

ORE/A SERIES

Automatic
Self Cleaning
Electric

Water Filtration Systems

*For Industry, HVAC,
Municipal and Mining*

COOLING TOWERS RIVERS LAKES WELLS REUSE



SAND POLLEN ALGAE BUGS SILT MUSSELS SCALE



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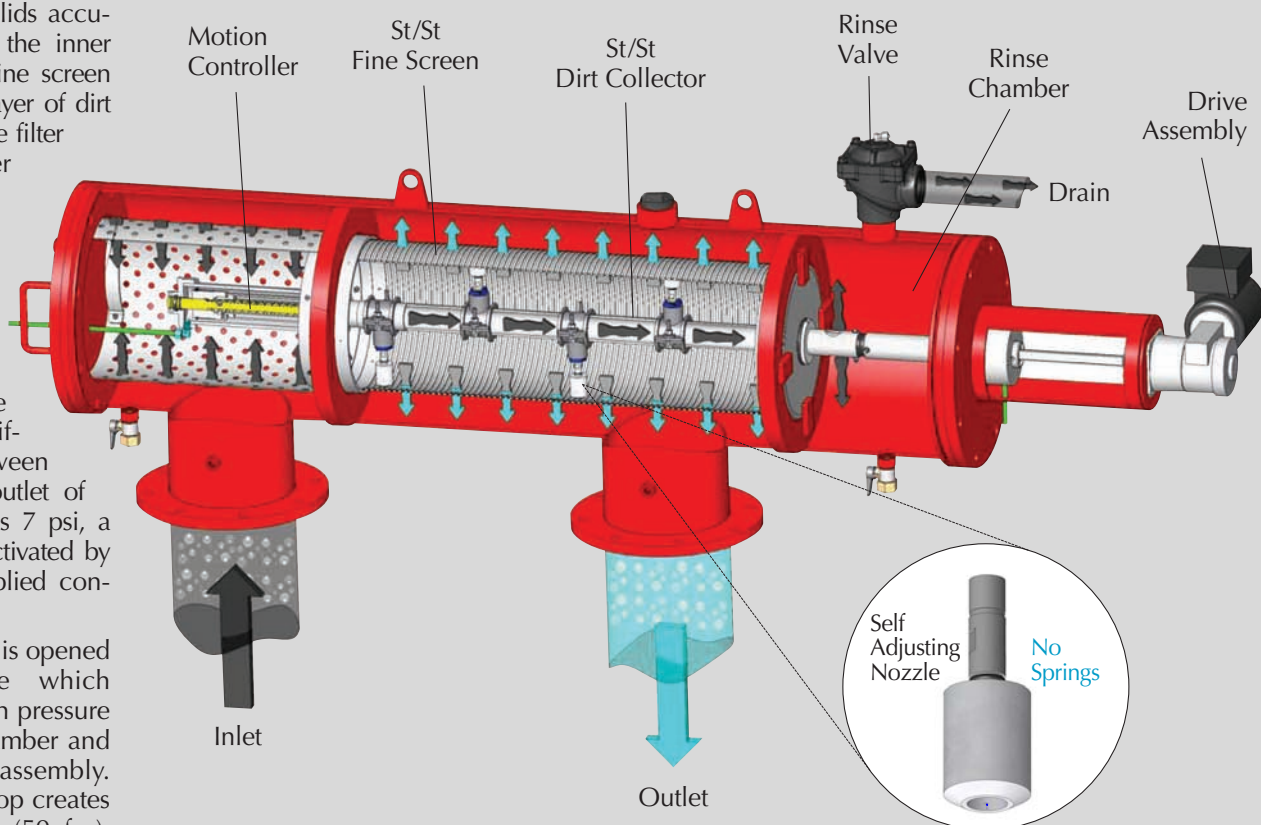
How It Works Without Limit Switches or Reversing Motor

Unwanted solids accumulate on the inner surface of the fine screen building up a layer of dirt referred to as the filter cake. This filter cake creates a pressure differential as it traps particles even smaller than the size of the screen's openings. Once the pressure differential between the inlet and outlet of the filter reaches 7 psi, a rinse cycle is activated by the factory supplied control system.

A rinse valve is opened to atmosphere which causes a drop in pressure in the rinse chamber and dirt collector assembly. The pressure drop creates a high velocity (50 fps), reverse flow through a

small area of the screen at each opening of the self-adjusting nozzles that aggressively vacuums the dirt off of the screen into the dirt collector assembly. These special nozzles reduce backwash water by 50%. The vacuumed backwash water and debris travel through the dirt collector to the rinse valve, where they are ejected to a drain. During this process, the drive assembly rotates the dirt collector at a slow, constant speed while the motion controller linearly moves the dirt collector at a fixed rate.

The entire process takes seconds and does not interrupt the system flow.



Screens

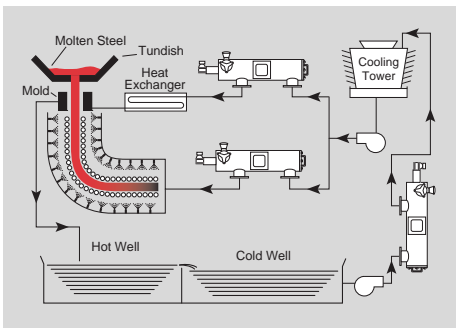
	Woven on PVC Support	Multilayered Sintered	Wedgewire
Screen Patterns			
Screen Apertures	15-5000 Mic	5-5000 Mic	25-2500 Mic
Open Screen Area	40%	60%	30%
Hydraulic Collapse D.P.	300 PSI	300 PSI	450 PSI
Temp Rating	150°F	300°F	750°F
Material	St/St 316L	St/St 316L	St/St 316L
Optional Material	Titanium, Duplex, 254 SMO, Exotic Material		
Fibrous Mat. Filtration	Medium	Medium	Excellent
Price	Low	Medium	High

Mechanical Specifications

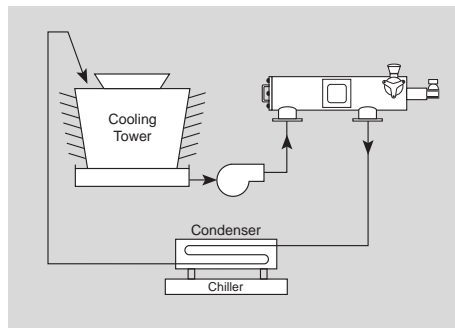
Features	Standard	Optional
Material of Construction	Carbon Steel or Stainless Steel	Titanium, Duplex & Others
Operating Pressure	30 psi min., 150 psi max.	12 psi min., 1000 psi max.
Operating Temperature	No min., 150°F max.	No min., 212°F max.
Screen Pattern	Multilayered Sintered	Wedge-wire, Woven
Screen Aperture	50 – 3,000 microns	5 – 10,000 microns
Single Unit Flow Rate	Up to 12,000 gpm	Up to 25,000 gpm
Code	Hydrostatically Tested, 225 psi	ASME "U" Stamp, Others
pH Resistance	4 - 9	1 – 12
Compatible Fluid	Water	Seawater, Oily, Corrosive
Connections	Flanged	Victaulic, Threaded
Installation	Any position, even upside down	
Rinse Cycle Duration	30 seconds	Continuous

Controls and Electricity

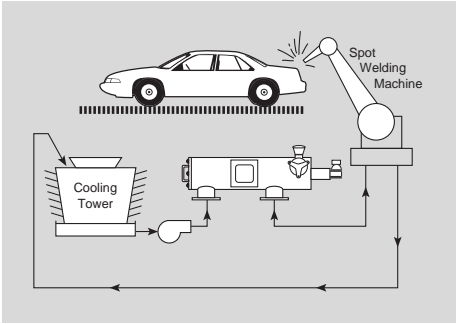
Features	Standard	Optional
Power	120 V, 60 Hz, 1 P 220 V, 50 Hz, 1 P	208, 240, 460 V, 60 Hz, 3 P 400 V, 50 Hz, 3 P
Enclosure	NEMA 4X	Explosion Proof
Rinse Cycle Activation	DP, Timer, Manual	Volumetric, Remote
Motor	1/4 HP / 0.18 KW / 1 P 1/2 HP / 0.37 KW / 1 P	DC
Control Type	PLC	PC, Central



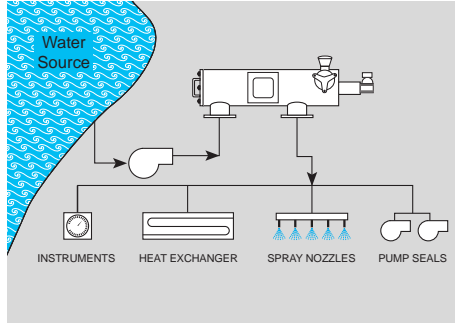
Steel / Continuous Casting



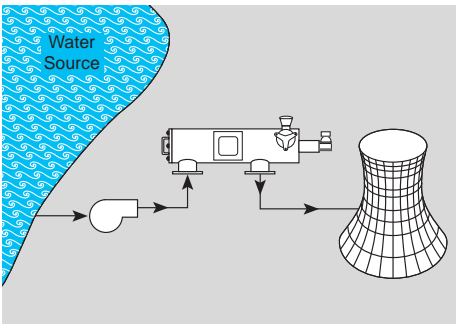
HVAC / Full Flow



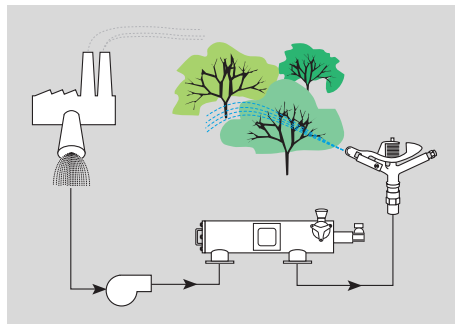
Spot Welding



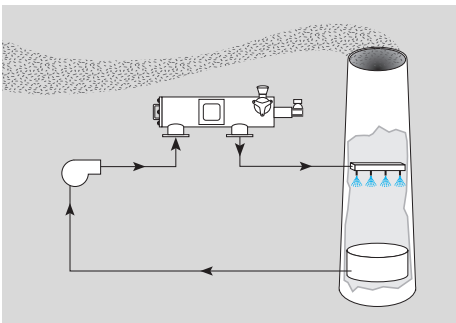
Process Cooling



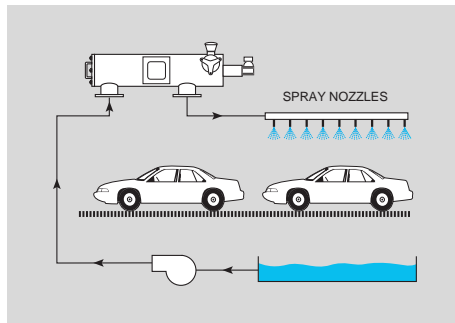
Power / Make Up



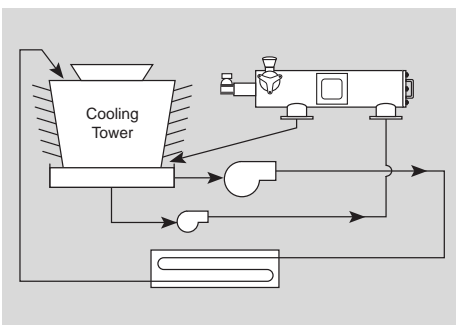
Wastewater / Irrigation



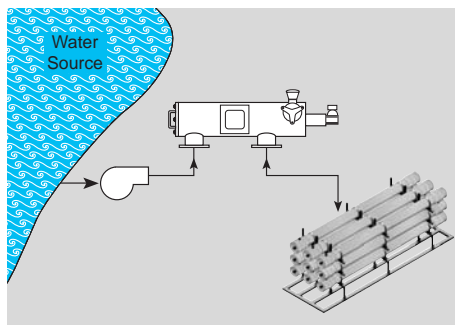
Pollution / Wet Scrubber



Automotive / Leak Test



Side Stream w/ Recirculating Pump



Membrane Pre-Treatment

Thoroughly Proven In:

- HVAC
- Chemical
- Hydrocarbon
- Plastics
- Food
- Sugar
- Mining
- Steel
- Automotive
- Paper
- Pharmaceutical
- Power
- Sewage Treatment

Removing Solids, of any Specific Gravity:

- Sand
- Gravel
- Algae
- Pollen
- Silt
- Microbiological Growth
- Bugs
- Scale
- Rust
- Mussels

From Virtually any Source:

- Cooling Towers
- Ocean
- Rivers
- Lakes
- Wells
- Ponds
- Reservoirs

For any Application:

- Cooling Water
- Process Water
- Reclaim Water
- Effluent Water
- Intake Water
- Waste Water
- Wash Water
- Potable Water
- Irrigation
- Rain Harvesting

For Protection Of:

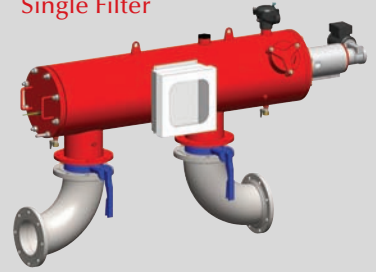
- Heat Exchangers
- Spray Nozzles
- Instrumentation
- Pump Seals
- All Membranes
- Air Compressors
- The Environment

Technical Data (Add "-S" to model number for stainless steel construction)

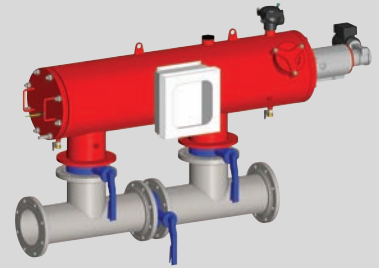
MODEL	Line Size (in.)	Max Flow Rate (gpm)	Open Screen Area (in ²)	Installation Length (in)	Motor HP	Rinse Valve (in)	Dry Weight (lb)
ORE/A-02-PS	2	110	390	16.9	1/4	1.5	345
ORE/A-03-PS	3	175	390	16.9	1/4	1.5	355
ORE/A-03-PE	3	250	620	23.6	1/4	1.5	370
ORE/A-04-PM	4	350	390	16.9	1/4	1.5	375
ORE/A-04-PS	4	350	620	23.6	1/4	1.5	385
ORE/A-04-PE	4	350	930	30.7	1/4	2	570
ORE/A-06-PS	6	660	620	23.6	1/4	1.5	400
ORE/A-06-PE	6	720	930	30.7	1/4	2	590
ORE/A-06-PX	6	800	1240	39	1/4	2	640
ORE/A-08-PS	8	1320	930	30.7	1/4	2	620
ORE/A-08-PE	8	1500	1240	39	1/4	2	665
ORE/A-08-PX	8	1700	1560	47.25	1/4	3	930
ORE/A-10-PS	10	1760	930	30.7	1/4	2	640
ORE/A-10-PE	10	1760	1240	39	1/4	2	690
ORE/A-10-PX	10	2400	1560	47.25	1/4	3	980
ORE/A-12-PS	12	2640	1240	39	1/4	2	730
ORE/A-12-PE	12	3000	1560	47.25	1/4	3	990
ORE/A-12-PX	12	3500	2500	55.1	1/2	3	1360
ORE/A-14-PS	14	3960	1240	39	1/4	2	785
ORE/A-14-PE	14	4250	1560	47.25	1/4	3	1020
ORE/A-14-PX	14	5000	2500	55.1	1/2	3	1385
ORE/A-16-PS	16	4840	1240	39	1/4	2	825
ORE/A-16-PE	16	4840	1560	47.25	1/4	3	1060
ORE/A-16-PX	16	6000	2500	55.1	1/2	3	1420
ORE/A-18-PS	18	6125	1560	47.25	1/4	3	1080
ORE/A-18-PE	18	7000	2500	55.1	1/2	3	1435
ORE/A-20-PE	20	8100	2500	55.1	1/2	3	1500
ORE/A-24-PE	24	12000	2500	55.1	1/2	3	1605

Installations

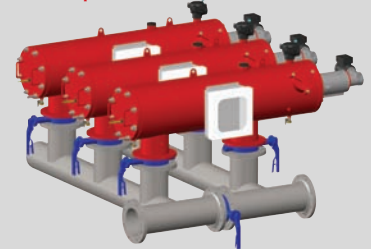
Single Filter



Single Filter w/Bypass Valve

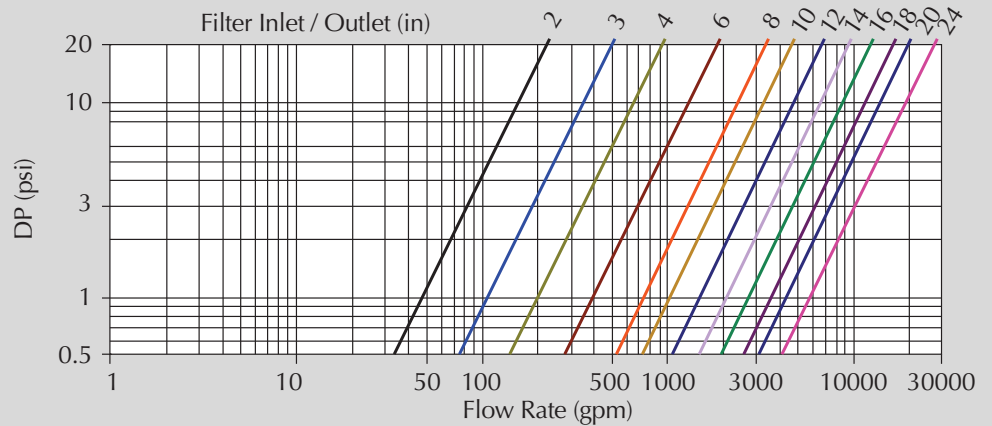


Multiple



Pressure Drop vs. Flow Rate

100 mic screen
potable water



Screen Apertures

Visible to the naked eye. →

Micron	5	10	15	25	30	40	50	80	100	120	150	200	400	800	1000	1500	3000
Mesh*	3000	1500	1000	600	500	400	250	200	150	120	100	80	40	20	16	10	5
in*	.0002	.0004	.0006	.0010	.0012	.0016	.002	.003	.004	.005	.006	.008	.016	.032	.04	.06	.12

Physical Size



* Approximate and for reference only