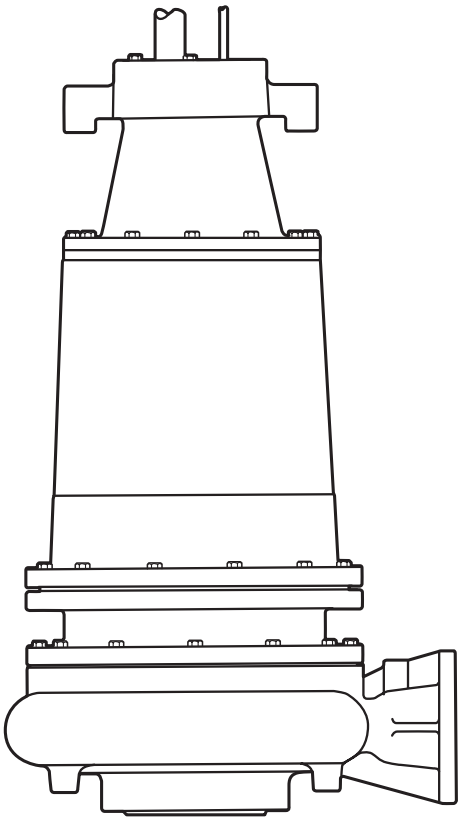
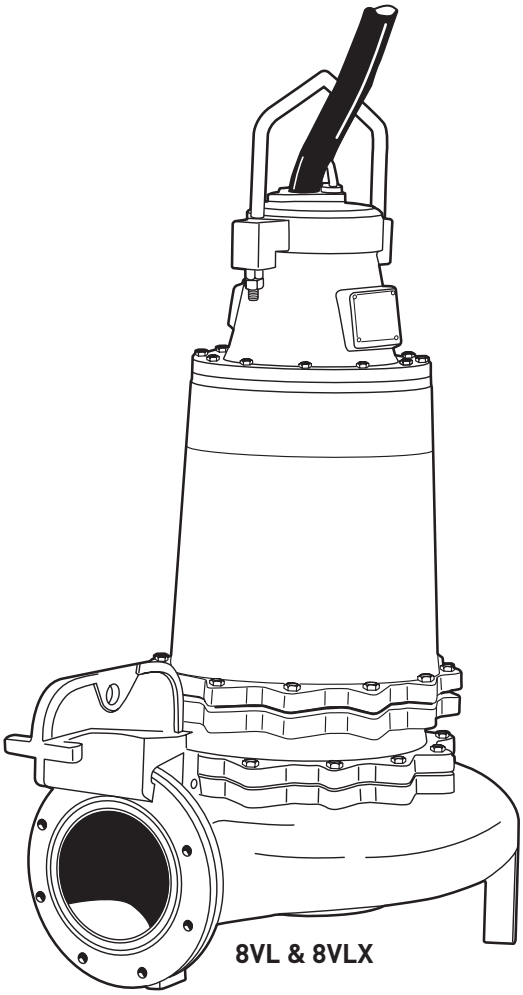
PENTAIR

MYERS®



4VL & 4VLX



8VL & 8VLX

MODELS 4VL(X*), 8SM(X*), 8VL(X*) and 12VL(X*)

*Used in Hazardous Locations Class I, Division 1

SUBMERSIBLE SOLIDS HANDLING PUMPS

INSTALLATION AND SERVICE MANUAL

For use with product built with GE® motor.

NOTE! To the installer: Please make sure you provide this manual to the owner of the equipment or to the responsible party who maintains the system.

Part # 23833A470 | © 2013 Pentair Ltd. | 02/26/13

CAUTION!

Read these safety warnings first before installing, servicing, or operating any pump.

CALIFORNIA PROPOSITION 65 WARNING:

⚠WARNING This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

GENERAL:

1. Most accidents can be avoided by using ***COMMON SENSE.***
2. Read the operation and maintenance instruction manual supplied with the pump.
3. Do not wear loose clothing that can become entangled in the impeller or other moving parts.
4. This pump is designed to handle materials that could cause illness or disease through direct exposure.

   Wear adequate protective clothing when working on the pump or piping.

ELECTRICAL:

WARNING: Only qualified persons shall conduct services and installations of this pump. The pump must be wired by a qualified electrician, using an approved starter box and switching device.

5. To reduce the risk of electrical shock, pump must be properly grounded in accordance with the National Electric Code and all applicable state and local codes and ordinances.
6. To reduce risk of electrical shock, disconnect the pump from the power source before handling or servicing.
7. Any wiring to be done on pumps should be done by a qualified electrician.
8. Never operate a pump with a power cord that has frayed or brittle insulation.
9. Never let cords or plugs lie in water.
10. Never handle connected power cords with wet hands.

PUMPS:

11. Pump builds up heat and pressure during operation; allow time for pump to cool before handling or servicing.
12. Only qualified personnel should install, operate or repair pump.
13. Keep clear of suction and discharge openings. **DO NOT** insert fingers in pump with power connected.
14. Do not pump hazardous material not recommended for pump (flammable, caustic, etc.).
15. Make sure lifting handles are securely fastened each time before lifting.
16. Do not lift pump by the power cord.
17. Do not exceed manufacturer's recommendation for maximum performance, as this could cause the motor to overheat.
18. Secure the pump in its operating position so it cannot tip over, fall or slide.
19. Keep hands and feet away from impeller when power is connected.
20. Submersible solids handling pumps are not approved for use in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.
21. Do not operate pump without safety devices in place.
22. For hazardous locations, use pumps that are listed and classified for such locations.

IMPORTANT! Myers is not responsible for losses, injury or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

GENERAL INFORMATION:

Motor HP & Voltages: These solids handling pumps are offered in a three phase wiring configuration only. Voltages will vary according to the application.

Electrical Controls: All of these pump models must be used with a control panel. Myers built control panels are designed to supply the correct electrical controls, motor starting equipment and include the circuitry for moisture and heat sensors. It is recommended that a Myers built control panel be used so that all warranties apply.

General Construction: The hazardous location series is designed to meet Factory Mutual requirements for Class 1, Division 1, sewage applications. They are certified and nameplated with this approval. The motor chamber and seal chamber are filled with a high dielectric type oil for improved lubrication and heat transfer of the bearings and motor. Since the bearings have been designed for 50,000 hours of life, the oil should never require replacement under normal operating conditions. An air space above the oil level in both the seal and motor chambers is provided to allow for the expansion of the oil when at operating temperature. The power and control lines are sealed and strain relieved on the outside entrance with a standard cord grip, and internally through the use of a dielectric potting resin surrounding the electrical wires. All of the pump fasteners and shafts are made from corrosion resistant stainless steel, while the

pump castings are made of ASTM A-48 Class 30 cast iron. The wear ring is bronze and all impellers are two vane enclosed solids handling design made from ductile iron.

General Installation: Various configurations and methods of plumbing this series of solids handling pumps may be used; however, for ease of installation and service a Myers rail lift-out system is recommended.

Note: If the hazardous location pumps are used in conjunction with a rail lift-out system, it must be a Factory Mutual approved nonsparking, hazardous location system. The Myers approved lift-out models are:

4" Lift-out	8" Lift-out	12" Lift-out
SRAX44HH	SRAX88	SRAX1212

If these Guidelines are not followed, the Factory Mutual Hazardous Location approval is void.

Hazardous Location Service: These pumps are to be used for handling sewage, wastewater and storm water only. ***Do not*** use in other hazardous locations. These pumps must be repaired and serviced only at Myers Authorized Service Centers or at the Myers factory. Any unauthorized field repair voids warranty and the hazardous location rating.

CAUTION: After the pump is installed and sewage has entered the basin there are methane and hydrogen sulfide gases, which are poisonous. Never enter a wet well unless the cover is open for a sufficient period of time to allow fresh air into the basin. It is for this reason that Myers recommends using the rail lift-out system so that no service is required inside the basin.

Motor: Each motor is provided with heat sensor thermostats attached directly to the motor windings. The thermostats open if the motor windings see excessive heat and, in turn, open the motor contractor in the control panel, breaking the power to the pump. When the motor is stopped due to an overheated condition, it will not start until the motor has cooled and the heat sensor reset button is manually pushed. This circuitry is provided in the Myers control panel designs.

The thermostats are set to open at a temperature of 302°F (150°C). The maximum contact rating is 18 amps at 115 VAC and 12 amps at 230 VAC.

Note: Failure to use proper circuitry and to connect the motor overheat protection in the control panel would negate all warranties and Factory Mutual approval.

Motor Seal Failure Warning: The seal chamber is oil filled and provided with moisture sensing probes to detect water leakage through the lower shaft seal. The probes can also detect moisture present in the upper motor housing.

The presence of water energizes a red seal leak warning light at the control panel. This is a *warning light only*, and does not stop the motor. It indicates a leak has occurred and the pump must be repaired. Normally, this indicates the outboard seal has leaked. Allowing the unit to operate after the warning could cause upper seal leakage along with motor failure.

The resistance across the moisture sensing (seal failure) probes should be checked after a seal leak warning light has lit. This can be done by disconnecting the red and orange control wires from the control panel and measuring the resistance with an ohmmeter between the wires. If the measured values are below specification, then the pump may have a lower seal failure and require service.

On the Myers hazardous location control panels the seal leak test switch tests the seal leak circuit continuity. When pushed the seal leak test bulb should light. If the test bulb does not light it means either the wiring circuitry to the seal leak probes has been broken or the bulb has burned out.

Note: Myers built control panels supply the correct circuitry for moisture and heat sensor connections. Failure to install the correct circuitry with proper connection would negate warranty and Factory Mutual approval.

Motor Power Cord, Control Cord and Cord Cap Assembly: Each motor power cord has 4 conductors: white, black, red and green. For a three phase motor the red, black and white conductors connect to the three line leads, and the green is connected to a good ground. Interchanging any two line leads will reverse the rotation of the motor.

Note: Rotation should be clockwise when observed from the top of the pump. This can be checked by noting which direction the pump torque is up on initial starting. A properly rotating pump will torque counterclockwise upon start.

The control cable has 5 conductors: black, white, red, orange and green. White and black connect to the heat sensor terminals in the control panels; red and orange connect to the seal failure terminals in the control panel; and the green connects to the ground in the control panel.

The cord cap is epoxy potted. The cord cap provides for a sealed wire connection with terminals so that connections can be made without breaking the motor seal. A hazardous location junction box is required for

hazardous locations. ***The control and power cables cannot be spliced!***

Note: Each cable has a green ground wire and must be properly grounded per the National Electric Code and local codes.

Electrical Motor Controls: All electrical controls and motor starting equipment should be as specified in these instructions. Consult factory for any acceptable alternates. For hazardous locations the controls and control panel must be installed outside the hazardous area, or approved hazardous location controls that are intrinsically safe must be used.

Junction Box: If a junction box is used in a hazardous location, it must be a hazardous location approved type with hazardous location cord connectors. Wires from the junction box must pass through a hazardous location seal connector.

Level Sensing Controls: Intrinsically safe type float controls are recommended for all applications and required for hazardous location service. An intrinsically safe control panel relay will limit the current and voltage to the level controls. A Myers control panel can be supplied with this type circuitry.

The float level controls maintain the basin sewage water level by controlling pump turn-on and turn-off levels.

1. The lower turn-offs control should be set so that the pump stops at approximately the top of the pump. Consult the factory for any settings below this point.
2. The upper turn-on control should be set above the lower turn-off control. The exact height between the two controls is determined by the number of pump starts desired and the depth of the basin. A maximum of 10 starts per hour should not be exceeded.
3. The override control is set at a specified height above the upper turn-on control.
4. The alarm control is set about 6" to 12" above the override control.
5. No control should be set above the inlet invert.

Electrical Connections: All electrical wiring must be in accordance with local code and only qualified electricians should make the installations. All wires should be checked for shorts to ground with an ohmmeter or megger after the connections are made. This is important, as one grounded wire can cause failure of the pump, control panel or personal injury.

Pump: The fluid end of the pump is field serviceable and can be disassembled in case of wear, damage, plugging or outboard seal failure. The following will describe the disassembly and reassembly process.

WARNING: Disconnect pump from power source before servicing or handling pump.

DISASSEMBLY:

1. With the pump located in a secure place, remove the bolts fastening the seal housing to the volute. The motor and impeller can now be removed as a unit.
2. Lay the unit down on its side. If the lower seal is to be removed, it is recommended that the oil in the seal chamber be drained. This can be done by removing the lower seal chamber plug and draining the oil into a holding container.
3. To remove the impeller: Using a proper wrench, the impeller retaining bolt and washer must be removed. This may require a piece of wood placed between the vanes to keep the impeller from rotating while removing the bolt. Once the bolt has been removed, tap lightly with a hammer around the outside diameter of the impeller to loosen from tapered shaft and key. After removing impeller, the seal retainer needs to be removed to expose seal.

   CAUTION: The impeller is large and heavy and will need to be supported.
4. If the lower seal needs removed, first remove the compression spring that rides between the impeller and the seal assembly. Next take a pair of screwdrivers and remove the compression ring that surrounds the rubber bellows on the rotating portion of the seal assembly. Again using the screwdrivers, pry the remaining portion of the rotating seal assembly off the shaft. The ceramic stationary can be removed by placing a screwdriver between the rubber and the ceramic face and then prying, working around the entire diameter. Note, these parts should be discarded and a new seal assembly installed.
5. If the oil in the seal chamber was drained, examine the contents to determine if the upper seal has been damaged. Signs of grit or other abrasive material may indicate that the upper seal has also been damaged. Pressurizing the motor housing assembly between 7 and 10 psi and observing any drop in pressure will indicate if the upper seal is functioning properly.

   Note: Upper seal repairs must be done at a Myers Authorized Service Center or at the Myers factory. Any unauthorized field repair voids warranty and the hazardous location approval on the Factory Mutual listed pump.
6. The wear ring can be removed from the volute for repair or replacement. First remove the retaining screws from the wear ring. With a soft mallet the wear ring can be tapped out of the volute case.

REASSEMBLY:

1. Remove the ceramic portion of the new seal from the package. Brush new dielectric oil around the rubber portion of the stationary assembly and into

the pocket in the seal housing. Note, keep the oil off the seal face. Without scratching the seal face, press the ceramic stationary portion into the seal housing with a Myers seal pusher. With clean cloth, lightly wipe the face of the seal surface to make sure it is dirt free. Remove the rotating portion of the seal from the package and lubricate the inside diameter of the rubber bellows and the outside diameter of the shaft. Place the seal over the shaft (make sure the key is removed). Evenly press on the body of the rotational assembly and slide it down the shaft until the seal faces meet. Once the seal assembly is in position, place the spring over the register on the rotational portion of the seal.

2. Before placing impeller on shaft, the seal spring retainer should be placed on shaft with stepped end toward seal spring. Position the key into the seat in the shaft. Align the impeller onto the shaft, making sure that the seal spring is registered properly onto the back side of the impeller. Insert the bolt and washer assembly into the shaft and tighten to 193 ft.-lbs. Replace the nose cone onto the impeller. The proper Loctite® should be applied to the bolts. Install and tighten.
3. Fill the seal chamber with new dielectric oil. An air gap of 10-15% volume must be left for the expansion of the oil when it is at operating temperature.
4. The wear ring can be aligned with the retaining holes and tapped into place with a soft mallet. The proper Loctite should be applied to the bolts. Install and tighten.
5. The motor and impeller assembly can be installed into the volute. Make sure that the impeller aligns properly with the volute. Install the volute retaining bolts and tighten.
6. Air tends to trap in the pump case when water rises in the sump or when the pump is lowered into the water after service. To vent off this air, a small hole is drilled into the volute casting. **Be sure this vent hole is clean after any service work on pump.** Air venting is not a problem after initial start.

CHECK LIST IF PUMP DOES NOT OPERATE PROPERLY

Checking for Moisture in Motor: Use an ohmmeter or a megger and set on highest scale. Readings on the large power cord between any of the conductors red, black or white to the green conductor or to the motor housing should be greater than 1,000,000 ohms (1 megohm). Service work should be done only at an authorized service station. Note, readings should be taken with line leads disconnected from the control panel.

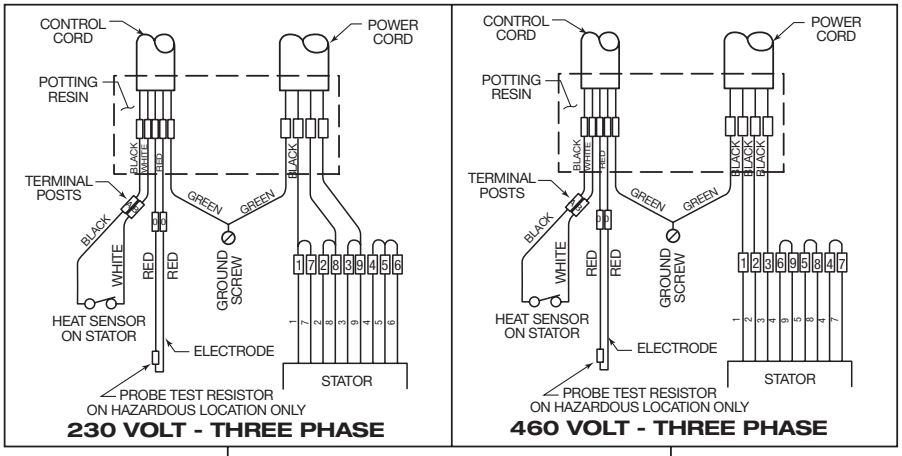
Resistance of Windings: Every motor winding has a fixed resistance. The windings must check close to specification values. Verification of the proper wiring of a dual voltage motor can also be checked by measuring the motor winding resistance.

CONDITION	PROBABLE CAUSE
Red light comes on at control box.	This indicates some water has leaked past the lower seal and has entered the seal chamber and made contact with the electrode probe. Pump must be removed immediately for replacement of lower seal. This preventive repair will save an expensive motor.
Overload trips at control box and alarm buzzer or flashing red light comes on due to high water level in basin.	1. Push in on red reset button to reset overload. If overload trips again after short run, pump has some damage and must be removed from basin for checking. 2. Trouble may be from clogged impeller causing motor to overload or could be from failed motor. 3. Trouble may be from faulty component in control box. Always check control box before removing pump.
Yellow run light stays on continuously.	1. Indicates H-O-A switch may be in the Hand position. 2. Level control switch may have failed causing pump to continue to operate when water is below lower control. 3. Impeller may be partially clogged causing pump to operate at very reduced capacity. 4. Gate valve or check valve may be clogged causing low pump flow. 5. Pump may be air locked.
Circuit breaker trips.	1. Reset breaker by pushing completely down on handle then back to On position. If breaker trips again in few seconds it indicates excessive load probably caused by a short in the motor or control box. Check out instructions given with control box before pulling pump. 2. If this condition happens after an electrical storm, motor or control box may be damaged by lightning. 3. Resistance reading of the motor with lead wires disconnected from the control box can determine if trouble is in motor or control box.

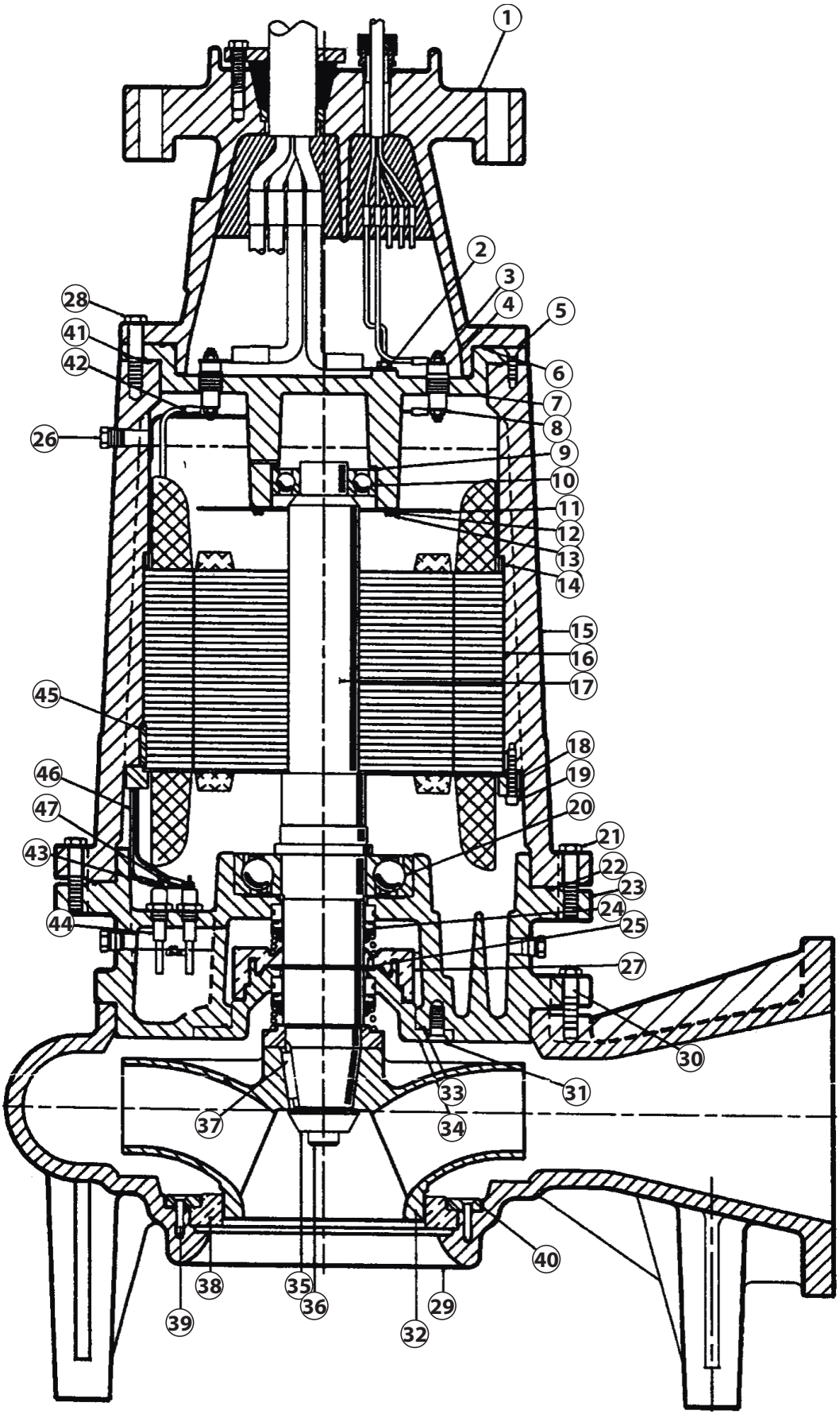
CONDITION	PROBABLE CAUSE
Pump is noisy and pump rate is low.	1. Impeller may be partially clogged with some foreign objects causing noise and overload on the motor. 2. Impeller may be rubbing on wear ring due to bent shaft or misalignment. 3. Pump may be operating too close to shut-off. Check head.
Grease and solids have accumulated around pump and will not pump out of basin.	1. Lower control switch may be set too high. 2. Run pump on Hand operation for several minutes with small amount of water running into basin to clean out solids and grease. This allows pump to break suction and surge which will break up the solids. If level switch is set properly, this condition generally will not occur. 3. Trash and grease may have accumulated around floats causing pump to operate erratically.

CAP SCREW	TORQUE VALUE
3/8-16	20 ft.-lbs.
1/2-13	43 ft.-lbs.
5/8-11	93 ft.-lbs.
3/4-10	128 ft.-lbs.
7/8-14	193 ft.-lbs.

WIRING DIAGRAMS



4VL/4VLX AND 8SM/8SMX PUMPS



4VL, 8SM

Ref.	Description	Qty.	Part Numbers	
			4VL/4VLX	8SM/8SMX
1	CORD CAP COMPLETE	1	Refer To Factory	Refer To Factory
2	CAP SCREW, HEX HD., 1/4- x 5/8"	1	19099A029	19099A029
3	LOCK NUT, 1/4-20	23	11904A005	11904A005
4	TERMINAL, ELECTRICAL	13	23555A000	23555A000
5	MACHINE SCREW, SOCKET FLAT HD., 5/16-18 x 1"	4	07597A017	07597A017
6	O-RING, 12-1/4 x 12 x 1/8	1	05876A178	05876A178
7	PLATE, TERMINAL	1	25257D000	25257D000
8	TERMINAL, RING TONGUE, 1/4 STUD, 16-14 WIRE	2	12074A038	12074A038
9	WASHER, SPRING WAVE	1	19331A009	19331A009
10	BEARING, BALL, UPPER	1	08565A026	08565A026
11	WIRE GUARD	1	25453B000	25453B000
12	LOCKWASHER, SHAKEPROOF, INTERNAL, NO. 10	4	06107A015	06107A015
13	MACHINE SCREW, HEX WASH. HD. #10-24 x 5/8"	4	18475A006	18475A006
14	RING, STATOR SPACER	1	See Chart	See Chart
15	HOUSING, MOTOR	1	25258F000	25258F000
16	STATOR	1	See Chart	See Chart
17	ROTOR WITH SHAFT - SHAFT ONLY (FOR ALL H.P. UNITS)	1 1	See Chart 26891D000	See Chart 26891D000
18	RETAINER, MOTOR	4	25259D000	25259D000
19	CAP SCREW, SOCKET HD., 5/16-18 x 1-1/2"	8	06106A016	06106A016
20	BEARING, ANGULAR BALL	1	25833A004	25833A004
21	CAP SCREW, HEX HD., 1/2-13 x 2-1/2"	12	19103A048	19103A048
22	O-RING, 16-7/8 x 16-1/2 x 3/16	1	05876A180	05876A180
23	HOUSING, SEAL	1	25264F000	25264F000
24	SEAL 3" SHAFT	2	25449A000	25449A000
25	RING, RETAINING	1	12558A031	12558A031
26	PLUG, 3/8" NPT PIPE	3	05022A062	05022A062
27	SEAL, LABYRINTH, 4VL / 8SM	1	25262C011	25262C011
	SEAL, LABYRINTH, 4VLX / 8SMX	1	25262C010	25262C010
28	CAP SCREW, HEX HD., 1/2-13 x 2-1/4" 4VL 8SM	 16 24	 19103A049 19103A049	 19103A049 19103A049
29	CASE, VOLUTE	1	27040F000	26898F000
30	CAP SCREW, HEX. HD., 1/2-13 x 2"	8	19103A047	–
31	MACHINE SCREW, FLAT HD., 7/16-20 x 1"	6	07597A034	07597A034
32	IMPELLER – SPECIFY O.D.	1	See Chart	See Chart
33	O-RING, 7-1/2 x 7-1/4 x 1/8"	1	05876A127	05876A127
34	PLATE, SEAL	1	25261D000	25261D000
35	WASHER, IMPELLER RETAINER	1	1945-001-3	1945-001-3
36	CAP SCREW, SOCKET HD.	1	3879-002-1	3879-002-1
37	KEY, SQUARE	1	05818A071	05818010
38	RING, WEAR	1	13695-000-3	13535-000-3
39	SCREW, SOCKET HD.	4	829-009-1	4756-002-1
40	RING, CLAMP	1	–	05818A050
41	O-RING, 13-1/4 x 13 x 1/8"	1	05876A179	05876A179
42	TERMINAL, RING TONGUE	9 3 (575V)	12074A037	12074A037
43	LOCKWASHER, SHAKEPROOF, INTERNAL, NO. 6	2	06107A010	06107A010
44	ELECTRODE, WATER SENSOR	2	25455A000	25455A000
45	KEY, SQUARE, 1/4 x 1/4 x 1-1/4"	1	05818A050	05818A050
46	WIRE WITH TERMINAL, SEAL SENSOR	2	09859A821	09859A821
47	RESISTOR (FOR 4VLX & 8SMX ONLY)	1	22912A000	22912A000

IMPELLER TRIMS FOR 4VL SERIES

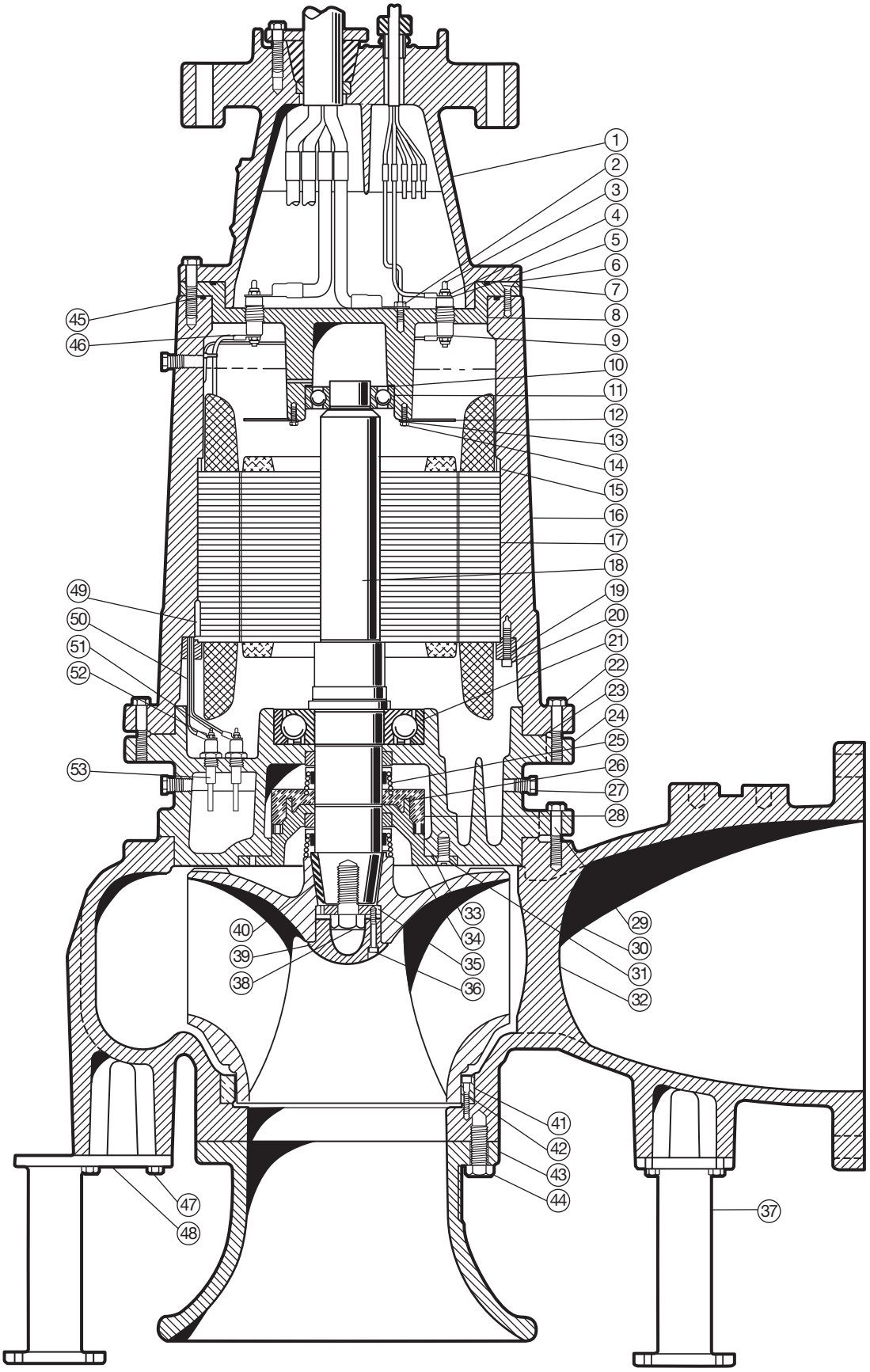
Engineering Number	Description
13532-101-2	IMPELLER; 15" O.D., 2 VANE
13532-103-2	IMPELLER; 14.5" O.D., 2 VANE
13532-105-2	IMPELLER; 14" O.D., 2 VANE
13532-107-2	IMPELLER; 13.5" O.D., 2 VANE
13532-109-2	IMPELLER; 13" O.D., 2 VANE
13532-111-2	IMPELLER; 12.5" O.D., 2 VANE
13532-113-2	IMPELLER; 12" O.D., 2 VANE

IMPELLER TRIMS FOR 8SM SERIES

Engineering Number	Description
13532-001-2	IMPELLER; 14" O.D., 2 VANE
13532-003-2	IMPELLER; 13.5" O.D., 2 VANE
13532-005-2	IMPELLER; 13" O.D., 2 VANE
13532-008-2	IMPELLER; 14.5" O.D., 2 VANE
13532-009-2	IMPELLER; 15" O.D., 2 VANE

Pump Catalog Numbers		(17) Rotor w/Shaft	(16) Stator Only
4VL750M4-43	4VLX750M4-43	26892D000	25444D215
4VL750M4-53	4VLX750M4-53	26892D000	25444D216
4VL1000M4-43	4VLX1000M4-43	26892D000	25444D210
4VL1000M4-53	4VLX1000M4-53	26892D000	25444D211
4VL1250M4-43	4VLX1250M4-43	26892D000	25444D210
4VL1250M4-53	4VLX1250M4-53	26892D000	25444D211
8SM750M4-43	8SMX750M4-43	26892D000	25444D215
8SM750M4-53	8SMX750M4-53	26892D000	25444D216
8SM1000M4-43	8SMX1000M4-43	26892D000	25444D210
8SM1000M4-53	8SMX1000M4-53	26892D000	25444D211
8SM1250M4-43	8SMX1250M4-43	26892D000	25444D210
8SM1250M4-53	8SMX1250M4-53	26892D000	25444D211

8VL/8VLX AND 12VL/12VLX PUMPS



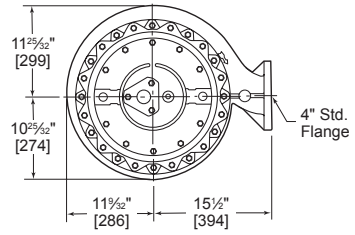
MODEL SPECIFIC PARTS LIST

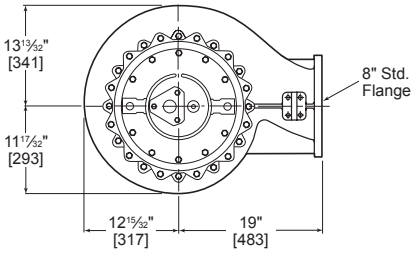
Ref.	Description	Qty.	8VL/8VLX	12VL/12VLX
1	CORD CAP COMPLETE	7	Refer To Factory	Refer To Factory
2	CAP SCREW, HEX HD., 1/4" x 5/8"	1	19099A029	19099A029
3	PROTECTOR, THREAD	13	17272A021	17272A021
4	LOCK NUT, 1/4-20	23	11904A005	11904A005
5	TERMINAL, ELECTRICAL	13	23555A000	23555A000
6	MACHINE SCREW, SOCKET FLAT HD., 5/16-18 x 1"	4	07597A017	07597A017
7	O-RING, 12-1/4 x 12 x 1/8	1	05876A178	05876A178
8	PLATE, TERMINAL	1	25257D000	25257D000
9	TERMINAL RING TONGUE, 1/4 STUD, 16-14 WIRE	2	12074A038	12074A038
10	WASHER, SPRING WAVE	1	19331A009	19331A009
11	BEARING, BALL, UPPER	1	08565A026	08565A026
12	WIRE GUARD	1	25453B000	25453B000
13	LOCKWASHER, SHAKEPROOF, INTERNAL, NO. 10	4	06107A015	06107A015
14	MACHINE SCREW, HEX WASH, HD. #10-24 x 5/8"	4	18475A006	18475A006
15	RING, STATOR SPACER	1	See Chart	See Chart
16	HOUSING, MOTOR	1	25258F000	25258F000
17	STATOR	1	See Chart	See Chart
18	ROTOR WITH SHAFT	1	See Chart	See Chart
	SHAFT ONLY (FOR ALL H.P. UNITS)	1	25446D000	25446D000
19	RETAINER, MOTOR	4	25259D000	25259D000
20	CAP SCREW, SOCKET HD., 5/16-18 x 1-1/2"	8	06106A016	06106A016
21	BEARING, ANGULAR BALL	1	25833A004	25833A004
22	CAP SCREW, HEX HD., 1/2-13 x 2-1/2"	12	19103A048	19103A048
23	O-RING, 16-7/8 x 16-1/2 x 3/16"	1	05876A180	05876A180
24	HOUSING, SEAL	1	25264F000	25264F000
25	SEAL, 3" SHAFT	2	25449A000	25449A000
26	RING, RETAINING	1	12558A031	12558A031
27	PLUG, 3/8" NPT PIPE	3	05022A062	05022A062
28	SEAL, LABYRINTH	1	25262C000	25262C000
29	CAP SCREW, HEX HD., 1/2-13 x 2-1/4"	24	19103A049	19103A049
30	CASE, VOLUTE	1	25254F000	25457F000
31	MACHINE SCREW, FLAT HD., 7/16-20 x 1"	6	07597A034	07597A034
32	IMPELLER – SPECIFY O.D.	1	25252D500	254546E500
33	O-RING, 7-1/2 x 7-1/4 x 1/8"	1	05876A127	05876A127
34	PLATE, SEAL	1	25261D000	25261D000
35	WASHER, IMPELLER RETAINER	1	25463A000	25463A000
36	CAP SCREW, SOCKET HD., 1/4-28	3	06106A043	06106A044
37	LEG, SUPPORT, DISCHARGE	1	-	25469D001
38	CAP SCREW, HEX HD., 7/8-14 x 2"	1	19107A004	19107A004
39	CONE, IMPELLER NOSE	1	26015B030	26016B030
40	KEY, SQUARE	1	05818A071	05818A010
41	RING, WEAR	1	25260D000	25458D000
42	SCREW, SOCKET HD.	6 (8VL) 4 (12VL)	06106A039	06106A045
43	INLET, BELL	1	-	25459E000
44	CAP SCREW, HEX HD., 3/4-10 x 1-3/4"	8	-	19106A017
45	O-RING, 13-1/3 x 13 x 1/8"	1	05876A179	05876A179
46	TERMINAL, RING TONGUE	9 3 (575V)	12074A037	12074A037
47	CAP SCREW, HEX HD., 1/2-13 x 1-1/4"	12	-	19103A052
48	LEG, SUPPORT	2	-	25469D000
49	KEY, SQUARE, 1/4 x 1/4 x 1-1/4"	1	05818A050	05818A050
50	WIRE WITH TERMINAL, SEAL SENSOR	2	09859A821	09859A821
51	RESISTOR (FOR 8VLX & 12 VLX ONLY)	1	22912A000	22912A000
52	LOCKWASHER, SHAKEPROOF, INTERNAL, NO. 6	2	06107A010	06107A010
53	ELECTRODE, WATER SENSOR	2	25455A000	25455A000
-	STUD, 7/8-9 x 4-1/4" (NOT SHOWN, LOWER VOLUTE)	3	05659A121	-
-	WASHER, 1-3/4 x 29/32 x 1/8 (NOT SHOWN)	3	05030A245	-
-	HEX NUT, 7/8-9 (NOT SHOWN)	3	19109A090	-

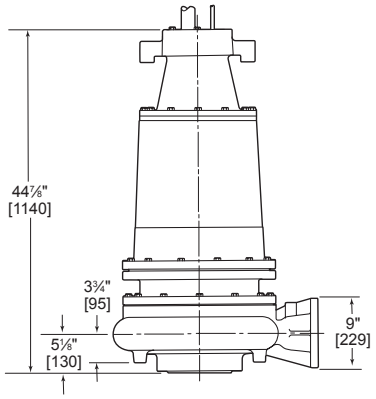
8VL/ 8VLX/ 12VL/ 12VLX

8VL/8VLX	12VL/12VLX	18 ROTOR W/SHAFT	17 STATOR ONLY	15 RING, STATOR SPACER
8VL150M8-03	8VLX150M8-03	25447D000	25444D000	25465D003
8VL150M8-23	8VLX150M8-23	25447D000	25444D000	25465D003
8VL150M8-43	8VLX150M8-43	25447D000	25444D000	25465D003
8VL150M8-53	8VLX150M8-53	25447D000	25444D001	25465D003
8VL200M8-03	8VLX200M8-03	25447D002	25444D002	25465D001
8VL200M8-23	8VLX200M8-23	25447D000	25444D000	25465D003
8VL200M8-43	8VLX200M8-43	25447D000	25444D000	25465D003
8VL200M8-53	8VLX200M8-53	25447D000	25444D001	25465D003
8VL250M8-03	8VLX250M8-03	25447D002	25444D002	25465D001
8VL250M8-23	8VLX250M8-23	25447D002	25444D002	25465D001
8VL250M8-43	8VLX250M8-43	25447D002	25444D002	25465D001
8VL250M8-53	8VLX250M8-53	25447D002	25444D002	25465D001
8VL300M6-23	8VLX300M6-23	25447D006	25444D004	25465D002
8VL300M6-43	8VLX300M6-43	25447D006	25444D004	25465D002
8VL300M6-53	8VLX300M6-53	25447D006	25444D005	25465D002
8VL400M6-23	8VLX400M6-23	25447D006	25444D006	25465D002
8VL400M6-43	8VLX400M6-43	25447D006	25444D006	25465D002
8VL400M6-53	8VLX400M6-53	25447D006	25444D007	25465D002
8VL500M6-23	8VLX500M6-23	25447D007	25444D012	25465D000
8VL500M6-43	8VLX500M6-43	25447D007	25444D013	25465D000
8VL500M6-53	8VLX500M6-53	25447D007	25444D014	25465D000
8VL600M6-43	8VLX600M6-43	25447D008	25444D008	-
8VL600M6-53	8VLX600M6-53	25447D008	25444D009	-
8VL750M4-43	8VLX750M4-43	25447D010	25444D015	-
8VL750M4-53	8VLX750M4-53	25447D010	25444D016	-
8VL1000M4-43	8VLX1000M4-43	25447D010	25444D010	-
8VL1000M4-53	8VLX1000M4-53	25447D010	25444D011	-
8VL1250M4-43	8VLX1250M4-43	25447D010	25444D010	-
8VL1250M4-53	8VLX1250M4-53	25447D010	25444D011	-
12VL150M8-03	12VLX150M8-03	25447D000	25444D000	25465D003
12VL150M8-23	12VLX150M8-23	25447D000	25444D000	25465D003
12VL150M8-43	12VLX150M4-43	25447D000	25444D000	25465D003
12VL150M8-53	12VLX150M4-53	25447D000	25444D001	25465D003
12VL200M8-03	12VLX200M4-03	25447D002	25444D002	25465D001
12VL200M8-23	12VLX200M4-23	25447D000	25444D000	25465D003
12VL200M8-43	12VLX200M4-43	25447D000	25444D000	25465D003
12VL200M8-53	12VLX200M4-53	25447D000	25444D001	25465D003
12VL250M8-03	12VLX250M4-03	25447D002	25444D002	25465D001
12VL250M8-23	12VLX250M4-23	25447D002	25444D002	25465D001
12VL250M8-43	12VLX250M4-43	25447D002	25444D002	25465D001
12VL250M8-53	12VLX250M4-53	25447D002	25444D003	25465D001
12VL300M8-23	12VLX300M4-23	25447D002	25444D002	25465D001
12VL300M8-43	12VLX300M4-43	25447D002	25444D002	25465D001
12VL300M8-53	12VLX300M4-53	25447D002	25444D003	25465D001
12VL400M6-23	12VLX400M6-23	25447D006	25444D006	25465D002
12VL400M6-43	12VLX400M6-43	25447D006	25444D006	25465D002
12VL400M6-53	12VLX400M6-53	25447D006	25444D007	25465D002
12VL500M6-23	12VLX500M6-23	25447D007	25444D012	25465D000
12VL500M6-43	12VLX500M6-43	25447D007	25444D013	25465D000
12VL500M6-53	12VLX500M6-53	25447D007	25444D014	25465D000
12VL600M6-43	12VLX600M6-43	25447D008	25444D008	-
12VL600M6-53	12VLX600M6-53	25447D008	25444D009	-
12VL750M6-43	12VLX750M6-43	25447D008	25444D017	-
12VL750M6-43	12VLX750M6-43	25447D008	25444D018	-

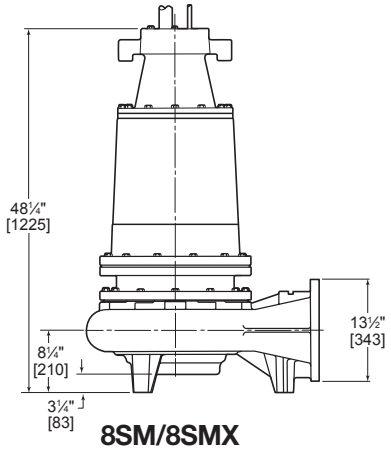
DIMENSIONS



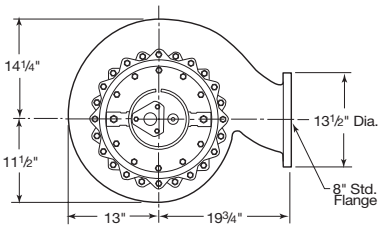


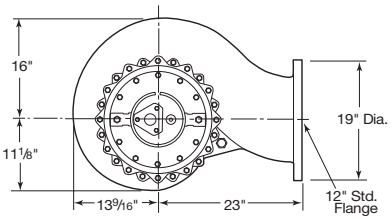


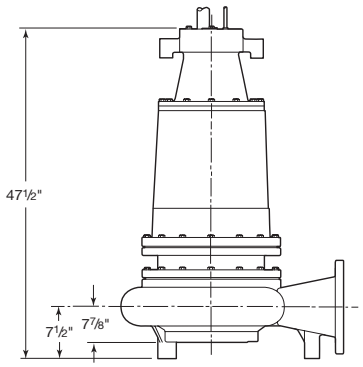
4VL/4VLX



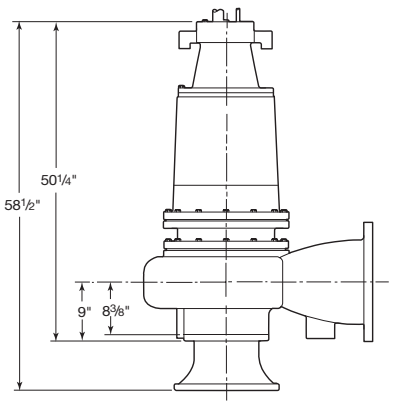
8SM/8SMX







8VL
(8" Submersible
Solids Handling
Wastewater Pump)



12VL
(12" Submersible
Solids Handling
Wastewater Pump)

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STANDARD LIMITED WARRANTY

Pentair Myers® warrants its products against defects in material and workmanship for a period of 12 months from the date of shipment from Pentair Myers or 18 months from the manufacturing date, whichever occurs first – provided that such products are used in compliance with the requirements of the Pentair Myers catalog and technical manuals for use in pumping raw sewage, municipal wastewater or similar, abrasive-free, noncorrosive liquids.

During the warranty period and subject to the conditions set forth, Pentair Myers, at its discretion, will repair or replace to the original user, the parts that prove defective in materials and workmanship. Pentair Myers reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for prior sold and/or shipped units.

Start-up reports and electrical schematics may be required to support warranty claims. Submit at the time of start-up through the Pentair Myers website: http://forms.pentairliterature.com/startupform/startupform.asp?type=m. Warranty is effective only if Pentair Myers authorized control panels are used. All seal fail and heat sensing devices must be hooked up, functional and monitored or this warranty will be void. Pentair Myers will cover only the lower seal and labor thereof for all dual seal pumps. Under no circumstance will Pentair Myers be responsible for the cost of field labor, travel expenses, rented equipment, removal/reinstallation costs or freight expenses to and from the factory or an authorized Pentair Myers service facility.

This limited warranty will not apply: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with the printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and parts used in connection with such service; (d) to units that are not installed in accordance with applicable local codes, ordinances and good trade practices; (e) if the unit is moved from its original installation location; (f) if unit is used for purposes other than for what it is designed and manufactured; (g) to any unit that has been repaired or altered by anyone other than Pentair Myers or an authorized Pentair Myers service provider; (h) to any unit that has been repaired using non factory specified/OEM parts.

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Some states do not permit some or all of the above warranty limitations or the exclusion or limitation of incidental or consequential damages and therefore such limitations may not apply to you. No warranties or representations at any time made by any representatives of Pentair Myers shall vary or expand the provision hereof.

PENTAIR

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Warranty Rev. 12/13