



## *Progressive Water Treatment, Inc.*

### **COMMERCIAL/INDUSTRIAL/MUNICIPAL**

Water Softeners - Hardness Removal  
SERIES: WS – 1” Through 6” IPC  
20” Through 120” Diameter

### **PWT WATER SOFTENER SYSTEMS**

The softener removes “hardness,” in the form of calcium and magnesium ions from the influent water stream.



The resin beads in the regenerated state have a high concentration of sodium ions. These sodium ions have a relatively low electrical potential compared to that of calcium and magnesium, ions. This means ions with a greater potential or charge can easily replace them. When the inlet water flows through a cation resin bed, the calcium and magnesium ions bond to the resin beads, and the beads release sodium ions in exchange.

The resins must be regenerated when water quality becomes substandard as the total amount of water softened or hardness monitoring determines. Regeneration is an ion exchange process wherein the calcium and magnesium ions on the resin beads are exchanged for sodium ions. This ion exchange is achieved by flushing the system with a brine solution that contains a high concentration of sodium ions.

#### **STANDARD FEATURES**

- ✓ Automated units
- ✓ 100 PSI FRP or Carbon Steel tanks
- ✓ Top mount Control Valves (up to 48”D tanks)
- ✓ Actuated PVC Ball or SST Disc Butterfly Valves (52”D tanks and up)
- ✓ Schedule 80 PVC Internal and External Piping
- ✓ Inlet/Outlet SST Pressure Gauges

#### **OPTIONAL FEATURES**

- ✓ ASME Code Construction and stamp
- ✓ Manual Systems
- ✓ Explosion Proof Controls
- ✓ PLC Controls/HMI
- ✓ Carbon Steel, or Stainless Steel Internal/External Piping
- ✓ Service and/or Backwash Flow Sensors
- ✓ DP gauge, DP Switch or transmitter
- ✓ Hardness Monitor

***BUILDING RELATIONSHIPS FIRST AND EQUIPMENT THAT LASTS***

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