

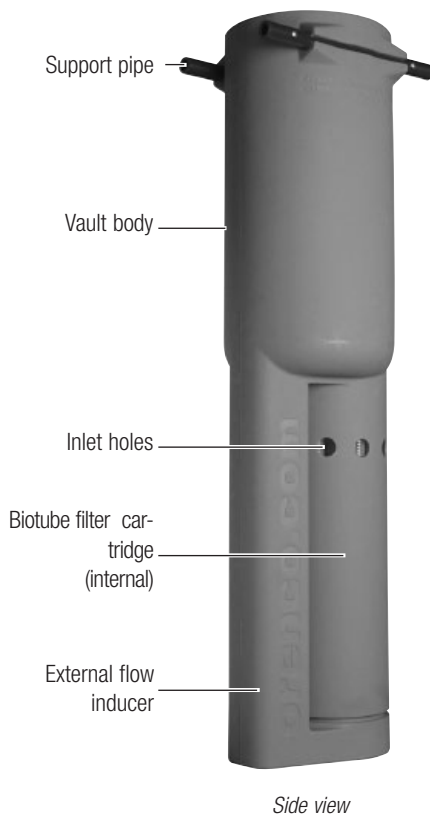
PV Series Biotube® Pump Vaults

For use with Orenco® 4-in. Submersible Effluent Pumps

Applications

The Orenco® PV series of Biotube Pump Vaults are used to filter effluent that is pumped from single-compartment or double-compartment septic tanks or separate dosing tanks in STEP systems and onsite wastewater treatment systems. They remove two thirds of suspended solids on average.

PV pump vaults can accommodate systems where larger diameter pump vaults won't fit. PV pump vaults are only 13.5 inches (343 mm) in diameter. They house a Biotube effluent filter and an Orenco multi-stage turbine effluent pump, and can be used in single-compartment septic tanks with flows up to 40 gpm (2.5 L/sec).



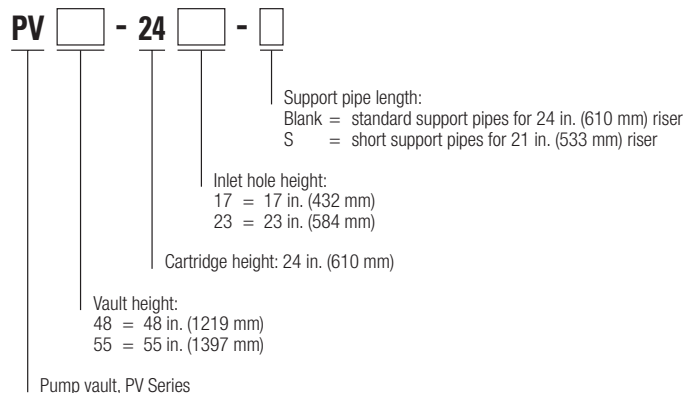
General

Orenco PV Biotube Pump Vaults include molded polyethylene housings with internal filter cartridges constructed of polypropylene and PVC. Schedule 80 PVC support pipes are included to suspend vaults in tank openings. The filter cartridge can be removed from a PV pump vault without pulling the pump or the vault. Effluent enters through inlet holes around the perimeter of the Biotube vault and flows through the Biotubes to the external flow inducer. The external flow inducer houses one pump. Orenco Biotube Pump Vaults are covered by U.S. patents #4,439,323 and 5,492,635.

Standard Models

PV48-2417, PV48-2423, PV55-2417, PV55-2423

Product Code Diagram

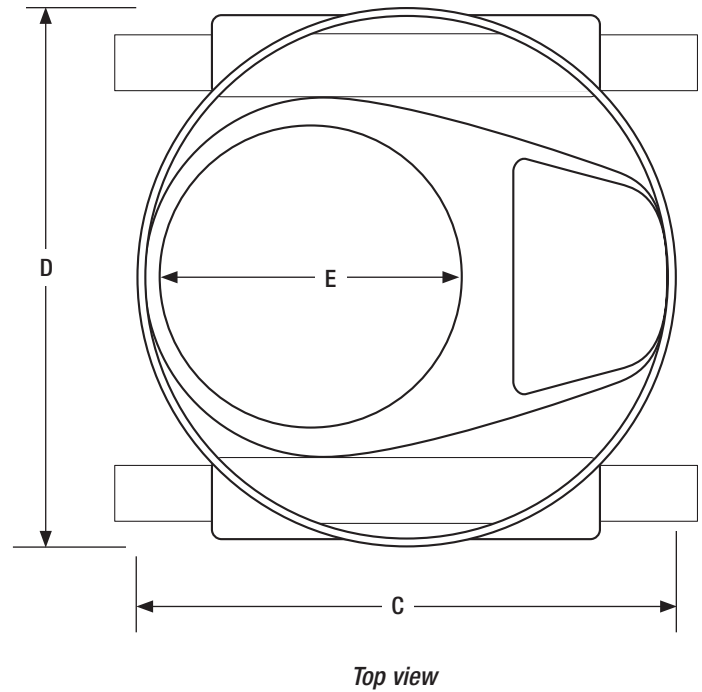
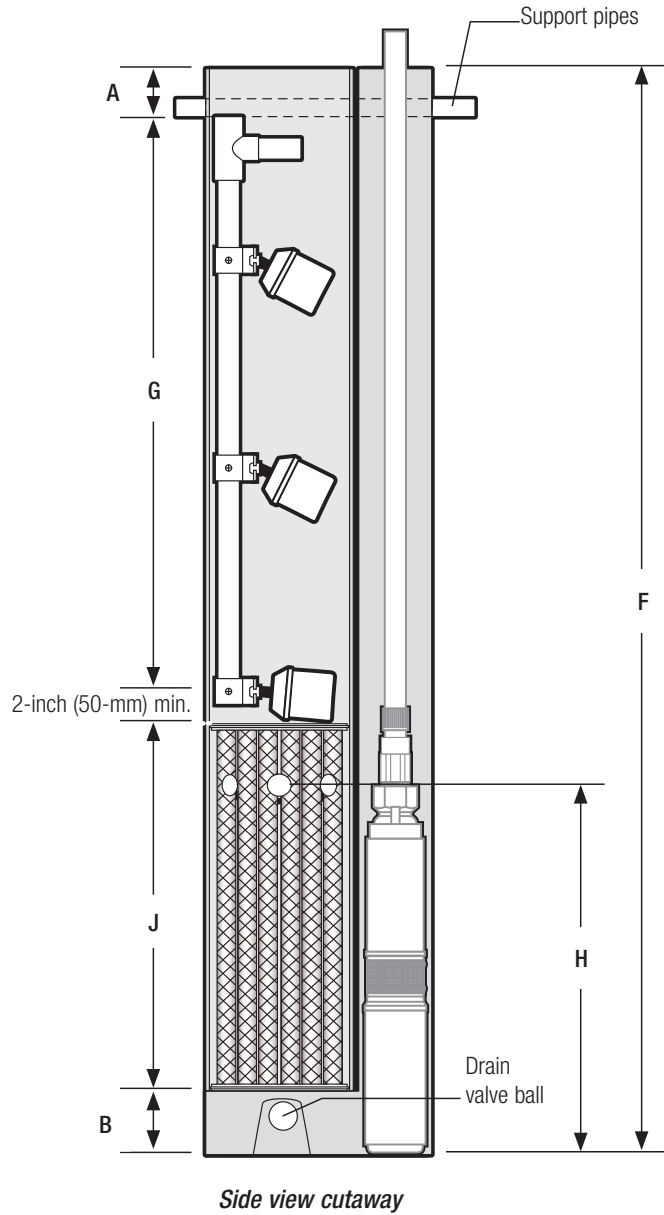


Materials of Construction

Support pipe:	Schedule 80 PVC
Biotube® vault:	Polyethylene
Biotube cartridge:	Polypropylene/PVC
Float stem:	Schedule 40 PVC
Drain valve ball:	Polypropylene

Tank Access and Riser Diameter

Biotube® Series	Tank Access Diameter (Minimum)	Tank Access Diameter (Recommended)	Riser Diameter (Minimum)	Riser Diameter (Recommended)
PV48	16 in. (406 mm)	18 in. (457 mm)	21 in. (533 mm)	24 in. (610 mm)
PV55	16 in. (406 mm)	18 in. (457 mm)	21 in. (533 mm)	24 in. (610 mm)



Specifications

Model	PV48	PV55
A, in. (mm)	3.0 (76)	3.0 (76)
B, in. (mm)	3.5 (89)	3.5 (89)
C, in. (mm)	13.5 (343)	13.5 (343)
D, in. (mm)	13.5 (343)	13.5 (343)
E, in. (mm)	8.0 (203)	8.0 (203)
F, in. (mm)	48.0 (1219)	55.0 (1397)
G, Lowest float setting point, in. (mm)	15.5 (394)	22.5 (572)
H, Inlet hole height*, in. (mm)	17-23 (432-584)	17-23 (432-584)
J, Biotube® cartridge height, in. (mm)	24.0 (610)	24.0 (610)
Biotube mesh opening in., (mm)	0.125 (3.2)	0.125 (3.2)
Filter flow area, ft² (m²)	3.0 (0.28)	3.0 (0.28)
Filter surface area, ft² (m²)	10.1 (0.94)	10.1 (0.94)
Maximum flow rate, gpm (L/sec)	40.0 (2.5)	40.0 (2.5)

* May vary depending on the configuration of the tank.