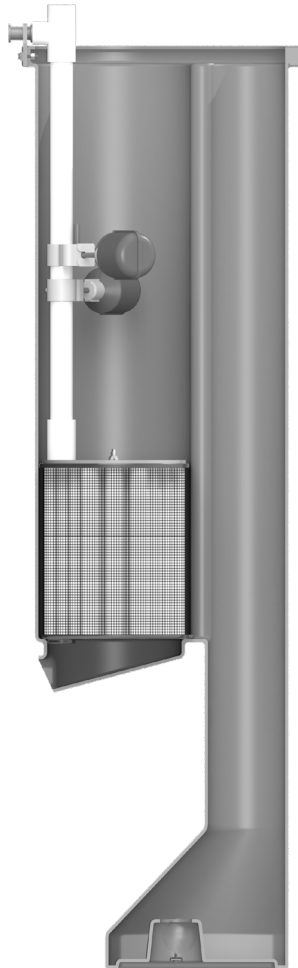


Orenco® PVPM-Series Biotube® Pump Vaults

Applications

Orenco's patent-pending PVPM-Series Biotube Pump Vaults are ideal for all types of wastewater treatment systems such as liquid-only sewers or on-site systems that use M-Series tanks. These vaults house one or two Orenco high-head effluent pumps with flows up to 40gpm (2.5L/sec). PVPM-Series pump vaults are for use with Orenco 4in (100mm) submersible effluent pumps only in Orenco M-Series meander-type tanks.



PVPM-Series Pump Vault, cross-sectional side view

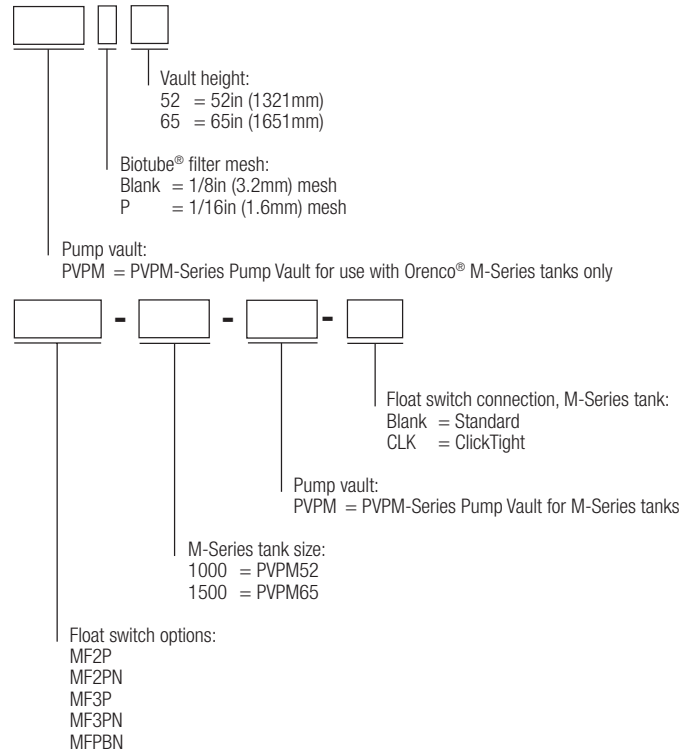
General

The Orenco PVPM-Series Biotube Pump Vault includes a molded polyethylene housing and an internal Biotube filter cartridge constructed of polypropylene and PVC. The pump vault keeps sludge and scum away from the filter, pump, and float switches, while the filter removes particles 1/8in (3.2mm) or larger from the tank's clear zone. This reduces suspended solids by two-thirds, on average, and allows clear effluent to be discharged.* The passively self-cleaning design extends maintenance cycle intervals. The filter cartridge can be removed without pulling the pump or the vault. PVPM-Series vaults can accommodate one or two high-head effluent pumps.

For more information on float switches, see [NTD-MF-MF-1, Float Switch Assemblies Technical Data Sheet](#).

*AFS-FT-1, Orenco Filter Facts Fact Sheet

Product Code Diagrams



Pump Vault

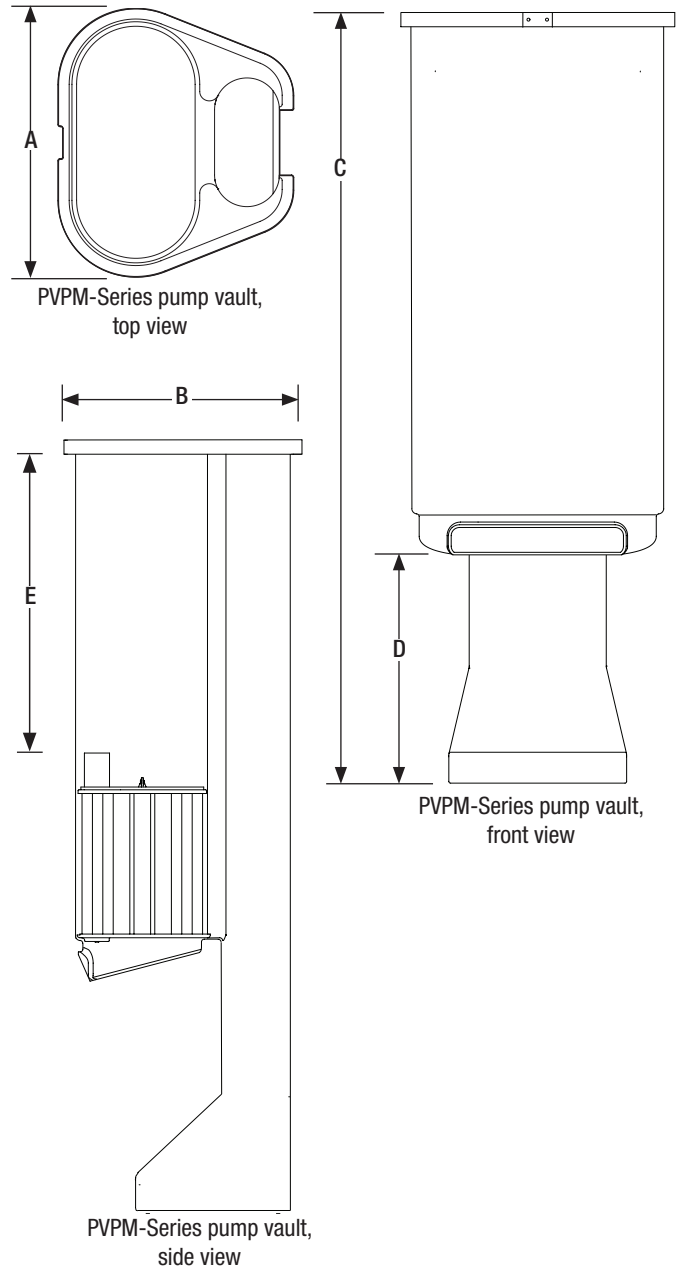
Orenco's patent-pending PVPM-Series Biotube pump vault is designed to be passively self-cleaning for reduced maintenance and service needs.

Materials of Construction

Vault body	Polyethylene
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Vault Dimensions, in (mm)

	PVPM65	PVPM52
A	18.50 (470)	18.50 (470)
B	15.94 (405)	15.94 (405)
C	65.50 (1664)	52.50 (1334)
D Inlet height	15.20 (386)	15.88 (403)
E Lowest float setting point	33.75 (857)	19.25 (489)



Biotube Effluent Filter

The Orenco PVPM-Series Biotube filter is designed for effective filtration of effluent and passive self-cleaning for long cleaning intervals.

Materials of Construction

End plates	DCPD
Filter tubes	Polypropylene
Handle assembly	Sch. 40 PVC
Screws	Stainless steel

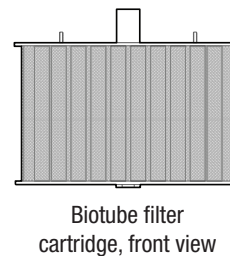
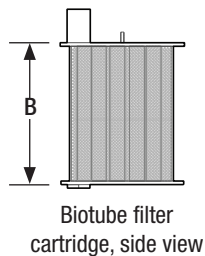
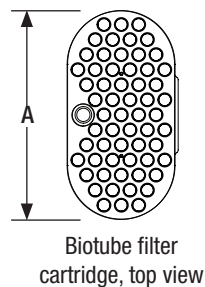
Dimensions in (mm)

A	16.5 (419)
B	10.0 (254)

Performance

Biotube mesh opening, in (mm)*	0.125 (3)
Total filter flow area, ft ² (m ²)	4.0 (0.37)
Total filter surface area, ft ² (m ²)	14.0 (1.3)

*0.062in (1.6mm) filter mesh available



Float Switches

Float switches are UL listed and CSA certified for use in water or sewage. To simplify accessing and servicing, the float switch assembly has been incorporated into the Biotube filter handle.

Materials of Construction

Float collar	ABS
Float cord	Flexible 2 conductor (UL, CSA) SJOW; CPE cord jacket with EPDM insulated conductors
Float housing	Impact resistant, noncorrodible polypropylene for use in liquids up to 140°F (60°C)

Float Switch Specifications

Float	State	Type
B	Normally open	Mechanical
N	Normally closed	Mechanical
P	Normally open	Mechanical

Float Switch Settings

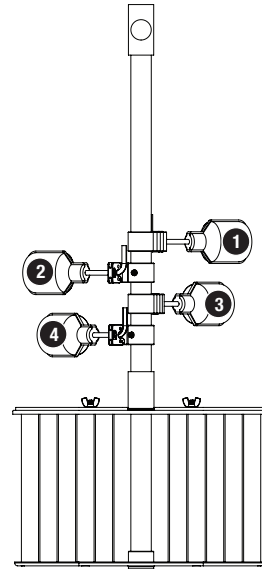
Float switches are listed in order from the top, with 1 being the closest to the top. Distance is measured from the top of the tank to the center of the float collar.

1000 Option Float Distance Settings, in (mm)

	1	2	3	4
MF2P	12 (305)	14 (356)	N/A	N/A
MF2PN	12 (305)	14 (356)	16 (406)	N/A
MF3P	12 (305)	14 (356)	16 (406)	N/A
MF3PN	12 (305)	14 (356)	16 (406)	18 (457)
MFPBN	12 (305)	15.5 (394)	17.5 (445)	N/A

1500 Option Float Distance Settings, in (mm)

	1	2	3	4
MF2P	13 (330)	15 (381)	N/A	N/A
MF2PN	13 (330)	15 (381)	17 (432)	N/A
MF3P	13 (330)	15 (381)	17 (432)	N/A
MF3PN	13 (330)	15 (381)	17 (432)	19 (483)
MFPBN	13 (330)	16.5 (419)	18.5 (470)	N/A



Biotube filter cartridge with handle and float switches