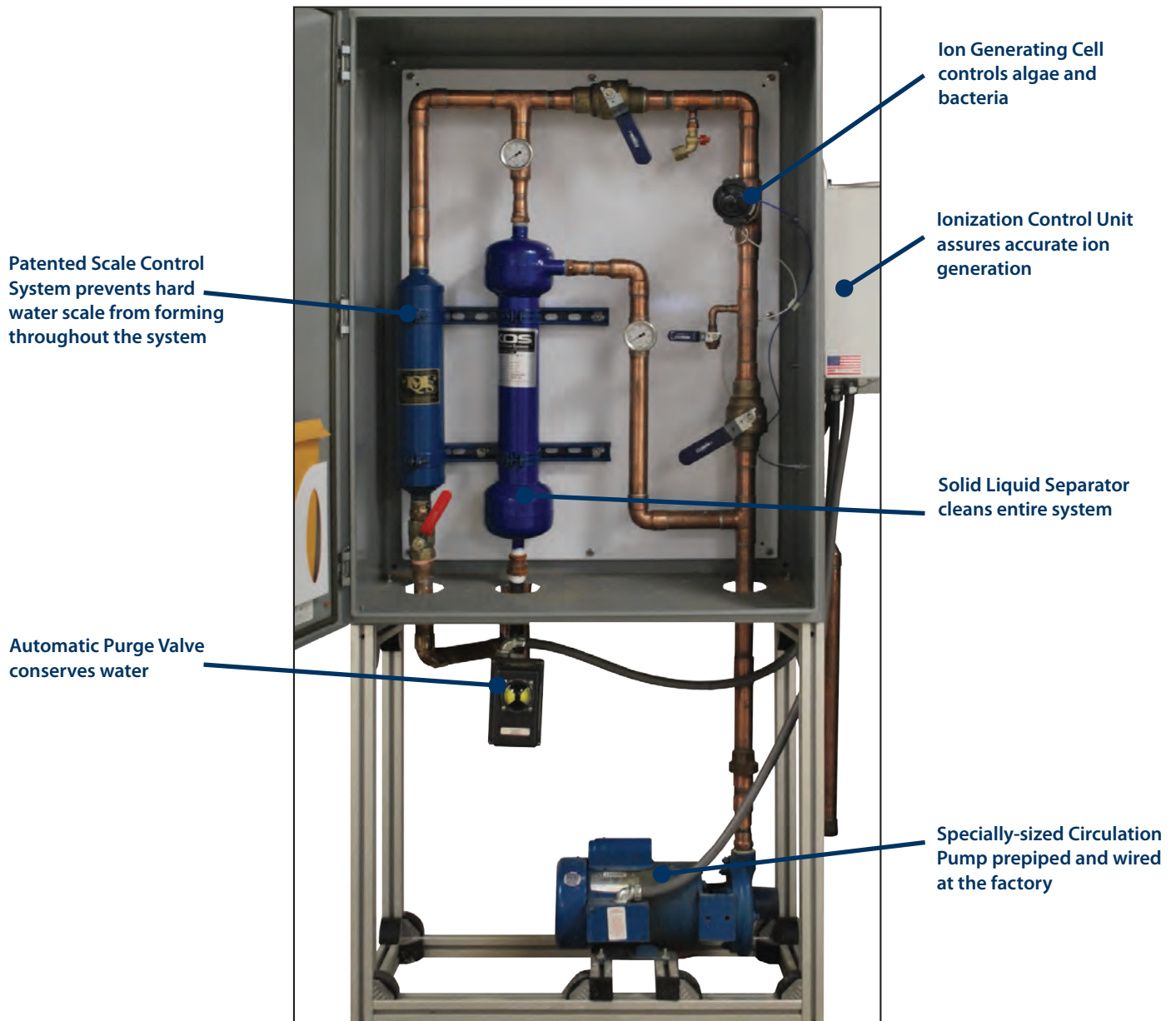




## Water Treatment and Filtration System Facility Support System

Dyne Systems' Water Treatment and Filtration System is a synergistic, self-contained, chemical-free system for the treatment of water. The system is stand-alone equipment that includes a circulation pump separate from the water recirculation/cooling system. The water treatment and filtration system does not interfere with the operation of your cooling tower.



**Everything you need to succeed**

### **CWI Scale Control Unit**

The CWI Scale Control Unit controls hard water scale. This component will prevent the formation of hard water scale without the use of chemicals, salt or electricity. Installed as an integral component, the CWI unit will alter the structure of the electrically charged molecules (ions of calcium and magnesium salts) to form a soft sludge rather than a hard scale on the condenser tubes, tower fill and all other chiller/tower components and plumbing. The resulting sludge is removed by the purge. This component requires no maintenance or operator attention. The tower/chiller will operate far more efficiently and economically when scale-free. Prolonged system life is another benefit. Additionally, the soft, water-soluble film that forms on the chiller tubes helps to prevent corrosion without inhibiting heat transfer.

### **Centrifugal Filter**

The Centrifugal Filter will remove system debris normally associated with cooling towers. Cooling tower basins or remote sump debris can harbor bacteria, including Legionella, and other biomass. Additionally abrasive particulates, if not removed, will circulate throughout the tower/chiller system causing accelerated wear and can accumulate in low flow areas of the condenser. This accumulation normally requires extensive maintenance to remove each year, if not more frequently. The Centrifugal Filter operates without any moving parts. The pump integrated in the system supplies water flow through the centrifuge. Clean water is returned to the tower while the particulates are contained in a separate component until purged. The debris normally associated with tower operation will be continuously removed.

The Water Treatment and Filtration System, for complete cooling tower/chiller treatment, requires only minimal attention by maintenance personnel to achieve economical, chemical-free, performance and protection.

### **Automatic Bleed Valve and Timer**

An Automatic Bleed Valve and Timer is integrated into the system. The timer is programmable to meet the specific requirements of each installation. Normally the timer is set to bleed off the waste for 15 seconds every 4 hours. Since the system treats tower systems with physics rather than chemicals, a dramatic waste of water is not necessary. The system is designed to bleed off approximately 40 to 100 gallons of water (151 - 379 liters) per day per 100 tons of capacity.

### **Copper/Silver Ion Generator**

The Copper/Silver Ion Generator produces environmentally friendly and benign ions of copper (90%) and silver (10%) for economical and effective control of algae, bacteria including Legionella, and other biomass. The Generator operates by passing low voltage DC current through a cell containing a blend of 90% copper and 10% silver in a sacrificial anode bar. The concentration of copper/silver ions is programmable. Weekly copper level tests ensure economical and effective biological control. The discharge of water containing ions is well below EPA standards. This treatment has been proven to be far more effective than traditional chemical treatment methods, and at a fraction of the price. Additionally, chemical treatments are highly toxic and polluting. This eliminates the need to handle, use and discharge these chemicals into the environment.

*Everything you need to succeed*



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