OR SERIES
Automatic Self Cleaning Water Filtration Systems
For Industry, HVAC and Mining

COOLING TOWERS RIVERS LAKES WELLS RECIRCULATING

SAND POLLEN ALGAE BUGS SILT MUSSELS SCALE

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How It Works

The unit consists of two stages of filtration, a coarse pre-filter and a stainless steel fine screen.

The unwanted solids accumulate on the inner surface of the fine screen, building up a filter cake, which filters out even finer particles, creating a pressure differential. Once the pressure drop reaches a preset level, a rinse cycle is activated by the factory supplied control system.

The solids are removed from the fine screen using a spot backwashing method, which aggressively sucks the dirt off the screen, similar to a vacuum cleaner, and are carried to the drain via the rinse valve. The dirt collector rotates, ensuring the entire screen is cleaned each cycle.

The process takes a matter of seconds, without interruption of system flow.

Pressure Drop vs. Flow Rate

![Graph showing pressure drop vs. flow rate with various curves demonstrating the relationship between the two parameters.](image)
Cooling Tower

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
- 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

For Protection Of:
- Heat Exchangers
- Spray Nozzles
- Instrumentation
- Pump Seals
- I.E. & R.O. Units
- Air Compressors
- The Environment
### Technical Data

*(Add “-S” to model number for stainless steel construction)*

<table>
<thead>
<tr>
<th>“I” Series</th>
<th>“P” Series</th>
<th>“B” Series</th>
<th>Flange Size (in.)</th>
<th>Max Flow Rate (gpm)</th>
<th>Open Screen Area (in²)</th>
<th>Sintered</th>
<th>I Series</th>
<th>P Series</th>
<th>B Series</th>
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<tbody>
<tr>
<td>OR-02-PE</td>
<td>OR-02-PS</td>
<td>2” NPT</td>
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### Screens

<table>
<thead>
<tr>
<th>Screen Patterns</th>
<th>Woven on PVC Support</th>
<th>Multilayer Sintered</th>
<th>Wedgewire</th>
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<tbody>
<tr>
<td>Screen Apertures</td>
<td>15-5000 Mic</td>
<td>5-5000 Mic</td>
<td>25-2500 Mic</td>
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<tr>
<td>Open Screen Area</td>
<td>40%</td>
<td>60%</td>
<td>30%</td>
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<tr>
<td>Hydraulic Collapse D.P.</td>
<td>300 PSI</td>
<td>300 PSI</td>
<td>450 PSI</td>
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<tr>
<td>Temp Rating</td>
<td>150°F</td>
<td>300°F</td>
<td>750°F</td>
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<tr>
<td>Material</td>
<td>St/St 316L</td>
<td>St/St 316L</td>
<td>St/St 316L</td>
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<tr>
<td>Optional Material</td>
<td>Titanium, Hastelloy and other exotic material</td>
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<tr>
<td>Fibrous Mat. Filtration</td>
<td>Poor</td>
<td>Poor</td>
<td>Excellent</td>
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<tr>
<td>Price</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
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</tbody>
</table>

### Screens

| 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 |

### Screen Apertures

- **Visible to the naked eye.**

### Installations & Configurations

- **I Series**
  - In-line model
  - Inlet and outlet are concentric
  - Commonly used in single unit installations and vertical installations

- **P Series**
  - On-line model
  - Inlet and outlet are parallel
  - Commonly used in single and multiple unit installations and upside down installations

- **B Series**
  - Bypass model
  - Inlet and outlet are parallel
  - Commonly used in full flow applications where a constant flow of water is critical

### Other Great Products:

- **ORG Filters**
  - 2 gallons per backwash, 10 mic

- **ORE/P-Electrical Filters**
  - For high loading, 10 mic

- **ORS-Suction Filters**
  - For pump protection

- **SLS Series**
  - 5%-10% loading

- **ORM-Manual Filters**
  - For low cost operations

- **Skid Mounted Filters**
  - With pump, starter & connections

- **Drinking Water Plants**
  - Also for rural location

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