

JONELL SYSTEMS™

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# SEAWATER FILTER SOLUTIONS

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Making the world safer, healthier and more productive.



**Filtration Group®**  
Safer | Healthier | More Productive

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

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Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65 Эл. почта: [info@tisys.ru](mailto:info@tisys.ru) [info@tisys.kz](mailto:info@tisys.kz) [info@tisys.by](mailto:info@tisys.by)



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# SEAWATER FILTER SOLUTIONS

Jonell Systems has 25 years' experience installing seawater filters for oil and gas applications worldwide. The result is our automatic back-flushing filter for the removal of solid contaminants from water.

With flexible designs to suit your application, this filter is a reliable and cost-effective choice for the filtration of seawater to protect equipment such as water injection pumps, cooling medium / seawater exchangers, seawater lift filters, seawater lift pumps motors, MGPS packages, cargo pump motor / pump bearing / local seal panel, inert gas generators and other special equipment that needs protection.

## SOLUTIONS DESIGNED TO FIT YOUR APPLICATION

Flexibility is a key feature of our seawater filter design, enabling key operational factors to be accommodated for new and existing installations:

- Free-standing or part of a pre-assembled skid mounted package
- Package design is modular, comprising single or multiple filters
- Various sizes available allowing retro fitting on existing platforms with limited access
- Construction materials determined by your operating conditions and preferences – options include lined carbon steel, super duplex stainless steel and exotic alloys

## BENEFITS

Our multi-element filters are designed to optimize filtration performance to meet the demands of fixed and floating platforms. The robust design ensures high functional reliability and minimal running costs.

Numerous filtration elements provide a high filtration area in a compact and lightweight vessel. Filtered residues are automatically discharged without interrupting the filtration process, and a short backflush cycle means reduced water consumption.

- **Compact and lightweight** — ideal for fixed and floating platforms
- **Exceptionally reliable** — increased uptime and lower running costs
- **Flexible design** — easily integrated into new and existing projects



Vessel Diameter	Max Conn	Total Area	Filter Wire Gap	Max. Flow
mm	inches	cm <sup>2</sup>	μ	m <sup>3</sup> /h
600	12"	31280	50	250
			80	460
			100	550
			300	1050
750	16"	57320	50	490
			80	830
			100	980
			300	1700
850	20"	74516	50	670
			80	1140
			100	1340
			300	2700
1000	24"	111774	50	970
			80	1640
			100	1940
			300	3950
1100	28"	159654	50	1370
			80	2330
			100	2740
			300	5420
1200	32"	203196	50	1760
			80	3000
			100	3530
			300	7130
1400	36"	297336	50	2600
			80	4420
			100	5200
			300	9060
1600	44"	422700	50	5500
			80	8500
			100	10000
			300	13500

Other sizes available at request



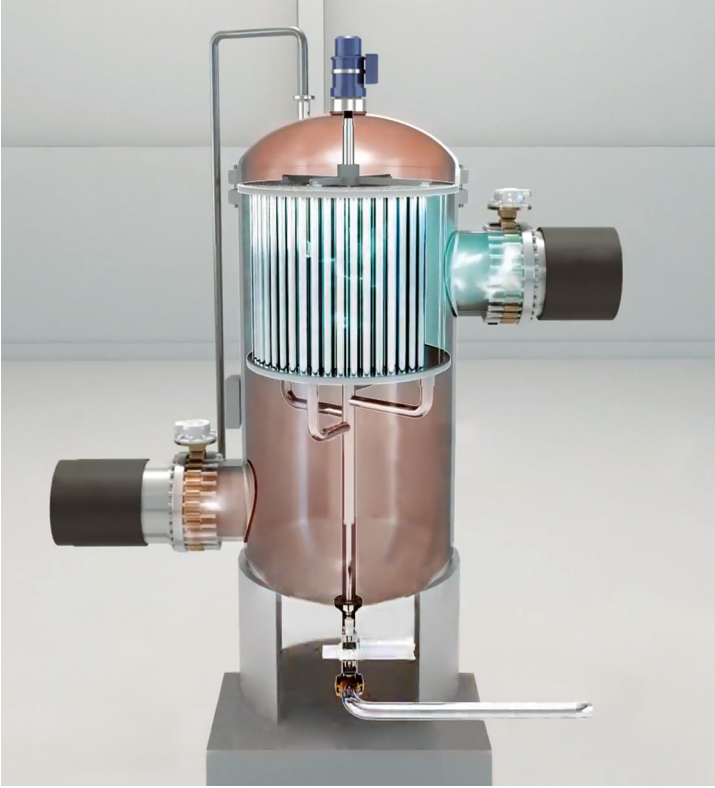
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# UNDERSTANDING SEAWATER FILTERS



## HOW IT WORKS

Flexibility is a key feature of our seawater filter design, enabling key operational factors to be accommodated for new and existing installations:

1. Multiple wedge-shaped wire elements are arranged within the cassette to maximize the filtration area.
2. Seawater is pumped into the filter through the inlet and rises up through the elements.
3. An equal volume of water simultaneously flows through the central cylinder and down through the elements. This equalised flow optimizes the filtration area and ensures debris is collected evenly on the internal surface of the elements.
4. Differential pressure increases with the build-up of removed debris, until a pre-set pressure is reached. This initiates the back-flush sequence.
5. The backflush valve opens, and the restrictor/backwash arms rotate.
6. Filtered water flows in the reverse direction, passing through sequentially capped elements, where collected debris dislodges and passed through the outlet.
7. The filter remains operational during back-flush, continually providing high quality filtered water for process applications.



## FILTRATION APPLICATIONS

Jonell Systems' automatic back flushable water filter is suitable for all types of water particle filtration as the main full flow filter or as a by-pass filter:

- Seawater for cooling engines, generators, heat exchanger and other special equipment that needs protection
- Process and waste water from petrochemical and chemical plants
- Process water for the oil and gas industry
- Cooling water
- Fire water
- Potable water
- RO membrane protection
- Prevention by algae blockage



Contact us now to find out how our seawater filtration solutions can work for your specific applications.