ZTF
Compressed Air Filters
15-1600 scfm

FILTER ASSEMBLIES
ELEMENT OPTIONS
SPECIFICATIONS
ACCESSORIES

www.zeks.com
The Necessity For Compressed Air Filtration

Compressed air contains harmful solid, liquid and vaporous contaminants that may damage pneumatic equipment, foul controls and instruments and cause product spoilage. Removal of these contaminants is necessary to sustain equipment life, ensure accuracy, and continue efficient production operations.

The air compression process, itself, causes the increase in concentration of the contaminants and adds oil aerosols, vapors and abrasive metallic particulate to the compressed air as well. Heat that’s generated during compression adds to the damaging effect these contaminants can have. Rust, scale and decay within compressed air system piping, and ambient air that contains gaseous and corrosive substances are common factors that contribute to the damaging effect of compressed air.

Whether used to trap solid particulates, coalesce liquids, or remove aerosols or vapors, installation of ZEKs ZTF Filters and elements is an efficient way to purify compressed air and avoid costly equipment repair and production loss.

No Foam Sock

The outer layer of ZTF Filter elements is made of durable needle felt - not a foam material. Foam is subject to degradation and breaks down easily. Needle felt retains its integrity throughout the life of the element.

ZTF Filters incorporate all the factors necessary for efficient filtration of compressed air and gas, with features that allow them to be easily sized, installed, and maintained:

- Low pressure drop
- One flow direction for all applications
- Push-fit element connection (no tie-rod)
- Extensive connection and flow selection
- Restricted height installations
- Multiple filter element grades
- 300 psi pressure rating*
- 250° F temperature rating

* Pressure rating without float drain installed.
Ultrasonic Side Seam Weld
Will not separate during service life

Drainage Layer
Ultrasonically bonded polyester needle felt will not decay or break free during service life

The Standard ZTF Filter
Is Well Equipped…

O-ring Bowl Seal
Remains in correct position and protects threads

Flange-Protected Threads
Remain clean and allow safe depressurization before bowl removal

Double O-ring Seal
Prevents compressed air bypass; holds element in place when bowl is removed

Pre-Filtration Layer
Extends element service life

High-Efficiency Filtration Media
Oilophobic media has excellent oil removal characteristics and maximum dirt holding capacity

Stainless Steel Support Cylinders
Won’t corrode; maintains strength throughout service life

Drainage Layer
Ultrasonically bonded polyester needle felt will not decay or break free during service life

Ultrasonic Side Seam Weld
Will not separate during service life

ZTF Elements

Performance Tested – Stringent DOP** type testing and integrity-testing program

Low Δp – Energy efficient

Push-Fit, No Tie-Rod Design – No tools needed for installation; Reduces clearance required for installation

Suitable For Mineral and Synthetic Oils and Oil-Free Applications – Won’t degrade

Silicone-Free – Safe for painting and surface coating applications

3 Coalescing/Particulate Filtration Grades – Liquid coalescing to .01 ppm; Solid particulate filtration to .01 micron for 99.999% efficiency

** dioctylphthalate type test
Modular Head Design - Heads can be bolted together, simplifying multiple-filter installation and minimizing leak potential from threaded connections.

Rugged Aluminum Construction - 300 psi rating*

Electrophoretic Coating - Eliminates corrosion on internal and external head and bowl surfaces

Pressure Differential Indicator - Clearly indicates element replacement time (Pop-Up 15 - 80 scfm, Δp Gauge 100 - 1600 scfm)

Extensive Connection Selection - 1/4”; 3/8”; 1/2”; 3/4”; 1”; 1 1/2”; 2”; 3” NPT

Energy Cost Savings Through Regular Filter Element Replacement

Regular, periodic replacement of the filter element minimizes the build up of costly drop in pressure through the filter. This pressure drop occurs as a result of a filter element that has been in service beyond the design capacity. Replacement should be performed based on a predetermined schedule or indication of differential pressure. Typically, there is a 1% loss of compressor efficiency due to a 2 psi drop in pressure.

In an operation that requires the use of a 400 HP compressed air system for 8,000 operating hours per year, the cost of the loss in compressor efficiency due to a drop in pressure is illustrated here:

Use of the correct ZTF element grade, and replacement of the element at the recommended 6 psid can help keep air system operating cost low.
ZTF Element Grade Selection & Filter Application

ZTF Filters are used for the separation and removal of oil carryover, dust, dirt, and some aerosols and vapors from air before it enters air system conditioning equipment, piping, or pneumatic tools. Selection of the correct element grade ensures optimum coalescing and particulate filtration, or vapor removal:

**PARTICULATE/BULK LIQUID FILTRATION - GRADE P**
5 microns; 5 ppm oil carryover; 1 psi Δp clean & dry; 1 psi Δp saturated; 6 psi Δp recommended replacement.
For removal of small particles and dirt, and for liquid coalescing. Also used where high concentrations of airborne dirt are present in the ambient air.

**GENERAL PURPOSE FILTRATION - GRADE G**
1 micron; 0.1 ppm oil carryover; 1 psi Δp clean & dry; 2 psi Δp saturated; 6 psi Δp recommended replacement.
For general use to protect pneumatic tools and actuators from dirt, oil, and dust. Used to coalesce air compressor lubricant carryover out of the air stream. Element of choice for desiccant dryer afterfilter.

**HIGH EFFICIENCY FILTRATION - GRADE H**
.01 micron; .01 ppm oil carryover; 1.5 psi Δp clean & dry; 3 psi Δp saturated; 6 psi Δp recommended replacement.
Used for fine coalescing and when removal of very small particles is required.

**ACTIVATED CARBON FINISHING - GRADE A**
.01 micron; .003 ppm oil carryover; 1 psi Δp clean & dry; NA psi Δp saturated; NA psi Δp recommended replacement.
For removal of vapors and odors. A .01 high efficiency (Grade H) filter must be installed upstream of the Grade A filter. Residual vapors bind to the surface of the activated carbon grain molecules. Grade A elements must be replaced at 6 months or 4,000 hours, whichever is first. Warranty applies to 6 month, 4,000 hour guideline.

ZTF Element Grades:
P – 5 micron, Particulate
G – 1 micron, General Purpose
H – .01 micron, High Efficiency
A – Vapor and Odor Removal, Activated Carbon

### Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Flow scfm **</th>
<th>Connection</th>
<th>Side Drain</th>
<th>Bottom Drain ***</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Weight Lbs.</th>
<th>Element Grades</th>
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* Add Element Grade P, G, H, or A  
**Flow rating at 100 psig; 100°F inlet air; 100°F ambient air  
***With installed drain  

Correction Factors: For maximum flow rate, multiply model flow rate shown above by the correction factor corresponding to the working pressure.

| Working Press. (psig) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 |
|-----------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Correction Factor     | .32| .45| .55| .64| .71| .78| .84| .90| .95| 1.00| 1.05| 1.12| 1.22| 1.32| 1.41| 1.49| 1.57| 1.65| 1.72|

**Correction Factors:** For maximum flow rate, multiply model flow rate shown above by the correction factor corresponding to the working pressure.
Options And Accessories

Wall Mounting Brackets
Hardware for convenient wall mounting.

Head Connection Kits
For multiple-filter installation (maximum of 3).

Port Plate Kit
Allows filter to be piped into air system with different pipe diameter. Sizes available from 1/2" - 2.0". Kit includes O-ring seal and 4 bolts.

Spanner Wrench
Aids bowl removal – especially helpful for large diameter bowls.

Drain Options
• Timed Electric Solenoid
• Enterprize™ No Air Loss

Enterprize™ NCC1701-D

Warranty
ZTF Filter housing assemblies are covered under the standard ZEKS warranty policy. ZTF elements are covered for 12 months (Grade A; 6 months/4,000 hour coverage) from date of installation following ZEKS installation guidelines. See ZEKS’ published Warranty Policy for complete information.

Contact ZEKS or your local ZEKS Distributor if you have questions about ZTF Compressed Air Filters.

ZTF filter housings and elements are manufactured in accordance with ISO 9001 Quality Assurance Standards. Assembled ZTF filters conform to ISO 8573.1 Air Quality Classification. ZTF filter housings conform to all US and Canadian certification requirements.