Smart Shield®

WATER SYSTEMS



FACTORY ASSEMBLED SOLID CHEMISTRY WATER TREATMENT SYSTEM

For Closed Circuit Coolers and Evaporative Condensers





Get to Know EVAPCO

- The global innovator in heat transfer solutions
- Serving the commercial HVAC, Industrial Refrigeration, Power Generation, and Industrial Process markets
- Founded in 1976
- Employee-owned
- 33 locations in 14 countries
- More than 200+ sales offices worldwide

Learn More Now.

Visit evapco.com to download product catalogs, view complete product specifications, and more.

EVAPCO WATER SYSTEMS ENGINEERING

The Wilson E. Bradley Global Research & Development Center incorporates laboratories for water analyses and state of the art environmentally controlled testing. These laboratories provide unique capabilities for advanced water systems research on full-scale operating equipment.

This state of the art research and development center has over 60,000 square feet dedicated to full scale thermal analysis and product development. EVAPCO's Smart Shield System was developed and tested utilizing these unique facilities.

EVAPCO's Water Systems division focuses on the application and ongoing development of water treatment systems as well as research on passivation and corrosion. This division utilizes advanced technologies and equipment in the field of analytical chemistry, including Ion Chromatography and Atomic Absorption Spectroscopy, giving EVAPCO the ability to conduct fast and accurate analyses of chemical, non-chemical, and hybrid water treatment systems.



EVAPCO's Water Analytical Services



Factory-Mounted Solid Chemistry Water Treatment

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EVAPCO Conductivity Controller 2 (ECC-2)

 Second generation controller with enhanced data acquisition capabilities

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MART SHIELD

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- Maximizes water efficiency
- Factory mounted, piped and wired - simple 120/230 VAC field power connection is all that is required
- Features a low maintenance Toroidal probe and reliable motorized ball valve

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Factory Mounted Feeder (FMF)

- Each feeder is engineered specifically for the size of your closed circuit cooler or evaporative condenser
- Easiest corrosion and scale inhibitor replenishment in the industry
- Patented technology controls the release of inhibitor chemistry over a 30-day period







- **1** Polymer coated inhibitor tablet
- 2 Recirculated water permeates the polymer coating
- ³ Solid chemistry becomes a slurry inside the tablet
- Osmotic pressure causes the tablet to swell, forcing the chemistry out through the polymer coating
- ⁵ Polymer coating controls the treatment release rate
- **6** Treated water returns to the basin

- Bio-Control Feeder (BCF)
- Simplifies control of microbiological activity by releasing biocide whenever the spray water pump is in operation
- Utilizes easy and safe granular biocide which is replenished monthly
- Integrated membrane technology controls release of chemistry
- Factory mounted and piped on coil products utilizing EVAPCO's patented self draining design (U.S. Patent # 8,093,917)



SMART SHIELD® BENEFITS

- Includes all the components required for an effective water treatment system, factory mounted and wired on EVAPCO closed circuit coolers and evaporative condensers.
- Controlled release chemistry provides uniform treatment over a 30 day period.
- EVAPCO Conductivity Controller 2 automates the blowdown process maximizing water efficiency.
- Solid chemistry provides reduced packaging, shipping and handling compared to liquid products assuring a lower carbon footprint.
- Solid products <u>eliminate</u> the potential for liquid spills making them easier and safer to apply.

| Smart Shield Component | | Dimensions in (mm) | | | Shipping | Operating | Blow Down |
|---------------------------|----------|--------------------|----------|-----------|--------------------|--------------------|-----------------------|
| | | D | w | н | Weight Ib. (kg) | Weight Ib. (kg) | Valve Size in (mm) |
| FMF | FMF-6-3 | 19 (480) | 13 (330) | 43 (1090) | 44(20) | 111 (50) | 3/4 (20) |
| | FMF-6-4 | 19 (480) | 14 (360) | 43 (1090) | 49 (22) | 116 (53) | 3/4 (20) |
| | FMF-10-6 | 19 (480) | 17 (430) | 49 (1245) | 75 (34) | 165 (75) | 3/4 (20) |
| | FMF-10-8 | 19 (480) | 18 (460) | 51 (1290) | 95 (43) | 185 (84) | 1 (25) |
| BCF | BCF-10 | 17 (430) | 9 (230) | 12 (305) | 30 (14) | 34 (15) | n/a |
| | BCF-20 | 17 (430) | 25 (630) | 12 (305) | 60 (27) | 69 (31) | n/a |
| ~ | | | w | BCF-10 | | BCF-20 | TH- |



Full Spectrum of Water Treatment Solutions



www.evapco.com

Contact your local EVAPCO Sales Representative or EVAPCO® Headquarters for more information.



EVAPCO, Inc. World Headquarters

5151 Allendale Lane Taneytown, MD 21787 USA 410-756-2600 E-mail: marketing@evapco.com EVAPCO Europe, BV European Headquarters

Industrieterrein Oost 4010 3700 Tongeren, Belgium (32) 12-395029 E-mail: evapco.europe@evapco.be

Visit EVAPCO's Website: evapco.com

EVAPCO Asia/Pacific Headquarters

1159 Louning Rd., Baoshan Industrial Zone Shanghai, P.R. China, Postal Code: 200949 (86) 21-6687-7786 E-mail: marketing@evapcochina.com



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