



## **Innovative Solid Chemistry Water Treatment System**



***EASY...SAFE...SUSTAINABLE***

**EVAPCO® Smart Shield™...Water Treatment System Engineered for  
Closed Circuit Coolers and Evaporative Condensers!**



## Factory Mounted Solid Chemistry Water Treatment

### Bio-Control Feeder (BCF)

- Controls microbiological activity with granular biocide which is easy and safe to reload
- 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)

### EVAPCO Conductivity Controller (ECC)

- 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



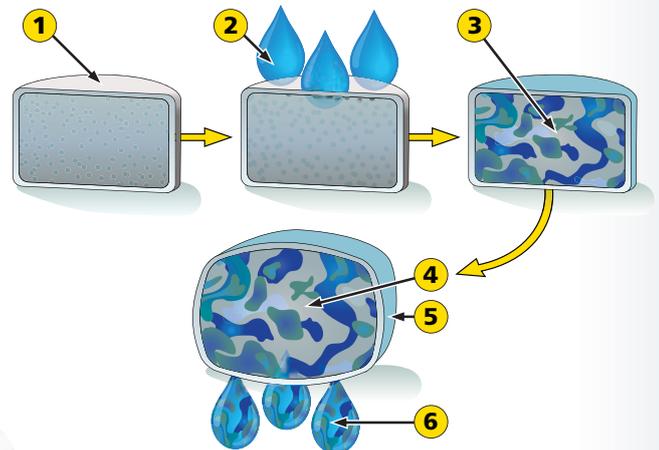


### ← Factory Mounted Feeder (FMF)

- 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
- “Bag in Bag” inhibitor cartridge provides safe ‘no touch’ handling
- Patented technology controls the release of inhibitor chemistry over a 30-day period



### Inhibitor Operation



- 1 Polymer coated inhibitor tablet
- 2 Recirculated water permeates the polymer coating
- 3 Solid chemistry becomes a slurry inside the tablet
- 4 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



Since its founding in 1976, EVAPCO®, Incorporated has become an industry leader in the engineering and manufacturing of quality heat transfer products around the world. EVAPCO's mission is to provide first class service and quality products for the following markets:

- Commercial HVAC
- Industrial Process
- Industrial Refrigeration
- Power
- District Energy

EVAPCO's powerful combination of financial strength and technical expertise has established the company as a recognized manufacturer of market-leading products on a worldwide basis. EVAPCO is also recognized for the superior technology of their environmentally friendly product innovations in sound reduction and water management.

EVAPCO is an employee owned company with a strong emphasis on research & development and modern manufacturing plants. EVAPCO has earned a reputation for technological innovation and superior product quality by featuring products that are designed to offer these operating advantages:

- Higher System Efficiency
- Environmentally Friendly
- Lower Annual Operating Costs
- Reliable, Simple Operation and Maintenance

With an ongoing commitment to Research & Development programs, EVAPCO provides the most advanced products in the industry – **Technology for the Future, Available Today!**

EVAPCO products are manufactured in 19 locations in 9 countries around the world and supplied through a sales network consisting of over 175 offices.

## 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, corrosion, and new materials. 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 both chemical and non-chemical water treatment systems.

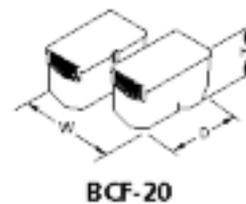
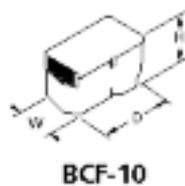
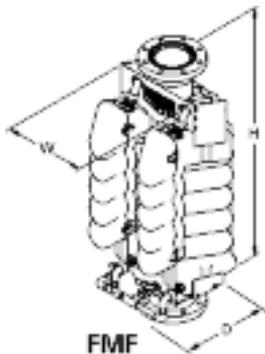


# Smart Shield™ Benefits

-  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 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 eliminate the potential for liquid spills making them easier and safer to apply.

## Engineering Data

Smart Shield Component		Dimensions in (mm)			Shipping Weight lb. (kg)	Operating Weight lb. (kg)	Blow Down Valve Size in. (mm)
		D	W	H			
FMF	FMF-6	19 (480)	14 (360)	43 (1090)	49 (22)	116 (53)	3/4 (20)
	FMF-10	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



# Smart Shield™ The Global Water Treatment System of the Future...Available Today!



*Closed Circuit Cooler  
Baton Rouge, LA USA*



*Closed Circuit Cooler  
Bruges, Belgium*



*Closed Circuit Cooler  
Gainesville, FL USA*



*Closed Circuit Cooler  
Shanghai, China*



*Evaporative Condenser  
Birmingham, AL USA*



*Evaporative Condenser  
Miami, FL USA*

**The first and only solid chemistry water treatment system specifically engineered for closed circuit coolers and evaporative condensers!**

**Visit us on the web to learn more: [www.smartshield.evapco.com](http://www.smartshield.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  
Ph: 410-756-2600  
Fax: 410-756-6450  
E-mail: [marketing@evapco.com](mailto:marketing@evapco.com)

#### **EVAPCO Europe BVBA European Headquarters**

Industrieterrein Oost 4010  
3700 Tongeren, Belgium  
Ph: (32) 12-395029  
Fax: (32) 12-238527  
E-mail: [evapco.europe@evapco.be](mailto:evapco.europe@evapco.be)

#### **EVAPCO Asia/Pacific Headquarters**

1159 Louning Rd., Baoshan Industrial Zone  
Shanghai, P.R. China, Postal Code: 200949  
Phone: (86) 21-6687-7786  
Fax: (86) 21-6687-7008  
E-mail: [marketing@evapcochina.com](mailto:marketing@evapcochina.com)

