

# F 50 COMPACT POCKET FILTER



## COST-EFFECTIVE AND ENERGY-EFFICIENT IN CONTINUOUS OPERATION

FILTER TYPE	FILTER CLASS TO ISO 16890	FILTER CLASS TO EN 779:2012	ENERGY EFFICIENCY CLASS*
F 50	ISO ePM10 55%	M 5	A



### The application

Compact F50 pocket filters are used for filtering intake, exhaust and recirculating air in air-conditioning systems with stringent requirements for sturdiness and cost-efficiency, such as

- in paint lines
- in industrial processes
- for ventilating machine rooms and production areas
- in sophisticated air-conditioning systems (hospitals, laboratories, libraries, museums, airports, etc.)
- in intake air filtration of turbomachinery

### The special features and benefits

- The filter media featured are high-performance nonwovens, produced in-house from non-breaking, synthetic-organic fibers. In order to achieve an optimum of filtering performance and dust holding capacity, the media are progressively structured.

- This ensures superlative durability, high arrestance, low pressure drop, long useful lifetimes and high cost-efficiency.
- F 50 filters achieve energy-efficiency class A, thus cutting energy costs and downsizing CO<sub>2</sub> emissions.
- F 50 pocket filters are free of glass fibers, non-corroding and microbiologically inactive, and meet all the criteria laid down in VDI Guideline 6022 "Hygiene Requirements for HVAC systems and units".
- The materials (filter media and frame) are self-extinguishing according to DIN 53438 (Fire class F1).
- Maximized functional dependability thanks to the leakproof-welded configuration of the filter pockets, foam-sealed into a PUR front frame, with aerodynamically optimized welded-in spacers (long pocket filters only) and

dimensionally stable construction of the filter element as a whole.

- The filters' consistently high quality is assured by our state-of-the-art ISO 9001-compliant quality management system and by type-testing to EN 779.

### The special features

- The F 50 filter series provides high clean air quality together with high cost efficiency.
- High functional reliability, even under extremely moist and wet operating conditions.

GEOMETRIES AVAILABLE		F 50 1/1 5L	F 50 1/1 8M	F 50 1/1 5S	F 50 5/6 4L	F 50 1/2 3L	F 50 1/4 4L
Nominal volume flow rate	m <sup>3</sup> /h	4,250	4,250	3,400	3,400	2,500	1,525
Front frame	mm	592 × 592	592 × 592	592 × 592	492 × 592	289 × 592	289 × 289
Overall depth	mm	650	510	330	650	650	650
Number of pockets		5	8	5	4	3	4
Effective filtering area	m <sup>2</sup>	4.0	4.7	2.0	3.2	2.4	1.4
Weight, approx.	kg	2.1	2.5	1.6	1.6	1.2	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	305 × 610	305 × 305

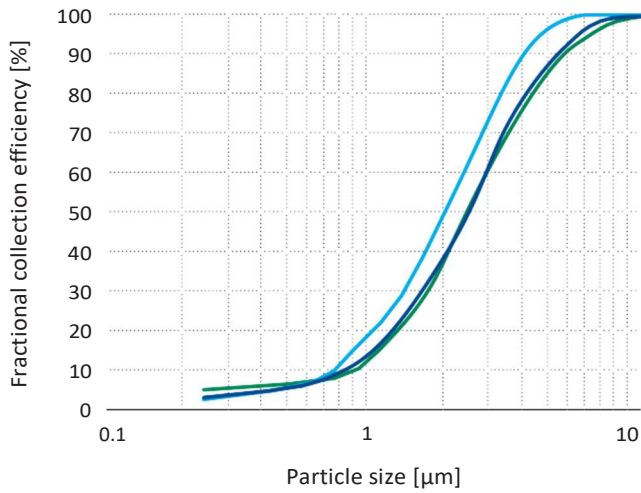
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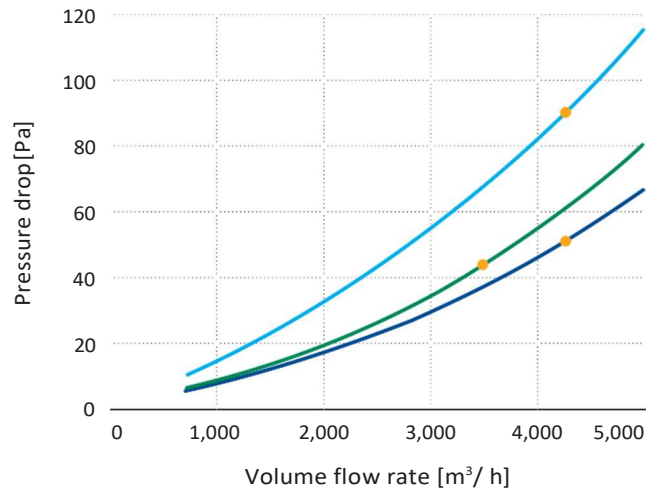


# TECHNICAL FILTER TEST DATA TO EN 779 AND ISO 16890

Fractional collection efficiency curves



Initial pressure drop curves



— F 50 1/1 5L    — F 50 1/1 8M    — F 50 1/1 5S    ● Nominal volume flow rate

KEY DATA		F 50 1/1 5L	F 50 1/1 8M	F 50 1/1 5S	
Nominal volume flow rate	●	m <sup>3</sup> / h	4,250	4,250	3,400
Face velocity		m / s	3.2	3.2	2.7
Initial pressure drop		Pa	50	60	65
Class to ISO 16890		ISO ePM10 55%			
Particulate matter efficiency					
ISO ePM1		7	7	7	
ISO ePM2,5	%	15	15	18	
ISO ePM10		58	56	59	
Cut-off particle size	µm	10			
Filter class to EN 779:2012		M 5			
Recom. final pressure drop*	Pa	450			
Bursting strength	Pa	> 3,000			
Dust holding capacity approx. (ASHRAE / 300 Pa)	g	3,200	3,600	1,900	

\* 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 the 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. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

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