

Triangular Wave Technologies Advanced Microprocessor Deposit Control System

Control Scale and Bio-fouling in all Ice Machines

How the Triangular Wave Systems Control Lime Scale, and Biological Deposits.

Scale and biological deposits form when these elements "stick" to the surfaces of tubes /pipes, water heaters, plumbing fixtures and other equipment. The Triangular Wave Deposit Controller charges the particles in the water so that they cannot stick together or stick to any surfaces.

Simply Said...

In effect, a clean, corrosion-free delivery system is restored and maintained in an environmentally safe and chemical-free manner. The result is clean pipes and tubing with no biofilm and reduced bacterial contamination.

Breakthrough Technology Means...

- Provide the effects of softened water, neutralizes calcium hardness effects in the water
- Prevents scale & slime buildup on tube/pipe and equipment surfaces
- **STOPS LIME SCALE BUILD UP**
- Reduces spotting on ice
- Reduces onsite service calls
- Uses no salts or other chemicals
- Service and **MAINTENANCE-FREE!**
- Improves efficiency of all ice machines and extends their life cycle
- Quickly pays for itself and continues saving (energy, water and wasted ice)
- Descales the entire system over time
- Designed for safety: The output is safe to both personnel and equipment. There is **NO ELECTRICAL CONTACT WITH THE PIPE**

All the benefits of SOFT WATER WITHOUT THE SALT!

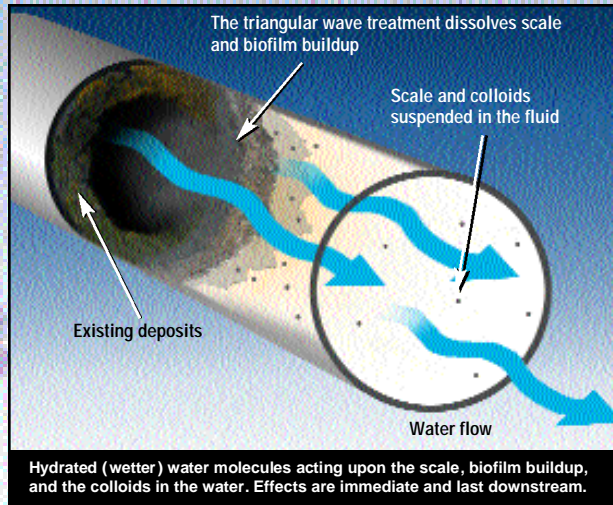
- Reaction chamber compatible with all types of pipes/tubes
- Easy to follow installation instructions
- Takes up minimal space and plugs into a standard 110/120 vac outlet (other current source available upon request)
- **90 DAY MONEY BACK GUARANTEE**
- **5 YEAR WARRANTY**
- Uses only \$10.00 to \$14.00 of electricity per year

Fluid Management System Solutions...

- **New equipment:** TWT provides new equipment with the ability to enhance the product benefits and features.
- **Existing Equipment :** Retrofit existing equipment to improve its operating efficiency and life cycle.
- **Enhance Product Line:** Enter new markets and broaden customer satisfaction.

The Patented Triangular Wave Deposit Control System

The *Triangular Wave Deposit Control System* is an advanced method for controlling scale and bio-fouling. The *patented Triangular Wave System* includes a factory-wrapped and protected TWT Reaction Chamber (solenoid coil) that connects to the TWT Deposit Controller and power supply, which *constantly changes the polarity, frequency and amplitude* of the current being sent to the solenoid. This forms an ever-changing electromagnetic field, which induces a constantly changing voltage that treats the particles in the water 100% of the time.



CLEANER WATER IS HEALTHIER WATER

Made in USA

Ice Machine Application & Installation

System: TWT-5C8-460

(small water-fed ice machines)

Deposit Controller / Reaction Chamber for Tubes & Pipes 1/2" or less



System: TWT-5C8-473P

(larger water-fed ice machines)

Deposit Controller / PVC Reaction Chamber for Tubes & Pipes 3/4" or less



System: TWT-5C8-473ST

(larger water-fed ice machines)

Deposit Controller / Stainless Steel Reaction Chamber for Tubes & Pipes 3/4" or less



designed. The TWT Reaction Chambers are fully sealed, protecting their two layers of factory-wrapped coil. The Stainless Steel Reaction Chambers are designed and manufactured to meet the highest quality specifications.

Custom Orders: Upgrades available to meet your industry specific needs upon request

Our suggested considerations for optimal installation of the TWT Deposit Control System:

1. Cut water line and insert TWT Reaction Chamber using John Guest connectors. Clamp as illustrated.
2. Attach power supply to back of machine or adjacent to water-fed appliance in safe location.
3. Attach wire leads from Reaction Chamber to terminals on Deposit Controller.
4. Plug transformer/power supply into a standard 110 VAC outlet.

The Deposit Control System will provide the means to keep deposits (calcium, lime, etc.)

Note: Deposit Controller/Reaction Chamber should be installed on water feed line after any filter and/or solenoid valve system. Install Reaction Chamber on water feed line midway between solenoid valve and water tank.

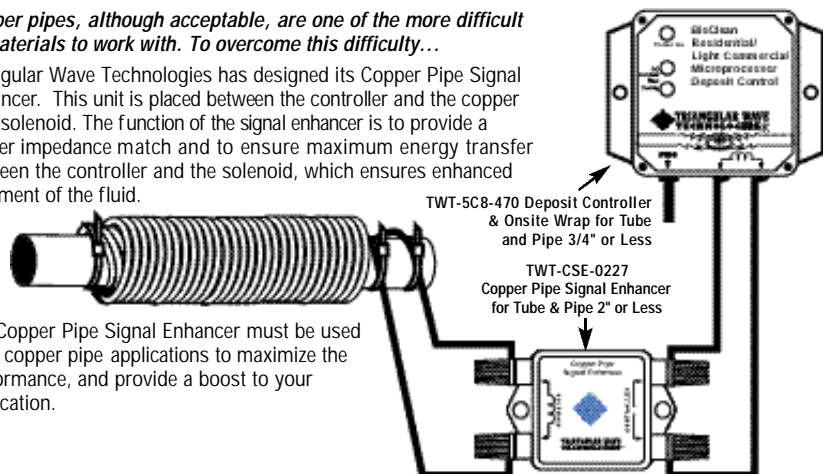
in solution for extended periods, if not disturbed. The ability of the fluid to retain the deposits in solution is reduced by fluid disturbances (e.g., pressure changes) and high temperature conditions (flashing, boiling, etc.). In Automatic Fill Systems, a Fill Solenoid Valve will be used to control the fluid level in the fill system. Where a large pressure change takes place immediately downstream of the solenoid valve, **TWT recommends that the Reaction Chamber and/or the on-site wrap be located downstream from the solenoid valve to avoid this pressure change point.**

When water boils and is evaporated, the calcium and other dissolved solids remain and form deposits. These deposits will be softer and more easily removed when treated by the TWT system. If a heating system can be operated without boiling/flashing on the surface of the heating element, a significant reduction in deposits will be obtained. As the fluid temperature is lowered from boiling, the ability of the TWT-treated water to hold the minerals in solution increases.

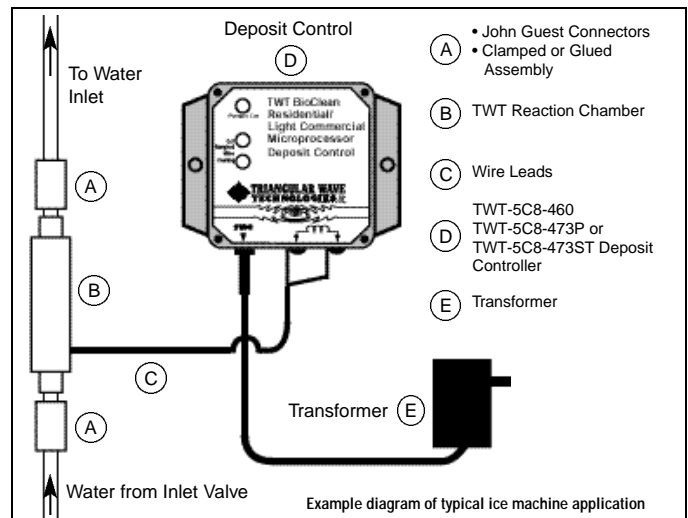
Copper pipes, although acceptable, are one of the more difficult of materials to work with. To overcome this difficulty...

Triangular Wave Technologies has designed its Copper Pipe Signal Enhancer. This unit is placed between the controller and the copper pipe solenoid. The function of the signal enhancer is to provide a proper impedance match and to ensure maximum energy transfer between the controller and the solenoid, which ensures enhanced treatment of the fluid.

The Copper Pipe Signal Enhancer must be used in all copper pipe applications to maximize the performance, and provide a boost to your application.



To use in conjunction with the TWT Deposit Control Systems when required, Triangular Wave Technologies, Inc. has developed a line of factory-wrapped wire coil Reaction Chambers to address magnetic pipe environments. Typically, wire coil cannot be installed on any magnetic pipe, such as **steel, and galvanized steel**. When the coil is applied to a magnetic material, the pipe becomes a shield and prevents the wave energy from entering the fluid path. The TWT Reaction Chambers provide an easily installed section of non-magnetic pipe to provide the proper pipe material for the Deposit Control System to work as



When the TWT systems are properly installed, the effects of the Triangular Wave Technology Treatment Last Downstream