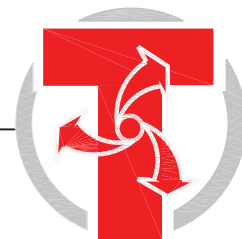


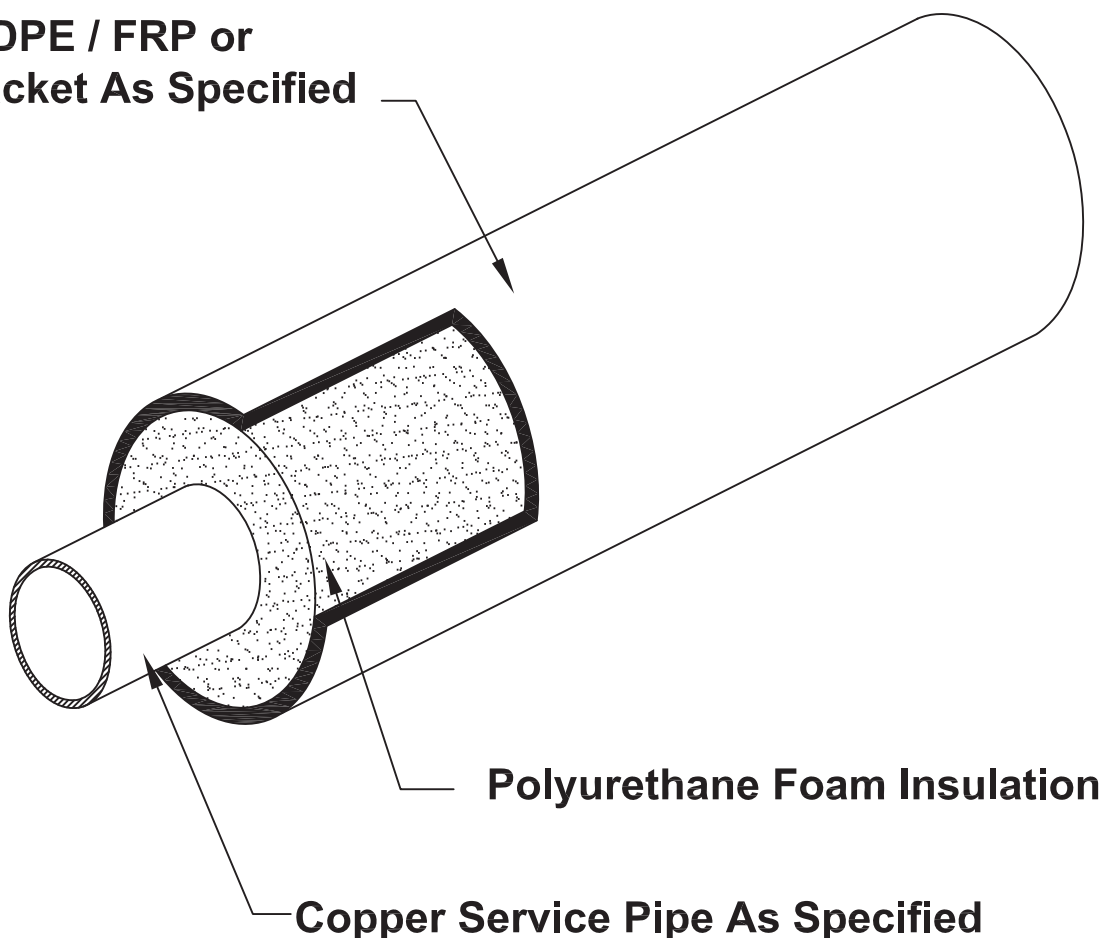
# TRICON COPPER PIPE SYSTEM



For Applications Up To 250° F Below And Above Ground

- ☐ Chilled Water
- ☐ Condensate
- ☐ Condenser Water
- ☐ Domestic Hot Water
- ☐ Heating Hot Water
- ☐ Potable Water
- ☐ Process Piping

**PVC / HDPE / FRP or  
Metal Jacket As Specified**



**TRICON**

Piping Systems, Inc. ®

P.O. Box 361, Canastota, New York 13032

Tel: 315.697.8787 Fax: 315.697.8788

**TABLE 1**

Pipe Size	Minimum Insulation Thickness	PVC Jacket O.D.	PVC Jacket Wall
1/2"	1.88"	4.50"	.070"
3/4"	1.74"	4.50"	.070"
1"	1.62"	4.50"	.070"
1 1/4"	1.50"	4.50"	.070"
1 1/2"	1.37"	4.50"	.070"
2"	1.94"	6.14"	.070"
2 1/2"	1.69"	6.14"	.070"
3"	1.44"	6.14"	.070"
4"	1.94"	8.16"	.080"
6"	1.94"	10.20"	.100"

## Service Pipe:

The service pipe shall be Type "K", or Type "L" hard drawn seamless copper tubing to ASTM B-88 and WWT-799. Oxygen piping to be Type "K" for Capped and Cleaned for Oxygen use. Refrigerant piping shall meet ASTM B-280, Type ACR and ASME 31.5 Straight lengths of piping will be supplied in 20 ft. lengths with 6" of piping exposed at each end for field joint fabrication.

## 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-1622  
 90-95 % Closed Cell                                      ASTM D-2856  
 "K" Factor BTU/Hr. sq. ft. °F/in.                      .16      ASTM C-177

## 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) High Density Polyethylene (**H.D.P.E.**) with the following physical properties:

ASTM D-3350...Resin Type III, Grade P34  
 ASTM D-633...Ultimate Elongation 850%  
 ASTM D-633...Tensile Yield Strength 3300 psi  
 ASTM D-790...Tangent Flexural Modules 175,000 psi

**No polyethylene tape casings will be allowed.**

## Sub-Assemblies:

All fittings, anchors, end seals, other sub-assemblies shall be prefabricated or field fabricated dependant upon engineer's option and/or site conditions.

## Field Joints:

After soldering and hydrostatic testing, PVC jacketed straight field joints shall be insulated with polyurethane foam to the thickness specified, PVC sleeve and pressure sensitive tape. HDPE jackets will use polyurethane foam and a heat shrinkable sleeve.

## Expansion/Contraction Compensation:

Expansion and contraction within the piping system shall be accommodated with factory prefabricated internal expansion

**TABLE 2**

Pipe Size	Minimum Insulation Thickness	HDPE Jacket O.D.	HDPE Jacket Wall
1/2"	1.79"	4.50"	.150"
3/4"	1.66"	4.50"	.150"
1"	1.54"	4.50"	.150"
1 1/4"	1.41"	4.50"	.150"
1 1/2"	1.29"	4.50"	.150"
2"	2.12"	6.63"	.150"
2 1/2"	1.87"	6.63"	.150"
3"	1.62"	6.63"	.150"
4"	1.76"	8.00"	.150"
6"	1.76"	10.00"	.175"

elbows, z-bends, expansion loops, and anchors specifically designed for each application. External expansion compensation can be provided with the use of flexible foam bolsters.

## 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 carrier 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 6-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 **Copper** 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.

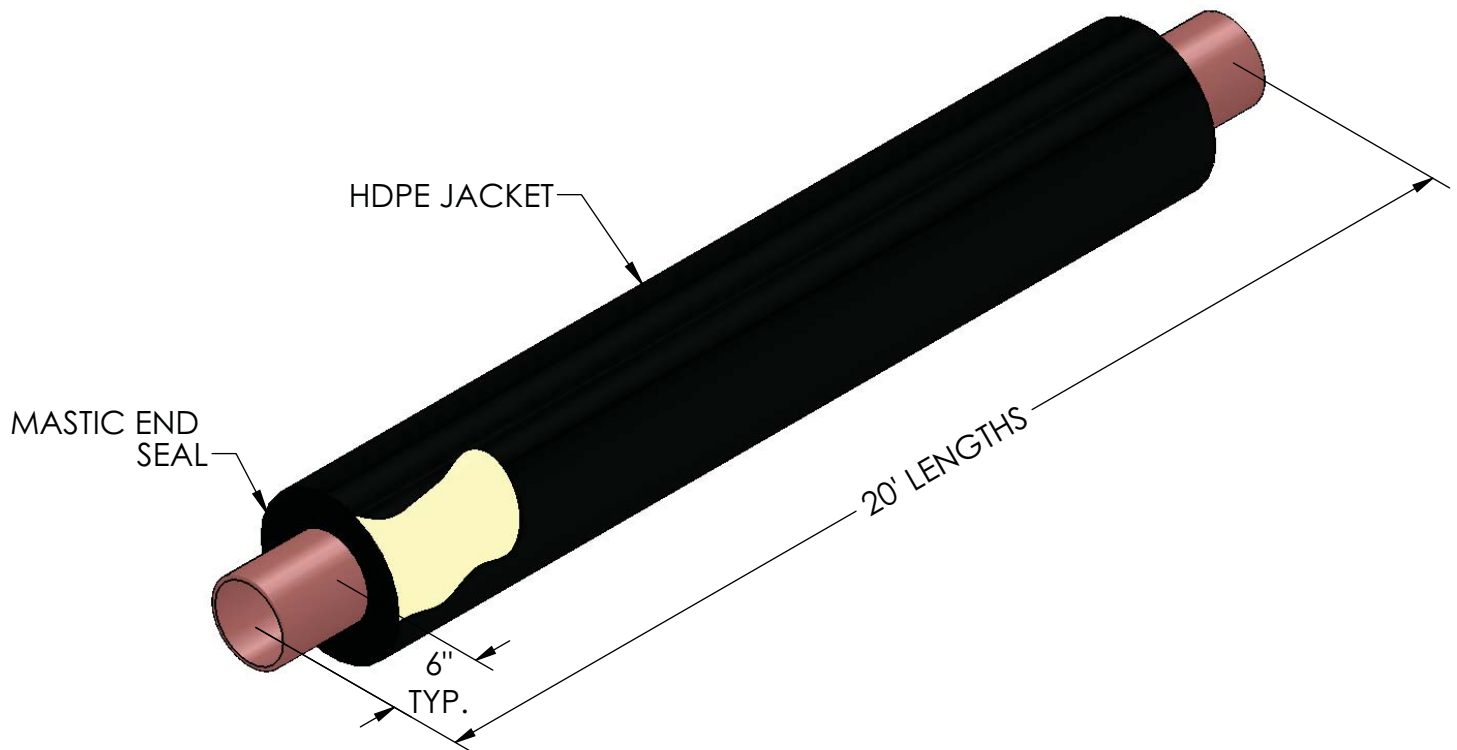
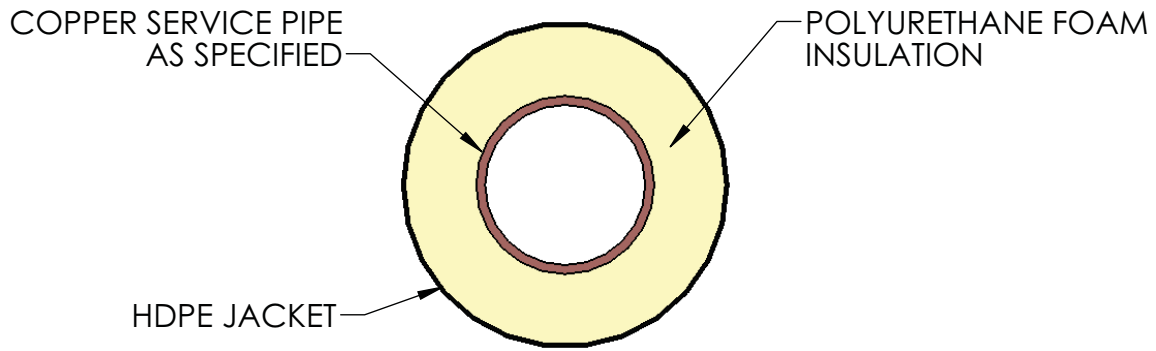
**Accessories:** Heat Tracing

## System Options:

- \* Optional metallic casings for above ground applications include, Spiral Lockseam in Galvanized, Aluminum or Stainless Steel.
- \* Optional non-metallic casings for below grade offered include, Filament Wound FRP.
- \* Insulation thickness will vary depending on the type of insulation specified and the operating temperature.

Contact your Tricon representative for available sizes and system options.

**Tricon Piping Systems, Inc. Tel: 315-697-8787**  
**P.O. Box 361 Fax: 315-697-8788**  
**Canastota, NY 13032 www.triconpiping.com**



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SHEET TITLE

STRAIGHT LENGTH DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

DATE

12/01/2016

DWG. NO.

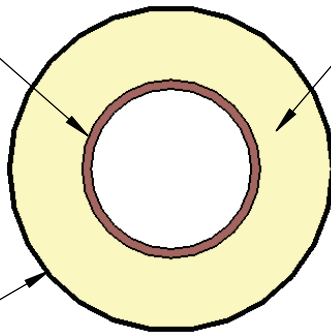
CU-1

SHEET

COPPER SERVICE PIPE  
AS SPECIFIED

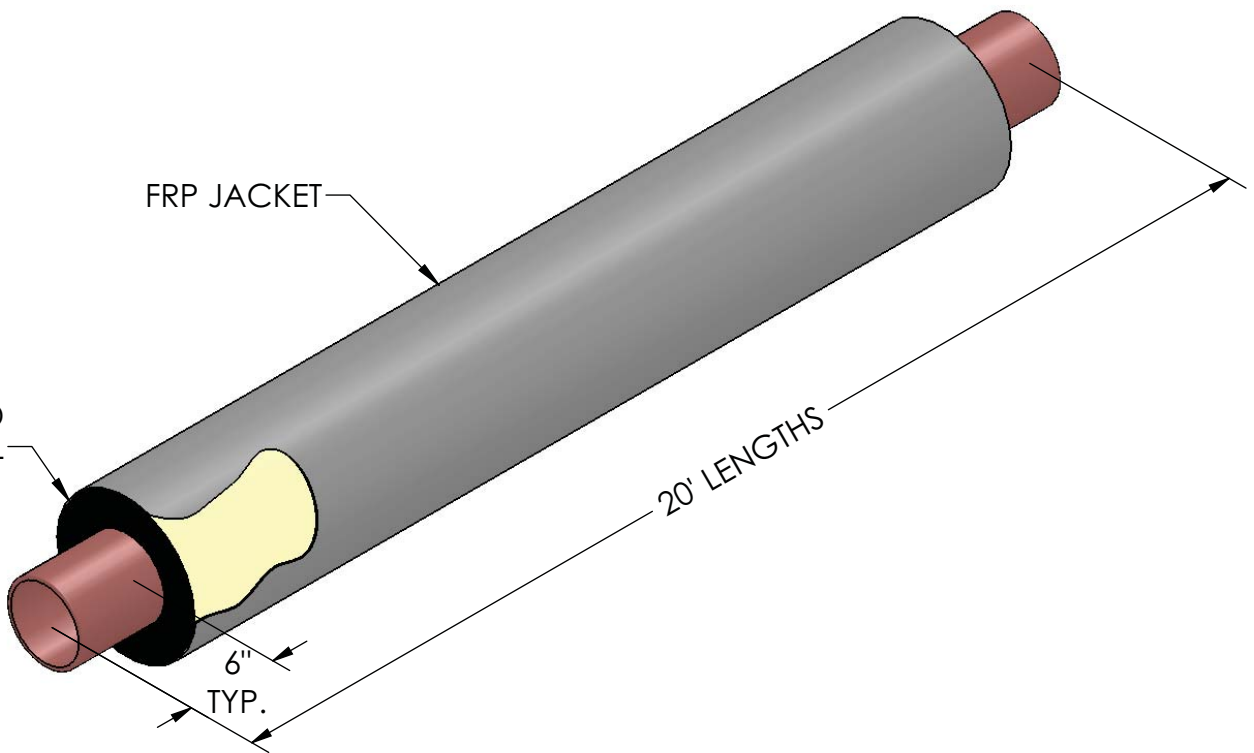
POLYURETHANE FOAM  
INSULATION

FRP JACKET



FRP JACKET

MASTIC END  
SEAL



20' LENGTHS

6"  
TYP.



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SHEET TITLE

STRAIGHT LENGTH DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

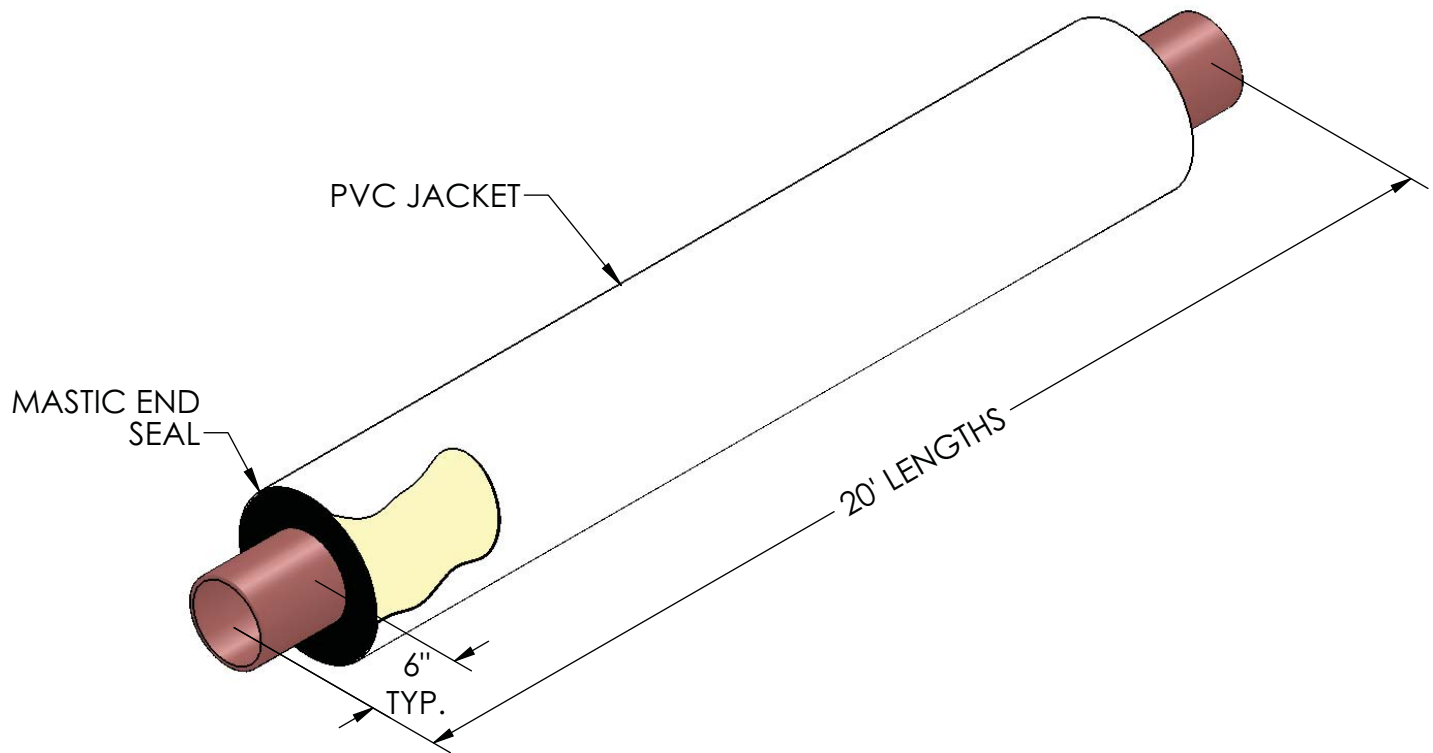
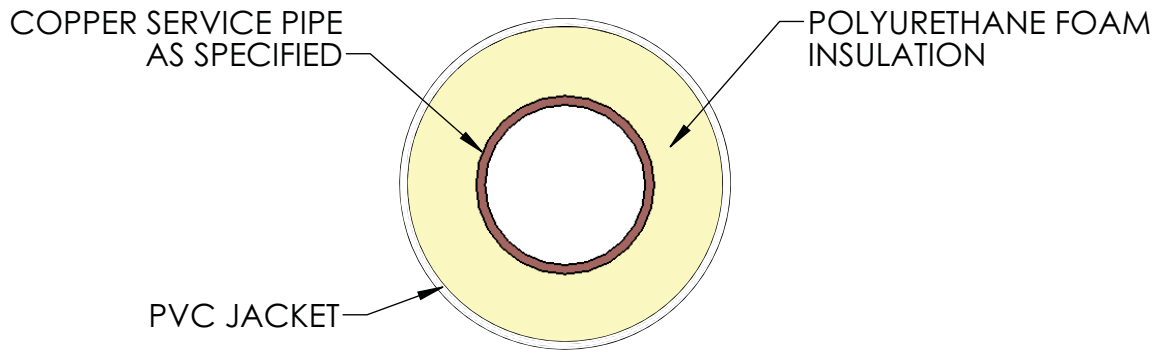
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CU-1

SHEET



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SHEET TITLE

STRAIGHT LENGTH DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

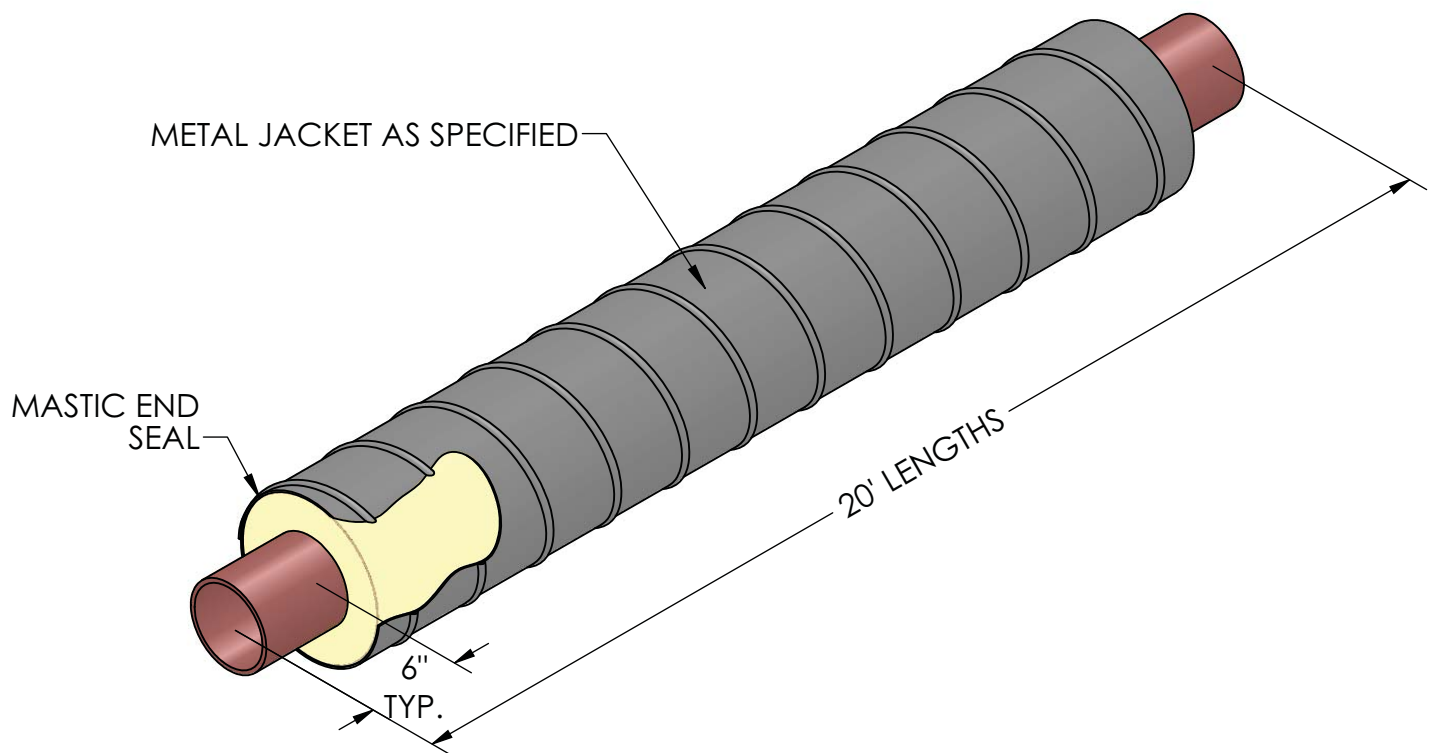
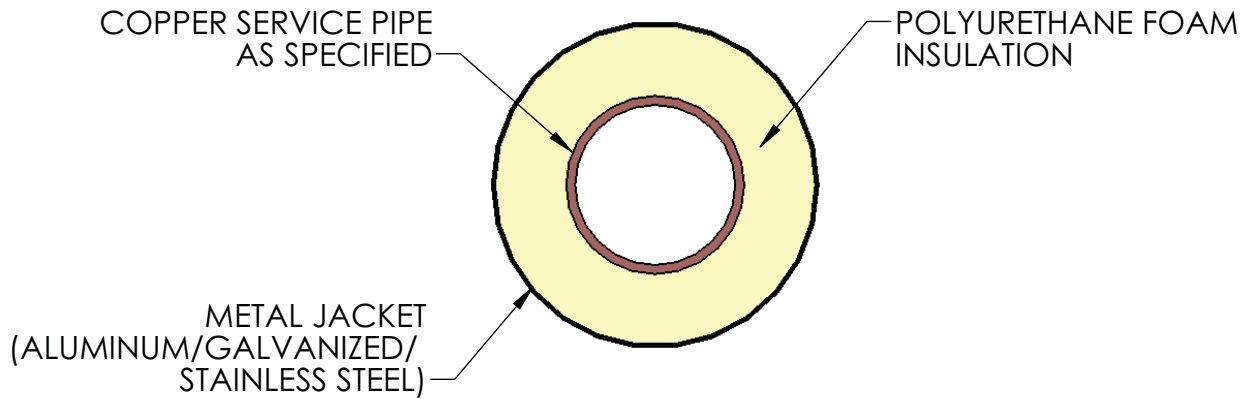
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SHEET TITLE

STRAIGHT LENGTH DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

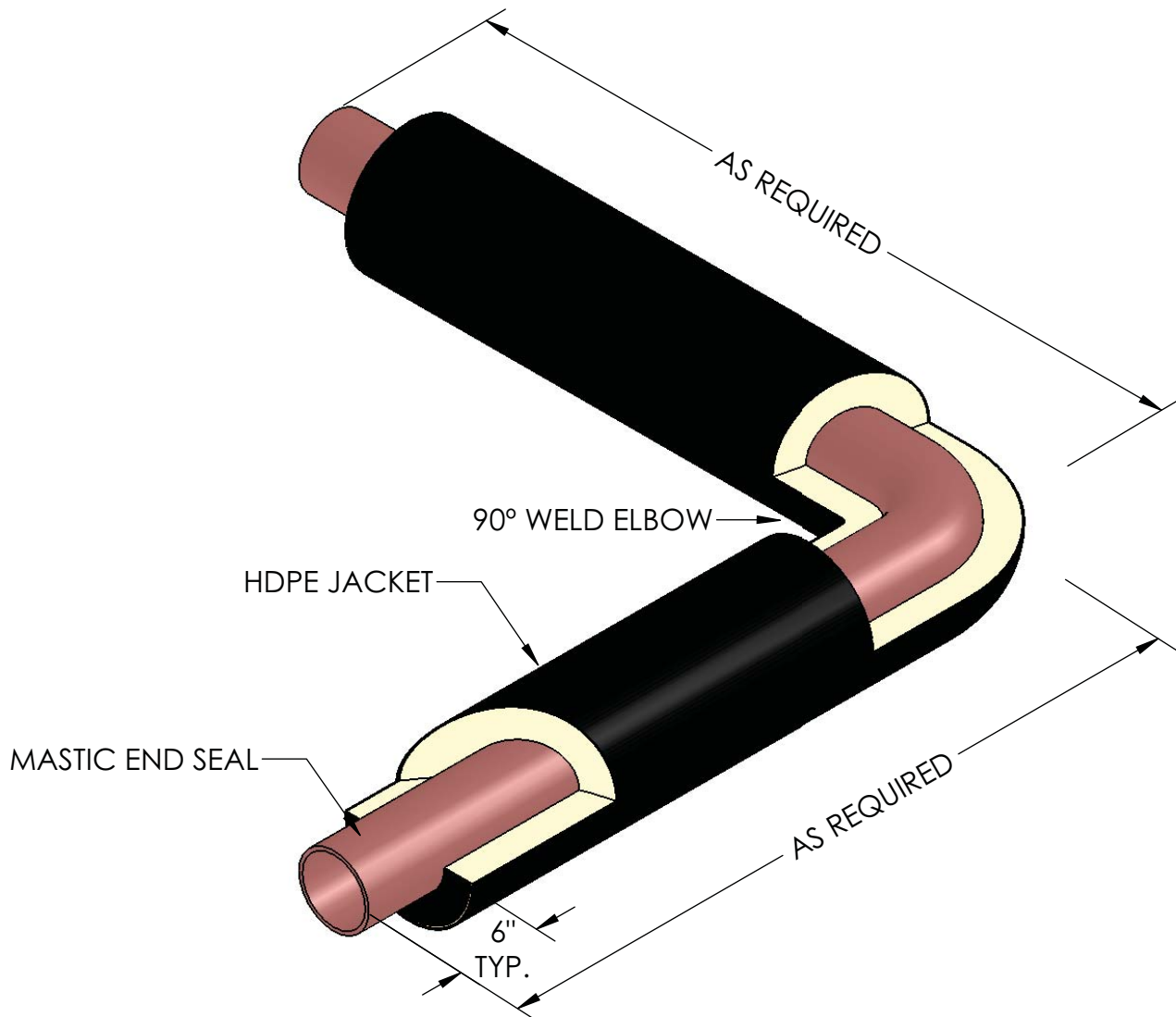
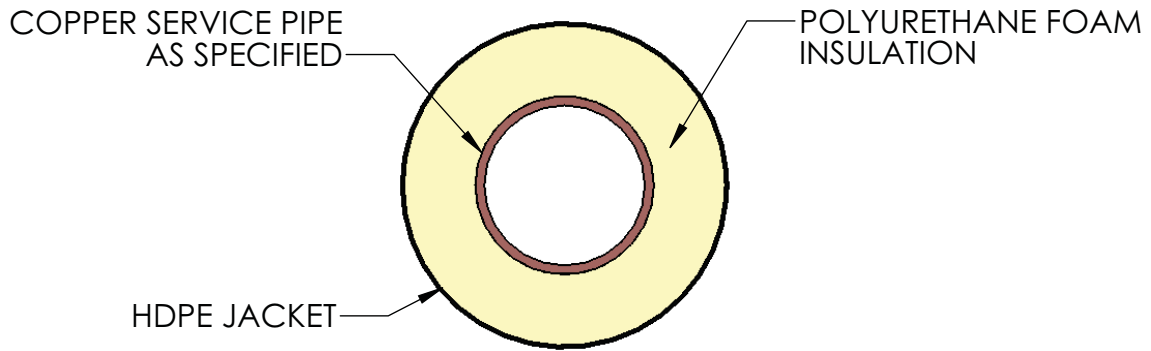
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SHEET TITLE

PRE-FABRICATED 90-DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

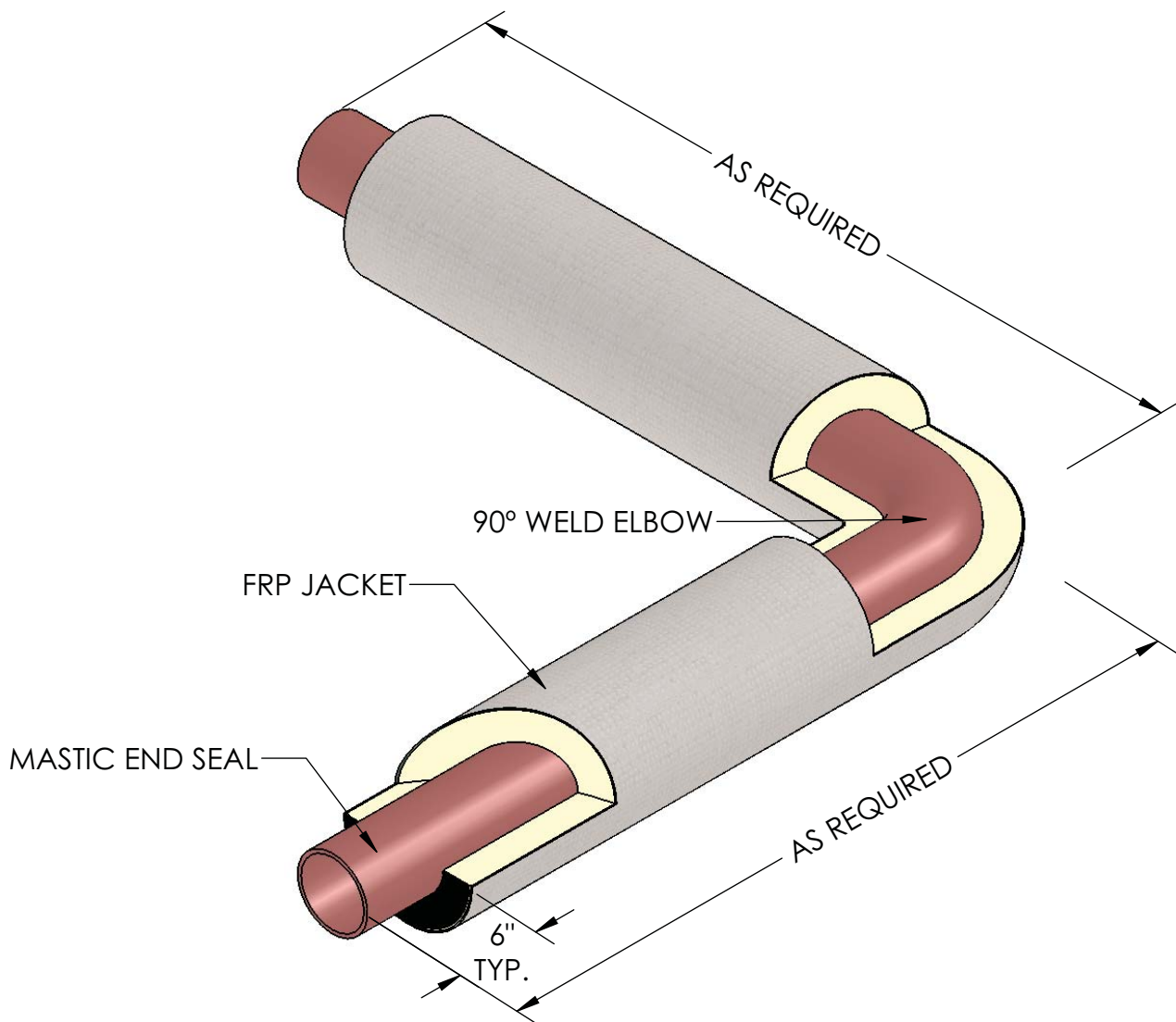
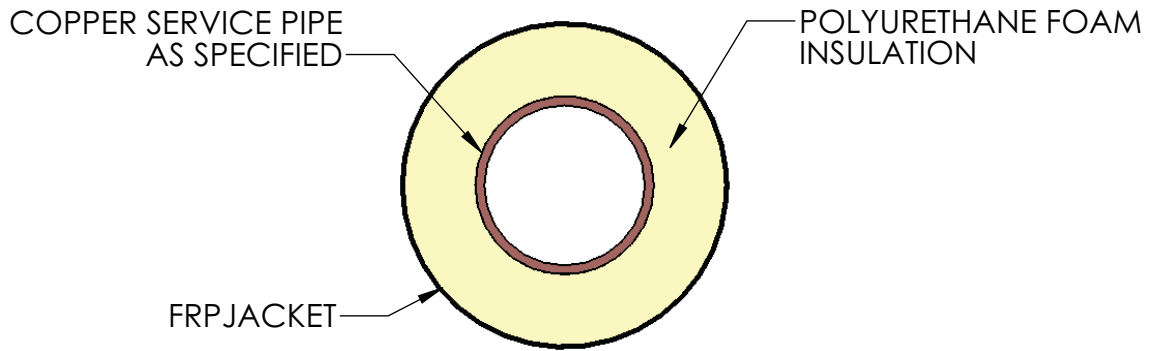
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DWG. NO.

CU-2

SHEET



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SHEET TITLE

PRE-FABRICATED 90-DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

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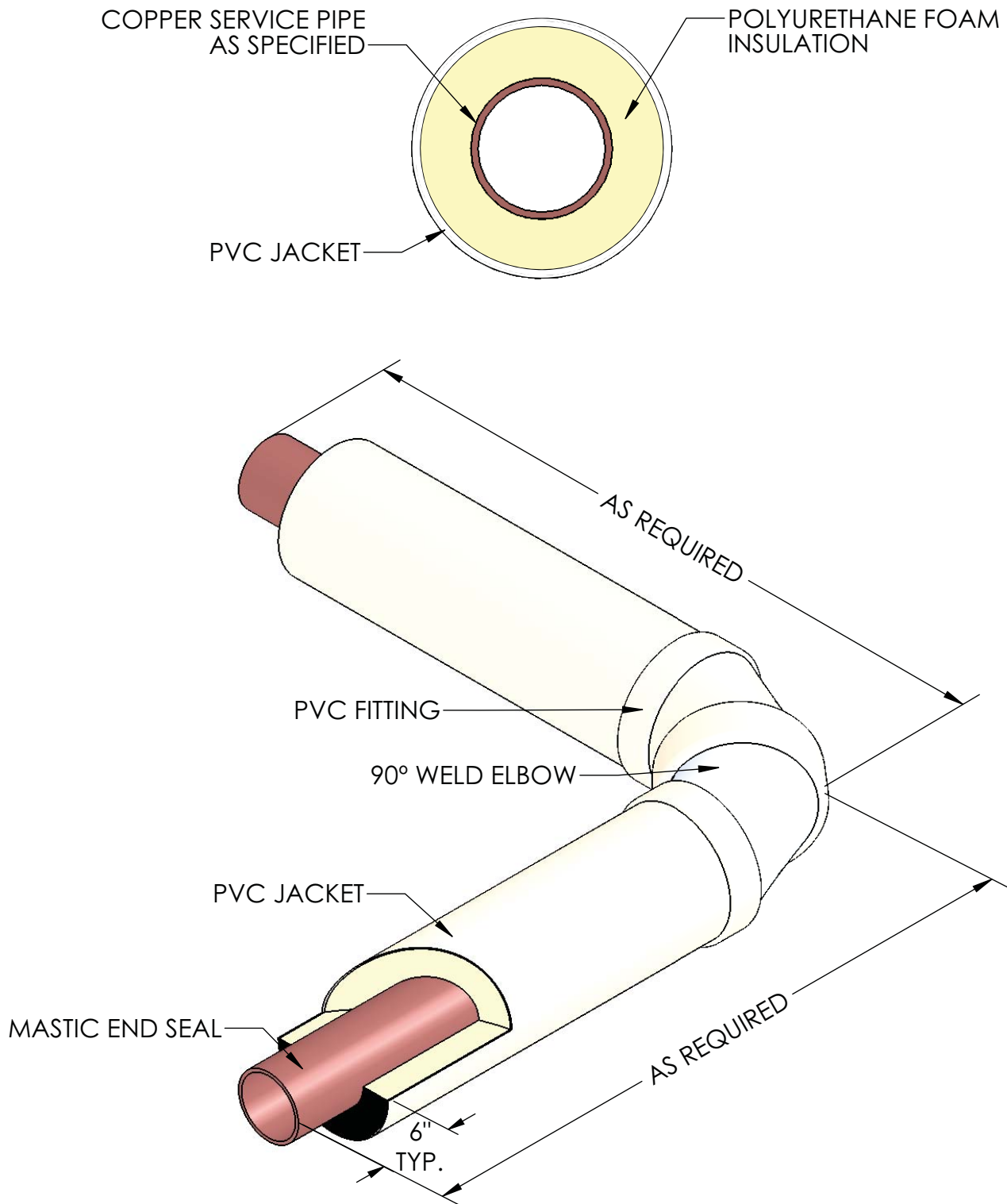
DATE

12/01/2016

DWG. NO.

CU-2

SHEET



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SHEET TITLE

PRE-FABRICATED 90-DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

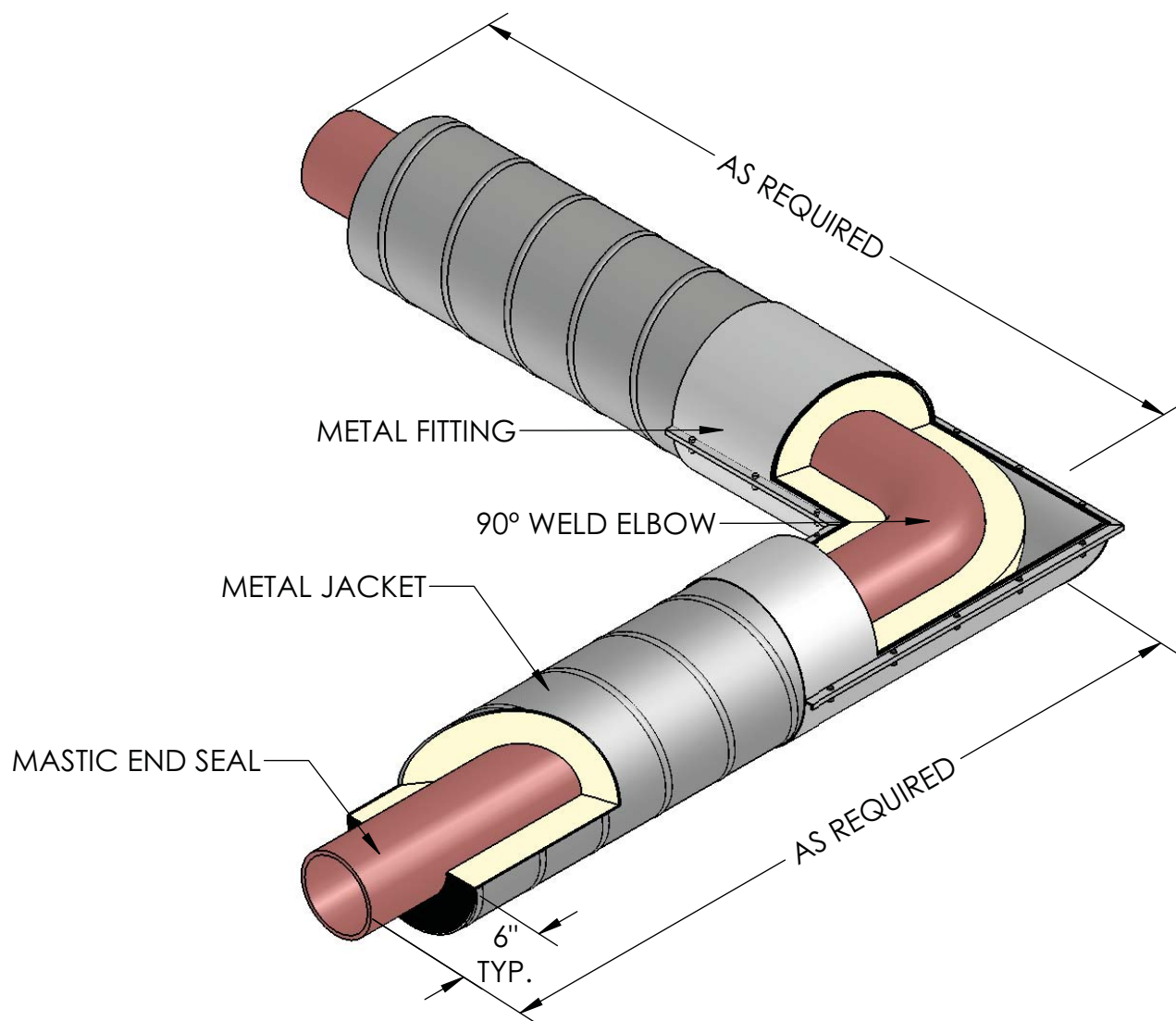
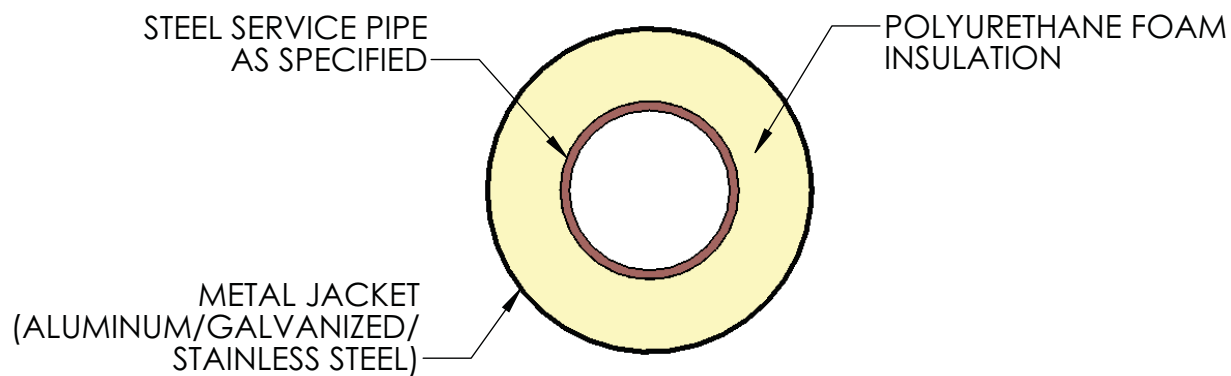
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SHEET



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SHEET TITLE

PRE-FABRICATED 90-DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

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DATE

12/01/2016

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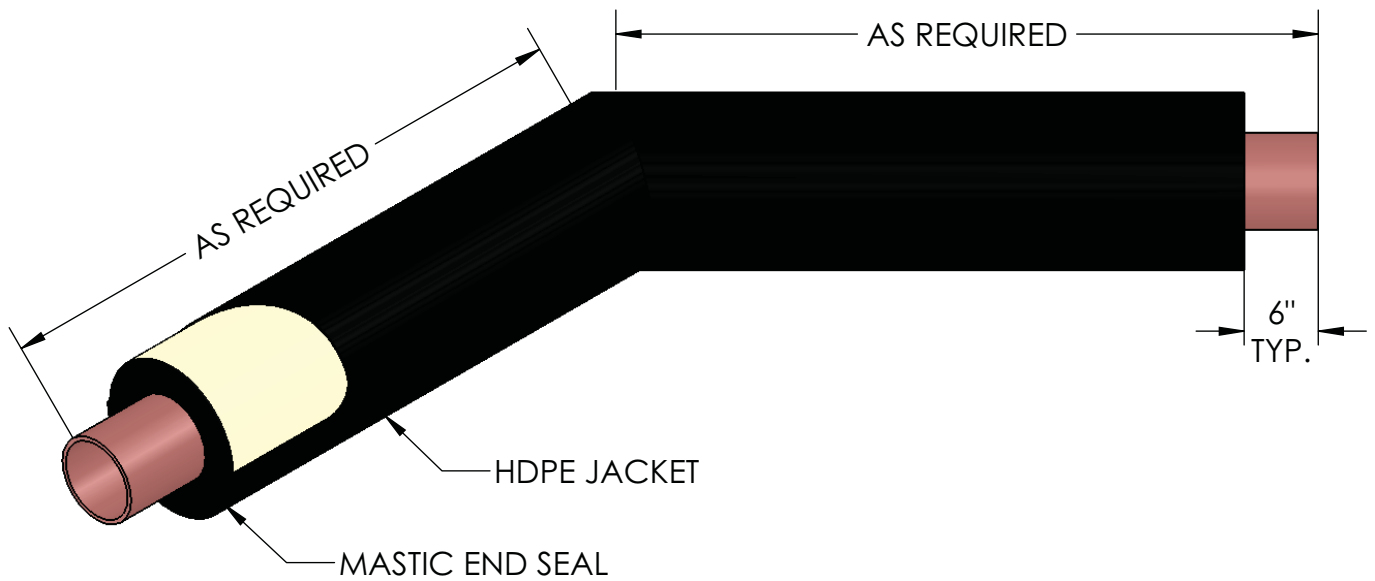
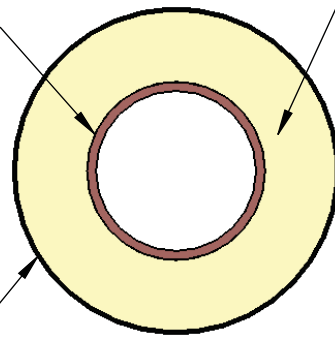
CU-2

SHEET

COPPPER SERVICE PIPE  
AS SPECIFIED

POLYURETHANE FOAM  
INSULATION

HDPE JACKET



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SHEET TITLE

PRE-FABRICATED 45 DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

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DATE

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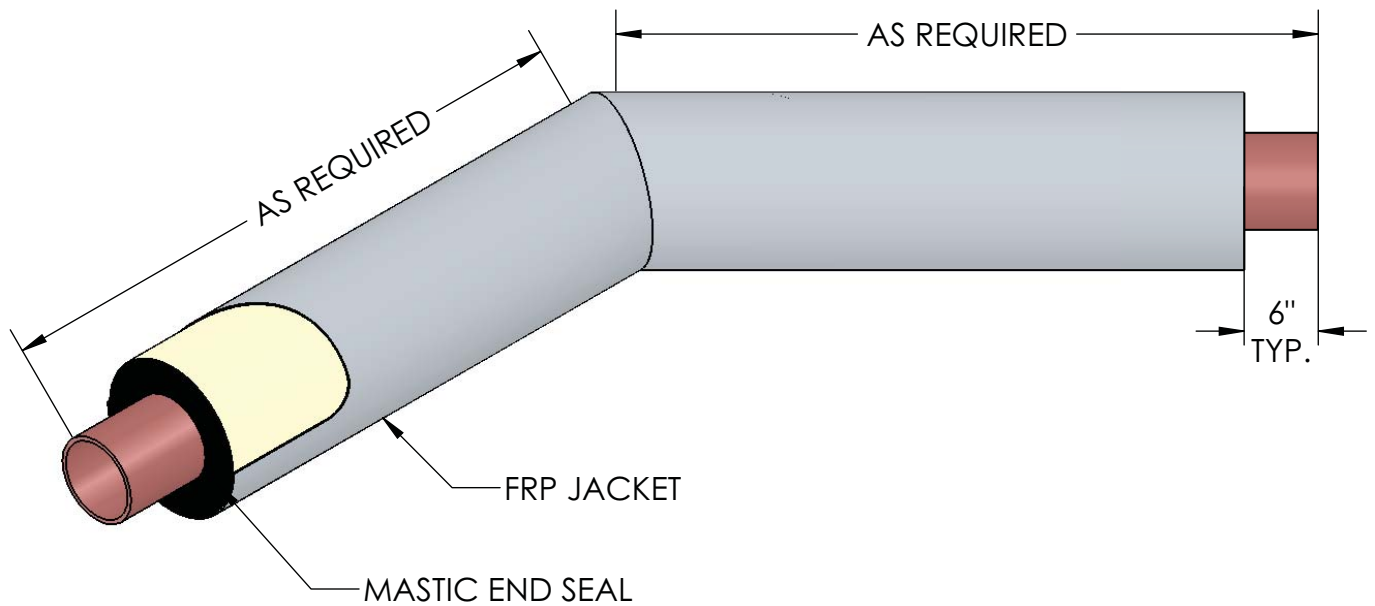
CU-3

SHEET

COPPER SERVICE PIPE  
AS SPECIFIED

POLYURETHANE FOAM  
INSULATION

FRP JACKET



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SHEET TITLE

PRE-FABRICATED 45 DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

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SCALE

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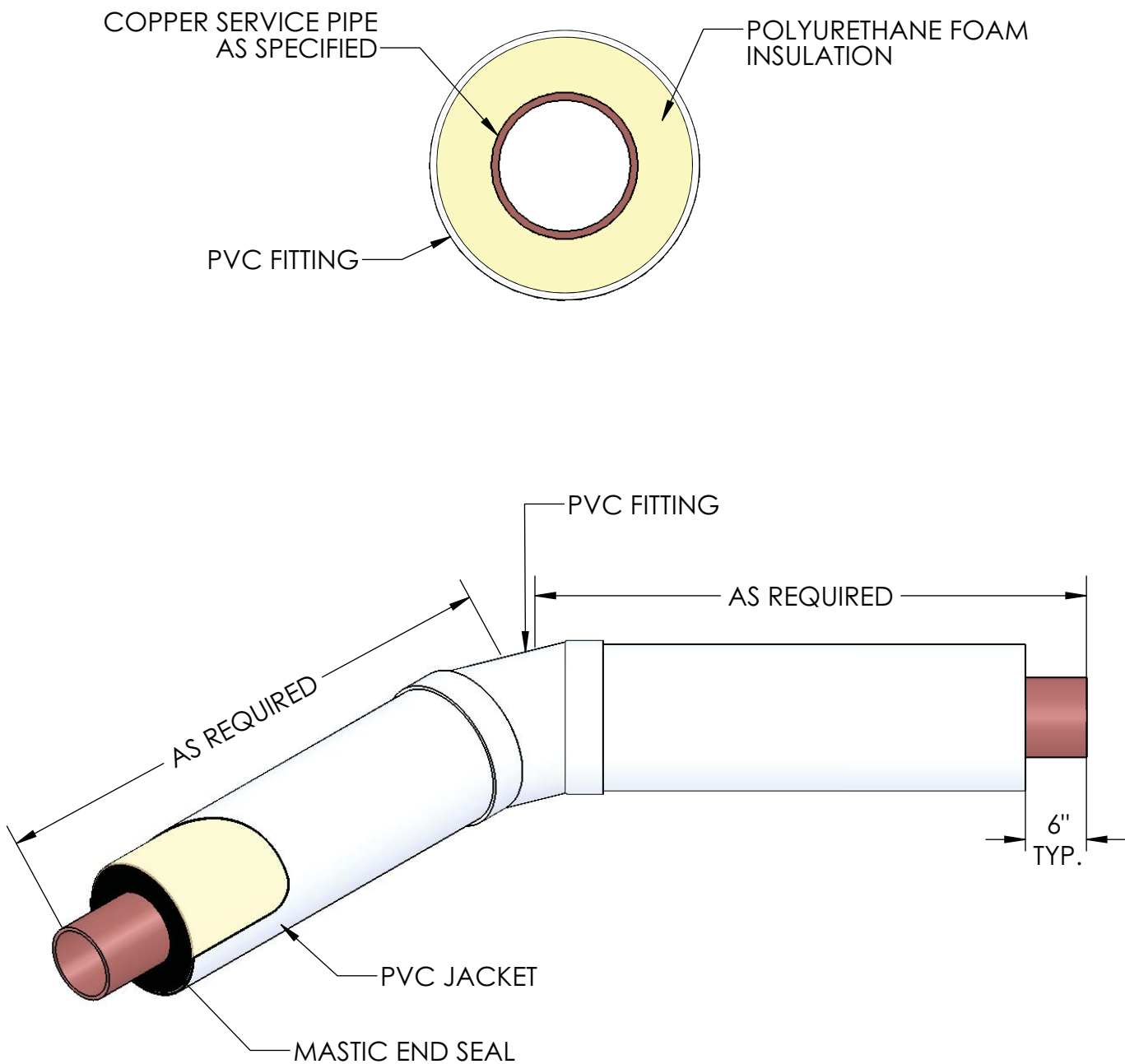
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CU-3

SHEET



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SHEET TITLE

PRE-FABRICATED 45 DEGREE ELBOW DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

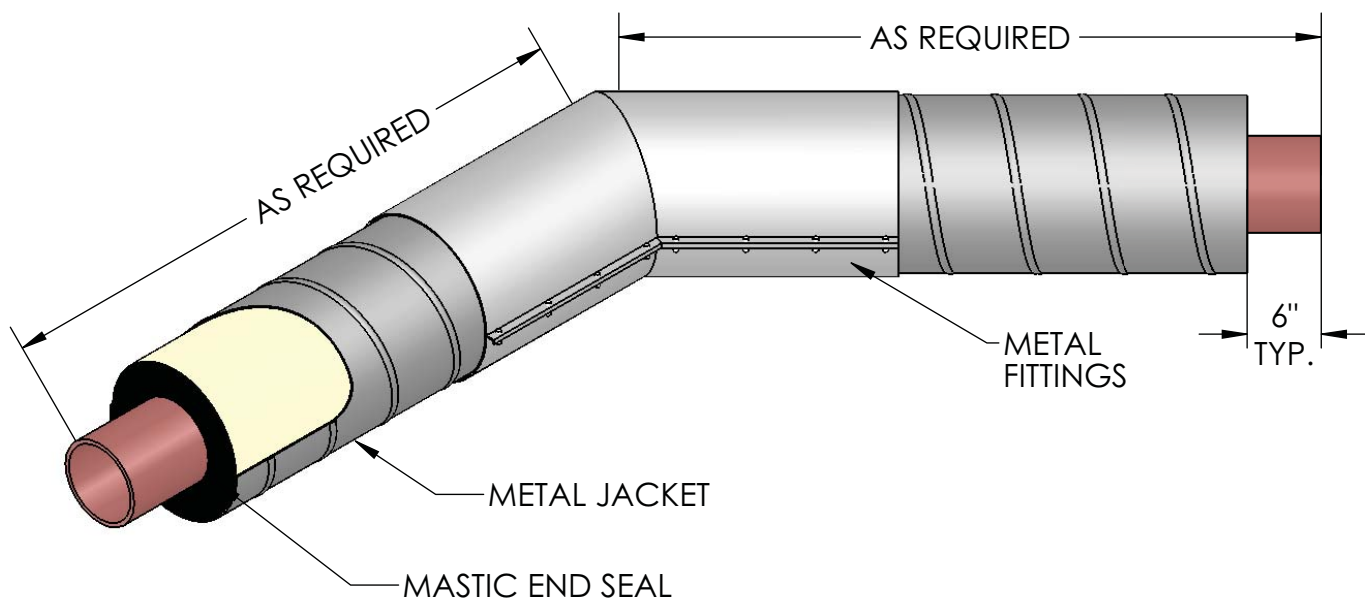
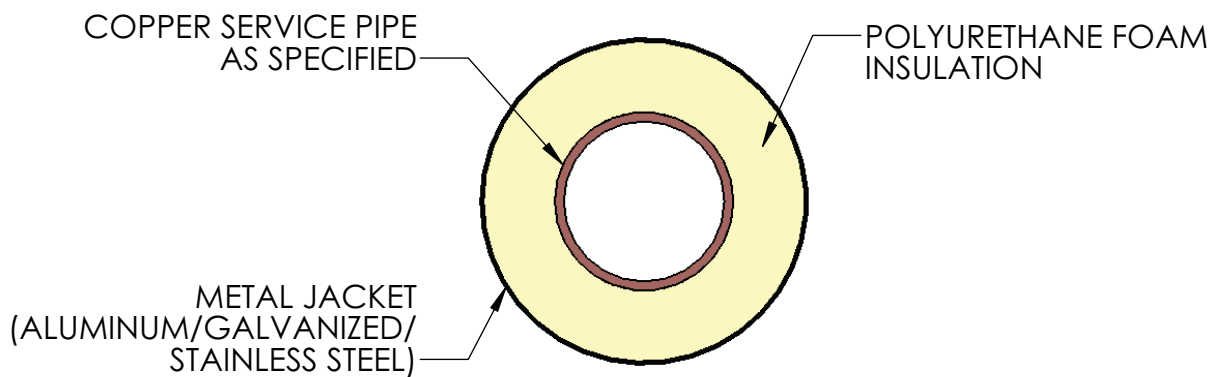
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CU-3

SHEET



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SHEET TITLE

PRE-FABRICATED 45 DEGREE ELBOW DETAIL

PRODUCT

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SIZE

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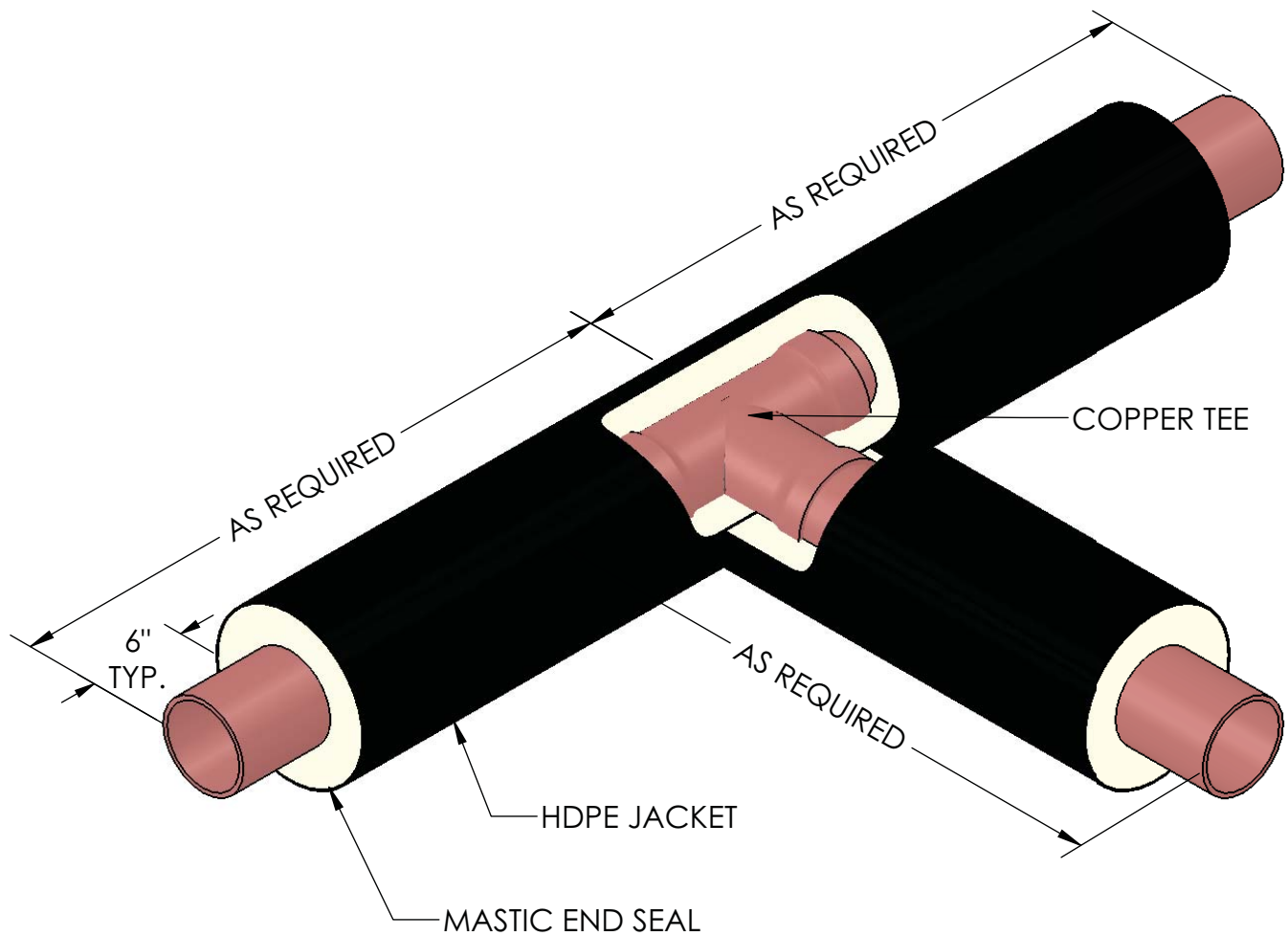
CU-3

SHEET

COPPER SERVICE PIPE  
AS SPECIFIED

POLYURETHANE FOAM  
INSULATION

HDPE JACKET



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SHEET TITLE

PRE-FABRICATED TEE DETAIL

PRODUCT

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SIZE

**A**

SCALE

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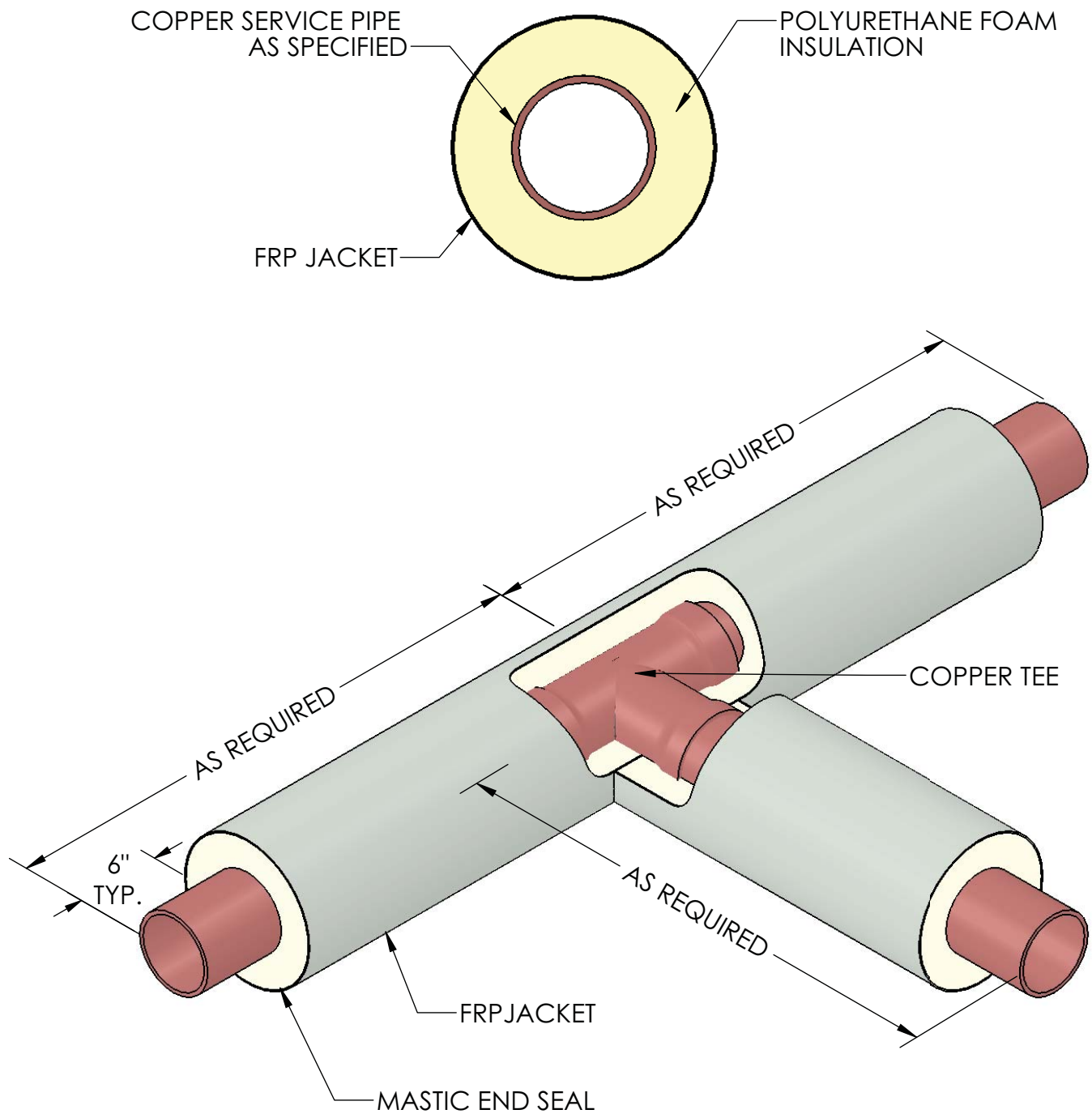
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CU-4

SHEET



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SHEET TITLE

PRE-FABRICATED TEE DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

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DATE

12/01/2016

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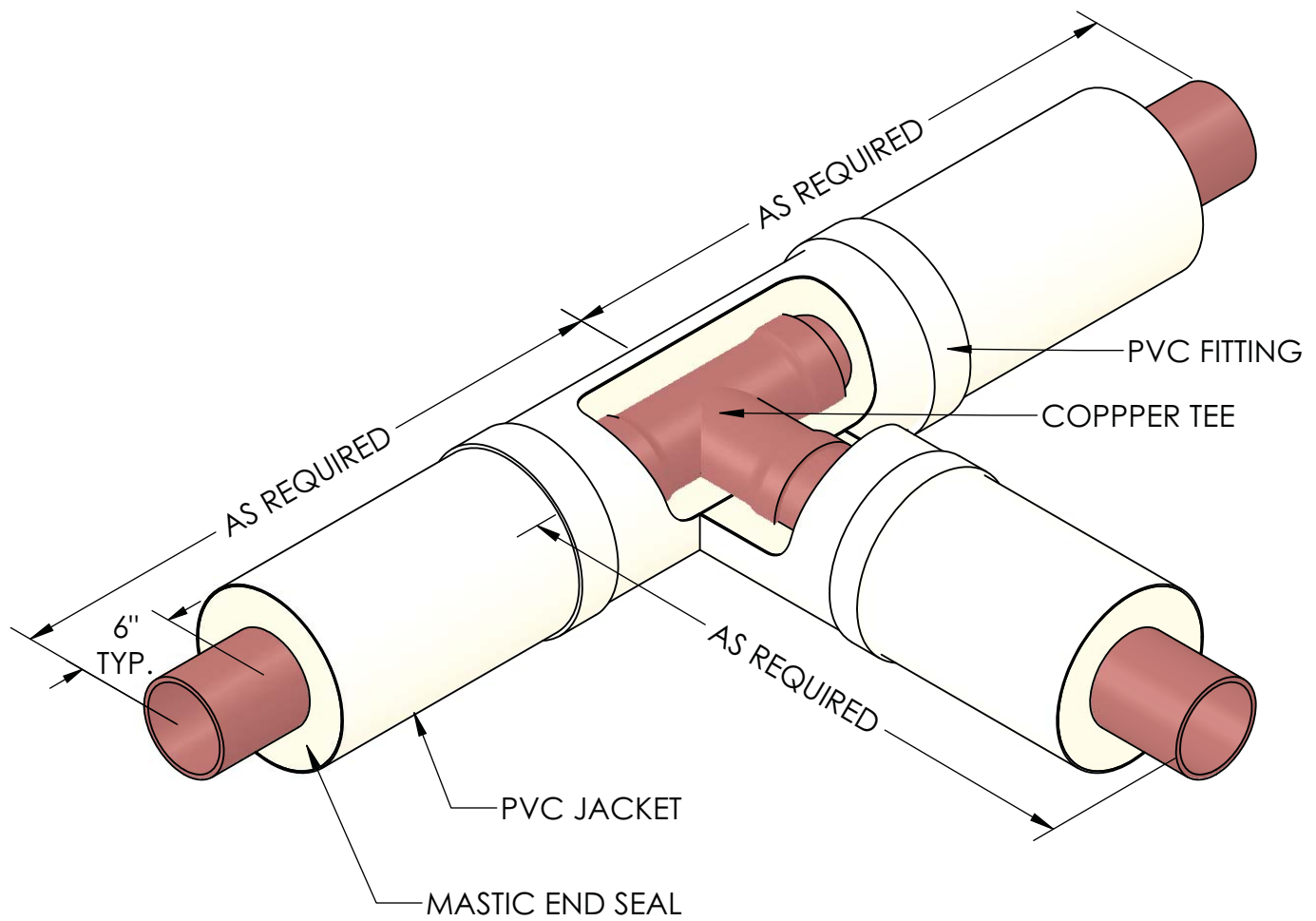
CU-4

SHEET

COPPER SERVICE PIPE  
AS SPECIFIED

POLYURETHANE FOAM  
INSULATION

PVC JACKET



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SHEET TITLE

PRE-FABRICATED TEE DETAIL

PRODUCT

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SIZE

**A**

SCALE

NTS

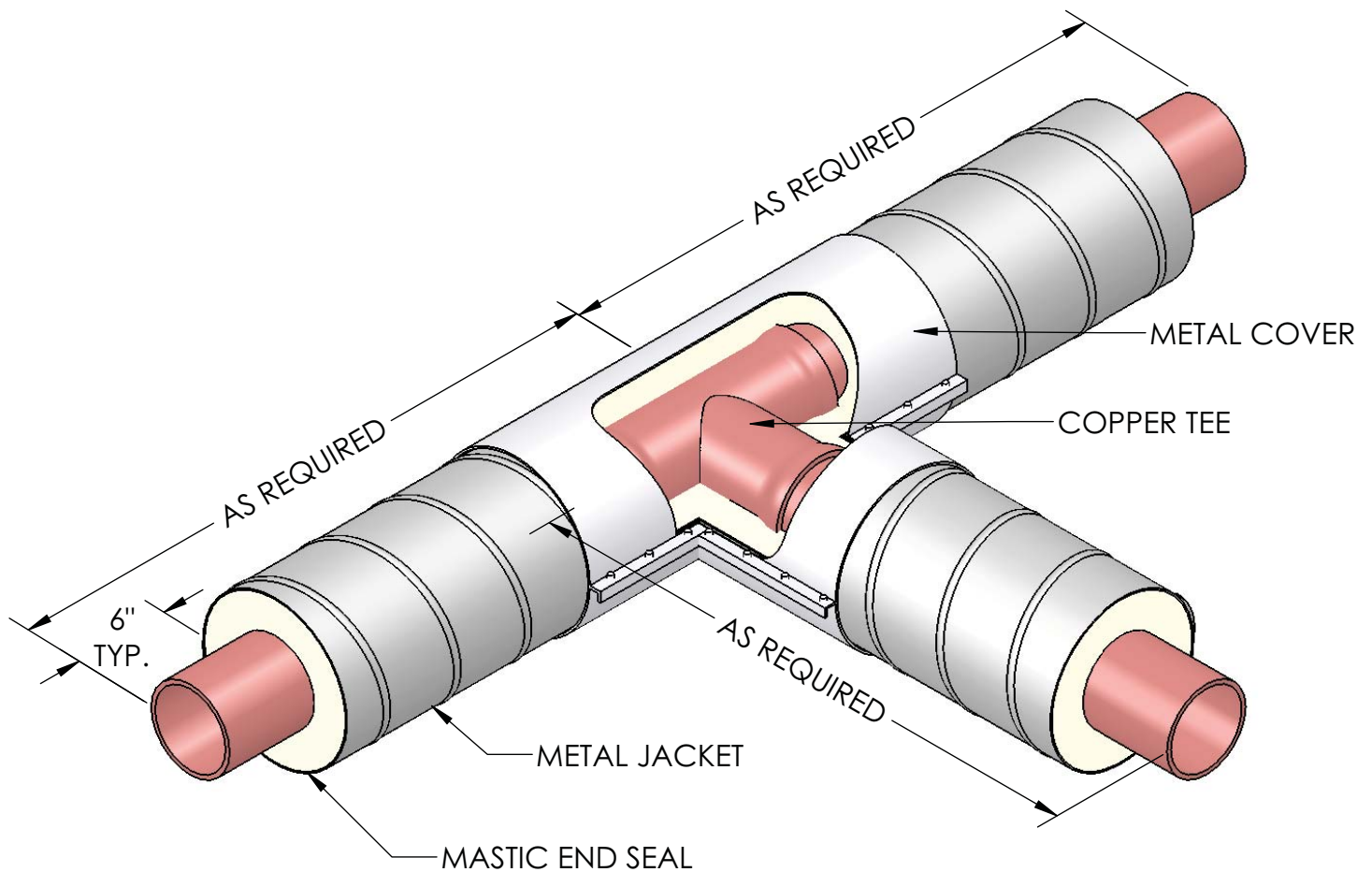
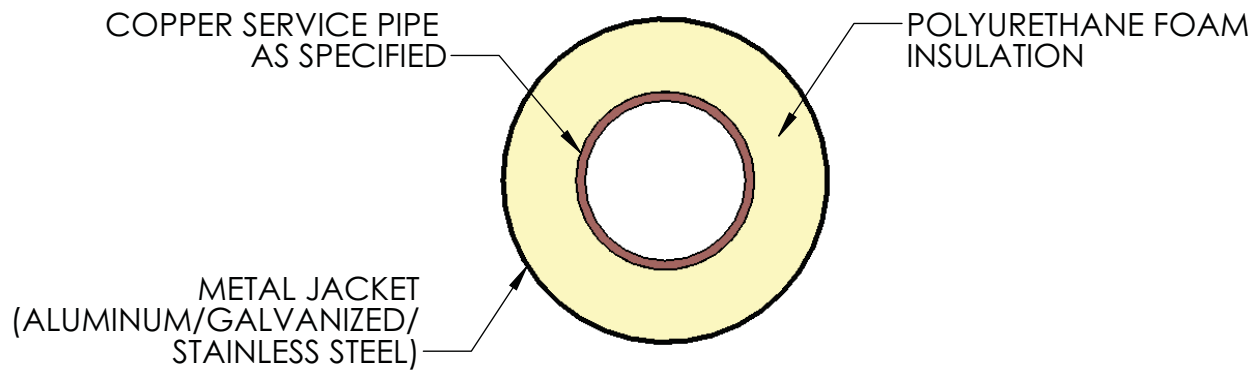
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CU-4

SHEET



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SHEET TITLE

PRE-FABRICATED TEE DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

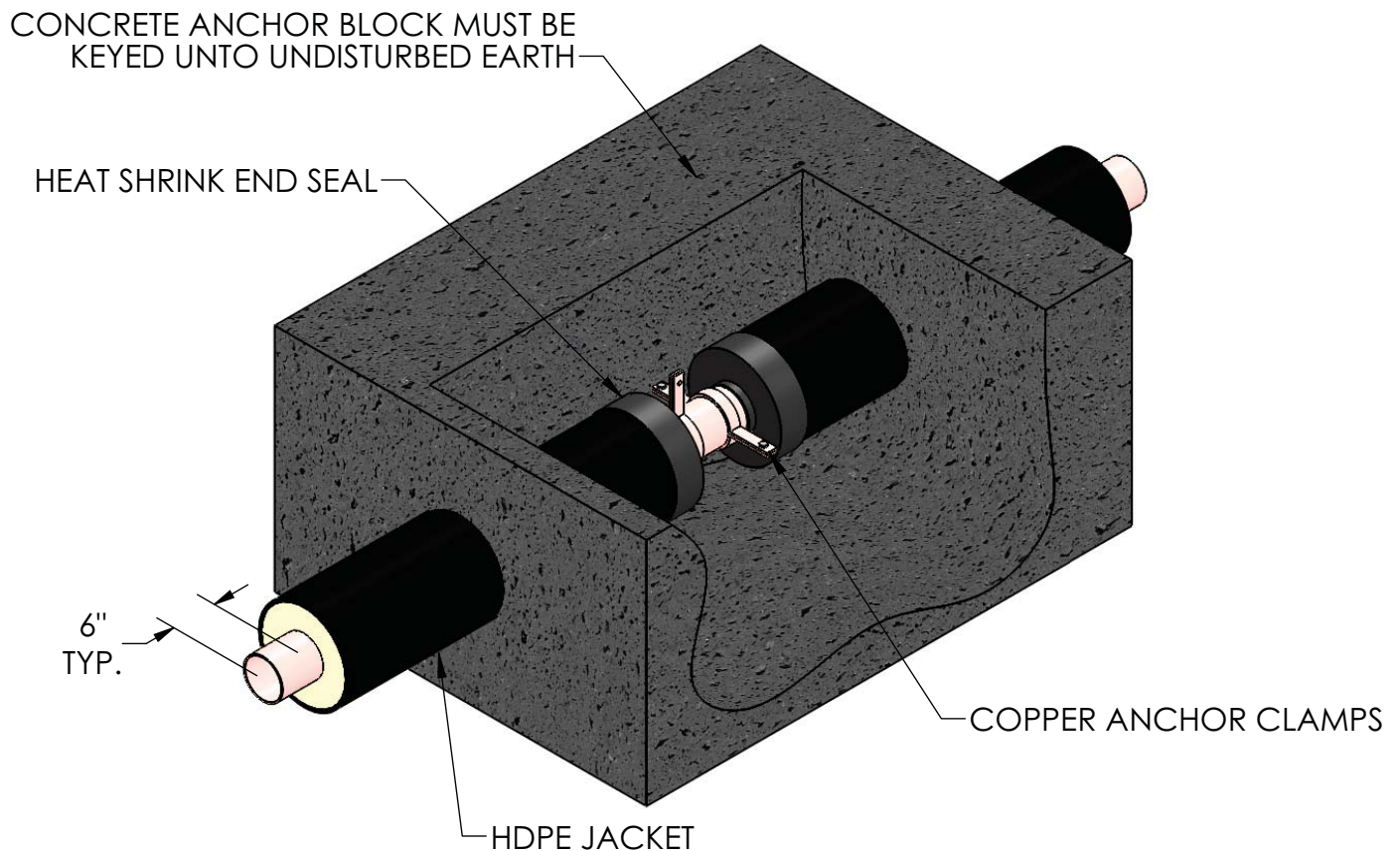
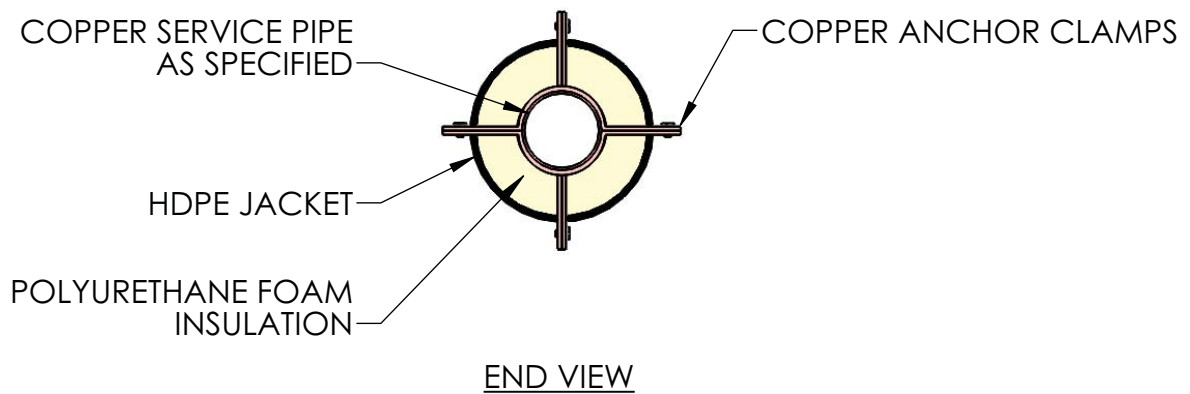
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CU-4

SHEET



NOTE: 1 ANCHOR BLOCK SIZE TO BE DETERMINED BY SOIL CONDITIONS



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SHEET TITLE

COPPER ANCHOR DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

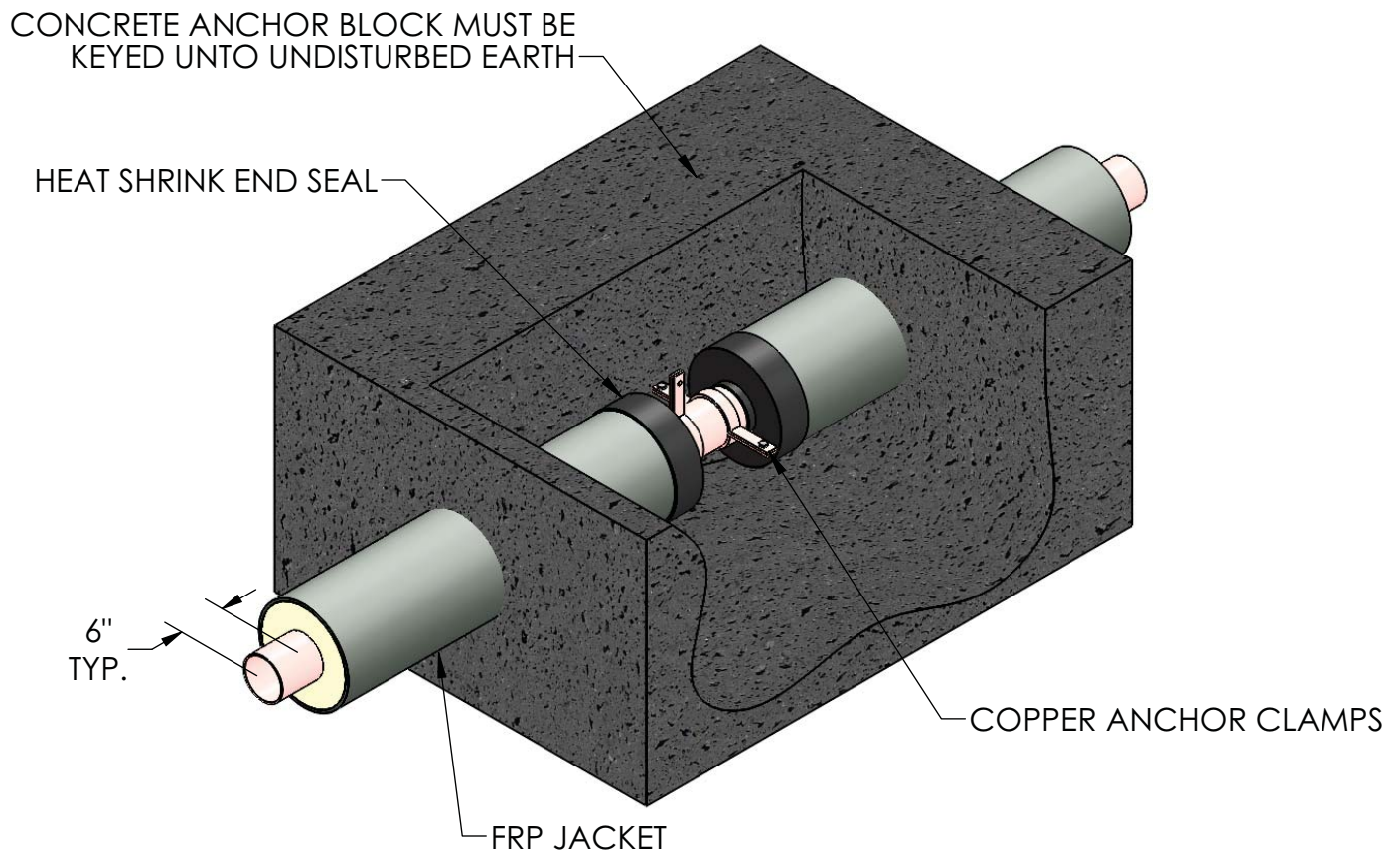
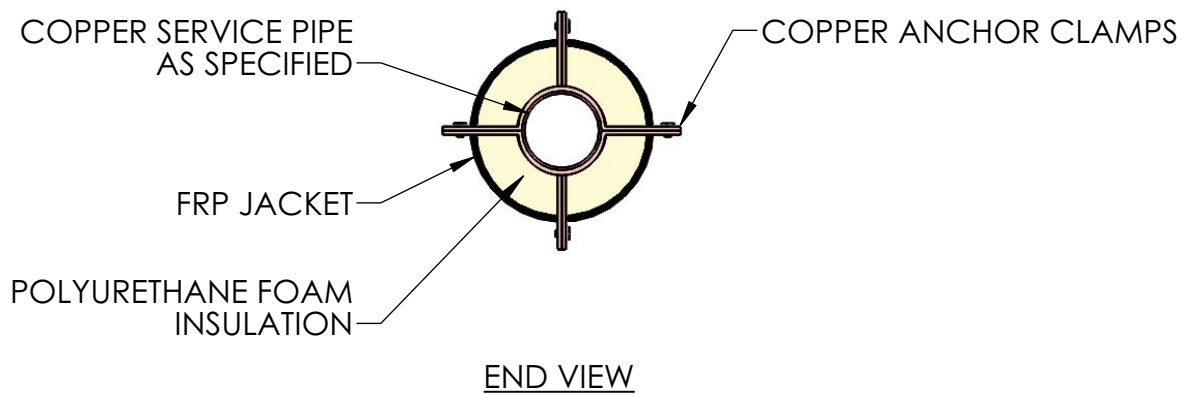
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DATE

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DWG. NO.

**CU-5**



NOTE: 1 ANCHOR BLOCK SIZE TO BE DETERMINED BY SOIL CONDITIONS



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SHEET TITLE

COPPER ANCHOR DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

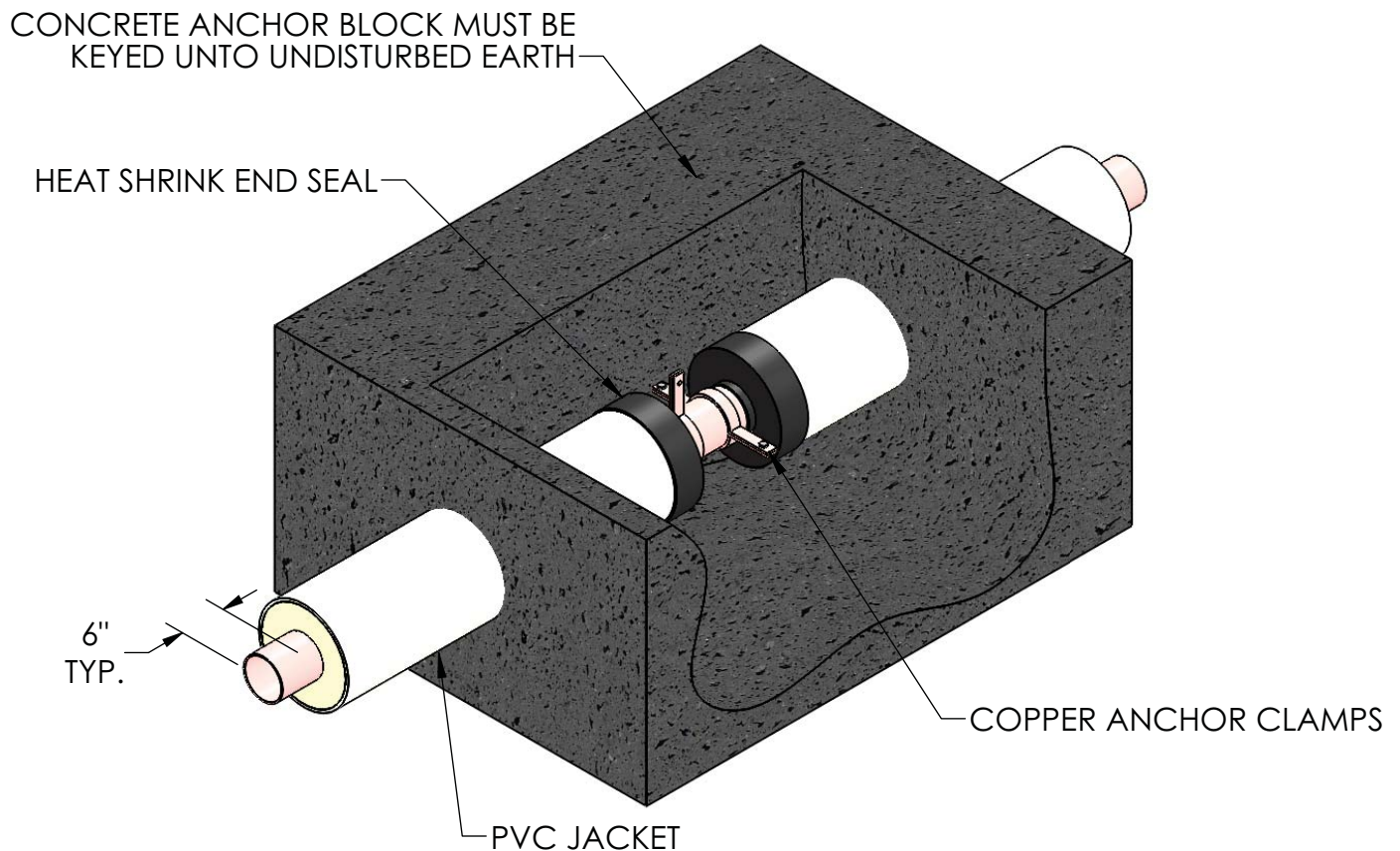
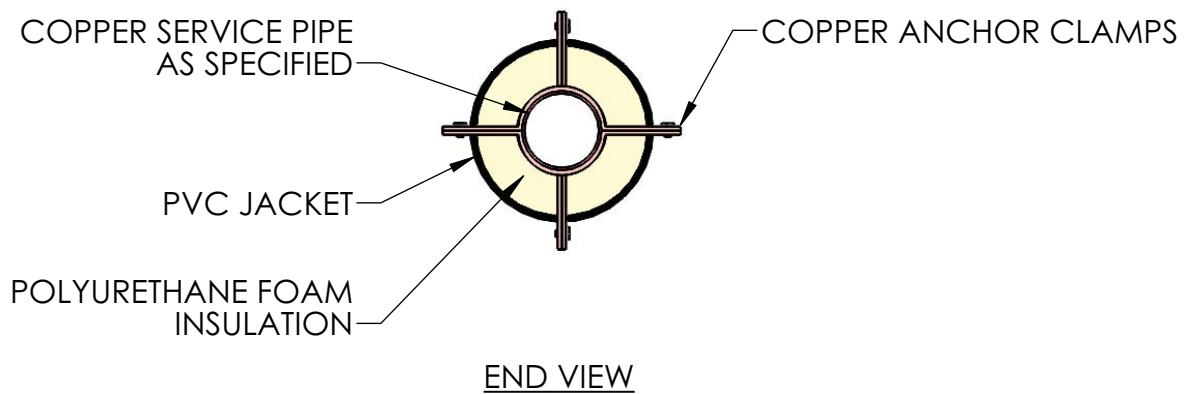
NTS

DATE

12/01/2016

DWG. NO.

**CU-5**



NOTE: 1 ANCHOR BLOCK SIZE TO BE DETERMINED BY SOIL CONDITIONS



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SHEET TITLE

COPPER ANCHOR DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

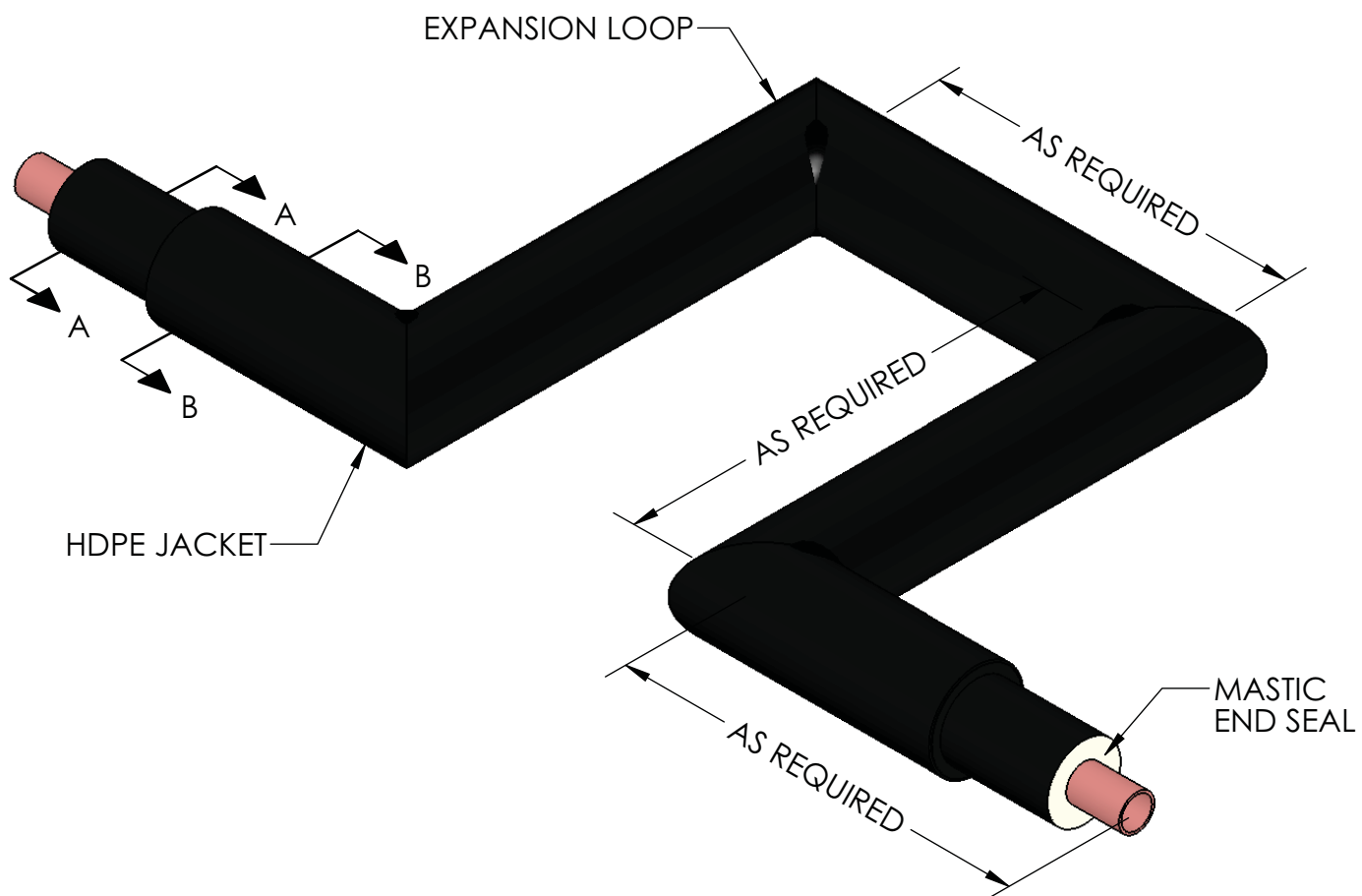
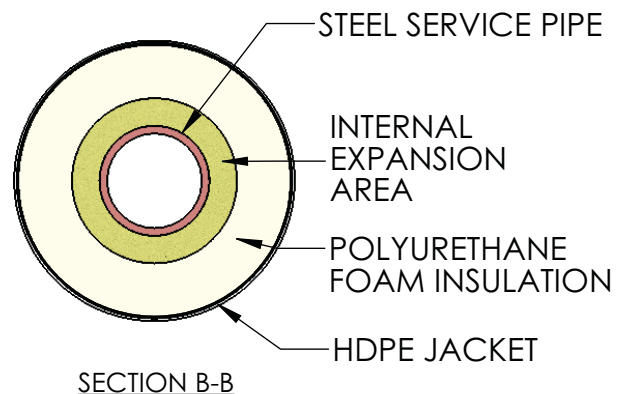
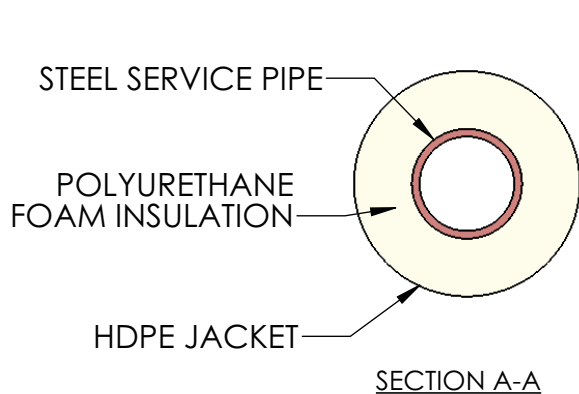
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DATE

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DWG. NO.

**CU-6**



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SHEET TITLE

EXPANSION LOOP WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

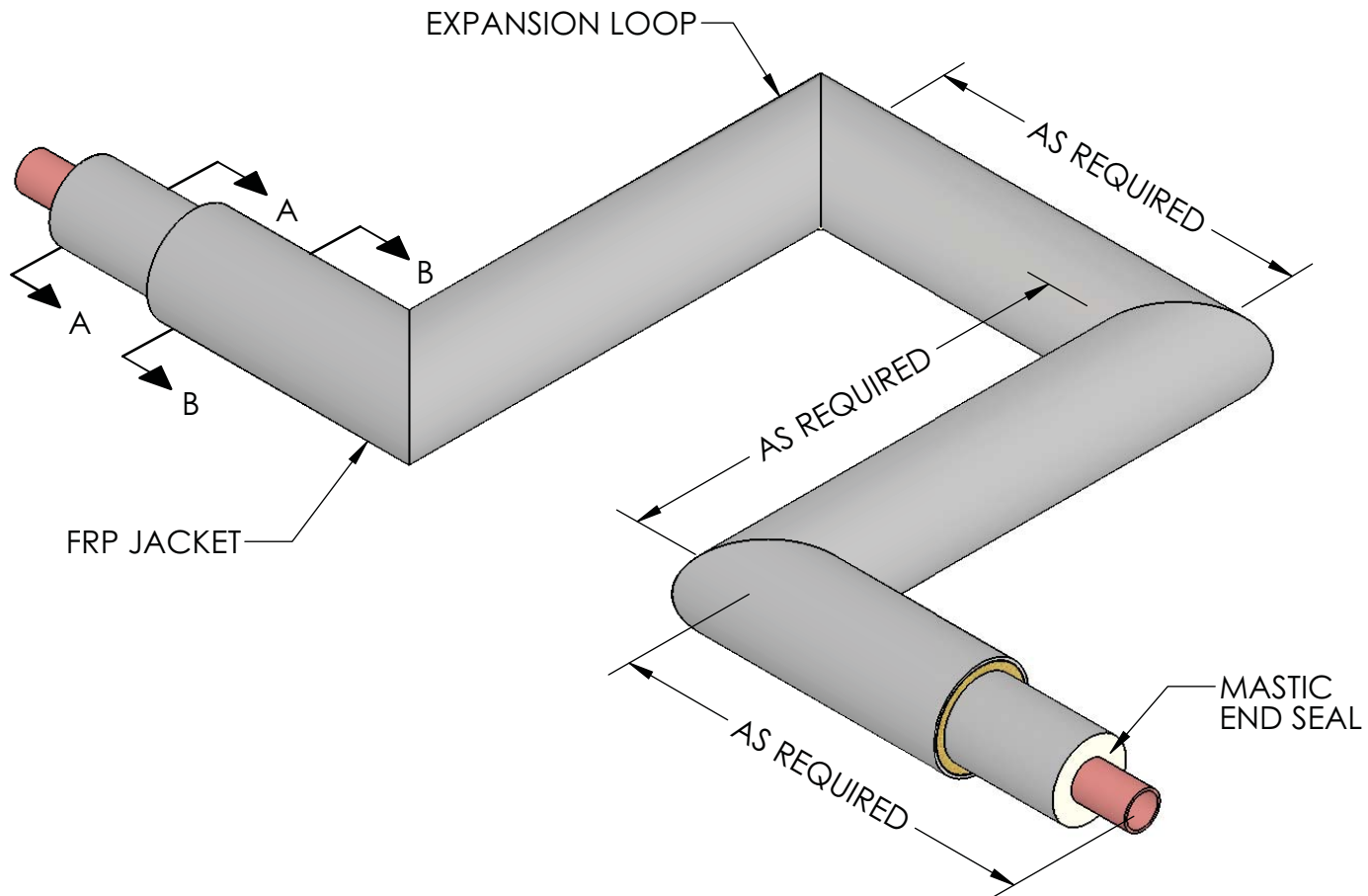
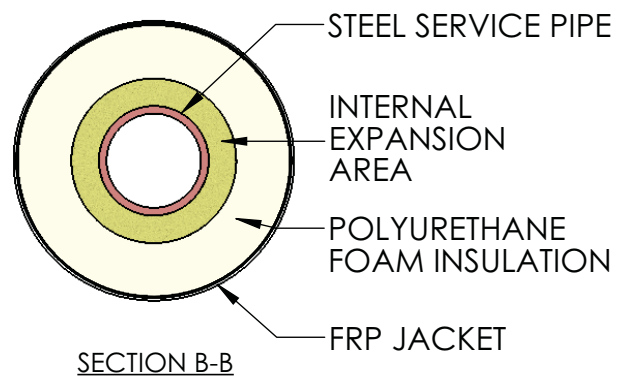
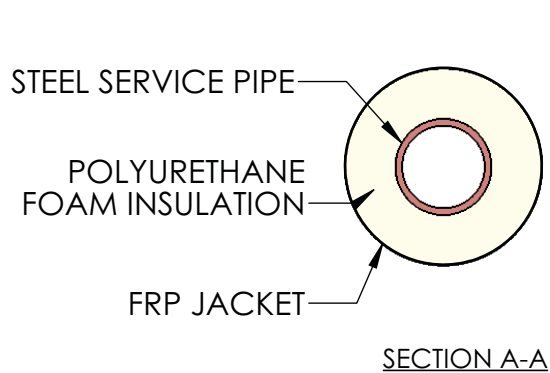
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DWG. NO.

CU-7

SHEET



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SHEET TITLE

EXPANSION LOOP WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

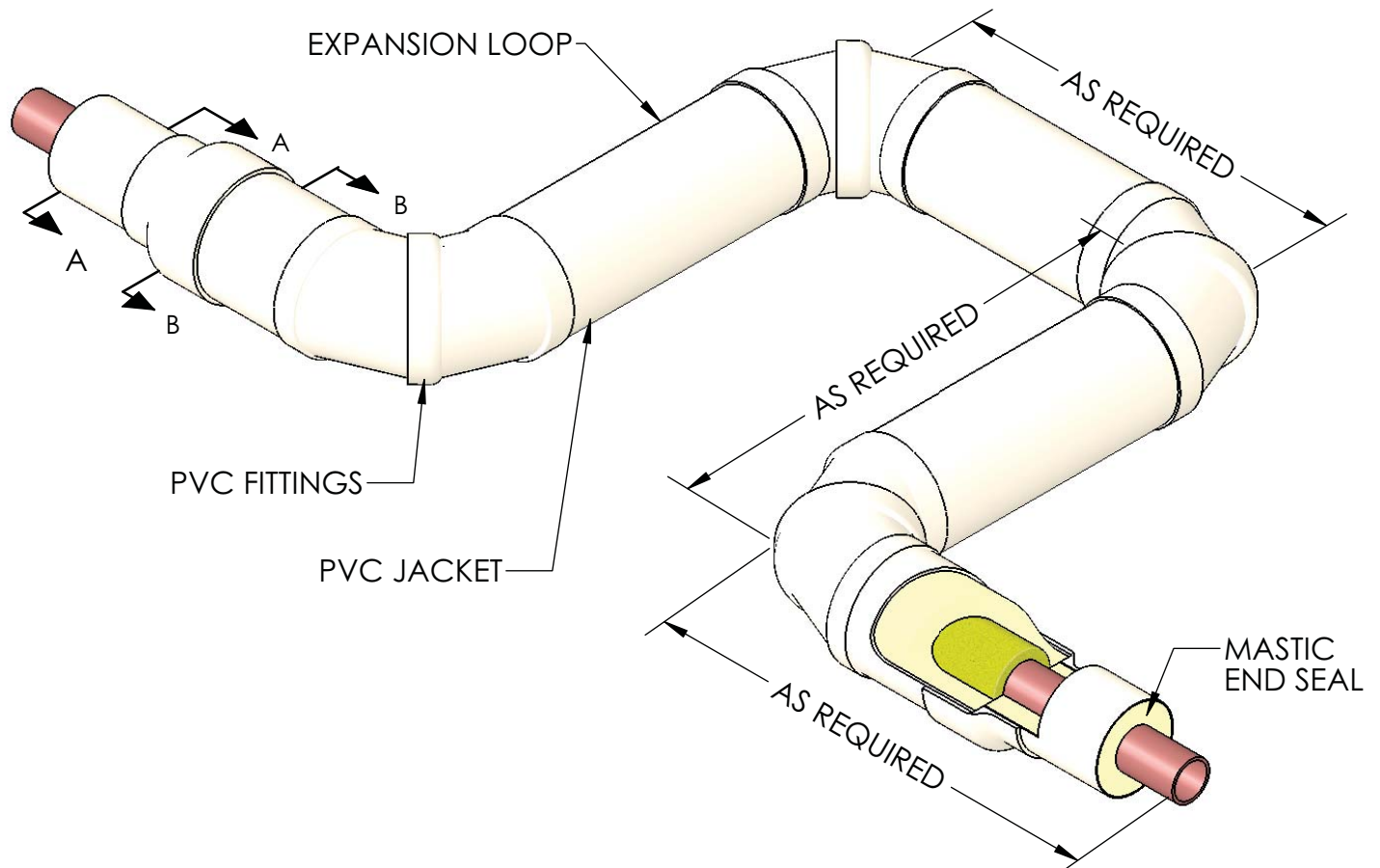
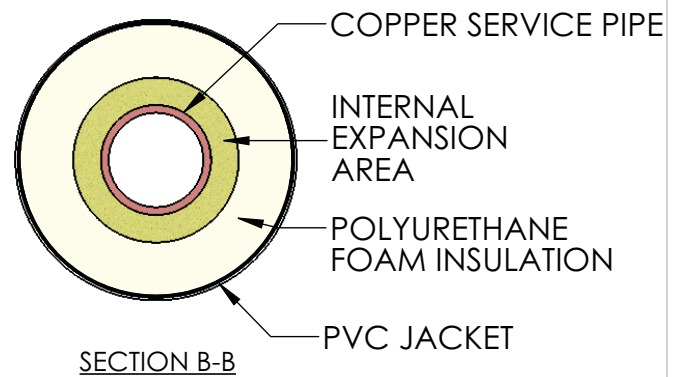
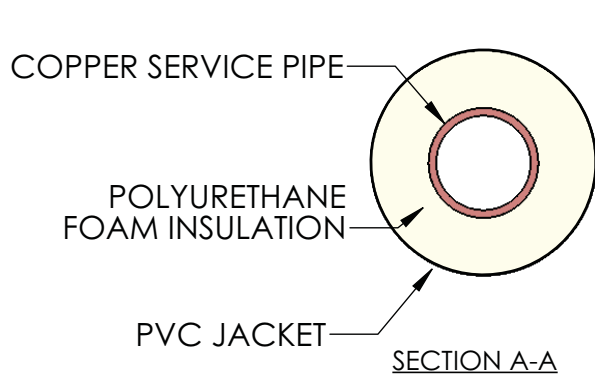
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CU-7

SHEET



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p (315)697-8787 f (315)697-8788

SHEET TITLE

EXPANSION LOOP WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

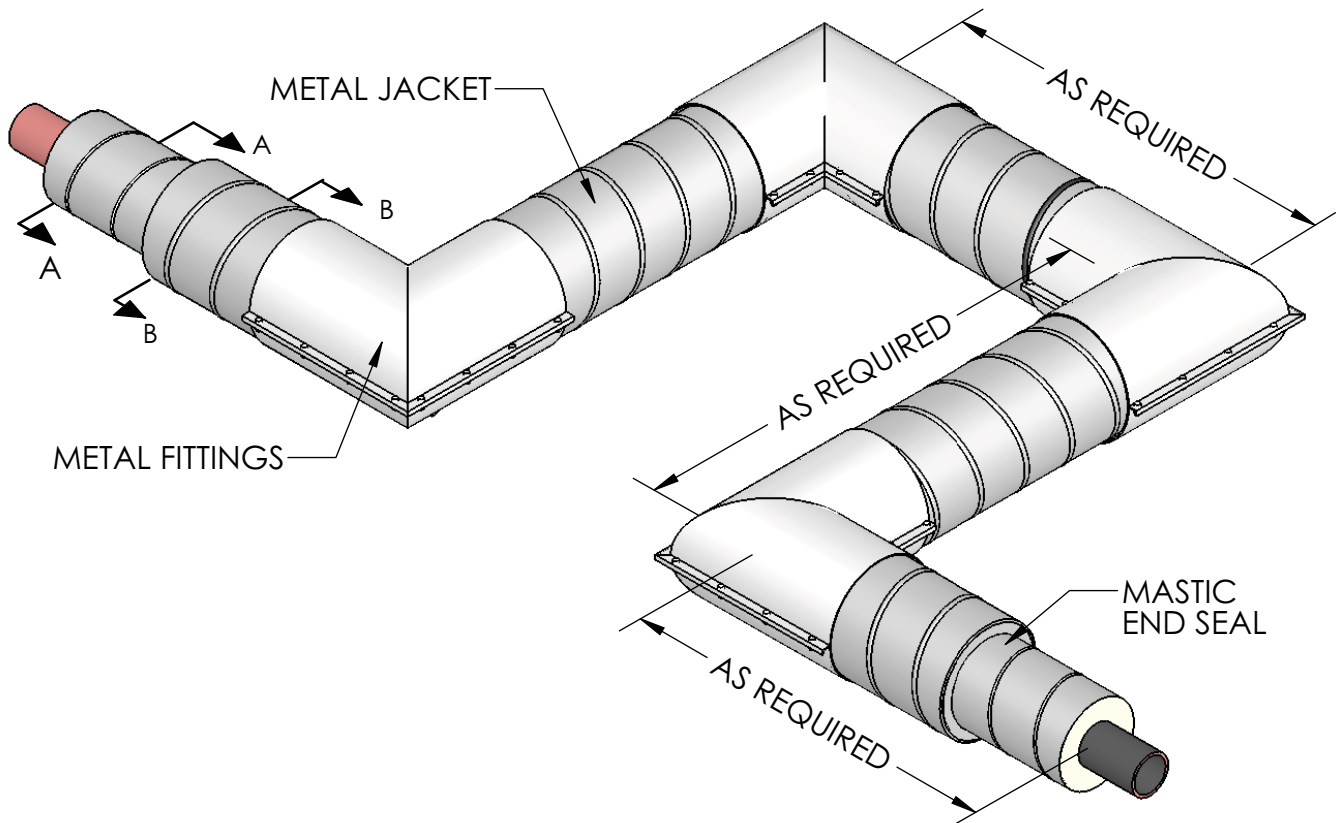
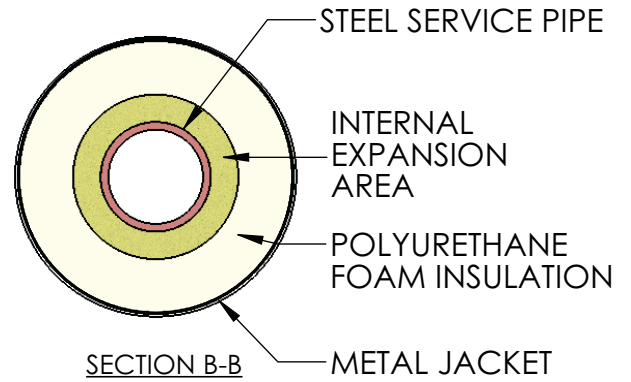
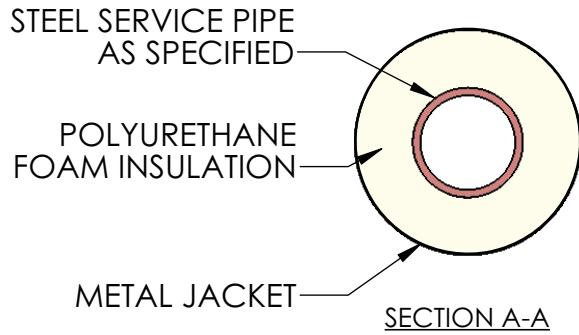
DATE

12/01/2016

DWG. NO.

CU-7

SHEET



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SHEET TITLE

EXPANSION LOOP WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

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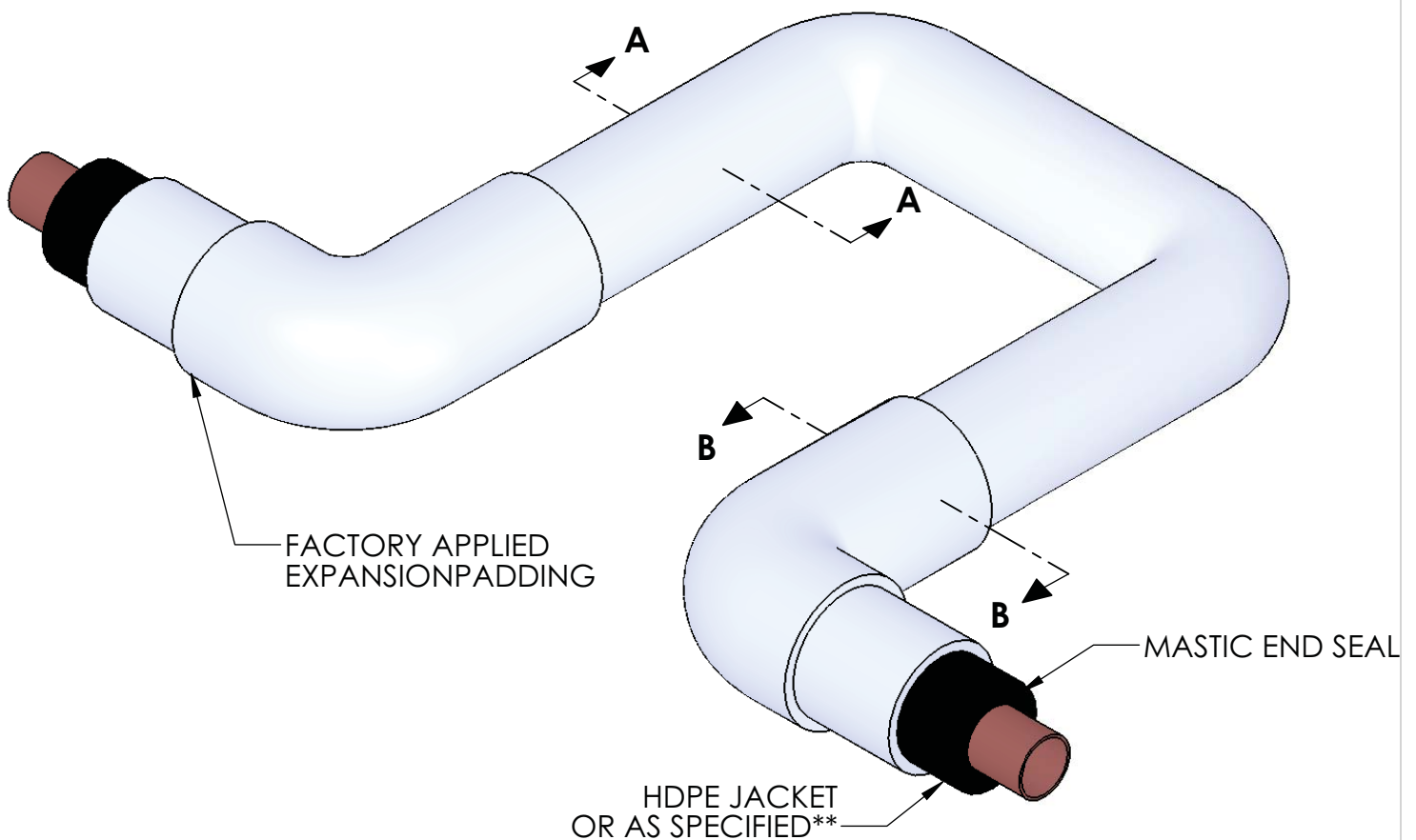
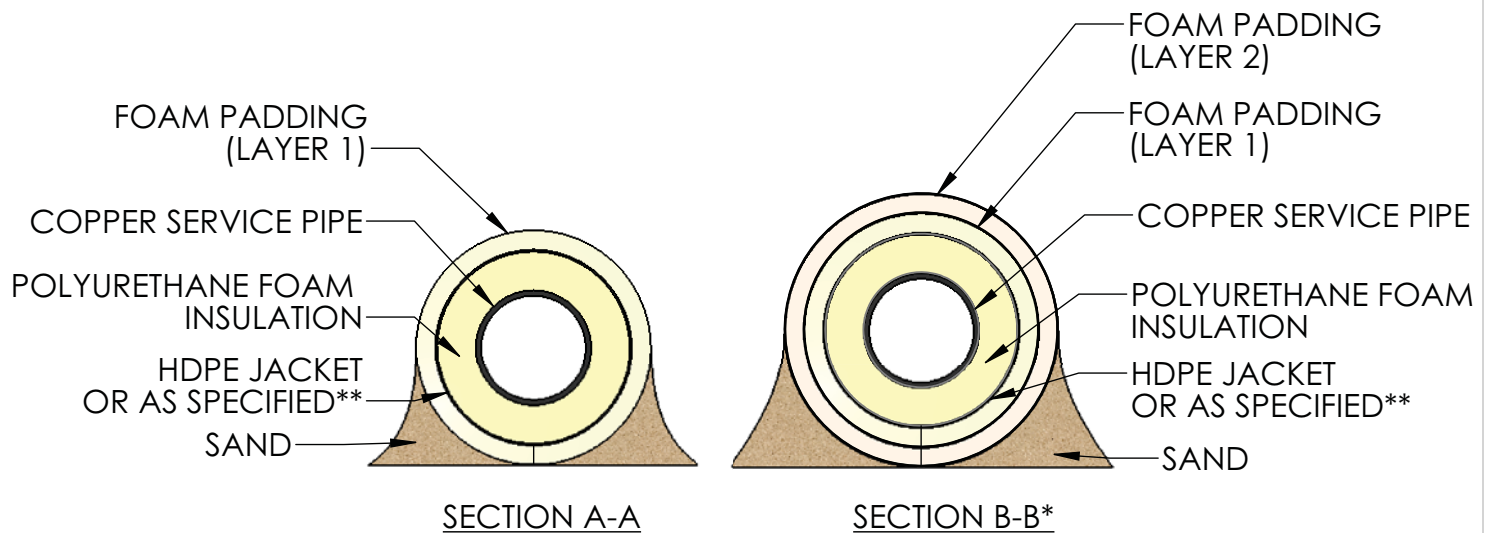
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12/01/2016

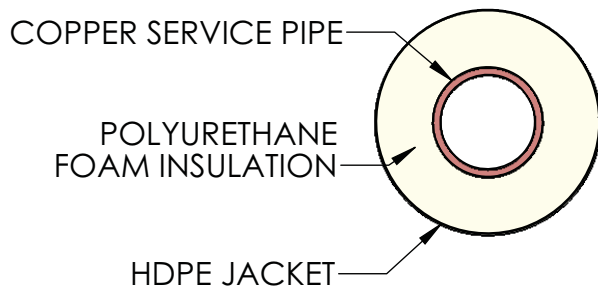
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CU-7

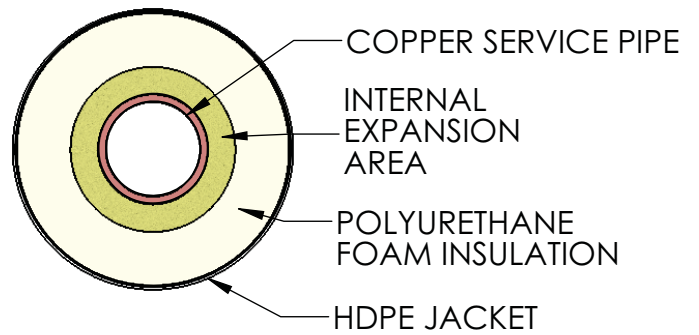
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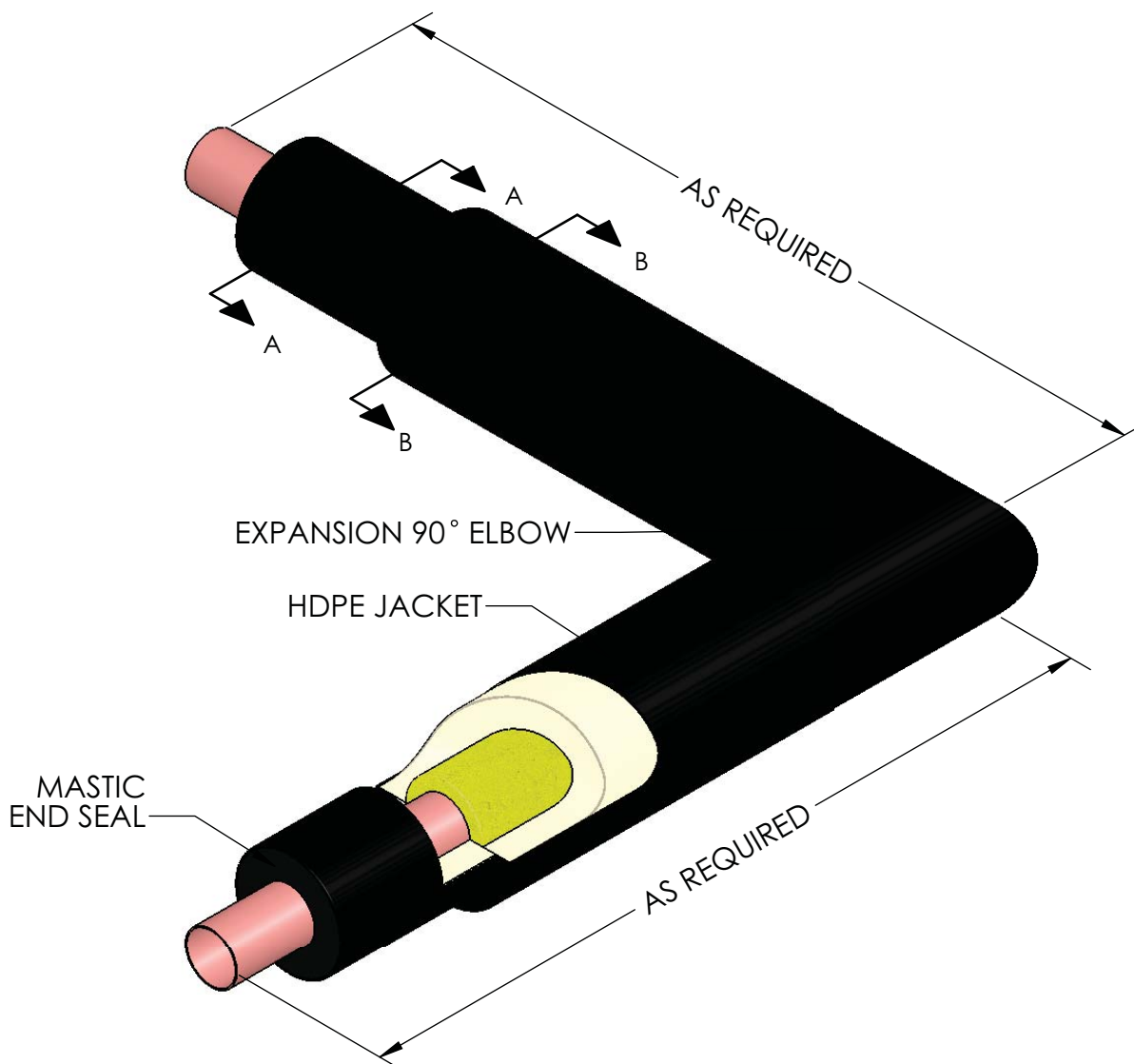
NOTE: 1. \*THE NUMBER OF PADDING LAYERS DETERMINED BY AMOUNT OF THERMAL MOVEMENT.  
 2. \*\*OPTIONAL PVC OR FRP JACKETS ARE AVAILABLE FOR BELOW GRADE APPLICATIONS.



SECTION A-A



SECTION B-B



**TRICON**

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SHEET TITLE

90-DEGREE ELBOW WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

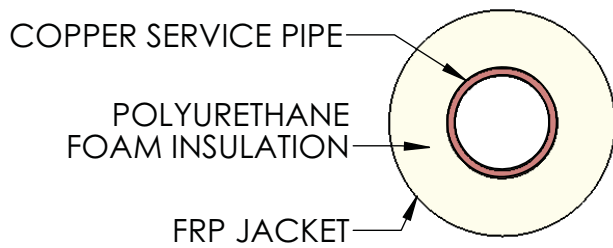
DATE

12/01/2016

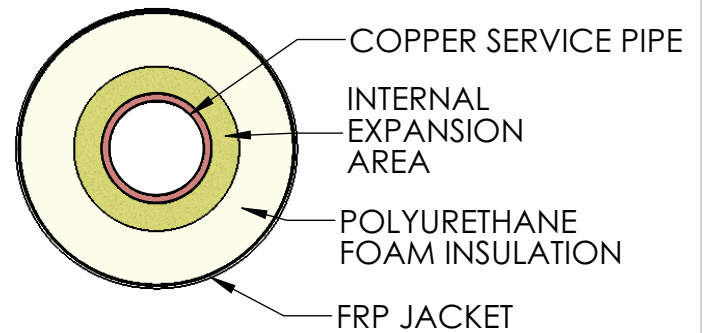
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CU-8

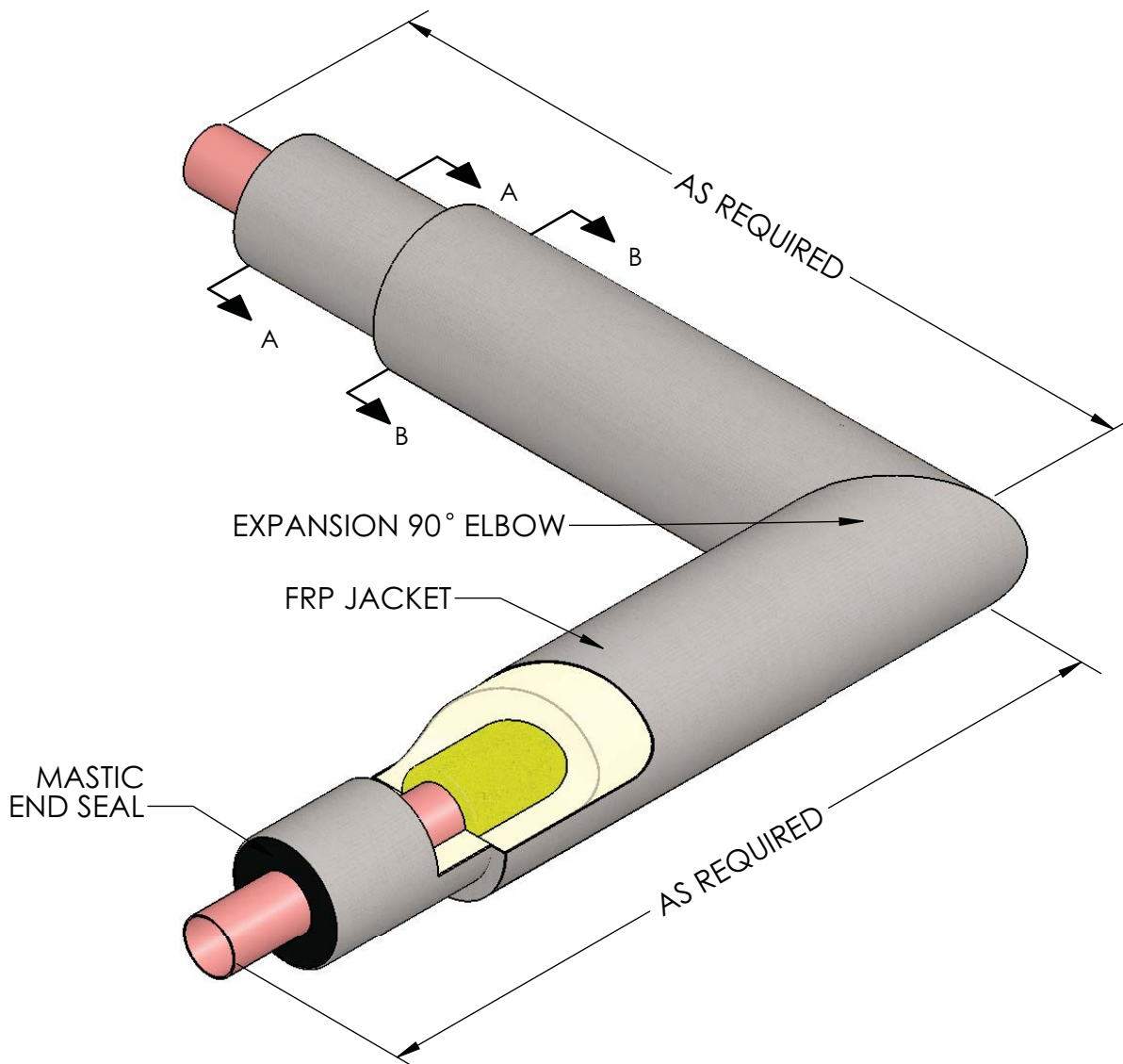
SHEET



SECTION A-A



SECTION B-B



**TRICON**

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SHEET TITLE

90-DEGREE ELBOW WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

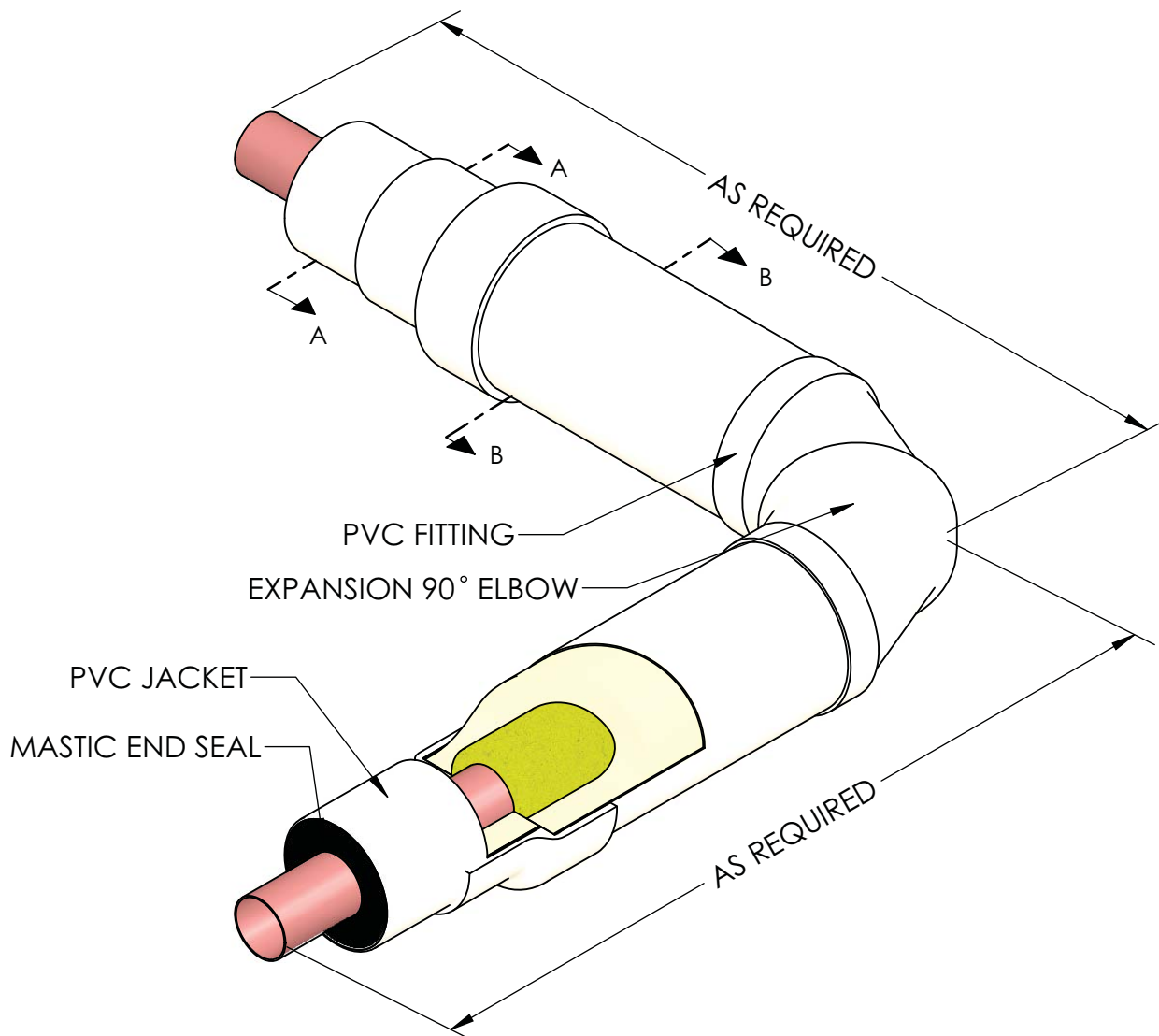
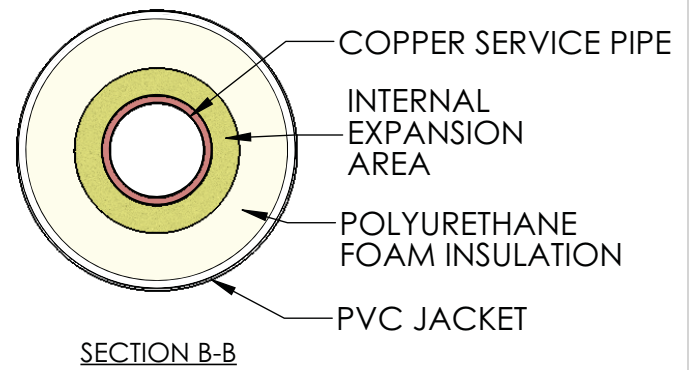
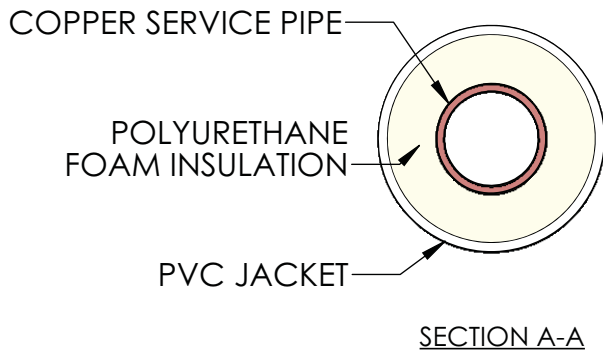
DATE

12/01/2016

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CU-8

SHEET



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SHEET TITLE

90-DEGREE ELBOW WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

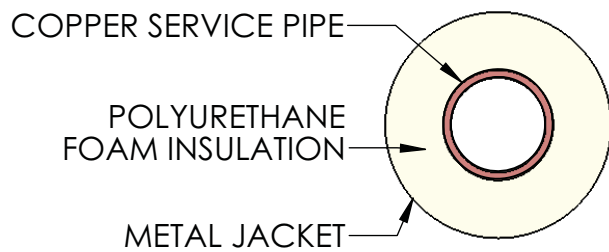
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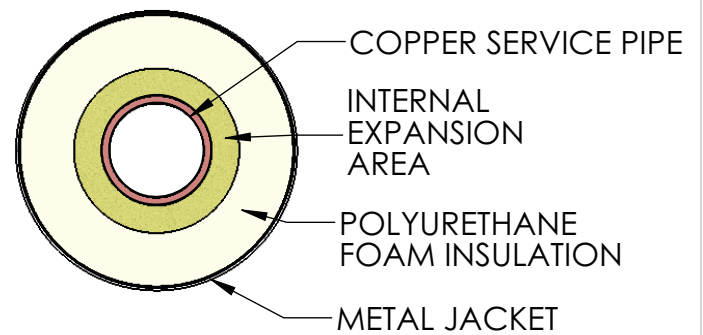
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CU-8

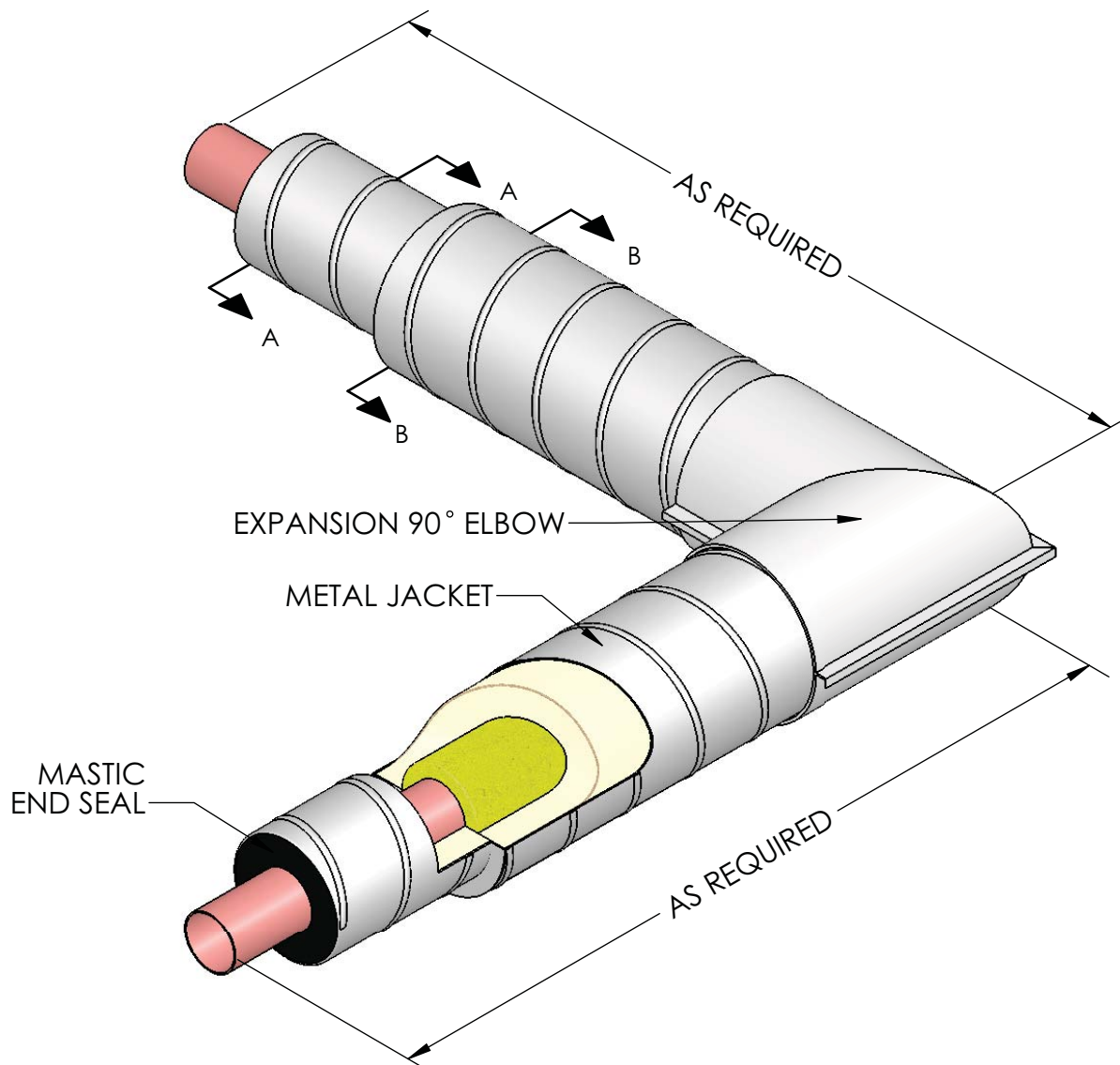
SHEET



SECTION A-A



SECTION B-B



**TRICON**  
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SHEET TITLE

90-DEGREE ELBOW WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

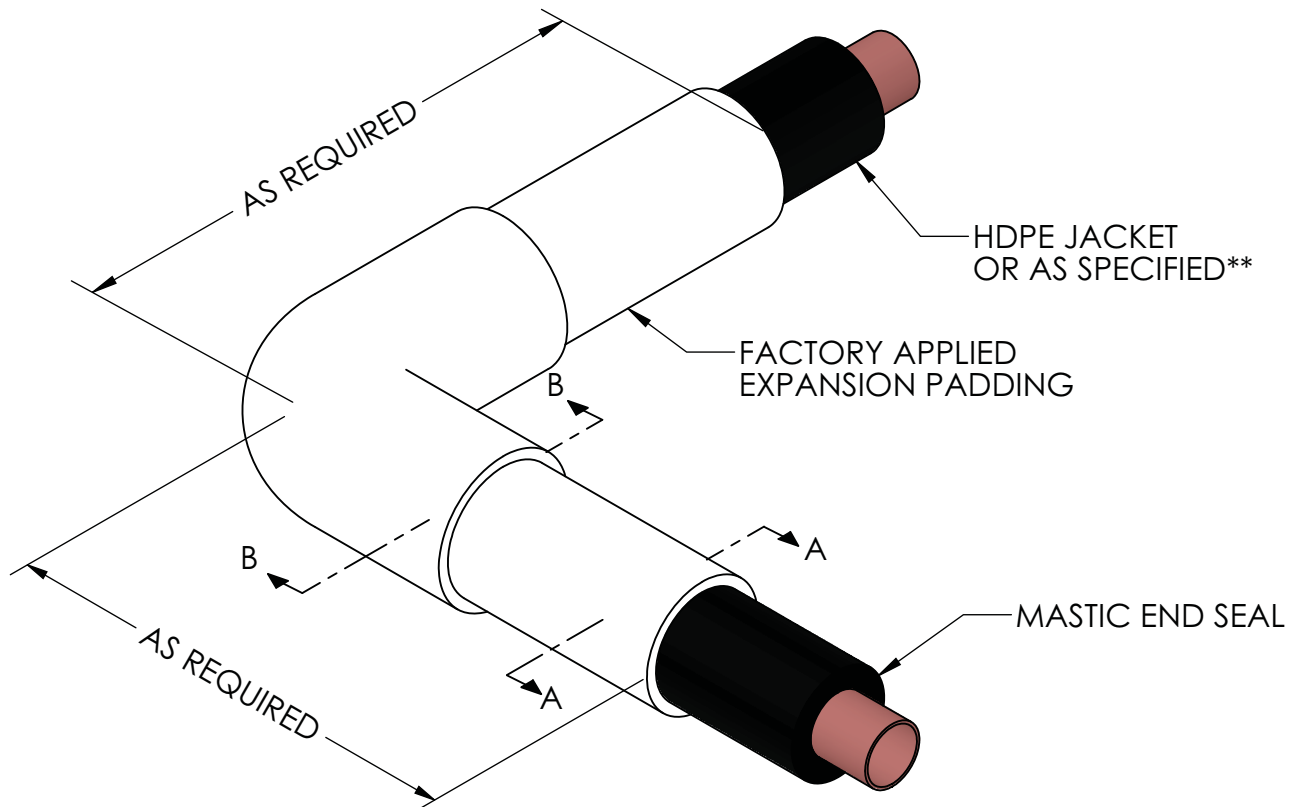
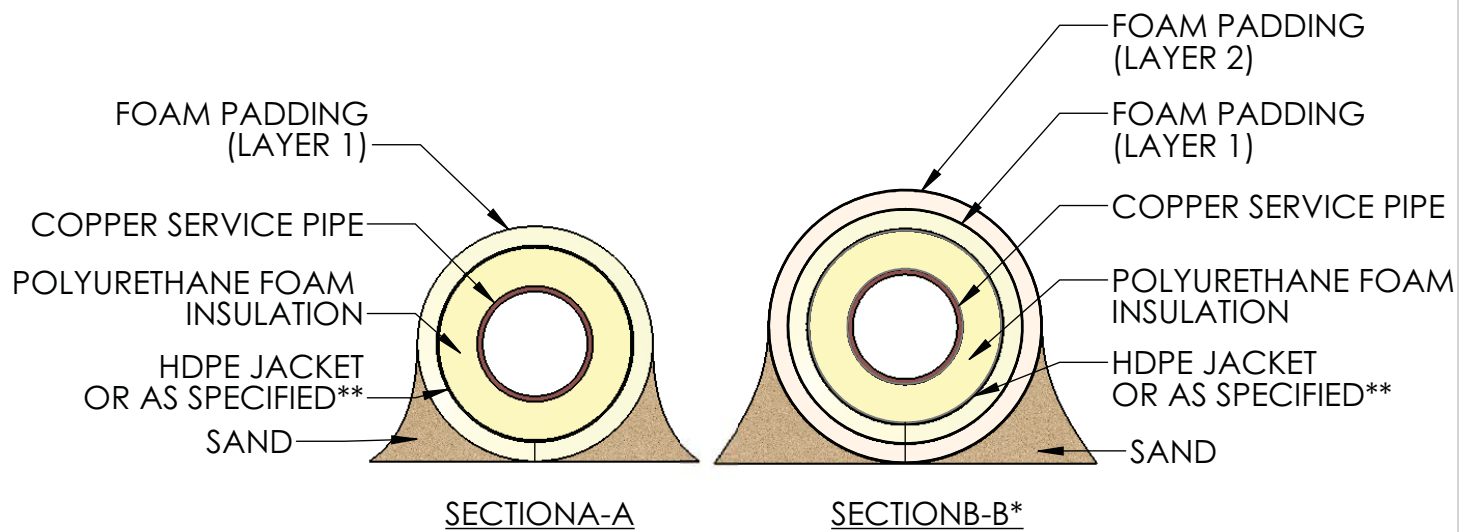
DATE

12/01/2016

DWG. NO.

CU-8

SHEET



NOTE: 1. \*THE NUMBER OF PADDING LAYERS DETERMINED BY AMOUNT OF THERMAL MOVEMENT.  
2. \*\*OPTIONAL PVC OR FRP JACKETS ARE AVAILABLE FOR BELOW GRADE APPLICATIONS.



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SHEET TITLE

90-DEGREE ELBOW WITH EXTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

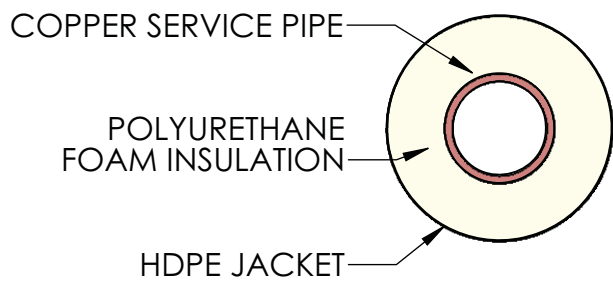
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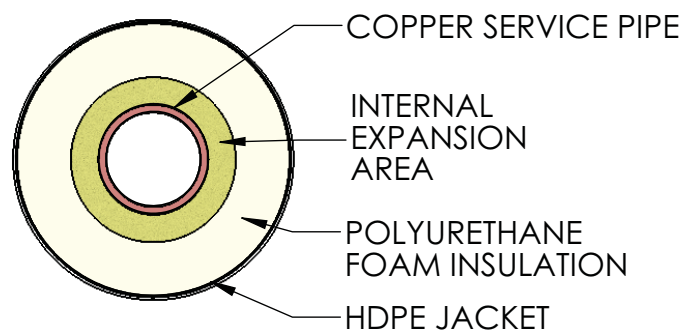
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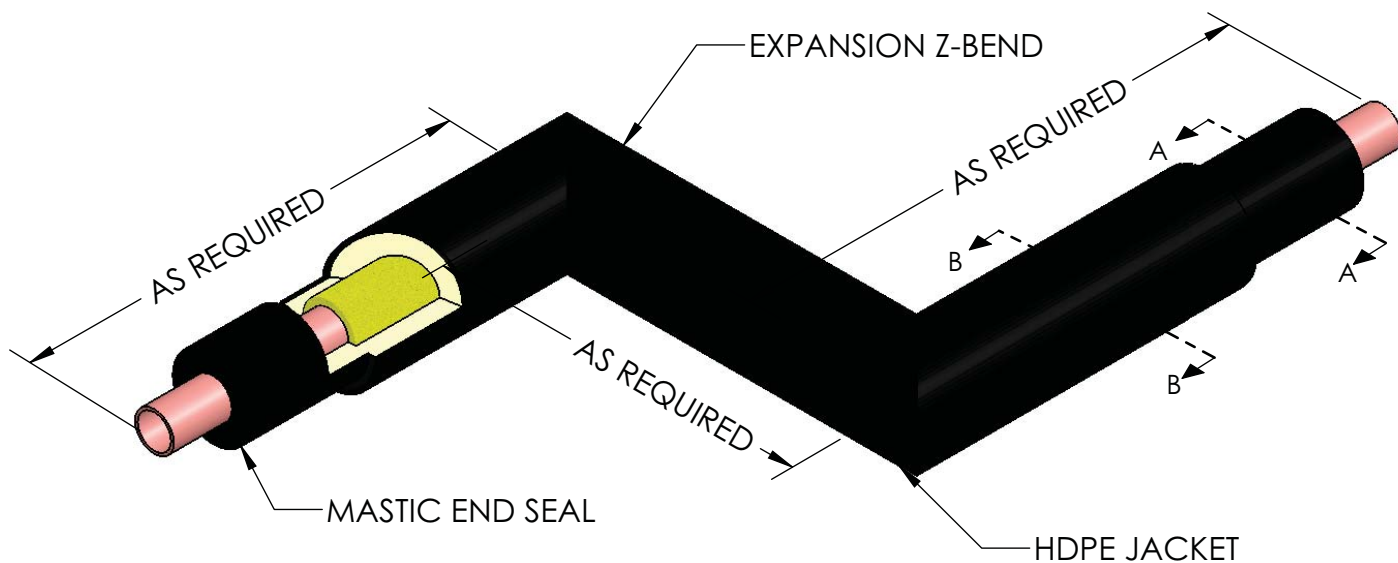
SHEET



SECTION A-A



SECTION B-B



**TRICON**

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P.O. BOX 361, Canastota, NY 13032  
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SHEET TITLE

EXPANSION Z-BEND WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

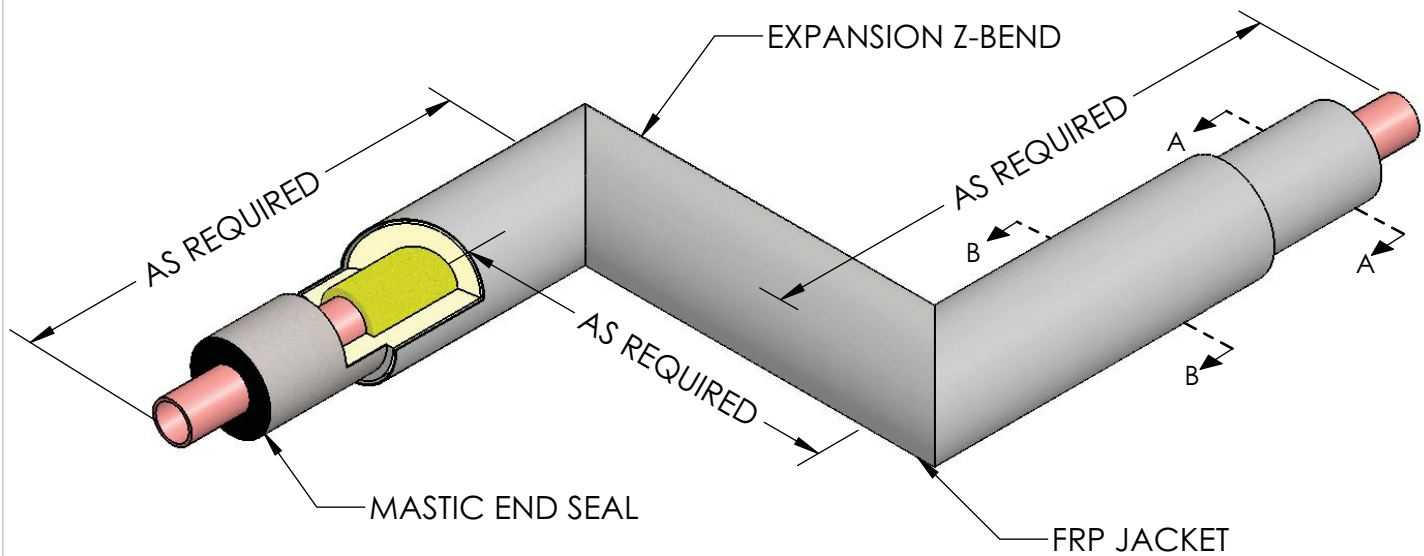
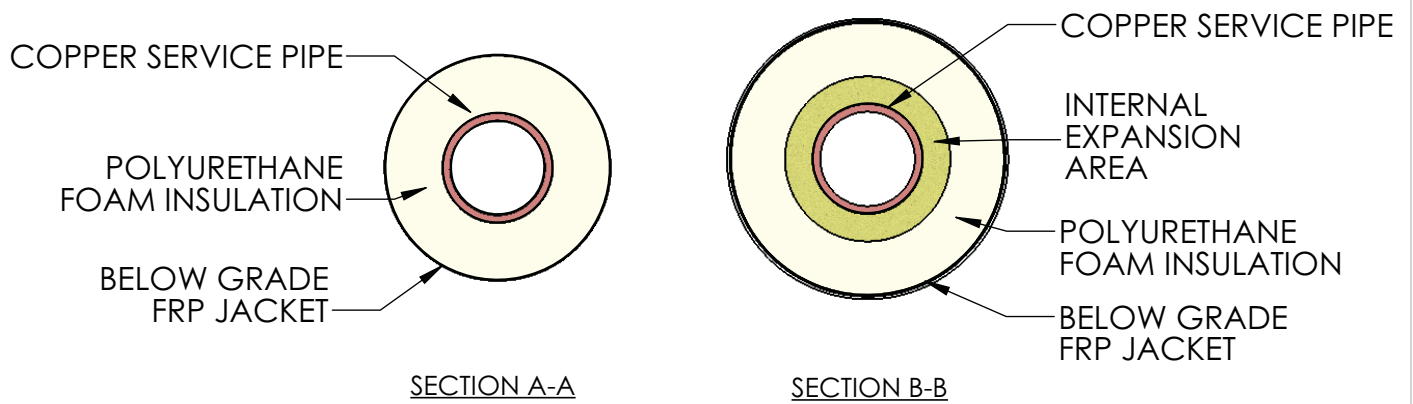
DATE

11/01/2016

DWG. NO.

CU-9H

SHEET



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p (315)697-8787 f (315)697-8788

SHEET TITLE

EXPANSION Z-BEND WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

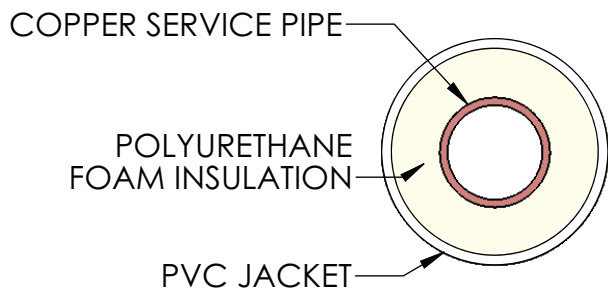
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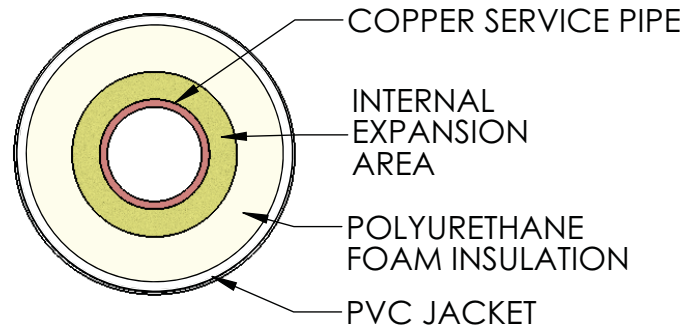
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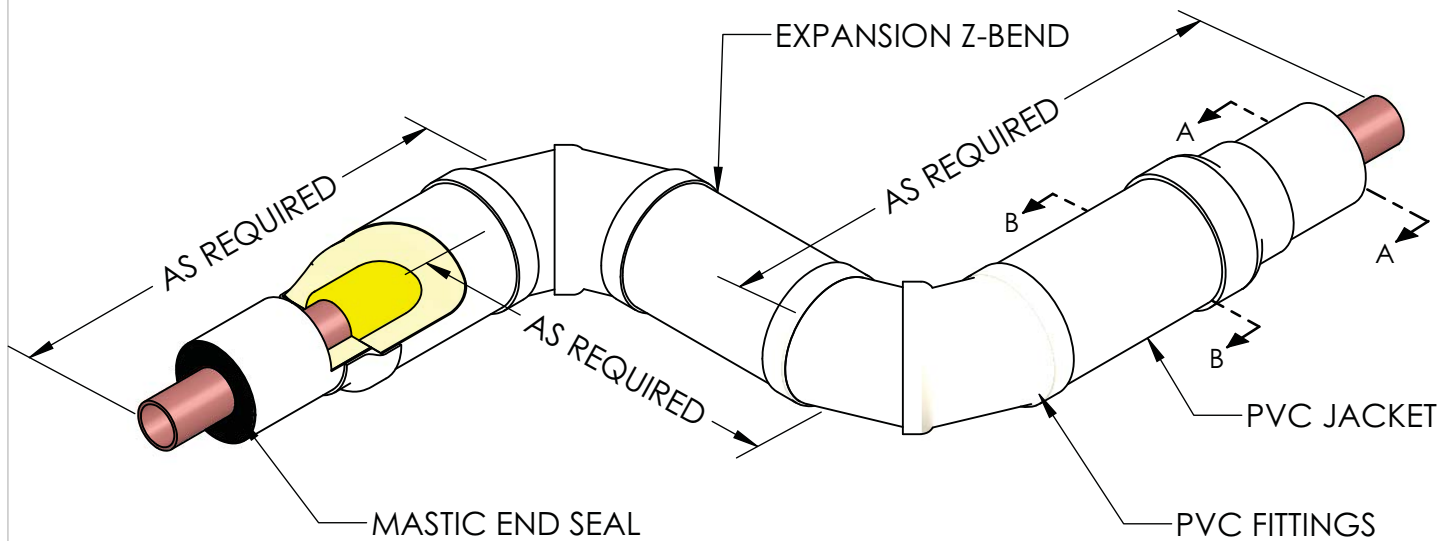
SHEET



SECTION A-A



SECTION B-B



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SHEET TITLE

EXPANSION Z-BEND WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

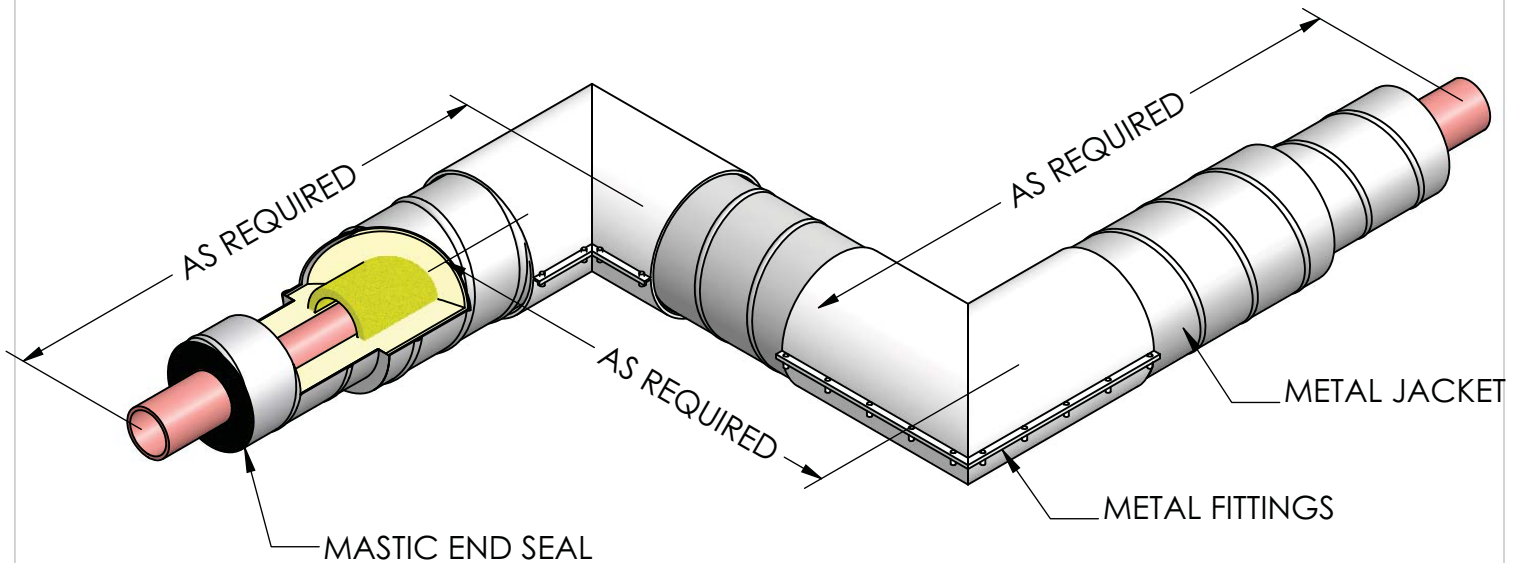
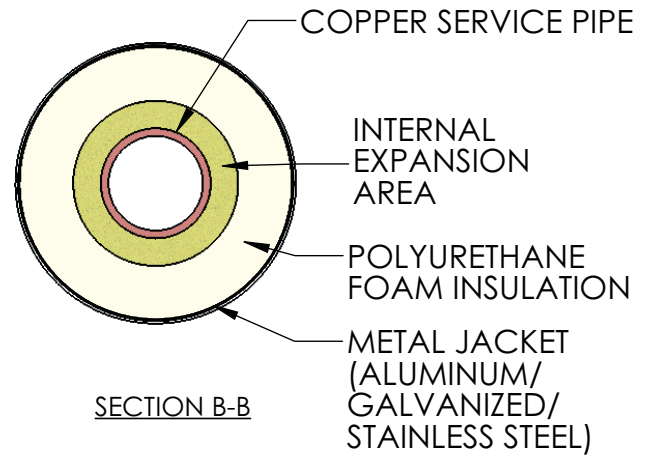
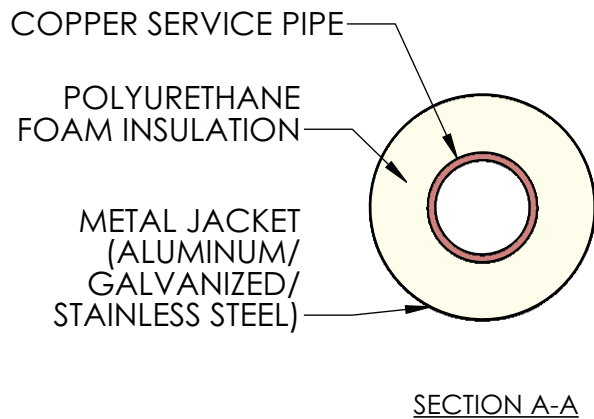
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11/01/2016

DWG. NO.

CU-9P

SHEET



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SHEET TITLE

EXPANSION Z-BEND WITH INTERNAL EXPANSION DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

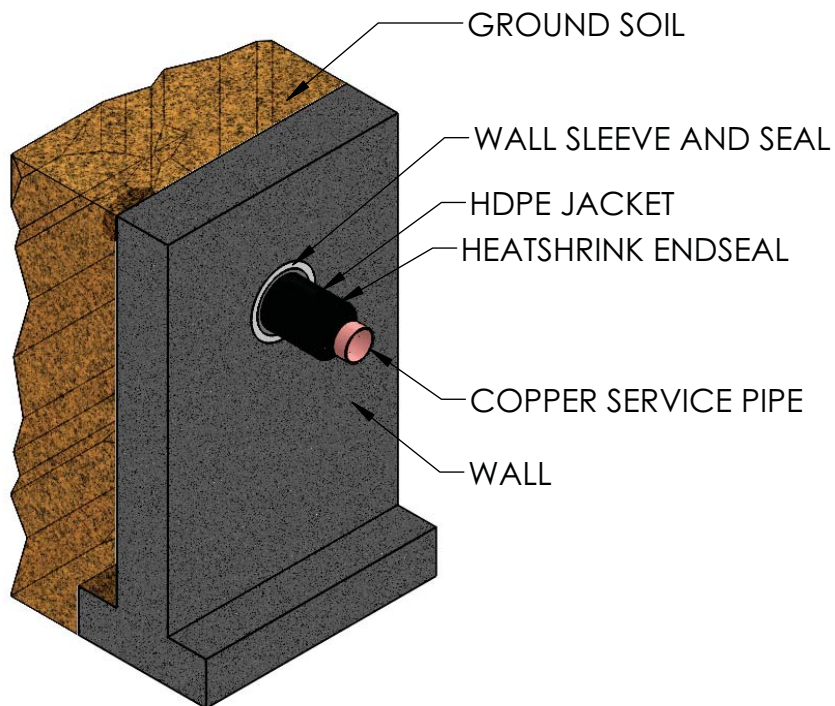
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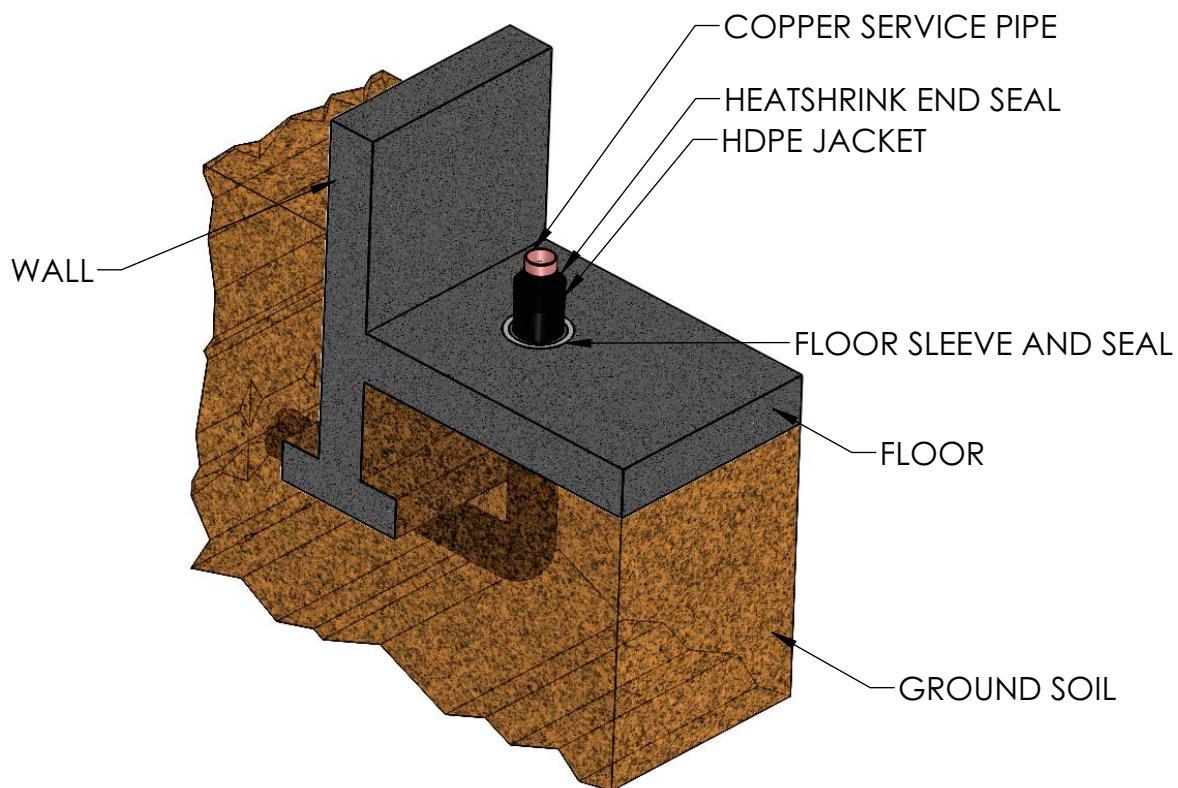
DWG. NO.

CU-9M

SHEET



**WALL PENETRATION DETAIL**



**BUILDING RISER DETAIL**



**TRICON**

Piping Systems, Inc.®

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SHEET TITLE

HEAT SHRINK END SEAL DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

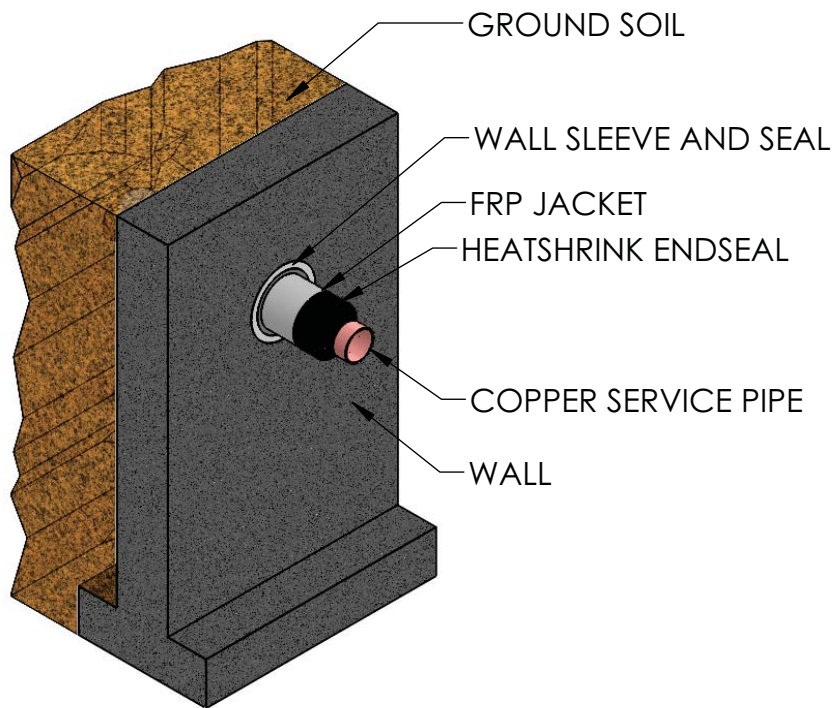
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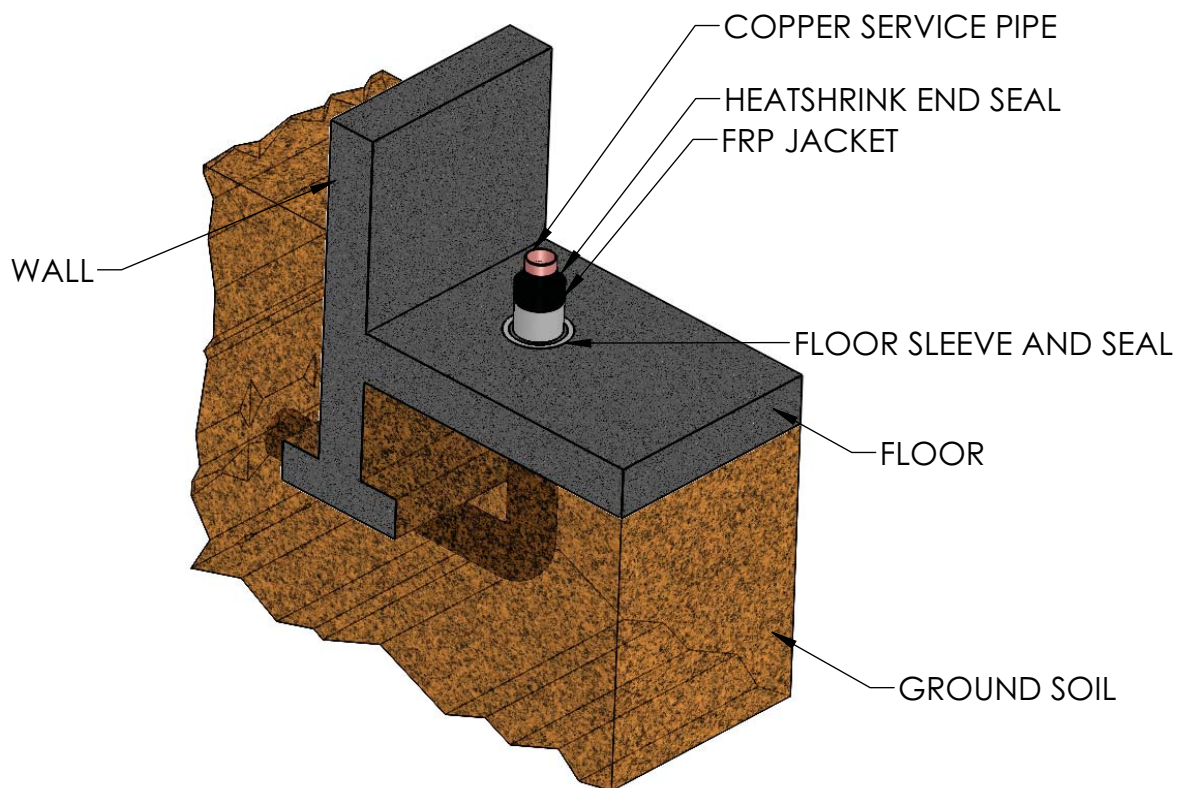
DWG. NO.

CU-10

SHEET



**WALL PENETRATION DETAIL**



**BUILDING RISER DETAIL**



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p (315)697-8787 f (315)697-8788

SHEET TITLE

HEAT SHRINK END SEAL DETAIL

PRODUCT

TRICON COPPER

SIZE

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SCALE

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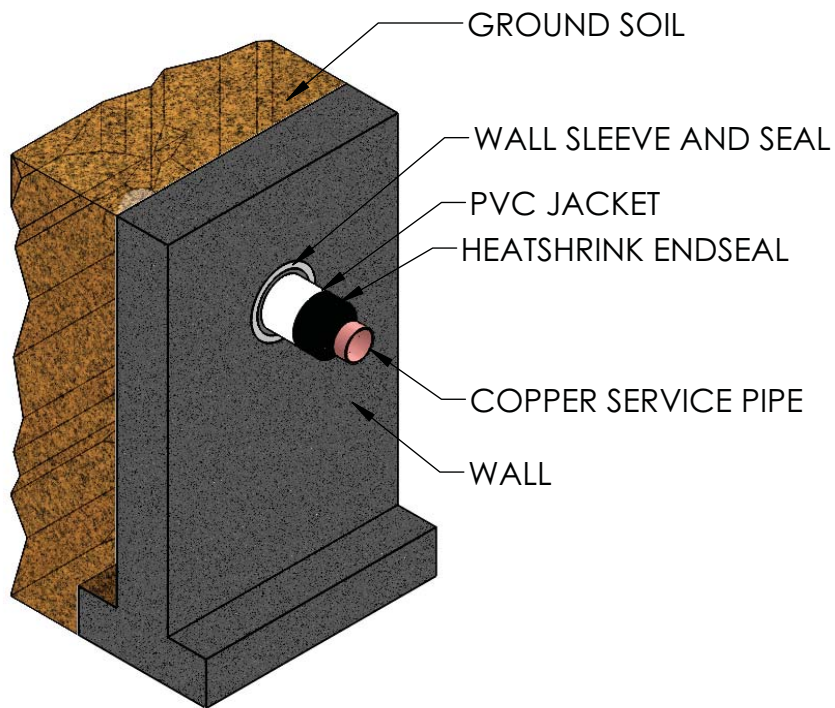
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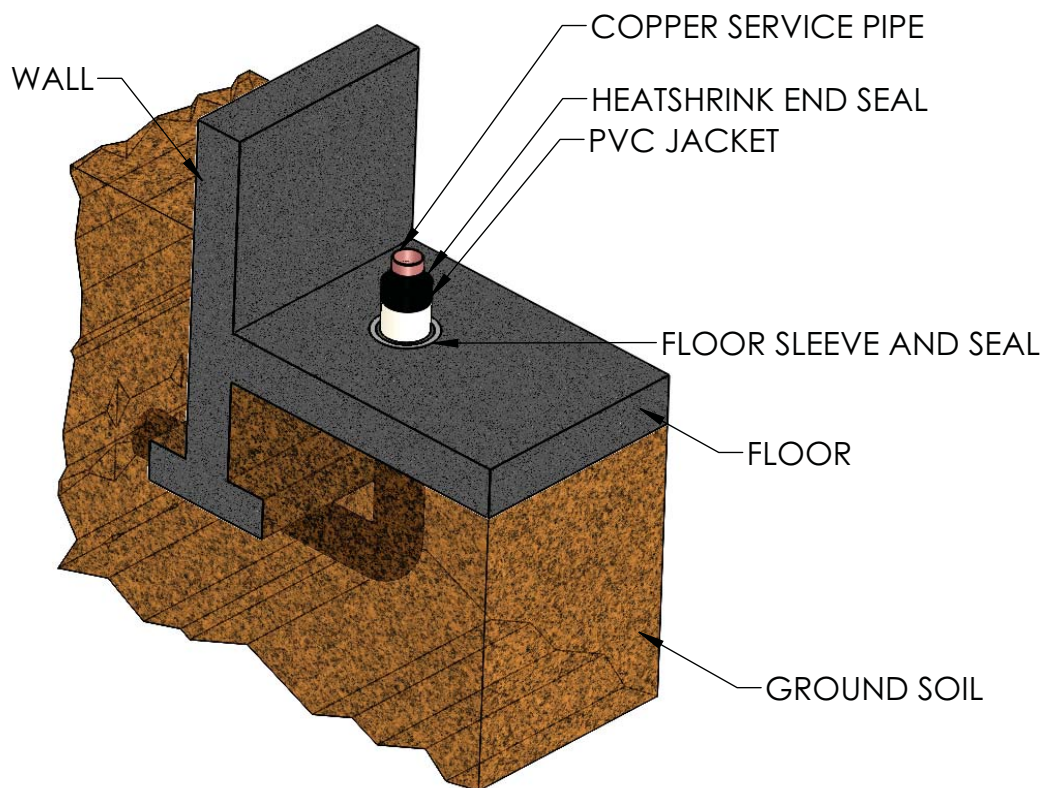
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CU-10

SHEET



**WALL PENETRATION DETAIL**



**BUILDING RISER DETAIL**



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SHEET TITLE

HEAT SHRINK END SEAL DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

DATE

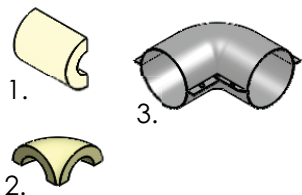
12/01/16

DWG. NO.

CU-10

SHEET

### STEP #1: Gather Materials

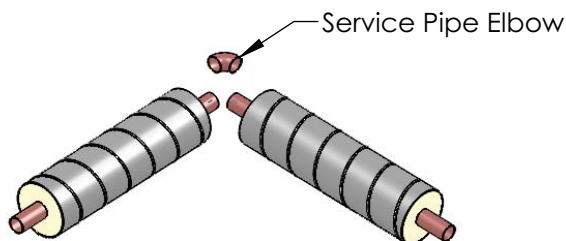


The field joint kit includes:  
1. Urethane pipe covering (3-ft sections)  
2. Urethane Elbow  
3. Stainless Steel Cover



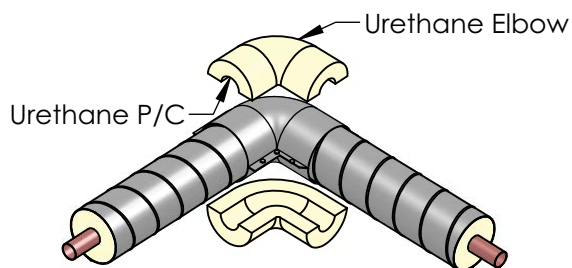
Equipment List:  
Razor knife, saw, and safety glasses.

### STEP #2: Join Service Pipe



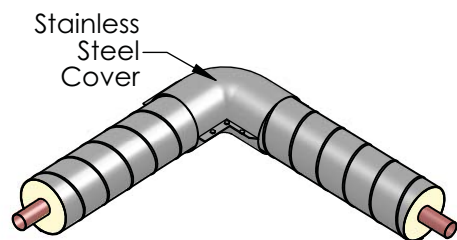
Solder/braze the fitting to the service pipe and test/check all joints as required.

### STEP #3: Apply Insulation



Make sure the pipe and casing are clean and dry. Fit urethane elbow over over fitting. Cut the urethane pipe-covering to length using a hand saw. Fit over service pipe and secure in place.

### STEP #4: Fit Cover Over the Insulation



Center the stainless steel cover in place and dry fit. Put a bead of silicone sealant around the casing 1" from each end. Place the two-piece cover over the joint and tighten the bolts.



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SHEET TITLE

90-DEGREE ELBOW KIT (STAINLESS STEEL JACKET)

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

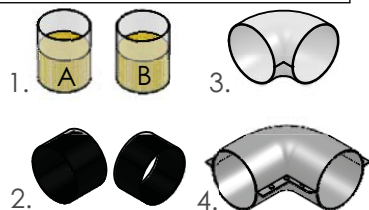
DATE

12/01/16

DWG. NO.

**CU-11**

### STEP #1: Gather Materials



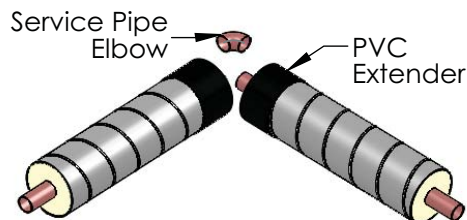
The field joint kit includes:

1. Liquid Urethane Foam Materials
2. PVC Extenders
3. PVC Cover
4. Metal Cover



Equipment List:  
Razor knife, drill, gloves, and safety glasses.

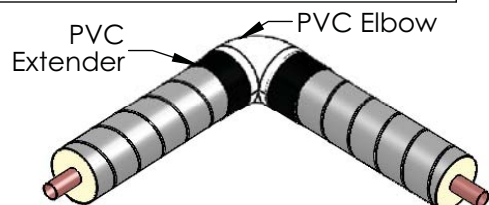
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to solder/braze tee to the service pipe, slide PVC extenders over the casing and move away from the solder/braze point to prevent damage.

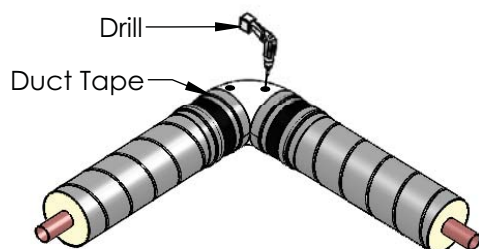
Solder/braze the fitting to the service pipe and test/check all joints as required.

### STEP #3: Fit PVC Cover & Extenders



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

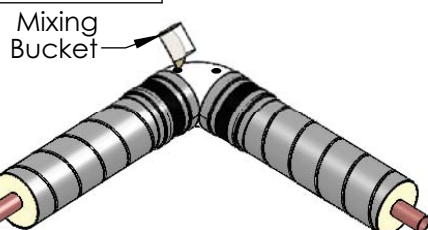
### STEP #4: Secure and Drill Hole in PVC Cover



Wrap seams tightly with duct tape.

Drill two (2) 1" holes into the top of the PVC cover for introduction of polyurethane foam mixture.

### STEP #5: Insulate

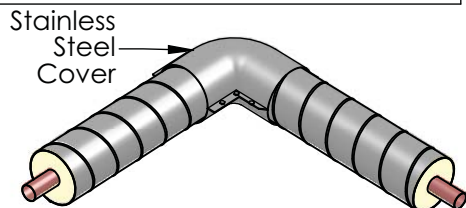


Refer to the chart for the foam amount based on the jacket size. Mix "A" and "B" in a bucket and pour foam into opening. When the foam reacts, temporarily seal the opening with duct tape. Allow 4-5 minutes for reaction to take place.

**Note: Required proportions may vary based on weather conditions and foam thickness (chart based on 1 1/2" nominal insulation thickness). Contact your Tricon representative for more information.**

Jacket Size (In.)	"A" (Oz.)	"B" (Oz.)
3	6	6
4	8	8
5	8	8
6	10	10
8	14	14
10	20	20
12	32	32

### STEP #6: Fit Cover Over the Insulation



Remove the PVC cover, PVC extenders, and tape.

Trim any excess foam, and center the stainless steel cover in place and dry fit. Put a bead of silicone sealant around the casing 1" from each end. Place the two-piece cover over the joint and tighten the bolts.



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SHEET TITLE

90-DEGREE ELBOW KIT - LIQUID FOAM (STAINLESS STEEL JACKET)

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

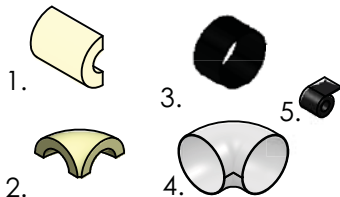
DATE

12/01/16

DWG. NO.

**CU-11**

### STEP #1: Gather Materials



The field joint kit includes:

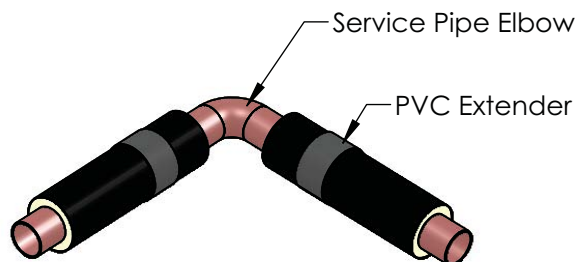
1. Urethane pipe covering (3-ft sections)
2. Urethane Elbow
3. PVC Extenders
4. PVC Cover
5. Pressure-sensitive Tape



#### Equipment List:

Razor knife, Handsaw, and safety glasses.

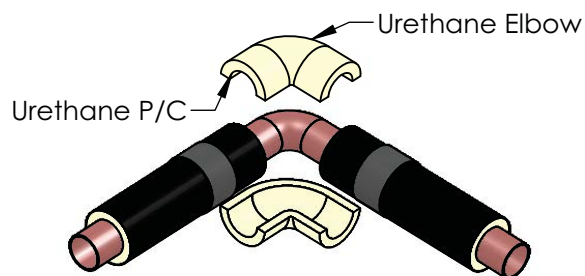
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding service pipe, slide PVC extenders over casing and move away from weld point to prevent damage.

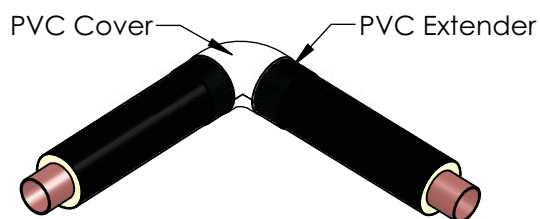
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Apply Insulation



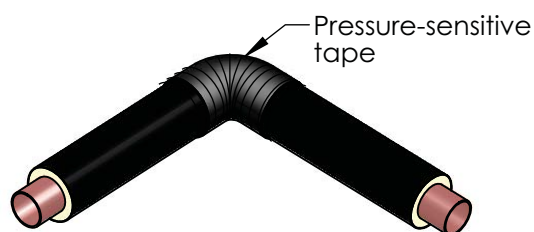
Make sure the pipe and casing are clean and dry. Fit urethane elbow over over fitting. Cut the urethane pipe-covering to length using a hand saw. Fit over service pipe and secure in place.

### STEP #4: Fit PVC over the insulation



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

### STEP #5: Tape wrap



Spiral wrap fitting with pressure-sensitive tape as shown.

Note: In colder weather, tape must be kept warm until time of use.



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SHEET TITLE

90 DEGREE ELBOW KIT (RIGID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

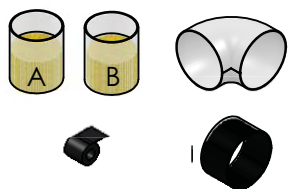
DATE

12/01/2016

DWG. NO.

**CU-12**

### STEP #1: Gather Materials

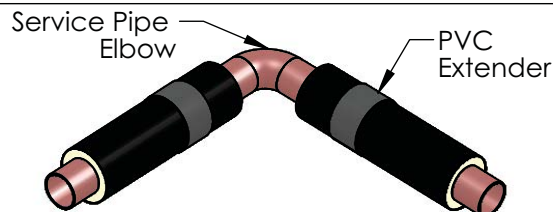


- The field joint kit includes:
1. Liquid Urethane Foam Materials
  2. PVC Extenders
  3. PVC Cover
  4. Pressure-sensitive Tape



Equipment List:  
Razor knife, drill, gloves, and safety glasses.

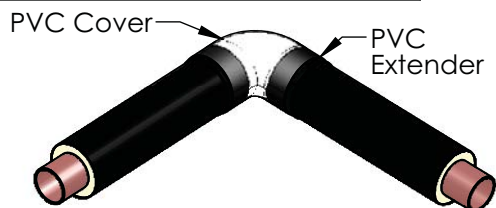
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding service pipe, slide PVC extenders over casing and move away from weld point to prevent damage.

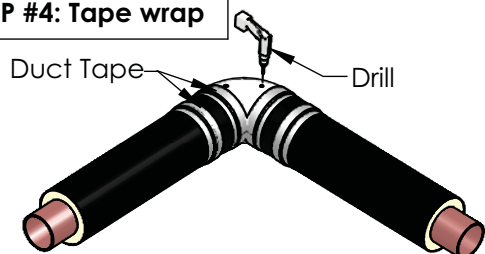
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Fit PVC Cover & Extenders



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

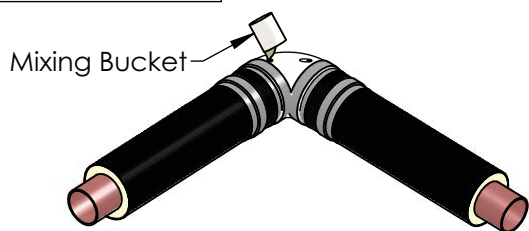
### STEP #4: Tape wrap



Wrap seams tightly with duct tape.

Drill two (2) 1" holes into the top of the PVC cover for introduction of polyurethane foam mixture.

### STEP #5: Insulate

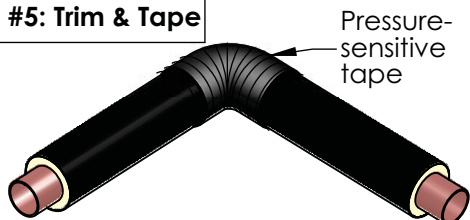


Refer to the chart for the foam amount based on the jacket size. Mix "A" and "B" in a bucket and pour foam into opening. When the foam reacts, temporarily seal the opening with duct tape. Allow 4-5 minutes for reaction to take place.

**Note:** Required proportions may vary based on weather conditions and foam thickness (chart based on 1½" nominal insulation thickness). Contact your Tricon representative for more information.

Jacket Size (In.)	"A" (Oz.)	"B" (Oz.)
3	3	1
4	6	2
5	6	2
6	6	2
8	12	4
10	18	6
12	24	8

### STEP #5: Trim & Tape



Trim off excess material after curing is complete.

Spiral wrap fitting with pressure-sensitive tape as shown.

**Note:** In colder weather, tape must be kept warm until time of use.



**TRICON**

Piping Systems, Inc.®

P.O. BOX 361, Canastota, NY 13032  
p (315)697-8787 f (315)697-8788

SHEET TITLE

90 DEGREE ELBOW KIT (LIQUID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

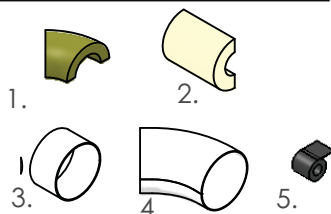
DATE

12/01/2016

DWG. NO.

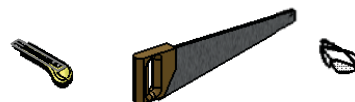
**CU-12**

### STEP #1: Gather Materials



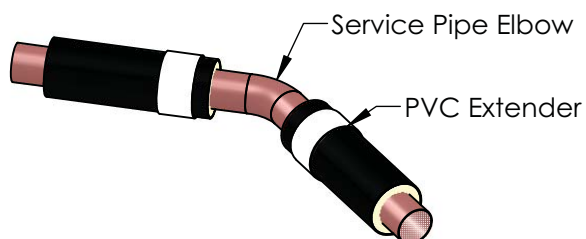
The field joint kit includes:

1. Urethane pipe covering (3-ft sections)
2. Urethane Elbow
3. PVC Extenders
4. PVC Cover
5. Pressure-sensitive Tape



**Equipment List:**  
Razor knife, Handsaw, and safety glasses.

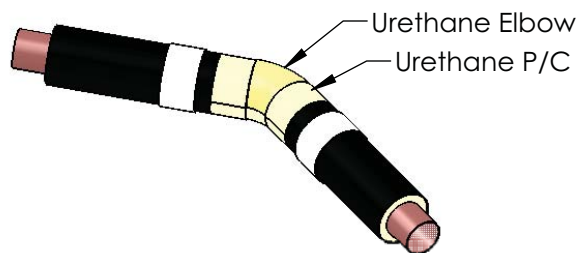
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding service pipe, slide PVC extenders over casing and move away from weld point to prevent damage.

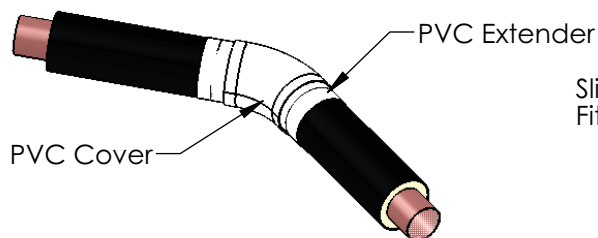
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Apply Insulation



Make sure the pipe and casing are clean and dry. Fit urethane elbow over over fitting. Cut the urethane pipe-covering to length using a hand saw. Fit over service pipe and secure in place.

### STEP #4: Fit PVC over the insulation



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

### STEP #5: Tape wrap



Spiral wrap fitting with pressure-sensitive tape as shown.

Note: In colder weather, tape must be kept warm until time of use.



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SHEET TITLE

ELBOW KIT (RIGID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

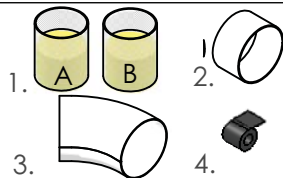
DATE

12/01/2016

DWG. NO.

**CU-13**

### STEP #1: Gather Materials

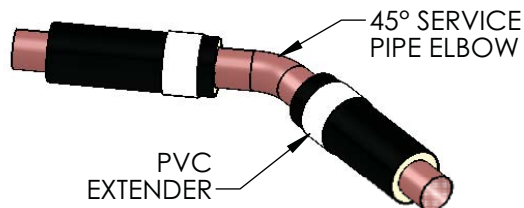


- The field joint kit includes:
1. Liquid Urethane Foam Materials
  2. PVC Extenders
  3. PVC Fitting Cover
  4. Pressure-sensitive Tape



**Equipment List:**  
Razor knife, drill, gloves, and safety glasses.

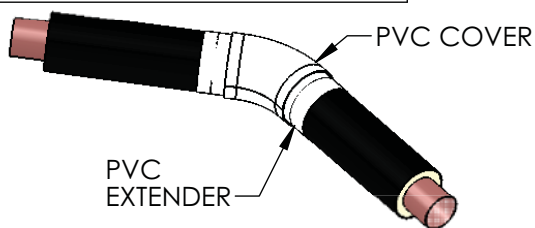
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding service pipe, slide PVC extenders over casing and move away from weld point to prevent damage.

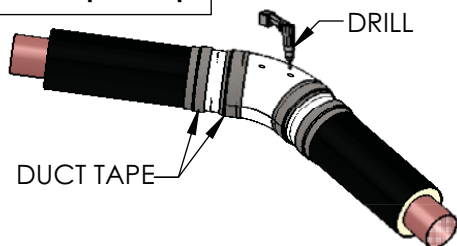
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Fit PVC Cover & Extenders



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

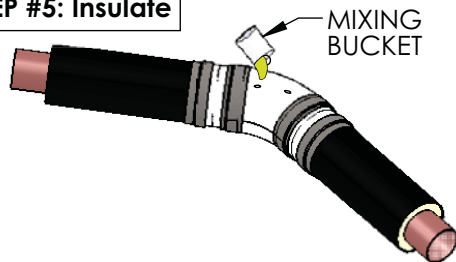
### STEP #4: Tape wrap



Wrap seams tightly with duct tape.

Drill two (2) 1" holes into the top of the PVC cover for introduction of polyurethane foam mixture.

### STEP #5: Insulate

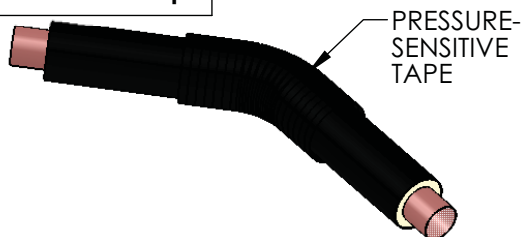


Refer to the chart for the foam amount based on the jacket size. Mix "A" and "B" in a bucket and pour foam into opening. When the foam reacts, temporarily seal the opening with duct tape. Allow 4-5 minutes for reaction to take place.

**Note:** Required proportions may vary based on weather conditions and foam thickness (chart based on 1½" nominal insulation thickness). Contact your Tricon representative for more information.

Jacket Size (In.)	"A" (Oz.)	"B" (Oz.)
3	6	2
4	6	2
5	9	3
6	9	3
8	12	4
10	15	5
12	21	7

### STEP #5: Trim & Tape



Trim off excess material after curing is complete.

Spiral wrap fitting with pressure-sensitive tape as shown.

**Note:** In colder weather, tape must be kept warm until time of use.



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SHEET TITLE

ELBOW KIT (LIQUID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

**NTS**

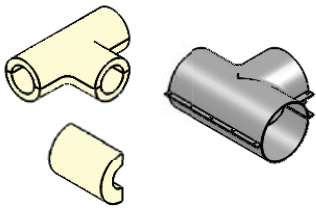
DATE

**12/01/2016**

DWG. NO.

**CU-13**

### STEP #1: Gather Materials



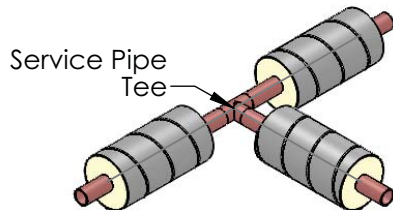
The field joint kit includes:

1. Urethane pipe covering (3-ft sections)
2. Urethane Tee
3. Stainless Steel Cover



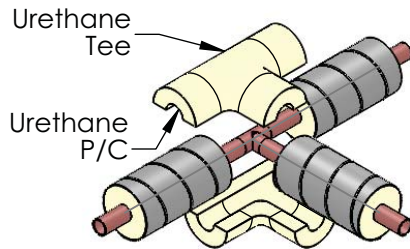
Equipment List:  
Razor knife, saw, and safety glasses.

### STEP #2: Place PVC Extenders and Join Service Pipe



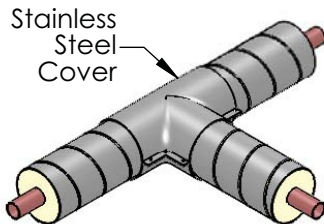
Solder/braze fitting to service pipe and test/check all joints as required.

### STEP #3: Apply Insulation



Make sure the pipe and casing are clean and dry. Fit urethane tee over over fitting. Cut the urethane pipe-covering to length using a hand saw. Fit over service pipe and secure in place.

### STEP #4: Fit Cover Over the Insulation



Center the stainless steel cover in place and dry fit. Put a bead of silicone sealant around the casing 1" from each end. Place the two-piece cover over the joint and tighten the bolts.



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SHEET TITLE

TEE KIT (STAINLESS STEEL JACKET)

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

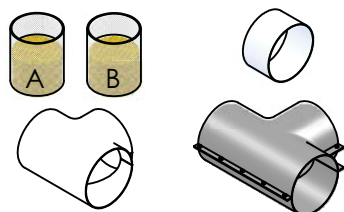
DATE

12/01/16

DWG. NO.

**CU-14**

## STEP #1: Gather Materials

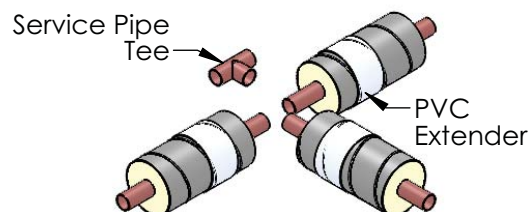


- The field joint kit includes:
1. Liquid Urethane Foam Materials
  2. PVC Extenders
  3. PVC Cover
  4. Metal Cover



Equipment List:  
Drill, gloves, knife, and safety glasses.

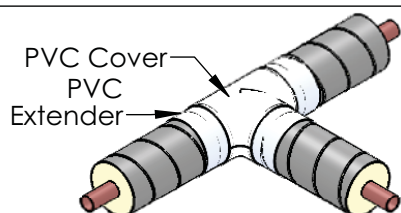
## STEP #2: Place PVC Extenders and Join Service Pipe



Prior to solder/brazing tee to the service pipes, slide PVC extenders over casing and move away from solder/braze point to prevent damage.

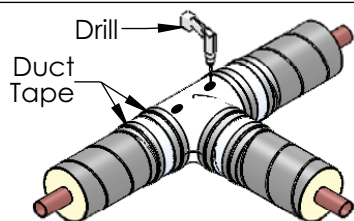
Weld fitting to service pipe and test/check all joints as required.

## STEP #3: Install PVC Cover & Entender



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

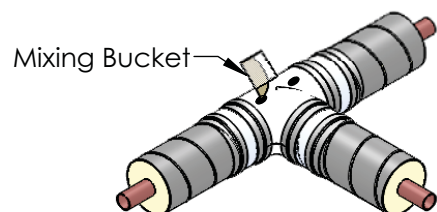
## STEP #4: Secure and drill hole in PVC Cover



Wrap seams tightly with duct tape.

Drill two (2) 1" holes into the top of the PVC cover for introduction of polyurethane foam mixture.

## STEP #5: Insulate

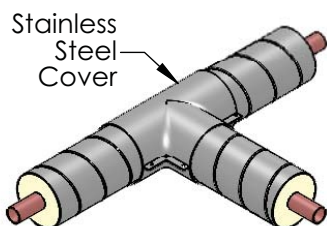


Refer to the chart for the foam amount based on the jacket size. Mix "A" and "B" in a bucket and pour foam into opening. When the foam reacts, temporarily seal the opening with duct tape. Allow 4-5 minutes for reaction to take place.

**Note:** Required proportions may vary based on weather conditions and foam thickness (chart based on 1½" nominal insulation thickness). Contact your Tricon representative for more information.

Jacket Size (In.)	"A" (Oz.)	"B" (Oz.)
3	9	9
4	12	12
5	12	12
6	15	15
8	21	21
10	30	30
12	48	48

## STEP #6: Fit Cover Over the Insulation



Remove the PVC cover, PVC extenders, and tape.

Trim any excess foam, and center the stainless steel cover in place and dry fit. Put a bead of silicone sealant around the casing 1" from each end. Place the two-piece cover over the joint and tighten the bolts.



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SHEET TITLE

TEE KIT - LIQUID FOAM (STAINLESS STEEL JACKET)

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

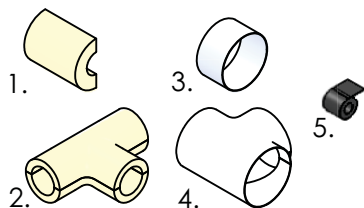
DATE

12/01/16

DWG. NO.

**CU-14**

### STEP #1: Gather Materials



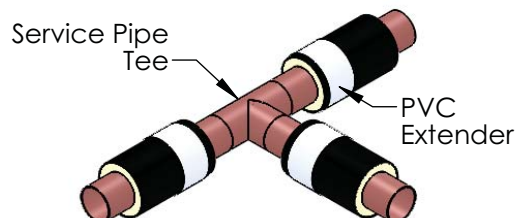
The field joint kit includes:

1. Urethane pipe covering (3-ft sections)
2. Urethane Tee
3. PVC Extenders
4. PVC Cover
5. Pressure-sensitive Tape



Equipment List:  
Razor knife, drill, and safety glasses.

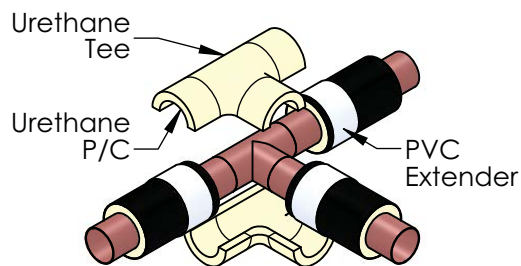
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding the tee to the service pipes, slide PVC extenders over casing and move away from weld point to prevent damage.

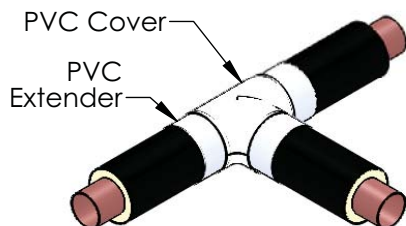
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Apply Insulation



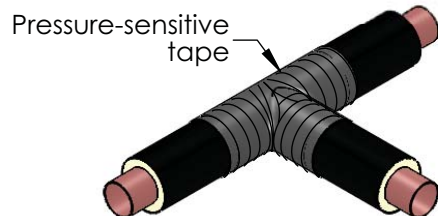
Make sure the pipe and casing are clean and dry. Fit urethane tee over over fitting. Cut the urethane pipe-covering to length using a hand saw. Fit over service pipe and secure in place.

### STEP #4: Fit PVC over the insulation



Slide the PVC extenders in place and secure in place. Fit the PVC cover in place.

### STEP #5: Tape wrap



Spiral wrap fitting with pressure-sensitive tape as shown.

Note: In colder weather, tape must be kept warm until time of use.



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SHEET TITLE

TEE KIT (RIGID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

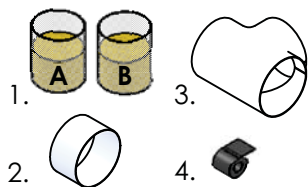
DATE

11/01/2016

DWG. NO.

**CU-15**

### STEP #1: Gather Materials



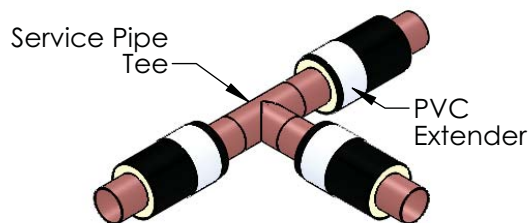
The field joint kit includes:

1. Liquid Urethane Foam Materials
2. PVC Extenders
3. PVC Cover
4. Pressure-sensitive Tape



Equipment List:  
Razor knife, drill, gloves, and safety glasses.

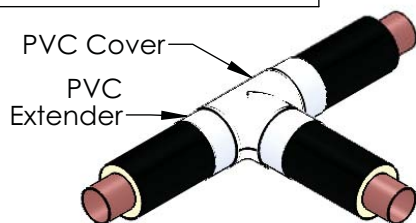
### STEP #2: Place PVC Extenders and Join Service Pipe



Prior to welding tee to the service pipes, slide PVC extenders over casing and move away from weld point to prevent damage.

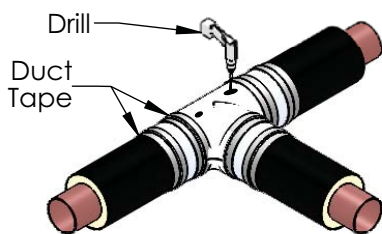
Weld fitting to service pipe and test/check all welds as required.

### STEP #3: Apply Insulation



Slide the PVC extenders in place and secure in place.  
Fit the PVC cover in place.

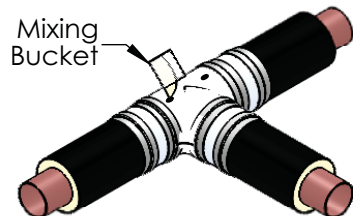
### STEP #3: Apply Insulation



Wrap seams tightly with duct tape.

Drill two (2) 1" holes into the top of the PVC cover for introduction of polyurethane foam mixture.

### STEP #4: Fit PVC over the insulation

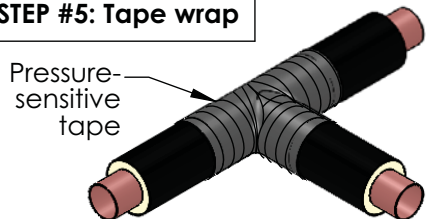


Refer to the chart for the foam amount based on the jacket size. Mix "A" and "B" in a bucket and pour foam into opening. When the foam reacts, temporarily seal the opening with duct tape. Allow 4-5 minutes for reaction to take place.

**Note:** Required proportions may vary based on weather conditions and foam thickness (chart based on 1½" nominal insulation thickness). Contact your Tricon representative for more information.

Jacket Size (In.)	"A" (Oz.)	"B" (Oz.)
3	9	9
4	12	12
5	12	12
6	15	15
8	21	21
10	30	30
12	48	48

### STEP #5: Tape wrap



Trim off excess material after curing is complete.

Spiral wrap fitting with pressure-sensitive tape as shown.

**Note:** In colder weather, tape must be kept warm until time of use.



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SHEET TITLE

TEE KIT (RIGID FOAM) DETAIL

PRODUCT

TRICON COPPER

SIZE

**A**

SCALE

NTS

DATE

11/01/2016

DWG. NO.

**CU-15**