TRICON DOUBLE-CON PIPE SYSTEM

For Applications Up To 450° F Below And Above Ground

- Condensate
- Fuel Oil
- Heating Hot Water
- Low Pressure Steam
- Process Piping
- Steam

Carbon Steel, FRP, Galvanized, Aluminum, or Stainless Steel Jacket

Insulation as Specified

Single or Multiple Service Pipes as Specified
TRICON DOUBLE-CON CONTAINMENT PIPE SYSTEM

For Above Ground Containment Piping Systems

- Fuel Oil
- Solvents
- Gasoline
- Hazardous Fluids

Metal Jacket As Specified
Galvanized, Aluminum, or Stainless Steel

10 Gauge Steel Conduit

Polyurethane Foam Insulation

Steel Service Pipe As Specified
TABLE 1

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FRP Jacket O.D.</td>
<td>FRP Jacket Wall</td>
</tr>
<tr>
<td>½&quot;</td>
<td>3.50&quot;</td>
<td>.090&quot;</td>
</tr>
<tr>
<td>¾&quot;</td>
<td>3.50&quot;</td>
<td>.090&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>4.50&quot;</td>
<td>.085&quot;</td>
</tr>
<tr>
<td>1¼&quot;</td>
<td>4.50&quot;</td>
<td>.085&quot;</td>
</tr>
<tr>
<td>1½&quot;</td>
<td>4.50&quot;</td>
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<td>4.50&quot;</td>
<td>.085&quot;</td>
</tr>
<tr>
<td>2½&quot;</td>
<td>6.63&quot;</td>
<td>.120&quot;</td>
</tr>
<tr>
<td>3&quot;</td>
<td>6.63&quot;</td>
<td>.120&quot;</td>
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<tr>
<td>4&quot;</td>
<td>8.64&quot;</td>
<td>.140&quot;</td>
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<tr>
<td>5&quot;</td>
<td>8.64&quot;</td>
<td>.140&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>10.70&quot;</td>
<td>.170&quot;</td>
</tr>
</tbody>
</table>

TRICON Double-Con Containment System is a factory fabricated containment system for above and below ground transportation of hazardous fluids. The most widely used system can be designed with a steel carrier pipe and a secondary steel outer pipe.

**Carrier Pipe:**
Carbon steel service pipe shall be standard weight or extra heavy, A53 ERW or A106 seamless beveled for welding. (Stainless Steel piping shall be Type 304L or 316L. – Copper piping to be Type K cleaned and capped for medical use or Type L ) All joints for pipe 2½" and larger in size shall be butt-welded. Sizes 2" and smaller shall be socket welded. Straight lengths of piping will be supplied with 6" of piping exposed at each end for field joint fabrication. Pipe lengths to be supplied in 21-42 ft. lengths.

**Containment Pipe For Above Grade:**
The outer conduit shall be a smooth wall, spiral welded steel conforming to ASTM Specification A-139, or electric resistance welded steel pipe conforming to ASTM Specification A-135, or as specified.

**Containment Pipe Coating For Above Grade:**
Red Oxide Primer, factory coated up to 3-4 mils dry film thickness.

**Containment Pipe For Below Grade:**
The outer conduit shall be a nonmetallic fiberglass conforming to ASTM 2310 standard classification TRP-11CX and ASTM D2996 specification RTRP 11CF1-5430, RTRP-11AF1-2214, RTRP-11AF1-2216.

**Containment Pipe Coating For Below Grade:**
Conduit exterior shall be factory coated with a Fusion Bonded Epoxy. All exterior surfaces of the conduit shall be shot blasted prior to the application of the coating.

**Fusion Bonded Epoxy** is a N.A.C.E & N.A.P.C.A. approved corrosion coating.

**Installation:**
*No Piping shall be installed in standing water. Trenches shall be maintained dry until final field closure is complete.* The installing contractor shall handle the piping system in accordance with the directions furnished by the manufacturer and as approved by the architect and engineer. The service piping shall be hydrostatically tested to 1-1/2 times the operating pressure, or as specified in the contract documents. The non-metallic outer jackets shall be tested to 5 psi and 15 psi for the metallic secondary containment. The test shall be maintained for a minimum time of 1 hour.

**EXERCISE DUE CARE WHEN INSTALLING AND TESTING THE PIPING SYSTEM.**

**Accessories:**
- Heat Tracing
- Leak Detection
- Cathodic Protection

**Optional Systems:**
- Contact your Tricon representative for available sizes and system options.

TABLE 2

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FRP Jacket O.D.</td>
<td>Steel O.D.</td>
</tr>
<tr>
<td>½&quot; + ½&quot;</td>
<td>4.50&quot;</td>
<td>4.500&quot;</td>
</tr>
<tr>
<td>¾&quot; + ¾&quot;</td>
<td>4.50&quot;</td>
<td>4.500&quot;</td>
</tr>
<tr>
<td>1&quot; + 1&quot;</td>
<td>6.63&quot;</td>
<td>6.625&quot;</td>
</tr>
<tr>
<td>1¼&quot; + 1¼&quot;</td>
<td>6.63&quot;</td>
<td>6.625&quot;</td>
</tr>
<tr>
<td>1½&quot; + 1½&quot;</td>
<td>6.63&quot;</td>
<td>6.625&quot;</td>
</tr>
<tr>
<td>2&quot; + 2&quot;</td>
<td>8.64&quot;</td>
<td>8.625&quot;</td>
</tr>
<tr>
<td>2½&quot; + 2½&quot;</td>
<td>8.64&quot;</td>
<td>8.625&quot;</td>
</tr>
<tr>
<td>3&quot; + 3&quot;</td>
<td>10.70&quot;</td>
<td>10.750&quot;</td>
</tr>
</tbody>
</table>
SERVICE PIPE
SECONDARY CASING
WITH RED OXIDE PRIMER OR FBE
END VIEW

SERVICE PIPE
SECONDARY CASING
WITH RED OXIDE PRIMER OR FBE

PIPE SUPPORT (TYP.)

6"

20' LENGTHS

STRAIGHT LENGTH DETAIL FOR ABOVE GRADE APPLICATIONS

TRICON DOUBLE–CON

Date: 03/09/06  Dwg. No.: DC–1A
Rev.:
150# FLANGE, WITH COVER SHIPPED LOOSE FOR FIELD INSTALLATION

LEAK DETECTION CABLE AND CONNECTOR

FRP/STEEL COUPLING

FRP/STEEL CONDUIT

STEEL SERVICE PIPE

FRP CONTAINMENT CONDUIT

2' - 0" MIN.

1' - 8" MIN.
SECONDARY STEEL CASING WITH RED OXIDE PRIMER OR FBE

CONTINUOUSLY WELDED (TYP.) TO STEEL FACE PLATE WITH N.A.C.E. & N.A.P.C.A. APPROVED CORROSION COATING

SERVICE PIPE

DRAIN

ALTERNATE VENT & DRAIN LOCATION

AIR SPACE
END SEAL DETAIL FOR BELOW GRADE APPLICATIONS

TRICON DOUBLE–CON

Date: 03/09/06 Dwg. No.: DC–4B
Rev.:
END SEAL DETAIL FOR BELOW GRADE APPLICATIONS

TRICON DOUBLE-CON

Date: 03/09/06  Dwg. No.: DC-4B
Rev.: 

SERVICE PIPE

SECONDARY FRP CASING

STEEL SLEEVE WITH N.A.C.E. & N.A.P.C.A. APPROVED CORROSION COATING

VENT

CONTINUOUSLY WELDED (TYP.) TO STEEL FACE PLATE WITH N.A.C.E. & N.A.P.C.A. APPROVED CORROSION COATING

SERVICE PIPE

DRAIN

AIR SPACE

ALTERNATE VENT & DRAIN LOCATION
END SEAL DETAIL FOR BELOW GRADE APPLICATIONS

TRICON DOUBLE–CON

Date: 03/09/06 Dwg. No.: DC–4D
Rev.:
PHASE 1

FRP SECONDARY PIPING

FIELD WELD

STEEL SERVICE PIPE

WELD SERVICE PIPE AND TEST AS REQUIRED.

PHASE 2

FRP SECONDARY PIPING

2 PIECE FRP COUPLING

STEEL SERVICE PIPE

PLACE 2–PC FRP COUPLING OVER JOINT FOR DRY FIT. LIGHTLY SAND HIGH SPOTS IF REQUIRED. REMOVE FRP COUPLING AND APPLY ADHESIVE (PER INSTRUCTIONS) TO COUPLING AND REAPPLY TO JOINT AND TIGHTEN BOLTS.

TRICON PIPING RECOMMENDS THAT YOU **DO NOT** TEST ANY INSTALLATION WITH AIR OR GAS DUE TO SAFETY HAZARDS

BELOW GRADE FIELD JOINT DETAIL WITH FRP SECONDARY PIPING

TRICON DOUBLE–CON

Date: 03/09/06  Dwg. No.: DC–5

Rev.:
INSTALLATION PROCEDURE

1. SLIDE 10 GA. SLEEVE OVER CONTAINMENT CASING PRIOR TO WELDING SERVICE PIPE.
2. WELD SERVICE PIPE AND TEST AS REQUIRED.
3. APPLY 10 GA. STEEL CONNECTOR BAND OVER THE SECONDARY PIPE.
4. WELD CONNECTOR BAND HORIZONTALLY AND CIRCUMFERENTIALLY. PAINT BAND WITH PRIMER.