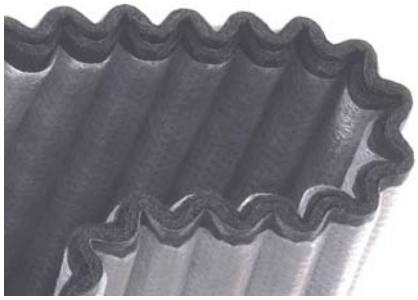
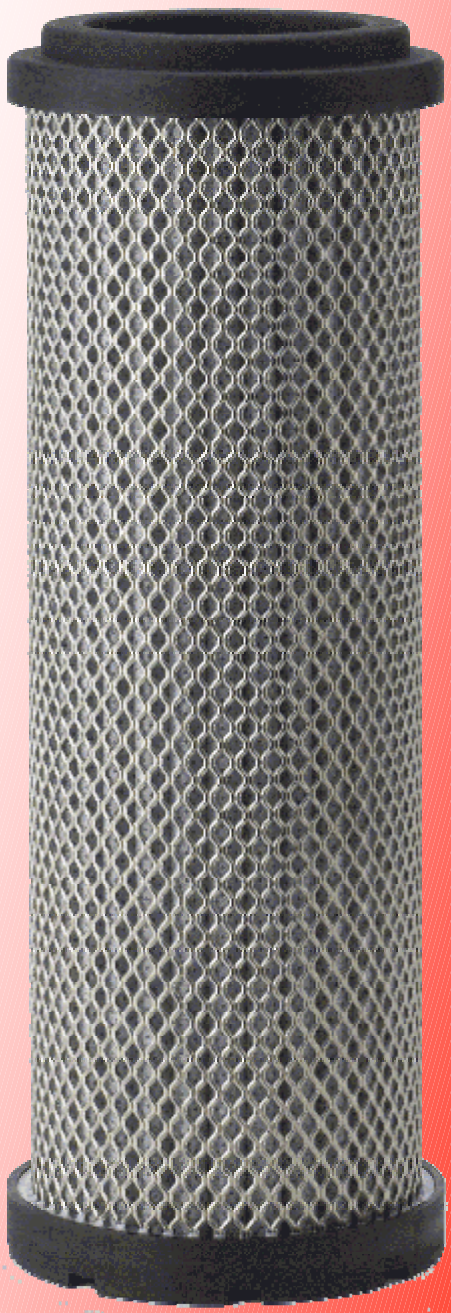
Filter elements A-series

ZANDER A grade filters are designed as high-capacity adsorption filter with activated carbon for a downstream separation of aerosol components and reduction of the oil vapour and odour from compressed air and gas streams. In connection with an upstream micro-filter of X, XP or XP4 grade and corresponding drying facilities, an A grade filter generates technically oil-free and clean compressed air according to the breathing air requirements of DIN3188 or BS4275 (with O_2, CO, CO_2 concentrations secured on the intake side).

The core of the filter is the pleated activated carbon fabric, enriched with a high concentration of powdered activated carbon. In addition, it is surrounded by a filtration layer on both sides to prevent the deposit of activated carbon particles in the gas flow. The activated carbon fabric is machine-produced and therefore of a consistently high quality. The machine-produced pleating provides more than double the filter surface and therefore amounts of activated carbon compared to a wrapped element of the same size. The enlargement of the filter surface achieved by the pleating results in a reduction of the velocity through the filter fabric and therefore a reduction of differential pressure with a simultaneous improvement of the adsorption behaviour.



The filter element cylinders consist of high-quality stainless-steel mesh with large perforations as well as plastic or optional aluminium or stainless steel endcaps.



Basic technical data:

	A
(MPPS-) filtration level	---
Residual oil content[*1]	≤ 0.003 mg/m³
Differential pressure[*2]	30 mbar

*1: new state in relation to 1 bar absolute, 20°C with an inlet concentration of 0,01 mg/m³
*2: differential pressure in the new state, dry, at nominal capacity.

Capacity[*3]:

Model	Nominal
1030	30 m³/h
1050	50 m³/h
1070	70 m³/h
1140	100 m³/h
2010	180 m³/h
2020	300 m³/h
2030	470 m³/h
2050	700 m³/h
3050	940 m³/h
3075	1450 m³/h
5060	1940 m³/h
5075	2400 m³/h

*3: capacity calculated at 1 bar absolute and 20°C at 7 bar working pressure

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Materials used	
Filter fabric	Microfibre fabric enriched with activated carbon, parafil-fibre fabric
Drainage layer	---
Rib mesh	Stainless steel VA 1.4306
Endcaps	Plastic endcaps polyamide modified, glass-fibre-reinforced (up to size 3075) Optional aluminium (size 5060, 5075 standard) or stainless steel VA 1.4305
Sealing materials	NBR (Perbunan), optional FBM (Viton)
Bonding materials	Polyurethane adhesive, solvent-free

Temperature range	
Nominal	+1°C to +40°C
Maximum	use for temperatures >60°C not advisable because of high proportion of vapour

Differential pressures at nominal capacity	**A**
Differential pressure in new state*1	0.03 bar
Differential pressure saturated	---
Bursting pressure filter element	approx. 5 bar

*1: measured at 7 bar working pressure with model 1050 as example

Filtration efficiency	**A**
Filtration efficiency at nominal capacity	---
MPPS filtration efficiency at nominal capacity	---
Residual oil content in new state at nominal capacity and an inlet concentration of 0.01 mg/m³	≤ 0.003 mg/m³

Direction of flow	
for adsorption	from inside to outside (standard) or from outside to inside

Capacity calculated at 1 bar absolute and 20°C at 7 bar working pressure, quantities of activated carbon		
Model	**Nominal**	**Quantities of activated carbon**
1030	30 m³/h	> 1.4 g
1050	50 m³/h	> 2.3 g
1070	70 m³/h	> 3.0 g
1140	100 m³/h	> 6.0 g
2010	180 m³/h	> 6.4 g
2020	300 m³/h	> 12.6 g
2030	470 m³/h	> 18.8 g
2050	700 m³/h	> 30.6 g
3050	940 m³/h	> 39.0 g
3075	1450 m³/h	> 58.6 g
5060	1940 m³/h	> 96.1 g
5075	2400 m³/h	> 120.3 g

Production / quality assurance
Development, manufacture and quality assurance in accordance with DIN EN ISO9001, supplemented by ZANDER's own TQM (Total Quality Management)