Electric Oil Pump

OPM-12

Heavy duty Oil Pump designed specifically to transfer bulk oils, hydraulic oils, antifreeze or antifreeze mixes

Non-corroding Aluminium die cast pump body

A high horsepower to flow ratio assures adequate power to pump viscous fluids at low temperatures

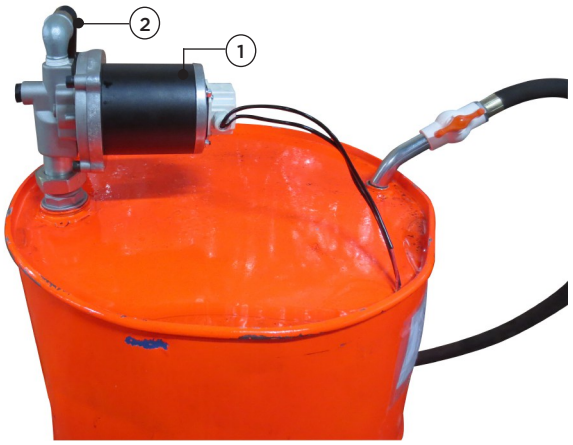
Sintered powder metal gears

Self-priming,positive displacement design

Pump has an internal bypass valve to bypass flow if the discharge pressure exceeds bypass valve setting

Built-in 2" bung adaptor for mounting directly onto drums and tanks

Can be used to transfer used oils also. Just fitting a screen onto the suction tube makes it effective for transfering used oil



SR. NO.	CONSTITUENTS	QTY.
1	Pump & Motor Assembly fitted with DC Cable	1
2	Elbow	1
3	Suction Tube	2 PC
4	Strainer (comes assembled at the bottom of suction tube)	1
5	**Hose Assembly consisting of 8' x ¾" ID Hose**	1
5.1	Ball Valve	1
5.2	Steel Discharge Spout	1
6	Bung Nut	1
7	PTFE Tape	1

SPECIFICATION

MOTOR	½ HP 12V DC
AMP	39 Amp
RPM	1500
CONSTRUCTION – PUMP HOUSING	Aluminium Die Cast
MECHANISM	Gear Pump
GEAR MATERIAL	Sintered Powder Metal
INTERNAL BY-PASS VALVE	Yes
SUCTION PIPE	34" Long
HOSE	8' Long x ¾"
BUNG ADAPTER	2" Threaded
INLET	1" NPT (F)
OUTLET	¾" NPT (F)
DISPENSING NOZZLE	Ball Valve
POWER CABLE	Not included
AIR COOLED	Yes
MAX. VISCOSITY OF OIL	SAE 90
MAX. WORKING PRESSURE	65 PSI (4.5 BAR)
THERMAL PROTECTION	No

FEATURES

FLOW RATE
UPTO 3.5 GPM (13.2 LPM)

WETTED COMPONENTS

Aluminium, Steel, Cast Iron, Nylon, NBR, Zinc, Polypropylene, PVC

RECOMMENDED USE

Oils up to a viscosity of SAE 90, Synthetic Oils, Antifreeze*, Used Oil, Hydraulic Fluids, Cutting Oils, Oil based herbicides, Non Flammable Oil Based Solvents, Liquid Soap* etc.
* for use with water based fluids, the additive to water must contain corrosion inhibitors

DO NOT USE WITH

Fuels, Corrosive Media, Acids, Chemicals, Lacquers, Paint Thinners etc.

WARNING

- **This is not a fuel pump & must not be used with fuels or flammable liquids**

ASSEMBLY & INSTALLATION (DRUM MOUNTING)

1. Apply PTFE tape on the following male threaded joints. This will ensure a leak-proof connection

- Male Threads on the Elbow
- Male Threads on the Fitting ends of the Hose
- Male threads between the 2 Suction Tube pieces
- Male threads on the Suction tube end that fits into the pump inlet

2. Fasten the Elbow into the pump outlet & hand tighten. Once you can no longer hand tighten, take a wrench & tighten the elbow by about ½ a turn. Open end of the Elbow should be facing away (not in the direction of the pump motor)

3. Take the Bung Nut & fasten it onto the 2" opening on the Drum. Bung Nut has a large 2" thread & a small 1-1/2" thread. 2" thread goes into the drum, whereas the 1-1/2" thread is for connecting bung to the pump

4. In case the Bung Nut does not fit onto your drum, use a Drum Bung Converter. Note that bung supplied with the pump has 2" NPT threads

5. Connect the two halves of the Suction Tube. Suction tube is designed for use with tanks / drums which are 36" (914 mm) deep & has a total connected length of 34" (865 mm).

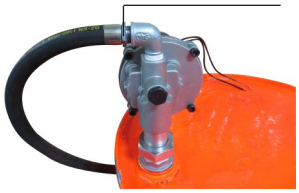
6. Now connect the Suction Tube to the pump inlet. Hand tighten

7. Lift the Pump with Hand. **Be careful as the motor is heavy.** Insert suction tube into the drum through the 2" opening on the drum. Use the Swivel Nut mounted at the pump inlet to fasten onto the Bung Nut. Hand tighten

NOTE: Ensure that there is about 2" (50 mm) gap between the bottom of the tank / drum & inlet of the suction tube allowing for easy entry of media into the tube

8. Take about 50 to 60 ml of Oil being dispensed & pour it into the pump outlet through the elbow. This will ensure that the gear chamber stays lubricated & makes it easier for the pump to prime

9. Take the Hose Assembly & connect the threaded end onto the Elbow at the pump outlet. Hose has a hex nut at the threaded end which can be tightened to the elbow using a wrench



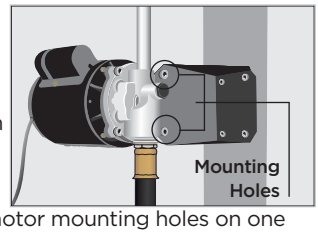
10. Connect the ball valve to other end of the hose. This is just a non drip valve & not a control valve. Ball Valve is further connected to a steel spout. Spout is designed to enter the ¾" opening on the drum which acts as a nozzle holder. Connect the steel spout with Ball valve

11. With the Toggle Switch on the Motor in the upward position (switched off), connect the battery cable to the battery terminals

NOTE: Red Battery Cable must be connected to the positive terminal and Black Cable must be connected to the negative terminal

12. The pump is now ready for use

PUMP INSTALLATION (IN - LINE)



1. This pump can additionally be mounted on a wall for In-Line operation. Pump can be installed using a Mounting Bracket (not provided, but can be ordered separately).
2. This bracket is a simple right angle bracket with two mounting holes that use the motor mounting holes on one side of the motor to attach the pump to the bracket.
3. The bolts used to mount the pump to the motor are removed and then reinstalled through the two holes in the mounting bracket.
4. The other leg of the bracket has 4 mounting holes to mount the bracket to a wall or post. The pump is mounted such that the suction port is down and the outlet port is pointing up.

5. The plumbing back to the storage tank normally goes up from the pump to an overhead pipe to route the plumbing back to the storage tank. A Suction Hose / Tube is installed at the inlet with a strainer where the waste oil enters the hose/tube.

PUMP OPERATION

1. Switch On Power from the DC power source
2. **Make sure that the Ball Valve is in open position (valve parallel to the hose)**
3. Dispensing Spout should be facing the container into which media is to be dispensed
4. Now Switch On the Motor by pushing the Toggle Switch Down
5. In less than a minute, the pump will be primed & media will start dispensing from the Steel Outlet Spout
6. Dispensing Action can be stopped by Switching off the Toggle Switch on the Motor. **It is suggested not to close Ball Valve to Stop flow.**

NOTE: Ball Valve is not designed to be used to control flow, but used primarily as a non drip which must be closed after motor is shut down

7. **The pump however must never run dry (no media in the drum) as that can possibly cause irrepairable damage to the motor**
8. Once Dispensing is completed, switch off the toggle switch & disconnect the battery cable from the battery
9. Place the Discharge Spout into the ¾" hole on the drum

NOTE: This is a 12V DC pump so it must not be used with 24V DC supply else it can damage the internal components of the pump

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Motor runs but pump will not prime	Oil level low	Refill tank / Drum
	Inlet strainer clogged	Remove and clean or replace the strainer
	Air leak in suction tube	Inspect all joints in suction tube, make sure all threaded joint have sealant applied
	Air lock in system	Insert about 1-2 oz. (50 to 60 ml) of oil through the Elbow into the pump outlet & then operate the pump
	Motor does not run at proper speed	Make sure that the battery is fully charged
	Worn or damaged gears	Remove pump body and inspect gears. Replace if worn or damaged
Oil leaking into the motor	Faulty or damaged motor shaft seal	Replace shaft seal
	Pump running for more than five minutes with closed outlet	Do not exceed 5 minutes of operation with spout blocked.
Unit pumps but output flow is low	Clogged inlet strainer	Clean or replace the strainer
	Air leak in suction tube	Check to make sure all joint in suction tube are sealed
	Suction tube too close to tank bottom	Suction tube must have minimum clearance of 2 in. (50 mm)
	Low oil level	Refill the tank
	Worn or damaged gears	Remove pump body and inspect gears. Replace if worn or damaged
	Clogged suction tube, hose or spout	Inspect and clean
Motor stalls when nozzle is closed	Bypass relief valve is stuck	Inspect relief valve, making sure ball is free. Replace if damaged
	Low supply voltage	Check supply voltage of battery & recharge the battery if required
	Gears damaged and binding	Inspect gears. Gears should turn freely. Replace if damaged
	Faulty motor	Replace motor
Motor overheating	Gears binding	Check to make sure gears turn freely on shaft
	Pump running for more than 30 minutes	Do not operate pump for more than 30 minutes
	Clogged inlet strainer	Clean or replace
	Clogged suction tube, hose or spout	Inspect and clean if required
Switch does not turn pump 'ON'	Electrical problem	Check that supply voltage is proper and getting to pump
	Defective switch	Check and replace switch if defective
	Damaged or defective motor	Check motor, replace if damaged or defective