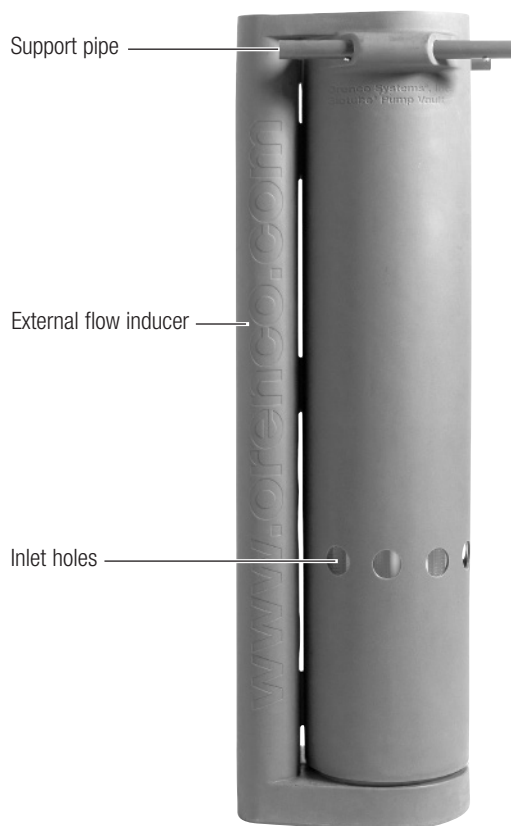


Universal Biotube® Pump Vaults

For use with Orenco® 4-inch (100-mm) Submersible Effluent Pumps

Applications

Orenco Biotube® Pump Vaults are used to filter effluent that is pumped from septic tanks or separate dosing tanks in STEP systems and onsite wastewater treatment systems. They remove two-thirds of suspended solids, on average. Pump vaults house a Biotube effluent filter and one or two Orenco high-head effluent pumps and can be used in single-compartment septic tanks with flows up to 40 gpm (2.5 L/sec). When flows are greater than 40 gpm (2.5 L/sec), a double-compartment septic tank or separate dosing tank is recommended.



Side view

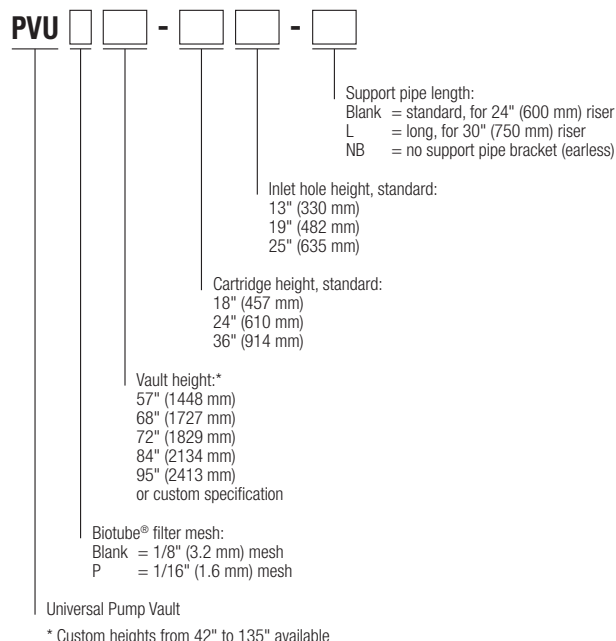
General

The Orenco Biotube Pump Vault includes a molded polyethylene housing with an internal Biotube filter cartridge constructed of polypropylene and PVC. Schedule 80 PVC support pipes are included to suspend the vault in a tank opening. "Earless" 68-inch (1727-mm) 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. 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. Orenco Biotube Pump Vaults are covered by U.S. patents #4,439,323 and 5,492,635.

Standard Models

PVU57-1819, PVU68-2419, PVU84-2419, PVU95-3625.

Product Code Diagram



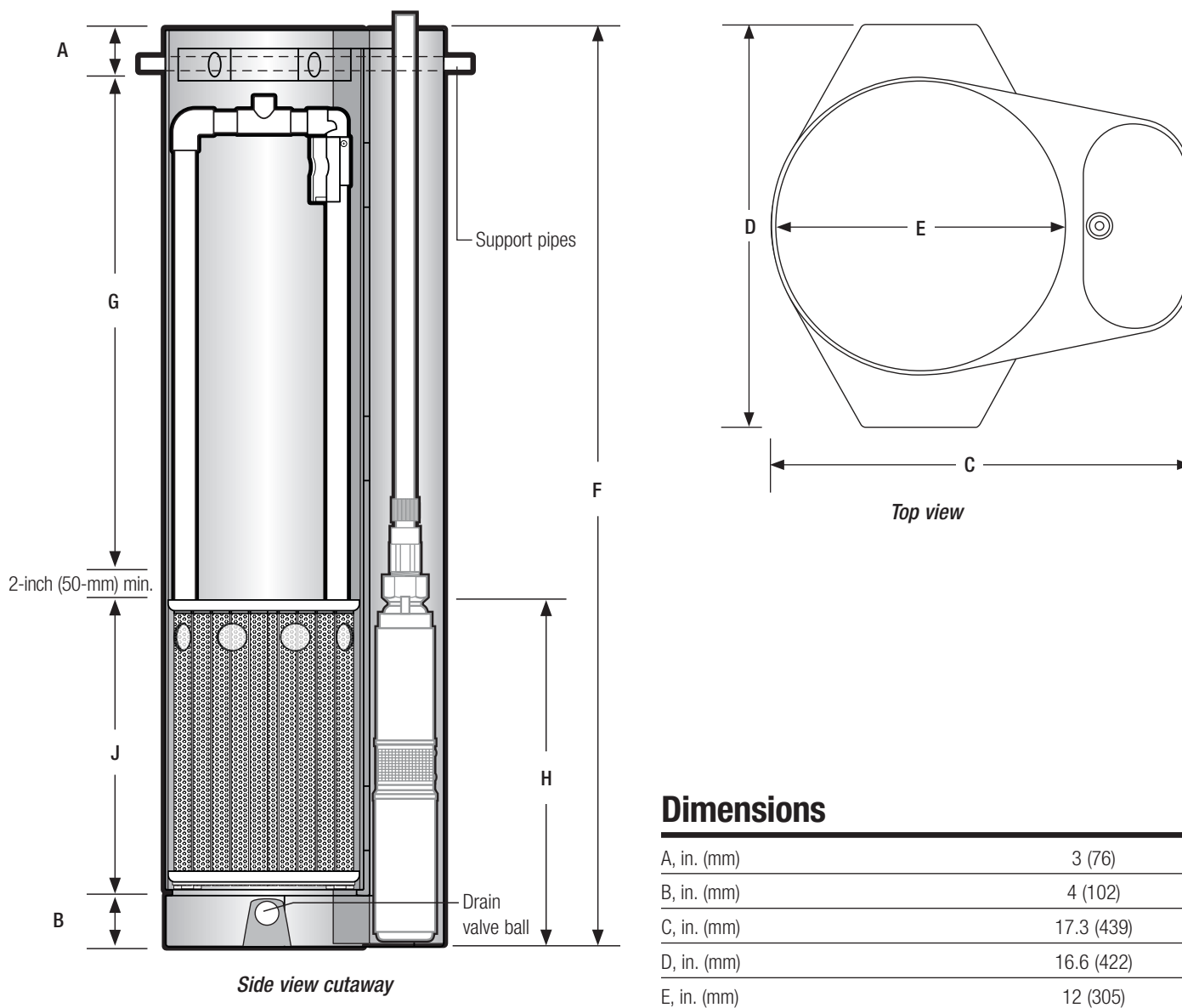
* Custom heights from 42" to 135" available

Tank Access and Riser Diameters

| Diameter, 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) |

Materials of Construction

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



Specifications

| Model | PVU57-1819 | PVU68-2419 | PVU84-2419 | PVU95-3625 |
|---|-------------|--------------|-------------|------------|
| F, vault height, in. (mm) | 57 (1448) | 68 (1727) | 84 (1727) | 95 (2413) |
| G, lowest float setting point, in. (mm) | 29 (737) | 35 (889) | 51 (1295) | 50 (1270) |
| H, inlet hole height, in. (mm)* | 19 (483) | 19 in. (483) | 19 (482) | 25 (635) |
| J, Biotube® cartridge height, in. (mm) | 18 (457) | 24 (610) | 24 (610) | 36 (914) |
| Biotube mesh opening, in. (mm) | 0.125 (3) | 0.125 (3) | 0.125 (3) | 0.125 (3) |
| Filter flow area, ft² (m²) | 4.4 (0.4) | 5.9 (0.5) | 5.9 (0.5) | 9.0 (0.84) |
| Filter surface area, ft² (m²) | 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) |

* May vary depending on the configuration of the tank.