

MineralPURE[®]

Cooling Tower Ionization System Model # CT-300



Premium Model — handles up to a 2400-ton system

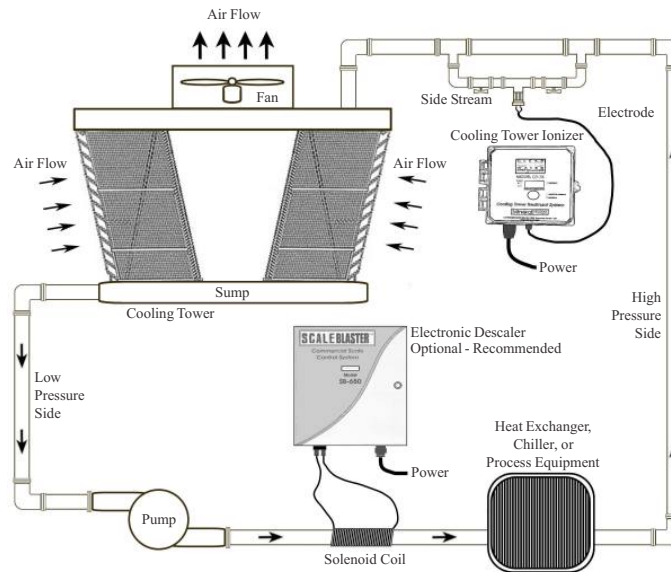
How MineralPURE Works

The **MineralPURE** purification system consists of a state-of-the-art micro-processor control box and a scientifically designed set of **electrodes** composed of copper and silver that are set slightly apart from one another. Water is passed through a specially designed **flow cell chamber** that houses the electrodes. The control box works by generating a precise, low voltage, DC current (at milliamp levels) to the electrodes.

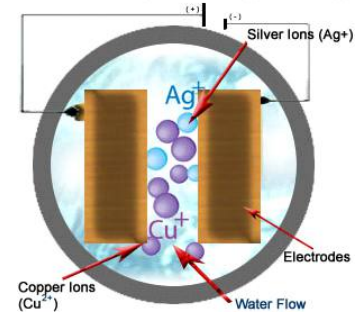
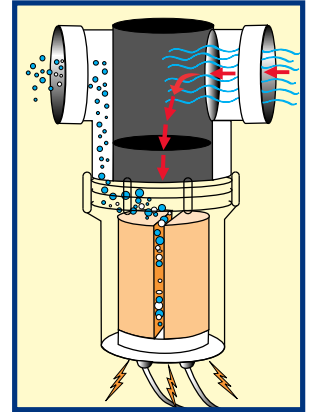
Basically, the current causes some of the outermost atoms of the electrodes to lose an electron, thus becoming positive ions. While the water is running through the chamber, many of these ions are swept away before they can reach the other side of the electrodes. As a result, copper and silver ions are dispersed into the body of water that is being purified.

The greatest benefit of copper/silver ionization is that the ions remain in the water providing a residual protection. They provide **long-term, nontoxic purification** and prevent against recontamination. Unlike most other types of sanitizers, the copper and silver ions remain in the water until they flocculate, or form masses with algae and bacteria and then become large enough to be removed by the filtering equipment.

When the "used" copper and silver ions are removed, the microprocessor control box is always producing new copper and silver ions to continuously sanitize the water.



Typical Cooling Tower Installation



CT-300 IONIZER SPECIFICATION SHEET

COOLING TOWER SIZE: up to 2400 ton system

INPUT VOLTAGE: 90 to 264VAC, at 47 to 63 HZ, auto switching

INPUT CURRENT and WATTAGE: With electrode output set to 1000mA (max)

1.3A at 120VAC (156 Watts), 1A at 240VAC (240 Watts)

OUTPUT VOLTAGE: 2.5VDC to 20VDC, Auto Ranging, Dynamically Adjusted

OUTPUT CURRENT: Adjustable in 5mA increments

0 to 1000mA DC in analog mode (each output)

0 to 1000mA DC average in pulse width modulation mode (each output)

CIRCUIT PROTECTION: internal input fuse, both on high side and low side, input line spike/surge immunity to IEC 1000-4-5, level 3

FUSES: F1 - 2A, 250VAC, 5x20mm, Slow Blow / F2 - 4A, 250VAC, 5x20mm, Slow Blow

IONIZATION METHOD: electrolysis of copper/silver alloy electrodes by a microprocessor control circuit

ELECTRODE: Four 7" long 90/10 copper/silver alloy electrodes (CLE-20), also available 6" long 80/20 copper/silver alloy electrodes (CLE-14)

ELECTRODE CHAMBER: Customers choice between 3" or 4" flow cell chamber tees.

ENCLOSURE: weather resistant NEMA 4X (IP65) rated, UL 94 Flame Rating, UL UV rated, high impact corrosion resistant thermoplastic with hinged polycarbonate cover

ENCLOSURE DIMENSIONS: 16" x 14" x 7"

OPERATING TEMPERATURE RANGE: 32 - 110 degrees F

WARRANTY: 3 years, parts and labor - excluding electrodes

SHIPPING WEIGHT: 61 lbs.

CARTON DIMENSIONS: 24" x 24" x 24"

HEAD LOSS:

When using:

CLF-57 - 3" Sch. 40 Tee - Flow Rate of 25 GPM Total Head Loss (psi) is < .20 PSI

CLF-58 - 4" Sch. 40 Tee - Flow Rate of 25 GPM Total Head Loss (psi) is < .20 PSI

HYDROSTATIC PRESSURE: Maximum Recommended Pressure: 50PSI

ION PRODUCTION WITH THE FOLLOWING WATER CONDITIONS:

Water Temperature: 72.7 °F

Total Chlorine: None

pH: 7.45

TDS: 347 mg/L

Hardness: 215 mg/L

Total Alkalinity: 85 mg/L