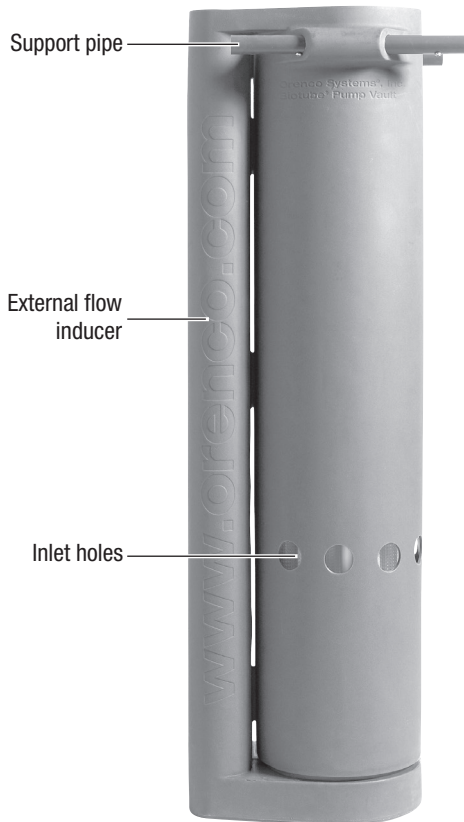


# Biotube® Universal Pump Vaults

For use with Orenco 4in (100mm) Submersible Effluent Pumps

## Applications

Orenco Biotube Universal Pump Vaults are used to filter effluent that is pumped from septic tanks or separate dosing tanks in liquid-only sewer systems and on-site wastewater treatment systems. Pump vaults house a Biotube effluent filter and one or two Orenco 4in (100mm) submersible effluent pumps and can be used in single-compartment septic tanks with flows up to 40gpm (2.5L/sec). When flows are greater than 40gpm (2.5L/sec), a double-compartment septic tank or separate dosing tank is recommended. The Biotube effluent filters remove almost two-thirds of suspended solids.



Side view

## Tank Access and Riser Diameters

Dimensions, in (mm)	PVU with simplex pump	PVU with duplex pumps
Tank access, minimum	19 (483)	19 (483)
Tank access, recommended	20 (508)	20 (508)
Riser, minimum	24 (600)	30 (750)

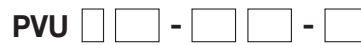
## General

Orenco Biotube Universal Pump Vaults include a molded housing with an internal Biotube filter cartridge. 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 accommodates one or two pumps. Support pipes are included to suspend the vault in a tank opening. "Earless" 68in (1727mm) vaults, which rest on the bottom of the tank instead of on support pipes, are also available. The filter cartridge can be removed without pulling the pump or the vault.

## Standard Models

PVU48-1818, PVU57-1819, PVU68-2419, PVU84-2419, PVU95-3625

## Product Code Diagram

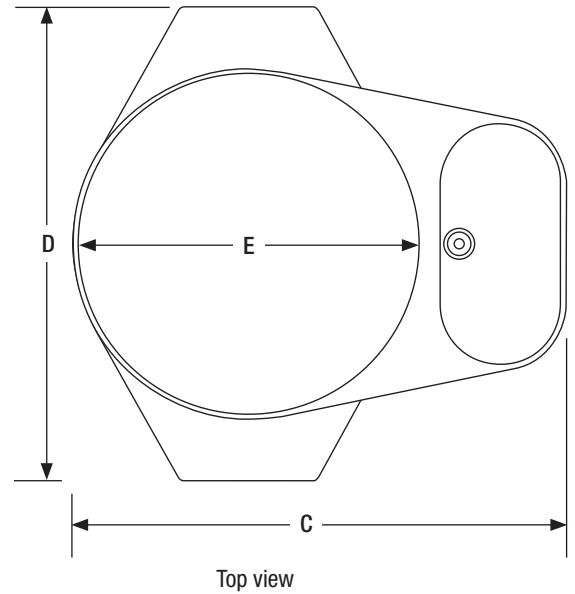
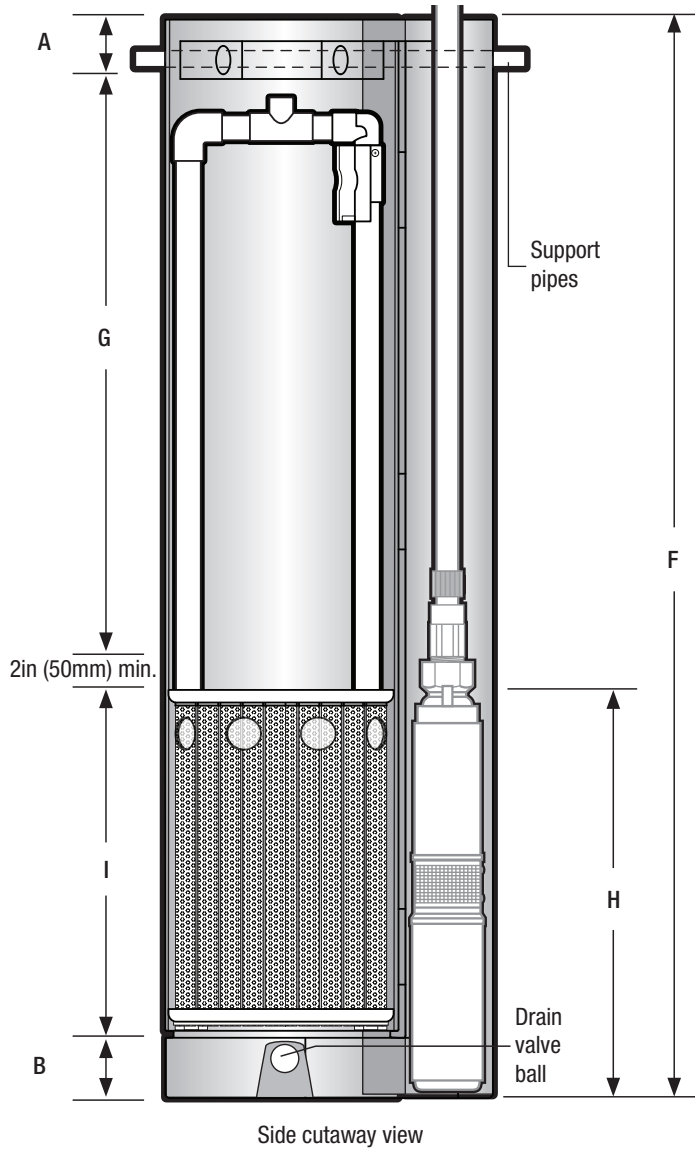


- Support pipe length:
    - Blank = standard, for 24in (600mm) riser
    - L = long, for 30in (750mm) riser
    - NB = no support pipe bracket (earless)
  - Inlet hole height, standard:
    - 13 = 13in (330mm)
    - 18 = 18in (457mm)
    - 19 = 19in (482mm)
    - 25 = 25in (635mm)
  - Cartridge height, standard:
    - 18 = 18in (457mm)
    - 24 = 24in (610mm)
    - 36 = 36in (914mm)
  - Vault height:
    - 48 = 48in (1219mm)
    - 57 = 57in (1448mm)
    - 68 = 68in (1727mm)
    - 72 = 72in (1829mm)
    - 84 = 84in (2134mm)
    - 95 = 95in (2413mm)
    - Custom heights from 42in to 135in available
  - Biotube filter mesh:
    - Blank = 1/8in (3.2mm) mesh
    - P = 1/16in (1.6mm) mesh
- Orenco® Biotube® Universal Pump Vault

Not all product code configurations may be available as standard products.

## Materials of Construction

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



### Standard Dimensions, in (mm)

<b>A</b>	3 (76)
<b>B</b>	4 (102)
<b>C</b>	17.3 (439)
<b>D</b>	16.6 (422)
<b>E</b>	12 (305)

### Specifications

Model	PVU48-1818	PVU57-1819	PVU68-2419	PVU84-2419	PVU95-3625
<b>F</b> Vault height, in (mm)	48 (1219)	57 (1448)	68 (1727)	84 (2134)	95 (2413)
<b>G</b> Lowest float setting point, in (mm)	21 (533)	29 (737)	35 (889)	51 (1295)	50 (1270)
<b>H</b> Inlet hole height, in (mm)*	18 (457)	19 (483)	19 (483)	19 (483)	25 (635)
<b>I</b> Biotube cartridge height, in (mm)	18 (457)	18 (457)	24 (610)	24 (610)	36 (914)
Biotube mesh opening, in (mm)	0.125 (3.2)	0.125 (3.2)	0.125 (3.2)	0.125 (3.2)	0.125 (3.2)
Filter flow area, ft <sup>2</sup> (m <sup>2</sup> )	4.4 (0.4)	4.4 (0.4)	5.9 (0.5)	5.9 (0.5)	9.0 (0.84)
Filter surface area, ft <sup>2</sup> (m <sup>2</sup> )	14.5 (1.35)	14.5 (1.35)	19.7 (1.83)	19.7 (1.83)	30 (2.79)
Maximum flow rate, gpm (L/sec)	140 (8.8)	140 (8.8)	140 (8.8)	140 (8.8)	140 (8.8)

\* May vary depending on the configuration of the tank