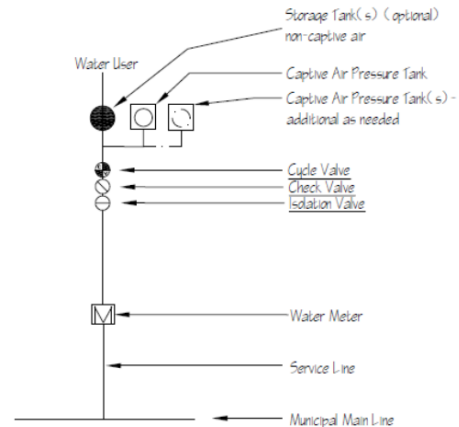
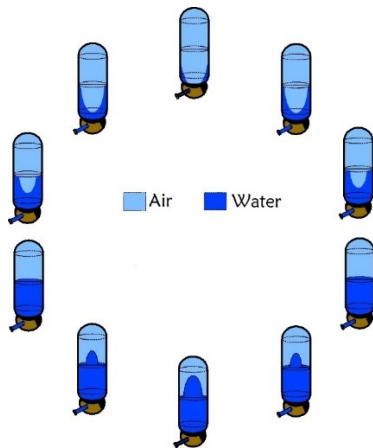


WatrWise™ EWS – Emergency Water Storage

1. Pressure tank(s) are filled to full water supply pressure slowly thru a notch in the cycle valve seat.
2. The check valve prevents water flowing back to water supply.
3. The acceptance factor/tank capacity is dependent on the amount of air (pressure) in the air chamber AND
4. Pressure tanks come in all shapes and sizes. Size and shape affect acceptance factor/tank capacity.
5. The cycle valve operating pressure is adjustable.
6. When the tank(s) cycle the amount of water discharged is affected by the pressure differential between cycle valve setting and water supply pressure.
7. During initial setup and filling with water, all air present in the water chamber needs to be eliminated/assimilated, by cycling the tank a few times. Adjustment of the cycle valve pressure setting is affected by unwanted air in the water chamber.
8. Cycle the tank a few times, until all air in the water chamber is eliminated/assimilated.
9. Set the cycle valve setting 10-20 psi lower than the water supply pressure.
10. When water is used by the water user, the cycle valve delays full flow from water supply until pressure downstream of the cycle valve falls below the cycle valve pressure setting, water flows from the pressure tank(s) to the water user, delivering a portion of the stored water to the water user; lowering pressure downstream of the cycle valve.
11. When the pressure downstream of the cycle valve falls below the cycle valve pressure setting, the cycle valve fully opens allowing water supply to supply water user demand or flow. The pressure tank(s) have discharged a portion of stored water; preventing stagnation.
12. When water user stops using water and flow stops, pressure quickly increases downstream of the cycle valve, up to the cycle valve pressure setting, the cycle valve closes and continues to slowly (1 GPM or less) fill the pressure tank(s) thru the notch in the cycle valve seat until pressure in the pressure tank(s) are equal to water supply pressure.



Summary:

Water and pressure is supplied by water supply. The check valve prevents water flow from pressure tank(s) to water supply; reserving stored water for use during water service or supply interruptions. The cycle valve cycles stored water; preventing stagnation. An isolation valve is installed before the check valve to isolate stored water if water supply is unsafe. **Pressurized water is delivered to the water user during water service or supply interruptions.**

The sections above, colored Green, relate to how WatrWise™ EWS mitigates Peak Demand challenges. Delaying water flow and slowly refilling the pressure tank(s) allows water supply to supply water elsewhere. WatrWise™ EWS creates a beneficial pressure differential that lowers flow rates due to lower household operating pressure, under flow conditions. It is recommended to install a pressure regulator before the isolation valve if water supply static pressure exceeds 80psi.