



# GroundGuard

CORROSION-RESISTANT, HIGH-STRENGTH,  
CLASS 1 DIRECT BURIAL RATED DUCT

VPC's Direct Burial Rated Fiberglass Duct



## OVERVIEW

VPC Fiberglass offers a direct burial rated duct product designed with corrosion-resistant, high-strength FRP. Built to withstand harsh environments, **GroundGuard** provides a durable and efficient solution for air distribution in demanding settings.

## KEY FEATURES

### Corrosion Resistance

- Built to withstand moisture, chemicals, and harsh conditions
- Ideal for wastewater and industrial facilities
- Also suited for labs and pools

### Efficient Airflow

- Smooth interior surface minimizes pressure drop for improved system performance

### Versatile Design

- Available in single-wall and double-wall configurations, with custom shapes to meet project specifications.

### High Strength

- Constructed with reinforced fiberglass, offering superior durability while remaining easy to install
- **SMACNA-compliant** for structural integrity and industry-standard performance

### Easy Installation

- Designed for direct burial without the need for concrete encasement, reducing installation time and costs.

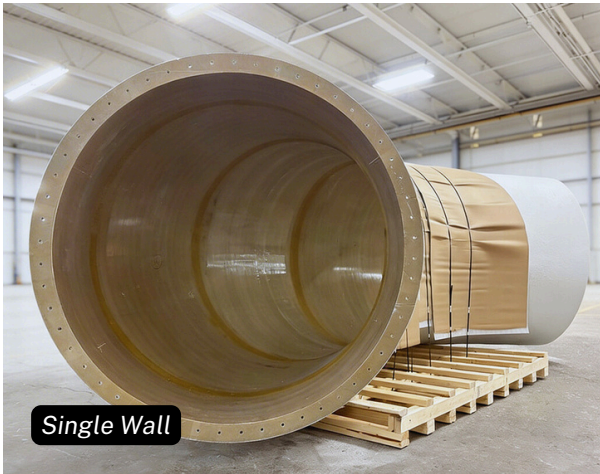
### Class 1 Fire Rating

- Meets NFPA 90 standards for flame spread
- Smoke rating available as required for added safety

## FRP CONFIGURATION

At VPC Fiberglass, round and rectangular are the standard shapes for filament-wound construction. Custom shapes are available upon request, and our experienced team is ready to design solutions for projects requiring non-standard configurations.

## VERSATILE, CODE-COMPLIANT SOLUTIONS



### SINGLE-WALL DUCT

VPC Fiberglass' Class 1-rated single-wall duct can meet ASTM E-84 25/50 flame and smoke requirements, approved for wastewater and industrial applications.



### DOUBLE-WALL DUCT

VPC Fiberglass' Class 1-rated double-wall duct reduces thermal losses. With standard 1" insulation, it offers a minimum R-value of 6. Other options are available.

OUR EXPERT ENGINEERS ARE HERE TO PROVIDE A DETAILED QUOTE

### FOR YOUR CUSTOM FRP DUCT PROJECT.

- **Corrosion & Pressure Resistant:** Designed for harsh environments and static pressure.
- **Precision Manufacturing:** Filament-wound process meets SMACNA standards.
- **Best-in-Industry Lead Times**
- **Size Range:** Standard sizes 2" to 72" diameter.
- **Versatile Applications:** Suitable for industrial & commercial use.
- **Expert Support:** Engineering assistance for material & component selection.

**585.735.9668**

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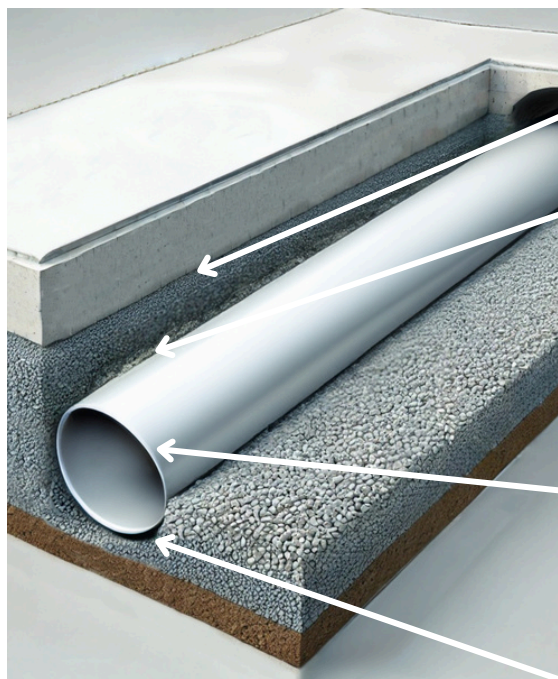
# INSTALLATION, BURIAL GUIDELINES

VPC Fiberglass' **GroundGuard** product should be installed in a graded trench with proper drainage, supported by a 4" bed of pea gravel. A minimum of 4" of compacted fill is required between the top of the duct and the slab, with a recommended maximum of 6". If deeper burial is necessary, the duct can be custom-designed to accommodate it.

**Concrete encasement is not required** for round **GroundGuard**. Once fiberglass is securely installed and sealed, simply cover the duct with recommended fill or pea gravel and proceed with pouring the floor slab.

Our duct is constructed with a resin-rich veil on the interior and exterior to resist water infiltration in areas prone to groundwater exposure. Field joints should be sealed using the wet lay-up method as specified in our installation guidelines.

*(Note: A leak test should be conducted before backfilling.)*



*FRP can be designed for burial to any depth without concrete encasement.*

## 4" Min. Distance

Between duct and bottom of slab.

## Positioning

Duct should be positioned at a 1% slope towards the largest diameter.

## Minimum Fill

Thickness of 4" around all duct.

## Minimum Trench

Width must be 1.5x diameter of duct to be laid.



# GroundGuard.

Our direct burial-rated fiberglass duct is engineered for buried applications, offering corrosion resistance, resistance to moisture infiltration, and low thermal conductivity — ensuring reliable, long-term performance in subsurface air conveyance systems.

[www.vpcfiberglass.com](http://www.vpcfiberglass.com)

**(585) 735-9668**

*Contact Our Sales Engineers for  
a Custom Quote!*

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