



MANN Fuel Filters

Innovative technology for a longer service life of the engine.

**MANN
FILTER**



The benefits of MANN Fuel Filters:

- maximum cleaning
- maximum operational safety of injection-system components
- reliable engine protection
- long engine life
- maximum safety reserves
- insensitive to aggressive fuels

MANN Fuel Filters: Best quality for optimum performance

The basic requirement for problem-free motoring is clean fuel. The fuel arrives in the injection system or in the carburettor via the fuel pump. Particularly in modern injection systems, dirt particles in the fuel cause increased wear. The water content in the fuel can also cause serious damage as a result of corrosion. At worst, this can result in the complete failure of the injection system, bringing the vehicle to a standstill. Wear on the injection system or on the carburettor results in a considerable increase in fuel consumption and in impaired engine performance.

To carry out functions reliably in all respects, filters need to be fine and of very high quality. With MANN-FILTER, that goes without saying. The new media series „Multigrade“ has already smoothed the way to the filtration of the future.

Modern injection systems such as common rail or pump injector need innovative solutions, tailored to the new design. MANN-FILTER rises to the challenge of all the demands made by the automotive industry with a fuel filter range of the highest quality.

Functions of MANN Fuel Filters:

- MANN fuel filters provide operational safety for engines
- they reliably protect the highly delicate injection mechanism and the carburettor
- they remove from the fuel unwanted contaminants such as dust, rust or water which cause wear
- they protect the injection system from corrosion



MANN Fuel Filter shapes

There are four different shapes of MANN Fuel Filters:



Fuel filter elements

They are replaceable and are located in a separate housing integrated in the engine:

- fuel filter elements as standard in DIN housing with paper or felt filter media
- centre-bolt filter
- special filter shapes



Metal-free filter elements

The MANN-FILTER EVOTOP® is particularly eco-friendly, as it is metal-free. It is made of one material and does not create any ash when disposed of in a thermal process.

Benefits of EVOTOP®:

- reduced use of raw materials
- kinder to the environment with less waste during servicing



Spin-on fuel filters

They form one unit consisting of housing and filter element. The whole unit is replaced during servicing:

- spin-on fuel filter in standard version
- version with water drain plug
- special shapes with a connecting branch
- special shapes with connection for water level indicator



Fuel line filters (inline)

These filters are mounted in the fuel line. The housing and filter element form one unit which is replaced during servicing:

- plastic inline fuel filters
- metal inline fuel filters

Multigrade: filter media meeting the most stringent requirements

Efficient filter media for effective protection

As increasingly fine filtration and long service intervals are required, it is necessary to

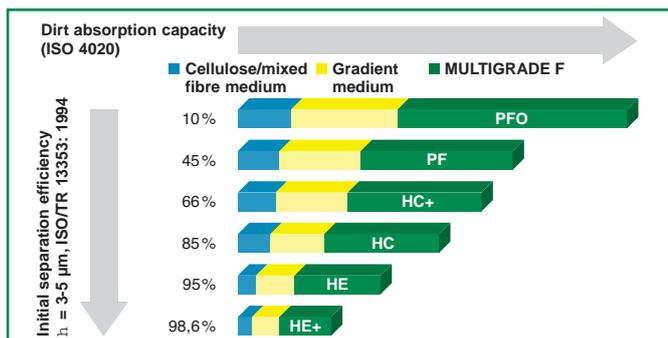
use a new type of filter media. Modern MANN+HUMMEL fuel filters are based on multi-layer MULTIGRADE F filter media, which is much more effective than standard

filter media available in the market. Through using the MULTIGRADE F series of filter media which display different performance characteristics, MANN+HUMMEL can provide fuel filtration systems which are perfectly matched to a specific application with regard to particle and water separation and service life. MULTIGRADE F filter media consists of a combination of cellulose carrier medium and a melt-blown layer.



Advantages of Multigrade:

- meets the stringent requirements of fuel injection equipment manufacturers and protects the fuel injection system and the engine
- separates virtually all water from the diesel fuel and prevents corrosion
- Multigrade provides the most efficient glass fibre free filtration currently on the market



Comparing dirt absorption capacity of various filter media

PreLine®: Better filtration for diesel fuels

Pre-filters for diesel fuel

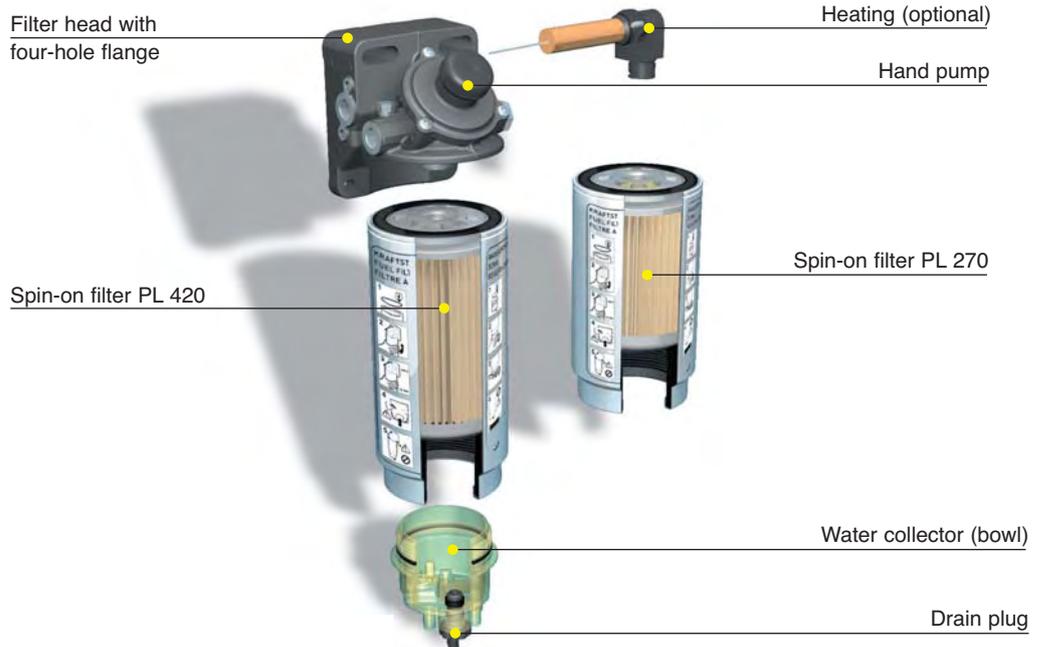
PreLine® is an innovative pre-filter solution in a multi-purpose modular system. With it, you will be well prepared to meet any demands in the commercial vehicle segment.

Benefits:

- stable and complete water separation
- high functional integration
- high dynamic rigidity
- efficient heating in inflow
- resistant to biodiesel
- longer service life for the primary filter

For you this means:

- modern injection systems are protected from corrosion and abrasion damage
- longer operating periods
- cost reduction thanks to fewer repairs



You can order more product brochures, catalogues (also on CD-ROM), a cross-reference list and a dimension table under www.mann-filter.com or by telephone. Or you can use our internet catalogue.



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