

DRUM PUMP

MODELS: PP8200, SS8200, AL8200
PP8300, SS8300, KY8300

MODEL	MECHANICAL SEAL			SEAL-LESS		
	PP8200	SS8200	AL8200	PP8300	SS8300	KY8300
Pump	Polypropylene	316SS, Tefzel	Al, Tefzel	Polypro., Tefzel	316SS, Tefzel	Kynar, Tefzel
Shaft at Solution	Hastelloy C & Stainless	316 Stainless	316 Stainless	Hastelloy C & Teflon	316 Stainless & Teflon	Hastelloy C & Teflon
Seal	Ceramic & Graphite Seal	Ceramic & Teflon Seal	Ceramic &	Graphite Seal Carbon	Carbon Bushing	Carbon Bushing
Parts List	P-1000	P-3800	P-6000	P-5600	P-5700	P-7600

BEFORE STARTING PUMP

1. Read Operating Instructions and instructions supplied with chemical to be used.
2. Refer to Chemical Resistance Data Chart for compatibility of materials in pump with solution to be used. Note temperature and pressure limitations.
3. Personnel operating pump should always wear suitable protective clothing, face mask or goggles, apron and gloves.
4. Always close valves slowly to avoid hydraulic shock.
5. Ensure that all fittings and connections are properly tightened. **When pumping flammable or combustible liquids, only-EXP and -EXP -UL motors are to be used. Pumps should be metal and a ground wire employed to avoid static discharge. Refer to page 2.**

PRE-START-UP

1. Standard hose adapter furnished with the polypropylene PP8200 pumps are for use with 3/4" I.D. hose. For all other pumps, the hose adapter is for use with 1" I.D. hose. Check the chemical compatibility of the hose purchased with the solution to be pumped. Optional hose materials, hose adapters and prices are given in the Product Catalog.
2. Motors are designated by the following: Note: Motor nameplate must correspond to power source used.

ELECTRIC MOTORS-

OPEN MOTORS ARE NOT TO BE USED FOR PUMPING FLAMMABLE OR COMBUSTIBLE LIQUIDS.

*OPEN MOTOR -OPH:

1/2 H.P., wired for 115/1/50-60, double insulated and coated with high quality plastic (ABS-Polymer). For viscosities up to 600 SUS, or specific gravity up to 1.4 or for intermittent service on higher specific gravity liquids. For 230/1/50 motor, specify -OPH50; cord and plug included.

*OPEN DRIP-PROOF MOTOR -ODP:

3/4 H.P., wired for 115/1/50-60, in aluminum housing for continuous service up to specific gravity or for intermittent use up to 1.6 specific gravity. For viscosities up to 3000 SUS. For 230/1/50 motor, specify - ODP50; cord and plug included.

EXPLOSION PROOF MOTOR **EXP *EXP-UL:

1/2 H.P., wired for 115/1/50-60, in aluminum housing for continuous service or for use with liquids which have up to 1.5 specific gravity. For viscosities up to 3000 SUS. Complies with OSHA in wet area. -UL is Underwriter's Laboratories, approved. Cord only included. For 230/1/50 motor, specify -EXP50; cord and plug included. Striped wire is ground.

AIR DRIVEN MOTORS- SUITABLE FOR HAZARDOUS DUTY, REFER TO OPERATION INSTRUCTIONS O-260.

-AIR (C) 92 PSI @ 31 cu.ft./min. maximum viscosity 1000 SUS, maximum specific gravity 1.4. If lesser flow is acceptable;

-AIR (B) 87 PSI @ 14 cu.ft./min. maximum viscosity 600 SUS, maximum specific gravity 1.4. Use of oiler, regulator and filter is required. Both models comply with OSHA in wet areas.

Refer to Operating Instructions O-260 and Parts Lists P-3500 and P-3700 for air motors.



← This label is included on OPH, ODP and EXP motors. It identifies the off/on position of the motor operation switch.

*These motors incorporate thermal overload protection with automatic reset which shuts off the motor when it is overheated. Should this occur, switch the pump into the 'OFF' position until it cools; otherwise, the pump will start automatically after the cooling period.

**The EXP motor has thermal overload protection with manual reset switch incorporated in the housing. Should an overload occur, the motor will stop. Allow motor to cool down and turn reset button located opposite the start switch. The pump will not resume pumping until the reset has been activated.

3. Connect hose pump discharge adapter. Install securely to adapter and tighten hose clamp. Also be sure to tighten wing lock nut which locks adapter to pump.
4. When flow control nozzle is used, install securely to hose end and tighten clamp.
5. Turn pump tight to motor until fully taken up.
6. Before starting, or connecting motor to power supply be sure motor is in 'OFF' position.
7. Mount wall bracket at a conveniently accessible location and store pump on it.
8. Discharge nozzle or end of hose should be secure to the discharge container before energizing motor.
9. Operating pump motor assembly should never be left unattended.

WARNING

GROUND WIRE

Is for use with EXP and EXP-UL motor on metal pump tubes to prevent static discharge when pumping flammables or combustibles. Secure the spade lug end to motor and attach spring clamp to a ground. Also use ground wire to ground or bond containers.



WARNING

When using a drum pump to fill cans, drums or other portable or fixed containers with flammable or combustible liquids such as gasoline, both the container being pumped from and the container being pumped to must be effectively BONDED and GROUNDED to prevent discharge of sparks of static electricity which could cause explosion.

BONDING is the electrical interconnection between containers (such as a drum and a receiving can). Bonding must be completed before pumping begins. See diagram.

GROUNDING is the electrical connection between a container and a "constant ground". A "constant ground" would be a metal pipe or rod in contact with the earth. An underground tank and piping connected to it would be inherently grounded by nature of the installation.

Both BONDING and GROUNDING of containers of flammable liquids are required under U.S. Government. OSHA regulations and National Fire Protection Association Code 77, Static Electricity.

Metal pump must be bonded to metal container or grounded if used with plastic container. Only metal pumps with explosion proof motors should be used for pumping flammables or combustibles.

START-UP

1. First use pump on water to acquaint yourself with the assembly and check motor operation, flow rate, security of all hose connections, operation of flow control nozzle, liquid velocity and pump drainage.
2. Use only on solution for which pump was purchased. Be sure to follow all corporate, local, state and federal safety precautions when operating pump.

OPERATION TIPS

1. Use one motor and interchange with several pumps when solutions to be handled require ABSOLUTE prevention of cross contamination.
2. When finished using pump, drain pump and hose thoroughly and operate on 1-2 gallons clear water or neutral solution for 15-30 seconds to completely flush and rinse pump and hose assembly.

3. Never store the assembly in the drum or carboy. Always rinse thoroughly and hang on wall bracket for safe storage.
4. Use drum adapter when vertical support of pump is required and when an auxiliary vent is provided in the drum. The drum adapter also prevents fumes from rinsing around the motor and possibly causing electrical or mechanical malfunction.
5. Control nozzle may be used to temporarily shut-off pump discharge.
6. Do not immerse pump into any liquid above the hose connection.
7. Do not run pump dry, or longer than 10-15 seconds after container is empty.
8. Do not run on liquid slurries or solutions containing abrasives. When large chips, etc., are present in the solution, obtain a suction strainer to protect the pump.
9. Do not rest the pump or store the pump on an angle. Pump distortion and high motor speed can combine to cause pump wear.
10. Do not use polypropylene pump on liquids above 150°F, except for short intervals. Combined effect of temperature and chemicals can affect the plastic.
11. To blend light viscosity liquids a mixing tube is available for PP8200 models. Unscrew and disconnect pump tube and replace with mixing tube.
12. 8200 Mechanical Seal Models: Dry running will cause mechanical seal failure. 8300 Seal-less Models: Dry running will not affect the structural integrity or cause damage. However, long periods of dry running are not recommended.

TROUBLE SHOOTING & MAINTENANCE

1. If pump does not perform properly, test motor separately to verify its correct operation. Check for correct voltage and air supply. Check pump to assure frictionless rotation at upper bearing and impeller at bottom of pump.
2. At regular intervals lubricate upper bearing assembly of pump.
3. The three wire extension cord with the open motor has a ground wire which is striped.
4. For minor repair of pump or motor, refer to Parts List and order necessary items. For major repairs return pump and/or motor to factory (prepaid) with a request for "REPAIR ESTIMATE" or instructions to "REPAIR AND RETURN".
5. For field replacement of mechanical seal assembly pour several oz. of 30 weight oil down inner pump tube.