

Smith & Loveless Original Parts



**Seasons
Greetings!**



2, 3, 4, 5 & 7

It's Easy To Order.

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They keep a supply in stock for quick delivery!

- by calling
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United States of America



4L291A

Cutting Prices

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 Smith & Loveless. It is typically used for high water alarms and non-alarm conditions in the wet well that signal your Smith & Loveless pump to start or stop pumping.

Includes: (1) normally open float switch.

NORMALLY OPEN FLOAT SWITCH.

<u>PART #</u>	<u>DESCRIPTION</u>
4L291A	Normally Open Float Switch

Cutting Prices

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.



4L291B

NORMALLY CLOSED FLOAT SWITCH.

<u>PART #</u>	<u>DESCRIPTION</u>
4L291B	Normally Open Float Switch



4L215

Underground Pump Station Humidistat

The Smith & Loveless Humidistat is crucial for controlling the humidity in your underground pump station. You easily set the level of desired humidity with the convenient dial switch and the 4L215 Humidistat will operate the dehumidifier. Depending upon the reading of the pump station's humidity level in relation to the humidity setting you turn the dial, the humidistat will control the humidity level in your pump station. It handles relative humidity 0 to 70%.

Includes: (1) humidistat.

HUMIDISTAT.

<u>PART #</u>	<u>DESCRIPTION</u>
4L215	Humidistat





Lid, Light and Blower Push Button Switch

Every Smith & Loveless Underground Pump Station comes from the factory with a Light and Blower Push Button Switch 4L196 that turns on the lights and blower when you open the lid. Is your station's switch still working? Test it by opening the lid. Did the light and blower come on automatically? If they didn't, it's time to replace your Light and Blower Push Button Switch 4L196.

Includes: (1) light and blower push button switch.

LID, LIGHT AND BLOWER PUSH BUTTON SWITCH

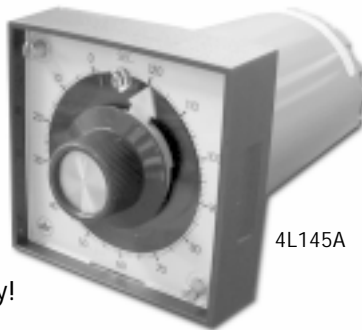
PART #	DESCRIPTION
4L196	Lid, Light and Blower Push Button Switch



Ejector Pump Station Timer

Smith & Loveless' Ejector Pump Stations have used two different timers throughout the years. The first generation timer was Part #4L104. It was replaced with the 4L145A. So if your Ejector Pump Station is in need of a new timer, order 4L145A today!

Includes: (1) timer.



EJECTOR PUMP STATION TIMER

PART #	DESCRIPTION
4L145A	Timer for an Ejector Pump Station



Ejector 3-Way Solenoid Valve

Smith & Loveless' Ejector Pump Stations have used five different 3-way solenoid valves over the years. For those stations that still have 1L109, you'll need to convert your piping down to 3/4" diameter on both the inlet and outlet before installing the 1L385A.

Order your spare 1L385A today!

Includes: (1) 3-way solenoid valve.

EJECTOR 3-WAY SOLENOID VALVE

PART #	DESCRIPTION
1L385A	3-Way Solenoid Valve for an Ejector Pump Station



Don't Be Caught Unprepared

In an emergency, you don't want to not have parts. S&L's Customer Service Team recommends this **Emergency Kit**. It covers the parts required for 95% of the emergency problems you'll encounter with your Classic, Recessed and **FORMULA X®** Wet Well Mounted Pump Stations.



- Float Switch - 4L291A & 4L291B
- Control Relay - 4L107A
- Electrode Relay - 4L408H
- Mechanical Seal* - See Page 6 & 7
- Solenoid Valve* - 1L406E or H87A343A
- Electrode Dome - 87B133
- Ferrules - 1L366C
- Backup Vacuum Pump* - 8L29, 8L44 or 8L32

You never know when your next Emergency will hit.

** You will need to select which part is needed for your specific installation.*



The Simple Way To Replace A Volute Gasket

The simplest way to replace a volute gasket is to apply a modest coating of **Permatex #2 Non-Hardening Silicone** (available at most auto parts stores) on the volute gasket area of the motor adapter. Once this coating is applied, place the volute gasket onto the motor adapter. The silicone will hold the volute gasket in place. Now put the same amount of silicone on the mating surface of the volute. This almost guarantees that you will not damage the volute gasket and the silicone also seals better than grease.

If you first put the volute gaskets on the volute rather than on the motor adapter as noted above, the volute gasket may become pinched when mated together. Another benefit to the Non-Hardening Silicone is that it is easy to clean off of the mating surfaces the next time around.

Never use Hardening silicone. Hardening silicone like "form-a-gasket" makes removing the Rotating Assembly extremely difficult.



60D45

SIZE-IT!



Vacuum Primed Non-Clog Pump Impellers

Select your S&L Vacuum Primed 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.

PUMP MODEL	CLOCKWISE PART #	COUNTER-CLOCKWISE PART #
4B2B PUMP	60D21	60D42
TURBO 4B2C PUMP	87D103	87D104
4B2D PUMP	60C76	60C75
4B3B PUMP	60D43	60D1
4C2B PUMP	60D63	60D64
4C2D PUMP	60C76	60C75
4C3B PUMP	60D44	60D23
4D3B PUMP	60D129	60D193
6B3B PUMP	60D45	60D34
6C3B PUMP	60D47	60D46
6D3B PUMP	60D90	60D192
8C4D PUMP	60D150	60D151
8D4D PUMP	60D178	60D179

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
60A88	8C4D, 8D4D
60A106B	4D4B

Turbo PISTA® Grit Pump Volute Gaskets.

PART #	PUMP SIZE
60A26	4B2H, 4B2J
60A28	6B3H, 6B3J, 6C3H, 6C3J, 6D3H, 6D3J

Flooded Suction Pump Volute Gaskets.

PART #	PUMP SIZE
60A26	4B2, 4B2A, 4C2, 4C2A, 4B2Y, 4C2Y
60A28	4B3, 4C3, 4D3, 6B3, 6B3A, 6B3C, 6C3, 6C3A, 6C3C, 6D3, 6D3A
60A106B	4C4A, 4D4A
60A107B	4C5, 4D5, 8C5A, 8D5A, 10C5A, 10D5A, 6D5
60A88	6B4C, 6C4C, 6D4C, 8B4A, 8B4B, 8B4C, 8C4A, 8C4B, 8C4C, 8D4A, 8D4B, 8D4C
60A101B	10D6
60A109B	12D5

Flooded Suction Non-Clog Pump Impellers



Select your S&L 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.

PUMP MODEL	CLOCKWISE PART #	COUNTER-CLOCKWISE PART #
4B2 PUMP	60D21	60D42
4C2 PUMP	60D63	60D64
4B2A PUMP	60C76	60C75
TURBO 4B2H PUMP	60D250	60D251
TURBO 4B2J PUMP	87D103	87D104
4C2A PUMP	60C77	60C78
4B3 PUMP	60D43	60D1
4C3 PUMP	60D44	60D23
4D3 PUMP	60D129	60D193
4B4A PUMP	60D172	60D171
4C4A PUMP	60D170	60D169
4D2A PUMP	60D164	60D163
4C5 PUMP	60D238	60D239
4D5 PUMP	60D234	60D235
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
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
10C5A PUMP	60D196	60D197
10D5A PUMP	60D180	60D181
10D6 PUMP	60D155	60D156
12D5 PUMP	60D134	60D207



Replacing Volute Gaskets

Note how many volute gaskets you remove when taking apart your rotating assembly. You will need to reinstall the same number and thickness to prevent rubbing during pump operation. Before turning your pump back to full operation, bump the motor to see if you hear any rubbing and to check for correct motor rotation. If there is rubbing, you will need to add more volute gaskets. If the rotation is incorrect, rewire it for correct rotation.



Embedded Nylock

Impeller Bolts

S&L's Impeller Bolts feature embedded Nylock. Each time you remove the rotating assembly, replace the Impeller Bolt. 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"

TO ORDER, CALL **1-800-922-9048**





Symptoms Of A Defective Mechanical Seal

The role of the Mechanical Seal is to isolate the liquid inside the pump from the pump motor.

The two most common symptoms of a defective mechanical seal:

- Water leaking around the motor shaft.
- Priming problems

If you view water leaking around the motor shaft this is usually a good indicator that the mechanical seal requires replacement. You can check this by viewing the motor shaft at the motor adapter.

If you are having priming problems, troubleshoot the priming system first. If the mechanical seal has been installed properly, the source of your priming problem will typically be something else. If you've checked the priming system and you're still having problems, then it is time to check the mechanical seal for heat or mechanical fractures.



DAMTITE® Single Mechanical Seal Replacement Parts Kit

The Smith & Loveless DAMTITE® Single Mechanical Seal is used on all Smith & Loveless vacuum primed pumps found on the Classic Recessed and Wet Well Mounted Pump Station, FORMULA X® and PISTA® Turbo Grit Pump.

Specifically designed by Smith & Loveless for the Smith & Loveless pump. With more than 60,000 seals in service today, Senior R&D Engineer Frank Weis originally designed the seal to last more than 7 years and it has been proven to have one of the longest life-cycles of any mechanical seal in the industry. It is also easy to change with commonly found tools 3 wedges, a hammer and a socket wrench. Don't be caught without a spare seal. Order one today!



PARTS TIP: It is recommended to replace the Seal Housing Gasket or Quad Ring (see below) and the Volute Gasket (see page 4) whenever a rotating assembly is removed.

DAMTITE® Single Mechanical Seal Replacement Parts Kit

Includes: (1) carbon, (1) ceramic, (1) spring, (1) instruction booklet on how to install.

PART #	SHAFT SIZE
H87A28	B-Shaft: 1-7/8"
H87A97	C-Shaft: 2-1/8"
H87A182	D-Shaft: 3"

Seal Housing Gasket and Quad Ring



Seal Housing Gasket



Quad Ring

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



PARTS TIP: Determining whether to use the flat Gasket or the Quad Ring. The older Seal Housing has a flat surface and uses the flat Gasket for both the Single and Double seal. The newer Seal Housing has a groove and it can use either the flat Gasket or the Quad Ring; however, Smith & Loveless recommends the Quad Ring.

Seal Housing Gasket & Quad Ring

Includes: (1) seal housing gasket or (1) 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"



DAMTITE® Double Mechanical Seal Replacement Parts Kit

Just like its single seal little brother, the DAMTITE® 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, DUO-DUCT® and CAPSULAR® Underground Pump Stations, it comes in three sizes, which is dependent upon the shaft size.



PARTS TIP: Replace the Seal Housing Gasket or Quad Ring (page 8), Volute Gasket (see below) and Impeller Bolt (see below) whenever a rotating assembly is removed.

DAMTITE® Double Mechanical Seal Parts Kit

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

PART #	SHAFT SIZE
H6OA119	B-Shaft: 1-7/8"
H6OA120	C-Shaft: 2-1/8"
H6OA121	D-Shaft: 3"



9L25C

Bubler Air Compressors (Direct Air)



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.

PARTS TIP: 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.

BUBBLER AIR COMPRESSORS

Includes: (1) bubbler air compressor.

PART #	SHAFT SIZE
9L25C	Bubbler Air Compressor
9L25	Bubbler Air Compressor



9L25



There's A Difference?

Confusion sometimes exists between the difference between the red float switch (4L291B) and the blue float switch (4L291A). The two float switches appear to be the same shape, weight and length of cord with only the color being different.

The difference is on the inside. If you were to cut both a blue float switch and a red float switch open, the only difference would be the mounting of the switch. One would be mounted upside in comparison to the other. The mounting of this switch is why the red and blue float switches **ARE NOT** interchangeable.

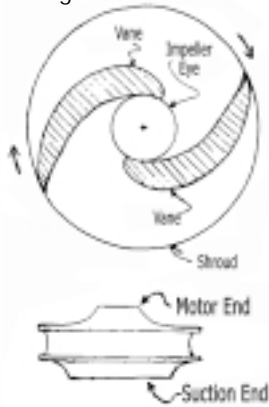
When the float switches are hung side-by-side, the red switch is shorted (i.e. making contact) and the blue one is open (not making contact). That's a big difference in the operation of your pump station.

The moral of this story: if you need to replace a red float switch, order part #4L291B and if you have to replace a blue float switch, order part #4L291A. There really is a major difference. See page 2 for ordering details.



Determining Impeller Rotation

The drawing below shows the CW (Clockwise) rotation of the impeller, if you are looking down on the impeller with the motor end up and the suction end down. See page 4 & 5 for impeller sizing.



Flooded Suction Pump Seal Filter

In 1996, the Smith & Loveless Seal Filter was changed to the 1L485 (*seen right*) in order to provide a larger filtration volume than the previous version 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 needed to clean or change out the seal water filter element. The 1L485 Seal Filter is used on all of Smith & Loveless' Flooded Suction Pumps. No piping changes are required to convert from the 1L371 to the 1L485.

Includes: (1) seal filter assembly.



1L485

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 1L485. For the older style 1L371 and 1L89, Smith & Loveless still carries the elements.

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

PART #	DESCRIPTION
1L485A	Filter Element Kit: <i>incl. Bowl O'Ring & Filter Element</i>
1L485B	Bowl Kit: <i>incl. Bowl, Bowl O'Ring & Drain Kit</i>
1L485C	Drain Kit: <i>incl. Twist Drain & Drain O'Ring</i>
1L485D	Baffle Kit: <i>incl. Baffle, Deflector, & Bowl O'Ring</i>
1L371C	O'Ring
1L371E	Element
1L89E	Element



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