



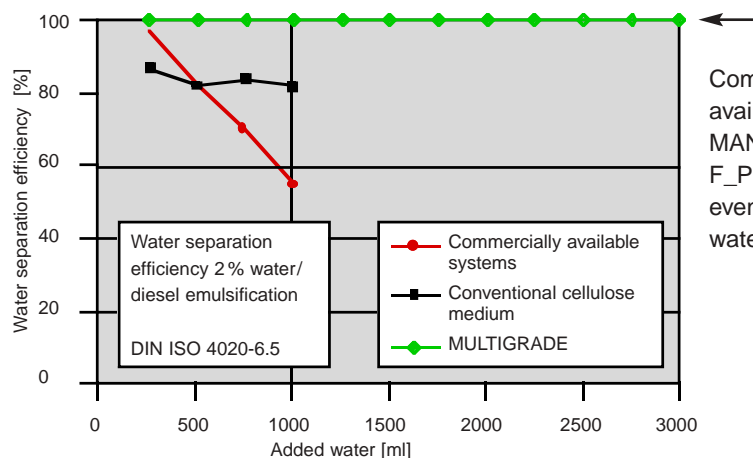
## Perfect water separation in diesel fuels.

**High-performance, state-of-the-art technology is now used for fuel-injection systems in diesel-powered vehicles. This means that the requirements relating to diesel filtration have increased substantially. Both ultrafine particles and large quantities of water must be separated efficiently from the fuel.**

In order to satisfy these requirements, MANN+HUMMEL have developed the PreLine pre-filter system which uses a new filter medium from the MULTIGRADE series. The MULTIGRADE F\_PFO filter medium offers maximized service life together with high separation efficiency of fine contaminant. Compared with standard filter

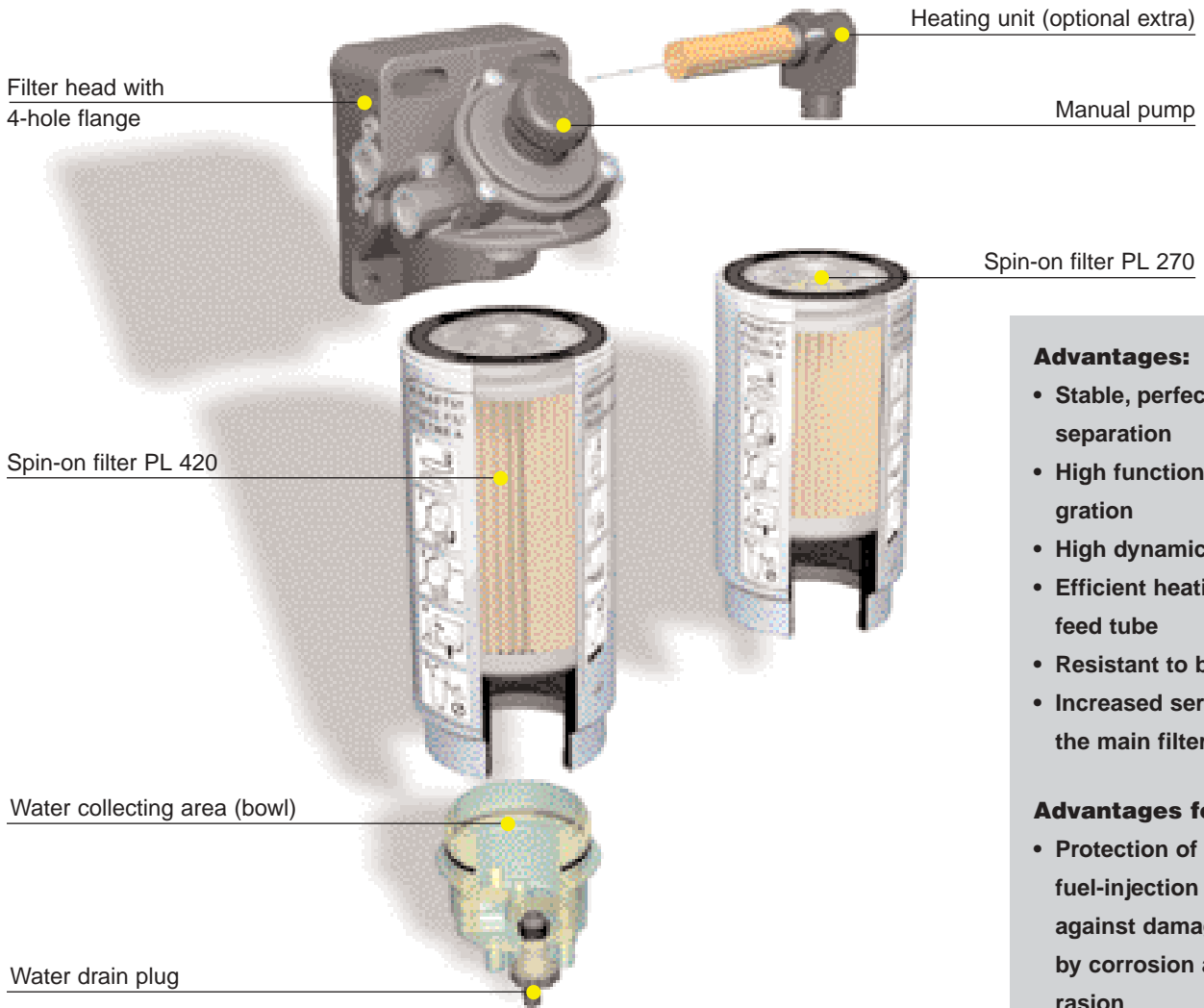
media, greatly improved water separation efficiency is achieved with the MULTIGRADE filter media. The required water separation efficiency of > 93% is reliably attained. The ultrafine synthetic fibers ensure stable and high water separation throughout the service life of MULTIGRADE filter media. Thanks to the integration of

MULTIGRADE in the modular PreLine system, all the demands of modern diesel-injection systems have been satisfied by an innovative filter system. Optional components mean that the filter system can be used in different vehicles.



Compared with commercially available cellulose media, the MANN+HUMMEL MULTIGRADE F\_PFO medium functions reliably even with large quantities of water.

# PreLine®: a modular system.



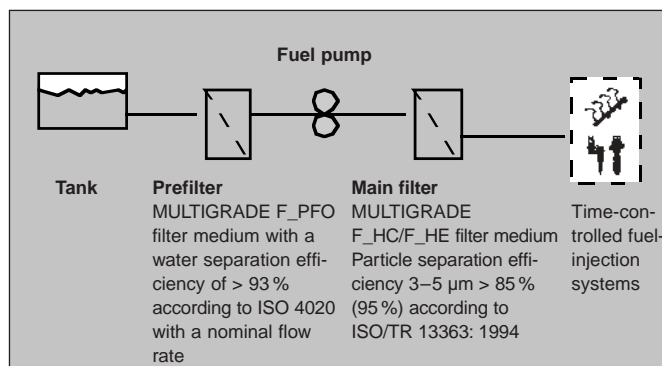
### Advantages:

- Stable, perfect water separation
- High function integration
- High dynamic rigidity
- Efficient heating in the feed tube
- Resistant to biodiesel
- Increased service life of the main filter

### Advantages for you:

- Protection of modern fuel-injection systems against damage caused by corrosion and abrasion
- Longer service life
- Reduced costs due to fewer repairs

The flexible PreLine® prefilter system is a universal prefilter solution for diesel fuel. The concept is very easy to use: it is based on the principle of the spin-on filter. The filter can therefore be replaced quickly and inexpensively. The PreLine® system is a practical retrofitting solution.



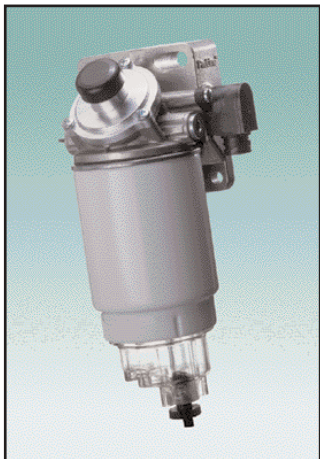
Maximum filter performance thanks to the multi-stage filter solution: prefilter and main filter with the MULTIGRADE medium.

Application of the different MULTIGRADE filter media

# Flexible solution: the PreLine® modules.

## Complete system 1

Including installation instructions



PreLine 270

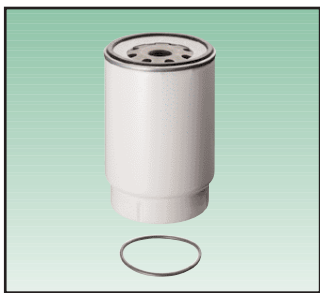
## Complete system 2

Including installation instructions



PreLine 420

## Parts available separately



### Spin-on filter

PL 270 x  
PL 420 x

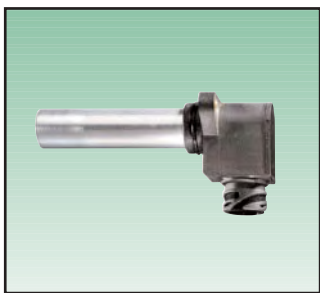


### Bowl + installation tool

Order No. 66 606 12 982

### Installation tool separately

LS 7/4



### Complete head heating unit

Order No. 29 017 00 202

## General technical specifications:

### PreLine 270

Head with spin-on filter PL 270 x: H 284 x B 148 x T 141 mm  
Nominal flow rate: 270 l/h  
Water collecting area: 0.3 l

### PreLine 420

Head with spin-on filter PL 420 x: H 364 x B 148 x T 141 mm  
Nominal flow rate: 420 l/h  
Water collecting area: 0.5 l

### Spin-on filter

Sizes: 270/420 l/h  
Separation efficiency: Singlepass  
(according to ISO/TR 13 353: 1994):  $\eta$  3–5  $\mu$ m > 15 %  
Absolute fineness Multipass  
(ISO/DIS 19 438: 2000) 99%: 30 mm  
Water separation:  $\eta$  H<sub>2</sub>O > 93 %  
according to DIN ISO 4020 with a nominal flow rate

### Bowl + installation tool

Seal: radial sealing ring for optimized bowl sealing  
Water collecting area: approx. 0.3 or 0.5 l  
PreLine 270  $\geq$  0.3 l  
PreLine 420  $\geq$  0.5 l

### Head heating unit (optional extra)

Voltage/output: 24 V/350 W  
Switch-on point: 5 °C, switches on automatically  
Electrical connections: plus and ground

### Filter system:

Operating pressure: max. 4 bar  
Ambient temperature: –40 °C bis +120 °C  
Water drained by means of manually operated valve

### Media resistance:

Diesel (EN 590), RME (biodiesel DIN E 51 606)  
Hydraulic connection M 16 x 1.5 mm  
Fixing bore holes for filter head M 12,  
Hole length 50-86 mm

### Instructions for use:

- Prefilter should be replaced at the same time as the main fuel filter
- Filter size should be chosen according to the volume flow of the engine intake pump

### Legal requirements:

- Installation of the prefilter according to the installation instructions does not lead to cancellation of type approval for the vehicle (TÜV Automotive dated August 3, 2001)
- Heating unit has an ABE – installation acceptance (entry in vehicle registration document) is not required

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**PreLine®**

**Improved filter performance for diesel fuel.**

**MANN  
FILTER**