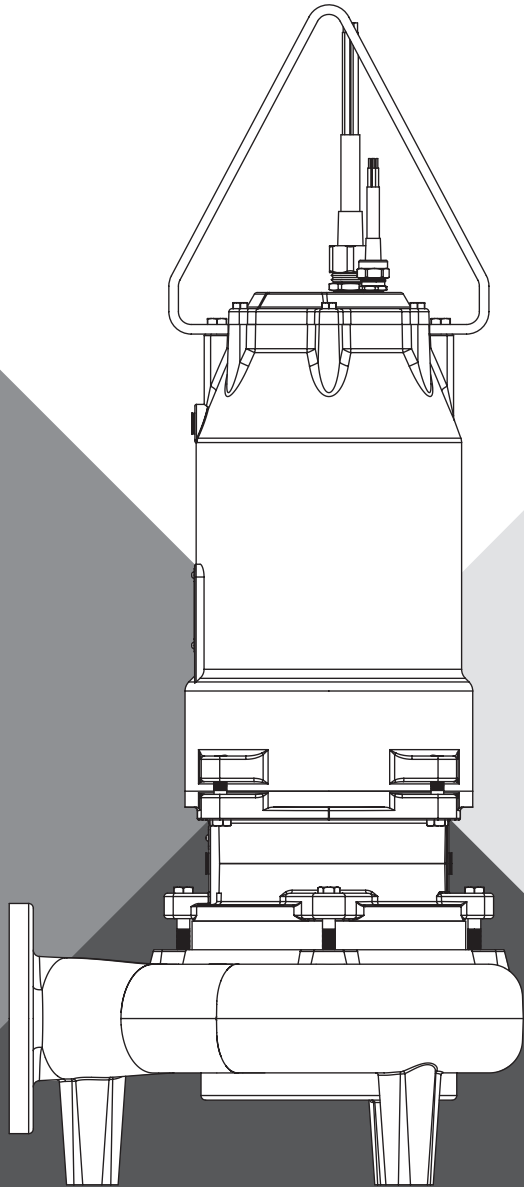




SUBMERSIBLE SOLIDS HANDLING PUMP

C4H(X*)P, H4Q(X*)P, S4K(X*)P, S4L(X*)P, S4LV(X*)P, S4B(X*)P, S6L(X*)P, S6A(X*)P, S8F(X*)P

(*USED IN HAZARDOUS LOCATIONS CLASS I, DIVISION I, GROUPS C & D): FM



INSTALLATION AND OPERATION MANUAL

pentair.com

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SAFETY INFORMATION

SAFETY SYMBOLS

 This is the safety alert symbol. When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury:


 **DANGER** warns about hazards that will cause serious personal injury, death or major property damage if ignored.

 **WARNING** warns about hazards that can cause serious personal injury, death or major property damage if ignored.



 **CAUTION** warns about hazards that will or can cause minor personal injury or property damage if ignored.




The word **NOTICE**: indicates special instructions that are important but not related to hazards.

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 SAFETY


- ◆  **CAUTION** Do not touch an operating motor. Modern motors can operate at high temperatures. To avoid burns when servicing pump, allow it to cool for 30 minutes after shutdown before handling.
- ◆ Follow all applicable local and state codes and regulations.
- ◆ Submersible pumps are not approved for and should not be used in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pump fluid is common. Pump is designed for municipal and commercial wastewater applications.
- ◆ Keep safety labels in good condition, replacing any missing or damaged labels.
- ◆ **DO NOT** run the pump dry. Dry running can overheat the pump, (causing burns to anyone handling it) and will void the warranty.
- ◆ The pump is permanently lubricated. No oiling or greasing is required in normal operation.
- ◆ Periodically inspect pump and system components.
- ◆ Wear safety glasses at all times when working on pumps.
- ◆ Keep work area clean, uncluttered and properly lighted. Store all unused tools and equipment.
- ◆ **DO NOT** use to pump flammable liquids.
- ◆  **DANGER RISK OF FIRE OR EXPLOSION.** Can cause severe personal injury, property damage or death. Do not smoke or use open flames in or around this system.

- ◆  **DANGER CUTTING RISK.** Risk of serious cutting or amputation exists. Use caution as liner plate is extremely sharp. Always keep fingers and hands away from cutting profiles. Disconnect all power sources prior to servicing pump. Pump may start without warning.
- ◆  **DANGER RISK OF ASPHYXIATION.** Installer(s) and/or service personnel must use proper Personal Protective Equipment and follow OSHA 29 CFR 1910.146 or OSHA 29 CFR 1926. Pump may be installed in a location classified as a confined space.
- ◆  **DANGER BIOHAZARD RISK.** Once wastewater source has been connected to system, Biohazard Risk exists. Installer(s) and/or service personnel must use proper personal Protective Equipment and follow handling procedures per OSHA 29 CFR 1910.1030 when handling equipment after wastewater source has been connected to system.
- ◆ **NOTICE:** FM rated models are only to be used in 60hz applications.

ELECTRICAL SAFETY

 **DANGER HAZARDOUS VOLTAGE. CAN SHOCK, BURN, OR KILL.** When installing, operating, or servicing this pump, follow the safety instructions listed below.

- ◆  **DANGER ELECTROCUTION HAZARD:** Must be installed by a qualified professional. Disconnect all electrical power before attempting service.
- ◆ **DO NOT** modify the cord. When wiring to a system control, connect ground lead to the system ground.
- ◆ **DO NOT** splice the electrical power cord.
- ◆ **DO NOT** allow the power leads on the end of the electrical cords to be submerged.
- ◆ **DO NOT** handle or service the pump while it is connected to the power supply.

 **WARNING** A water test must be taken before installation of any water treatment equipment. The water quality can significantly influence the life of your system. You should test for corrosive elements, acidity, total solids and other relevant contaminants, including chlorine and treat your water appropriately to ensure satisfactory performance and prevent premature failure.

GENERAL INFORMATION

This manual contains important safety information regarding the use of this product. This product should only be installed and serviced by a qualified professional. Carefully read and follow all safety instructions in this manual and on the unit itself before installing or operating pump. Keep this manual for future reference.

Reasonable care and safe methods should be practiced. Check local codes and requirements before installation.

UNPACKING PUMP

▲ WARNING **LIFTING HAZARD.** Unassisted lifting of pump can cause injury. Mechanical assistance required.

DO NOT life pump by power cord.

When unpacking unit, check for damage. Claims for damage must be made at the receiving end through the delivery carrier. Damage cannot be processed from the factory.

▲ DANGER **RISK OF FIRE OR EXPLOSION.** Before handling these pumps and controls, always disconnect the power first. Do not smoke or use sparkable electrical devices or flames in a septic (gaseous) or possible septic sump. Do not pump flammable liquids with this pump.

PUMPS IN STORAGE OR NOT OPERATING

Pumps with silicon/carbide seals must have impellers manually rotated (6 revolutions) after setting non-operational for 3 months or longer and prior to electrical start-up.

Pumps with tungsten carbide seals must have impellers manually rotated (6 revolutions) after setting non-operational for 3 weeks or longer and prior to electrical start-up.

SEAL FAILURE PROBES

HAZARDOUS DUTY RATED PUMPS:

All submersible pumps have two factory installed moisture detectors (seal failure probes). They should have a resistance of around 330K ohms for the series circuit in the seal chamber. Under normal operating conditions, the circuit remains around 330K ohm. If the circuit shows open the circuit is not complete indicating a broken wire, corroded wire, or loose connection. If the lower seal leaks and moisture enters this chamber, the moisture would settle to the bottom of the chamber and will complete (significantly less than 330K ohms) the circuit between the moisture detectors.

NON-HAZARDOUS DUTY RATED PUMPS:

For all non-hazardous duty rated pumps the resistance(ohm) readings between the seal probe wires should be open in normal operating conditions. A lower resistance indicates water intrusion.

This circuit must be connected to a sensing unit and signaling device. This is supplied in a manufacturer built control panel. Failure to install such a device negates all warranties.

HEAT SENSORS

All motors in this family have heat sensors on or embedded in the motor winding to detect excessive heat. This prevents damage to the motor. If sensor trips due to excessive winding temperature, the starter in the panel breaks power to the pump.

Once the sensor resets, the starter is automatically reset for FM for continued operation of the pump. This circuitry is supplied in a Hydromatic control panel. **The sensors are set to trip at 130°C.** Failure to install such circuitry would negate FM approvals and all warranties by Hydromatic.

POWER CORDS

The power cord and heat sensor seal failure cord are potted into the cord cap. The cords must not be spliced.

Each cable has a green lead. This is the ground wire and must be grounded properly per NEC and/or local codes. Cords should be inspected for abnormal wear and replaced accordingly.

OVERLOAD HEATERS

If the Hydromatic electrical panel is not used, starters with 3 leg overload relay must be supplied on 3 phase pumps. Each leg is to have an identical heater sized in accordance with the nameplate amps on the motor housing. The amp draw on these submersible motors is slightly higher than a corresponding horsepower surface motor, so heaters must be sized by the nameplate rating.

Capacitor start single phase pumps have a run and start winding that draws different currents. To adequately protect these windings with the appropriate heaters, consult the factory.

The red lead is always the start winding of a pump using single phase.

INSTALLING SUMP LEVEL CONTROLS FLOAT CONTROLS

In either simplex, duplex or triplex systems, the lower or turn-off control is to be set to maintain a minimum level in the sump. This level shall be no more than 3-1/4" from the top of the motor housing down to the surface of the sewage.

The second or turn-on control is set above the lower turn-off control. The exact distance between the two floats must be a compromise between a frequent pumping cycle (15 starts per hour max.) to control septicity, solids and a slower cycle for energy economy. This distance should be determined by the engineer or consulting engineer, depending on the conditions of the application.

INSTALLATION & OPERATIONS

INSTALLING PUMP IN SUMP

Before installing the pump in the sump, lay it on its side and rotate impeller. Impeller may be slightly stuck due to factory test water. The impeller should turn freely. **DO NOT** connect the power until after this test.

Clean all debris from sump and connect pump to piping. A check valve must be installed on each pump and a gate or plug valve in each pump discharge is highly recommended. This valve should be installed on the discharge side of the check valve so if it becomes necessary to service the check valve, the line pressure can be cut off. Single pump systems are sometimes installed without a check valve where it is desirable to self-drain the discharge line to prevent freezing. This can be done only with short discharge lines; otherwise water will return to the sump and cause short cycling of the pump.

MAKING ELECTRICAL CONNECTIONS

All electrical wiring must be in accordance with local codes, and only competent electricians should make the installations. Complete wiring diagrams are glued to the inside cover of the panel. It is VERY IMPORTANT to check all wires for grounds with an ohmmeter or Megger(r) after the connections are made **as one grounded wire can cause considerable trouble.**

NOTE: If equipment is not properly wired and protected as recommended, the warranty is void.

CAUTION The 230 volt 3 phase pump has a dual marked nameplate. For ordinary location pumps, voltage may be rewired by qualified personnel. For hazardous location pumps, voltage may be rewired by the manufacturer or a Class I, Div I equipment qualified electrician. Once the voltage is changed, the factory cord tag indicating 230 volt 3 phase must be removed.

For record keeping purposes, we suggest the pump be marked externally with the new voltage and qualified personnel that performed the change. Pumps shipped from the factory as 460 volt 3 phase cannot be rewired to any other voltage.

TO RE-WIRE THE PUMP FROM 230V TO 460V 3 PHASE

Only a 230V pump from the factory is considered dual voltage, a cord label clearly states the factory wound voltage.

1. Remove all six (#7) cap screws then raise the cord cap assembly enough to slip a prying instrument on opposite sides between the cord cap casting and the motor housing. Take care to not damage the o-ring or the machined surfaces of the castings. Doing so could void FM agency certifications.
2. While prying evenly on both sides; separate the cord cap casting from the motor housing, the assembly is airtight and will have a vacuum effect when disassembling.
3. Once separated, the cord cap can be inverted and rotated to the outside of the pump assembly, and a bolt can be re-used to secure the upside down cord cap to the motor housing for ease of rewiring.

Refer to the wiring diagram within this manual for wiring details. Once all electrical connections are finished and secure (a crimped electrical connector is best to prevent issues due to vibration if required), the cord cap should be re-attached reversing the steps above. Ensure the o-ring is in place and perform a hi-pot test for safety once everything is complete.

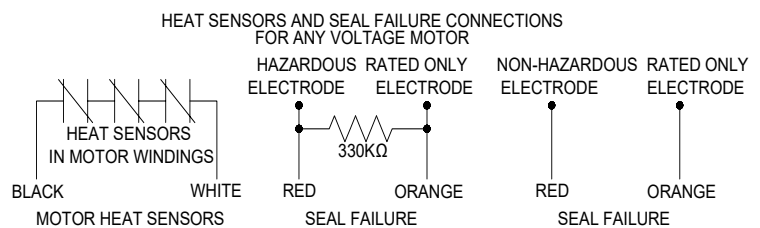
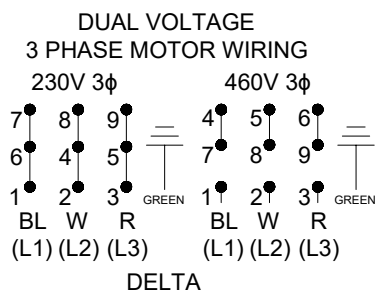
HEAT SENSORS AND SEAL FAILURE CONNECTIONS

Be sure heat sensor wires are connected in series with the starter coil. Connections are provided on the terminal strip.

NUMBER OF CONDUCTORS REQUIRED BETWEEN CONTROL PANEL AND NEMA 4 JUNCTION BOX

Power lines and control wires can be carried in conduit or can be underground buried cable

SYSTEM TYPE	NUMBER OF CONTROL WIRE	NUMBER OF POWER LINE	NUMBER OF GROUND WIRES #8	HEAT SENSOR & SEAL FAILURE	
				NUMBER OF SENSOR WIRES	NUMBER OF GROUND WIRES
Simplex	4	3	1	3	1
Simplex with Alarm	6	3	1	3	1
Duplex	6	6	2	6	2
Duplex with Alarm	8	6	2	6	2



INSTALLATION & OPERATIONS

PUMP OPERATIONS STARTING SYSTEM

1. Double check all wire connections.
2. Turn pumps to Off position on H-O-A switches.
3. Turn on breakers.
4. When using single phase pumps, make sure red pump lead is connected to capacitor circuit. Connect amprobe to pump power cord and turn pump on. The pump will show high amp draw momentarily, then as pump comes off start wirings, amps will drop to normal nameplate amps.
5. When using three phase pumps (230/460/575), turn the H-O-A switch to Hand position on one pump and notice operation. If pump is noisy and vibrates, rotation is wrong. To change rotation, interchange any two line leads to pump. Do not interchange main incoming lines. Check rotation of all pumps in this same manner.
6. Now set both H-O-A switches to Auto position and allow water to rise in sump until one pump starts. Allow pump to operate until the level drops to turn-off point.
7. Allow sump level to rise to start other pump(s). Notice run lights in panel. Pumps should alternate on each successive cycle of operation.
8. Turn both H-O-A switches to Off position and allow sump to fill to the override control level(s).
9. Turn switches to Auto position, and pumps should start and operate together until level drops to turn-off point.
10. Repeat this operation and cycle several times before leaving the job.
11. Check voltage when pumps are operating and check the amp draw of each pump. Check amps on each wire as sometimes a high leg will exist. For excessive voltage on one leg, the electric utility company should be consulted.

PUMP MAINTENANCE

As the motors are oil filled, no lubrication or other maintenance is required. If the heat sensor and seal failure are hooked up properly, no attention is necessary as long as the seal failure indicator light does not come on. To ensure continuity of the seal sensor leads, a test light is provided on intrinsically safe Hydromatic panels as standard equipment. Pump should be checked every quarter for corrosion and wear.

⚠ WARNING Before handling these pumps and controls, always disconnect the power first. Do not smoke, use flames or devices that can produce electrical discharge or sparks in a septic (gaseous) or possible septic sump.

FIELD SERVICE ON HYDROMATIC ORDINARY LOCATION PUMPS

Ordinary location submersible motors that are out of warranty can be serviced in the field by any reliable motor service shop. Any pump that is in warranty must be returned to the factory for

service or repaired at an authorized Pentair Hydromatic service center. Charges will not be allowed if (in warranty) pump is not taken to an authorized Pentair Hydromatic service center. When field service is performed on a pump, these instructions should be carefully followed.

FIELD SERVICE ON HYDROMATIC HAZARDOUS LOCATION PUMPS

Hydromatic hazardous location pumps must be returned to the factory for electrical and motor service. Any repair not at an authorized service center will void the Factory Mutual (FM) listing. This will ensure the integrity of the hazardous location rating of the pump and comply with our warranty requirements.

The upper and lower seal, volute and impeller components may be repaired or replaced by an authorized Hydromatic service facility without compromising the hazardous location rating to the pump.

Any time a seal is disturbed, it must be replaced. Check the pump for proper rotation before returning to service.

ADJUST CUTTER CLEARANCE ON CHOPPER PUMP

⚠ WARNING Disconnect power before adjusting chopper clearance; always keep fingers and hands away from chopper parts.

1. First install the chopper plate (Item D) into the volute. It may be helpful to install 1/2-20 studs into the chopper plate to line up the holes with the corresponding volute holes. You may have to tap the plate all the way down with a rubber hammer.
2. Remove the studs and replace with four 1/2-20 x 1 (Item A) in long socket head screws from beneath the volute, do not tighten.
3. Install motor with impeller mounted, tighten motor housing bolts to the volute
4. Install the chopper retainer ring (Item B) and tighten the four 3/8-16 x 1" long (Item C) socket head cap screws to force the chopper plate up against the impeller and chopper blade
5. Next back off these 3/8-16 (Item C) bolts one quarter of a turn. This should give you .015 clearances.
6. Tighten the outer four 1/2-20 screws (Item A) to 75-85 Ft-lbs.
7. Measure the clearance with a feeler gage it should be between .010 and .015.
8. Spin impeller with a hex wrench on the Impeller hub screw or use a wooden pry bar to spin impeller to make sure there is no rub.
9. If you hear or feel a rub readjust the clearance by loosening the inner 3/8-16" screws evenly and tightening the 1/2-20 screws.

TROUBLESHOOTING

PUMP TROUBLESHOOTING

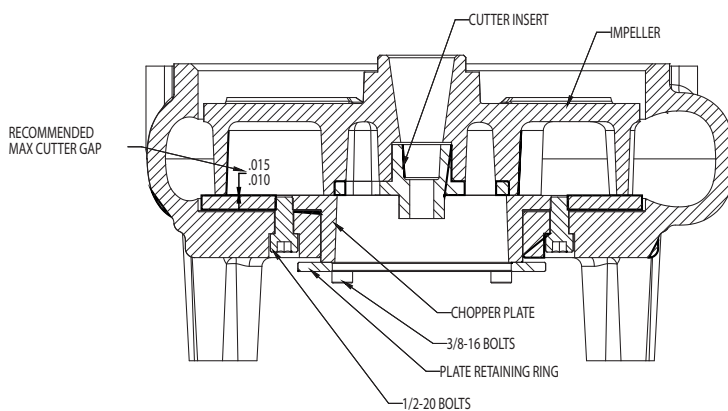
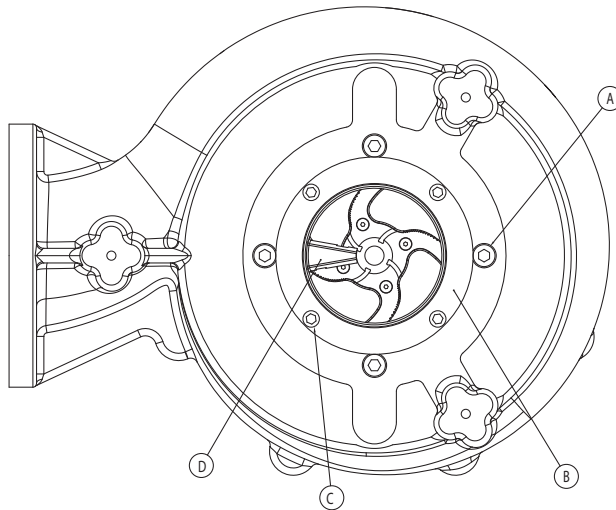
Below is a list of common problems and the probable causes:

PUMP WILL NOT START.

1. No power to the motor. Check for blown fuse or open circuit breaker.
2. Selector switch may be in the Off position.
3. Control circuit transformer fuse may be blown.
4. Overload heater on starter may be tripped. Push to reset.

PUMP WILL NOT START AND OVERLOAD HEATERS TRIP.

1. Turn off power and check motor leads with Megger or ohmmeter for possible ground.
2. Check resistance of motor windings. All 3 phases should show the same reading.
3. If no grounds exist and the motor windings check OK, remove pump from sump and check for clogged or blocked impeller.



PUMP OPERATES WITH SELECTOR SWITCH IN HAND POSITION BUT WILL NOT OPERATE IN AUTO POSITION.

1. This indicates trouble in the float level control or the alternator relay.
2. Check control panel for trouble.

PUMP RUNS BUT WILL NOT SHUT OFF.

1. Pump may be air locked. Turn pump off and let set for several minutes, then restart.
2. Lower float control may be hung-up in the closed position. Check in sump to be sure control is free.
3. Selector switch may be in the Hand position.

PUMP DOES NOT DELIVER PROPER CAPACITY.

1. Discharge gate valve may be partially closed or partially clogged.
2. Check valve may be partially clogged. Raise level up and down to clear.
3. Pump may be running in wrong direction. Low speed pumps can operate in reverse direction without much noise or vibration.
4. Discharge head may be too high. Check total head with gauge when pump is operating. Total head is discharge gauge pressure converted to feet plus vertical height from water level in sump to center line of pressure gauge in discharge line. Gauge should be installed on pump side of all valves. Multiply gauge pressure in pounds by 2.31 to get head in feet.
5. If pump has been in service for some time and capacity falls off, remove pump and check for wear or clogged impeller.

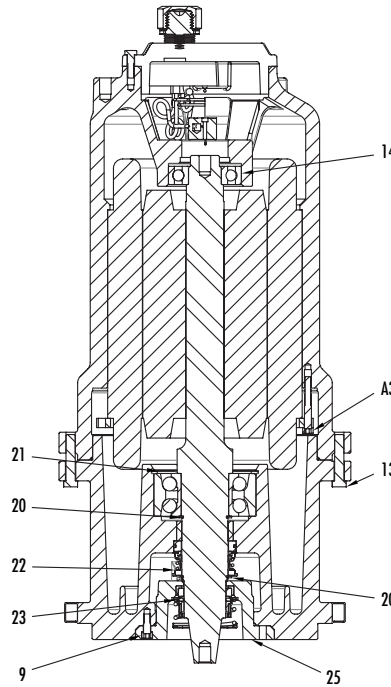
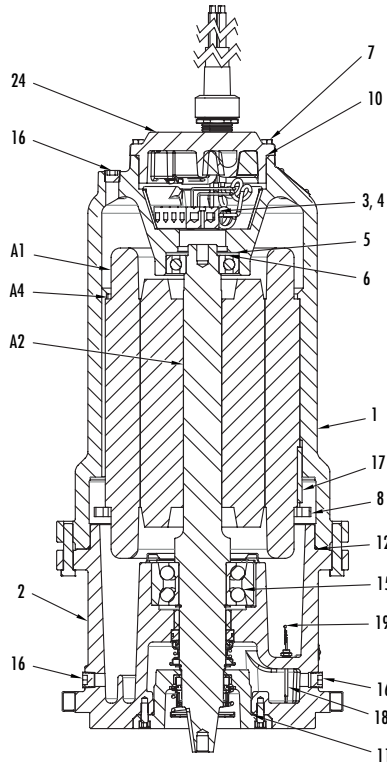
MOTOR STOPS AND THEN RESTARTS AFTER SHORT PERIOD BUT OVERLOAD HEATERS IN STARTER DO NOT TRIP.

1. This indicates heat sensors in the motor are tripping due to excessive heat. Impeller may be partially clogged giving a sustained overload but not high enough to trip overload heater switch.
2. Motor may be operating out of liquid due to a failed level control.
3. Pump may be operating on a short cycle due to sump being too small or from water returning to sump due to a leaking check valve.

PARTS INDEX

C4H(X)P, H4Q(X)P, S4K(X)P, S4L(X)P, S4LV(X)P, S4B(X)P, S6L(X)P, S6A(X)P AND S8F(X)P

For use with product built with Premium Efficient motor.



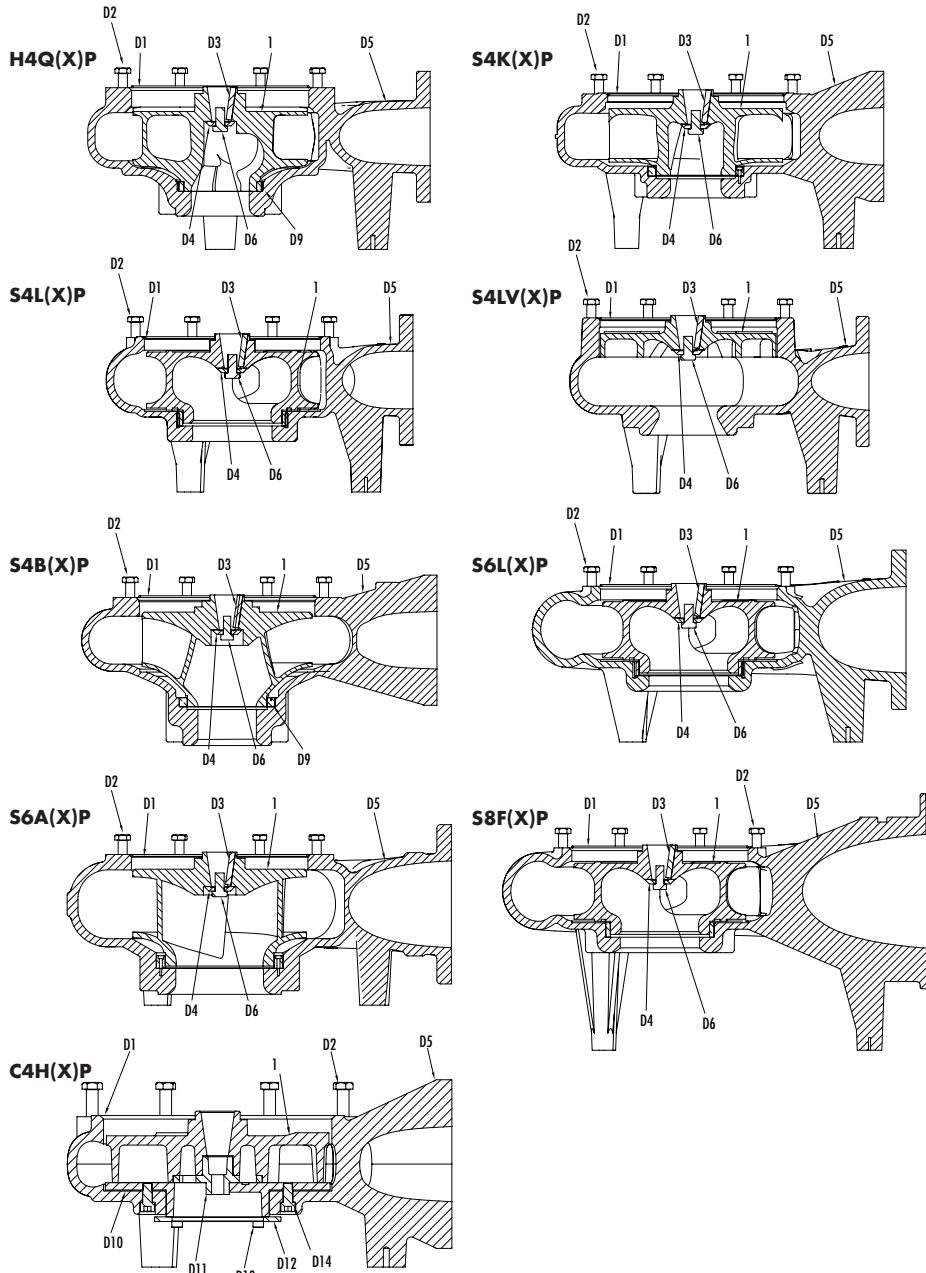
250 FRAME PUMPS

Ref.	Part No.	Part Description	Qty.
1	28011D000	MOTOR HOUSING	1
2	27808D010	BEARING HOUSING	1
3	27882A009	TERMINAL BLOCK*	1
4	06106A069	SCREW - CAP SKT HD.	2
5	110650043	SCREEN	1
6	19331A009	WASHER SPRING	1
7	19101A017	SCREW - CAP	6
8	026030003	STATOR RING	1
9	06106A028	SCREW - SEAL PLATE	4
10	001500191	O-RING (CORD CAP)	1
11	05876A112	O-RING (SEAL PLATE)	1
12	05876A178	O-RING (MOTOR HOUSING)	1
13	19103A048	SCREW - CAP	8
14	08565A026	BALL BEARING	1
15	071670171	ANG. CONTACT DBL ROW BALL BEARING	1
16	009240101	PLUG - PIPE 1/2" SKT HD. BRASS	3
17	05818A012	STATOR KEY	1
18	109010021	PROBE - SEAL FAILURE	2
19	109000045	SEAL - SENSOR ASSEMBLY	1
20	12558A036	RETAINING RING - EXTERNAL	2
21	009740041	RETAINING RING - INTERNAL	1
22	27994A000	SIL CAR/CARBON - NITRILE UPPER	1
23	080732251	SIL CAR/CARBON - NITRILE LOWER	1
24	152880315	CORD CAP ASSEMBLY - 10-4 SOOW	1
	152880325	CORD CAP ASSEMBLY - 8-4 W	1
	152880335	CORD CAP ASSEMBLY - 6-4 W	1
	152880345	CORD CAP ASSEMBLY - 4-4 W	1
25	107550312	SEAL PLATE	1
	132531001	OIL, DIELECTRIC	VARIES

280 FRAME PUMPS - DISCONTINUED, FOR REFERENCE ONLY

Ref.	Part No.	Part Description	Qty.
1	28012D000	MOTOR HOUSING	1
2	27966D010	BEARING HOUSING	1
3	27882A009	TERMINAL BLOCK*	1
4	06106A069	SCREW - CAP SKT HD.	2
5	110650043	SCREEN	1
6	19331A009	WASHER SPRING	1
7	19101A017	SCREW - CAP	6
8	026032801	STATOR RING	1
9	06106A028	SCREW - SEAL PLATE	4
10	001500191	O-RING (CORD CAP)	1
11	05876A112	O-RING (SEAL PLATE)	1
12	001500441	O-RING (MOTOR HOUSING)	1
13	19103A062	SCREW - CAP	8
14	08565A026	BALL BEARING	1
15	071670171	ANG. CONTACT DBL ROW BALL BEARING	1
16	009240101	PLUG - PIPE 1/2" SKT HD. BRASS	3
17	05818A012	STATOR KEY	1
	05818A005	STATOR KEY - All 1750RPM & 30hp 1150RPM	1
18	109010021	PROBE - SEAL FAILURE	2
19	109000045	SEAL - SENSOR ASSEMBLY	1
20	12558A036	RETAINING RING - EXTERNAL	2
21	009740041	RETAINING RING - INTERNAL	1
22	27994A000	SIL CAR/CARBON - NITRILE UPPER	1
23	080732251	SIL CAR/CARBON - NITRILE LOWER	1
24	152880315	CORD CAP ASSEMBLY - 10-4 SOOW	1
	152880325	CORD CAP ASSEMBLY - 8-4 W	1
	152880335	CORD CAP ASSEMBLY - 6-4 W	1
	152880345	CORD CAP ASSEMBLY - 4-4 W	1
25	107550312	SEAL PLATE	1
	132531001	OIL, DIELECTRIC	VARIES

PARTS INDEX



D3, D6, D15 - Not shown in this view

Item No.	Description	S4L(X)P	S4B(X)P	S4K(X)P	S4LV(X)P	H4Q(X)P	S6L(X)P	S6A(X)P	S8F(X)P	C4H(X)P
1	IMPELLER	025940002	136920012	137200012	110430002	151510012	025940002	136940052	025940002	153590002
D1	O-RING	05876A178	05876A178	05876A178	05876A178	05876A178	05876A178	05876A178	05876A178	05876A178
D2	SCREW-CAP	005700601(8)	005700601(8)	005700601(8)	005700601(8)	005700601(8)	005700601(8)	005700601(8)	005700601(8)	005700601(8)
D3	KEY	05818A010	05818A010	05818A010	05818A010	05818A010	05818A010	05818A010	05818A010	05818A010
D4	WASHER-IMPELLER	019450001	019450001	019450001	019450001	019450001	019450001	019450001	019450001	N/A
D5	VOLUTE	089190015	136910022	137190002	107830002	151520015	089180015	136930012	089260025	153580002
D6	IMP BOLT	005700181	005700181	005700181	005700181	005700181	005700181	005700181	005700181	005680191
D7	SCREW-MACHINE (NOT SHOWN)	SEE VOLUTE ASSY	008290061(3)	008290061(3)	N/A	SEE VOLUTE ASSY	SEE VOLUTE ASSY	008290091(4)	SEE VOLUTE ASSY	N/A
D8	WEAR RING	SEE VOLUTE ASSY	136900003	136900003	N/A	SEE VOLUTE ASSY	SEE VOLUTE ASSY	136900003	SEE VOLUTE ASSY	N/A
D9	CUTTER PLATE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	153600002
D10	CUTTER INSERT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	153320014
D11	RETAINER PLATE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	153330001
D13	SCREW-CAP (RETAINER PLATE)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	06106A028(4)
D14	SCREW-CAP (CUTTER PLATE)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	005680021(4)
D15	SCREW-FLAT HEAD SCKT (INSERT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07597A037(4)

MOTOR PARTS GROUP

250 FRAME PUMPS MOTOR PARTS GROUP

ITEM	4-POLE 1750 RPM	40 HP	40 HP	30 HP	30 HP	30 HP	20 – 25 HP	20 – 25 HP	20 – 25 HP
		460/3/60	575/3/60	230/3/60	460/3/60	575/3/60	208-230/3/60	460/3/60	575/3/60
A1	STATOR	27904D003	27904D603	27903D003	27903D003	27903D603	27902D003	27902D003	27902D603
A2	ROTOR/SHAFT ASSEMBLY	27904D011	27904D011	27903D011	27903D011	27903D011	27902D011	27902D011	27902D011
A3	BOLT - STATOR (4)	06106A071	06106A071	06106A027	06106A027	06106A027	06106A027	06106A027	06106A027
A4	SPACER	-	-	076650011	076650011	076650011	076650041	076650041	076650041
	CONNECTOR	12672A001	-	-	12672A001	-	-	12672A001	-

ITEM	6-POLE 1150 RPM	15 HP	15 HP	15 HP	7.5 – 10 HP	7.5 – 10 HP	7.5 – 10 HP
		208-230/3/60	460/3/60	575/3/60	208-230/3/60	460/3/60	575/3/60
A1	STATOR	27901D003	27901D003	27901D603	27900D003	27900D003	27900D603
A2	ROTOR/SHAFT ASSEMBLY	27901D011	27901D011	27901D011	27900D011	27900D011	27900D011
A3	BOLT - STATOR (4)	06106A027	06106A027	06106A027	06106A027	06106A027	06106A027
A4	SPACER	076650041	076650041	076650041	076650121	076650121	076650121
	CONNECTOR	-	12672A001	-	-	12672A001	-

ITEM	8-POLE 870 RPM	5 – 7.5 HP	5 – 7.5 HP	5 – 7.5 HP
		208-230/3/60	460/3/60	575/3/60
A1	STATOR	27898D003	27898D003	27898D603
A2	ROTOR/SHAFT ASSEMBLY	27898D011	27898D011	27898D011
A3	BOLT - STATOR (4)	06106A027	06106A027	06106A027
A4	SPACER	076650121	076650121	076650121
	CONNECTOR	-	12672A001	-

280 FRAME PUMPS MOTOR PARTS GROUP - DISCONTINUED, FOR REFERENCE ONLY

ITEM	4-POLE 1750 RPM	50 HP	50 HP
		460/3/60	575/3/60
A1	STATOR	27959D003	27959D603
A2	ROTOR/SHAFT ASSEMBLY	27959D011	27959D011
A3	BOLT - STATOR (4)	06106A071	06106A071
	CONNECTOR	12672A001	-

ITEM	6-POLE 1150 RPM	20 – 25 HP	20 – 25 HP	20 – 25 HP
		208-230/3/60	460/3/60	575/3/60
A1	STATOR	27961D003	27961D003	27961D603
A2	ROTOR/SHAFT ASSEMBLY	27961D011	27961D011	27961D011
A3	BOLT - STATOR (4)	005560081	005560081	005560081
	CONNECTOR	-	12672A001	-

ITEM	8-POLE 870 RPM	10 – 15 HP	10 – 15 HP	10 – 15 HP
		208-230/3/60	460/3/60	575/3/60
A1	STATOR	27963D003	27963D003	27963D603
A2	ROTOR/SHAFT ASSEMBLY	27963D011	27963D011	27963D011
A3	BOLT - STATOR (4)	005560081	005560081	005560081
A4	SPACER	076651001	076651001	076651001
	CONNECTOR	-	12672A001	-

IMPELLER PARTS LIST

250 FRAME PUMPS IMPELLER PARTS LIST

H40(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
H40(X)P2000DC	20	208/3	6-4	9	151510062
H40(X)P2000EC	20	230/3	6-4	9	151510062
H40(X)P2000FC	20	460/3	8-4	9	151510062
H40(X)P2000GC	20	575/3	8-4	9	151510062
H40(X)P2500DC	25	208/3	4-4	10	151510042
H40(X)P2500EC	25	230/3	6-4	10	151510042
H40(X)P2500FC	25	460/3	8-4	10	151510042
H40(X)P2500GC	25	575/3	8-4	10	151510042
H40(X)P3000EC	30	230/3	4-4	11	151510022
H40(X)P3000FC	30	460/3	8-4	11	151510022
H40(X)P3000GC	30	575/3	8-4	11	151510022
H40(X)P4000FC	40	460/3	6-4	12	151510012
H40(X)P4000GC	40	575/3	8-4	12	151510012

S4B(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4B(X)P2000DC	20	208/3	6-4	9	136920132
S4B(X)P2000EC	20	230/3	6-4	9	136920132
S4B(X)P2000FC	20	460/3	8-4	9	136920132
S4B(X)P2000GC	20	575/3	8-4	9	136920132
S4B(X)P2500DC	25	208/3	4-4	9.5	136920112
S4B(X)P2500EC	25	230/3	6-4	9.5	136920112
S4B(X)P2500FC	25	460/3	8-4	9.5	136920112
S4B(X)P2500GC	25	575/3	8-4	9.5	136920112
S4B(X)P3000EC	30	230/3	4-4	10	136920092
S4B(X)P3000FC	30	460/3	8-4	10	136920092
S4B(X)P3000GC	30	575/3	8-4	10	136920092
S4B(X)P4000FC	40	460/3	6-4	11	136920052
S4B(X)P4000GC	40	575/3	8-4	11	136920052
1150 RPM					
S4B(X)P750DB	7.5	208/3	8-4	10	136920092
S4B(X)P750EB	7.5	230/3	8-4	10	136920092
S4B(X)P750FB	7.5	460/3	10-4	10	136920092
S4B(X)P750GB	7.5	575/3	10-4	10	136920092
S4B(X)P1000DB	10	208/3	8-4	11	136920052
S4B(X)P1000EB	10	230/3	8-4	11	136920052
S4B(X)P1000FB	10	460/3	10-4	11	136920052
S4B(X)P1000GB	10	575/3	10-4	11	136920052
S4B(X)P1500DB	15	208/3	8-4	12	136920012
S4B(X)P1500EB	15	230/3	8-4	12	136920012
S4B(X)P1500FB	15	460/3	8-4	12	136920012
S4B(X)P1500GB	15	575/3	10-4	12	136920012
870 RPM					
S4B(X)P500DA	5	208/3	8-4	11	136920052
S4B(X)P500EA	5	230/3	10-4	11	136920052
S4B(X)P500FA	5	460/3	10-4	11	136920052
S4B(X)P500GA	5	575/3	10-4	11	136920052
S4B(X)P750DA	7.5	208/3	8-4	12	136920012
S4B(X)P750EA	7.5	230/3	8-4	12	136920012
S4B(X)P750FA	7.5	460/3	10-4	12	136920012
S4B(X)P750GA	7.5	575/3	10-4	12	136920012

S4K(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4K(X)P2000DC	20	208/3	6-4	9.25	137200122
S4K(X)P2000EC	20	230/3	6-4	9.25	137200122
S4K(X)P2000FC	20	460/3	8-4	9.25	137200122
S4K(X)P2000GC	20	575/3	8-4	9.25	137200122
S4K(X)P2500DC	25	208/3	4-4	10.5	137200072
S4K(X)P2500EC	25	230/3	6-4	10.5	137200072
S4K(X)P2500FC	25	460/3	8-4	10.5	137200072
S4K(X)P2500GC	25	575/3	8-4	10.5	137200072
S4K(X)P3000EC	30	230/3	4-4	11	137200052
S4K(X)P3000FC	30	460/3	8-4	11	137200052
S4K(X)P3000GC	30	575/3	8-4	11	137200052
S4K(X)P4000FC	40	460/3	6-4	12	137200012
S4K(X)P4000GC	40	575/3	8-4	12	137200012

S4LV(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4LV(X)P2000DC	20	208/3	6-4	8.63	110430132
S4LV(X)P2000EC	20	230/3	6-4	8.63	110430132
S4LV(X)P2000FC	20	460/3	8-4	8.63	110430132
S4LV(X)P2000GC	20	575/3	8-4	8.63	110430132
S4LV(X)P2500DC	25	208/3	4-4	9.25	110430122
S4LV(X)P2500EC	25	230/3	6-4	9.25	110430122
S4LV(X)P2500FC	25	460/3	8-4	9.25	110430122
S4LV(X)P2500GC	25	575/3	8-4	9.25	110430122
S4LV(X)P3000EC	30	230/3	4-4	10.38	110430382
S4LV(X)P3000FC	30	460/3	8-4	10.38	110430382
S4LV(X)P3000GC	30	575/3	8-4	10.38	110430382
S4LV(X)P4000FC	40	460/3	6-4	11.5	110430012
S4LV(X)P4000GC	40	575/3	8-4	11.5	110430012
1150 RPM					
S4LV(X)P750DB	7.5	208/3	8-4	10	110430042
S4LV(X)P750EB	7.5	230/3	8-4	10	110430042
S4LV(X)P750FB	7.5	460/3	10-4	10	110430042
S4LV(X)P750GB	7.5	575/3	10-4	10	110430042
S4LV(X)P1000DB	10	208/3	8-4	11.25	110430082
S4LV(X)P1000EB	10	230/3	8-4	11.25	110430082
S4LV(X)P1000FB	10	460/3	10-4	11.25	110430082
S4LV(X)P1000GB	10	575/3	10-4	11.25	110430082
S4LV(X)P1500DB	15	208/3	8-4	12	110430002
S4LV(X)P1500EB	15	230/3	8-4	12	110430002
S4LV(X)P1500FB	15	460/3	8-4	12	110430002
S4LV(X)P1500GB	15	575/3	10-4	12	110430002
870 RPM					
S4LV(X)P500DA	5	208/3	8-4	11.5	110430012
S4LV(X)P500EA	5	230/3	10-4	11.5	110430012
S4LV(X)P500FA	5	460/3	10-4	11.5	110430012
S4LV(X)P500GA	5	575/3	10-4	11.5	110430012
S4LV(X)P750DA	7.5	208/3	8-4	12	110430002
S4LV(X)P750EA	7.5	230/3	8-4	12	110430002
S4LV(X)P750FA	7.5	460/3	10-4	12	110430002
S4LV(X)P750GA	7.5	575/3	10-4	12	110430002

MOTOR PARTS GROUP

250 FRAME PUMPS IMPELLER PARTS LIST

S4L(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4L(X)P2000DC	20	208/3	6-4	9.88	025940372
S4L(X)P2000EC	20	230/3	6-4	9.88	025940372
S4L(X)P2000FC	20	460/3	8-4	9.88	025940372
S4L(X)P2000GC	20	575/3	8-4	9.88	025940372
S4L(X)P2500DC	25	208/3	4-4	10	025940062
S4L(X)P2500EC	25	230/3	6-4	10	025940062
S4L(X)P2500FC	25	460/3	8-4	10	025940062
S4L(X)P2500GC	25	575/3	8-4	10	025940062
S4L(X)P3000EC	30	230/3	4-4	10.5	025940082
S4L(X)P3000FC	30	460/3	8-4	10.5	025940082
S4L(X)P3000GC	30	575/3	8-4	10.5	025940082
S4L(X)P4000FC	40	460/3	6-4	11.38	025940202
S4L(X)P4000GC	40	575/3	8-4	11.38	025940202
1150 RPM					
S4L(X)P750DB	7.5	208/3	8-4	10.38	025940162
S4L(X)P750EB	7.5	230/3	8-4	10.38	025940162
S4L(X)P750FB	7.5	460/3	10-4	10.38	025940162
S4L(X)P750GB	7.5	575/3	10-4	10.38	025940162
S4L(X)P1000DB	10	208/3	8-4	11	025940102
S4L(X)P1000EB	10	230/3	8-4	11	025940102
S4L(X)P1000FB	10	460/3	10-4	11	025940102
S4L(X)P1000GB	10	575/3	10-4	11	025940102
S4L(X)P1500DB	15	208/3	8-4	11.88	025940002
S4L(X)P1500EB	15	230/3	8-4	11.88	025940002
S4L(X)P1500FB	15	460/3	8-4	11.88	025940002
S4L(X)P1500GB	15	575/3	10-4	11.88	025940002
870 RPM					
S4L(X)P500DA	5	208/3	8-4	11.63	025940182
S4L(X)P500EA	5	230/3	10-4	11.63	025940182
S4L(X)P500FA	5	460/3	10-4	11.63	025940182
S4L(X)P500GA	5	575/3	10-4	11.63	025940182
S4L(X)P750DA	7.5	208/3	8-4	11.88	025940002
S4L(X)P750EA	7.5	230/3	8-4	11.88	025940002
S4L(X)P750FA	7.5	460/3	10-4	11.88	025940002
S4L(X)P750GA	7.5	575/3	10-4	11.88	025940002

S6L(X)P

Cat. No.	HP	Volt/Ph	Cord	Trim	Impeller
1750 RPM					
S6L(X)P2000DC	20	208/3	6-4	9.88	025940372
S6L(X)P2000EC	20	230/3	6-4	9.88	025940372
S6L(X)P2000FC	20	460/3	8-4	9.88	025940372
S6L(X)P2000GC	20	575/3	8-4	9.88	025940372
S6L(X)P2500DC	25	208/3	4-4	10.25	025940072
S6L(X)P2500EC	25	230/3	6-4	10.25	025940072
S6L(X)P2500FC	25	460/3	8-4	10.25	025940072
S6L(X)P2500GC	25	575/3	8-4	10.25	025940072
S6L(X)P3000EC	30	230/3	4-4	10.5	025940082
S6L(X)P3000FC	30	460/3	8-4	10.5	025940082
S6L(X)P3000GC	30	575/3	8-4	10.5	025940082
S6L(X)P4000FC	40	460/3	6-4	11.88	025940002
S6L(X)P4000GC	40	575/3	8-4	11.88	025940002
1150 RPM					
S6L(X)P750DB	7.5	208/3	8-4	10.38	025940162
S6L(X)P750EB	7.5	230/3	8-4	10.38	025940162
S6L(X)P750FB	7.5	460/3	10-4	10.38	025940162
S6L(X)P750GB	7.5	575/3	10-4	10.38	025940162
S6L(X)P1000DB	10	208/3	8-4	11	025940102
S6L(X)P1000EB	10	230/3	8-4	11	025940102
S6L(X)P1000FB	10	460/3	10-4	11	025940102
S6L(X)P1000GB	10	575/3	10-4	11	025940102
S6L(X)P1500DB	15	208/3	8-4	11.88	025940002
S6L(X)P1500EB	15	230/3	8-4	11.88	025940002
S6L(X)P1500FB	15	460/3	8-4	11.88	025940002
S6L(X)P1500GB	15	575/3	10-4	11.88	025940002
870 RPM					
S6L(X)P500DA	5	208/3	8-4	11.5	025940122
S6L(X)P500EA	5	230/3	10-4	11.5	025940122
S6L(X)P500FA	5	460/3	10-4	11.5	025940122
S6L(X)P500GA	5	575/3	10-4	11.5	025940122
S6L(X)P750DA	7.5	208/3	8-4	11.88	025940002
S6L(X)P750EA	7.5	230/3	8-4	11.88	025940002
S6L(X)P750FA	7.5	460/3	10-4	11.88	025940002
S6L(X)P750GA	7.5	575/3	10-4	11.88	025940002

IMPELLER PARTS LIST

250 FRAME PUMPS IMPELLER PARTS LIST

S6A(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S6A(X)P2500DC	25	208/3	4-4	9	136940132
S6A(X)P2500EC	25	230/3	6-4	9	136940132
S6A(X)P2500FC	25	460/3	8-4	9	136940132
S6A(X)P2500GC	25	575/3	8-4	9	136940132
S6A(X)P3000EC	30	230/3	4-4	9.5	136940112
S6A(X)P3000FC	30	460/3	8-4	9.5	136940112
S6A(X)P3000GC	30	575/3	8-4	9.5	136940112
S6A(X)P4000FC	40	460/3	6-4	10.5	136940072
S6A(X)P4000GC	40	575/3	8-4	10.5	136940072
1150 RPM					
S6A(X)P750DB	7.5	208/3	8-4	9	136940132
S6A(X)P750EB	7.5	230/3	8-4	9	136940132
S6A(X)P750FB	7.5	460/3	10-4	9	136940132
S6A(X)P750GB	7.5	575/3	10-4	9	136940132
S6A(X)P1000DB	10	208/3	8-4	10	136940102
S6A(X)P1000EB	10	230/3	8-4	10	136940102
S6A(X)P1000FB	10	460/3	10-4	10	136940102
S6A(X)P1000GB	10	575/3	10-4	10	136940102
S6A(X)P1500DB	15	208/3	8-4	11	136940052
S6A(X)P1500EB	15	230/3	8-4	11	136940052
S6A(X)P1500FB	15	460/3	8-4	11	136940052
S6A(X)P1500GB	15	575/3	10-4	11	136940052
870 RPM					
S6A(X)P500DA	5	208/3	8-4	9.5	136940112
S6A(X)P500EA	5	230/3	10-4	9.5	136940112
S6A(X)P500FA	5	460/3	10-4	9.5	136940112
S6A(X)P500GA	5	575/3	10-4	9.5	136940112
S6A(X)P750DA	7.5	208/3	8-4	10	136940102
S6A(X)P750EA	7.5	230/3	8-4	10	136940102
S6A(X)P750FA	7.5	460/3	10-4	10	136940102
S6A(X)P750GA	7.5	575/3	10-4	10	136940102

C4H(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
C4H(X)P2000DC	20	208/3	6-4	9	153590232
C4H(X)P2000EC	20	230/3	6-4	9	153590232
C4H(X)P2000FC	20	460/3	8-4	9	153590232
C4H(X)P2000GC	20	575/3	8-4	9	153590232
C4H(X)P2000DC	25	208/3	4-4	9.5	153590192
C4H(X)P2000EC	25	230/3	6-4	9.5	153590192
C4H(X)P2000FC	25	460/3	8-4	9.5	153590192
C4H(X)P2000GC	25	575/3	8-4	9.5	153590192
C4H(X)P2000EC	30	230/3	4-4	10.5	153590112
C4H(X)P2000FC	30	460/3	8-4	10.5	153590112
C4H(X)P2000GC	30	575/3	8-4	10.5	153590112
C4H(X)P2000FC	40	460/3	6-4	11.88	153590002
C4H(X)P2000GC	40	575/3	8-4	11.88	153590002

S8F(X)P

Cat. No.	HP	Volt/Ph	Cord	Trim	Impeller
1750 RPM					
S8F(X)P2000DC	20	208/3	6-4	9.63	025940302
S8F(X)P2000EC	20	230/3	6-4	9.63	025940302
S8F(X)P2000FC	20	460/3	8-4	9.63	025940302
S8F(X)P2000GC	20	575/3	8-4	9.63	025940302
S8F(X)P2500DC	25	208/3	4-4	10.13	025940172
S8F(X)P2500EC	25	230/3	6-4	10.13	025940172
S8F(X)P2500FC	25	460/3	8-4	10.13	025940172
S8F(X)P2500GC	25	575/3	8-4	10.13	025940172
S8F(X)P3000EC	30	230/3	4-4	10.5	025940082
S8F(X)P3000FC	30	460/3	8-4	10.5	025940082
S8F(X)P3000GC	30	575/3	8-4	10.5	025940082
S8F(X)P4000FC	40	460/3	6-4	11.38	025940202
S8F(X)P4000GC	40	575/3	8-4	11.38	025940202
1150 RPM					
S8F(X)P750DB	7.5	208/3	8-4	10.38	025940162
S8F(X)P750EB	7.5	230/3	8-4	10.38	025940162
S8F(X)P750FB	7.5	460/3	10-4	10.38	025940162
S8F(X)P750GB	7.5	575/3	10-4	10.38	025940162
S8F(X)P1000DB	10	208/3	8-4	10.88	025940272
S8F(X)P1000EB	10	230/3	8-4	10.88	025940272
S8F(X)P1000FB	10	460/3	10-4	10.88	025940272
S8F(X)P1000GB	10	575/3	10-4	10.88	025940272
S8F(X)P1500DB	15	208/3	8-4	11.5	025940122
S8F(X)P1500EB	15	230/3	8-4	11.5	025940122
S8F(X)P1500FB	15	460/3	8-4	11.5	025940122
S8F(X)P1500GB	15	575/3	10-4	11.5	025940122
870 RPM					
S8F(X)P500DA	5	208/3	8-4	11.25	025940112
S8F(X)P500EA	5	230/3	10-4	11.25	025940112
S8F(X)P500FA	5	460/3	10-4	11.25	025940112
S8F(X)P500GA	5	575/3	10-4	11.25	025940112
S8F(X)P750DA	7.5	208/3	8-4	11.88	025940002
S8F(X)P750EA	7.5	230/3	8-4	11.88	025940002
S8F(X)P750FA	7.5	460/3	10-4	11.88	025940002
S8F(X)P750GA	7.5	575/3	10-4	11.88	025940002

IMPELLER PARTS LIST

280 FRAME PUMPS IMPELLER PARTS LIST - DISCONTINUED, FOR REFERENCE ONLY

S4L(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4L(X)P5000FC	50	460/3	4-4	11.63	025940002
S4L(X)P5000GC	50	575/3	6-4	11.63	025940002
1150 RPM					
S4L(X)P2000DB	20	208/3	6-4	12	025940352
S4L(X)P2000EB	20	230/3	6-4	12	025940352
S4L(X)P2000FB	20	460/3	8-4	12	025940352
S4L(X)P2000GB	20	575/3	8-4	12	025940352

S4B(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4B(X)P5000FC	50	460/3	4-4	12	136920012
S4B(X)P5000GC	50	575/3	6-4	12	136920012
1150 RPM					
S4B(X)P2000DB	20	208/3	8-4	12	136920012
S4B(X)P2000EB	20	230/3	8-4	12	136920012
S4B(X)P2000FB	20	460/3	8-4	12	136920012
S4B(X)P2000GB	20	575/3	10-4	12	136920012
870 RPM					
S4B(X)P1000DA	10	208/3	8-4	12	136920012
S4B(X)P1000EA	10	230/3	8-4	12	136920012
S4B(X)P1000FA	10	460/3	10-4	12	136920012
S4B(X)P1000GA	10	575/3	10-4	12	136920012

S6L(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S6L(X)P5000FC	50	460/3	4-4	11.88	025940002
S6L(X)P5000GC	50	575/3	6-4	11.88	025940002
1150 RPM					
S6L(X)P2000DB	20	208/3	6-4	12	025940352
S6L(X)P2000EB	20	230/3	6-4	12	025940352
S6L(X)P2000FB	20	460/3	8-4	12	025940352
S6L(X)P2000GB	20	575/3	8-4	12	025940352

S4LV(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S4LV(X)P5000FC	50	460/3	4-4	12	110430002
S4LV(X)P5000GC	50	575/3	6-4	12	110430002

S6A(X)P

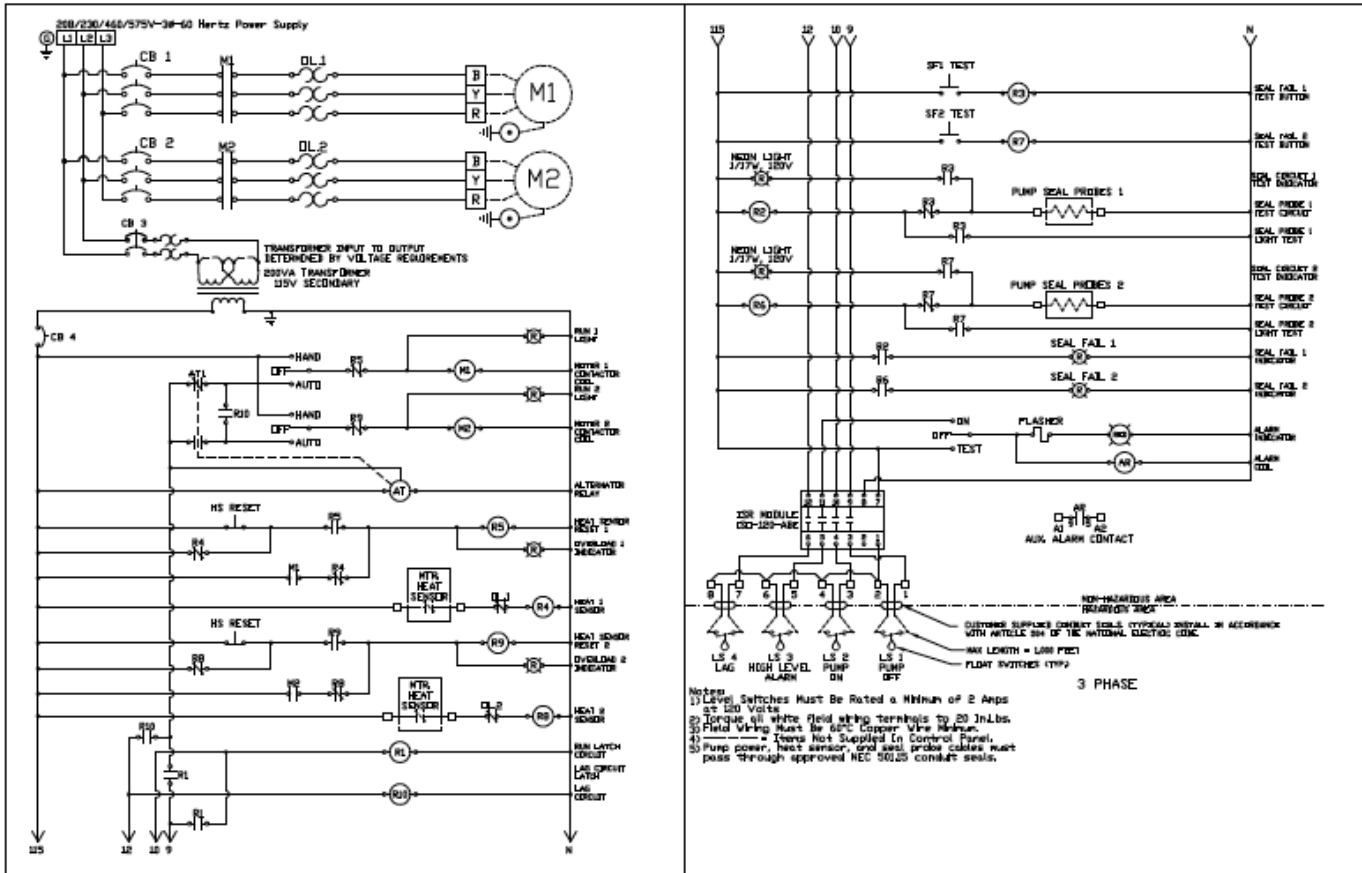
CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S6A(X)P5000FC	50	460/3	4-4	11	136940052
S6A(X)P5000GC	50	575/3	6-4	11	136940052
1150 RPM					
S6A(X)P2000DB	20	208/3	6-4	11	136940052
S6A(X)P2000EB	20	230/3	6-4	11	136940052
S6A(X)P2000FB	20	460/3	8-4	11	136940052
S6A(X)P2000GB	20	575/3	8-4	11	136940052
S6A(X)P2500DB	25	208/3	4-4	12	136940012
S6A(X)P2500EB	25	230/3	6-4	12	136940012
S6A(X)P2500FB	25	460/3	8-4	12	136940012
S6A(X)P2500GB	25	575/3	8-4	12	136940012
870 RPM					
S6A(X)P1000DA	10	208/3	8-4	10	136940102
S6A(X)P1000EA	10	230/3	8-4	10	136940102
S6A(X)P1000FA	10	460/3	10-4	10	136940102
S6A(X)P1000GA	10	575/3	10-4	10	136940102
S6A(X)P1500DA	15	208/3	8-4	11	136940052
S6A(X)P1500EA	15	230/3	8-4	11	136940052
S6A(X)P1500FA	15	460/3	8-4	11	136940052
S6A(X)P1500GA	15	575/3	10-4	11	136940052

S8F(X)P

CAT. NO.	HP	VOLT/PH	CORD	TRIM	IMPELLER
1750 RPM					
S8F(X)P5000FC	50	460/3	4-4	11.88	025940002
S8F(X)P5000GC	50	575/3	6-4	11.88	025940002

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WIRING DIAGRAM

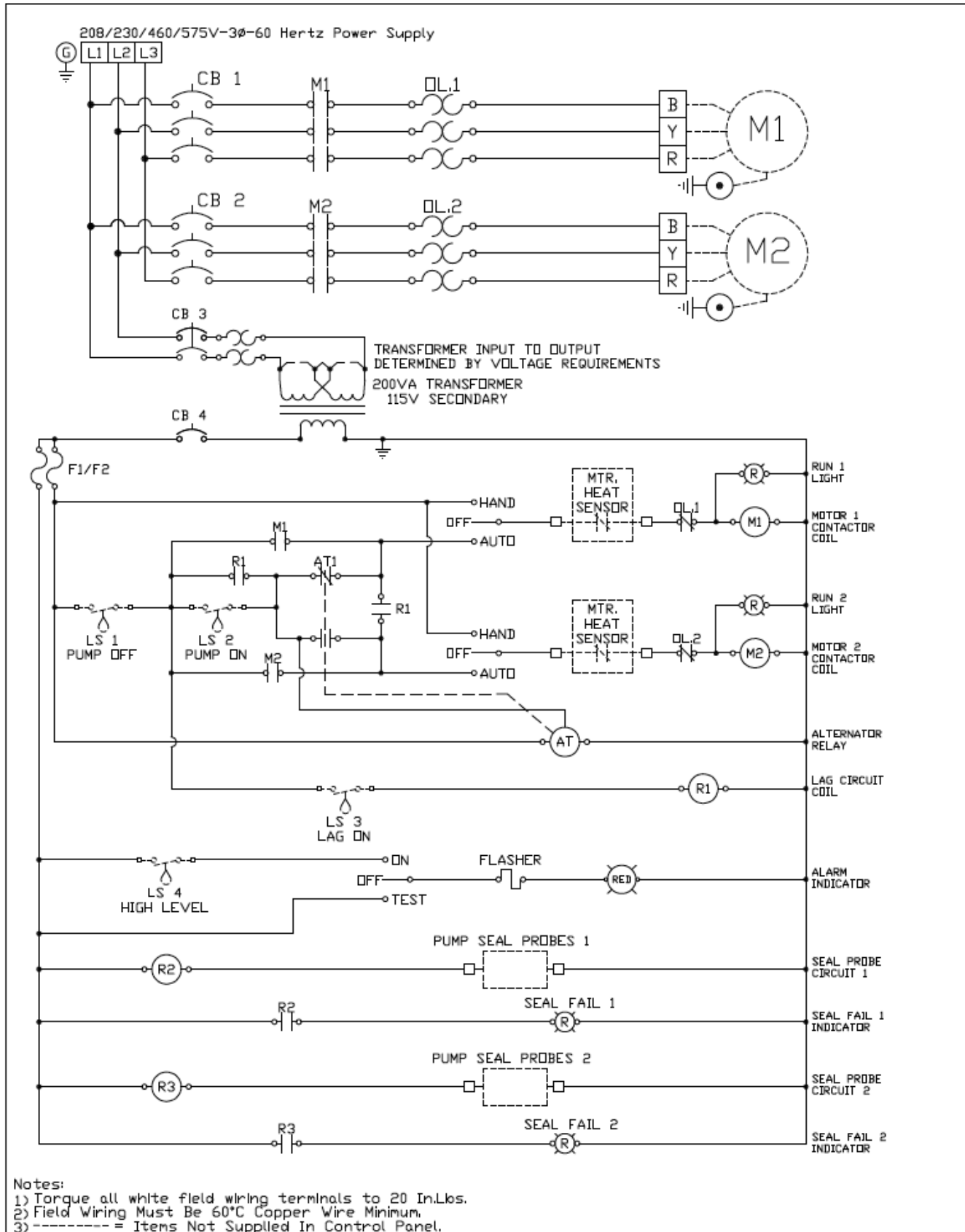


3 PHASE

Notes:

- Level Switches Must be Rated a Minimum of 2 Amps at 120 Volts.
- Torque all field wiring terminals to 20 in. Lbs.
- Field Wiring Must be 60°C Copper Wire Minimum.
- = Items Not Supplied In Control Panel.
- Pump power, heat sensor, and seal probe cables must pass through approved NEC 501.15 conduit seals.

WIRING DIAGRAM



WARRANTY

Pentair Hydromatic® warrants its products against defects in material and workmanship for a period of 12 months from installation date or 18 months from manufacturing date, whichever occurs first – provided that such products are used in compliance with the requirements of the Pentair Hydromatic 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 Hydromatic, at its discretion, will repair or replace to the original user, the parts that prove defective in materials and workmanship. Pentair Hydromatic 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 Hydromatic website: <http://forms.pentairliterature.com/startupform/startupform.asp?type=h>. Warranty is effective only if Pentair Hydromatic 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 Hydromatic will cover only the lower seal and labor thereof for all dual seal pumps. Under no circumstance will Pentair Hydromatic 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 Hydromatic 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 Hydromatic or an authorized Pentair Hydromatic service provider; (h) to any unit that has been repaired using non factory specified/OEM parts.

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