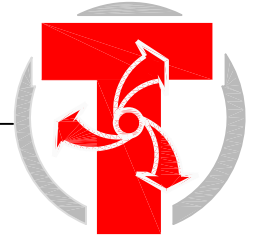
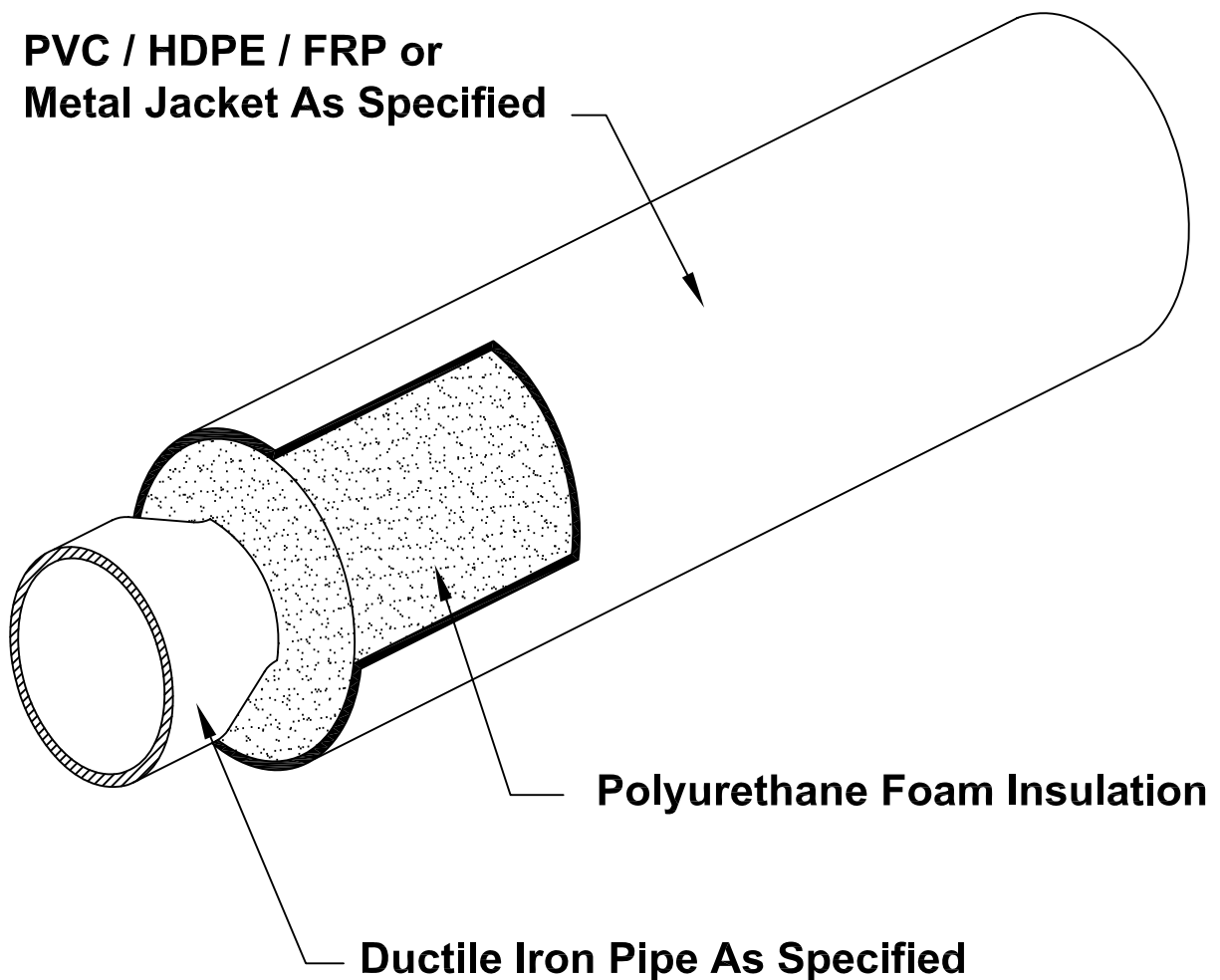


TRICON DUCTILE IRON PIPE SYSTEM



For Applications Up To 225° F Below And Above Ground

- Chilled Water
- Heating Hot Water
- Potable Water
- Waste Water



TRICON
Piping Systems, Inc.®

P.O. Box 361, Canastota, New York 13032
Tel: 315.697.8787 Fax: 315.697.8788

TABLE 1

Pipe Size	Nominal Insulation Thickness	HDPE Jacket O.D.	HDPE Jacket Wall
3"	1.85"	8.00"	.175"
4"	2.43"	10.00"	.175"
6"	2.55"	12.43"	.175"
8"	2.33"	14.06"	.175"
10"	2.21"	15.87"	.175"
12"	2.16"	17.83"	.200"
14"	2.05"	19.80"	.200"
16"	2.19"	22.17"	.200"
18"	2.02"	24.00"	.225"
20"	1.44"	24.92"	.225"
24"	1.83"	30.05"	.300"
30"	1.70"	36.00"	.300"

Service Pipe:

The service pipe shall be Ductile Iron manufactured in accordance with ANSI/AWWA C151/A21-51. Push-on joints and mechanical joints shall be in accordance with ANSI/AWWA C111/A21.11

Insulation:

The insulation shall be a foamed in place closed cell polyurethane which completely fills the annular space between the carrier pipe and the exterior casing. The insulation shall have the following physical properties:

Minimum Density (lb./cu. ft.) 2.0	ASTM D-1621
"K" Factor BTU/Hr. sq. ft. °F/in. .147	ASTM C-177
90-95 % Closed Cell	ASTM D-2856

Exterior Casing: *

The exterior casing shall be
 (1) Seamless, extruded white PVC Type 1, Grade 1, Class 12454-B per ASTM D-1784 **or**
 (2) Seamless, High Density Polyethylene (H.D.P.E.) ASTM D-1248 with the following physical properties:
 ASTM D-638.....Ultimate Elongation 850%
 ASTM D-638.....Tensile Yield Strength 3300 psi
 ASTM D-3350.....Resin Type III, Grade P34
 ASTM D-790.....Tangent Flexural Modules 175,000 psi
No tape casings will be allowed.

Fittings:

All fittings shall be mechanical joint and restrained with a mechanical retainer gland or a concrete poured thrust block. Fittings shall be in accordance with AWWA C110 and AWWA C111.

Field Joints:

If required, all straight joints with an HDPE jacket shall be covered with a wrap of Polyken Tape and covered with a HDPE rockshield. PVC jackets shall be covered with a PVC sleeve and a wrap of Polyken Tape.

TABLE 2

Pipe Size	Nominal Insulation Thickness	PVC Jacket O.D.	PVC Jacket Wall
3"	2.02"	8.16"	.070"
4"	2.60"	10.20"	.080"
6"	2.55"	12.24"	.100"
8"	2.50"	14.32"	.120"
10"	2.29"	16.00"	.140"

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 test shall be maintained for a minimum time of 1 hour. **EXERCISE DUE CARE WHEN INSTALLING AND TESTING THE PIPING SYSTEM.**

Backfill:

A 4-inch layer of sand or fine gravel, less than 1/2" in diameter, shall be placed and tamped in the trench to provide uniform bedding for the **Ductile** system. Once the system is in place, the trenches shall be carefully backfilled with similar material and hand tamped in 6" layers until a minimum of 12" above the top of the preinsulated pipe has been achieved. The remainder of the backfill shall be void of rocks, frozen earth and foreign material. The trench shall be compacted to comply with H-20 Highway loading.

Accessories:

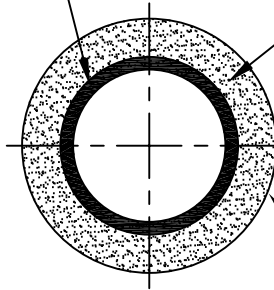
- Heat Tracing

System Options:

- Contact your Tricon representative for available sizes and system options.
- * Optional metallic casings for above ground applications include, Spiral Lockseam in Galvanized, Aluminum or Stainless Steel.
- * Optional non-metallic casings for both above and below grade offered include, Filament Wound FRP.

DUCTILE IRON SERVICE PIPE

POLYURETHANE
FOAM INSULATION

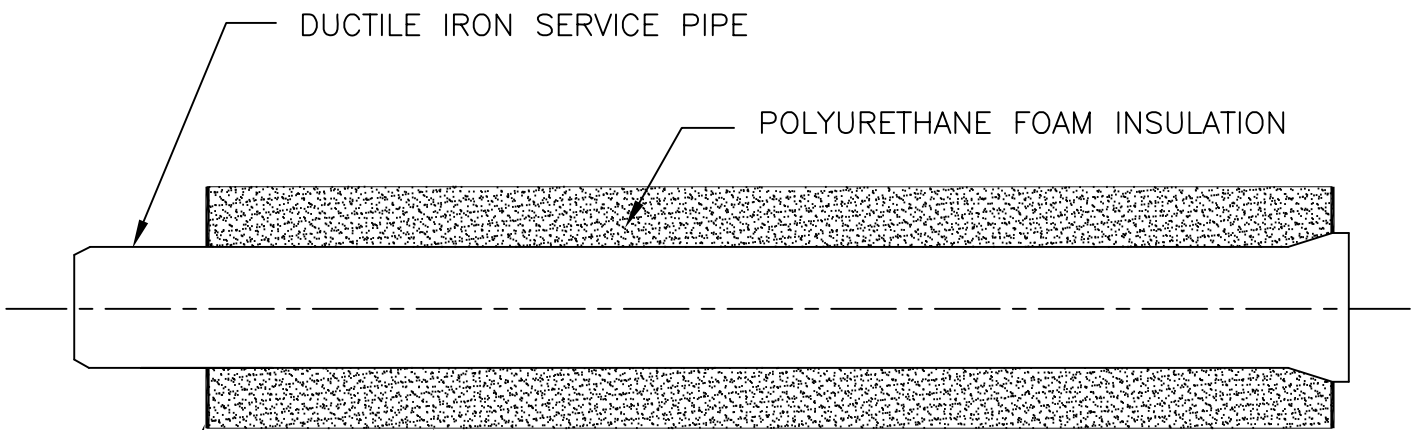


HDPE/FRP/PVC CASING

END VIEW

DUCTILE IRON SERVICE PIPE

POLYURETHANE FOAM INSULATION



HDPE/FRP/PVC CASING

MASTIC END SEAL

18'-20' LENGTHS

DUCTILE IRON STRAIGHT LENGTH DETAIL

TRICON DUCTILE IRON

Date: 03/09/06

Dwg. No.: DI-1A

Rev.:



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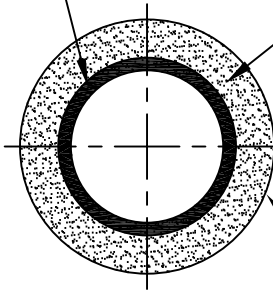
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DUCTILE IRON SERVICE PIPE

POLYURETHANE
FOAM INSULATION

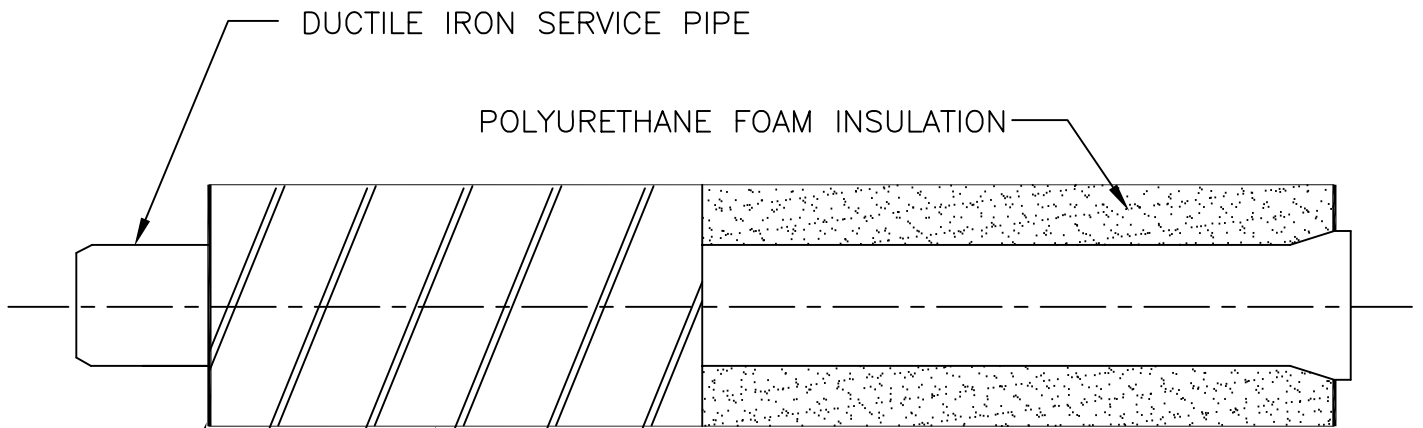


GALVANIZED, ALUMINUM OR
STAINLESS STEEL SPIRAL CASING

END VIEW

DUCTILE IRON SERVICE PIPE

POLYURETHANE FOAM INSULATION



GALVANIZED, ALUMINUM OR
STAINLESS STEEL SPIRAL CASING

MASTIC END SEAL

18'-20' LENGTHS

DUCTILE IRON STRAIGHT LENGTH DETAIL

TRICON DUCTILE IRON

Date: 03/09/06

Dwg. No.: DI-1B

Rev.:

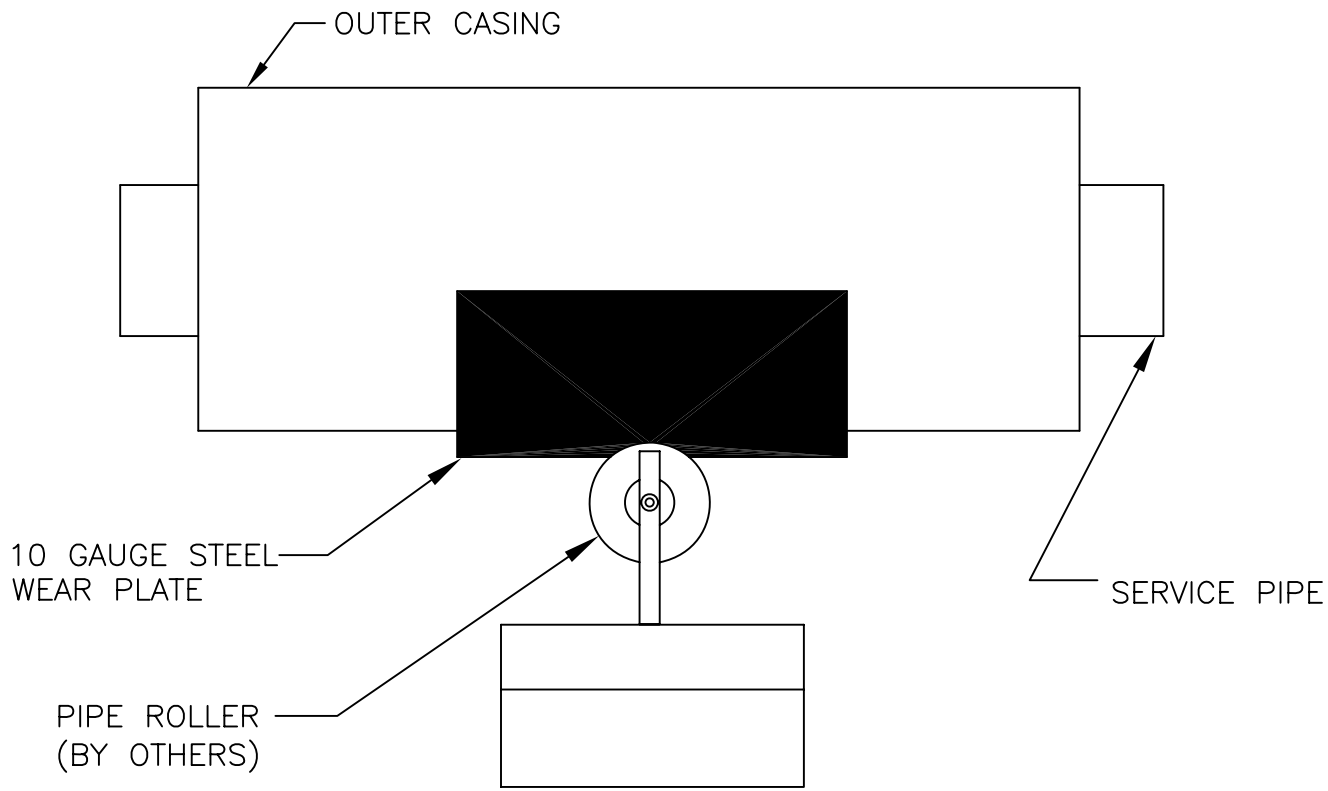


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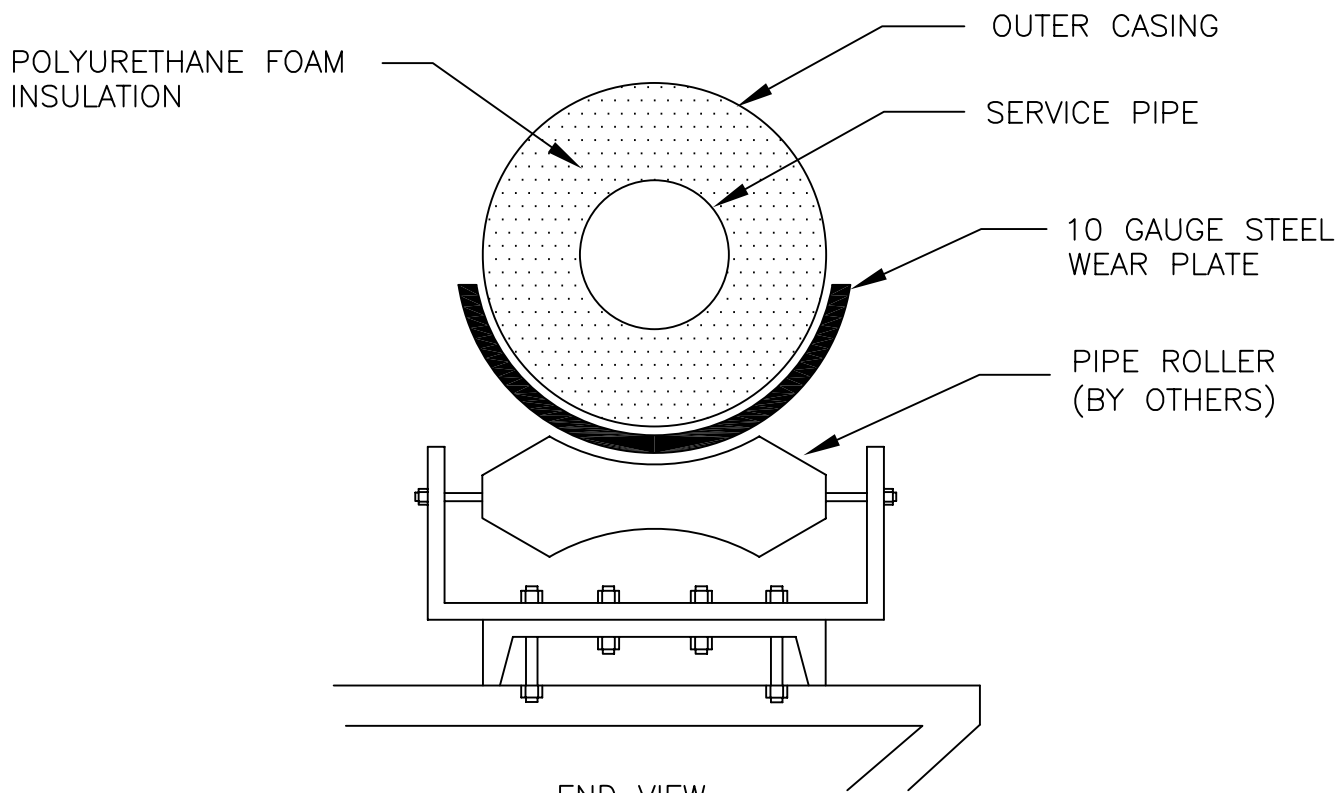
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END VIEW
NOT TO SCALE



END VIEW
NOT TO SCALE

DUCTILE IRON PIPE SUPPORT DETAIL

TRICON DUCTILE IRON

Date: 03/09/06

Dwg. No.: DI-2

Rev.:



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