



Filter elements KTA-series

ZANDER KTA grade filters are designed as high-capacity adsorption filters with activated carbon for downstream separation of aerosol components and a reduction of oil vapour and odour from compressed air and gas streams. When protected by an upstream micro-filter of X or XP or XP4 grade and a corresponding drying facility, a KTA filter generates technically oil-free and clean compressed air according to the breathing air requirements of DIN3188 or BS4275 (with O₂, CO, CO₂ concentrations secured on the intake side).

The cartridge-type element is completely filled with activated carbon, metal screen supports and filter fabric at the inlet and outlet of the cartridge prevent the deposit of activated carbon particles in the gas stream.

A "snow storm" packing of the activated carbon in the cartridge ensures a maximum quantity of activated carbon per unit volume. The complete filling of the cartridge provides many times the amount of activated carbon as the activated carbon elements of the same size.



Figure Activated carbon granules

The cartridge itself consists of a high-grade aluminium, large input and output ports ensure a low differential pressure.

Basic technical data:

	KTA
Filtration efficiency	---
MPPS filtration level	---
Residual oil content ^{*1}	≤ 0.003 mg/m ³
Differential pressure ^{*2}	0.15 – 0.4 bar (depending on size)

*1: New state in relation to 1 bar absolute, 20°C for an inlet concentration of 0.01 mg/m³

*2: differential pressure in the new state, dry, at nominal capacity.

Capacity^{*3}:

Model	Nominal
KTA1012 (1050)	50 m ³ /h
KTA1012 (1070)	70 m ³ /h
KTA1019 (1140)	100 m ³ /h
KTA2016 (2010)	180 m ³ /h

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





Materials used	
Packing	Activated carbon granules
Filter layer	Nomex filter fabric with a perforated stainless steel plate VA 1.4301
Cartridge	Aluminium
Sealing materials	NBR (Perbunan), optional FBM (Viton)
Bonding materials	---

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	KTA
Differential pressure in new state ¹	0.15 – 0.4 bar (depending on size)
Differential pressure saturated	---
Bursting pressure cartridge	approx. 5 bar

*1: measured at 7 bar working pressure with model 1012, 1019 as example

Filtration efficiency	KTA
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/m ³	≤ 0.003 mg/m ³

Direction of flow	
for adsorption	from top to bottom (standard) or from bottom to top

Capacity calculated at 1 bar absolute and 20°C at 7 bar working pressure, quantities of activated carbon		
Model	Nominal	Quantity of activated carbon
KTA1012 (1050)	50 m ³ /h	> 80 g
KTA1012 (1070)	70 m ³ /h	> 80 g
KTA1019 (1140)	100 m ³ /h	> 130 g
KTA2016 (2010)	180 m ³ /h	> 350 g

Required threaded rod for the installation of the cartridge in ZANDER G-series housings		
Model	Item Number	Designation
KTA1012 (1050)	737 100 003 000	GS24
KTA1012 (1070)	737 100 003 000	GS24
KTA1019 (1140)	737 100 003 000	GS24
KTA2016 (2010)	737 100 006 000	GS21

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