



## **MANN+HUMMEL Fuel filter elements**

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**MANN+HUMMEL filter elements for fuel are equipped with a star-pleated bellows and feature an ideal surface for the retention of dirt particles with a correspondingly longer service life.**

**The advantages at a glance:**

- Consistently high separation efficiency
- Filter element with high dirt holding capacity thanks to maximised filter surface area
- Special pleat impregnation allows the large filter surface area to be effective for the whole period of use
- Special impregnation resistant to water and fuel up to a temperature of 140 °C
- Various versions available acc. to DIN and ISO standards
- Highly economic solution with intense machine use through re-utilisation of filter housing on the machine side.

## Design

The filter element consists of the two end caps with the filter medium fitted in the middle. Depending on the type of element, end caps are available in metal or metal-free versions. The end caps are fitted with seals which ensure reliable sealing between the raw and the clean side.

Depending on the application, filter elements are available with element protection through an integrated handle. The flow of liquid through the element takes place from the outside to the inside.

## Maintenance

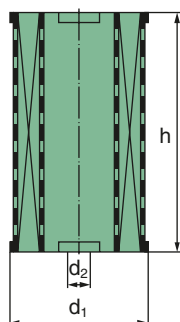
The time when maintenance is required is usually defined by the engine or machine producer. Maintenance simply requires replacement of the used element.



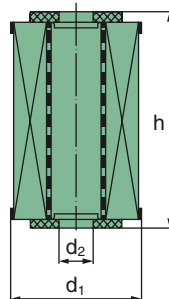
# P type

## In-line fuel injection pumps

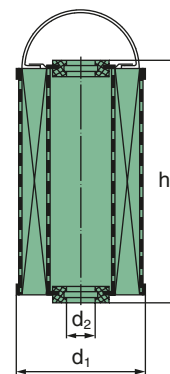
These filter elements are mainly used with in-line injection pumps used in diesel engines. As with the spin-on filters the selection of the recommended separation efficiency is defined by the technology of the injection system (see page 66) and the quality of the fuel.



Form A



Form B



Form D  
acc. to DIN 73 358

MANN-FILTER	Nominal flow rate [l/h] [gph]	Dimensions in mm ( <i>Dimensions in inches</i> )			Separation efficiency *	Type
		d <sub>1</sub>	d <sub>2</sub>	h		
<b>P 46/1</b>	35 (9.25)	40 (1.57)	8.5 (0.33)	133 (3.24)	> 20%	B
<b>P 78</b>	40 (10.57)	65 (2.56)	14 (0.55)	53 (2.09)	> 45%	A
<b>P 609 <sup>4)</sup></b>	30 (7.93)	51 (2.01)	8 <sup>2)</sup> (0.31)	68 (2.68)	> 20%	B
<b>P 707 <sup>4)</sup></b>	90 <sup>3)</sup> (23.78)	65 (2.56)	14 <sup>1)</sup> (0.55)	116 (4.57)	> 20%	D
<b>P 715 <sup>4)</sup></b>	65 <sup>3)</sup> (17.17)	65 (2.56)	14 <sup>1)</sup> (0.55)	65 (2.56)	> 20%	D
<b>P 725</b>	150 (39.63)	65 (2.56)	14 (0.55)	100.5 (3.96)	> 20%	A
<b>P 810</b>	70 (18.49)	68 (2.68)	21 (0.83)	84 (3.31)	> 20%	A
<b>P 811 <sup>4)</sup></b>	120 <sup>3)</sup> (31.70)	83 (3.27)	14 (0.55)	146 (5.75)	> 20%	D
<b>P 824</b>	80 (153.24)	72 (2.83)	32 (1.26)	89 (3.50)	> 20%	A
<b>P 825 <sup>4)</sup></b>	70 (18.49)	77 (3.03)	26 (1.02)	100 (3.94)	> 20%	B
<b>P 921/2 <sup>4)</sup></b>	120 (31.70)	83 (3.27)	26 (1.02)	118 (4.65)	> 20%	B
<b>P 934 <sup>5)</sup></b>	150 (39.63)	83 (3.27)	10 <sup>2)</sup> (0.39)	167 (6.57)	> 20%	B
<b>P 1018/1</b>	450 <sup>3)</sup> (118.89)	100 (3.94)	20 <sup>1)</sup> (0.79)	171.5 (6.75)	> 20%	D

1) External diameter according to DIN 2391.

2) Nominal diameter for bolt.

3) Flow rate with 1 m gradient (when new, acc. to DIN 73 358).

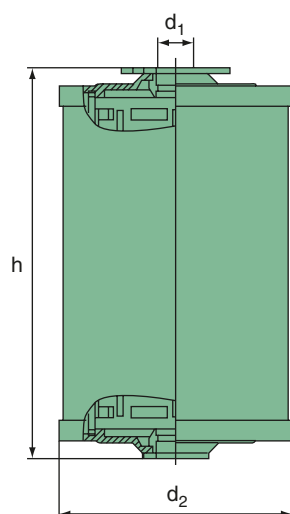
4) With felt gasket.

5) With cork insert.

\* All figures relate to a particle size of 3-5 µm (c) acc. to ISO/TR 13 353 (1994).

# BFU type

## In-line fuel injection pumps / General preliminary filters



These filter elements are free of metal and particularly environmentally friendly. They are mainly used for in-line injection pumps. For stage filters the BFU type is always used as the first preliminary filter in the flow direction.

MANN-FILTER	Nominal flow rate [l/h] [gph]	Dimensions in mm ( <i>Dimensions in inches</i> )			Separation efficiency *
		d <sub>1</sub>	d <sub>2</sub>	h	
<b>BFU 707</b>	90 (23.78)	13 (0.51)	59 (2.32)	115 (4.53)	> 10%
<b>BFU 811</b>	150 (39.63)	13 (0.51)	85 (3.35)	145 (5.71)	> 10%
<b>BFU 900</b>	150 (39.63)	13 (0.51)	85 (3.35)	145 (5.71)	> 10%

\* All figures relate to a particle size of 3-5 µm (c) acc. to ISO/TR 13 353 (1994).