



Smith & Loveless Inc.

A Better Way To Pump Wastewater

Chuck Miller
Executive Vice President
Smith & Loveless, Inc.



S&L Pump Stations

- 28,000+ Installations Globally
- 16,500+ Vacuum Primed Wet Well Mounted Pump Stations (WWMPS)
- All Stations Factory-Built & Tested in Quality Controlled Facility
- Custom-Built & Standard Designs to Meet End-User Criteria



Outline

- **Comparison to Submersibles**
- Vacuum Primed Pump Station Basics
- Eliminating Confined Space Entry
- Operator Safety
- Typical Installations
- Ease of Installation
- Virtually Eliminating Clogs
- Case Study
- Energy Savings



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Relay Logic Controls

1000 Series



Relay Logic Controls

2000 Series



EVERLAST™



3000 Series



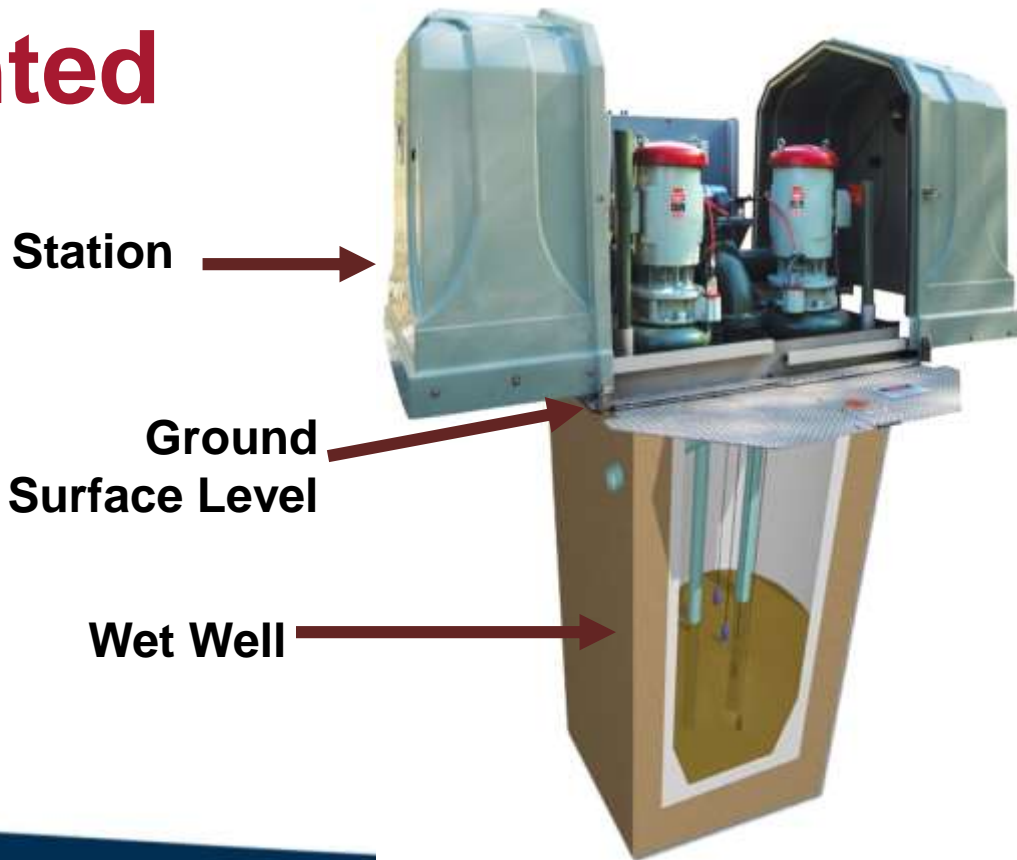
4000 Series



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Wet Well Mounted Pump Stations

Complete Pump Station
Sets On Top of Wet Well



Station

Ground
Surface Level

Wet Well



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Wet Well Mounted Pump Stations

- Capacities: Up to 1,260 LPS (315 LPS per Pump) & 150 m TDH
- 100 to 300 mm Pumps
- **EVERLAST**® WWMPS, R2 WWMPS, **CAPSULAR**® WWMPS
- Skid-Mounted
- Maximum Suction Lift is 6.1 m From Off Level to the Pump



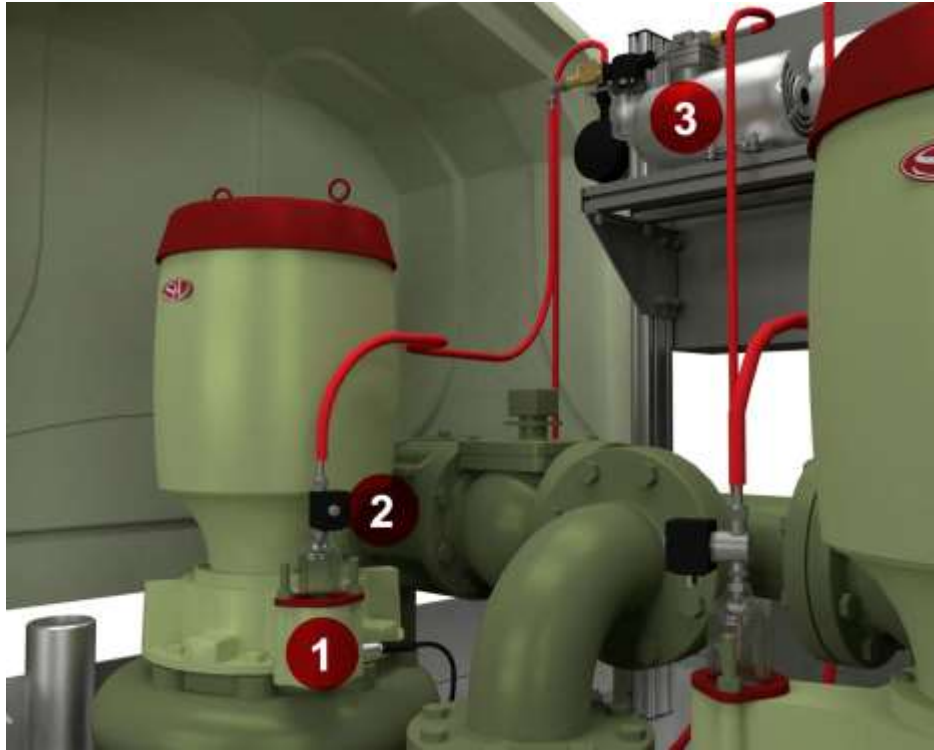
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Vacuum Priming for WWMPs

- A Simple Process Consists of the
- Following to Prime the Pump:
 - Vacuum Pump
 - Wave Start Prime Sensor
 - Solenoid Valve



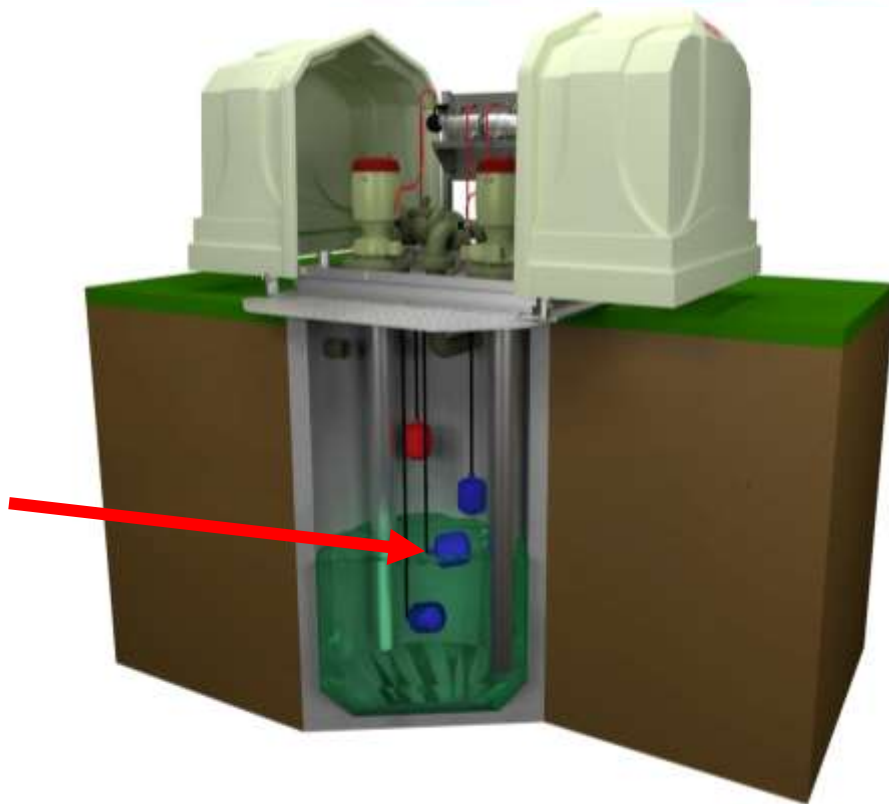
1. **WAVESTART™** Prime Sensor
2. Solenoid Valve
3. Vacuum Pump

Note: Pump Stays Primed
Between Starts



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**On Level Switch or Transducer
Triggered by Rise in Wet Well.**





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Eliminate Confined Space Entry

- The Pumps, Piping and Valves Are Located Above Ground
- No Need to Enter the Wet Well for Pump or Level Control Maintenance
- No Need to Enter the Valve Vault for Maintenance
- No More Broken Lifting Chains and Cables
- No More Confined Space Entry Equipment



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**Royal Cornwall Hospital
Treliske, UK**



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Operator Safety





Operator Safety

- Cleaner Pumps to Work On
- Wastewater Drains Back Into the Wet Well
- No Rags and Dangerous Debris Wrapped Around the Pump
- No Entering a Space with Potentially Dangerous Gas
- No More Lowering of Operators into Wet Well



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Smith & Loveless Inc. 02:33 PM 11 May 2020 English Español

Station Status	Pump Alternation	Pump Run Time	Priming Mode Set	Wet Well Level	Clock/Units	HELP
						Wet Well Level (ft.) 6.8 Pump 1 RUNNING Pump 2 RUNNING Temp (°F) -50
Environmental	Power Monitoring	STATION COMM™	I/O Status	Maintenance	Cleaning Schedule	Alarms

QuickSmart™



Smith & Loveless Inc.

Longest Warranty in the Industry



Smith & Loveless Inc.

25/10/5 Year Pro-Rata Warranty

25 Year	10 Year	5 Year
DuroLast SS Base Plate	Epoxy Coated Base Plate	Control Panel
	Centrifugal Pump	
	Fiberglass Enclosure	



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Easy to Install

- Connect Suction Piping
- Set Pump Station on Wet Well
- Connect Discharge to Force Main
- Connect Electrical Service to S&L Control Panel





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10:29 A.M.

Commencing to install suction pipes. Notice discharge is already installed



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10:56 A.M.

Lowers lift station on to wet well



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XPELLER[®]



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X-PELLER®

- Designed For Heavy Clogging Applications
- Dramatically Reduces Clogging Problems
- Mono-Ported Impeller vs. Traditional Dual Port Impeller
- Eliminates Rags & Wipes Building Up in Suction Eye
- Doubles the Velocity Through the Single Port
- Passes a 75 mm (3") Sphere



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2-Port vs. X-PELLER®

