



# PV

SUBMERSIBLE VORTEX SEWAGE PUMP

### FEATURES

- Corrosion resistant construction
- Cast iron body
- Thermoplastic impeller and cover.
- Upper sleeve and lower heavy duty ball bearing construction.
- Motor is permanently lubricated for extended service life.
- Powered for continuous operation.
- Vortex impeller is recessed to allow free flow through casing.

### APPLICATIONS

Specially designed for the following uses:

- Residential sewage systems
- Heavy duty sump/dewatering
- Water transfer

### SPECIFICATIONS

#### Pump

- Discharge: 2" NPT
- Maximum capacity: 100 GPM
- Maximum head: 22' TDH
- Vortex Impeller
- Solids handling: 2" maximum sphere.
- Temperature: 104° F (40° C) maximum, continuous when fully submerged.
- Automatic models include a float switch.
- Manual models available.
- Pumping range: see performance chart or curve.

- All ratings are within the working limits of the motor.
- Heavy duty 10' and 20' length SJTW power cords with NEMA three prong, 115 or 230 volt grounding plug
- Complete unit is heavy duty, portable and compact.
- Mechanical seal is carbon, ceramic, BUNA and stainless steel.
- Stainless steel fasteners

### MOTOR

- Single phase
- 60 Hertz
- 115 and 230 Volt
- Built-in thermal overload protection with automatic reset.
- Class B insulation
- Oil-filled design
- High strength carbon steel shaft
- 0.5 HP, 3400 RPM
- PSC design

### AGENCY LISTINGS



Tested to UL 778 and CSA 22.2 108 Standards  
By Canadian Standards Association  
File #LR38549

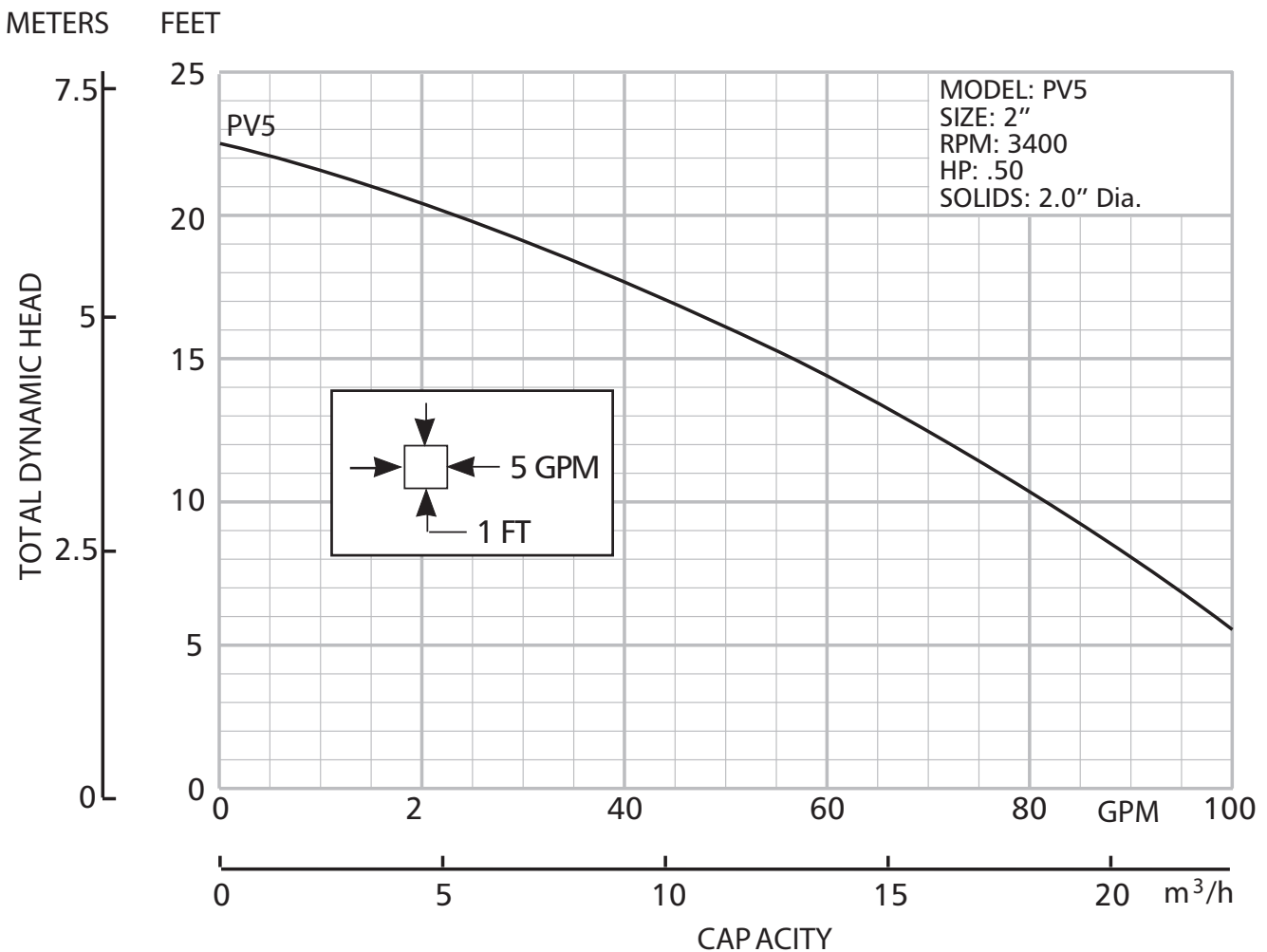
### MODEL INFORMATION

| Order No. | HP  | Volts                | Max. Amps | Minimum Circuit Breaker | Phase | RPM  | Float Switch Style   | Power Cord Length | Discharge Connection | Maximum Solids Size | Minimum Basin Diameter | Shipping Weight lbs/kg |
|-----------|-----|----------------------|-----------|-------------------------|-------|------|----------------------|-------------------|----------------------|---------------------|------------------------|------------------------|
| PV51P1    | 0.5 | 115                  | 13.0      | 20                      | 1     | 3400 | Piggyback Wide Angle | 10'               | 2"                   | 2"                  | 18"                    | 44                     |
| PV51MF    |     |                      |           |                         |       |      | Plug / No Switch     | 20'               |                      |                     |                        |                        |
| PV51P1F   |     |                      |           |                         |       |      | Piggyback Wide Angle |                   |                      |                     |                        |                        |
| PV52MF    |     | Plug/No Switch       |           |                         |       |      |                      |                   |                      |                     |                        |                        |
| PV52P1F   |     | Piggyback Wide Angle |           |                         |       |      |                      |                   |                      |                     |                        |                        |
|           |     | 230                  | 6.5       | 15                      |       |      |                      |                   |                      |                     |                        |                        |

### PERFORMANCE CHARTS

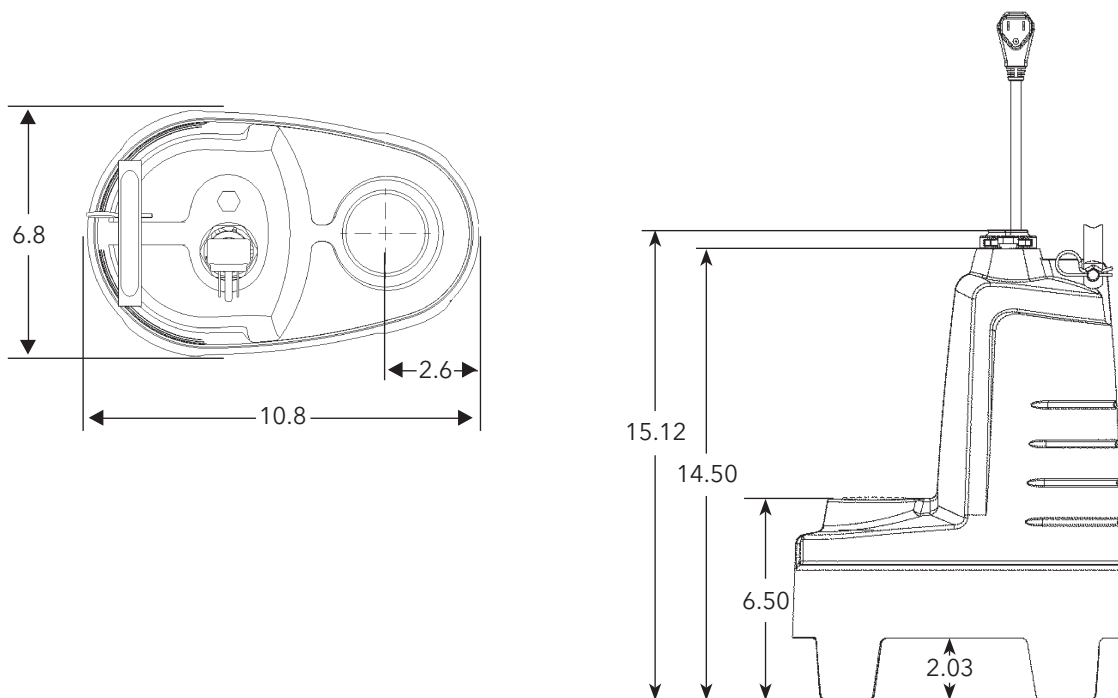
These charts show actual system performance with friction loss factored in for various discharge pipe lengths. Calculations and performance based on a system with 2" PVC, schedule 40 plastic pipe (C150), (4) 90° elbows, (1) check valve and (1) shut-off valve. Wastewater requires a minimum scouring velocity of 21 gpm for 2" pipe. Shaded areas do not provide minimum scouring velocity - use only for gray water with no solids.

| Pipe Length (Feet) | GPM                  |    |    |    |    |    |    |    |    |    |
|--------------------|----------------------|----|----|----|----|----|----|----|----|----|
|                    | Vertical Head (Feet) |    |    |    |    |    |    |    |    |    |
|                    | 2                    | 4  | 6  | 8  | 10 | 12 | 14 | 16 | 18 | 20 |
| 25                 | 95                   | 89 | 83 | 77 | 70 | 62 | 53 | 45 | 35 | 22 |
| 50                 | 83                   | 78 | 73 | 67 | 61 | 55 | 48 | 40 | 31 | 20 |
| 75                 | 76                   | 71 | 66 | 61 | 55 | 50 | 43 | 37 | 28 | 18 |
| 100                | 69                   | 65 | 61 | 56 | 51 | 46 | 40 | 33 | 26 | 17 |
| 150                | 60                   | 57 | 53 | 49 | 45 | 40 | 35 | 29 | 23 | 16 |
| 200                | 54                   | 51 | 48 | 44 | 40 | 36 | 32 | 27 | 21 | 14 |
| 250                | 49                   | 47 | 44 | 40 | 37 | 33 | 29 | 24 | 19 | 13 |
| 300                | 46                   | 43 | 40 | 37 | 34 | 31 | 27 | 23 | 18 | 12 |



### DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



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