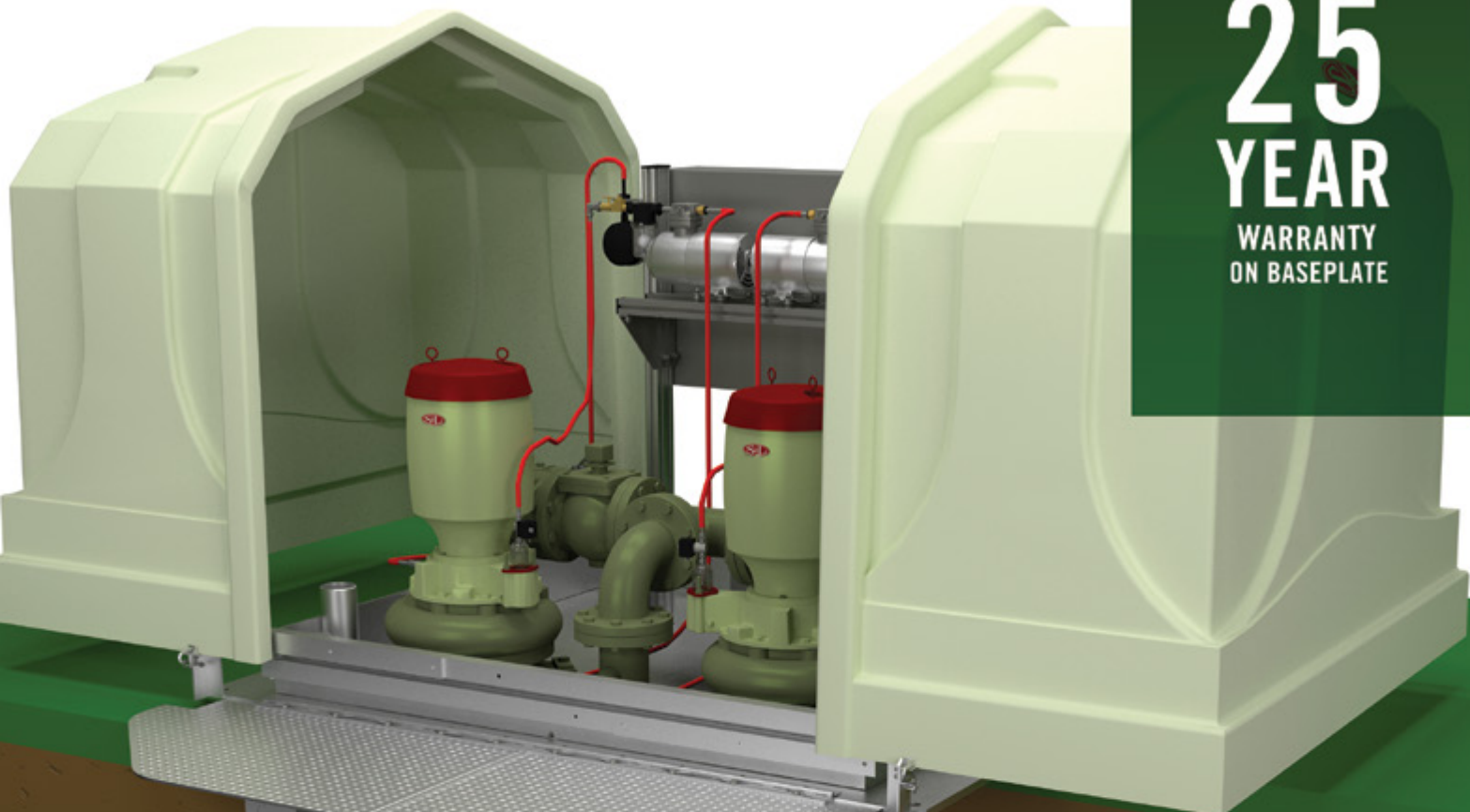


**25
YEAR**
WARRANTY
ON BASEPLATE



**RISE
ABOVE.**



Smith & Loveless Inc.

Issue #04-06-830

FIGHT!

AGAINST

CHEMICALS!

CHEMICAL RESISTANT VACUUM —DOME!!—

Today record levels of chemicals are dumped into our wastewater systems. In high enough concentrations, the chemicals can attack the clear PVC vacuum dome. Smith & Loveless now offers a new chemical resistant vacuum dome for pump stations that are under attack from chemicals in the wastewater.

You'll know if your dome is under attack if the dome creates fissures or hairline cracks. The chemical resistant vacuum dome may be amber in color, but it really has a very high tolerance to chemicals. Fight back against chemical attacks. Order the chemical resistant vacuum dome today.

■ **PN: 87B133C** ■

1-800-922-904

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Published by: After Market Division • Smith & Loveless, Inc. • 14040 Santa Fe Trail Drive • Lenexa, KS 66215-1234, USA • Ph: (913) 888-5201 • Fax: (913) 748-0106 • Toll Free: (800) 922-9048, Option 5.

DON'T LOSE CONTROL TO...



FLOODING



HUMAN ERROR



LIGHTNING



RODENTS

IN-STOCK CONTROL PANELS

NEMA 1

In-Stock Control Panel Sizes
NEMA or IEC Rated Starters

| HP | VOLTAGE |
|-----|---------|
| 5 | 208 |
| 5 | 230 |
| 5 | 460 |
| 7.5 | 208 |
| 7.5 | 230 |
| 7.5 | 460 |
| 10 | 208 |
| 10 | 230 |
| 10 | 460 |
| 15 | 230 |
| 15 | 460 |
| 20 | 460 |
| 25 | 460 |

NEMA 12

In-Stock Control Panel Sizes
NEMA or IEC Rated Starters

| HP | VOLTAGE |
|----|---------|
| 15 | 208 |
| 20 | 208 |
| 20 | 230 |
| 25 | 208 |
| 25 | 230 |
| 30 | 208 |
| 30 | 230 |
| 30 | 460 |

COMPONENT DESCRIPTION

NEMA 1 Enclosure

Opening the front single door (unscrew/lift off) is not necessary to reach the starters, breakers & switches as there are cut outs so these appear through the door for easy access. Starters and breakers are NEMA or IEC rated.

or

NEMA 12 Enclosure

Two door front with hinges and handle allows easy access to starters, breakers & switches. All starters and breakers are NEMA or IEC rated.

Starters & Overload Coils for Pump Motors

Manual Reset Operators - Turns starters on/off without opening the door

Set of Environmental Controls - heater, blower & GFI convenience outlet

Blower Thermostat

Control Panel Heater - mounted to back of control panel with internal Thermostat

Circuit Breakers & Relays for Vacuum Pumps & Solenoids

SONIC START® Operating Modules

SONIC START® STREAMLINE™ Time Delay Relays

Switch to Operate Constant Prime/On Demand Priming System

Sequential Alternation with Manual Switch - Sequentially alternates the pumps each time a pump starts.

Float Switch Controls Circuit Breaker - Off, Low Level, High Level, & High Water Alarm

Running Time Meters

Pump Motor Circuit Breakers

Pump Motor Handle Locks for Circuit Breakers

H-O-A (Hand-Off-Auto) Switches

3 KVA Transformer Circuit Breaker



Smith & Loveless now offers a cost effective In-Stock Control Panel for Wet Well Mounted Pump Stations and Underground Pump Stations.

Customers can get a significant price break when they buy this off-the-shelf control panel. Once we receive your order, we just install the starters, breakers, and overload coils for the horsepower and voltage you need.

UNDERGROUND CONTROLS

Flooded Suction Control Panels

Every panel will need an entrance tube of 36" minimum to fit down the tube. This control panel operates with float controls, no option for bubbler controls.

NEMA 1

In-Stock Control Panel Sizes
IEC Rated Starters

| HP | VOLTAGE |
|-----|---------|
| 5 | 208 |
| 5 | 230 |
| 5 | 460 |
| 7.5 | 208 |
| 7.5 | 230 |
| 7.5 | 460 |
| 10 | 208 |
| 10 | 230 |
| 10 | 460 |
| 15 | 230 |
| 15 | 460 |
| 20 | 460 |
| 25 | 460 |

COMPONENT DESCRIPTION

NEMA 1 Enclosure

Opening the continuous hinge single door enclosure is not necessary to reach the selector switches and run time meters as these are mounted through the door for easy access. The circuit breakers are UL rated and the pump motor starters are IEC rated.

Starters & Overload Coils for Pump Motors

Set of Environmental Controls - lights, entrance switch, light switch, blower, GFI convenience outlet, & sump pump

Sequential Alternation with Manual Switch - Sequentially alternates the pumps each time a pump starts.

Float Switch Controls Circuit Breaker - Off, Low Level, High Level, & High Water Alarm

Running Time Meters

Pump Motor Circuit Breakers

Pump Motor Handle Locks for Circuit Breakers

H-O-A (Hand-Off-Auto) Switches

Transformer Circuit Breaker

Dare to Compare



\$425

8L29
Top End Single Piston Model



\$406

8L44
Standard Single Piston Model



\$798

8L32
Rugged Dual Piston Model

Prices expire December 31, 2020

Vacuum Pump Single & Dual Piston

| PART # | STATION PIPING SIZE | TYPE |
|--------|---------------------|-------------------------|
| 8L29 | 4" | Top End, Single Piston |
| 8L44 | 4" | Standard, Single Piston |
| 8L32 | 6" | Rugged, Dual Piston |

8L29 Single Piston Vacuum Pump Repair Kit

| PART # | DESCRIPTION |
|--------|--------------|
| 8L29AB | Repair Kit |
| 8L29A1 | Inlet Filter |

8L32 Dual Piston Vacuum Pump Repair Kit

| PART # | DESCRIPTION |
|--------|-------------|
| 8L32-1 | Repair Kit |

Compare Smith & Loveless' Vacuum Pump price to Grainger's price

Old vs New



3/32" Orifice
1L406E
Old Style 3-Way
Solenoid Valve

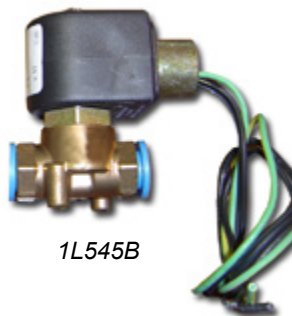


5/16" Orifice
1L545B
New Style 2-Way
Solenoid Valve

The new solenoid valve reduces routine maintenance and can reduce priming time by up to 40%. The new **SONIC START® STREAMLINE™** comes standard with the 2-way 5/16" diameter orifice solenoid valve. If you're not quite ready to upgrade from electrode to the **SONIC START® STREAMLINE™**, then consider at least upgrading to the larger ported 2-way solenoid valve. A variety of upgrades are noted below.

2-Way Solenoid Valve

| PART # | DESCRIPTION |
|------------|---|
| 1L545A | 2-Way Solenoid Valve for bracket mounting |
| 87A481-STK | Din Connection Cable for the 1L545A - Connects via cable solenoid valve to control panel. |
| 1L545B | 2-Way Solenoid Valve thru backpan mounting |
| 1L9D | Nipple, required for 1L545B solenoid valve |
| 5L181A | Conduit Fitting Hub for 1L545B solenoid valve |



Maintenance Video Series

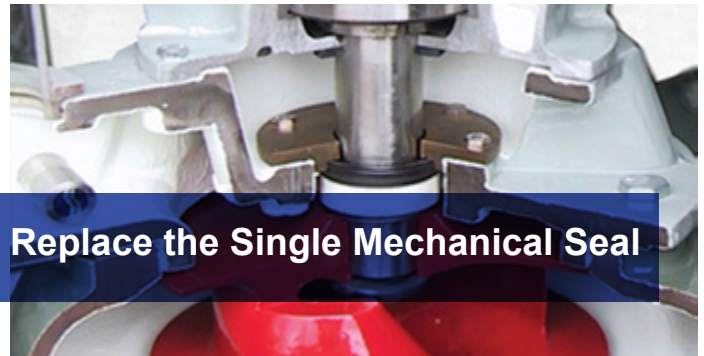
All of Smith & Loveless's products are designed for an extended life span. Certain things can shorten this lifespan and create problems. Smith & Loveless' new Maintenance Video Series video P/N: 12L318DVD-1 goes through the process of using gauges to monitor your pump station, when and how to replace a single mechanical seal, changing out a float check valve, or replacing the reeds in a vacuum pump.

This DVD comes at no charge when you order impellers, vacuum pumps, gauges, float check valves, and seals.

**Become a maintenance expert, order today!
PN: 12L318DVD-1**



Change the Reeds



Replace the Single Mechanical Seal



Change a Float Check Valve



Using Gauges

QUICK SMART™

System Controls

Delivering simplified operation yet powerful pump station control, **QUICKSMART™** Station Controls provide unparalleled ability to monitor and adjust all of your pump station functions with a simple touch of the screen. A new layout makes control modifications, screen navigation and viewing of pump station status easier than ever, with screen function buttons and a status bar accessible from each screen. Added features take station controller functionality to new levels. Like a new maintenance log feature, which displays periodic

recommended operation / maintenance instructions and makes lubrication suggestions based on actual pump run times. Or improved help/troubleshooting support and a new I/O Status screen that displays controller digital and analog I/O status.

QuickSmart also works with StationComm, read more on page 40!

Upgrade your pump station controls today.

Level Set Points

Smith & Loveless Inc. Above All Others™ 15:22 PM 02 Oct. 2013 English Español

Main Overview Pump Alternation Pump Run Time Priming Mode Set Level Set Points Level Simulation HELP

Wet Well Level (ft.) 4.9

Pump 1 OFF

Pump 2 RUNNING

Flow (GPM) 82

Temp (°F) 39

Pumping Levels (ft.)

- Lag Pump On 4.5
- Lead Pump On 3.0
- Pumps Off 1.5

Alarm Levels (ft.)

- 6.0 High-High
- 5.0 High Level
- 0.5 Low Level

Field Defaults Factory Defaults

Pumping and Alarm Levels measured from bottom of transducer.

Environmental Motor Amperage Station COMM Time & Date Maintenance I/O Status Alarm Listing

I/O Status Overview

Smith & Loveless Inc. Above All Others™ 15:22 PM 02 Oct. 2013 English Español

Main Overview Pump Alternation Pump Run Time Priming Mode Set Level Set Points Level Simulation HELP

| Input | Status | Input | Status | Input | Status | Output | Status | Output | Status | Output | Status |
|-------|--------|-------|--------|-------|--------|--------|--------|--------|--------|--------|--------|
| X8 | OFF | X10 | ON | X20 | OFF | Y0 | OFF | Y10 | ON | Y20 | OFF |
| X1 | OFF | X11 | OFF | X21 | OFF | Y1 | ON | Y11 | OFF | Y21 | ON |
| X2 | OFF | X12 | OFF | X22 | ON | Y2 | OFF | Y12 | OFF | Y22 | OFF |
| X3 | ON | X13 | OFF | X23 | OFF | Y3 | ON | | | Y23 | OFF |
| X4 | ON | X14 | OFF | X24 | OFF | Y4 | ON | | | Y24 | OFF |
| X5 | OFF | X15 | ON | X25 | OFF | Y5 | OFF | | | Y25 | OFF |
| X6 | OFF | X16 | OFF | X26 | OFF | Y6 | OFF | | | Y26 | OFF |
| X7 | OFF | X17 | OFF | X27 | ON | Y7 | OFF | | | Y27 | ON |

Off Analog In 2336 Off Analog In 1482 Off Analog In 9 Off Analog In 9

Wet Well Level (ft.) 4.9

Pump 1 OFF

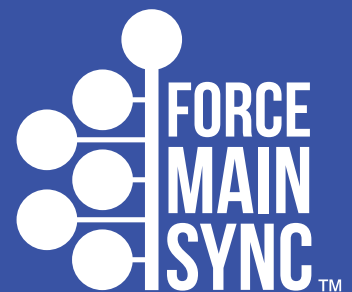
Pump 2 RUNNING

Flow (GPM) 82

Temp (°F) 39

Environmental Motor Amperage Station COMM Time & Date Maintenance I/O Status Alarm Listing

Force Main Sync™ is designed for common force mains with multiple pumps on the common force main creating complex pumping variables.



The Electrode and Vacuum Dome Evolution

| ORIGINAL 2-Hole Vacuum Dome Aluminum Electrode | VERSION 2 1-Hole Vacuum Dome Hollow Electrode | VERSION 3 1-Hole Vacuum Dome Solid Electrode | VERSION 4 1-Hole Vacuum Dome SONIC START® Probe |
|--|---|--|---|
|--|---|--|---|



Obsolete. Original 2-hole Vacuum Dome with aluminum electrode. Use PN: **H87A329A** conversion kit.



Obsolete. Only certain components still available. 1-hole Vacuum Dome with hollow stainless steel electrode. Convert to solid stainless steel electrode with PN: **87B309B & 87B309C**.



Fully supported in Parts. 1-hole Vacuum Dome with solid stainless steel electrode. PN: **87B309B** - 5-1/4" Long Electrode
PN: **87B309C** - 6" Long Electrode



Fully supported in Parts. 1-hole Vacuum Dome with no electrode. Uses **SONIC START®** Probe. PN: **87B452A** (Dome Assembly)

| | |
|---|--|
| VERSION 5 SONIC START® STREAMLINE™ 1-Hole Vacuum Dome, SONIC START® Probe & 2-Way Solenoid Valve | NEWEST VERSION 6 - WaveStart™ 1-Hole Vacuum Dome, WaveStart™ probe & 2-Way Solenoid Valve |
|---|--|



Current Version for all Vacuum Primed Pump Station New Equipment. 1-hole Vacuum Dome with no electrode. Uses **SONIC START®** Probe and relocates larger ported 5/16" diameter orifice 2-way solenoid valve to above vacuum dome. PN: **87B728**
(Vacuum Dome Assembly with Solenoid Valve)



Current Version for all Vacuum Primed Pump Station New Equipment. 1-hole Vacuum Dome with no electrode. Uses **WaveStart™** Probe. PN: **87B728**
(Vacuum Dome Assembly with Solenoid Valve)



ER Relay Evolution



4L29

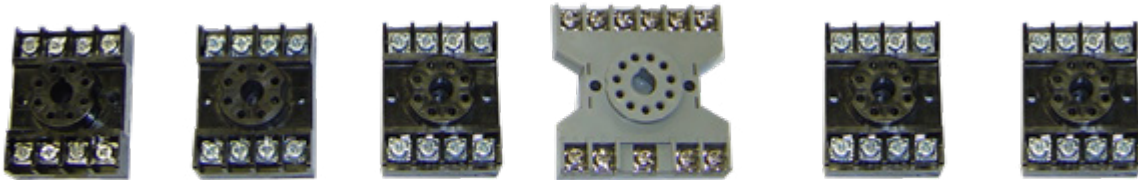
4L408

4L408H
No longer available

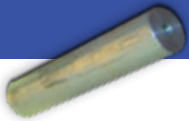
4L408J

4L408Q

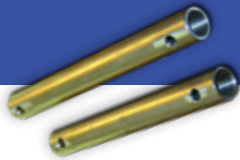
4L264S



Electrode Probe Evolution



Aluminum 87A72
No longer available



Hollow 87A229A & B
No longer available



Solid 87A285 5-1/4" long &
87A285B 6" long



200 millisecond
SONIC START® Probe
4L628N

Newest Components!



4L628B WaveStart™ Probe

4L1178A WaveStart™ Relay
& 4L406B Delay Timer



STRETCHING OUT OUR X-PELLERS®



XPELLER®

EXPANDING THE DIFFERENCE.

We've now expanded our X-PELLER® line to include our 4", 6" and 8" impellers. Thanks to the improved X-PELLER® from Smith & Loveless, you'll spend less time dealing with clogs and more time doing whatever you want. Smith & Loveless has created a solution that is easy on the install and easy on your budget.



Flooded Suction Non-Clog Pump Impellers

Select your Smith & Loveless Flooded Suction Non-Clog Pump Model from the SIZE-IT Chart below and determine whether you need clockwise or counterclockwise rotation. *Includes: (1) non-clog pump impeller.*

4" Pumps

| PUMP MODEL | CW PART # | CCW PART # |
|------------|-----------|------------|
| 4B2*1 | 60B265A | 60B265B |
| 4C2*1 | 60B265C | 60B265D |
| 4B2A*1 | 6B269A | 60B269B |
| TURBO 4B2H | 60D250 | 60D251 |
| TURBO 4B2J | 60D250 | 60D251 |
| TURBO 4B2C | 87D103 | 87D104 |
| 4C2A*1 | 60B269C | 60B269D |
| 4B3 | 60D43 | 60D1 |
| 4C3 | 60D44 | 60D23 |
| 4D3 | 60D129 | 60D193 |
| 4B4A | 60D172 | 60D171 |
| 4C4A | 60D170 | 60D169 |
| 4D4A | 60D164 | 60D163 |
| 4C5 | 60D238 | 60D239 |
| 4D5 | 60D234 | 60D235 |

4" Pumps X-PELLER® Impellers

| | | |
|--------|---------|---------|
| 4B2Y*1 | 60B252A | 60B252B |
| 4B3Y | 60B231A | 60B231B |
| 4C2Y*1 | 60B252C | 60B252D |
| 4C3Y | 60B231C | 60B231D |
| 4D3Y | 60B231E | 60B231F |

8" Pumps

| PUMP MODEL | CW PART # | CCW PART # |
|------------|-----------|------------|
| 8B4A PUMP | 60D138 | 60D139 |
| 8C4A PUMP | 60D120 | 60D119 |
| 8D4A PUMP | 60D118 | 60D117 |
| 8B4B PUMP | 60D209 | 60D210 |
| 8C4B PUMP | 60D178 | 60D179 |
| 8D4B PUMP | 60D150 | 60D151 |
| 8C4C PUMP | 60D198 | 60D199 |
| 8D4C PUMP | 60D188 | 60D189 |
| 8C5A PUMP | 60D196 | 60D197 |
| 8D5A PUMP | 60D180 | 60D181 |

6" Pumps

| PUMP MODEL | CW PART # | CCW PART # |
|------------|-----------|------------|
| 6B3 PUMP | 60D45 | 60D34 |
| 6C3 PUMP | 60D47 | 60D46 |
| 6D3 PUMP | 60D90 | 60D192 |
| 6B3A PUMP | 60D203 | 60D202 |
| 6C3A PUMP | 60D187 | 60D186 |
| 6D3A PUMP | 60D176 | 60D168 |
| 6B3C PUMP | 60D222 | 60D224 |
| 6C3C PUMP | 60D221 | 60D223 |
| 6D3C PUMP | 60D212 | 60D213 |
| 6B4C PUMP | 60D201 | 60D200 |
| 6C4C PUMP | 60D198 | 60D199 |
| 6D4C PUMP | 60D188 | 60D189 |

6" Pumps X-PELLER® Impellers

| | | |
|------|--------|--------|
| 6B3Y | 60B204 | 60B209 |
| 6C3Y | 60B217 | 60B218 |
| 6D3Y | 60B219 | 60B220 |

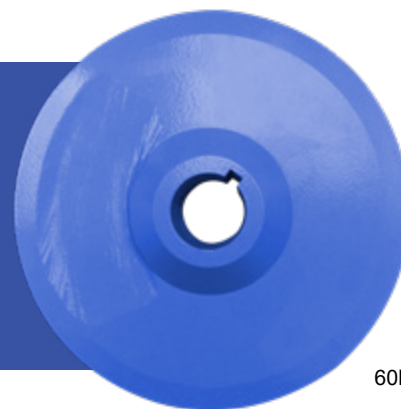
10" Pumps

| PUMP MODEL | CW PART # | CCW PART # |
|------------|-----------|------------|
| 10C5A PUMP | 60D196 | 60D197 |
| 10D5A PUMP | 60D180 | 60D181 |
| 10D6 PUMP | 60D155 | 60D156 |

12" Pumps

| PUMP MODEL | CW PART # | CCW PART # |
|------------|-----------|------------|
| 12D5 PUMP | 60D134 | 60D207 |

Vacuum Primed Non-Clog Pump Impellers



60D45

| 4" Pumps | CW | CCW |
|------------|---------|---------|
| PUMP MODEL | PART # | PART # |
| 4B2B*1 | 60B265A | 60B265B |
| TURBO 4B2C | 87D103 | 87D104 |
| 4B2D*1 | 60B269A | 60B269B |
| 4B3B | 60D43 | 60D1 |
| 4C2B*1 | 60B265C | 60B265D |
| 4C2D*1 | 60B269C | 60B269D |
| 4C3B | 60D44 | 60D23 |
| 4D3B | 60D129 | 60D193 |
| 4D4B | 60D259 | 60D258 |

| 6" Pumps | CW | CCW |
|------------|--------|--------|
| PUMP MODEL | PART # | PART # |
| 6B3B PUMP | 60D45 | 60D34 |
| 6C3B PUMP | 60D47 | 60D46 |
| 6D3B PUMP | 60D90 | 60D192 |

| 6" Pumps X-PELLER® Impellers | CW | CCW |
|------------------------------|--------|--------|
| PUMP MODEL | PART # | PART # |
| 6B3X | 60B204 | 60B209 |
| 6C3X | 60B217 | 60B218 |
| 6D3X | 60B219 | 60B220 |

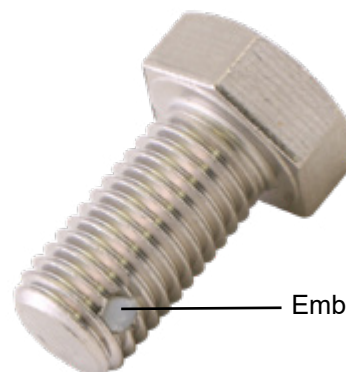
| 4" Pumps X-PELLER® Impellers | CW | CCW |
|------------------------------|---------|---------|
| PUMP MODEL | PART # | PART # |
| 4B2X*1 | 60B252A | 60B252B |
| 4C2X*1 | 60B252C | 60B252D |
| 4C3X | 60B231C | 60B231D |
| 4D3X | 60B231E | 60B231F |

| 8" Pumps | CW | CCW |
|------------|--------|--------|
| PUMP MODEL | PART # | PART # |
| 8C4D PUMP | 60D178 | 60D179 |
| 8D4D PUMP | 60D150 | 60D151 |

Impeller Bolts

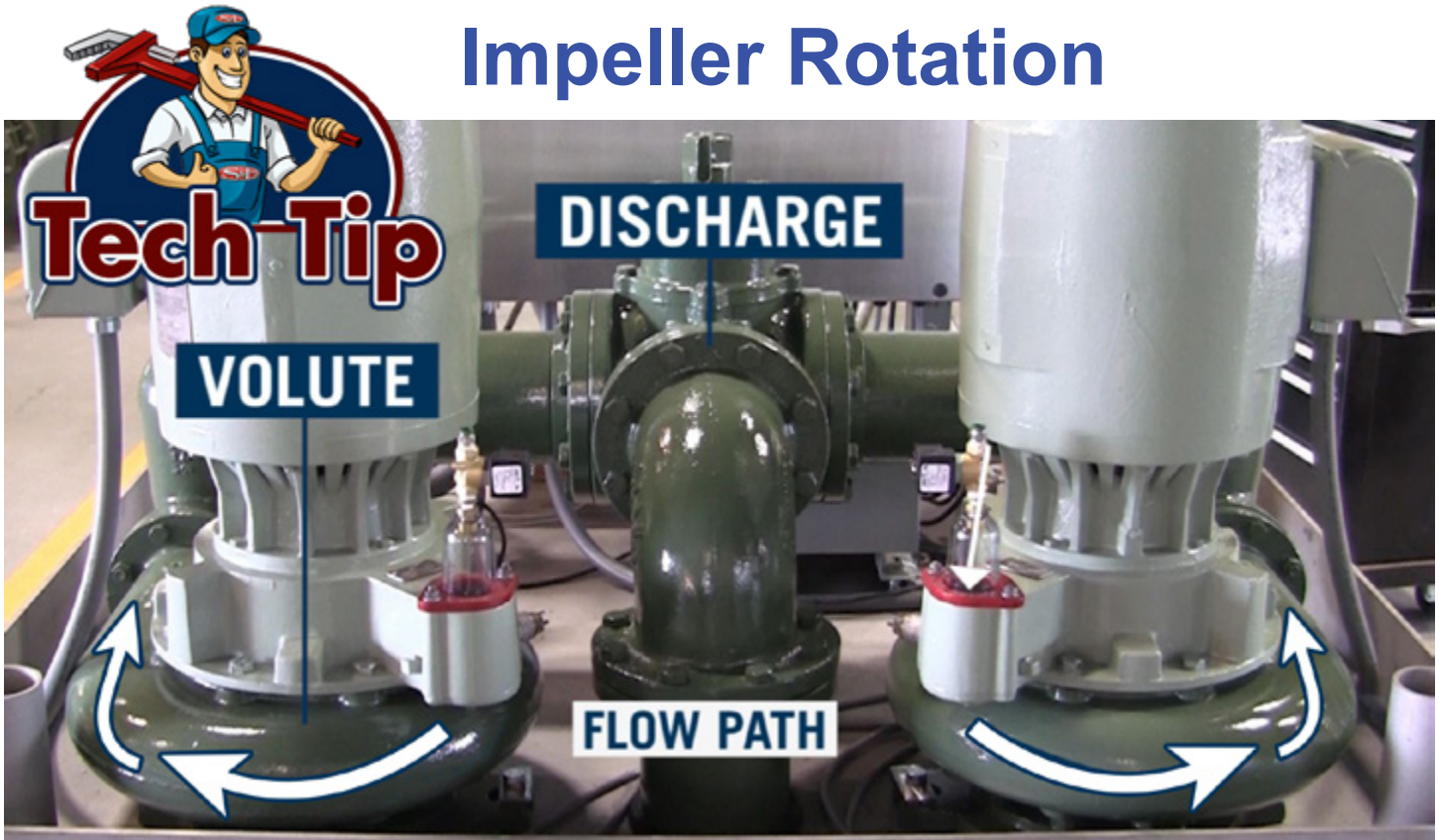
Smith & Loveless' Impeller Bolts feature embedded Nylock. Each time you remove the impeller, replace the Impeller Bolt. Remember to torque impeller bolts to 150 ft/lbs. Here are the part numbers for the Impeller Bolt.

| PART # | SHAFT SIZE |
|--------|-----------------|
| 60A12 | B-Shaft: 1-7/8" |
| 60A12 | C-Shaft: 2-1/8" |
| 60A86 | D-Shaft: 3" |

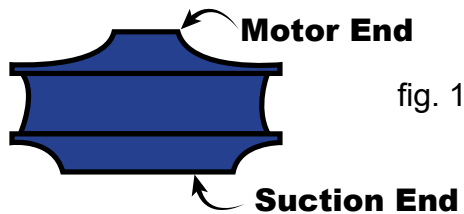


Embedded Nylock

Impeller Rotation



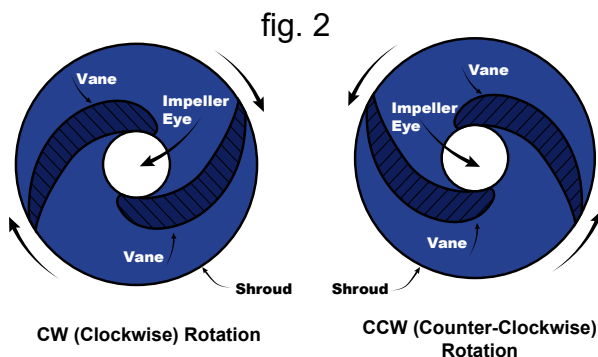
Determining impeller rotation is one of the most common questions customers ask. If you have the impeller already removed, the first thing is to make sure the “motor end” with keyway is up and the larger opening “suction end” is down.



If you haven't removed the pump yet, you can still determine the rotation of the pump and impeller by looking at the equipment and how the wastewater flows through the pump.

On all Smith & Loveless Duplex Wet Well Mounted Pump Stations, there is a CW and CCW pump. The pump draws the wastewater up from the wet well and into the volute that houses the impeller. The pump then discharges the wastewater out of the volute. This can be seen in fig. 3 by following the arrows. By looking at the directional flow of the wastewater through the pump, the rotation can be determined.

Then looking down on the impeller with the “motor end” up, determine which way the vanes curve. The first drawing shows a CW (Clockwise) rotation. The second drawing shows a CCW (Counter-Clockwise) rotation.



In the diagram, the flow is pulled into the pump from the wet well that is located directly under the pump. The pump on the left in this diagram is the CW (Clockwise) rotation. The pump on the right in this diagram is the CCW (Counter-Clockwise) rotation. The flow always circulates around the volute first and then out through the volute discharge. Whatever rotation this flow path is will determine whether the impeller and pump are CW or CCW in rotation.

If you'd like to watch a video on determining impeller rotation, you can find it online at:

https://youtu.be/_V2d2DC_A40

Bubbler Air Compressors



9L25C

Used on all Smith & Loveless Underground Pump Stations are the Bubbler Air Compressors. We sell two replacement Bubbler Air Compressors, the 9L25C and the 9L25. The 9L25C is the smaller of the two units and the 9L25 is the larger. Otherwise, they perform the same way.

BUBBLER AIR COMPRESSORS

Includes: (1) bubbler air compressor.

| PART # | DESCRIPTION |
|--------|------------------------|
| 9L25C | Bubbler Air Compressor |
| 9L25 | Bubbler Air Compressor |



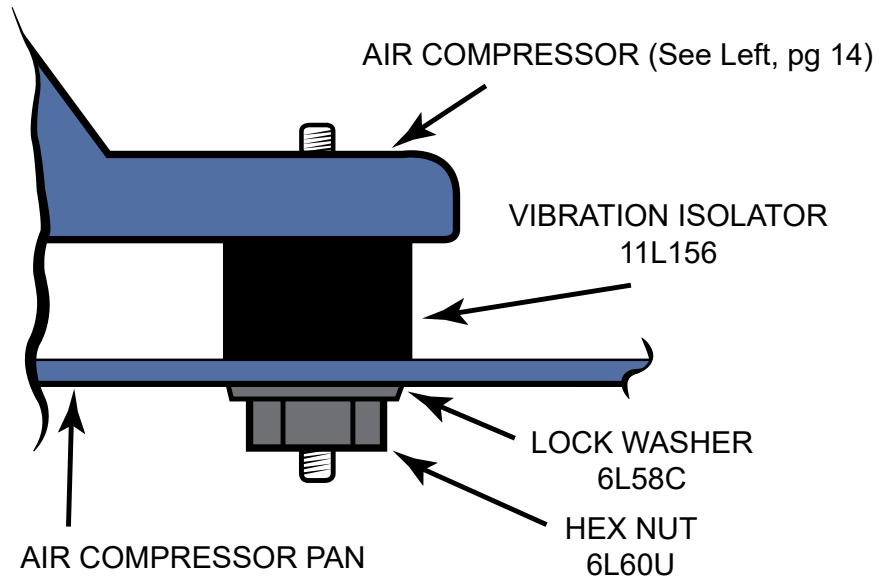
Avoid having to redrill the mounting holes. The 9L25C has 3 mounting feet and the 9L25 has 4 mounting feet. Check to see which style you already have installed.



9L25

Vibration isolator

for the direct air bubbler compressor
compressor foot



Underground Pump Station Humidistat & Dehumidifier

Humidity can quickly create problems if it is not controlled. As part of your Spring equipment review, make sure the Smith & Loveless Humidistat PN: 4L215 and Dehumidifier PN: 11L150C are functioning correctly. You easily set the level of desired humidity with the convenient dial switch and the PN: 4L215 Humidistat will operate the dehumidifier PN: 11L150C. It handles relative humidity 0 to 70%.

HUMIDISTAT & DEHUMIDIFIER

Includes: (1) humidistat and/or (1) dehumidifier



| PART # | DESCRIPTION |
|---------|--------------|
| 4L215 | Humidistat |
| 11L150C | Dehumidifier |

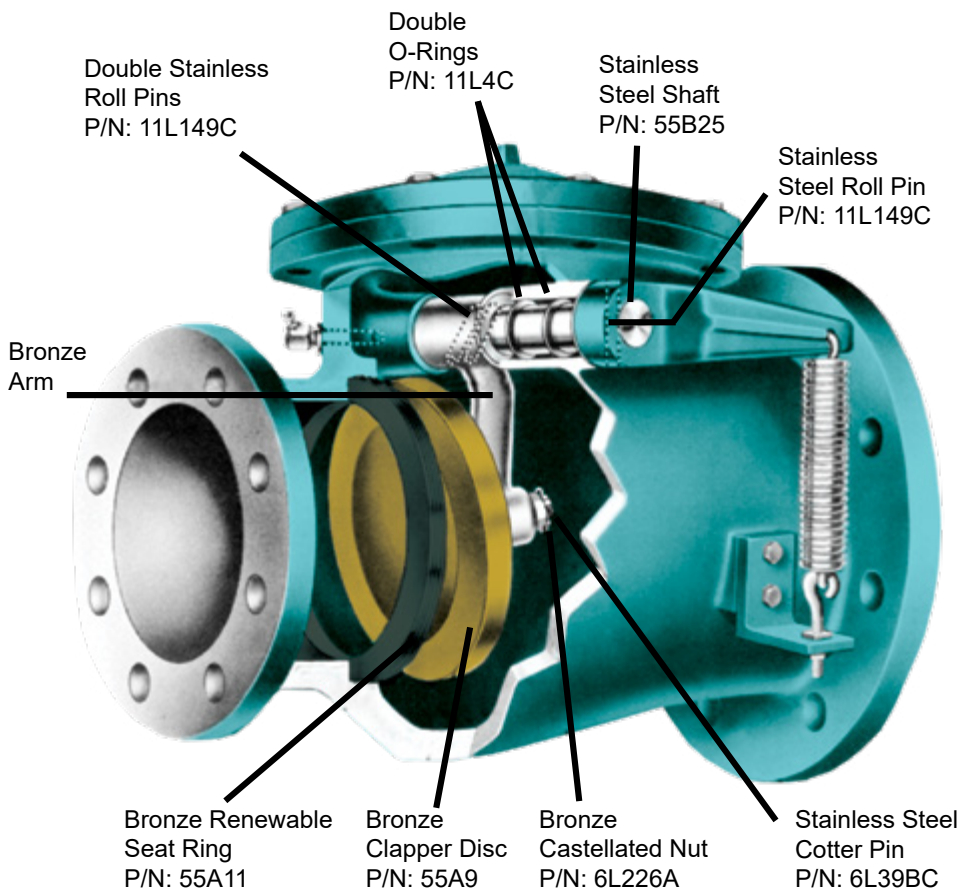
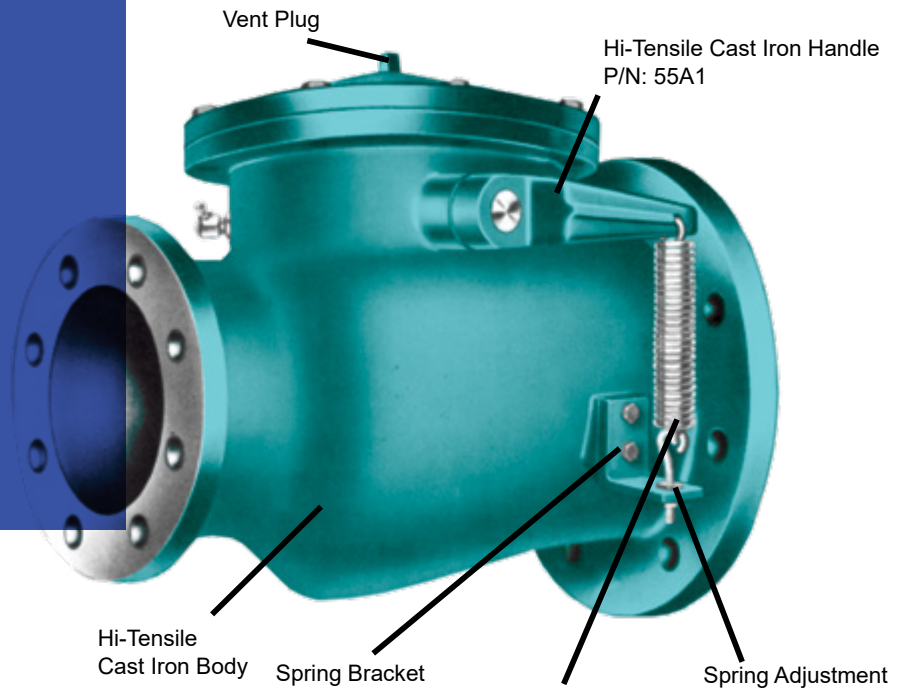


4L215



Spring-Loaded Non-Slamming Check Valves

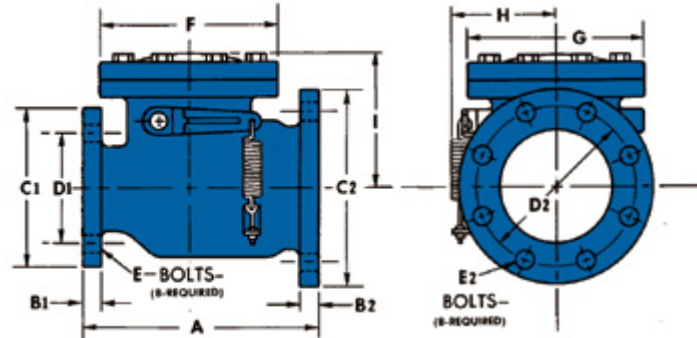
These two 3-D drawings of the Smith & Loveless Spring-Loaded Non-Slamming Check Valves highlight some of their key features of P/N: 2L34A/AA and 2L35A/AA.



Key Advantages

- Eliminates the need for increasing fittings — saving space, materials and labor cost.
 - Spring-loaded gate, non-slamming design.
 - Highest quality construction with cast iron body, bronze and stainless steel fittings.
 - Lubricated dual O-ring shaft seals for easy opening and longer service life.
 - Shaft extension allows right or left hand mounting of lever and spring assembly.
-
- Simple design and operation — all parts accessible through cover.

Dimension Drawing Keys



Dimension Chart

| Part # | Size of Valve | RH Vs. LH | A | B ₁ | B ₂ | C ₁ | C ₂ | D ₁ | D ₂ | E ₁ | E ₂ | F | G | H | I | Wt. In Lbs. |
|--------|---------------|-----------|----------------------------------|-------------------------------|--------------------------------|----------------|---------------------------------|--------------------------------|---------------------------------|-----------------------------|-----------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|-------------|
| 2L34A | 4" x 4" | RH | 13- ⁵ / ₁₆ | ¹⁵ / ₁₆ | ¹⁵ / ₁₆ | 9 | 9 | 7- ¹ / ₂ | 7- ¹ / ₂ | ⁵ / ₈ | ⁵ / ₈ | 10 | 10 | 6- ¹ / ₄ | 7- ³ / ₁₆ | 125 |
| 2L34AA | 4" x 4" | LH | 13- ⁵ / ₁₆ | ¹⁵ / ₁₆ | ¹⁵ / ₁₆ | 9 | 9 | 7- ¹ / ₂ | 7- ¹ / ₂ | ⁵ / ₈ | ⁵ / ₈ | 10 | 10 | 6- ¹ / ₄ | 7- ³ / ₁₆ | 125 |
| 2L35A | 4" x 6" | RH | 13- ⁵ / ₁₆ | ¹⁵ / ₁₆ | ¹⁵ / ₁₆ | 9 | 11 | 7- ¹ / ₂ | 9- ¹ / ₂ | ⁵ / ₈ | ³ / ₄ | 10 | 13- ¹ / ₂ | 6- ¹ / ₄ | 7- ³ / ₁₆ | 130 |
| 2L35AA | 4" x 6" | LH | 13- ⁵ / ₁₆ | ¹⁵ / ₁₆ | ¹⁵ / ₁₆ | 9 | 11 | 7- ¹ / ₂ | 9- ¹ / ₂ | ⁵ / ₈ | ³ / ₄ | 10 | 13- ¹ / ₂ | 6- ¹ / ₄ | 7- ³ / ₁₆ | 130 |
| 2L35B | 4" x 8" | RH | 18- ¹ / ₄ | ¹⁵ / ₁₆ | 1- ¹ / ₈ | 9 | 13- ¹ / ₂ | 7- ¹ / ₂ | 11- ³ / ₄ | ⁵ / ₈ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 225 |
| 2L35BB | 4" x 8" | LH | 18- ¹ / ₄ | ¹⁵ / ₁₆ | 1- ¹ / ₈ | 9 | 13- ¹ / ₂ | 7- ¹ / ₂ | 11- ³ / ₄ | ⁵ / ₈ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 225 |
| 2L35C | 5" x 8" | RH | 18- ¹ / ₄ | ¹⁵ / ₁₆ | 1- ¹ / ₈ | 10 | 13- ¹ / ₂ | 8- ¹ / ₂ | 11- ³ / ₄ | ³ / ₄ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 235 |
| 2L35CC | 5" x 8" | LH | 18- ¹ / ₄ | ¹⁵ / ₁₆ | 1- ¹ / ₈ | 10 | 13- ¹ / ₂ | 8- ¹ / ₂ | 11- ³ / ₄ | ³ / ₄ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 235 |
| 2L35D | 6" x 8" | RH | 18- ¹ / ₄ | 1 | 1- ¹ / ₈ | 11 | 13- ¹ / ₂ | 9- ¹ / ₂ | 11- ³ / ₄ | ³ / ₄ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 240 |
| 2L35DD | 6" x 8" | LH | 18- ¹ / ₄ | 1 | 1- ¹ / ₈ | 11 | 13- ¹ / ₂ | 9- ¹ / ₂ | 11- ³ / ₄ | ³ / ₄ | ³ / ₄ | 13- ¹ / ₂ | 13- ¹ / ₂ | 8- ³ / ₄ | 9- ¹ / ₂ | 240 |

Flooded Suction Pump Seal Filter

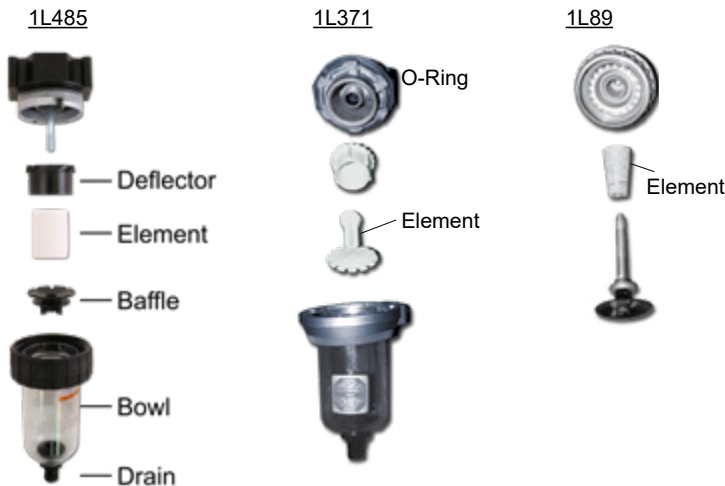


1L485

In 1996, the Smith & Loveless Seal Filter for non-clog flooded suction pumps was changed to PN: 1L485 (seen right) in order to provide a larger filtration volume than the previous version PN: 1L371. The seal filter element surface area jumped from 1 square inch (1L371) to 6 square inches of filter area. This greatly lengthens the time between the need to clean or change out the seal water filter element. The PN: 1L485 Seal Filter is used on all of Smith & Loveless' Flooded Suction Pumps. The **PISTA**® Turbo Grit Pump, **PISTA**® Grit Pump and Smith & Loveless Underground Pump Stations feature this type of pump. No piping changes are required to convert from the PN: 1L371 to the PN: 1L485. Includes: (1) seal filter assembly.

Complete Flooded Suction Pump Seal Filter Assembly.

| PART # | DESCRIPTION |
|--------|----------------------|
| 1L485 | Seal Filter Assembly |



1L485, 1L371 & 1L89 Parts

Smith & Loveless carries a full line of repair kits for the PN: 1L485. For the older style PN: 1L371 and PN: 1L89, Smith & Loveless still carries some of the element components. The PN: 1L485 is a direct replacement to both the PN: 1L371 and PN: 1L89 so it can be put in place easily.

1L485, 1L371 and 1L89 Repair Kits and Spare Parts

| PART # | DESCRIPTION | PART # | DESCRIPTION |
|--------|--|--------|-------------|
| 1L485A | Filter Element Kit: incl. Bowl O-Ring & Filter Element | 1L371C | O-Ring |
| 1L485B | Bowl Kit: incl. Bowl, Bowl O-Ring & Drain Kit | 1L371E | Element |
| 1L485C | Drain Kit: incl. Twist Drain & Drain O-Ring | 1L89E | Element |
| 1L485D | Baffle Kit: incl. Baffle, Deflector, & Bowl O-Ring | | |

SONIC START® STREAMLINE™

The clean and simplified **SONIC START® STREAMLINE™** Prime Sensing System relocates the solenoid valve and **freed** 50% of the original fitting connection points for an improved priming system. Here's the system features.

Quick Disconnect Male Fitting
PN: 1L460E

Improved with circular uniform constriction fit, eliminating tubing gouges.

SONIC START® STREAMLINE™
Vacuum Dome Assembly
PN: 87B728

Relocating the 2-way solenoid valve to on top of the vacuum dome takes sewage pump pressure off of the vacuum tubing and tubing fittings, which stops liquid and debris from going beyond the vacuum dome. This eliminates routine cleaning of the solenoid valve and the vapor filter.



SONIC START® Probe
PN: 4L628N
a new faster 200 millisecond **SONIC START®** Probe.



Delay Timer PN: 4L406B Eliminates relay races between the vacuum pump and prime sensor after power surges or power loss.

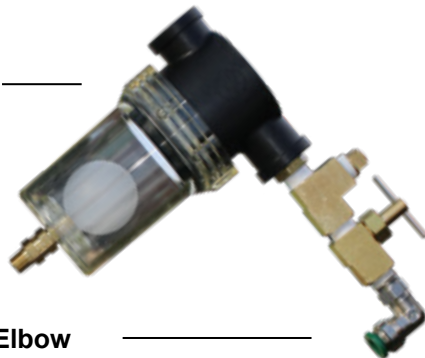


Vacuum Release Valve PN: 1L764B

Located at the volute's gauge port, in case access to the solenoid or inside of the vacuum dome is required, vacuum is released here. Assembly includes a close nipple. PN: 1L28B and a straight tee PN: 1L37B.

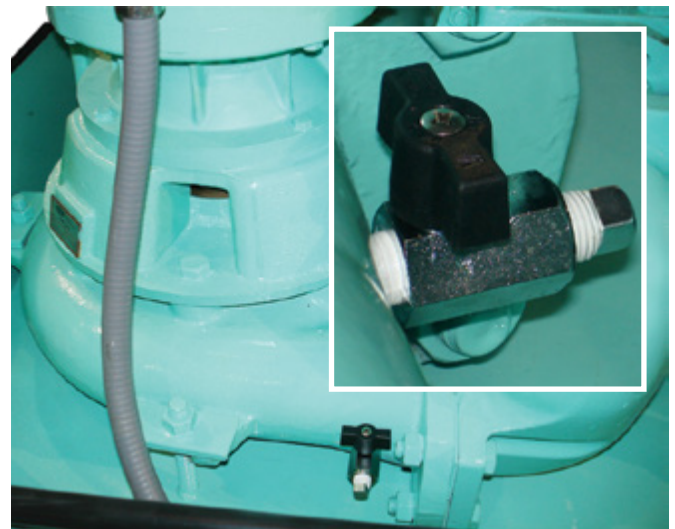
Vacuum Pump Piping Arrangement
PN: 87B739

No solenoid valve located here or at the control panel anymore.




Quick Disconnect 90° Elbow
PN: 1L546C

Improved with circular uniform constriction fit, eliminating tubing gouges.



Goodbye
Flushables
Hello
Freedom





WLSTM

WaveStartTM

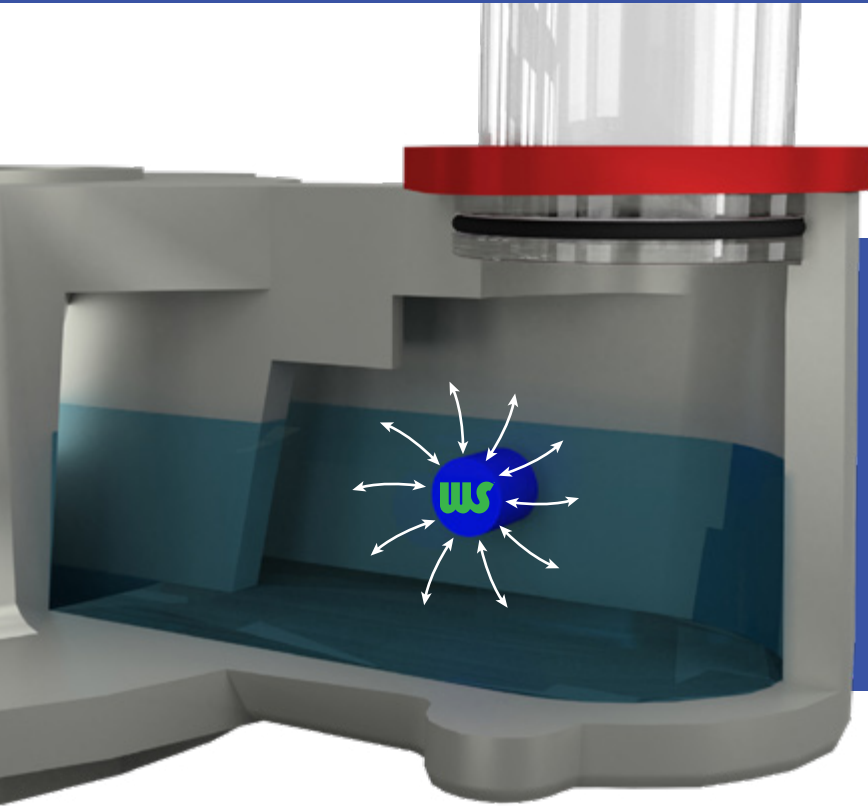
Priming System

The new patent pending **WaveStartTM** priming system by Smith & Loveless Inc. says hello to freedom. The **WaveStartTM** was specifically designed to incorporate a new sensing technology that brings fast and effective pump priming in an environment containing flushables and debris. Rags, strings, wipes or other flushable debris do not prevent **WaveStartTM** from sensing the pump's prime status, making it the best prime sensing technology on the market today.

The secret behind **WaveStartTM** is a custom and proprietary design that incorporates Multi-Variable SensingTM to define the unique profile of wastewater when determining the pump's prime status. Reaction time is decreased to provide better system response and the probe has a smaller profile. The result to you - freedom from flushables.

Order today!
800-922-9048

Hello Freedom

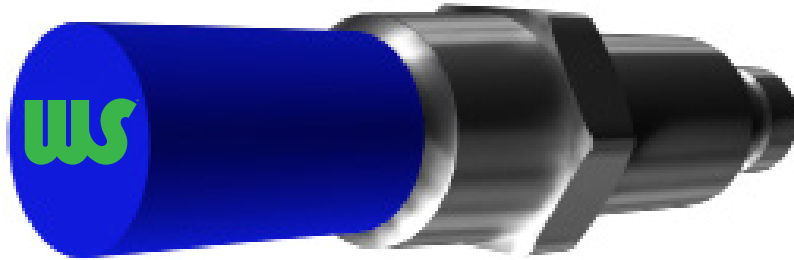


The proprietary **WaveStart™** system determines prime status by sensing multiple variables in the area surrounding the probe and using an embedded algorithm to evaluate the signals and determine whether liquid is present. This sensing technology, along with the smaller profile of the probe will limit the effect that rags, strings, and other flushables can have on the system. By decreasing the reaction time to less than 100 milliseconds, the vacuum priming system response time is improved.

Call 1-800-922-9048 or contact us at Parts@smithandloveless.com and ask for your **WaveStart™** Kit today!

Fighting Flushables

Products making operator's lives better - fighting back against flushables



The **WaveStart™** is the newest product in Smith & Loveless' *Fighting Flushables* product line. With the ever-increasing number of flushables field operators face, Smith & Loveless developed the best non-clog mono-ported pump on the market today with the **X-PELLER™** Impeller. Flushables can be so overwhelming that customers can be forced to pull their pumps 3 and 4 times a week to unclog them. With the **X-PELLER™** Impeller, customers now go 6 months to years without

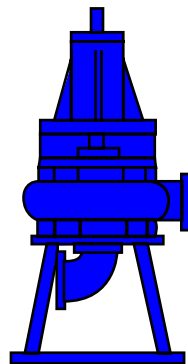
having to pull a pump due to flushables. Building upon the **X-PELLER™** name is the **RapidJack™** Wafer Check Valve that allows operators to pull the check valve, remove the rags and reinstall it in 15 minutes or less. And now with **WaveStart™**, the newest *Fighting Flushables* product, that incorporates **Multi-Variable Sensing™** to determine whether the pump is primed even when rags, strings or film build-up are present.

Attention: Owners and Operators of Allis-Chalmers, Aurora, and Fairbanks-Morse vertical mounted sewage pumps.

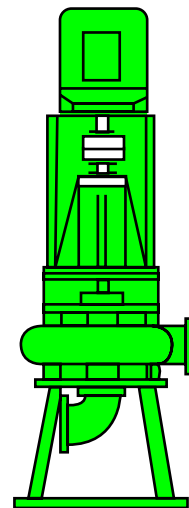
Bolt-on Top Performance by Upgrading to Smith & Loveless Rotating Assemblies.

It's as easy as 1, 2, 3

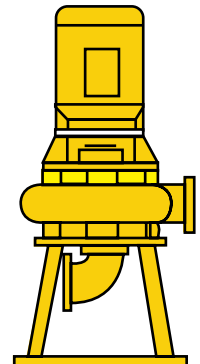
1. Find existing pump model from chart below
2. Identify Smith & Loveless drop-in replacement
3. Relax & reap the rewards:
 - Premium performance
 - Low maintenance
 - Less energy usage
 - Reduced operating costs



In-line Shaft pump



Flex-Coupled pump



Close-Coupled pump

| Replacement Rotating Assemblies Available for: | | | | S&L Rotating Assemblies: |
|--|--------|-----------|---------------------|--------------------------|
| Allis-Chalmers | 4x4x14 | Type NSWV | Model 200, 300, 400 | 4D4 |
| Allis-Chalmers | 8x6x17 | Type NSWV | Model 200, 300, 400 | 6D5 |
| Aurora Pump Co. | 8Ex10 | Type KU | Series | 8D5 |
| Aurora Pump Co. | 10Ex10 | Type KU | Series | 10D5 |
| Aurora Pump Co. | 12Ex10 | Type KU | Series | 12D5 |
| Fairbanks-Morse | 4" | Fig. | 5412, 5432, 5442 | 4B2 |
| Fairbanks-Morse | 4" | Fig. | 5413, 5433, 5443 | 4B3 |
| Fairbanks-Morse | 5" | Fig. | 5413, 5433, 5443 | 6B3 |



Technically advanced for practical performance.

Smith & Loveless pumps have many outstanding features which make them work **for you not against you.**

- The oversized shaft minimizes shaft deflection, resulting in extended seal and bearing life.
- The bronze mechanical seal housing provides the best possible heat dissipation prevents the formation of abrasive rust particles in the seal.
- The non-clog impeller with a streamlined eye will pass 3" solids.
- Custom-trimmed impeller vanes are designed for maximum efficiency. The back shroud is full diameter to prevent stringy material from winding around the shaft and the front shroud is also full diameter to prevent recirculation of pumped liquid and improve efficiency.
- Smith & Loveless's compact design minimizes pump height, thus reducing vibration and extending seal and bearing life.

Replacement pumps available:

Fairbanks-Morse
Cornell
Allis-Chalmers
Chicago

Aurora
Deming-Crane
Clow
Hydromatic

Tired of excessive maintenance costs and down-time due to limited seal life, bearing and shaft failure, and frequent clogging? A simple economic way to give new life to your wastewater pumping system is to install high-performance, energy-efficient Smith & Loveless pump or drop-in rotating assembly.

Upgrading to Smith & Loveless quality is fast and easy whether you presently have close-coupled, flex-coupled, or in-line shaft driven pumps. The S&L rotating assembly bolts right into the existing volute casing while the Smith & Loveless complete pump bolts right onto the base - no cutting no welding, no piping changes! The installation takes just minutes, with a few simple tools and factory supplied parts. Just bolt on, connect the motor leads, and keep on pumping.

Fast and simple: Bolt on, turn on.

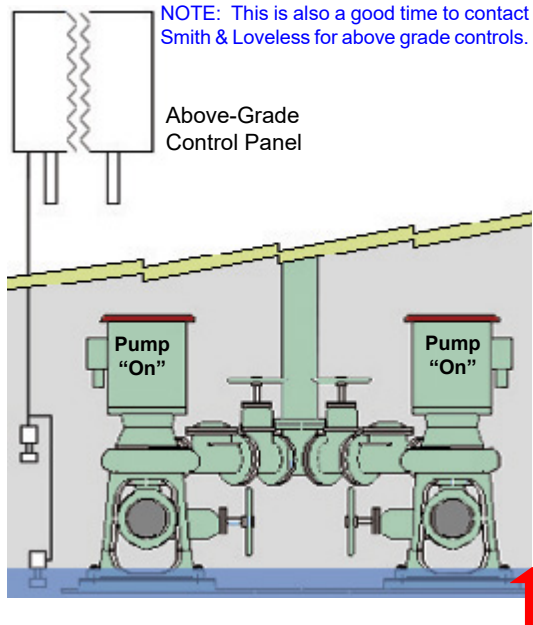
Call: 800.922.9048

www.smithandloveless.com

How It Works: I-SERIES™ Immersibles

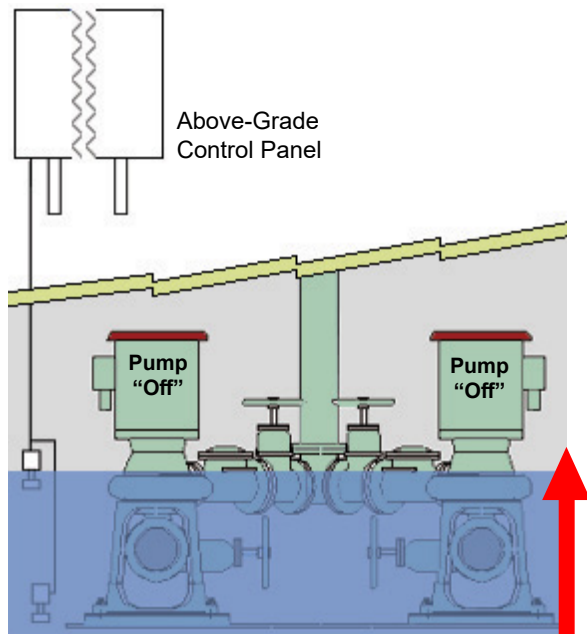
Smith & Loveless I-SERIES™ Immersible Wastewater Pumps not only offer peace of mind for flood-prone pumping applications, but also the high pump efficiencies, long-term durability and the single-source reliability available exclusively from Smith & Loveless. Here's a quick step-by-step overview of how the I-SERIES™ Immersible Pumps by Smith & Loveless operate during flood events.

Dry Pit Begins to Flood



Rising water level trips a float switch, causing an alarm to signal the SCADA system. Pumps continue to run normally.

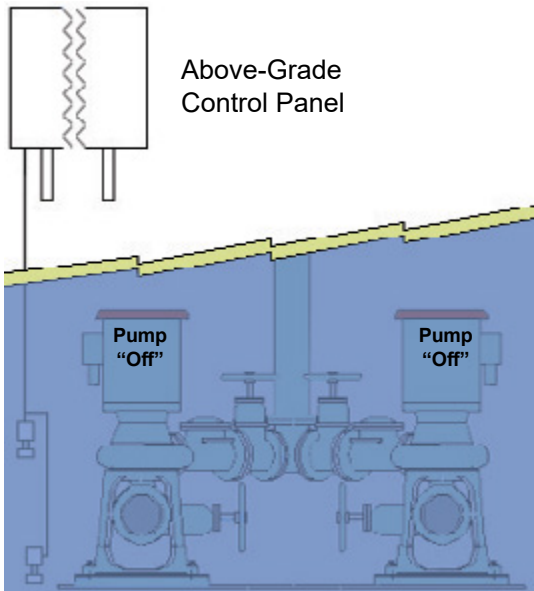
Dry Pit Continues to Flood & the Pumps Shut Down



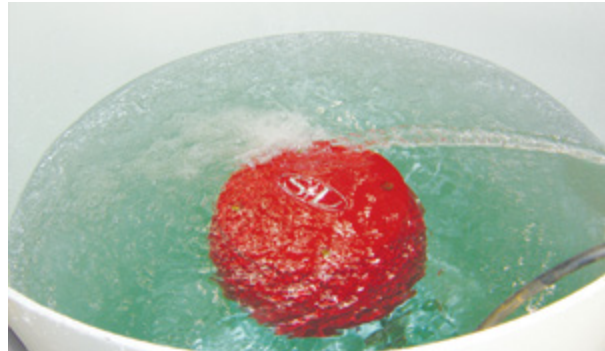
Rising water level trips second float switch, causing pumps to shut down. Smith & Loveless recommends the shutdown option because at some point, usually within 24 to 48 hours, the pump station will need to be dewatered. By using the pump shutdown option, it allows the operator to evaluate whether the cause is catastrophic, such as a collapsed suction or discharge pipe, or check valve.

While the Pumps are immersed in the dry-pit, **I-SERIES™** Immersible Pump special end bell seals prevent leakage into the motors for up to 3 weeks, up to 30' of water, protecting the motors from major damage.

Note: Many engineers will specify suction valving, which manually allows field technicians to use the **I-SERIES™** pump to dewater the dry-pit. This saves manhours and additional onsite equipment costs. In addition, the industry trend is progressing toward “pump around vaults and connections,” which the **I-SERIES™** Pump supports. Consult Smith & Loveless or its local representative for additional assistance.



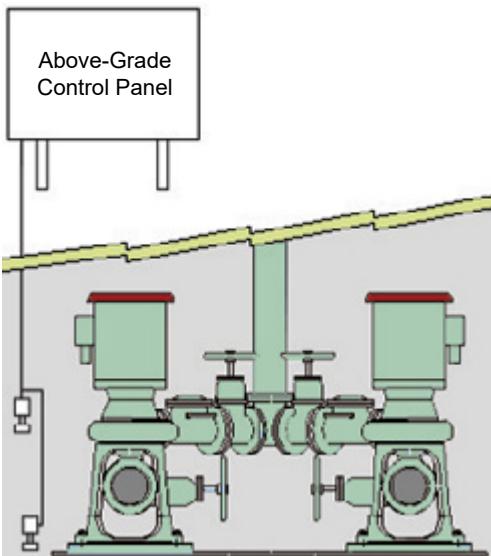
Another option is to run the **I-SERIES™** pump under water until the pump station can be dewatered.



Rising water can immerse pump motors for up to 3 weeks, in 30' of water.

The I-Series™ Runs Normally Until the Next Flood Event

The dry-pit is dewatered, leak detector checked, fan checked and all OK, the **I-SERIES™** runs normally until the next flood event.



Check the Cooling Fan after a flood.



IT'S DRY! Conduit Box after submersion.

Following the flood event, check the leak detector and thermistor signals.

If the pumps were cycled during the immersion, check the motor cooling fan to see if it requires change out.

Once inspections are complete, commence with pumping.



RapidJack

Unclogging a valve is normally a messy, labor-intensive process.

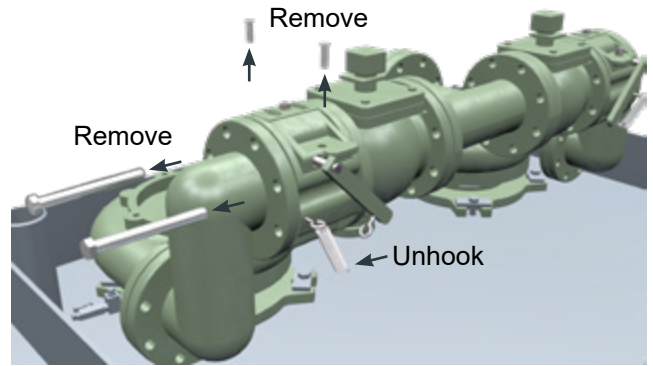
Clearing wafer check valves of stringy materials and obstructions will now take 15 minutes or less.

Designed for quick removal, just 4 bolts allow the clapper system to be removed while the **RAPIDJACK™** valve body remains in the piping. Simply remove the obstruction, reinsert the clapper system and the four bolts and go!

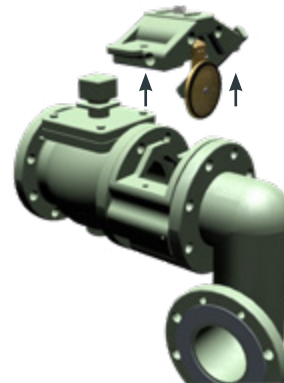
Smith & Loveless has done what no other company has been able to engineer, the revolutionary new **RAPIDJACK™** wafer check valve.

RAPIDJACK™ 3 STEPS TO CLEAN

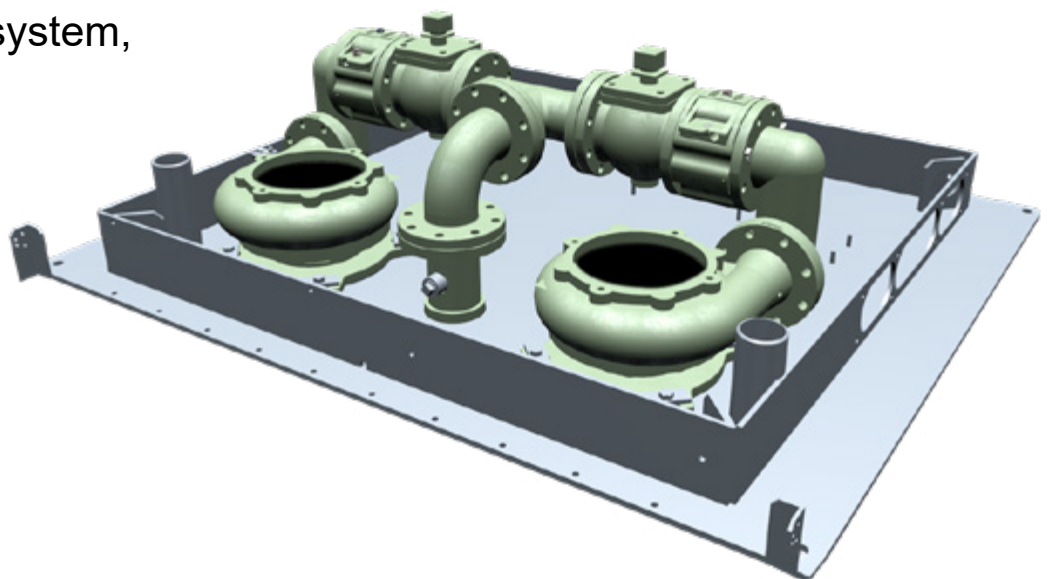
1. Remove four bolts & one spring.



2. Lift the clapper system of the **RAPIDJACK™** check valve, remove debris.



3. Reinstall clapper system, bolts, & spring.

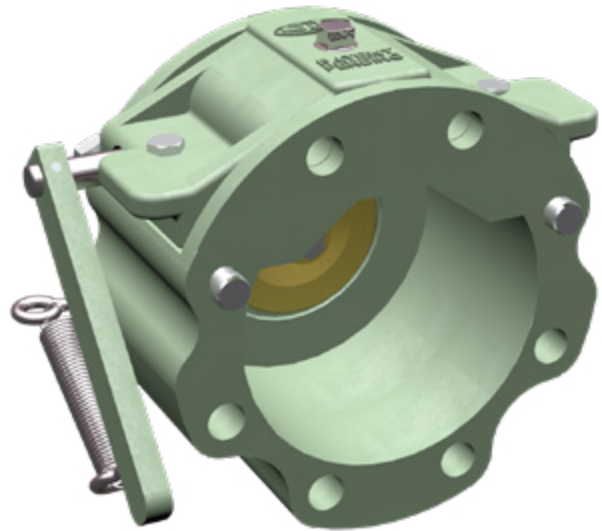


4 RAPIDJACK™ Buying options

Option 1: Part

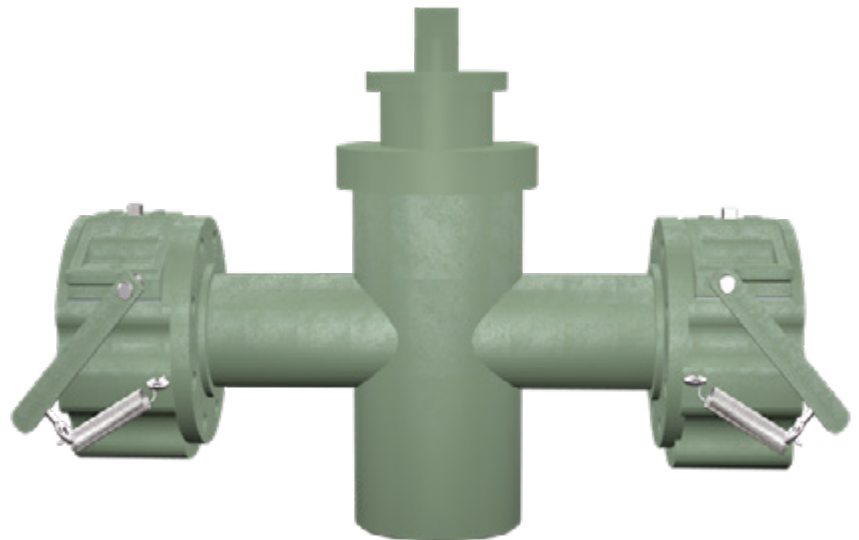
The **RAPIDJACK™** can be purchased as a standalone part that inserts into new piping layouts or can replace valves measuring 5" lay length.

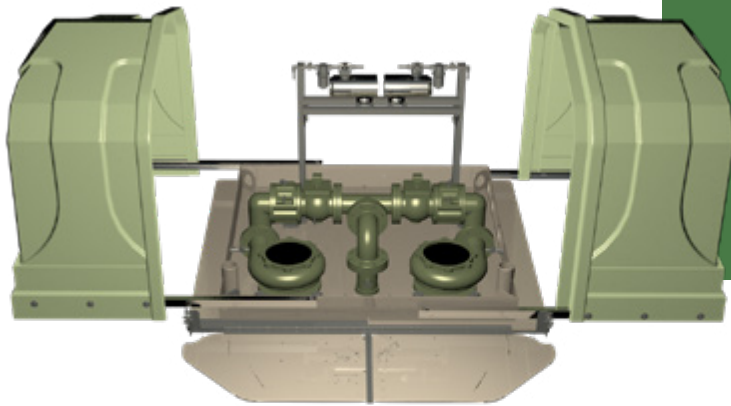
Must have space for a 5" lay length.



Option 2: Piping Skid

Many Smith & Loveless pump stations require a new piping skid to insert the **RAPIDJACK™** because the lay length of the **RAPIDJACK™** is a little more than a standard wafer check valve. Smith & Loveless can review each pump station's piping layout and determine what piping modifications are required. In many cases two spool pieces, two **RAPIDJACK™** check valves, and a 3-way plug valve will be required.





Option 3: SST Baseplate/Piping Upgrade

Many Smith & Loveless pump stations have been in service more than 25 years. With time, wear occurs. By upgrading to the SST Baseplate/Piping option that features the **RAPIDJACK™** check valve, cities can reuse rotating assemblies and control panels and have an upgraded pump station with the latest features for a cost effective price. This option features the SST **DURO-LAST™** baseplate featuring a 25-year warranty. Additionally, this is available in the **EVERLAST™**'s 1-piece and 2-piece hood designs, with additional features that include the Pump Failure Alarm, Hood Lift Assist (if the one piece hood is selected), wet well Cord manager, 2 new vacuum pumps on raised shelf, 2-piece manway to the wet well entrance, and **RAPIDJACK™**.

25
YEAR
WARRANTY

duro LAST™
STAINLESS STEEL BASEPLATE



Option 4: EVERLAST™ Pump Station with RAPIDJACK™

The premier option is a new **EVERLAST™** Pump Station with the **RAPIDJACK™**. Engineered for flexibility, every **EVERLAST™** pump station's piping arrangement has the room to add the **RAPIDJACK™** when originally purchased or purchased at a later date.


EVERLAST™

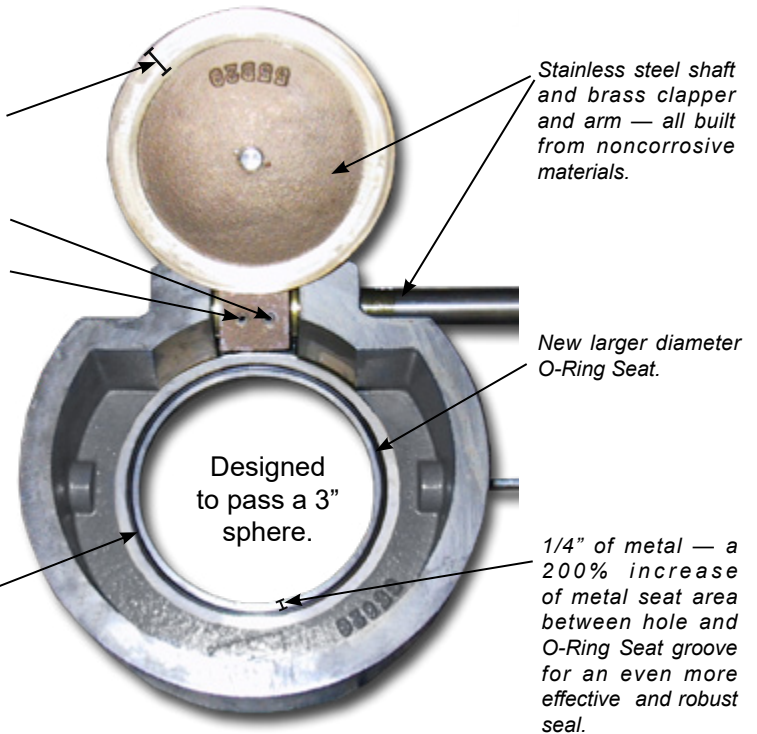
Wafer Check Valves

Now engineered for even tougher operation, Smith & Loveless' 4" and 6" Wafer Check Valves now feature a new seat design which gives them one of the most robust seat arrangements on the market today! The 4" and 6" Wafer Check Valves are found on all of Smith & Loveless' vacuum primed pump stations.

Larger diameter brass clapper provides an even larger seat area.

Arm and Shaft drilled with double pin holes to securely hold the arm and shaft in place, offering more arm and shaft strength.

New dovetail groove has a rugged gripping action that keeps the larger diameter O-Ring Seat securely in place without the use of adhesive.



P/N: 2L153N, P, Q & R

| PART # | SHAFT SIZE |
|--------|------------|
|--------|------------|

| | |
|--------------------|---------------------------------|
| 2L153N | 4" Left Hand Wafer Check Valve |
| 2L153P-300 | 4" Right Hand Wafer Check Valve |
| 2L153Q-300 or -304 | 6" Left Hand Wafer Check Valve |
| 2L153R-300 or -304 | 6" Right Hand Wafer Check Valve |

REPLACES

| |
|------------------------|
| 2L153E & 2L153A |
| 2L153F & 2L153B |
| 2L153L, 2L153G, 2L153C |
| 2L153M, 2L153H, 2L153D |

| PART # | SHAFT SIZE |
|--------|------------|
|--------|------------|

| | |
|------------|----------------------------------|
| 2L161E-300 | 8" Left Hand Wafer Check Valve |
| 2L161F-300 | 8" Right Hand Wafer Check Valve |
| 2L161G-300 | 10" Left Hand Wafer Check Valve |
| 2L161H-300 | 10" Right Hand Wafer Check Valve |
| 2L161J-300 | 12" Left Hand Wafer Check Valve |
| 2L161K-300 | 12" Right Hand Wafer Check Valve |



P/N: 2L161E, F, G, H, J & K

C!@G IS A DIRTY WORD.

Never Mention Clogs Again.

Pump clogs are vulgar and offensive, but a thing of the past with the X-PELLER® impeller and S&L Non-Clog Pumps.



Original Parts

Gasket & Quad Ring

Each time the mechanical seal is replaced, Smith & Loveless recommends the Seal Housing Gasket or Quad Ring also be replaced.

PARTS TIP: The older Seal Housing has a flat surface and uses the flat Gasket. The newer Seal Housing has a groove and it can use either the flat Gasket or the Quad Ring.



Seal Housing Gasket



Quad Ring

| GASKET PART # | QUAD RING PART # | SHAFT SIZE |
|------------------|---------------------|-----------------|
| 60A11 | 60A110 | B-Shaft: 1-7/8" |
| 60A17 | 60A111 | C-Shaft: 2-1/8" |
| 60A84 | 60A112 | D-Shaft: 3" |

Original Parts



1L780C

Combination PSI Air/Vacuum Gauge with Diaphragm

“What’s the difference?” you ask between this new combination air/vacuum gauge and the older style gauge? The new combination air/vacuum gauge has the diaphragm already built-in, versus being sold separately with the old style gauge. All of the new gauges shown below only come glycerin filled.

No major changes are necessary to convert to the new style gauge. All you need to do is take off the existing diaphragm and thread the new gauge into place.

1L780A-F Combo Air/Vac Gauge with 3 ½” diameter gauge face.
(Measures Inches of Mercury & PSI)

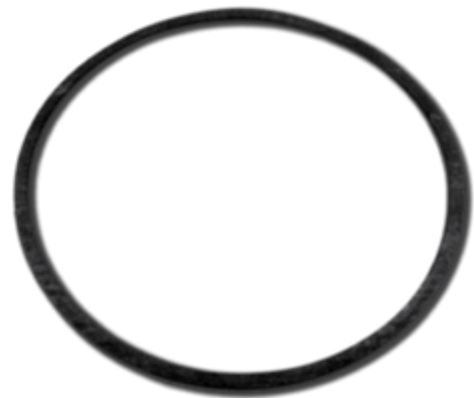
| PART # | DESCRIPTION |
|--------|--|
| 1L780A | 0-30” HG, 0-15 PSI, Handles up to 25’ TDH |
| 1L780B | 0-30” HG, 0-30 PSI, Handles 26’-50’ TDH |
| 1L780C | 0-30” HG, 0-60 PSI, Handles 51’-90’ TDH |
| 1L780D | 0-30” HG, 0-100 PSI, Handles 91’-150’ TDH |
| 1L780E | 0-30” HG, 0-150 PSI, Handles 151’-225’ TDH |
| 1L780F | 0-30” HG, 0-300 PSI, Handles 226’-500’ TDH |

Volute Gaskets

Each time the rotating assembly is taken apart, install a new volute gasket to increase the life span of your pump.

| Vacuum Priming Pump Volute Gaskets | |
|------------------------------------|--|
| PART # | PUMP SIZE |
| 60A26 | 4B2B, 4B2C, 4B2D, 4C2B, 4C2D, 4B2X, 4C2X |
| 60A28 | 4B3B, 4C3B, 4D3B, 6B3B, 6C3B, 6D3B |

| Vacuum Priming Pump Volute Gaskets | |
|------------------------------------|------------|
| PART # | PUMP SIZE |
| 60A88 | 8C4D, 8D4D |
| 60A106B | 4D4B |



Volute Gasket

Hood & Hinges

Continuous Hinge

If your hinges are starting to tear loose or have already torn loose from the lip of the fiberglass hood, you can now fix it without having to buy an entirely new hood. The new **Continuous Hinge/Backing Bar Retrofit Kit** (seen above) installs right over the old holes - dramatically extending the life of your hood.



Hood Lift Assist Kit

Opening your Classic Pump Station hood just got easier with the new Hood Lift Assist by Smith & Loveless, specially designed for the insulated and non-insulated single piece Smith & Loveless above grade pump station hood.

The Hood Lift Assist Kit features two (2) Gas Shocks and two (2) patent-pending Gas Shock Pivot Assemblies that extend the hood opening to an amazing 85 degrees* in most installations.

All you need to know are the hood & side plate dimensions and weight of your station hood. Order your Hood Lift Assist Retrofit Kit today!

** In a limited number of installations, the bracket will prevent the hood from opening the full 85 degrees.*

You may also want to upgrade the hinge kit of your Classic Hood.



Original Parts



The Anode Test Box

The **Smith & Loveless Anode Test Box** was designed to monitor the current flow in each Sacrificial Anode surrounding the buried pump station. The amount of current flowing in the anodes depends on the condition of the anode. The flow of current is also effected by the electrical ground at the service pole.

The S&L Anode Test Box provides a single measuring point to monitor the current flow and subsequent amount of anode migration. S&L's Anode Test Box works well with not only Smith & Loveless equipment, but also on all underground steel structures such as water booster pump stations, valve vaults, and pump stations. See the sizing information below.

Circular Steel Structures: Recessed Wet Well Mounted Pump Stations, Custom Series & DUO-DUCT® Pump Stations.

Fully Buried Steel Structures: CAPSULAR® Pump Stations

| Pump Station Size | # of Anodes | Conduit Size |
|-------------------|-------------|--------------|
| 7'-0" Diameter | 2 | 3/4" |
| 8'-0" Diameter | 2 | 3/4" |
| 8'-6" Diameter | 2 | 3/4" |
| 9'-9" Diameter | 3 | 3/4" |
| 10'-6" Diameter | 3 | 1" |
| 11'-6" Diameter | 3 | 1" |

| PUMP STATION SIZE | # of Anodes | Conduit Size |
|-----------------------------|-------------|--------------|
| 9'-9" Width X 21'-0" Length | 4 | 1-1/4" |
| 9'-9" Width X 23'-0" Length | 5 | 1-1/4" |
| 9'-9" Width X 27'-0" Length | 6 | 1-1/4" |
| 9'-9" Width X 31'-0" Length | 7 | 1-1/4" |
| 9'-9" Width X 34'-0" Length | 8 | 1-1/4" |

CORROSION BLOCKER: Sacrificial Anode Pack



12L8

Stop corrosion in its tracks with the **Smith & Loveless Sacrificial Anode Pack**. This magnesium-type 17 pound pack includes a 30 foot copper lead wire that attaches to the structure that is being protected from corrosion.

This sacrificial anode pack is used for corrosion protection on all buried pump stations and Recessed Wet Well Mounted Pump Stations, along with any wastewater treatment plant or water treatment plant buried in the ground. The sacrificial anode significantly extends the life of

the exposed metal by slowing the corrosion process.

The S&L PN: 12L8 Sacrificial Anode Pack can be tied directly into your Smith & Loveless Anode Test Box to monitor anode migration.

| PART# | DESCRIPTION |
|-------|------------------------|
| 12L8 | Sacrificial Anode Pack |

Double Mechanical Seal Replacement Parts Kit

Just like its single seal little brother, the Double Mechanical Seal was designed to have the longest seal life of any in the industry. Used on all Smith & Loveless flooded suction pumps found on Custom Series, and **CAPSULAR®** Underground Pump Stations, it comes in three sizes, which is dependent upon the shaft size.

Double Mechanical Seal Parts Kit

Includes: (2) carbons, (2) ceramics, (1) spring, o-rings & quad rings.



| PART # | SHAFT SIZE |
|---------|-----------------|
| H60A119 | B-Shaft: 1-7/8" |
| H60A120 | C-Shaft: 2-1/8" |
| H60A121 | D-Shaft: 3" |

Pump Failure Alarm

The Pump Failure Alarm is a cost effective way to keep you advised. This kit includes everything for a 2-Pump Station. No matter what angle your check valve is, the Smith & Loveless Pump Failure Alarm bolts on and adjusts to that angle. It senses even the smallest check valve arm deflections, preventing many false pump failure alarms.



Pump Failure Alarm Retrofit Kit

| Part # | Description |
|----------|--|
| H87A376 | S&L Pump Failure Alarm 2-pump Retrofit Kit for Relay Logic Panels (includes LH & RH sensors) |
| H87A383A | Right-hand S&L Pump Failure Alarm Retrofit Kit for Relay Logic Panels |
| H87A383B | Left-hand S&L Pump Failure Alarm Retrofit Kit for Relay Logic Panels |



H87A376

Original Parts

The new PN: 1L443H Smith & Loveless **Float Check Valve** diameter and length were completely changed in 1999 to the new design PN: 1L443H for better overall **Float Check Valve** Assembly performance. The **Float Check Valve** is used on all Smith & Loveless vacuum primed pumps.

Complete Float Check Valve Assembly

1L443H Float Check Valve Assembly



1L443H

1L443H Spare Parts

Smith & Loveless carries a full line of spare parts for the PN: 1L443H Float Check Valve, put into use in 1999.

1L443H Float Check Valve Spare Parts

| | |
|---------|--|
| 1L443HD | Body |
| 1L443HA | Ball Seat |
| 1L443B | 1-1/2" Diameter Float Ball |
| 1L443HB | O-Ring |
| 1L443HC | Bowl Assembly |
| 1L333 | Check Valve (Install with arrow pointing down) |

1L443G Spare Parts

Even though this Float Check Valve assembly was used only from 1997 to 1999, Smith & Loveless still carries a full line of spare parts for it.

1L443G Float Check Valve Spare Parts

| PART # | DESCRIPTION |
|--------|--|
| 1L443A | Ball Seat |
| 1L443B | 1-1/2" Diameter Float Ball |
| 1L443E | O-Ring (Goes around inside lip of the bowl) |
| 1L443F | Bowl Assembly |
| 1L333 | Check Valve (Install with arrow pointing down) |

1L443 Spare Parts

Used from 1995 to 1997, Smith & Loveless Float Check Valve PN: 1L443 still has some spare parts available for purchase.

1L443 Float Check Valve Spare Parts

| PART # | DESCRIPTION |
|--------|--|
| 1L443B | 1-1/2" Diameter Float Ball |
| 1L443C | O-Ring (Goes around inside lip of the bowl) |
| 1L333 | Check Valve (Install with arrow pointing down) |



87A76 Spare Parts

Used from 1970 to 1995, Smith & Loveless Float Check Valve PN: 87A76 still has some spare parts available for purchase.

87A76 Float Check Valve Spare Parts

| PART # | DESCRIPTION |
|--------|--|
| 1L443B | 1-1/2" Diameter Float Ball |
| 1L410C | O-Ring (Goes around inside lip of the bowl) |
| 1L410D | Bowl (Not Shown) |
| 1L410H | Bowl Insert |
| 1L333 | Check Valve (Install with arrow pointing down) |

Normally Open Float Switch

Are your floats measuring the level in your wet well consistently or is it time to replace your floats? Made of Polyethylene materials, the "Blue" **Normally Open Float Switch 4L291A** is the most common float sold by S&L and is typically used for high water alarms and non-alarm conditions in the wet well that signal your S&L pump to start or stop pumping.

Includes: (1) normally open float switch.

NORMALLY OPEN FLOAT SWITCH

| PART # | DESCRIPTION |
|--------|----------------------------|
| 4L291A | Normally Open Float Switch |



Normally Closed Float Switch

Made of Polyethylene materials, the "Red" **Normally Closed Float Switch 4L291B** is typically used for low water alarms.

Includes: (1) normally closed float switch.

NORMALLY OPEN FLOAT SWITCH

| PART # | DESCRIPTION |
|--------|------------------------------|
| 4L291B | Normally Closed Float Switch |



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- Testing more than 2 years
- Unique S&L algorithm to sense wastewater
- Less sensing equipment in motor adapter
- No prongs to catch soft solids

S&L logo, WaveStart logo, and a small video inset showing two people.

Chat Questions

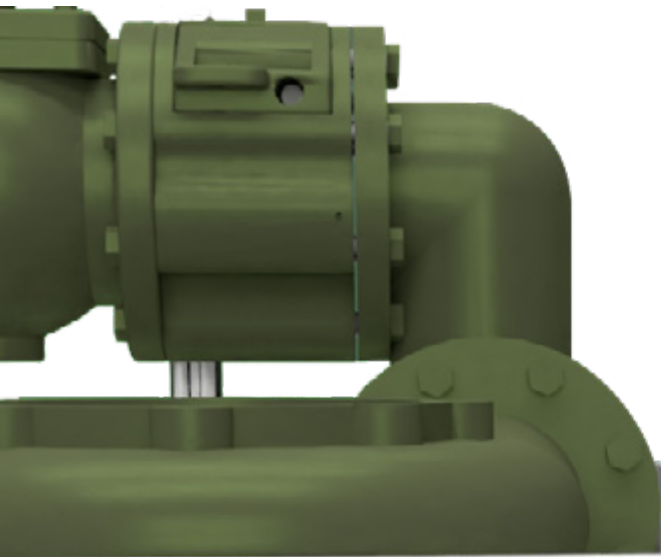
Type your question here!



Smith & Loveless regularly holds online wastewater webinars about our products and other industry topics to help you, the wastewater operator, learn how to use S&L equipment more efficiently.

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