

# VERTICAL PUMP VAULT

## ACCESSORIES FOR FLOWTITE® WATER TANKS

Containment Solutions' vertical pump vault and tank meets the requirements of NFPA 22 for the storage of fire protection water. The fiberglass pump vault can be installed along with a Flowtite® fiberglass tank to complete an underground fire protection storage system. This installation method allows 100% of the tank volume to be accessible.

### Watertight Construction

Leaks caused by improperly sealed field joints will either allow ground water to infiltrate the water supply or worse yet, allow the emergency water to drain out. Containment Solutions' fiberglass pump vaults are factory assembled in one integral piece and all bottoms are factory sealed on the inside and outside to prevent ex-filtration of available water for fire protection. With no sections to assemble or field bond, our pump vaults are watertight. CSI fiberglass pump vaults provide a leak proof answer to deteriorated concrete or steel structures over the lifetime of the structure.

### Sizes

Vertical Pump Vaults are available in diameters from 3' to 10' wide and lengths ranging from 3' to 35'. Longer pump vaults are available in custom designs.

### Fiberglass Bottom, Top Flange, and Fittings

- Fiberglass pump vaults are designed to withstand the hydrostatic head pressure exerted with water to grade and the unit completely empty. The bottom and all structural components are all non-corrosive fiberglass materials including the anti-flotation ring.
- Fiberglass flanges are installed on the top of the pump vault to accommodate various manufacturers mounting plates for vertical pumps.
- Fittings can be installed in various diameters and at any elevation required. Fiberglass flanged nozzles, manufactured according to ANSI B16.5 150# bolt patterns are standard. Other type fittings are available for installation.



36" x 12' Vertical Pump Vault



According to the NFPA, a structural fire ignites every 60 seconds on average. From that first spark, timing is a critical factor in the evolution of a dangerous fire. Fire protection systems are designed to suppress the initial source before the fire can spread leaving costly destruction in its wake.

Choosing a Flowtite® fire protection tank with a vertical pump vault is the best way to make a good decision, a great investment.

## Installation

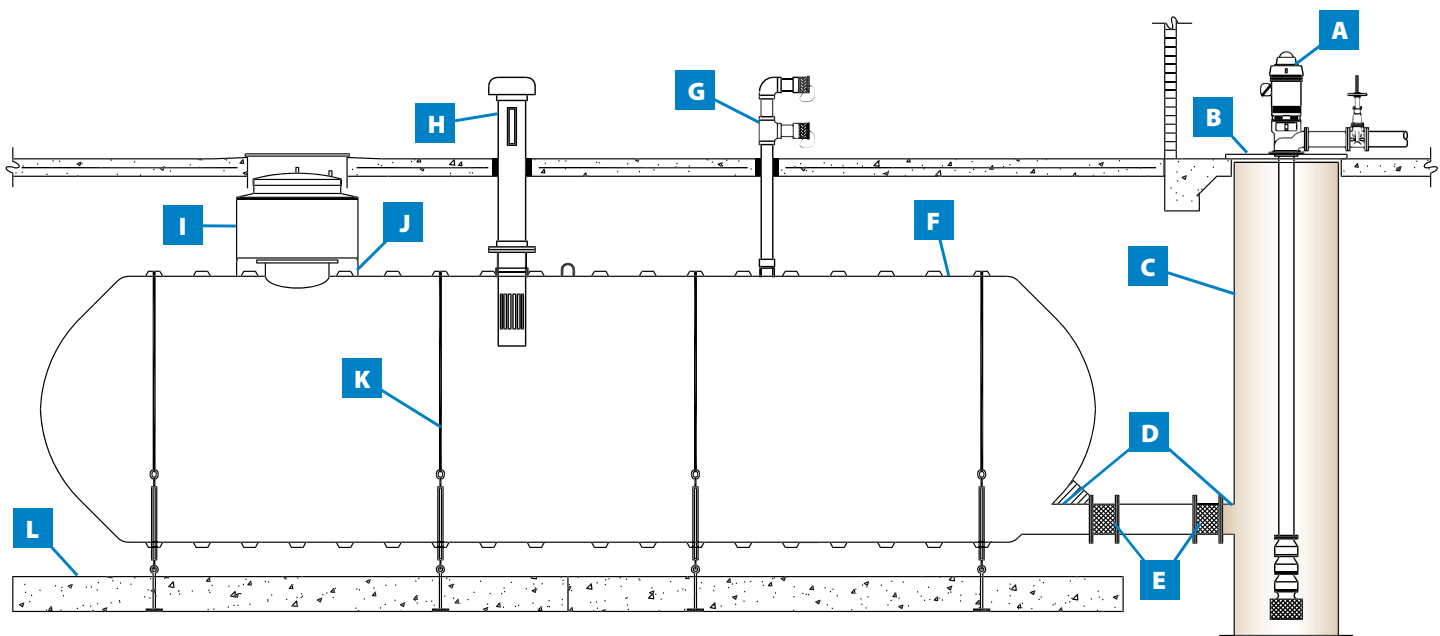
Installation of the fiberglass pump vault is per CSI Wetwell Installation Instructions in effect at the time of shipment.

- To counteract buoyancy, the pump vault must be anchored by a concrete base.
- The pump vault can be backfilled with soils having a soil reaction modulus of 1000 psi or better.
- Fittings installed in the unit must have a flexible connector directly attached to the fiberglass pump vault fitting.



36"x 20' vault connected to a 30,000 gallon Flowtite Fire Protection Tank.

### TYPICAL FIRE PROTECTION SYSTEM USING A VERTICAL PUMP VAULT



- |   |                                       |
|---|---------------------------------------|
| <b>A.</b> Vertical Turbine Pump with Discharge Head | <b>G.</b> Dual NST Fill Point         |
| <b>B.</b> Steel Motor Mounting Plate                | <b>H.</b> Vent/Level Indicator        |
| <b>C.</b> Fiberglass Vertical Pump Vault            | <b>I.</b> Watertight Fiberglass Riser |
| <b>D.</b> Flanged Nozzles                           | <b>J.</b> Fiberglass Access Collar    |
| <b>E.</b> Flexible Connectors                       | <b>K.</b> Fiberglass Anchor Straps    |
| <b>F.</b> Flowtite Fire Protection Tank             | <b>L.</b> Deadmen Anchors             |

