Myers®

EFFLUENT S.T.E.P. PUMPS

P50 & P100 SERIES

The Myers® P series effluent pumps are designed specifically for multi-pump pressure collection, septic tank effluent pumping (S.T.E.P.) and high head drainage applications. The high efficiency, single-vane, enclosed impellers provide steep, non-overloading performance curves, which are ideal for these applications. These pumps deliver more capacity at higher heads than most pumps in this class. The combination of the most rugged materials ensure years of trouble-free, dependable service.

APPLICATIONS

Effluent removal, sump drainage, water transfer, flood control

SPECIFICATIONS

- Capacities – Up to 60 GPM (227 LPM)
- Shut-off Head – Up to 124' (37.8 m)
- Max. Spherical Solids – 3/4" (19 mm)
- Liquids Handling – Domestic, effluent and drain water
- Intermittent Liquid Temperature – Up to 140°F (60°C)
- Motor/Electrical Data – 1/2 HP, 115V or 230V, 1Ø; 1 HP, 230V, 1Ø, oil-filled, permanent split capacitor type, 3450 RPM, 60Hz
- Acceptable pH Range – 6-9
- Specific Gravity – .9-1.1
- Viscosity – 28-35 SSU
- Discharge, NPT – 1-1/2" (38 mm)
- Housing – Cast iron
- Minimum Sump Diameter – Simplex: 24" (61 cm); Duplex: 36" (91.4 cm)
- Power Cord – 20', 14/3 SJOW, SJOW-A

FEATURES

Rugged and Dependable
Durable, oil-filled motor for continuous bearing lubrication and maximum heat dissipation

Design Meets Demand
Single-vane, enclosed impeller provides steep, non-overloading performance curves for pressure collection and S.T.E.P. applications

Closed Case
Enclosed impeller eliminates jamming between impeller and volute – engineered thermoplastic composition

Powerful Starts
High-torque, permanent split capacitor (PSC) motor; no starting switches or relays to wear out

No Burnout
On-winding current and temperature sensitive overload to protect against costly burnout

Thermal Failsafe
Heat sensor overload protection with automatic reset when motor cools to a safe operating temperature

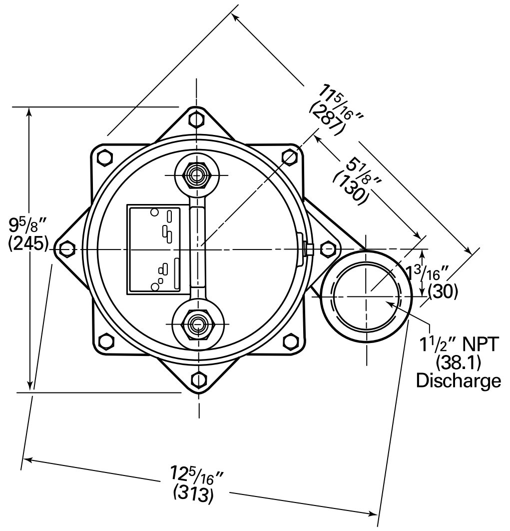
Twice the Protection
Optional leak probe senses water leakage past seal (dual seal motors only)

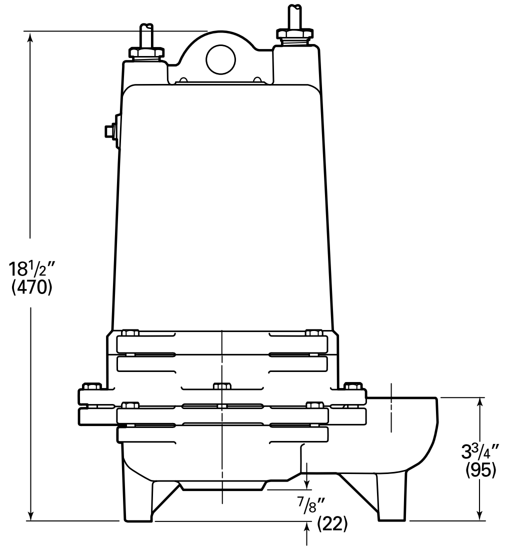
Restore Performance
Original performance standards can be restored by easily replacing a worn volute seal ring

ORDERING INFORMATION

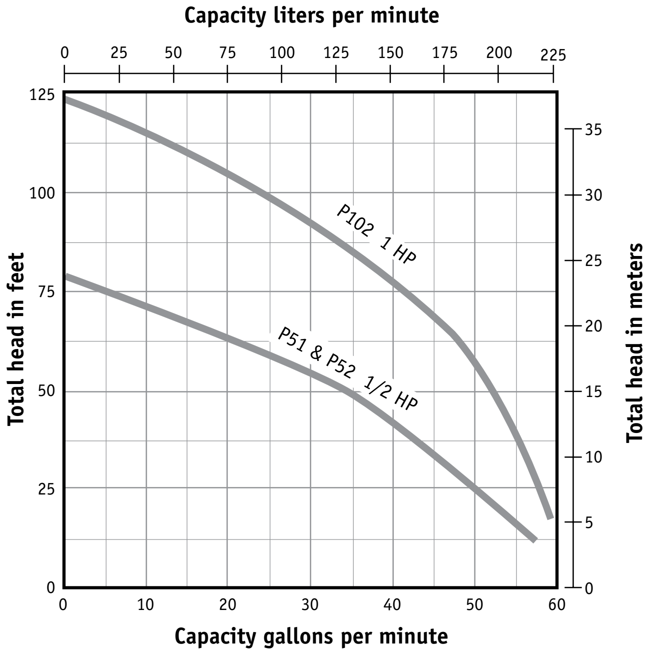
Catalog Number	HP	Volts	Phase/ Cycles	Discharge Size	Switch Type	Cord Length	Approx. Wt. Lbs.
P51	1/2	115	1/60	1-1/2"	Manual	20'	84
P51D	1/2	115	1/60	1-1/2"	Manual	20'	84
P52	1/2	230	1/60	1-1/2"	Manual	20'	84
P52D	1/2	230	1/60	1-1/2"	Manual	20'	84
P102	1	230	1/60	1-1/2"	Manual	20'	87
P102D	1	230	1/60	1-1/2"	Manual	20'	87

DIMENSIONS





PUMP PERFORMANCE



SPECIFICATIONS

EFFLUENT PUMPS – Pump(s) shall be F. E. Myers model P series effluent pumps selected in accordance with the following design criteria:

Number of Pumps: ______________________

Primary Design Flow: ______________________

Primary Design Head: ______________________

Minimum Shut-off Head: 80′: (P51/P52) 124': (P102)

Motor Horsepower: .5: (P51/P52) 1: (P102)

Motor Speed: 3450 RPM

Electrical: P51: 115V, 1Ø
P52/P102: 230V, 1Ø

PUMP – The pump shall be designed to handle raw sewage and be capable of passing 2 inch spherical solids. The pump shall be capable of handling liquids with temperatures to 140°F intermittent and shall be capable of running dry without damage to the seals or bearings.

MOTOR – The pump motor shall be of the submersible type rated 1/2, 1, 1-1/2 or 2 hp as required. Motor shall operate at 3450 RPM and shall be for 115, 208 or 230 volts single phase, or 200, 230, 460, or 575 volts, 3 phase, 60 cycles. Single phase motors shall be of the permanent split capacitor type with no relays or starting switches. Three phase motors shall be squirrel cage induction type. Stator winding shall be of the open type with Class B insulation rated for 130°C maximum operating temperature. The winding housing will be filled with clean dielectric oil to lubricate bearings, seals, and transfer heat from the windings to the outer shell. The motor assembly shall be of the standard frame design and shall be secured in place by four threaded fasteners allowing for easy field serviceability.

The motor shall be capable of operating over the full range of the performance curve without overloading the motor and causing any objectionable noise or vibration. The common motor pump shaft shall be of 416 stainless steel and shall be heat shrunk into the die cast motor rotor. The motor shall have two bearings to support the rotor; an upper ball bearing to accommodate radial loads and a lower ball bearing to take thrust and radial loads. Ball bearings shall be designed for a B-10 life of 50,000 hours.

A heat sensor thermostat and overload shall be attached to the top end of the motor windings and shall be wired in series with the windings to stop the motor if the motor winding temperature reaches 266°F. The overload thermostat shall reset automatically when the motor cools to a safe operating temperature. Three phase motors shall be protected by 3 leg overload relay in control box. Overload shall be of the quick trip ambient compensated type and shall have manual reset button.

POWER CORD – The motor power cord shall be SJOW/A for single phase and SOOW for three phase. The cable jacket shall be sealed at the motor entrance by means of a rubber compression washer and compression nut. A heat shrink tube filled with epoxy shall seal the outer cable jacket and the individual leads to prevent water from entering the motor housing.

SHAFT SEAL – The motor shall be protected by a rotating mechanical shaft seal. The seal shall have carbon and ceramic seal faces lapped to a tolerance of one light band. Metal parts and springs for seals shall be stainless steel.

PUMP IMPELLER – The pump impeller shall be of the recessed vortex type. The impeller shall be constructed of ductile iron. The impeller shall be threaded onto the stainless steel pump/motor shaft.

PUMP AND MOTOR CASTINGS – All castings shall be of high tensile strength Class 30 gray cast iron. Castings shall be treated with phosphate rinse and painted with a high quality air dry alkyd enamel.

FASTENERS – All exposed fasteners shall be of stainless steel.