

# F 40 AND F 45 COMPACT POCKET FILTERS

RELIABLE, EFFECTIVE, ROBUST

FILTER TYPE	FILTER CLASS TO ISO 16890	FILTER CLASS TO EN 779:2012
F 40 / F 45	ISO coarse 70%	G 4



## The application

F 40 and F 45 are used for supply, exhaust and recirculating air filtration in all kinds of ventilation systems, such as

- in general air-conditioning applications
- for ventilating machine rooms and production areas
- for exhaust and recirculating air filtration in paint lines
- as prefilters for fine-filters in industrial processes (metal processing, chemicals, pharmaceuticals, food and beverages, optics, electronics, etc.).

## The characteristics and benefits

- As filter media, we use our **progressively structured high-performance nonwovens made in-house from tear-resistant synthetic organic fibers**.
- High dust-holding capacity combined with a low pressure drop result a **long service life, excellent cost-efficiency** and lower CO<sub>2</sub> emissions.

- The F 40 L and F 45 L filters are particularly energy efficient and thus decreasing energy costs and CO<sub>2</sub> emissions.
- F 40 and F 45 pocket filters are free of glass fibers, non-corroding, self-extinguishing to DIN 53438 (Fire class F1) and **microbiologically inactive**. They also meet all hygiene requirements for HVAC systems according to the VDI 6022 standard.
- **Maximized functional reliability** thanks to the leak-proof welded configuration of the filter pockets, foamed-in polyurethane front frame, aerodynamically optimized welded-in spacers (long-pocket filters only), and dimensionally stable construction of the filter element as a whole.
- The uniformly high quality of the filters is assured by our certified **quality management** system to ISO 9001, as well as by type-testing to EN 779 and ISO 16890.

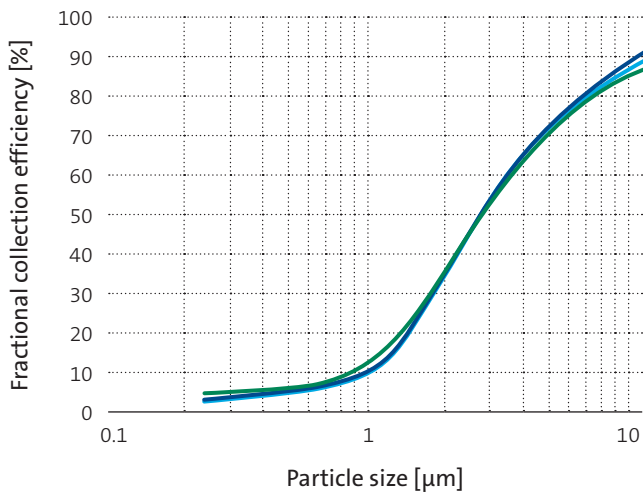
## The special features

- The robust filter series for heavy coarse dust loadings, even at high air flow rates.
- High functional reliability, even under extremely moist and wet operating conditions.
- Thanks to their shorter pockets, F 45 S filters offer a **space-saving solution** for plants where the use of long-pocket filters would not be possible.
- To optimize prefiltration and/or when used in confined spaces, an **additional filter stage** can be inserted into an existing filter wall using the reverse-flow F 45 R short-pocket filter. The filter is attached to the main filter using clips. The required supporting basket, adhesive seals and mounting brackets are available as accessories.

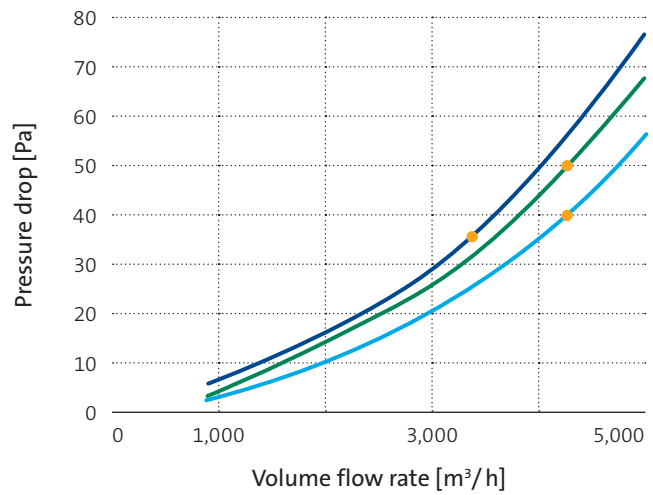
GEOMETRIES AVAILABLE		F 45 1/1 8L	F 40 1/1 5L	F 45 1/1 5S*	F 40 5/6 4L	F 45 5/6 4S	F 40 1/2 3L	F 45 1/2 3S	F 40 1/4 4L
Nominal volume flow rate	m <sup>3</sup> /h	4,250	4,250	3,400	3,400	2,700	2,500	2,000	1,500
Front frame	mm	592 × 592	592 × 592	592 × 592	492 × 592	492 × 592	289 × 592	289 × 592	289 × 289
Overall depth	mm	650	650	330	650	330	650	330	650
Number of pockets		8	5	5	4	4	3	3	4
Filtering area	m <sup>2</sup>	6.0	4.0	2.0	3.2	1.6	2.4	1.2	1.5
Weight, approx.	kg	2.7	1.7	1.2	1.5	1.0	1.2	0.8	0.7
Thermal stability	°C	70							
Moisture-resistance (rel. hum.)	%	100							
Suitable for standard mounting frame	mm	610 × 610	610 × 610	610 × 610	508 × 610	508 × 610	305 × 610	305 × 610	305 × 305

# TECHNICAL FILTER TEST DATA TO EN 779 AND ISO 16890

Fractional collection efficiency curves



Initial pressure drop curves



— F45 1/1 8L — F40 1/1 5L — F45 1/1 5S ● Nominal volume flow rate

KEY DATA		F 45 1/1 8L	F 40 1/1 5L	F 45 1/1 5S*
Nominal volume flow rate ●	m³/h	4,250	4,250	3,400
Face velocity	m/s	3.2	3.2	2.5
Initial pressure drop	Pa	50	40	35
Class to ISO 16890		ISO coarse 70%		
Particulate matter efficiency ISO ePM10	%	48	48	49
Initial gravimetric arrestance		70	71	71
Cut-off particle size	µm	> 10		
Filter class to EN 779:2012		G 4		
Recom. final pressure drop**	Pa	250		
Dust holding capacity approx. AC fine / 300 Pa	g	4,800	3,250	1,700

\* also available in reverse version (F 45 1/1 5R)

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the final pressure drop stated. It can also be exceeded in certain applications.

The figures given are mean values subject to tolerances due to normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations.