



Cooling Towers



Chemical-Free • Shrinks Maintenance Costs • Saves Water

◆ FACT SHEET ◆

The Dolphin Pulsed-Powered Water Treatment of Cooling Towers

Superior Performance	Environmental Benefits	Immediate Savings
<ul style="list-style-type: none"> Total bacteria counts are way below any other water treatment method (1000-2000 CFU/ml). No odor and a water clarity superior to tap water. Virtually no algae, no fungus, and no higher life forms on water-immersed surfaces. Excellent corrosion protection using natural conditions without corrosive chemicals. No encrustation of the fill, bio-debris, or fouling of the chiller. 	<ul style="list-style-type: none"> End regulatory, liability, and health-and-safety concerns regarding chemicals. Improve and simplify mechanical room housekeeping. Eliminate the environmental impact of blowdown, air emissions, and drift from toxic chemicals. Gain green building tax credits and reduce toxic release inventory. Eliminate biofilm as a breeding ground for microbial life and <i>Legionella</i> amplification. 	<ul style="list-style-type: none"> Eliminate all chemical costs. Eliminate all indirect costs of chemical addition (e.g., handling, storage, regulation). Elimination of scale and biofilm throughout the system results in efficient heat transfer and lower energy costs. Significant savings of water (purchase and disposal fees). Reduced maintenance of the tower and chiller.

Prevents Mineral Scale Buildup • Controls Bacteria • Inhibits Corrosion

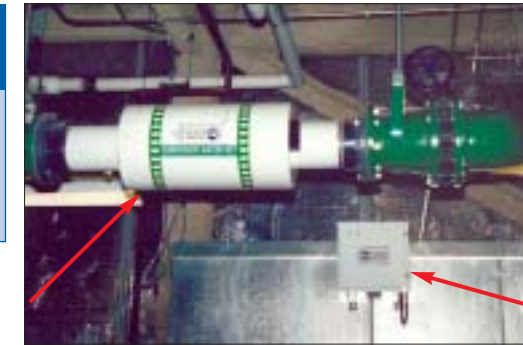
Operating Principle. The Dolphin produces a pulsed, time-varying, induced field inside a PVC pipe that is fit conveniently into the cooling tower's recirculating water system. The electric signal changes the way minerals in the water precipitate, totally avoiding hard-lime scale by instead producing a non-sticking mineral powder in the bulk water. This powder is readily filterable and mostly removed during normal blowdown, or it settles loosely in the cooling tower basin for easy annual removal. Bacteria are incorporated into this mineral powder and therefore leave the system by blowdown, filtration, or settling. The encapsulated bacteria cannot reproduce, thus resulting in an exceedingly low bacteria population. Water softening is not necessary with Dolphin treatment, and high cycles of concentration are usually obtainable, leading to significant water conservation.

The Dolphin: easy installation, system enhancement, effortless use, and engineered solutions.

Major Coil-Pipe Assembly Components

- PVC Pipe
- Special Coils and Circuitry
- Thermal Safety Switch (with Automatic Reset)

Coil-Pipe Assembly



Major Transformer Panel Components

- Proprietary Transformer
- Over-Current Fuse
- Power Status LEDs
- Locking-Power Cable Connector

Transformer Panel

Optional System Components

- Automated Blowdown System
- Building Management System (Remote Interface)
- Solid Separations Equipment

• Easy Installation

The Transformer Panel can be easily mounted onto any flat surface using the built-in external flanges and four mounting screws.

The Coil-Pipe Assembly simply replaces an existing pipe section to complete the non-restricting, flow-through installation.

Uses standard 110V or 220V electric service, depending on Dolphin model size.

• Specific Enhancements to Cooling Tower Systems

Avoids premature system leaks by preventing microbial-induced corrosion (MIC) caused by bio-debris.

Extends the operational life of cooling tower systems by maintaining an alkaline pH without chemical additives.

• Effortless Operational Use

No moving parts. No consumable supplies.

Automatically eliminates scale and bio-debris buildup from clogging valves and heat exchanger channels.

Tolerates operational variables without requiring adjustments.

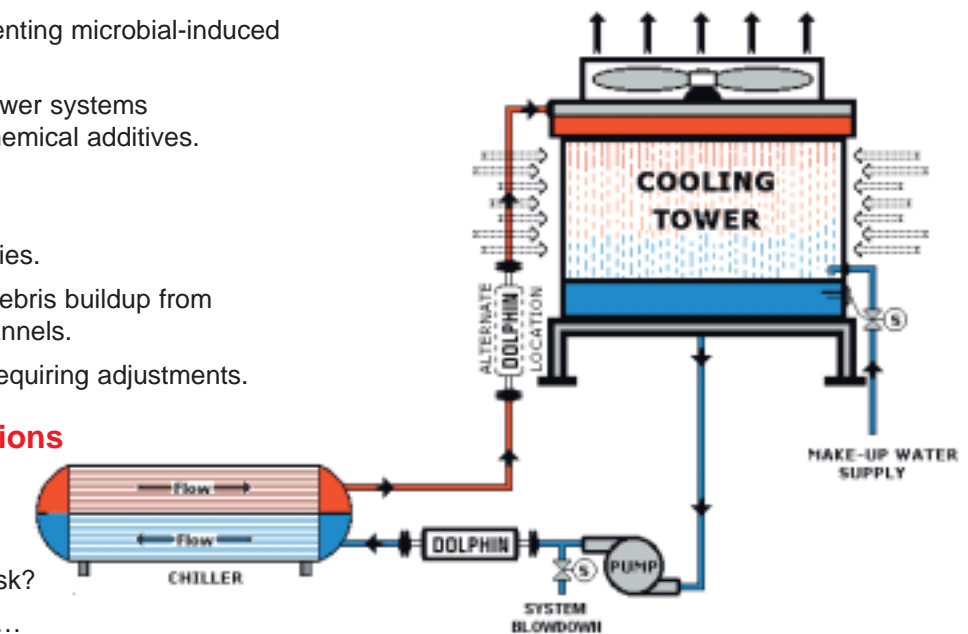
• Customized Engineered Solutions

Want to avoid chiller fouling?

Need to conserve water?

Concerned with minimizing *Legionella* risk?

Is energy efficiency a high priority? If so...



...PLEASE CONTACT US:



Dolphin Series

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