RPM Industries
Empowering Performance

P1K
System Specification Sheet

Applications

A pre-lubrication & evacuation system intended for engines of 2 to 6 ℓ displacement or sump capacities of 4 to 28 quarts. Models available for 12 V systems.

Performance (12 V System)

23.9 °C 15W-40 Oil: 3-3.5 gpm @ 25-30 A depending on available engine port sizes.

32 °C 15W-40 Oil: 0.8-1.3 gpm @ 30-40 A depending on available engine port sizes.

Performance	
Maximum Duty Cycle	4 minutes ON and 30 minutes OFF
Ambient Temperature	–40 °C to 125 °C (-40 °F to 257 °F)

Components & Features

- Permanent Magnet DC Motor: Insulated Ground – improves reliability vs. case grounded motor. High power rise, better maintains flow rate at lower fluid temperatures and higher pressures.
- Pump: High-strength aluminium housing with steel gears and a seal-protection feature that, in conjunction with a circuit breaker, prevents motor damage due to excessive pump pressure.
- Controller: Standard Prelub “No Delay” logic delivers fastest possible start.
- Wiring Harness: Circuit breaker prevents harness and motor damage due to excessive current.
- Motor Switch: Rated for 200 A carry current yet consumes minimal power for activation.
- Installation Instructions: Application-specific instructions supplied for most machines.
- Inlet Hose: Rated for 121 °C oil and will not collapse under pump vacuum.
- Pressure Hose: Rated for 121 °C oil and burst at 3 times maximum pump output pressure.
- Check Valve: Prevents backflow of oil after engine start with minimal restriction and weight.

System Connections

Plumbing

Custom fittings will be supplied that thread directly into the engine. Oil will be drawn through an oil pan port and returned to a port ahead of the existing engine filter.

- *Oil pan suction fitting should have at least 0.28” (7mm) ID (#6 STOR, 6.35 mm NPT, M14) if used with viscous oil (15W-40 below 4.4 °C). If a large port is not available, call for alternatives.*
- *Oil filter head return port should have at least 0.18” (4.5 mm) ID. (3.18 mm pipe, #4 STOR, M12)*
- *Install the pressure switch into the furthest downstream port in the engine’s pressurized oil system. Adapters are available to install the switch in most port types and sizes.*

Electrical

Connect the motor to a source of power with the gauge of cables recommended on the next page. Install keyswitch and pressure switch adapter harnesses. Plug the main wiring harness into the connectors at the keyswitch harness, magswitch, pressure switch harness and control relay.

Recommended Hardware

(Other plumbing/electrical configurations are possible with RPM approval)

Maximum Suction Hose Length
(For quick Prelub of typical engine sizes)

Suction Hose ID	Maximum Length
1/2" ID (12.7 mm)	3' (914.4 mm)
5/8" ID (16 mm)	6' (1829 mm)

Maximum oil lift height is 3' (914.4mm)

Maximum Pressure Hose Length
(Limits pressure or motor current)

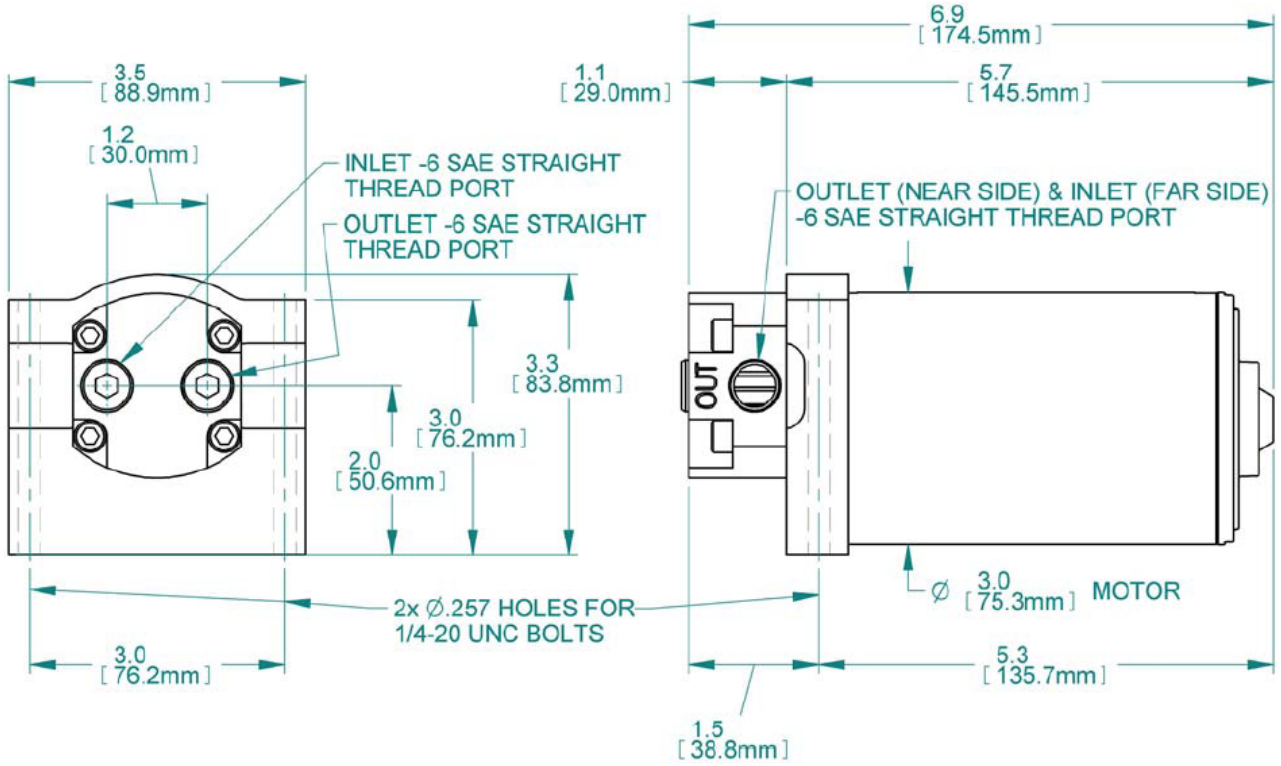
Pressure Hose ID	Maximum Length
1/2" ID (12.7 mm)	10' (3048 mm)
5/8" ID (16 mm)	20' (6096 mm)

Electrical Connections
(Total Length = Battery Cable + Motor Cable + Ground Cable)

Wire Size	Total Length
12 gauge	18' (5489 mm)
10 gauge	28' (8534 mm)

Motor/Pump Assembly Dimensions

Length (excluding fittings)	6.9" (175 mm)
Height with mounting bracket	3.3" (84 mm)
Width with mounting bracket	3.5" (89 mm)
Motor/Pump Assembly Weight	5 lbs. (2.3 kg)



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