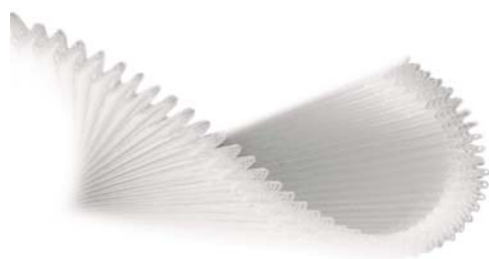




Filter elements HTNX/HTCR Z,X series

ZANDER HTNX (High temperature Nomex) and HTCR (High temperature chemical resistant) filters are designed as coalescing depth filters and therefore reliably separate liquid and solid particles up to a size of 0.01µm with a filtration efficiency of up to 99.99999% from compressed air and gas streams.

The core of the filters is the pleated and up to 4-layer filter fabric consisting of a borosilicate microfibre-fabric with a void volume of more than 96%, surrounded by another filter and support fabric made from polypropylene. The filter fabric is machine-produced and therefore of a consistent quality. The machine pleating ensures that more than four times the filter surface is available compared with a wrapped element of the same size. The enlargement of the filter surface achieved by pleating results in a reduction of velocity through the filter fabric, and therefore in a reduction of differential pressure with simultaneous improvement of dirt holding capacity and separation behaviour.



On the outside of the filter a high temperature-resistant sock of Nomex is used as a drainage layer. The filter element cylinders consists of high-quality stainless-steel mesh with large perforations and aluminium (HTNX) or stainless steel (HTCR) endcaps.

Basic technical data:

	Z HTNX/HTCR	X HTNX/HTCR
Filtration efficiency	99.9999% ^{*1}	99.99999% ^{*2}
MPPS filtration level	99.99 ^{*3}	99.9999% ^{*3}
Residual oil content^{*4}	≤ 0,5 mg/m ³	≤ 0.01 mg/m ³
Differential pressure^{*5}	30 mbar	60 mbar

*1: in relation to particle size 1µ

*2: in relation to particle size 0.01µ

*3: in relation to MPPS particle size 0.1-0.5 µm (most penetrating particle size)

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

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

Capacity^{*6}:

Model	Nominal
1030	30 m ³ /h
1050	50 m ³ /h
1070	70 m ³ /h
1140	100 m ³ /h
2010	180 m ³ /h
2020	300 m ³ /h
2030	470 m ³ /h
2050	700 m ³ /h
3050	940 m ³ /h
3075	1450 m ³ /h
5060	1940 m ³ /h
5075	2400 m ³ /h

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





Materials used	
Filter fabric	Borosilicate microfibre fabric with polypropylene homopolymer support-fabric
Drainage layer	Nomex fabric
Rib mesh	Stainless steel VA 1.4306
Endcaps	Aluminium (HTNX) or stainless steel VA 1.4305 (HTCR)
Sealing materials	NBR (Perbunan), optional FBM (Viton)
Bonding materials	Polyurethane adhesive, solvent-free

Temperature range	
Nominal	+1°C to +120°C (HTNX) , +1°C to +120°C (HTCR)
Maximum (short-term)	+1°C to +150°C (HTNX) , +1°C to +150°C (HTCR)

Differential pressures at nominal capacity	Z HTNX/HTCR	X HTNX/HTCR
Differential pressure in new state dry ¹	0.03 bar	0.06 bar
Differential pressure saturated ²	0.20 bar	0.25 bar
Bursting pressure filter element	approx. 5 bar	approx. 5 bar

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

*2: impact of test aerosols after 60 minutes with an inlet concentration of >20 mg/m³, measured at 7 bar working pressure, model 1050

Filtration efficiency	Z HTNX/HTCR	X HTNX/HTCR
Filtration efficiency at nominal capacity	99.9999% (1µm)	99.99999% (0.01µm)
MPPS ³ filtration efficiency at nominal capacity	99.99% (0.1-0.5µm)	99.9999% (0.1-0.5µm)
Residual oil content at nominal capacity and an inlet concentration of 20 mg/m ³	≤ 0.5 mg/m ³ (1 bar a, 20°C)	≤ 0.01 mg/m ³ (1 bar a, 20°C)
Actually achieved average residual oil content during validation at nominal capacity and an inlet concentration of 20 mg/m ³	---	---

*3: most penetrating particle size –the particle size that is most difficult to separate

Direction of flow	
Filtration of solid particles/liquid particles	from inside to outside
Filtration of pure solid particles	from inside to outside (standard) or from outside to inside

Capacity calculated at 1 bar absolute and 20°C at 7 bar working pressure	
Model	Nominal
1030	30 m ³ /h
1050	50 m ³ /h
1070	70 m ³ /h
1140	100 m ³ /h
2010	180 m ³ /h
2020	300 m ³ /h
2030	470 m ³ /h
2050	700 m ³ /h
3050	940 m ³ /h
3075	1450 m ³ /h
5060	1940 m ³ /h
5075	2400 m ³ /h

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