SECTION 23 25 00 - HVAC WATER TREATMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. By-pass (pot) feeder.
B. Drip feeder.
C. Solution metering pump.
D. Solution tanks.
E. Agitator.
F. Liquid level switch.
G. Conductivity controller.
H. Water meter.
I. Solenoid valves.
J. Test equipment.

1.02 RELATED REQUIREMENTS

A. Section 23 09 13 - Instrumentation and Control Devices for HVAC.
B. Section 23 21 13 - Hydronic Piping.

1.03 REFERENCE STANDARDS


1.04 SUBMITTALS

A. Product Data: Provide chemical treatment materials, chemicals, and equipment including electrical characteristics and connection requirements.
B. Shop Drawings: Indicate system schematic, equipment locations, and controls schematics, electrical characteristics and connection requirements.
PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS
A. Comply with applicable codes for addition of non-potable chemicals to building mechanical systems and to public sewage systems.
B. Comply with UL (DIR) requirements.
C. Provide certificate of compliance from Authority Having Jurisdiction indicating approval of installation.

2.02 BY-PASS (POT) FEEDER
A. 2 quart (1.9 L) quick opening cap for working pressure of 175 psi (1200 kPa).

2.03 DRIP FEEDER
A. Plastic reservoir with coil of capillary tubing with probe, weight, charging syringe, and clip.

2.04 SOLUTION METERING PUMP
A. Positive displacement, diaphragm pump with adjustable flow rate, thermoplastic construction, continuous-duty fully enclosed electric motor and drive, and built-in relief valve.

2.05 SOLUTION TANKS
A. 30 gallon (114 L) capacity, polyethylene, self-supporting, 1 gallon (3.8 L) graduated markings; molded fiberglass cover with recess for mounting pump, agitator, and liquid level switch.

2.06 AGITATOR
A. Totally enclosed electric motor, cast iron clamp and motor mount, 1/2 inch (13 mm) diameter coated Type 316 stainless steel propeller.

2.07 LIQUID LEVEL SWITCH
A. Polypropylene housing with integrally mounted PVC air trap, receptacles for connection to metering pump, and low level alarm.
2.08 CONDUCTIVITY CONTROLLER  
   A. Packaged monitor controller with solid state circuiting, five percent accuracy, linear dial 
      adjustment, built-in calibration switch, on-off switch and light, control function light, 
      output to control circuit and recorder.

2.09 WATER METER  
   A. Displacement type cold water meter with sealed, tamper-proof magnetic drive, impulse 
      contact register, single pole, double throw dry contact switch.

2.10 SOLENOID VALVES  
   A. Forged brass body globe pattern, normally open or closed as required, explosion-proof 
      and watertight solenoid enclosure, and continuous duty coil.

2.11 TEST EQUIPMENT  
   A. Provide white enamel test cabinet with local and fluorescent light, capable of 
      accommodating 4 - 10 ml zeroing titrating burettes and associated reagents.

END OF SECTION 23 25