

Fiberglass Reinforced Plastic

UD UnderDuct
by Monoxivent®



- Registered AIA/CES Education Provider
- US Green Building Council Member since 2010



CC CorrosionComposites
by Monoxivent®



Water, Wastewater,
Corrosion Applications



Visit underduct.com for complete technical data, overviews, application spotlights!

OVERVIEW:

UnderDuct by Monoxivent provides the most versatile and cost effective Underground FRP (Fiberglass Reinforced Plastic) Duct on the market today! UnderDuct provides a wide range of solutions from the most demanding environments to standard layouts.



Monoxivent’s manufacturing source has over 40 years of experience and is a leader in the Under-Slab Fiberglass Duct market. Monoxivent has a nationwide network of sales representatives and a top-tier inside support staff that provides engineering, design, sales, service, and marketing. UnderDuct is offered both in single wall and pre-insulated double wall construction to meet any ventilation needs. Monoxivent 824 Low Smoke Class 1 duct has been approved for direct burial.

MARKETS:

Supply, return, and exhaust systems include, but are not limited to: auditoriums, auto exhaust, banks, botanical centers, churches, high rise office, hospitals, libraries, parking garages, residences, restaurants, schools, super markets, swimming pools, and zoos.

DURABILITY:

Monoxivent's UnderDuct fiberglass HVAC ductwork provides excellent resistance to corrosion and leakage. The corrosion resistance qualities are maintained throughout both the inside diameter (ID) and outside diameter (OD) allowing for a wide range of applications.

EASE OF USE:

Monoxivent's UnderDuct fiberglass duct can be directly placed onto a pea gravel bed in a graded trench, then backfilled with pea gravel eliminating concrete encasement. Simple joining methods provide for easy and quick installation, which significantly lowers installation costs compared to other materials.



EFFICIENCY:

Monoxivent's UnderDuct systems can be sealed to achieve a water and air tight system. A leak-free system and smooth interior surface will ensure the air reaches its destination efficiently and without contamination.

MATERIAL INTEGRITY:

Monoxivent's UnderDuct FRP fiberglass duct is filament wound with two chemically inert materials – glass and resin. The finished product provides longer underground service life than galvanized sheet metal, stainless steel, or PVC coated sheet metal. The filament winding provides greater hoop strength resulting in a stronger duct than other methods of construction such as hand lay-up. The finished product is lighter than steel while offering superior acoustical qualities and corrosion resistance.

TESTING:

Monoxivent's UnderDuct products have met the Flame and Smoke requirements of a Class 1 duct per Underwriter’s Laboratories (UL) 181 and Uniform Mechanical Code (UMC) 10-1. We are verified by an ASTM E-84 testing laboratory recognized by the following building code organizations under the Council of American Building Officials: ICBO; BOCA; SBCCI.

VERSATILITY:

UnderDuct FRP products are available in straight lengths, standard and custom fittings, or in shop fabricated sections. Single and double wall duct can be shipped in prefabricated assemblies. Pre-insulated double wall duct has many advantages, including assured uniformity of insulation, permanent protection of insulation, and all-in-one installation.



Green Building with UnderDuct: Underground FRP Duct is Environmentally Sound, Sustainable

UnderDuct is Environmentally Sound due to the “green” aspects of our fiberglass reinforced plastic underslab duct. FRP duct is a key component of sustainable building. The quality and strength of our FRP duct means a longer life, which saves resources, and maximized airflow uses energy more efficiently.

UnderDuct’s “Green” Benefits Include:

- Smooth and Improved Air Flow
- Energy Savings with Insulated FRP Duct
- Maximizes Air Flow and Efficiency
- Resistance to Mold, Corrosion, Leakage, Moisture Damage
- 824 Low Smoke and Flame Class 1 Rating
- Long-life Duct
- Energy Savings
- Allows for “Open Concept” Design in Buildings
- Laminated Joints for Complete Seal





Exhaust Outlet, just prior to floor finishing



UnderDuct-VE System used in service facility

Sean Hartnett/photos

**UnderDuct-VE Now Available:
Corrosion Resistant Underfloor Duct for
Vehicle Exhaust Removal**

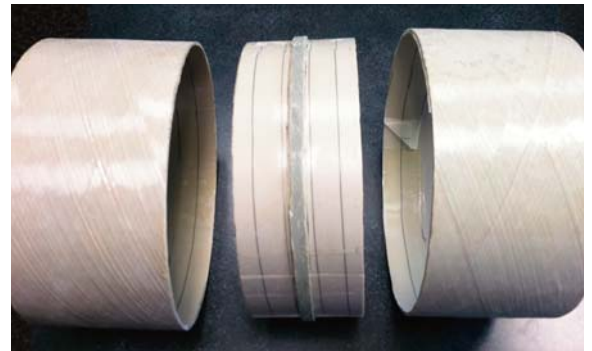
UnderDuct, by Monoxivent, is pleased to announce our new product: UnderDuct-VE. The corrosion resistant underfloor exhausting duct is rated to 325-degrees F. The duct does not need concrete encasement. The duct's smooth bore allows for more efficient airflow and less pressure drop.



Low Dust
Low VOC
LEED Driven

by Monoxivent®

process. Simply peel the strip, apply the specially designed Low VOC adhesive and grab those extra LEED points!



**LOW VOC COUPLING TO JOIN MONOXIVENT
FRP DUCT: THE L3 CONNECTION**

To comply with LEED requirements of dust and VOC control, Monoxivent offers the L3 Connection System. A protective strip that is removed on the job site is incorporated into the duct and fittings during the fabrication



L3 Connector - Benefits:

- No dust from grinding
- Low VOC in adhesive
- Tested to 15 PSI
- Meets LEED specification requirements

**DOUBLE WALL INSULATED
DUCT CONNECTION**



Monoxivent now supplies as standard our new double wall duct connection that incorporates an FRP alignment sleeve with every field joint. Installation is made easier with the added benefit of eliminating internal gaps for a higher quality finished duct system.



**LABORATORY FUME
HOOD DUCT & HYBRID-
CF DUCT**

Lab Duct can handle a wide variety of chemical fumes, including strong acids and caustics. Condensate formed in the duct system can concentrate these chemicals due to evaporation, making them even more corrosive. Because a Lab is considered occupied space, the structural and exterior surface of the duct requires a low smoke and flame rating per UL-181, as well as low fire-gas toxicity.



Corrosion Resistant Lab Duct



Applications:

- Hospitals
- Aquariums
- Dog kennels
- Exposed Vehicle Exhaust Duct
- Swimming pools



Visit corrosioncomposites.com for complete technical data, overviews, application spotlights!



Industrial Process - duct and vessel



Box scrubber



Stack with integral curb cover



Scrubber



Wastewater odor control duct system

OVERVIEW:

Corrosion Composites by Monoxivent is a source for corrosion resistant Fiberglass Fabrication Services.

Fiberglass laminated composites are light weight, high strength, non conductive, and corrosion resistant. Monoxivent assists with design, engineering, drawing, manufacturing, inspection, and installation. Monoxivent brings together years of fiberglass experience and manufacturing expertise. For many industrial, Water, and Wastewater applications where corrosion is a problem, fiberglass is the material of choice.

PRODUCTS:

For Industry, Water and Wastewater, Infrastructure:

- Duct
- Stacks
- Tanks
- Scrubbers
- Flumes
- Hoods
- Dampers
- Manholes
- Troughs
- Tank Covers
- Stack Liners
- Baffles
- Weirs
- Trenches
- Ladders
- Platforms
- Pressure Vessels
- And More!

DURABILITY:

Monoxivent's Corrosion Composites provide excellent resistance to corrosion and offer a

very long service life. Laminates are designed for wind, seismic, snow, pressure, vacuum, and temperature.

STANDARDS:

Corrosion Composites adhere to ASTM, SMACNA, and other industry standards.

EXPERIENCED TEAM:

Monoxivent's design team offers engineering and layout support for custom solutions. This coupled with a manufacturing sources featuring over 40 years of experience, a 70,000-sq. foot facility, and state of the art equipment makes Corrosion Composites an excellent source for FRP products.