

COST-EFFECTIVE AND ENERGY-EFFICIENT IN CONTINUOUS OPERATION

COMPACT POCKET FILTERS F 50

ISO ePM10 55%

FILTER TYPE	FILTER CLASS	NOMINAL VOLUME FLOW RATE [m ³ /h]	TEST STANDARD	ENERGY EFFICIENCY CLASS*
F 50	M 5	4,250	EN 779	A
F 50SE	M 5	4,250	EN 779	A
F 50S	M 5	3,400	EN 779	–

* As part of the EUROVENT Certification, rated at 3,400 m³/h



The application

Compact F 50 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

Their characteristics 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 und F 50SE filters achieve energy-efficiency class A, thus cutting energy costs and downsizing CO₂ emissions.
- F 50 pocket filters are free of glass fibers, non-corroding and microbologically 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 F 1).
- 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.

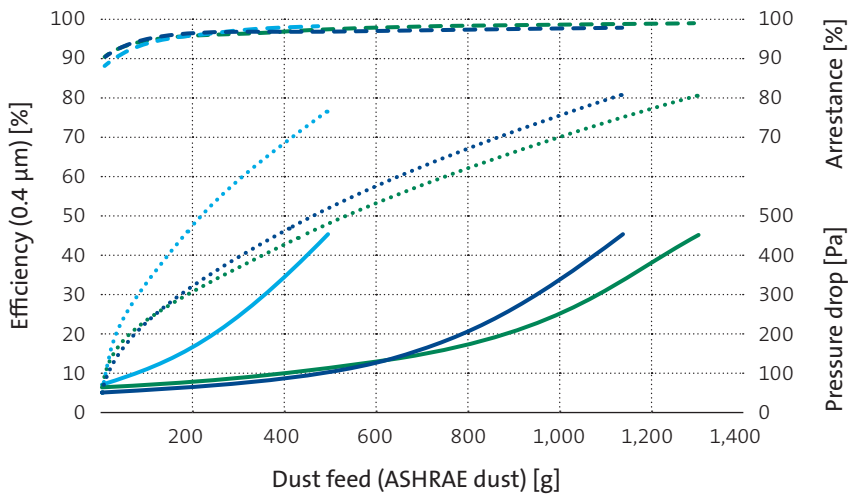
The special features

- 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.
- Thanks to their shorter pockets, F 50S filters offer a space-saving solution for units where the use of long-pocket filters would not be possible.
- To optimize pre-filtration and/or when used in confined spaces, an additional filter stage can be inserted into an existing filter wall using the reverse-flow F 50 R short-pocket filter. The filter is attached to the main filter using clips. The required support cage, adhesive seals and mounting clips are available as accessories.

GEOMETRIES AVAILABLE		F 50 1/1	F 50 5/6	F 50 1/2	F 50 1/4	F 50SE 1/1	F 50S 1/1
Front frame	mm	592 × 592	492 × 592	289 × 592	289 × 289	592 × 592	592 × 592
Overall depth	mm	650	650	650	650	510	330
Number of pockets		5	4	3	4	8	5
Effective filtering area	m ²	4.0	3.2	2.4	1.4	4.7	2.0
Weight approx.	kg	2.1	1.6	1.2	0.7	2.5	1.6
Thermal stability	°C	70	70	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100	100	100
Suitable for standard mounting frame	mm	610 × 610	508 × 610	305 × 610	305 × 305	610 × 610	610 × 610

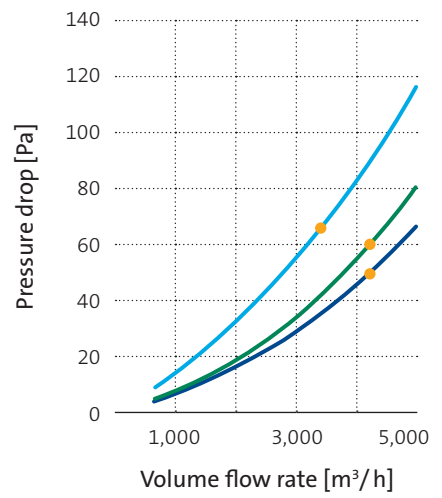
TECHNICAL FILTER TEST DATA TO EN 779

Arrestance, efficiency and pressure drop plotted against dust feed at nominal volume flow rate



- Arrestance F 50 ··· Efficiency F 50 S — Pressure drop F 50
- Arrestance F 50 S ··· Efficiency F 50 — Pressure drop F 50 S
- Arrestance F 50 SE ··· Efficiency F 50 S SE — Pressure drop F 50 SE

Initial pressure drop curves



- F 50 ● Nominal volume flow rate
- F 50 S
- F 50 SE

KEY DATA		F 50 1/1	F 50 SE 1/1	F 50 S 1/1	
Filter class		M5	M5	M5	
Nominal volume flow rate	●	m³/h	4,250	4,250	3,400
Face velocity		m/s	3.2	3.2	2.7
Initial pressure drop		Pa	50	60	65
Average efficiency	E_a	%	51	50	49
Average arrestance	A_a	%	97	97	95
Recom. final pressure drop*		Pa	450	450	450
Dust holding capacity approx. (ASHRAE / 450 Pa)		g	1,100	1,300	500
Dust holding capacity approx. (AC Fine / 450 Pa)		g	3,600	—	—

* 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.