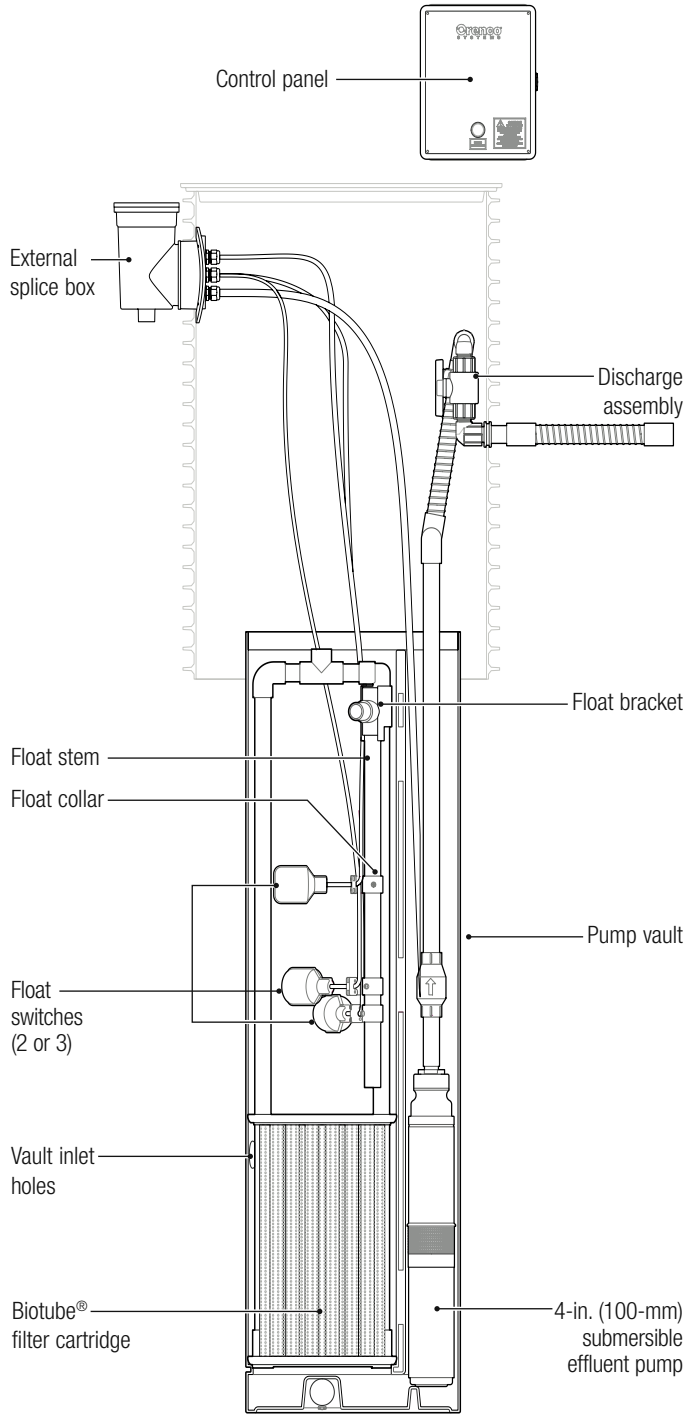


Biotube® ProPak™ 60-Hz Pump Package



Biotube® ProPak™ 60-Hz Pump Package

Applications

The Biotube® ProPak™ Pump Package is designed to filter and pump effluent from a one- or two-compartment septic tank or pump tank to gravity or pressurized dispersal.

Packages for on-demand dosing or timed dosing at 10-, 20-, 30-, and 50-gpm (0.6-, 1.3-, 1.9-, and 3.2-L/sec) and 50-Hz are available.

General

Orenco's Biotube ProPak Pump Package makes it simple to select and install the correct pump and controls package. Its patented Biotube pump vault technology eliminates the need for separate dosing tanks. The pump vault also allows removal of the effluent filter for cleaning with no need to remove the pump vault or pump, which simplifies servicing.

This document provides detailed information on the ProPak pump vault and filter, 4-in. (100-mm) 60-Hz submersible effluent pump, and control panel. For more information on other ProPak components and options, see the following Orenco technical documents:

- *S-Series Simplex Control Panels* (NTD-CP-S-1)
- *MVP Simplex Control Panels* (NTF-CP-MVP-1)
- *External Splice Box* (NTD-SBEX-1)
- *Splice Boxes* (NTD-SB-SB-1)
- *HDA Discharge Assemblies* (NTD-HDA-1)
- *PF-Series Submersible Effluent Pumps: 1-Phase, 60-Hz, 4-inch (100-mm)* (NTD-PU-PF-1)
- *PVA-Series 4-in. (100-mm) Submersible Effluent Pumps* (NTD-PU-PVA-1)

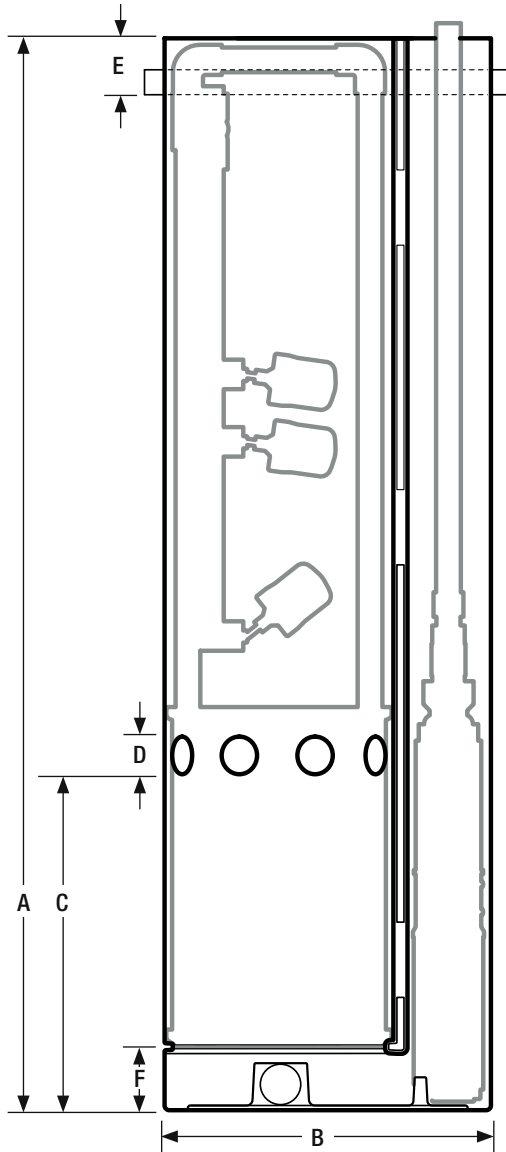
Biotube® Pump Vault

Materials of Construction

Vault body	Polyethylene
Support pipes	PVC

Dimensions, in. (mm)

A - Overall vault height	57 (1448) or 68 (1727)
B - Vault diameter	17.3 (439)
C - Inlet hole height	19 (475)
D - Inlet hole diameter (eight holes total)	2 (50)
E - Vault top to support pipe bracket base	3 (76)
F - Vault bottom to filter cartridge base	4 (102)



Biotube® pump vault (shown with Biotube filter and effluent pump)

Biotube Filter Cartridge

Materials of Construction

Filter tubes	Polyethylene
Cartridge end plates	Polyurethane
Handle assembly	PVC

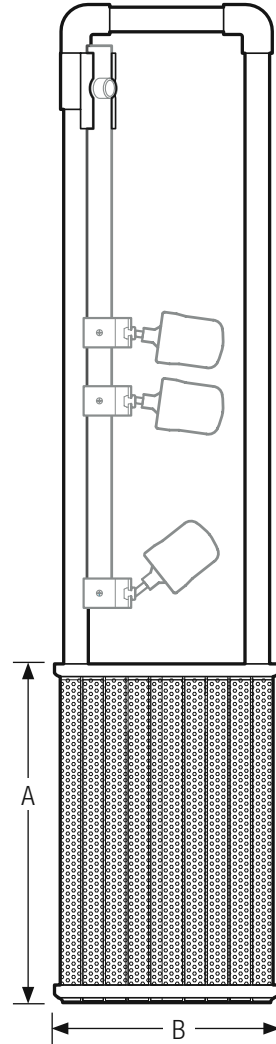
Dimensions, in. (mm)

A - Cartridge height	18 (457)
B - Cartridge width	12 (305)

Performance

Biotube® mesh opening, in. (mm)*	0.125 (3)
Total filter flow area, ft ² (m ²)	4.4 (0.4)
Total filter surface area, ft ² (m ²)	14.5 (1.35)
Maximum flow rate, gpm (L/sec)	140 gpm (8.8)

*0.062-in. (1.6-mm) filter mesh available



Biotube filter cartridge (shown with float switch assembly)

Product Code Diagram



Discharge assembly; details:

- SD1 = HV100BCFCX; field-cut, 1-in. PVC, ball valve, check valve, flow control, 10-gpm pumps only
- SD2 = HV100BCX; field-cut, 1-in. PVC, ball valve, check valve, 10- or 20-gpm pumps
- SD3 = HV125BCX; field-cut, 1.25-in. PVC, ball valve, check valve, 30-gpm pumps
- SD4 = HV200BCX; field-cut, 2-in. PVC, ball valve, check valve, 50-gpm pumps
- CW1 = HV100BCFCX + HVCW100-KIT; field-set, 1-in. PVC, ball valve, check valve, flow control, 10-gpm pumps only
- CW2 = HV100BCX + HVCW100-KIT; field-set, 1-in. PVC, ball valve, check valve, 10- or 20-gpm pumps
- CW3 = HV125BCX + HVCW125-KIT; field-set, 1.25-in. PVC, ball valve, check valve, 30-gpm pumps
- CW4 = HV200BCX + HVCW200-KIT; field-set, 2-in. PVC, ball valve, check valve, 50-gpm pumps
- DB1 = HV100B-DB; field-set, ball valve, drainback, 10- or 20-gpm pumps
- DB2 = HV125B-DB; field-set, ball valve, drainback, 30-gpm pumps
- DB3 = HV200B-DB; field-set, ball valve, drainback, 50-gpm pumps
- HD1 = HDA24125FCASLC-FS; field-set, 1.25-in. hose, flow control, P01 (PF100511CV) pump only
- HD2 = HDA24125ASLC-FS; field-set, 1.25-in. hose, P01 (PF100511CV) pump only
- HD3 = HDA24125CFCASLC-FS; field-set, 1.25-in. hose, check valve, flow control, 10-gpm pumps only
- HD4 = HDA24125CASLC-FS; field-set, 1.25-in. hose, check valve, 10-, 20-, or 30-gpm pumps

Pump vault height, in. (mm), for 18-in. (450-mm) diameter filter:

- 48 = 48 (1219)
- 57 = 57 (1448)
- 68 = 68 (1727)

Splice box options:

- SB = Internal splice box
- SX = External splice box

Float switch & pump cord lengths, ft (m):

- 10 = 10 (3)
- 20 = 20 (6)

Control panel; float switches:

- | | |
|-------------------------|------------------------------|
| S11 = S1; 3P | M11 = MVP-S1DM; 3P |
| S12 = S1ETMCT; 3P | M12 = MVP-S1DMHT; 3P |
| S13 = S1HR; 2P | M13 = MVP-S1DMHTSA; 3P |
| S14 = S1PTRO; 2BN | M14 = MVP-S1DMHTMTSGR-NC; 3P |
| S15 = S1PTROETMCT; 2BN | M15 = MVP-S1DM(DEMAND); 3P |
| S16 = S1RO; 3PN | M21 = MVP-S2DM; 3P |
| S17 = S1ROETMCT; 3PN | M22 = MVP-S2DMHT; 3P |
| S18 = S1ROETMCTSA; 3PN | M23 = MVP-S2DMHTSA; 3P |
| S19 = S1ROMTSGR-NC; 3PN | |

Submersible effluent pump model; details:

- | | |
|--|--|
| P01 = PF100511CV; 10 gpm (0.6L/sec), 0.50 hp (0.37Kw), 120V for HD1 and HD2 only | P12 = PF300512; 30 gpm (1.9 L/sec), 0.50 hp (0.37 kW), 240V |
| P02 = PF100511; 10 gpm (0.6 L/sec), 0.50 hp (0.37 kW), 120V | P13 = PF300712; 30 gpm (1.9 L/sec), 0.75 hp (0.56 kW), 120V |
| P03 = PF100512; 10 gpm (0.6 L/sec), 0.50 hp (0.37 kW), 240V | P14 = PF301012; 30 gpm (1.9 L/sec), 1.00 hp (0.75 kW), 240V |
| P04 = PF100712; 10 gpm (0.6 L/sec), 0.75 hp (0.56 kW), 240V | P15 = PF500511; 50 gpm (3.2 L/sec), 0.50 hp (0.37 kW), 120V |
| P05 = PF101012; 10 gpm (0.6 L/sec), 1.00 hp (0.75 kW), 240V | P16 = PF500512; 50 gpm (3.2 L/sec), 0.50 hp (0.37 kW), 240V |
| P08 = PF200511; 20 gpm (1.3 L/sec), 0.50 hp (0.37 kW), 120V | P17 = PF500712; 50 gpm (3.2 L/sec), 0.75 hp (0.56 kW), 240V |
| P09 = PF200512; 20 gpm (1.3 L/sec), 0.50 hp (0.37 kW), 240V | P18 = PF501012; 50 gpm (3.2 L/sec), 1.00 hp (0.75 kW), 240V |
| P10 = PF201012; 20 gpm (1.3 L/sec), 1.00 hp (0.75 kW), 240V | P90 = PVA100511; 10 gpm (0.6 L/sec), 0.50 hp (0.37 kW), 120V |
| P11 = PF300511; 30 gpm (1.9 L/sec), 0.50 hp (0.37 kW), 120V | P91 = PVA300511; 30 gpm (1.9 L/sec), 0.50 hp (0.37 kW), 120V |
| | P92 = PVA500511; 50 gpm (3.2 L/sec), 0.50 hp (0.37 kW), 120V |

Biotube® ProPak™