

# ZGF EZ Clean EC100 Product Data Sheet

The Most Advanced, Automatic,  
Non-Disposable Liquid Filtration System



The Most Advanced, Automatic, Non-Disposable Liquid Filtration System  
Performance, Simplicity, Consistency, Reliability and the Lowest Cost of Ownership



The EC100's modular "pod" design can meet any flow requirement from 1 gpm to over 100 gpm.

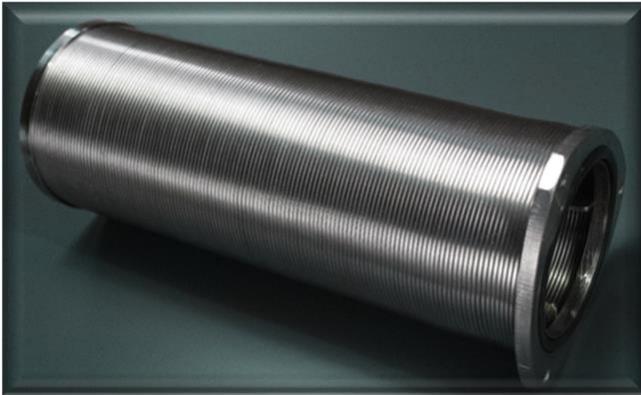
The EC100 liquid filtration system can be manufactured to ASME Section VIII standards to meet all design and manufacturing requirements for the oil & gas industry or any other application requiring pressure vessel certification.

The design allows for 24/7 uninterrupted operation.

The standard EC100 is a non-code system fabricated from 304 stainless steel. ZGF can also provide the pods and manifolds in 316 stainless steel and Super Duplex.

The EC100 features three modes of backwash control - automatic based on differential pressure or time, and manual override.

Each EC100 Pod includes (1) ZGF Spring Filter element. The proprietary, non-disposable, absolute gap filter elements are available in micron ratings ranging from 20 – 400 micron and are guaranteed for 5-years!



The ZGF Spring Filter element opens uniformly along its entire length during backwash. The benefits are as follows:

1. Particles wedged or lodged are quickly released and washed away as the gap is increased.
2. The Spring filter element "shimmers" which further enhances the cleaning process.
3. The moment the filter element begins to open during backwash, the fluid velocity is instantaneously increased and subsequently followed by a surge in flow that scours the coil effectively and efficiently removing the contaminants.

EC100	Precision Absolute Gap							
<b>Design Flowrate per Pod</b>	20 µ	35 µ	50 µ	75 µ	100 µ	150 µ	200 µ	400 µ
	10 gpm	18 gpm	25 gpm	30 gpm	35 gpm	35 gpm	35 gpm	35 gpm

**NOTES:**

1. The design flowrate is a **GUIDELINE based upon a clean differential pressure of 2.5 psi or less**. The solids loading in the feed stream can also impact the design flowrate. **MAXIMUM flowrates are documented in the Product Specification Sheets.**
2. **Backwash Volume: ~1 gallon per Pod**
3. Based on "663" Spring Filter elements.
4. The solids loading, physical characteristics, material and density of the particles impact system sizing / design flowrate. 500 ppm is typical maximum loading for ZGF EZ Clean filtration systems utilizing the proprietary ZGF Spring Filter elements.
5. Designed for continuous service up to 190°F and pressures from 45 - 192 psi.

# ZGF EZ Clean EC100 Product Data Sheet

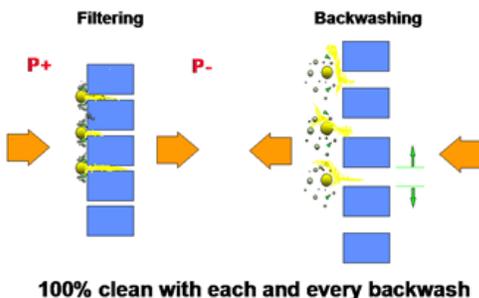
The Most Advanced, Automatic,  
Non-Disposable Liquid Filtration System



*The Most Advanced, Automatic, Non-Disposable Liquid Filtration System  
Performance, Simplicity, Consistency, Reliability and the Lowest Cost of Ownership*

ZGF EC100 filters provide value in several industries including Automotive, Steel, Power Generation, Food Processing, Pulp & Paper, HVAC and Oil & Gas. EC100 systems are ideal for filtering oil & gas field fluids such as flowback / produced water. These systems are also used to filter machining coolant, wash solutions, process / cooling water, wastewater, white water, surface water and many other aqueous fluids.

EC100 FEATURE	YOUR BENEFIT
Full 1-year warranty on Phoenix filter assembly & 5-year warranty on Spring Filter elements	Peace of mind, Reduced operating and maintenance costs
Fully automatic, self-cleaning operation	Reduced maintenance and operating costs, Labor is now available for other value-added plant services
ZGF Spring Filter - precision engineered "Absolute Gap" manufactured to Aerospace specifications	Consistent and efficient particle capture & removal, Improved quality and lower operating costs
ZGF Spring Filter element "Continuous Coil wound with a Variable Pitch"	All contaminants are cleaned off the filter element during the backwash cycle, Consistent & reliable performance
Uninterrupted flow, even during backwash (with 3 or more pods)	24-hour / 7-day operation, eliminates downtime, allows for optimized operational productivity
Consistent and reliable performance	Improved quality and lower operating costs
In-line design	Eliminates need for additional pumps, motors and controls reducing maintenance and operating costs
Modular design	Easily configured to fit available space, Easy to expand
Low energy requirement	It uses less energy than a light bulb. Economically and environmentally responsible
Efficient and environmentally responsible design	Creates no additional waste (i.e. no disposable media, no packaging). It uses less energy than a light bulb.
Secondary batch processing system (Green Screen)	Allows for recovery of valuable process fluids and reduces waste. Reduced operating costs.
Permanent media (i.e. non-disposable) filter elements (316 Stainless Steel, Inconel/Super Duplex)	Replacement not required, No waste, No disposal, Improved Productivity
Minimal moving parts through simplicity of design	Increased reliability, Reduced maintenance and operating costs



- ZGF Phoenix Backwash**
- ✓ Quick: 3 to 4 seconds per filter element
  - ✓ Efficient: <1 gallon per filter element
  - ✓ Effective: 100% clean with each backwash

