

# AAS AERSTAR

## Bag filter with fully automatic compressed air cleaning



### Functional Description

AERSTAR filter systems with efficient and economical cleaning are suitable for "24/7" operation without the need to interrupt the extraction. The filter bags are continuously cleaned, the filter cake is removed from the bags with an effective blast of compressed air. The special venturi nozzles at the end of the filter support frame increases the effectiveness of the compressed air; this leads to suction of secondary air in an optimum ratio. This results in less compressed air consumption with best cleaning result, without disturbing the filtration process. The cleaning pulse/duration can be set individually. As the AERSTAR has no moving or loose components in the raw gas chamber, an ATEX ZONE 20 can be declared there.

All series of AERSTAR filters can be equipped with quick-release fasteners up to pressure shock resistance of 1bar and are suitable for vacuum conveying down to -900mbar.

The dedusting units can be individually equipped with explosion protection systems, rotary valves, sensors, dust-free product discharge and various fans according to customer requirements. The filters can be adapted to the process requirements in standard steel, product-touched stainless steel or completely stainless steel. The versions Standard, Extra and Hygienic have been developed for different cleaning and hygienic requirements. Depending on the filter type, the filter elements can be installed horizontally or vertically.

#### Aerstar AAS

The AERSTAR AAS pressure surge cleaned bag filter is particularly suitable for pneumatic conveying systems and all dedusting applications in the process. This also applies especially for explosive and sensitive dust-air mixtures. We want to emphasize the beneficial horizontal mounting of filter bags.

#### Advantages

- Maximum filter capacity
- High efficiency
- Modular structure
- Customized engineering
- Low maintenance operation
- Maximum safety
- Energy efficient

#### Use in various industrial sectors

- Bulk goods / powder technology
- Food industry
- Chemical industry
- Pharmaceutical industry
- Silo dedusting
- Aspiration applications
- Dedusting of mixing, dosing, filling

#### Options

- Sensors
- Discharge systems
- Hygienic design
- Dust-free discharge (endless bag)
- Explosion protection systems
- Integrated HEPA Filter
- Pressure shock resistant up to Pred 1bar

#### bg filtration gmbh

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## Layout guidelines

Calculation of required filter area:

for Polyester-needle felt, standard:

$A_{\text{Filter}} [\text{m}^2] = \text{Air volume} [\text{m}^3/\text{h}]/90$

for Polyester-needle felt with PTFE:

$A_{\text{Filter}} [\text{m}^2] = \text{Air volume} [\text{m}^3/\text{h}]/60$

Use of filter media	Clean gas content	Grain sizes	Amount of dust
Polyester-needle felt, standard	< 10 mg/m <sup>3</sup>	> 0,5 µm	< 500 g/m <sup>3</sup>
Polyester-needle felt with PTFE	< 2 mg/m <sup>3</sup>	> 0,1 µm	< 100 g/m <sup>3</sup>
with endfilter H13	< 0,1 mg/m <sup>3</sup>	> 0,1 µm	< 0,01 g/m <sup>3</sup>

### 1 Row of filter bags

Filter area	Typ 0.3	Typ 0.4	Typ 0.5	Typ 0.6	Typ 0.7	Typ 0.8	Typ 0.9	Typ 0.12
Bag size 1: 0,85 m <sup>2</sup>	2,6	3,4	4,3	5,1	6	6,8	7,7	10,2
Bag size 2: 1,1 m <sup>2</sup>	3,3	4,4	5,5	6,6	7,7	8,8	9,9	13,2
Bag size 3: 1,25 m <sup>2</sup>	3,8	5	6,3	7,5	8,8	10	11,3	15
Bag size 4: 1,6 m <sup>2</sup>	4,8	6,4	8	9,6	11,2	12,8	14,4	19,2

### 2 (3) Rows of filter bags

Filter areas	Typ 2.3	Typ 2.4	Typ 2.5	Typ 2.6	Typ 2.7	Typ 2.8	Typ 2.9	Typ 2.12	Typ 3.12
Bag size 1: 0,85 m <sup>2</sup>	5,1	6,8	8,5	10,2	11,9	13,6	15,3	20,4	30,6
Bag size 2: 1,1 m <sup>2</sup>	6,6	8,8	11	13,2	15,4	17,6	19,8	16,4	39,6
Bag size 3: 1,25 m <sup>2</sup>	3,8	10	12,5	15	17,5	20	22,5	30	45
Bag size 4: 1,6 m <sup>2</sup>	9,6	12,8	16	19,2	22,4	25,6	28,8	38,4	57,6

### Technical data

Compressed air	Connection < 6 bar	Consumption 0,02 - 0,2 m <sup>3</sup> /h/m <sup>2</sup>
Controller with or without delta p cleaning	Voltage:	Frequency:
	230 V	AC
	110 V	AC
	24 V	DC/AC

### Dimensions / Measurements

	Typ x.3	Typ x.4	Typ x.5	Typ x.6	Typ x.7	Typ x.8	Typ x.9	Typ x.12	
Width AAS 1 / AAS 2	445 / 460	550 / 565	655 / 670	760 / 775	865 / 880	970 / 985	1.075 / 1090	1.390 / 1405	
Housing depth at Bag size 1	AAS 1 1.200 / AAS 2 1.600								
Housing depth at Bag size 2	AAS 1 1.450 / AAS 2 1.850								
Housing depth at Bag size 3	AAS 1 1.600 / AAS 2 2.000								
Housing depth at Bag size 4	AAS 1 1.950 / AAS 2 2.350								
Hight 1 row	AAS 1 2.250 / AAS 2 2.650								
Hight 2 rows	AAS 1 2.800 / AAS 2 3.200								
Hight 3 rows	AAS 1 3.350 / AAS 2 3.750								
Flange dimensions AAS U / 3 Attachment AAS 4	1 row	610 x 405	610 x 510	610 x 615	610 x 720	610 x 825	610 x 930	610 x 1.035	610 x 1350
	2 rows	1.150 x 405	1.150 x 510	1.150 x 615	1.150 x 720	1.150 x 825	1.150 x 930	1.150 x 1.035	1.150 x 1.350
	3 rows	1.690 x 405	1.690 x 510	1.690 x 615	1.690 x 720	1.690 x 825	1.690 x 930	1.690 x 1.035	1.690 x 1.350
Flange dimensions Attachment AAS 5	Bag size 1	1.000 x 545	1.000 x 650	1.000 x 755	1.000 x 860	1.000 x 965	1.000 x 1.070	1.000 x 1.175	1.000 x 1.490
	Bag size 2	1.250 x 545	1.250 x 650	1.250 x 755	1.250 x 860	1.250 x 965	1.250 x 1.070	1.250 x 1.175	1.250 x 1.490
	Bag size 3	1.400 x 545	1.400 x 650	1.400 x 755	1.400 x 860	1.400 x 965	1.400 x 1.070	1.400 x 1.175	1.400 x 1.490
	Bag size 4	1.750 x 545	1.750 x 650	1.750 x 755	1.750 x 860	1.750 x 965	1.750 x 1.070	1.750 x 1.175	1.750 x 1.490

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