

## ZHP High Pressure Filters



## High pressure filter

With the renewal and progress of technology, more and more applications require the use of corrosion-resistant and high-pressure compressed gases, such as natural gas, gas purification, aerospace, shipbuilding, excavation, laboratories, etc. This series of stainless steel filters are suitable for compressed air and gas filtration, including natural gas filtration products and ammonia filtration products. The housing is made of material 316, with a maximum operating pressure of 5 MPa.

### Housing

All housings are designed with CAD and machined by CNC machining centers; The housings have undergone 100% pressure test experiments at 1.5 times the pressure;

The flow rate range is up to 800 Nm<sup>3</sup>/h @ 7 bar;

Installation forms such as threaded connection, ferrule connection and direct welding can be adopted;

Designed with low flow velocity dimensions to ensure good filtration effects, especially oil removal effects; products can be customized according to customer requirements.



## Filter elements

The high-pressure stainless steel series filters can provide filter elements with different installation forms and materials according to specific applications. Reliable materials, mature processing technology and inspection techniques are the fundamental guarantee of filtration quality.



Borosilicate fiber coalescing filter element, suitable for high-efficiency oil and dust removal from general gases



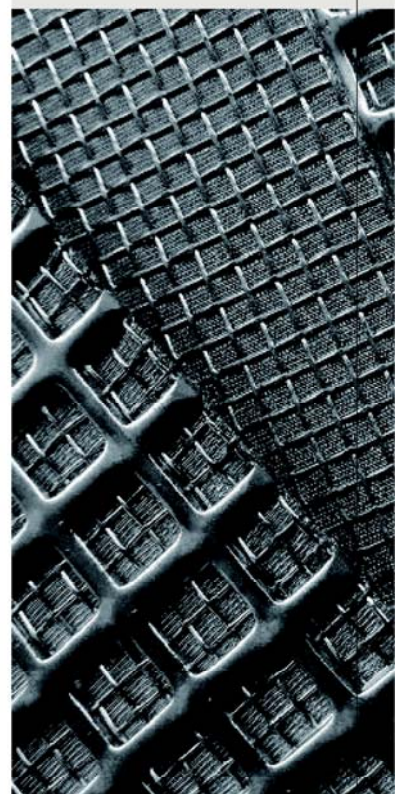
Clean sterilizing filter element, suitable for efficient oil, dust and bacteria removal from clean gases



Stainless steel wire mesh and wire felt sintered filter element, suitable for special gas liquid and dust removal



Sintered metal powder filter element, suitable for efficient dust removal of special gases



Materials and Design		advantage
High grade material suitable for special gases, high efficiency, corrosion resistance, high temperature resistance	»	High filtration efficiency, suitable for corrosive environments
Professional customized filter materials	»	Ensure high efficiency while providing high passability
Professional customized drainage layer	»	Good toughness, corrosion resistance, high droplet condensation efficiency
High quality stainless steel double-layer support	»	High differential pressure, corrosion resistance, and filter element deformation resistance.
Product serial code	»	Full-process quality tracking
Reasonable traffic design	»	Reliable filtration efficiency and oil removal effect
Filtration grade	»	25μm, 5μm, 1μm, 0.01μm, activated carbon
Temperature	»	180°C

All gas filter elements have undergone strict chemical experiments and filtration effect tests to ensure that the provided filtration products achieve optimal working conditions.



## Technical specification

Filter model	Pipe size	7bar	20bar	50bar	Dimensions				Element model
		Flow rate(Nm <sup>3</sup> /h)			A	B	C	D	
ZHP50	1/2	108	190	340	85	24	192	90	E052
ZHP100	3/4	216	280	500	115	32	226	120	E715
ZHP200	1	300	560	1000	115	32	286	180	E730
ZHP300	1 1/2	720	952	1700	145	40	503	300	E830
ZHP400	2	800	1142	2040	145	40	503	300	E830

### Technical notes:

1. The flow rate of the filter is calculated based on an initial differential pressure of 0.075 bar for the 1 micron borosilicate fiber filter element; for other special filter elements, please inquire specifically.
2. The size of the filter will vary slightly due to different pressures and materials.
3. The standard filter is NPT thread, Rc thread is optional.
4. The drain port of the filter is 1/4 NPT.
5. Special gases, high-temperature filters are equipped with special filter elements, with a maximum operating temperature of 250°C; the maximum operating temperature of ordinary filter elements is 120°C.
6. The filtration grade can generally be divided into 5µm (X5), 1µm (X1), 0.01µm (XA) and activated carbon (AC); metal sintered filter cartridges are calculated according to special precision and flow rate.
7. It is recommended to replace the filter element every 6,000 - 8,000 hours or within 1 year.



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