

# On-Board Diesel Coalescing Filters

*\*Coalescing Elements Patent Pending*

## Advanced Fluid Conditioning Solutions® 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 On-Board Diesel Coalescing Filter, Schroeder Fuels offers a modern system for diesel filtration which protects vehicle manufacturers and operators from failures, breakdowns and expensive service interventions. Our solution, "Schroeder Fuels On-Board Diesel Coalescing," is a cartridge filter system available in three versions capable of up to 475 gph (1800 L/h).

## Features

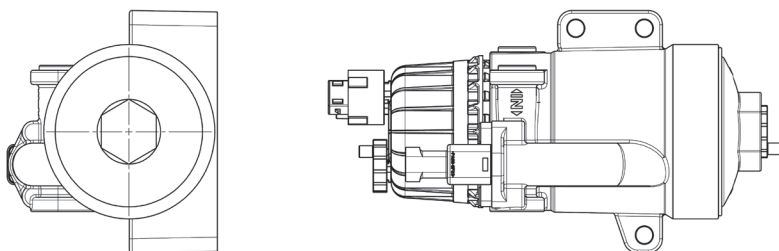
- Small envelope size offers greater flexibility in mounting locations
- Low investment cost due the economical design
- Low operating cost due to the long service life of the element
- More filter area than competition (5600 cm<sup>2</sup> vs. 5200 cm<sup>2</sup>)
- Easy installation due to the plug and play connections
- Easy adapting to the on-board power supply

## Benefits

- 99.6% Single-pass efficiency, separating water from ULSD fuels
- Reliable, captive seal design
- Particulate filter protects vital components from debris
- Coalescing element protects vital components from water

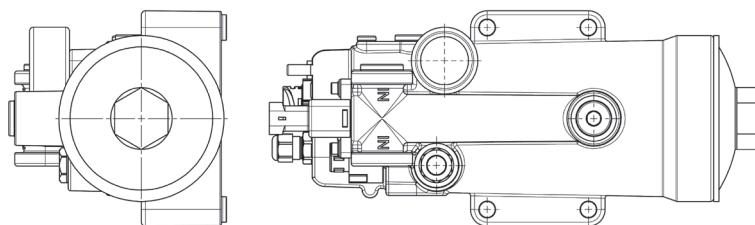
### Manual Water Discharge (HDP-BC)

The conventional, operator-dependent solution.

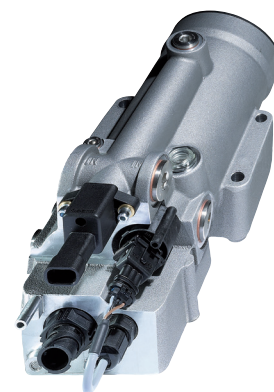


### Fully Automatic Discharge (HDP-HT) (Plug & Play)

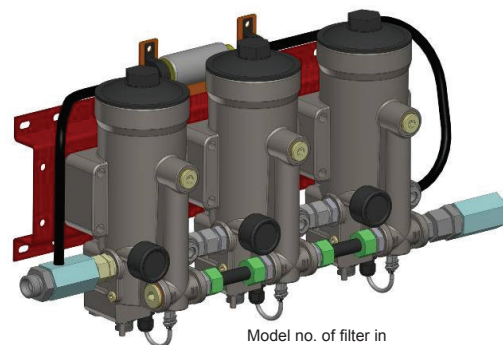
The innovative solution for fully automatic dewatering, independent of the operator, even during suction side operating.



Model no. of filter in photograph is: HDP-BC



Model no. of filter in photograph is: HDP-HT



Model no. of filter in photograph is: HDP-HT Triple

**Schroeder**  
**INDUSTRIES**

Advanced Fluid Conditioning Solutions®

580 West Park Road | Leetsdale, PA 15056  
ph. 724.318.1100 | fax 724.318.1200

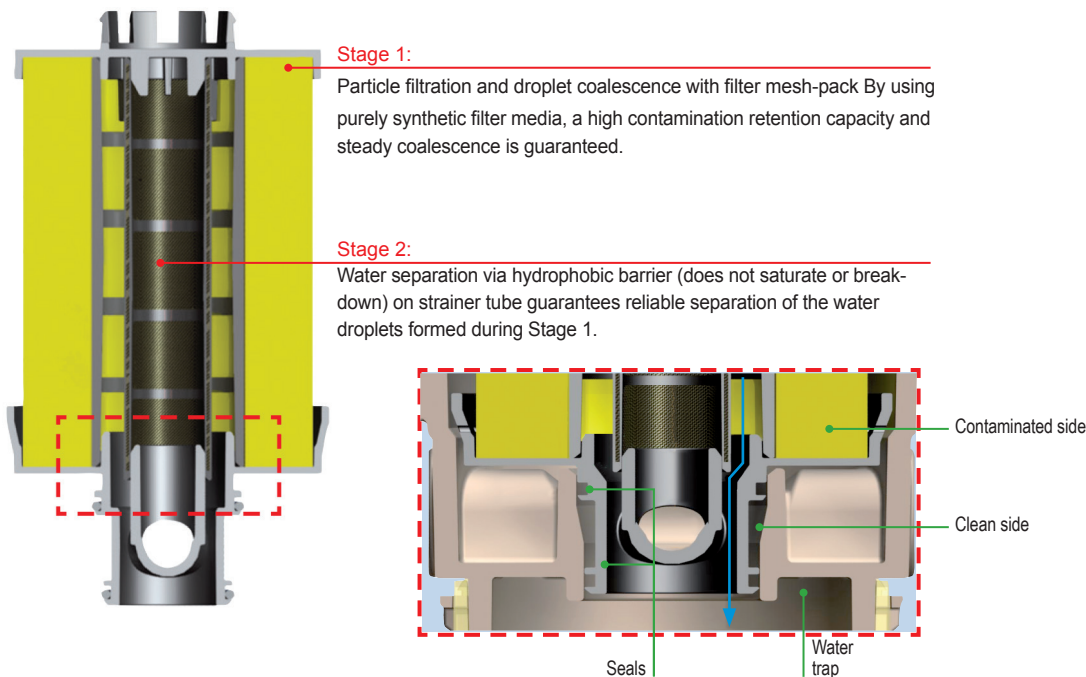
[www.schroederindustries.com](http://www.schroederindustries.com)



An ISO 9001:2008 Certified Company

## Filter Element With 2-Stage System

### Element construction



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.

### Unique filter element design

The On-Board Diesel Coalescer has a filter element with an 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

Unless an original Schroeder 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 the element end cap design is integral to its function and has quality protection. As a consequence, we can always guarantee our customers proven and first-class Schroeder quality. Ultimate system protection and guaranteed operating reliability achieved through guaranteed spare part quality.

### Easy to service as the element can be changed in 3 simple steps:

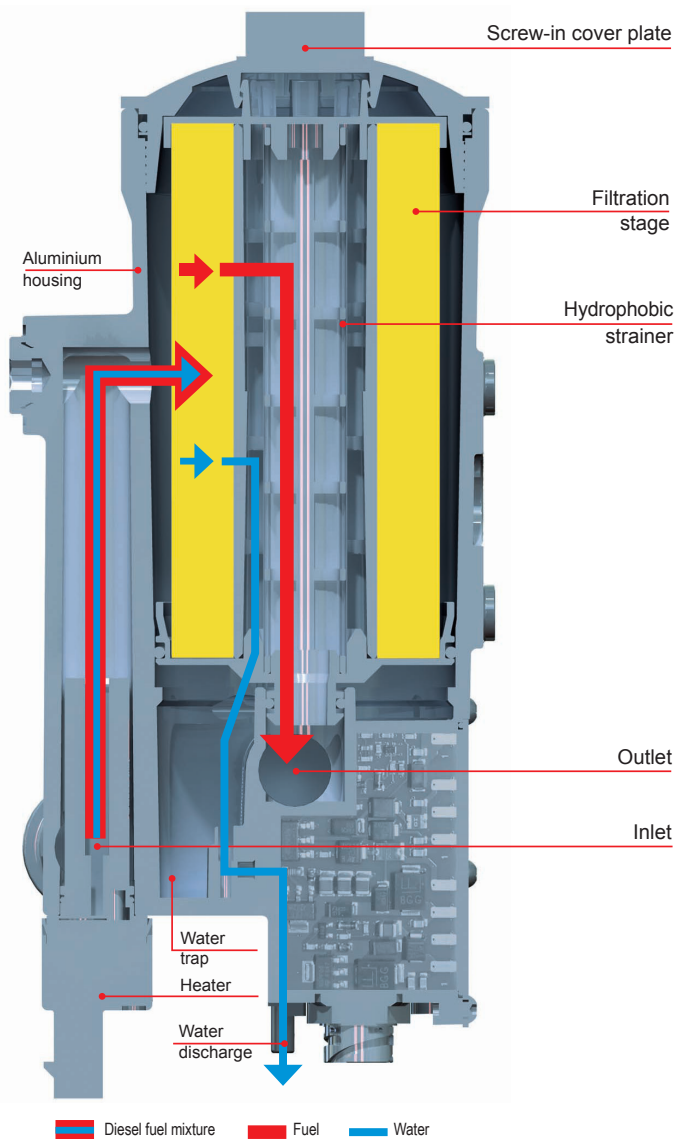
1. Unscrew clogged element
2. Fit O-ring to new element and cover plate
3. Screw in new element

When initially commissioning this unit or when changing the element, we recommend that the system be vented. Our hand primer pump (option on the HDP 600 BC) can be used to do this.

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



## Innovative Design



## Reliable machine availability

Resulting from first-class contamination retention

Due to highly effective and stable water separation on the clean-side for the entire life of the filter element.

Lifelong efficiency, because at element change, the water separation stage is also replaced at the same time

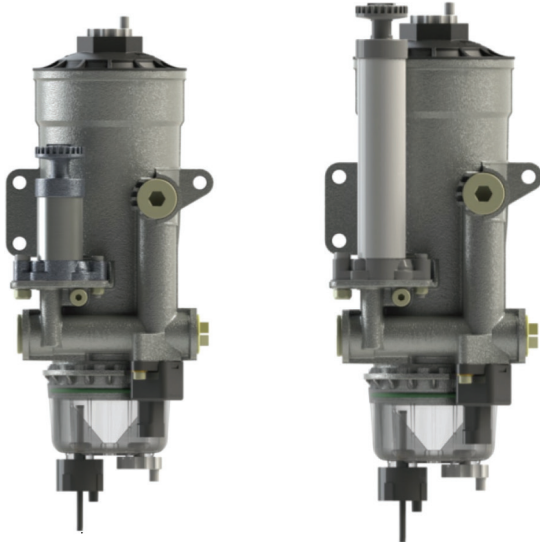
Due to the excellent water separation, (achieved by using first class materials) of >95 % to ISO/CD 16332

## Proven Results

This comparison of three diesel samples after filtration provides the proof. Even with the naked eye the exceptional cleanliness of the diesel filtered with Schroeder On-Board Diesel Coalescing Filtration is obvious.



## Schroeder Diesel PreCare



HDP with optional hand priming pump (small)

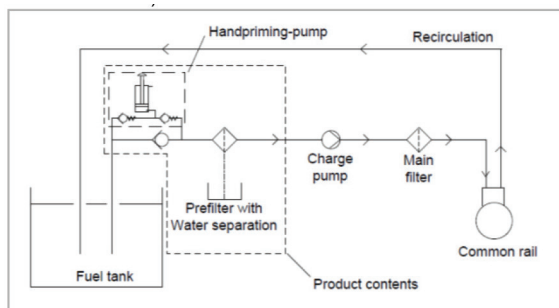
HDP with optional hand priming pump (large)

Note: For HDP BC 600 only

Modern Diesel filtration systems, like those offered by Schroeder with its diesel PreCare product, the HDP, see to it that vehicle manufacturers and operators are protected from operation malfunctions, failures and expensive service operations. The HDP offers best performance data through a two-stage water separation as well as excellent filtration behaviour through the use of synthetic media.

Next to water and particulate contamination, another unwanted interference factor in the system is air. If the pumps suck air, the Diesel engines do not start properly. To avoid this, hand priming pumps are installed for manual system venting. Opposed to common solutions, where the hand priming pump is located in the suction line and cause significant differential pressure, Schroeder offers a more elegant solution:

Now, the HDP BC 600 is also available with optional hand priming pump. It is mounted on the system, offline, directly on the pre-filter. This avoids pressure drop. Additional fittings in the suction line for installing the hand priming pump are not required.



As pre-filter of the Diesel fuel incl. hand priming pump in the bypass in mobile working machines (e.g. tractors, excavators etc.):

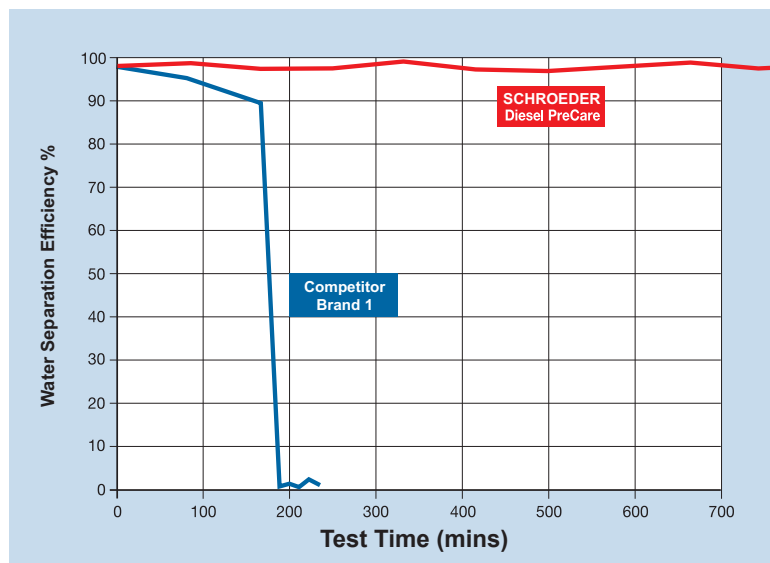
## Product Advantages

- **Dual function** Diesel filtration and water separation through the two-stage element design
- **Optional function** Manual venting, by means of a hand priming pump in the bypass and therefore without pressure drop and additional fittings
- **High performance stability** due to an efficient water separation on clean side over the entire service life
- **Element change = complete overhaul** Water separation stage and particulate filtration replaced at the same time
- **Environmentally friendly** through fully incinerable element
- **Flexible in Use** due to inlet/outlet orientation options
- **ISO Friendly**
- **Guaranteed Schroeder Quality** since the filter can only be operated with use of an original Schroeder element

## Water Separation Efficiency

Compared to the competition, Schroeder On-Board Diesel Coalescing shows clear advantages with regard to water separation and filtration performance.

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



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

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.

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

### Schroeder On-Board Diesel Coalescing:

Clean-side water separation 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).

## Technical Specifications

	HDP-BC (With or Without Priming Function, on 600 size only)	HDP-HT	HDP-HTTriple
<b>Flow Rate:</b>	up to 90 gph (340 L/h) or up to 158 gph (600 L/h)	up to 158 gph (600 L/h)	up to 475 gph (1800 l/h)
<b>Temperature Range:</b>	-8°F to 194°F (-40°C to +90°C)	-4°F to 194°F (-20°C to +90°C)	-4°F to 194°F (-20°C to +90°C)
<b>Nominal Voltage:</b>	24 V DC (option 12 V)		
<b>Rated Power Fuel Preheating:</b>	300 W		
<b>Filtration Rating:</b>	Various (Standard: 10 µm)		
<b>Water Separation Efficiency:</b>	> 95 % to ISO CD 16332		
<b>Operating Pressure:</b>	< 1 bar (suction side application)		
<b>Inlet:</b>	M22x1.5	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>
<b>Outlet:</b>	M22x1.5	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>
<b>Water Discharge:</b>	Manual drain plug	Automatic discharge unit (including electronic control, safety valve, pump and water sensor)	Automatic discharge unit (including electronic control, safety valve, pump and water sensor)