

## Depth Filter Type YG

The depth filter for the removal of water, oil aerosols and solid particles from compressed air and gases with validated retention rate acc. ISO 12500-1 and ISO 5011.

### Product description:

The filter elements type YG are designed for the processing of compressed air or gases in industrial applications.

Validated performance data acc. to ISO 12500-1 for reliable achievement of compressed air quality suitable due to the application acc. to ISO 8573-1.

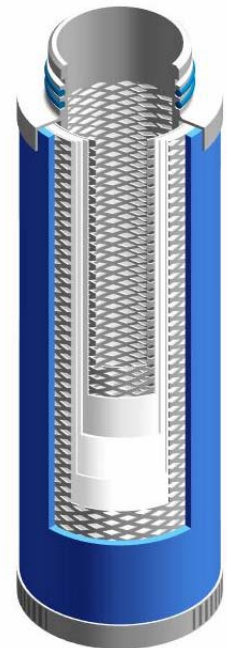
The filter elements type YG possess the three-dimensional micro fibre fleece made of polyester, which works oil and water-rejecting.

By utilising various filtration mechanisms such as retention by direct impact, sieve-effect and diffusion effect, liquid aerosols and solid particles are being retained in the filter.

### Applications:

The depth filter is for example being utilised in the following industries:

- Pre-filtration upstream fridge and adsorption dryers
- Pre-filter for the removal of larger amounts of liquids
- Applications with expected high particle intake
- After-filter downstream adsorption dryers



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Element Type	Flowrate at 7 bar g m <sup>3</sup> /h *
02/05	20
03/05	40
03/10	60
04/10	90
04/20	120
05/20	180
05/25	270
07/25	360
07/30	480
10/30	720
15/30	1080
20/30	1440
30/30	1920
30/50	2880

Operating Pressure bar g	Pressure conversion factor f <sub>p</sub>
1	0.25
2	0.38
3	0.50
4	0.63
5	0.75
6	0.88
7	1.00
8	1.13
9	1.25
10	1.38
11	1.50
12	1.63
13	1.75
14	1.88
15	2.00
16	2.13

**Sizing example for pressure which deviates from nominal pressure:**

$\dot{V}_{nom} = 330 \text{ m}^3/\text{h}$ , operating pressure = 9 bar (g)

$$\dot{V}_{corr} = \frac{\dot{V}_{nom}}{f_p}$$

$$\dot{V}_{corr} = \frac{330 \text{ m}^3/\text{h}}{1.25} = 264 \text{ m}^3/\text{h}$$

**Calculated Size: Type 05/25**

\* m<sup>3</sup>/h related to 1 bar abs. and 20°C

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Features:	Benefits:
Validated performance data acc. to ISO 12500-1 and ISO 5011	Reliable reaching of the compressed air quality according to ISO 8573-1
Intelligent total concept	Flow range, filtration grades, efficiencies and available options perfectly meet requirements of air purification
Support sleeve made of stainless steel meshed grid	Protection of the filter media against pressure shocks, good protection against corrosion

Materials:	
Filter media	Polyester fibre fleece
Coalescence sleeve	Polyurethane
Inner and outer support sleeves	Stainless steel 1.4301 / 304
End caps	Aluminium
O-Rings	Perbunan: silicone free and free of compound (Standard)
Bonding	Polyurethane

Validation:
Validation of high-efficiency filters acc.to ISO 12500-1 (oil) and ISO 5011 (particles)

Particle retention rate related to ISO Finedust	Oil retention rate acc. to ISO 12500-1	Residual oil content at an inlet concentration of		
			10 mg/Nm <sup>3</sup>	3 mg/Nm <sup>3</sup>
$\eta$ (YG) = 90%	$\eta$ (YG) = 82%	$\dot{m}_{Oil}$ (YG) [mg/Nm <sup>3</sup> ]	< 2	< 0.6

