

SPIDERMAXX CASSETTE FILTERS



MAXIMUM EFFICIENCY AND OPERATIONAL RELIABILITY FOR GAS TURBINES AND COMPRESSORS

PRELIMINARY

FILTER TYPE	FILTER CLASS TO ISO 16890	FILTER CLASS TO EN 779:2012	FILTER CLASS TO EN 1822:2019
sMaxx 98	ISO ePM1 85%	F 9	–
sMaxx E10	ISO ePM1 > 95%	–	E 10
sMaxx E11	ISO ePM1 > 95%	–	E 11
sMaxx E12	–	–	E 12



Application

- Intake air filtration for gas turbines and compressors – on- and offshore, even under harsh environmental conditions or load peaks.
- Power plants of the light and heavy industry, power plants of megacities or in petrochemical and marine applications.

Media and construction characteristics

- High strength micro-glass fiber papers with hydrophobic treatment.
- Non-corroding and fully incinerable filter element; contains no metal parts.
- Extremely stable filter frame concept with one-piece front and back plates.

- Burst protection grids inspired by nature.
- Newly designed, aerodynamic guide vanes.
- 4-sided, leak-proof casting of the dimensionally stable media pleat pack.
- Vertical pleat arrangement and integrated water slopes for optimal water drainage.
- Endless foamed-on gasket inserted into a channel that is integrated in the filter frame.
- Gripping lugs and rounded shatter-proof contours for easy handling.

Features and pluses

- EPA grade filtration in combination with lowest air flow resistance for lowest heat rate and highest power output over the lifetime.
- Optimum stability and rigidity even under high pressure loads ensures highest possible operational reliability at near-zero leakage risk.
- Reduced air flow resistance resulting in fewer CO₂ emissions. Contributes to improved sustainability.
- Increased dust holding capacity for extended filter lifetime by up to 25% (compared to previous benchmark cassette filters).
- Fast, space-saving integration of pre-filters thanks to modular clip-on system.

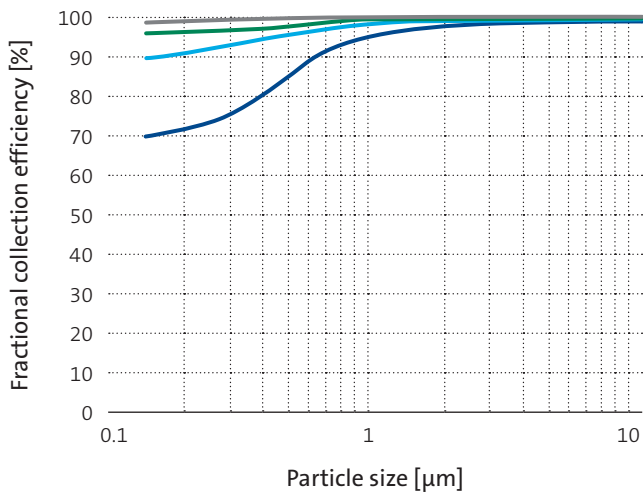
GEOMETRIES AVAILABLE		1/1
Nominal volume flow rate	m ³ /h	4,250
Filtering area	m ²	35
Front frame for mounting frame	mm	593 × 593 × 23 610 × 610
Overall depth	mm	433
Weight, approx.	kg	12.5
Temperature resistance	°C	70
Moisture-resistance (rel. hum.)	%	100



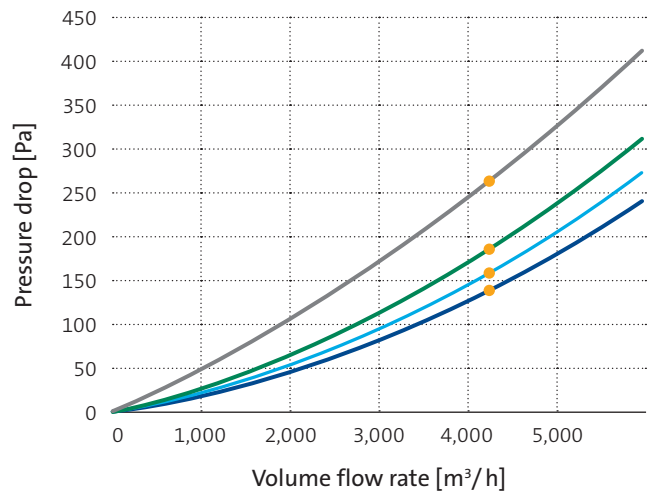
spiderMaxx

TECHNICAL FILTER TEST DATA TO EN 779, EN 1822 AND ISO 16890

Fractional collection efficiency curves



Initial pressure drop curves



— sMaxx 98 — sMaxx E10 — sMaxx E11 — sMaxx E12 ● Nominal volume flow rate

KEY DATA		sMaxx 98	sMaxx E10	sMaxx E11	sMaxx E12
Nominal volume flow rate	● m³/h	4,250			
Initial pressure drop	Pa	140	160	185	265
Class to ISO 29461-1		T9	T10	T11	T12
Class to ISO 16890		ISO ePM1 85%	ISO ePM1 >95%	ISO ePM1 >95%	n. a.
Particulate matter efficiency					
ISO ePM1		86	97	98	n. a.
ISO ePM2,5	%	90	98	99	n. a.
ISO ePM10		96	99	>99	n. a.
Cut-off particle size	µm	3	1	0.5	n. a.
Filter class to					
EN 779:2012		F9	—	—	—
EN 1822:2019		—	E10	E11	E12
Minimum efficiency for MPPS	%	—	≥85	≥95	>99.5
Recom. final pressure drop*	Pa	625			
Maximum final pressure drop	Pa	1,250			
Bursting strength	Pa	>6,000			
Dust holding capacity approx. (AC Fine / 625 Pa)	g	2,800	2,600	2,450	2,300

* 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.

n. a. = not applicable

The information or figures given are subject to tolerances due to normal production fluctuations. Our explicit written confirmation is required in each case for the correctness of the information. 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.

FREUDENBERG FILTRATION TECHNOLOGIES

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