



OWNER'S MANUAL
MANUEL DU PROPRIÉTAIRE
MANUAL DEL PROPIETARIO

**CENTRIFUGAL PUMP
POMPE CENTRIFUGE
BOMBA CENTRÍFUGA**

SSPC

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Installation, Operation and Maintenance Instructions

Model SSPC

Description and Specifications: The Model SSPC is a close-coupled, end suction, single stage, enclosed impeller, back pull-out, centrifugal pump. Connections are NPT threaded. All wetted metal pump parts are 18-8, 304SS or better.

Operating limits: The model SSPC is designed for 125 PSIG at 212F with the standard Type 16, Buna mechanical seal, and a maximum temperature limit of 250F with a Type 16 Viton mechanical seal. (Pumps with standard cases built before 01/01/06 are rated for 75 psig). Motor is limited to 20 starts per hour, evenly distributed.

Notice: Upon receipt of this equipment, inspect the carton and the equipment for any damages that might have occurred during shipment and notify the carrier immediately. Damage that occurs during shipment is not the responsibility of POMPCO. Failure to notify the carrier will place responsibility on you for any repairs or damages occurring during shipment.

Safety Instructions: To avoid serious or fatal injury and/or property damage, read and follow all instructions in this manual. Review all instructions and warnings included in this manual before attempting any work on this pump or pump/motor assembly. Do not remove or alter any decals.

The motor used to drive this pump is an electrical device connected to a potentially lethal voltage power source. Take all precautions required when working with or on the motor and its power source, including but not limited to:

1. Always disconnect and lockout the electrical power source before attempting any connection, maintenance or repairs. Failure to do so can cause electrical shocks, burns and death.
2. Install ground and wire motors in accordance with all local and national electrical codes.
3. Install an all leg disconnect switch near the motor for quick access.
4. The electrical supply must match the motor nameplate specifications and the motor must be wired per the wiring diagram on the motor to match the selected voltage. **Incorrect wiring can cause fire and motor damage and will void the warranty.**
5. Most single phase motors and some three phase motors will have automatic thermal protection switches wired in the motor. These switches will open and stop the motor if the motor overheats. As the motor cools, these switches will close and start the motor automatically and unexpectedly.
6. Motors that do not have thermal overloads must have a properly sized contactors or magnetic starters and overload switches (or fuses) in the starter panel. Three phase motors require all leg protection.
7. Use only stranded copper wire to motor and ground. Wire size must limit the maximum voltage drop to 10% of the motor nameplate voltage at the motor terminals.
8. Three phase motors can rotate in either direction. The pump will operate properly only in one direction (clockwise when looking from the motor end, counter-clockwise when viewed from the pump end). **Operating the pump in the reverse rotation may damage or destroy the pump and motor and voids the warranty.**

Installation:

-Locate the pump as near to the liquid source as possible. The pump must be primed with little or no air in the case to begin operation. The pump must be located below the liquid level when starting.

This pump is not self-priming.

-If the discharge nozzle is not in the vertical position, an air chamber may form in the case. This air must be vented for proper operation. With the pump not running, loosen the case bolts until all of the air in the case is vented.

-Protect the pump and motor from freezing. Although the pump may survive a freeze up, the mechanical seal and O-Rings will not.

-Allow adequate space around the unit for service and ventilation.

-Units may be installed horizontally, at an angle or vertically with the motor on top. **Do not mount the motor below the pump as leakage from the pump will damage the motor and can cause a shock, burns or death.**

-Units mounted horizontally should be located on a flat, rigid surface. Unit may be free standing, but some vibrations may occur. If attached to a foundation, tighten hold down bolts before connecting the piping.

Rotation:

The model SSPC will operate properly only in one direction (clockwise when looking from the motor end, counter-clockwise when viewed from the pump end). **Operating the pump in the reverse rotation may cause the impeller to unscrew, breaking the shaft, damaging the pump and/or the motor and voids the warranty.**

-Three phase motors can rotate in either direction. Single phase motors normally only rotate in the proper direction.

-To check rotation, you must observe the motor shaft from the back of the motor. Remove the end cover from the back of the motor by prying off the cap or removing screws on the end shield. Quickly switch on and off the motor and watch the shaft rotation as it slows down. Motor shaft should be turning in the clockwise direction when viewed from the back of the motor.

-If your three-phase motor is turning in the wrong direction, interchange any two of the three motor power wires. This should reverse the rotation. If a single-phase motor is turning in the wrong direction, it has been wired wrong internally.

-Check the rotation again. If it is correct, replace the end cover.

Operation:

-Pump must be completely primed before starting. Air in the suction lines or case must be vented.

-If the pump case is rotated so that the discharge nozzle is not vertical, an air pocket may form in the case which will prevent the pump from operating properly. Loosen the case bolts until this air is removed for proper operation. Be sure to retighten the bolts before operating the pump.

-Do not operate the pump at or near zero flow. At zero flow, heat will build up in the pump and can cause extreme damage to the pump, property damage and/or possible injury to operating personnel. Minimum flows of 10% of the pumps best efficiency point are recommended.

-Do not operate the pump beyond the flow rates shown on published curves. Noisy pumps or the sounds of "pumping rocks" may be signs of cavitation or operation beyond the pump capacity.

-Check pump and motor for vibration. Vibration may be a sign of pipe strain, insufficient mounting or operation beyond the pumps capacity.

Maintenance:

There is no scheduled maintenance required. Close-coupled pumps have no bearings. Bearings in the motors are usually permanently grease lubricated and cannot be regreased (some large motors may have grease fittings). Mechanical seals will need to be replaced when leaking. O-Rings may harden with age and need to be replaced when they leak.

Piping:

All piping must be independently supported. No piping loads may be carried by the pump.

Piping should be at least the same size as the pump connections.

Piping to the suction is critical for proper pump operation.

-Suction pipe should be short and direct, with a minimum of fittings and turns.

-Suction pipe must continuously rise to the pump to avoid air pockets. All pipe connections must be airtight.

-If suction pipe is larger than the pump, an eccentric reducer may be needed with the straight side on top to avoid an air pocket.

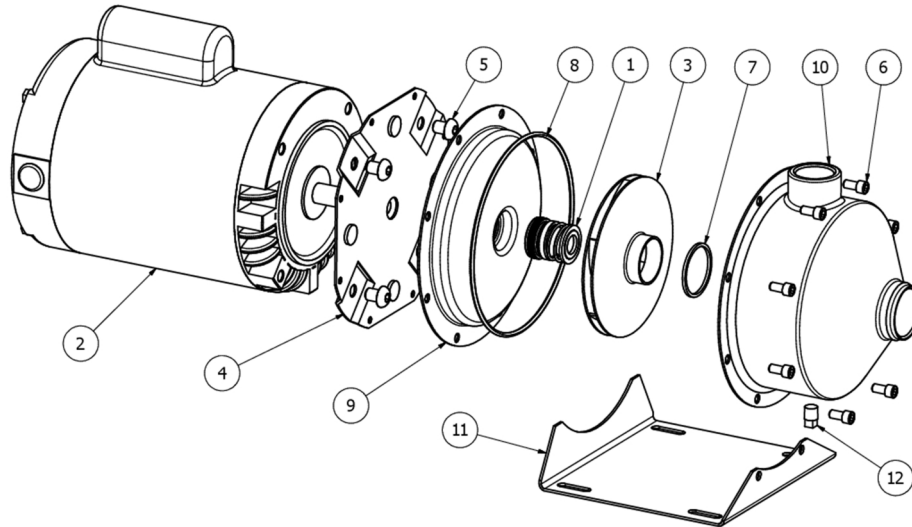
-If suction of pump is above the liquid source level, a foot valve or other isolation valve will be needed to prime the pump. A continuous stream of liquid must be made available for the pump suction to hold its prime.

-Do not use any suction valve for throttling the pump. This will cause loss of prime and damage to the pump that is not covered by warranty.

-Be sure that the source liquid level is sufficient to prevent vortices from drawing air into the pump.

-Install a valve on the discharge line for use in regulating the pump flow and for isolating the pump during maintenance and inspection.

Model SSPC (Enclosed Impeller)



		Description	Description	Descripción
1	124-0310	5/8 type 21 mechanical seal	Joint mécanique 5/8 type 21	Sello mecánico 5/8 type 21
2	151-1210	1/2 HP motor 115/230 Volts	Moteur 1/2 C.V. 115/230 Volts	Motor 1/2 C.V. 115/230 Volts
3	516-2036	SSPC 156225 Impeller	Impulseur SSPC 156225	Impulsor SSPC 156225
3	516-2056	SSPC 154185 Impeller	Impulseur SSPC 154185	Impulsor SSPC 154185
3	516-2086	SSPC 152175 Impeller	Impulseur SSPC 152175	Impulsor SSPC 152175
3	516-2106	SSPC 150175 Impeller	Impulseur SSPC 150175	Impulsor SSPC 150175
3	516-2136	SSPC 146165 Impeller	Impulseur SSPC 146165	Impulsor SSPC 146165
3	516-2186	SSPC 143155 Impeller	Impulseur SSPC 143155	Impulsor SSPC 143155
3	516-2196	SSPC 143115 Impeller	Impulseur SSPC 143115	Impulsor SSPC 143115
3	516-2216	SSPC 154255 Impeller	Impulseur SSPC 154255	Impulsor SSPC 154255
3	516-2236	SSPC 150255 Impeller	Impulseur SSPC 150255	Impulsor SSPC 150255
3	516-2266	SSPC 143255 Impeller	Impulseur SSPC 143255	Impulsor SSPC 143255
4	516-2291	Motor adaptor plate	Plaque adaptateur du moteur	Placa adaptadora de motor
5	516-2292	3/8-16 x 1/2" Allen cap screw	Vis 3/8-16 x 1/2" (Allen)	Tornillo 3/8-16 x 1/2" (Allen)
6	516-2293	1/4-20 x 1/2" Allen cap screw	Boulon 1/4-20 x 1/2" (Allen)	Tornillo 1/4-20 x 1/2" (Allen)
7	516-2294	Impeller O-ring SSPC 1	Joint impulseur SSPC 1	O-ring impulsor SSPC 1
8	516-2295	Pump body O-ring	Joint corps de pompe	O-ring cuerpo de la bomba
9	516-2296	Seal plate	Plaque du joint mécanique	Placa del sello mecánico
10	516-2297	Pump body SSPC 1	Corps de pompe SSPC 1	Cuerpo de la bomba SSPC 1
11	516-2298	SSPC pump base	Base de pompe SSPC	Base de la bomba SSPC 1
3	516-2316	SSPC 256245 Impeller	Impulseur SSPC 256245	Impulsor SSPC 256245
3	516-2336	SSPC 250245 Impeller	Impulseur SSPC 250245	Impulsor SSPC 250245
3	516-2366	SSPC 246235 Impeller	Impulseur SSPC 246235	Impulsor SSPC 246235
3	516-2386	SSPC 243245 Impeller	Impulseur SSPC 243245	Impulsor SSPC 243245
3	516-2406	SSPC 250325 Impeller	Impulseur SSPC 250325	Impulsor SSPC 250325
3	516-2486	SSPC 246335 Impeller	Impulseur SSPC 246335	Impulsor SSPC 246335
7	516-2915	Impeller O-ring SSPC 2	Joint impulseur SSPC 2	O-ring impulsor SSPC 2
10	516-2920	Pump body SSPC 2	Corps de pompe SSPC 2	Cuerpo de la bomba SSPC 2
12	516-2920	Plug 1/8-27 NPT	Bouchon 1/8-27 NPT	Tapón 1/8-27 NPT
	516-2516	Imp. Locking Screw (3 phase)	Vis de blocage imp. (3 phase)	Imp. Tonillo de bloqueo (3 fases)