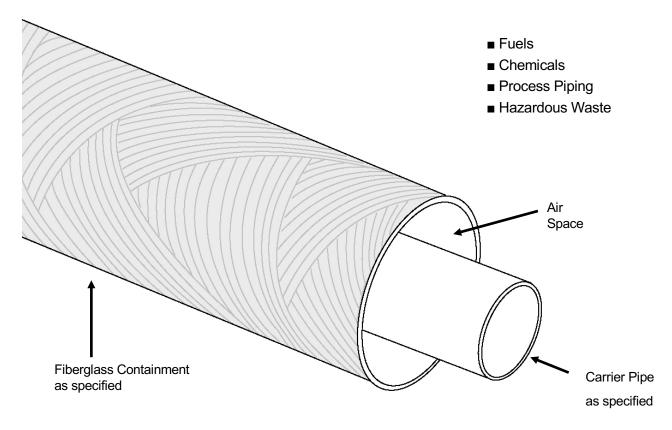
# **Rovanco FRP Containment**

# For Above or Below Ground Applications



Rovanco's FRP Containment System is designed for applications of high quality with durable FRP casing. All elbows, tees, and end seals are supplied as a standard product for field fabrication.

FRP containment comes complete with joint kit with adhesive, and accessories as required for the installation.

To find out more about FRP Rovanco's containment system, you can visit our factory, phone us (815) 741-6700, fax us (815) 741-4229, visit our website at <a href="https://www.rovanco.com">www.rovanco.com</a> or e-mail us at marketing@rovanco.com.

## GUIDE SPECIFICATION

# Fiberglass Containment Piping Systems for Above and Below Ground

### **Carrier Pipe Types:**

PVC - Schedule 40/80 solvent weld.

**Stainless Steel -** Schedule 10, Type 316L seamless stainless steel in 20' single random lengths.

Type (K) or (L) - Hard drawn Copper Tubing conforming to ASTM B-88.

**Steel -** A-53 Grade B or seamless Steel in Schedule (40) or (80).

#### **Fiberglass**

**Green Thread HP** 16 bar filament wound fiberglass reinforced epoxy, bell and spigot, designed to withstand 230°F. ID of pipe shall contain a resin-rich liner. All 1" through 42 pipe to be in 20' random lengths. Pipe to be in conformance with ASTM D-2996.

**Red Thread HP** 16 pipe filament would fiberglass reinforced epoxy, bell and spigot, designed to withstand 210°F. ID of pipe to be 20' random lengths. Pipe to be in conformance with ASTM D-2996.

Red Thread IIA (for fuels) – Pipe is manufactured by filament winding process using amine-cured epoxy thermosetting resin to impregnate strands of continuous glass filaments with a resin-rich interior surface. The operating pressure of the pipe is up to 250 psig (17.2 bar) with continuous operating temperature to 150°F (66°C). Red Thread IIA is Listed with UL Standard 971-2004 for non-metallic underground piping for motor vehicle, high blend, concentrated and aviation and marine fuels. ID of pipe to be 20' random lengths. Pipe to be in conformance with ASTM D-2996.

Other carrier pipe types are available upon request.

## **Containment Pipe Material:**

Shall be Green Thread HP, Red Thread HP or Red Thread IIA in accordance with specifications as listed in fiberglass carrier pipe above.

#### **Inner Pipe Supports:**

All pipe shall be aligned and supported within the outer casing with nonmetallic pipe supports designed to allow free air and fluid movement within the containment pipe. The supports will be designed and spaced to carry the weight of the carrier pipe full of fluid with a 50% safety factor while allowing the carrier pipe to expand and contract.

### **Joining Method:**

Pipe and Fittings will be joined using a thermosetting epoxy resin, Mechanical joints or O-Ring seals will not be allowed.

### Fittings:

All fittings will be filament wound, heavy duty, bell and spigot type. 90° elbows will be long or short radius.

#### End Seal:

Terminal ends of containment inside manholes, pits, or building walls shall be equipped with end seals

End seals with drain or vent openings located diametrically opposite on the vertical center line of the mounting plate and shall be shipped to the job site with plugs in place. Terminate all containment 2 inches beyond the inside face of building walls.

#### Anchor:

FRP pipe should be joined to steel systems inside building with flanges. All steel systems should be anchored within five feet of connection point to eliminate any thrust, stress, or torque from the steel pipe being transferred to the FRP. Steel flanges should be 150# flat faced.

#### Field Tests:

The inner pipe of the system shall be tested hydrostatically to 1-1/2 times the working pressure of the line. If a leak is found, it shall be repaired and the test repeated. The outer casing shall be tested with air at 5 psig max. and a soap solution shall be applied to the field joints to locate leaks. If leaks occur, they shall be repaired and the test repeated.

#### Backfill:

Should be tampered compactly in place so as to assure a stable surface. No rock shall be used in the first foot of backfill. 24 inches, top of pipe to grade, of compacted fill shall meet H-20 Highway loading.

#### Manufacturer's Assistance:

Rovanco will provide a field serviceman on-site to properly train the installing personnel in all phases of installation.

#### **Leak Detection:**

For optional Leak Detection for this system, please contact Rovanco.

# Approved Vendors:

FRP Containment System by Rovanco, Joliet, Illinois or approved equal. Any alternate supplier must be ISO 9001 certified and submit their technical data to the engineer ten days prior to bid date to be approved in writing as an equal.

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# Contact Rovanco® for the name of your local Representative

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This is a generic product datasheet and is not intended for submittal use.