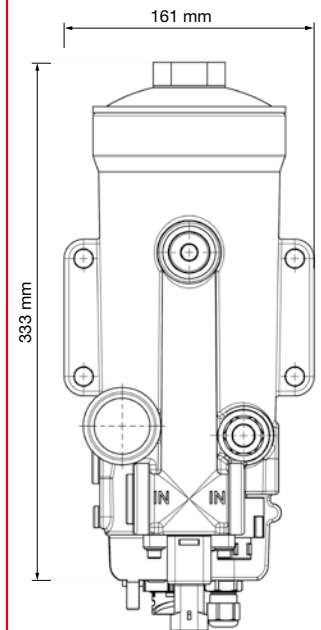
### Dimensions



### HighTech design

- Inlet/Outlet: G<sup>3</sup>/<sub>4</sub> (others on request)
- Water discharge: Automatic discharge unit (including electronic control, safety valve, pump and water sensor)

### Dimensions

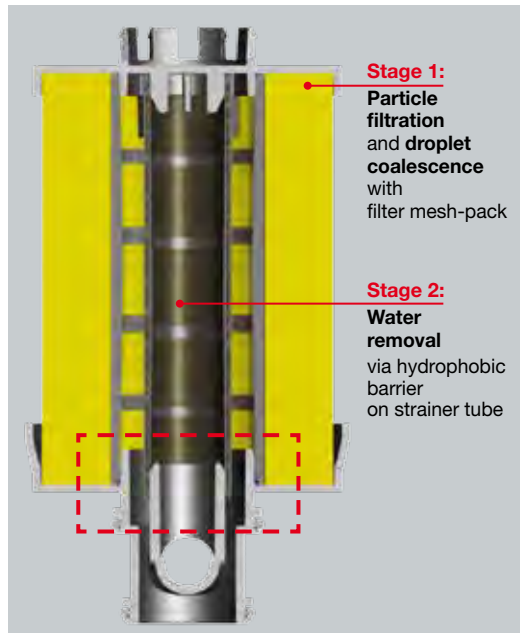




# ...e outside, compact, easy-to-service, robust.

## New element technology: Dieselmicron filter element with 2-stage system.

### Element construction



### Particle removal and droplet coalescence (1st Stage)

By using purely synthetic filter media, a high contamination retention capacity and steady coalescence is guaranteed.

### Water removal (2nd Stage)

A hydrophobic barrier on the strainer tube guarantees reliable separation of the water droplets which coalesced during Stage 1.

### Dieselmicron filter element

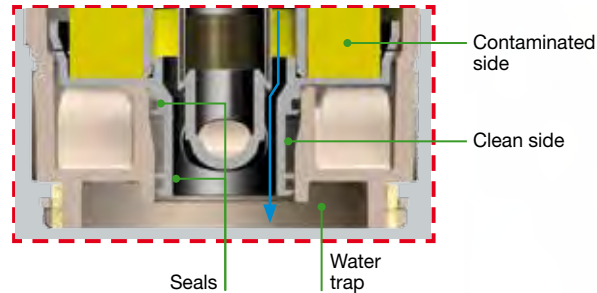


A new type of filter element in two-stage design which combines outstanding dewatering irrespective of the contamination level with excellent particle filtration at the same time.

**HYDAC**

## Unique filter element design.

The Diesel PreCare in the BestCost design has a filter element with a **unique end cap design which is integral to its function.**



### Function:

The end cap has separate fluid pathways so that the cleaned fuel flows to the clean side (ring channel in the filter housing), while the separated water collects in the water trap.

**Increased operating reliability:** achieved through strict separation of contaminated and clean sides.

**No risk of contamination at the fluid outlet of the housing during element change** because the clean-side and inlet-side channels are vertically parallel to each other.

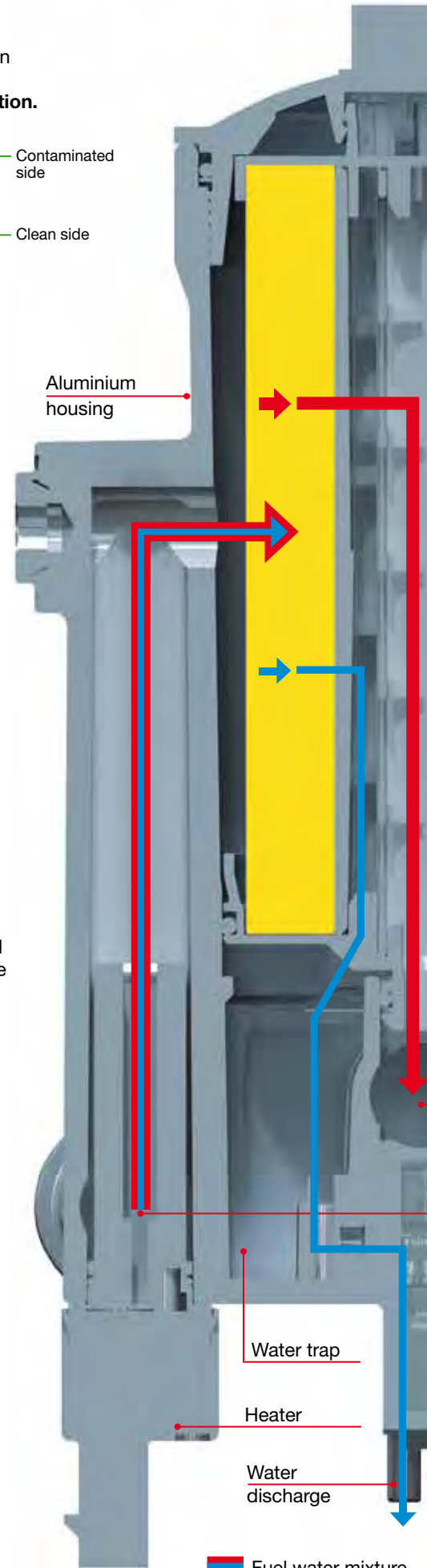
## Integrated Quality Protection: Highest level of reliability.

Unless a HYDAC-original element is fitted in the housing, then the full function of the filter is not guaranteed because the element end cap which is integral to its function will be missing.



We prevent inferior quality imitation elements from being fitted because our element end cap design is integral to the function, and has **Quality Protection**. As a consequence, we can always guarantee our customers proven and first-class HYDAC Quality.

**Ultimate system protection and guaranteed operating reliability achieved through guaranteed spare part quality.**



# On the inside, innovative technology, high pr



## Easy to service and environmentally sound.



### Easy to service since element change is in 3 simple steps:

1. Unscrew clogged element
2. Fit O-ring to new element and cover plate
3. Screw in new element

We are helping to protect our environment by using **fully incinerable filter elements (no metallic components)**.

## HYDAC Diesel PreCare Customer Benefits.

### General:

- **Great flexibility with regard to installation position** since inlet and outlet can be in either direction
- **Consistent dewatering over the entire life of the filter element** since water is removed on the clean side
- **Robust design** thanks to aluminium housing

### BestCost design:

- **Low investment costs** due to cost-optimized design
- **Economical and technically reliable operation** as a result of long element service life
- **Water sensor and fuel preheating available as options**

### HighTech design:

- **Reliable dewatering** thanks to automatic water discharge, even when operated on the suction-side
- **Small installation space required,** since lower section of filter does not have to be accessible
- **Simple adaptation to the on-board power supply (Plug & Play)** through the use of independently controlled water discharge
- **Ultimate in weather protection** Robust version for heavy duty, sustained construction site operation

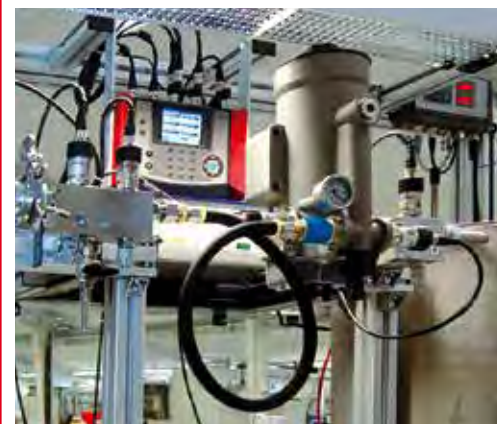
## Development on a scientific basis.

In developing filter solutions to suit specific applications, HYDAC leaves nothing to chance. In addition to using the most up-to-date programs from CAD to FEM to make their designs, HYDAC invests heavily in the most modern research and test laboratories. Based on the results of scientific tests, efficient filters can be produced and tested systematically.

### Development of filter and element to suit the specific application.

Tensiometers, Karl Fischer titration equipment, rinsing cabinets to determine component cleanliness, test rigs for multipass tests and water removal efficiency are in use on a daily basis. These are just some of our in-house capabilities for testing and improving our products in addition to numerous other test and measuring equipment.

With filters which have passed through these test laboratories, you can be sure of success.



HYDAC laboratory and test rig to determine the efficiency of water removal.



Oil analysis in the HYDAC laboratory at company headquarters.



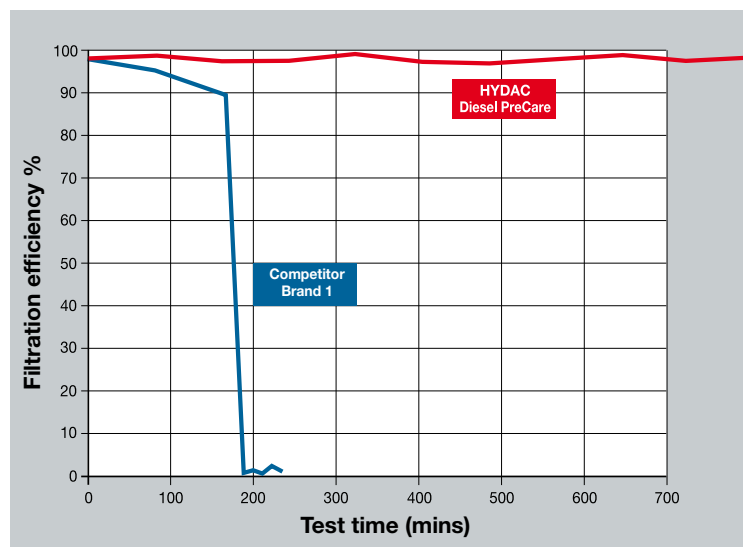
Just one example of the numerous filter testing procedures: **Multipass test rig.**

# Production standards, reliable performance.

## Unbeatable quality!

Compared to the competition, HYDAC Diesel PreCare shows clear advantages with regard to water removal and filtration effect.

Clean-side water removal using purely synthetic filter media combined with the hydrophobic barrier, has proved itself under the toughest conditions.



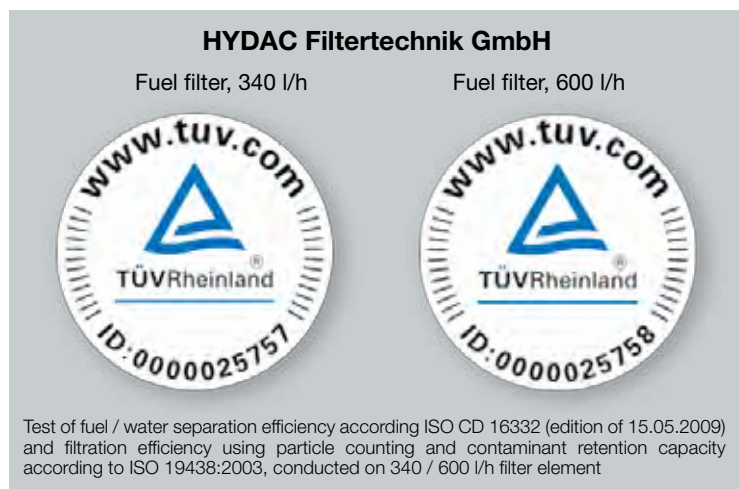
**Competition: Massive water penetration** after a test time of just 180 minutes.

### HYDAC Diesel PreCare:

**Clean-side water removal using purely synthetic filter media combined with hydrophobic barrier** has proved itself in comparison to the competition, and after a very long test time (730 minutes).

## TÜV certified filtration system.

Both versions of the HYDAC Diesel PreCare Filtration System are certified by TÜV.



Test of fuel / water separation efficiency according ISO CD 16332 (edition of 15.05.2009) and filtration efficiency using particle counting and contaminant retention capacity according to ISO 19438:2003, 3, conducted on 340 / 600 l/h filter element

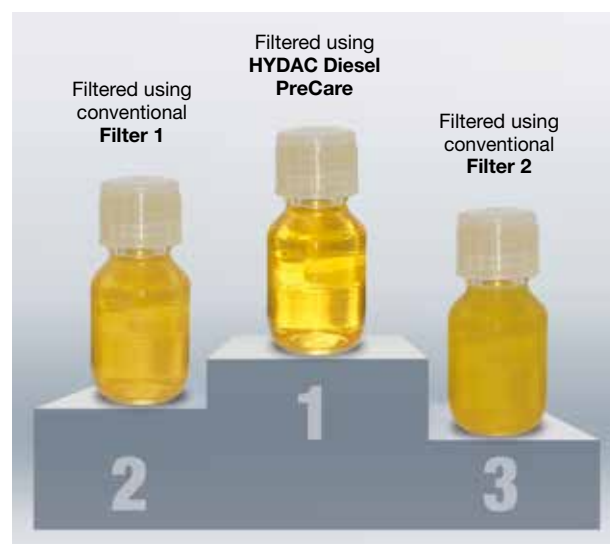
For further information please contact  
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Telephone: +49 6897-509-1438, E-Mail: fuel@hydac.com

## HYDAC Diesel PreCare Product benefits.

- Low residues of diesel left in the filter element when servicing
- Compact design
- Reliable radial seal
- Captive seal design
- Visual analysis of the contamination possible (Rust, metallic swarf, unusual deposits, which require further investigation)
- Protection from imitations by means of Quality Protection
- No first-line contamination with hard particles
- No ingress of contamination due to corrosion

## Reliable machine availability.

- Resulting from first-class contamination retention
- Due to highly effective and stable water removal on the clean-side for the entire life of the filter element
- Life-long efficiency, because at element change, the water removal stage is always replaced
- Due to the excellent water removal, (achieved by using first class materials) of >95 % to ISO/CD 16332



A comparison of three diesel samples after filtration provides the proof. Even with the naked eye the exceptional cleanliness of the diesel **filtered with the HYDAC Diesel PreCare is obvious.**



# between Diesel Fuel and Diesel Power.



### High performance stability

Efficient water removal over the entire service life.

### Element change = Complete overhaul

The water removal stage built into the element is replaced when the element is changed.

### Extremely easy to maintain

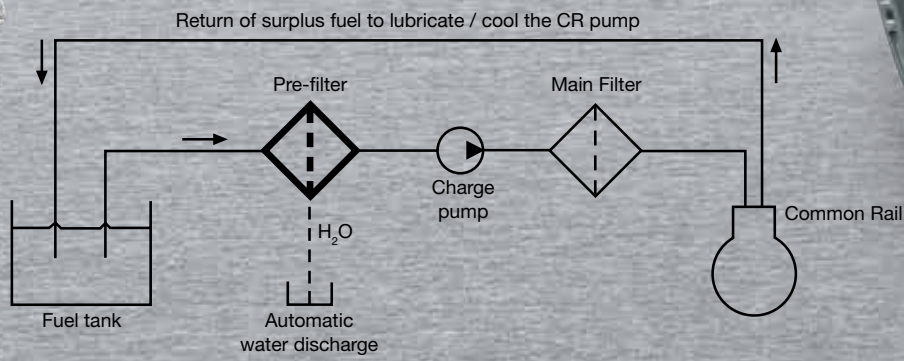
due to quick and simple element change.

### Flexible in use

due to inlet/outlet options

### Ready-to-use at any time

self-sufficient system, Plug & Play







Accumulators 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

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-  HYDAC Companies
-  HYDAC Distributors and Service Partners

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