



# ECO VALVE WATER SAVER (EVWS)

## INSTALLATION INSTRUCTIONS

### 1. Preparation/Installation:

- a. Clean area surrounding the installation point of dirt and debris.
- b. Shut down any equipment that interruption of water service will affect.
- c. Turn off water supply and if available, use by-pass to maintain supply of water.
- d. EVWS is connected into the pipe/flow stream by an NPT female inlet and outlet on the valve.
- e. Most installations utilize the male nipple coming off the meter flange and then connecting back into the delivery pipe.
- f. Use a quality thread sealing method while making the EVWS connection/installation to water line.
- g. The EVWS can be mounted in any orientation that make adjustment convenient.
- h. Make arrangements for a pressure gauge to be installed or to be in close proximity and available to check downstream pressure from the EVWS.
- i. Slowly turn water supply back on. Slowly turn off/close by-pass valves.
- j. Wait for air to purge from the system and check for leaks.
- k. Commission equipment that was shut down for installation. Boosters, boilers, water heaters, R.O. systems, etc.

### 2. Making adjustment to target pressure:

- a. EVWS is shipped in it's fully open, (no-restriction) position.
- b. Clockwise rotation of the adjustment rod decreases downstream pressure. Counterclockwise rotation of the adjustment rod increases downstream pressure.
- c. It is best to make pressure adjustments during periods of the highest water usage.

### 3. Determining Target Pressure: No Booster Pumps:

- a. Rule of thumb when figuring target pressure is that you are going to lose 5 PSI per floor for multi-floor buildings. Example; 60 PSI city pressure carrying 5 floors (-25 PSI) will net 35 PSI on the top floor. 100 PSI city pressure carrying 10 floors will net 50 PSI on the top floor. If 25 PSI is the target pressure on the top floor adjust the EVWS to 75 PSI. If there is a PRV (pressure reducing valve) in use for any of the applications, the set pressure on the PRV can be increased while making the adjustment on the EVWS to the desired pressure setting.



**4. Determining Target Pressure: Pass Through Booster:**

- a. The same method of determining target pressure with a pass through booster pump system is much the same as without a booster. Example: 60 PSI city pressure feeding a booster pump with a set point (output) of 100 PSI will be affected by EVWS pressure adjustments proportional to the inlet pressure to the booster. Typically reducing the inlet pressure to the booster pump 5 PSI will equate the same on the output. 55 PSI input will net 95 PSI output.

**5. Determining Target Pressure: VFD Booster System:**

- a. For a VFD (variable frequency drive) booster system we check the manufacturers minimum inlet pressure requirements and set the EVWS pressure to 10% above. Most booster skid minimum inlet pressure is 25 PSI. Our target pressure for this system would be 27 – 30 PSI. The output of the booster pump pressure output will be unaffected by setting the EVWS to this target pressure. Regardless of city inlet supply pressure we still set to 10% above minimum.

**6. For Consideration:**

- a. The EVWS provides a compression back over the water meter to reduce air and turbulence being recorded as water consumed. The more pressure we can produce back over the meter, the more effective the results in reducing false consumption readings.
- b. A site evaluation form and photos of the installation location can assist in us collectively determining the best location for the installation and determining a target pressure that will maintain system operations and net the best savings results.