



EVERLAST™ Triplex Wet Well Mounted Pump Station Offers Design Flexibility

Smith & Loveless initially developed the Triplex Wet Well Mounted Pump Station (3-pump) to increase above-ground station capacity. Yet, experience shows that the Triplex concept is well-suited for step flow application in lieu of two-speed and variable speed applications. In pure static systems, the capacity is doubled. Two pumps in parallel can increase the design rate of the station from 1200 to 2400 GPM (76 to 151 lps). In practice, it will be somewhat less, depending on the system curve and pump curve. *Other benefits are listed for reference below:*

Reduced Station Loss

The station loss is per branch and not additive since piping arrangements represent parallel circuits. A Triplex station designed for 1,200 GPM (76 lps) will have a station loss corresponding to 600 GPM (38 lps), or 3.2' (1 m). A 2-pump station with each pump designed for the peak flow of 1,200 GPM (76 lps) will have station losses of 12.0' (3.66 m).

Higher Efficiency

For example, two 6D3B S&L Pumps, each 1,100 GPM (70 lps) at 80' (24.4 m) TDH, are approximately 73% efficient. Three 4B2D S&L Pumps, each pumping 550 GPM (35 lps) at 80' (24.38 m) TDH, are approximately 78% efficient. Total connected horsepower might be reduced from 2 x 40 (80 HP) to 3 x 20 (60 HP). Savings in demand and energy costs can be realized.

Smaller Generator Size

Standby power generators can be sized to handle only two motors (peak flow). Time delays between successive starts can further reduce demand.

Greater Reliability with Third Pump

Normal installations never reach the peak flow rate for a number of years, and certain engineers will prefer the extra standby the third pump provides.

Potential for Smaller Wet Well Sizes

Wet wells sized on the maximum run-out of one pump in lieu of full design peak capacity will likely provide for smaller size, which translates to lower capital costs.

EVERLAST™ Triplex Design Parameters

Sizing: 4" - 12" (100-300 mm) piping
Hp: 1.5 to 300 HP
Flow: Up to 10,000 GPM (630 lps) with 2 pumps in parallel

Smith & Loveless offers multiple control options, including the PLC-based QUICKSMART™ and relay logic controls.