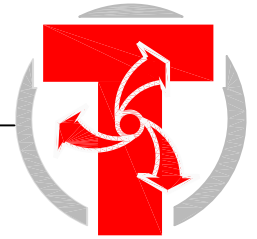


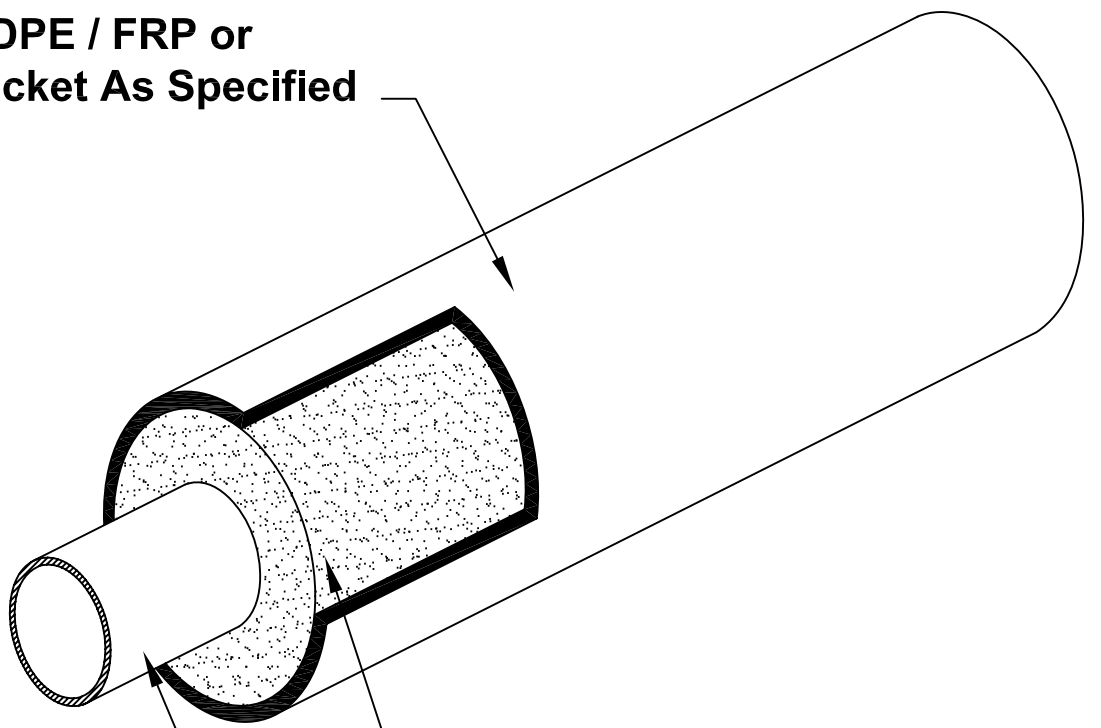
TRICON COPPER PIPE SYSTEM



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**



Polyurethane Foam Insulation

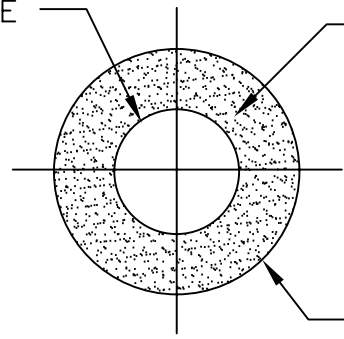
Copper Service Pipe As Specified



TRICON
Piping Systems, Inc. ®

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

COPPER SERVICE PIPE
(TYPE K OR L)



POLYURETHANE
FOAM INSULATION

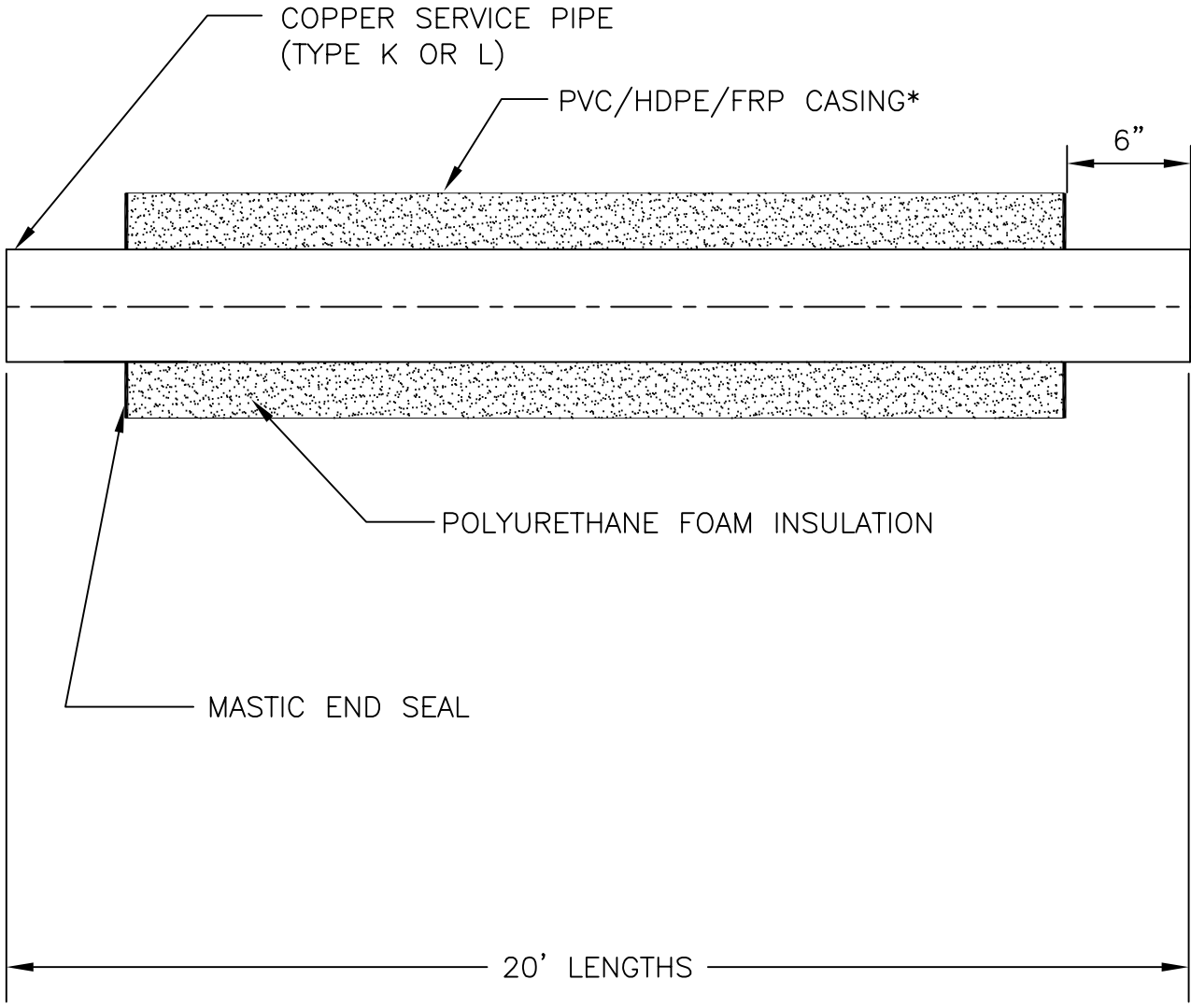
PVC/HDPE/FRP CASING*

END VIEW
NOT TO SCALE

COPPER SERVICE PIPE
(TYPE K OR L)

PVC/HDPE/FRP CASING*

6"



POLYURETHANE FOAM INSULATION

MASTIC END SEAL

20' LENGTHS

* OPTIONAL METAL JACKET AVAILABLE FOR ABOVE GRADE APPLICATION.

COPPER STRAIGHT LENGTH DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No.:Cu-1

Rev.:

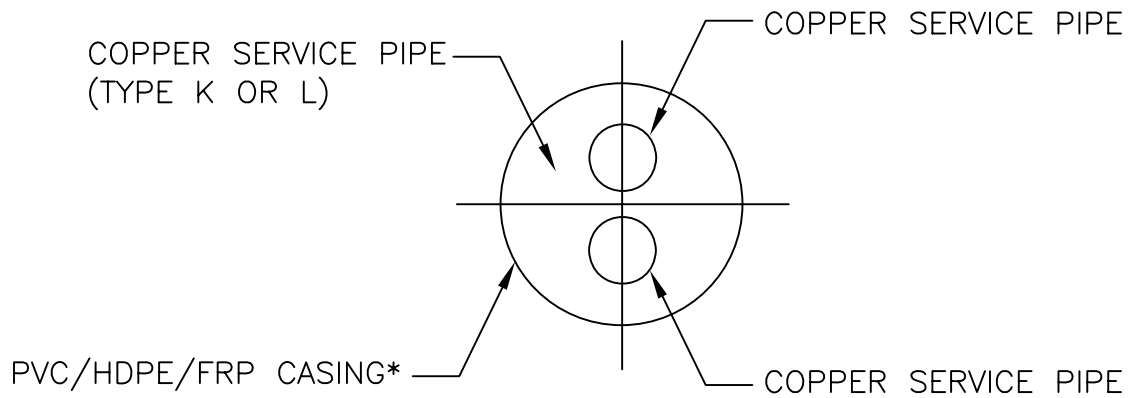


TRICON

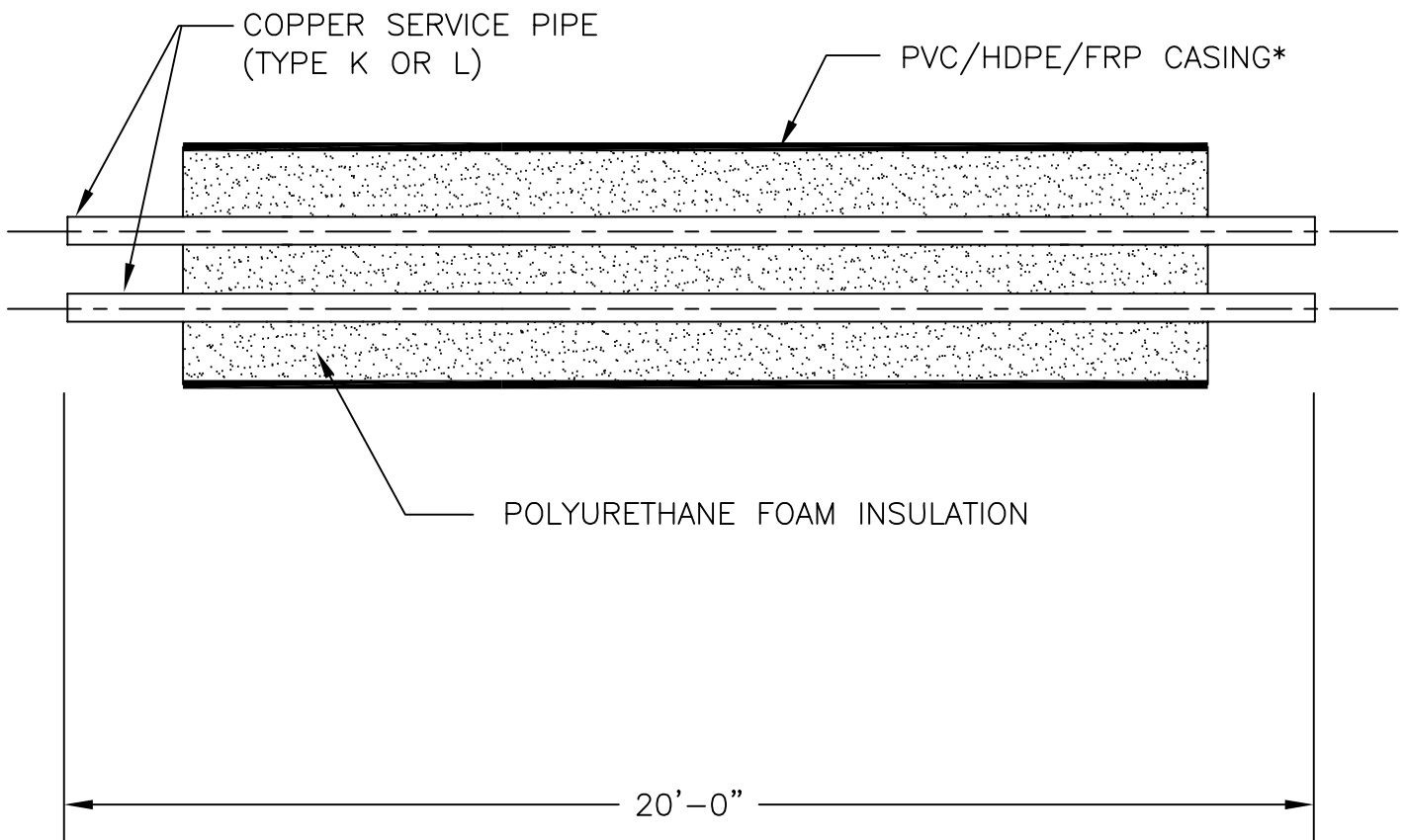
Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788



END VIEW
NOT TO SCALE



* OPTIONAL METAL JACKET AVAILABLE FOR ABOVE GRADE APPLICATION.

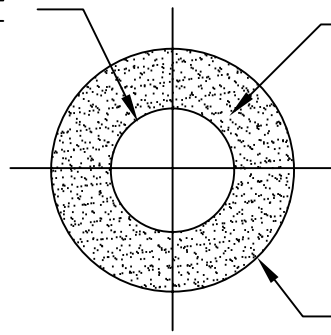
DOUBLE COPPER STRAIGHT LENGTH DETAIL

TRICON COPPER

Date: 03/09/06 Dwg. No.:Cu-1A
Rev.:

TRICON
Piping Systems, Inc.®
P.O. Box 361, Canastota, New York 13032
Tel: 315.697.8787 Fax: 315.697.8788

COPPER SERVICE PIPE
(TYPE K OR L)

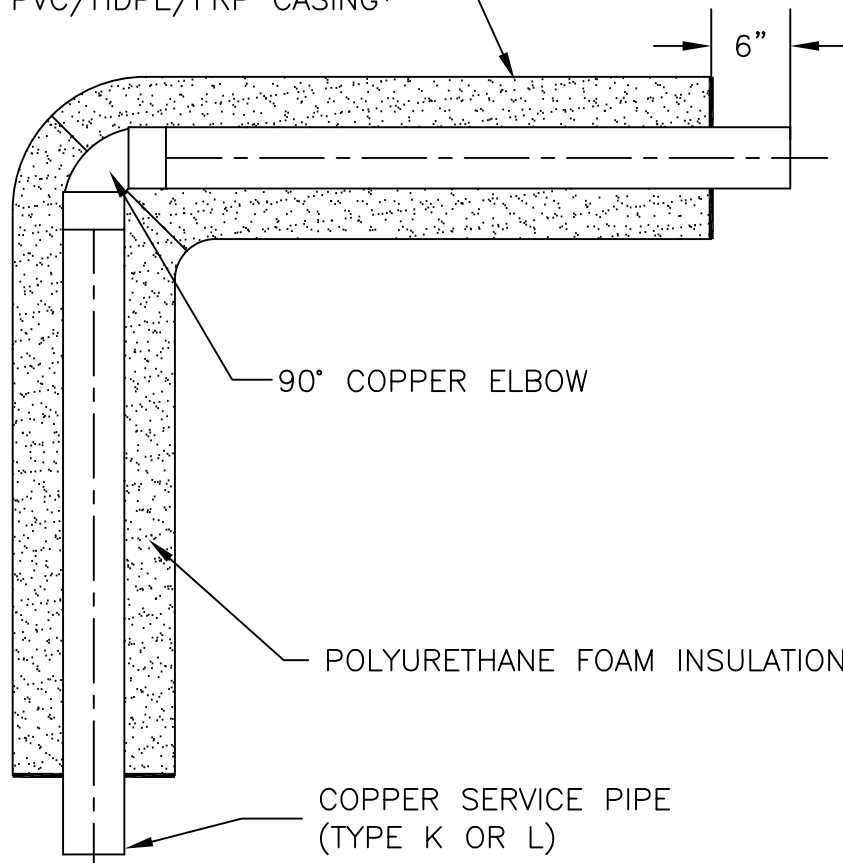


POLYURETHANE FOAM INSULATION

PVC/HDPE/FRP CASING*

END VIEW
NOT TO SCALE

PVC/HDPE/FRP CASING*



6"

90° COPPER ELBOW

POLYURETHANE FOAM INSULATION

COPPER SERVICE PIPE
(TYPE K OR L)

* OPTIONAL METAL JACKET AVAILABLE FOR ABOVE GRADE APPLICATION.

COPPER PREFABRICATED 90° ELBOW DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-2

Rev.:



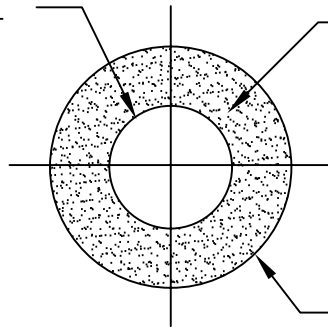
TRICON

Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788

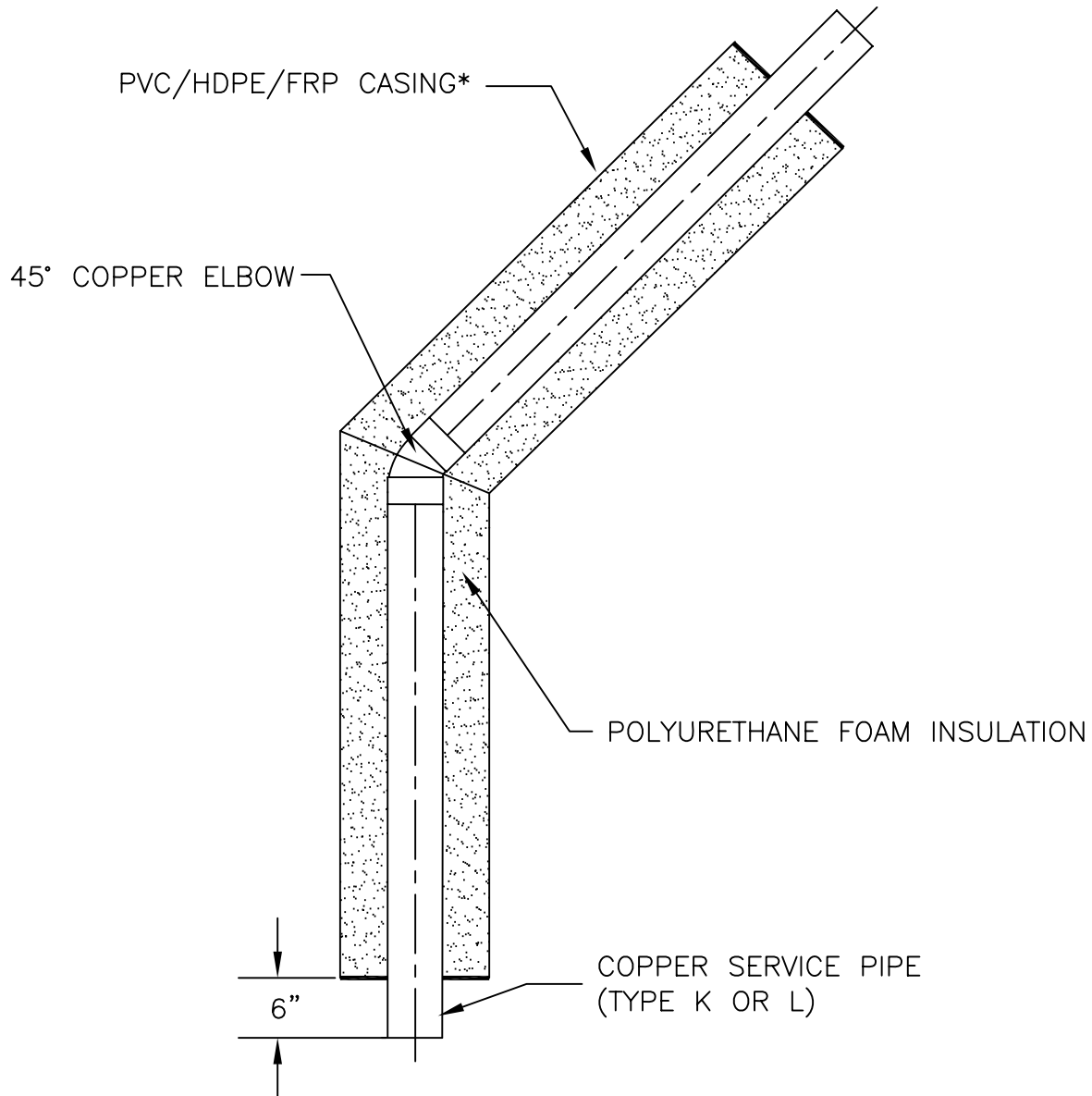
COPPER SERVICE PIPE
(TYPE K OR L)



POLYURETHANE FOAM INSULATION

PVC/HDPE/FRP CASING*

END VIEW
NOT TO SCALE



* OPTIONAL METAL JACKET AVAILABLE FOR ABOVE GRADE APPLICATION.

COPPER PREFABRICATED 45° ELBOW DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-3

Rev.:



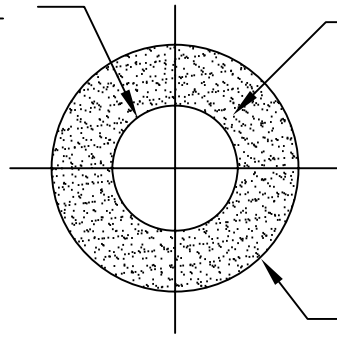
TRICON

Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788

COPPER SERVICE PIPE
(TYPE K OR L)



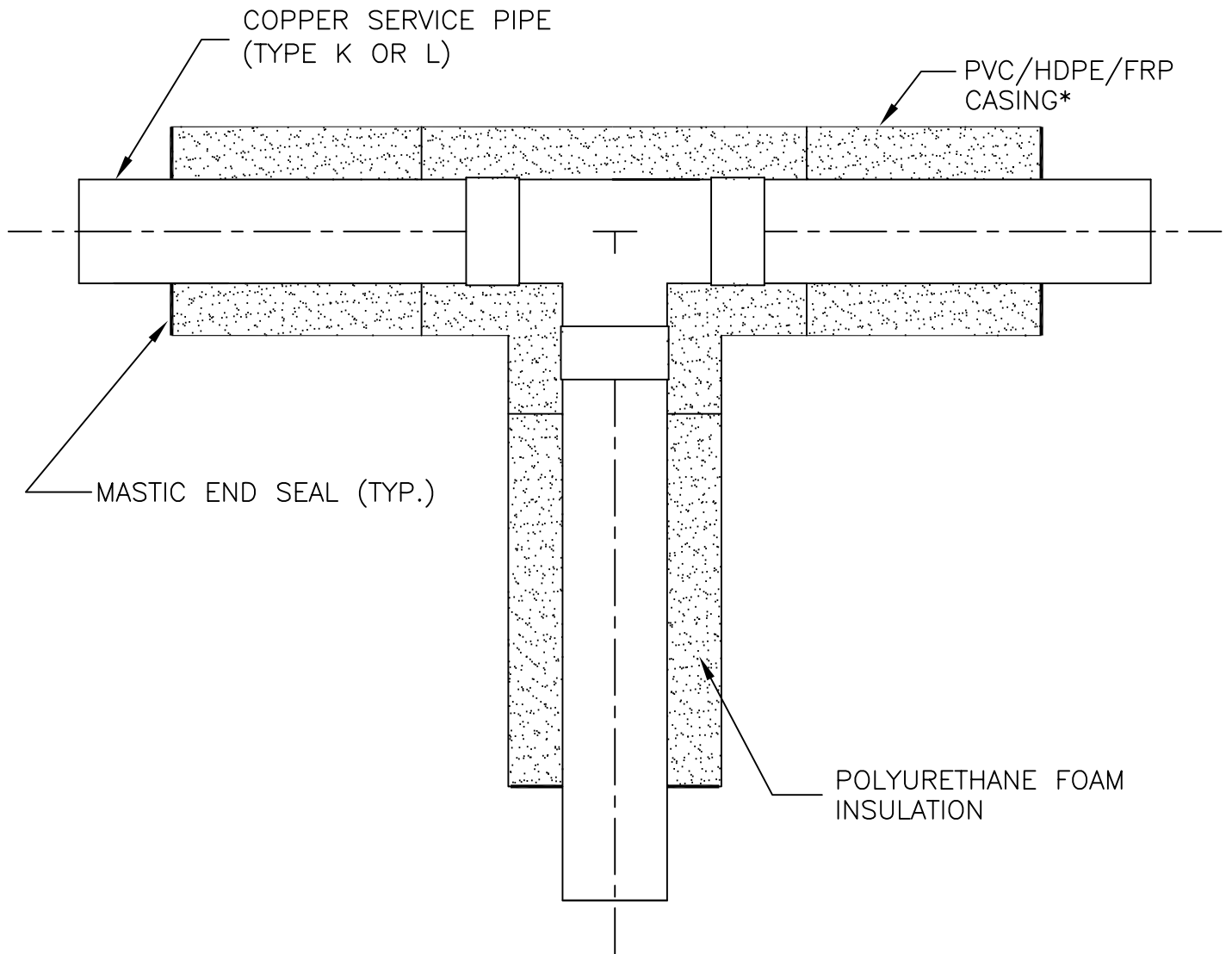
POLYURETHANE FOAM INSULATION

PVC/HDPE/FRP CASING*

END VIEW
NOT TO SCALE

COPPER SERVICE PIPE
(TYPE K OR L)

PVC/HDPE/FRP
CASING*



MASTIC END SEAL (TYP.)

POLYURETHANE FOAM
INSULATION

* OPTIONAL METAL JACKET AVAILABLE FOR ABOVE GRADE APPLICATION.

COPPER TEE DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-4

Rev.:

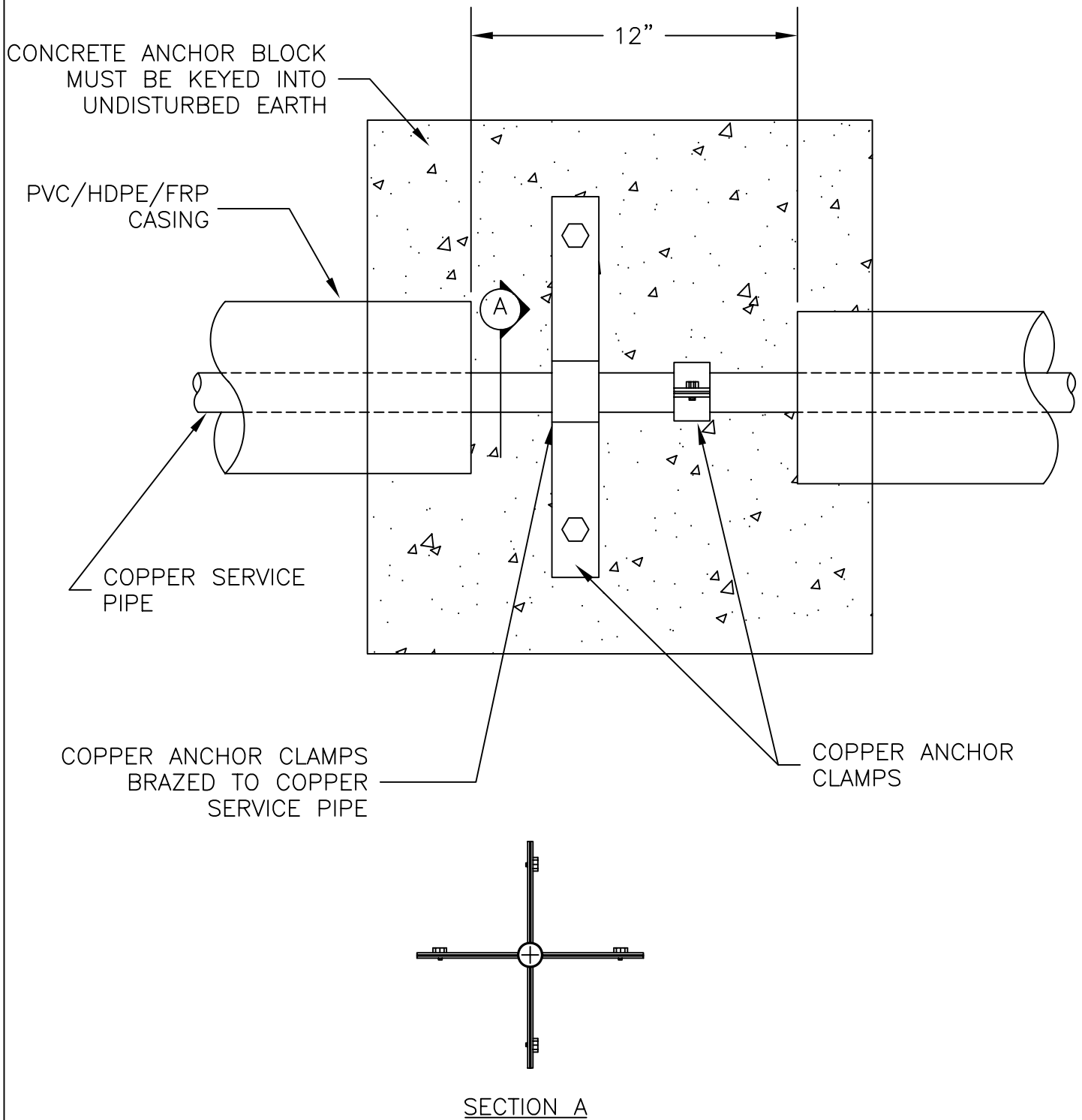


TRICON

Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788



NOTE: CONCRETE ANCHOR BLOCK MUST BE KEYED INTO UNDISTURBED EARTH.
AMOUNT OF CONCRETE BELOW ANCHOR MAY CHANGE ACCORDING TO PIPE SIZE.

COPPER ANCHOR DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No. Cu-5

Rev.:

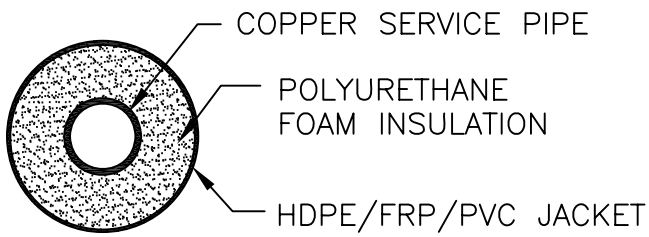


TRICON

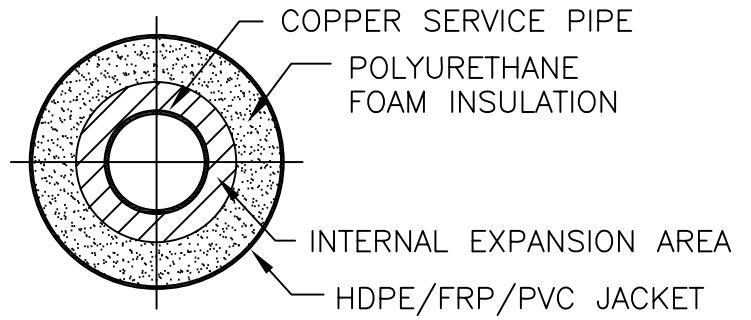
Piping Systems, Inc.®

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

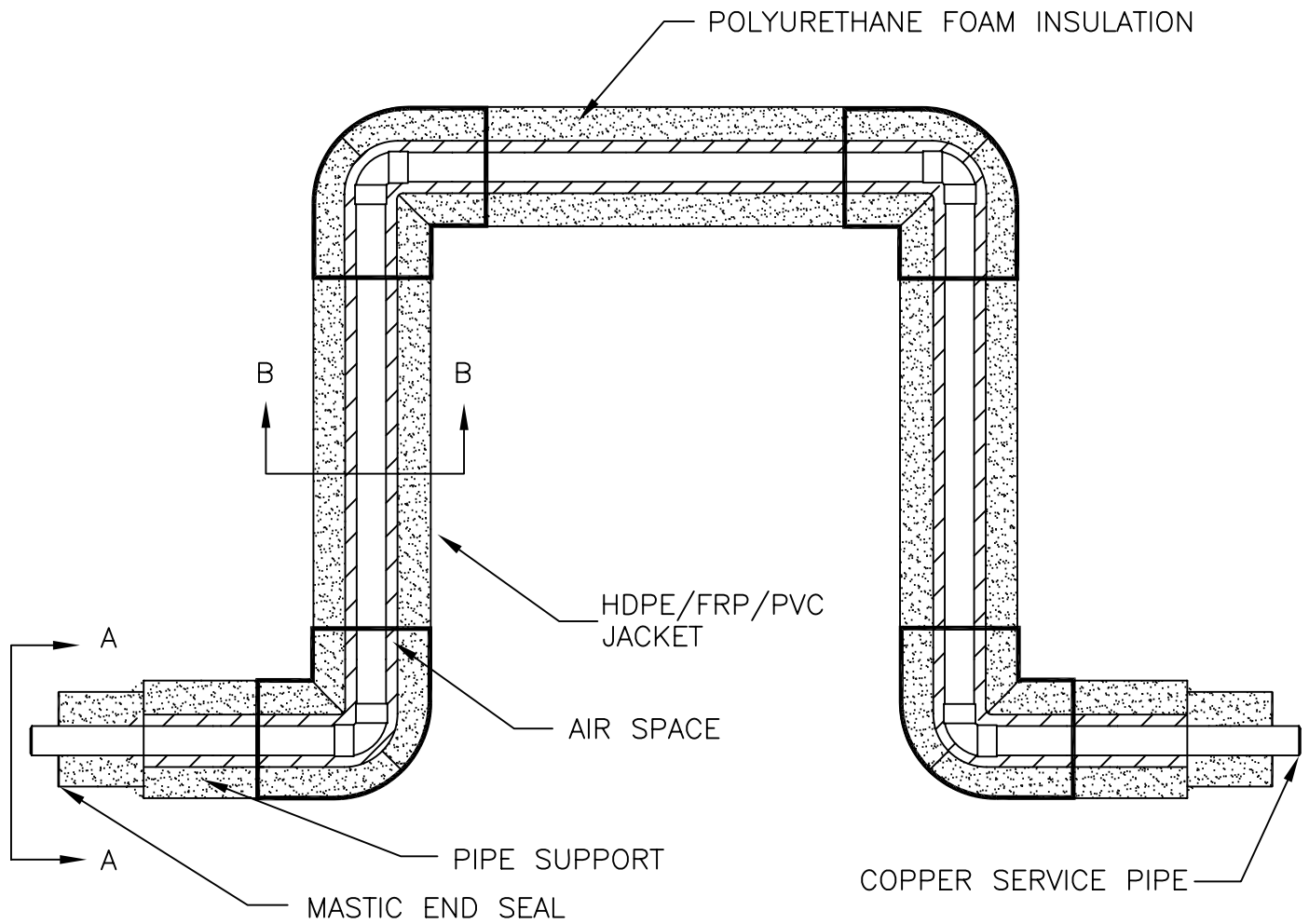
Tel: 315.697.8787 Fax: 315.697.8788



SECTION A-A



SECTION B-B



COPPER INTERNAL EXPANSION LOOP

TRICON COPPER

Date: 03/09/06

Dwg. No. Cu-6

Rev.:

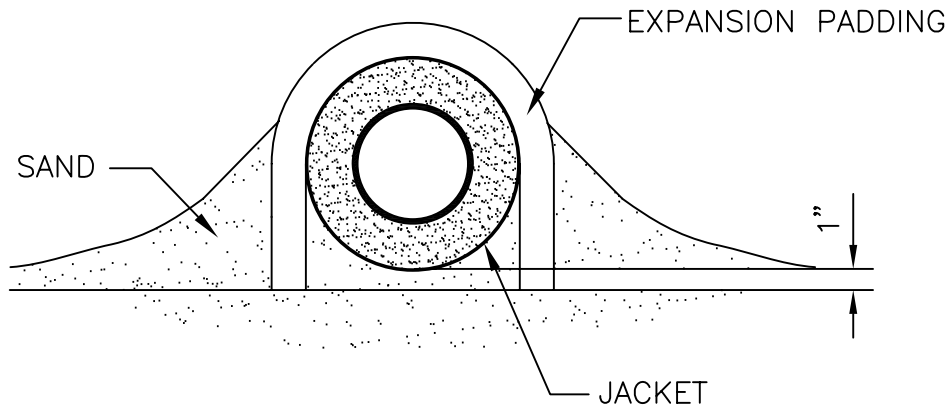


TRICON

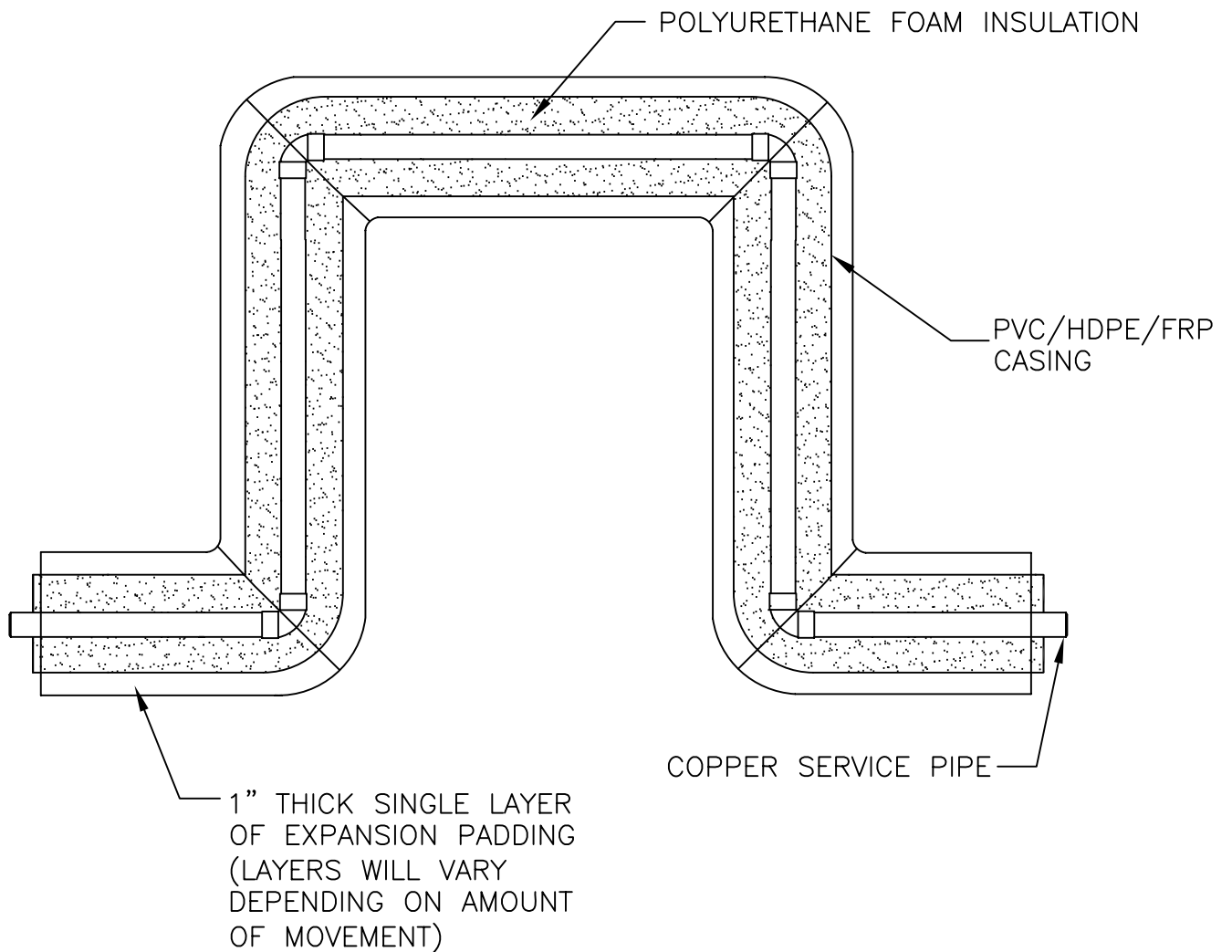
Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788



1. EXPANSION PADDING MATERIAL IS SUPPLIED IN PRECUT LENGTHS AND WIDTHS.
2. WRAP PADDING AROUND THE JACKET FOR A SNUG FIT. HOLD IN PLACE WITH BEDDING SAND.



COPPER LOOP DETAIL WITH EXTERNAL EXPANSION PADDING



TRICON

Piping Systems, Inc.®

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

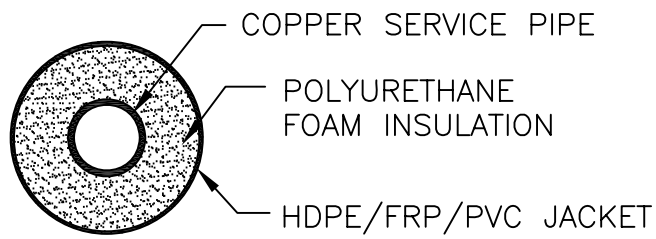
Tel: 315.697.8787 Fax: 315.697.8788

TRICON COPPER

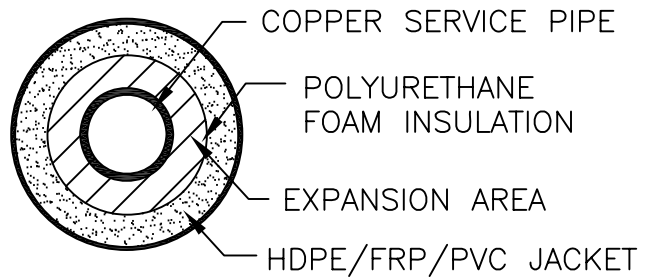
Date: 03/09/06

Dwg. No. Cu-6A

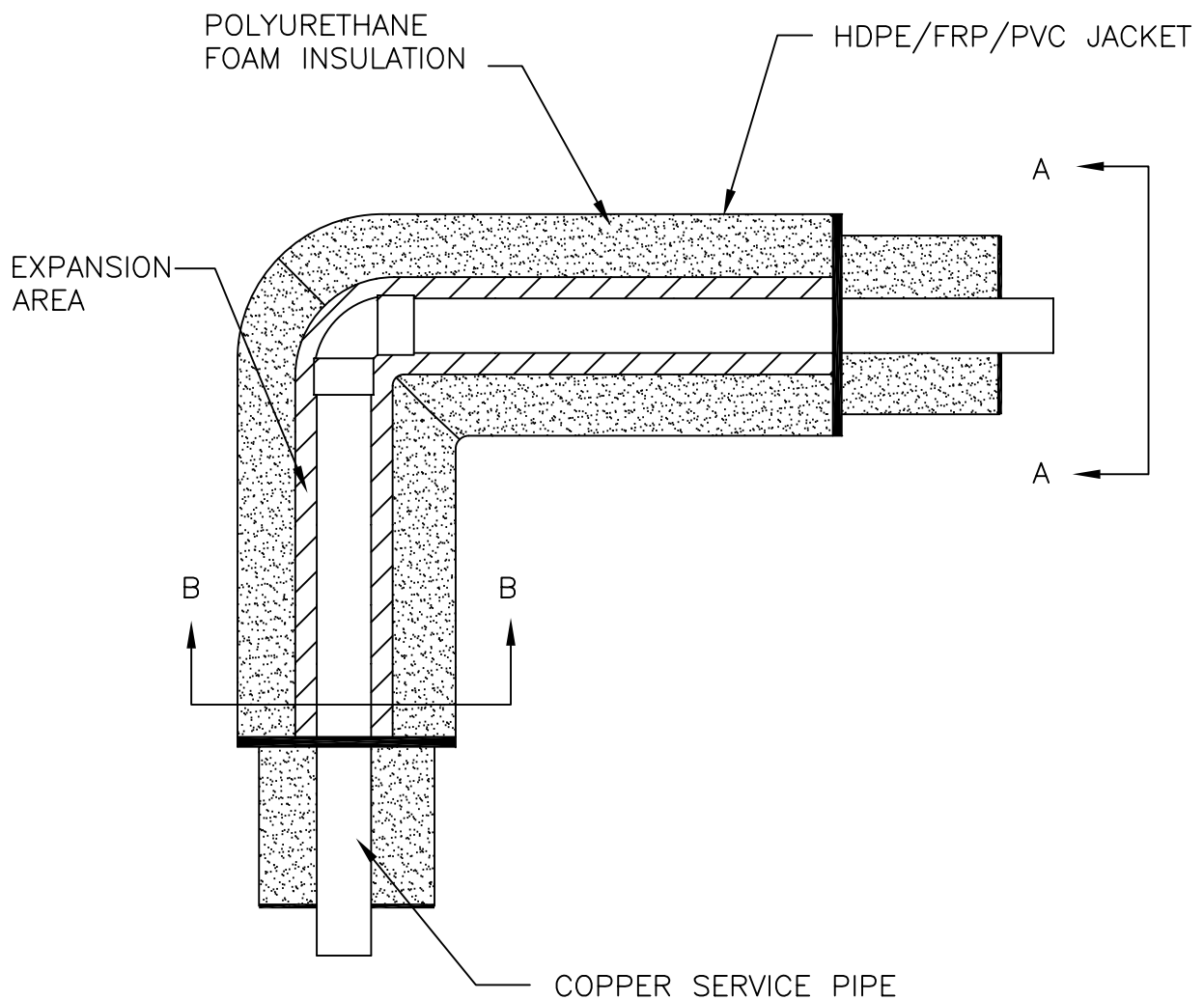
Rev.:



SECTION A-A



SECTION B-B



COPPER EXPANSION 90° ELBOW DETAIL
 WITH INTERNAL EXPANSION

TRICON COPPER

Date: 03/09/06

Dwg. No. Cu-7

Rev.:

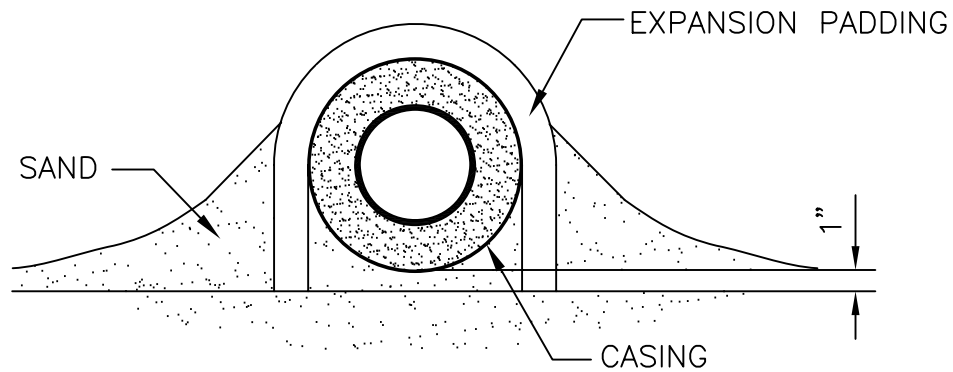


TRICON

Piping Systems, Inc.®

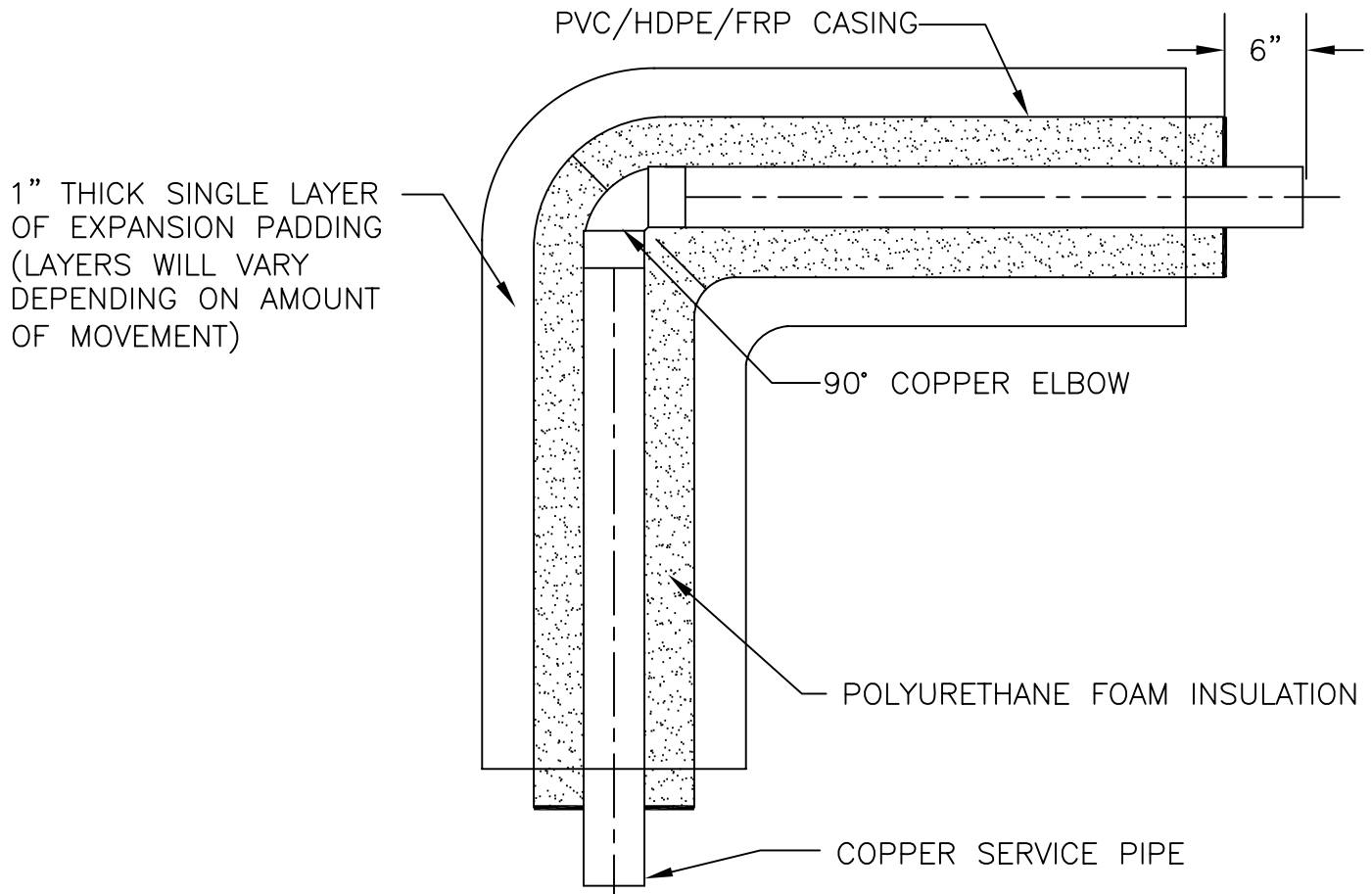
P.O. Box 361, Canastota, New York 13032

Tel: 315.697.8787 Fax: 315.697.8788



1. EXPANSION PADDING MATERIAL IS SUPPLIED IN PRECUT LENGTHS AND WIDTHS.
2. WRAP PADDING AROUND THE JACKET FOR A SNUG FIT. HOLD IN PLACE WITH BEDDING SAND.

NOTE: MAKE SURE TO COVER THE 90° ELBOW COMPLETELY.



COPPER EXPANSION 90° ELBOW DETAIL
WITH EXTERNAL PADDING

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-7A

Rev.:

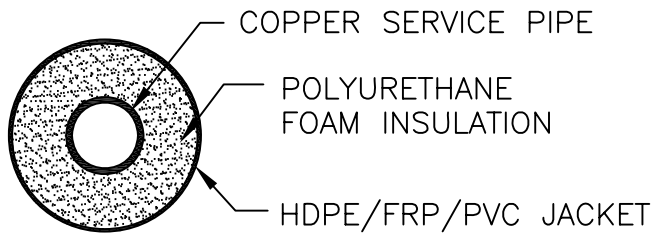


TRICON

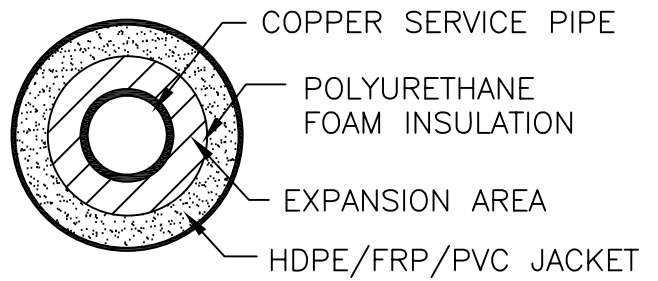
Piping Systems, Inc.®

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

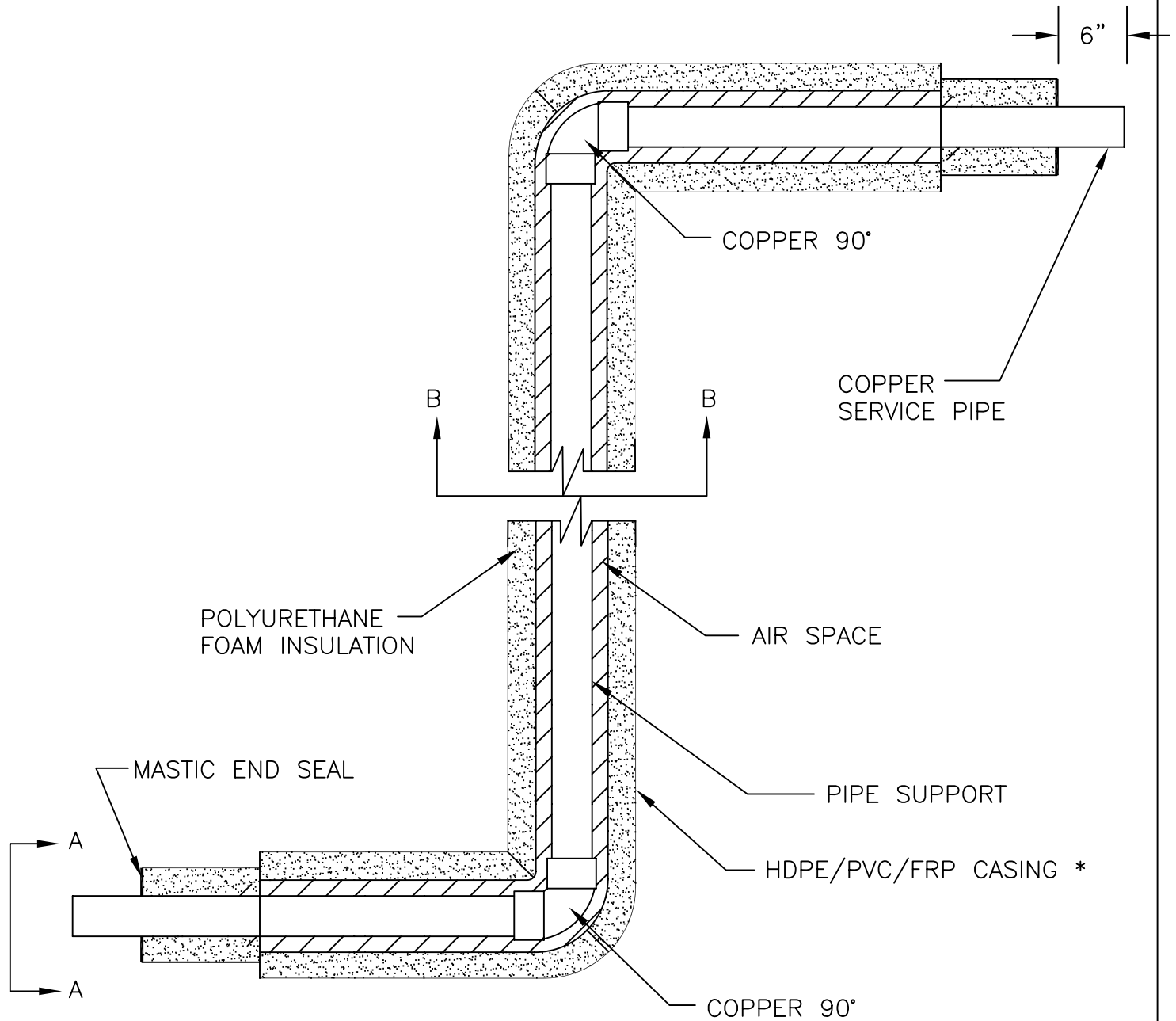
Tel: 315.697.8787 Fax: 315.697.8788



SECTION A-A



SECTION B-B



* CONSULT MANUFACTURER FOR ADDITIONAL CASINGS

COPPER EXPANSION "Z" BEND DETAIL
WITH INTERNAL EXPANSION

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-8

Rev.:

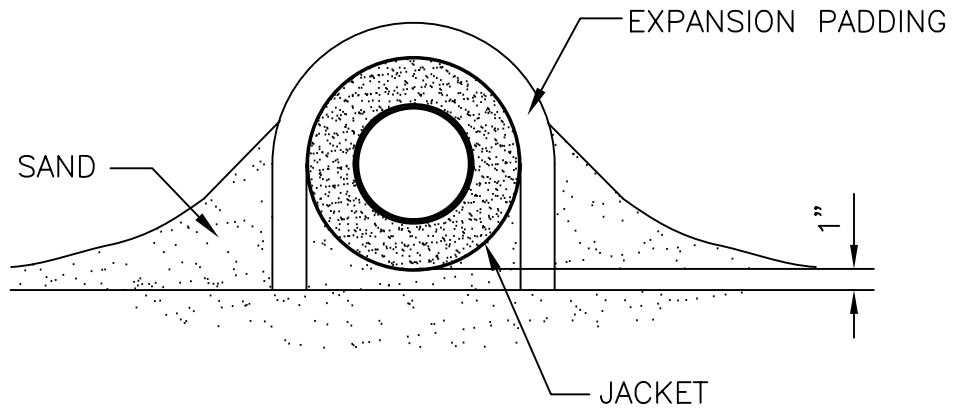


TRICON

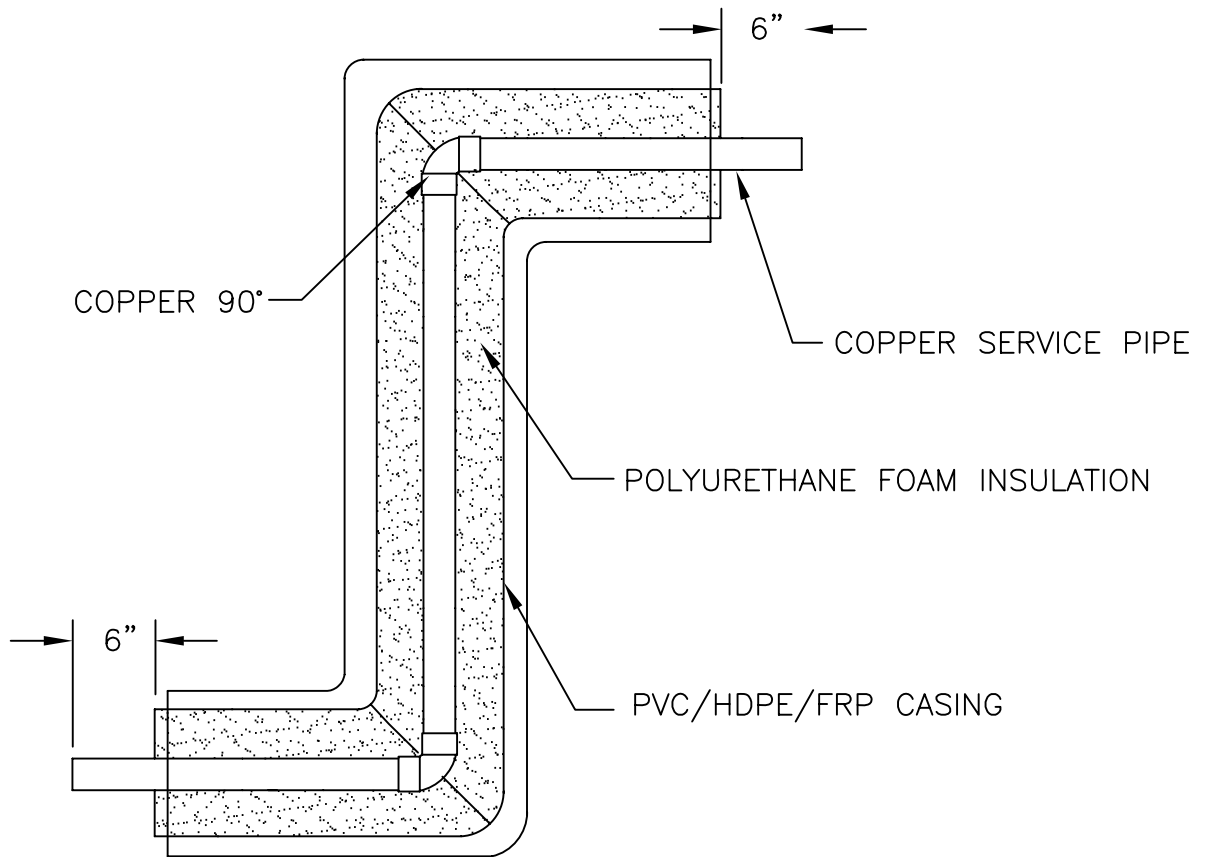
Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788



1. EXPANSION PADDING MATERIAL IS SUPPLIED IN PRECUT LENGTHS AND WIDTHS.
2. WRAP PADDING AROUND THE JACKET FOR A SNUG FIT.
HOLD IN PLACE WITH BEDDING SAND.



COPPER EXPANSION "Z" BEND DETAIL
WITH EXTERNAL PADDING

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-8A

Rev.:

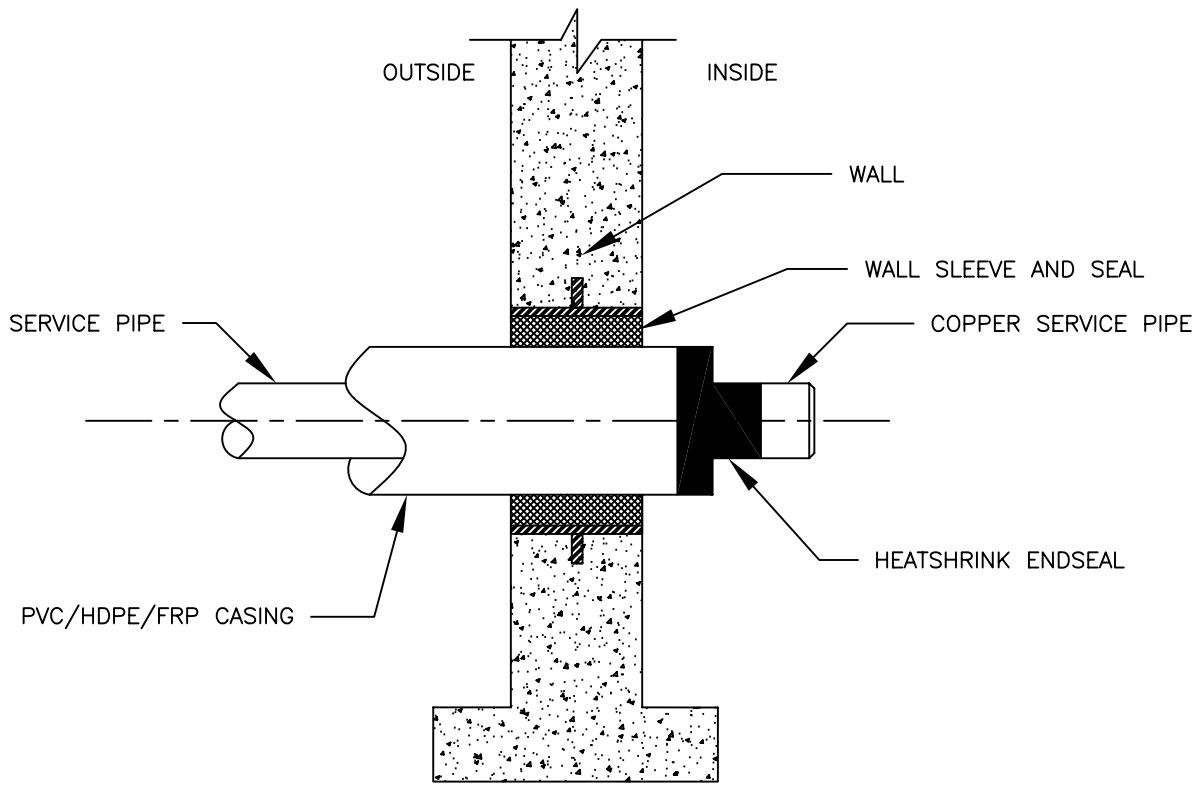


TRICON

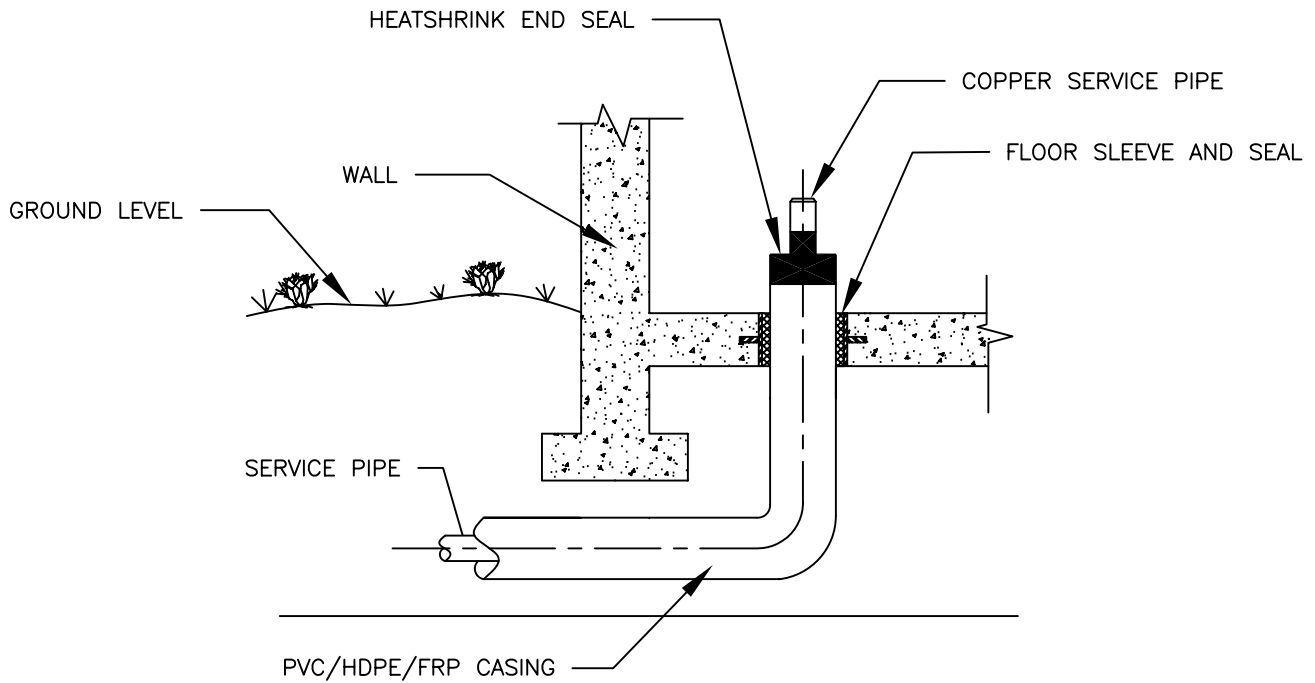
Piping Systems, Inc.®

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

Tel: 315.697.8787 Fax: 315.697.8788



WALL PENETRATION DETAIL



BUILDING RISER DETAIL

HEATSHRINK END SEAL DETAIL

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-9

Rev.:



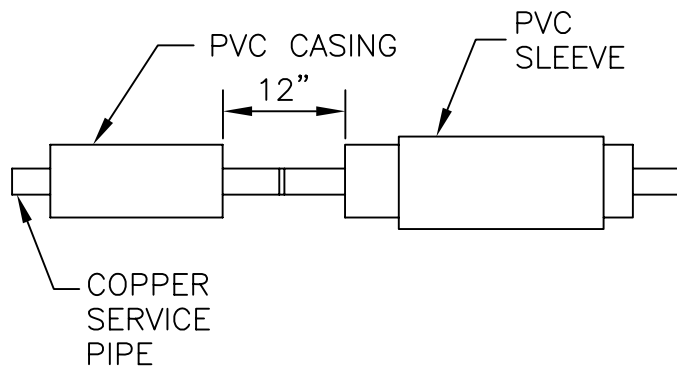
TRICON

Piping Systems, Inc.®

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

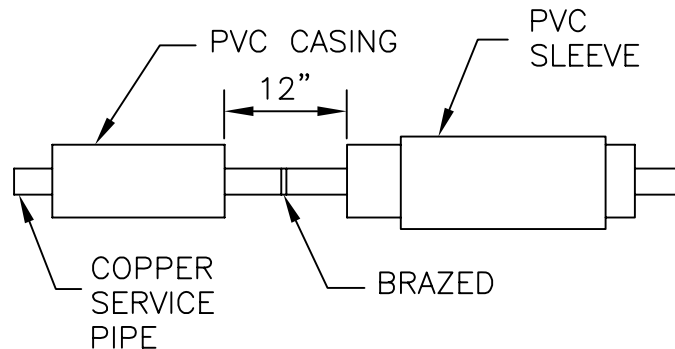
Tel: 315.697.8787 Fax: 315.697.8788

PHASE 1



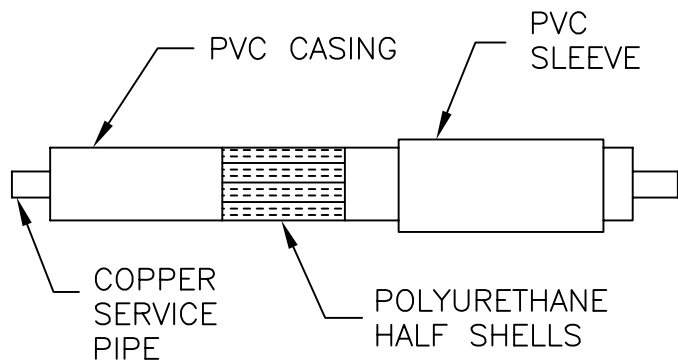
PRIOR TO BRAZING COPPER PIPE, SLIDE PVC SLEEVE OVER PVC CASING AND MOVE AWAY FROM BRAZE POINT TO PREVENT DAMAGE.

PHASE 2



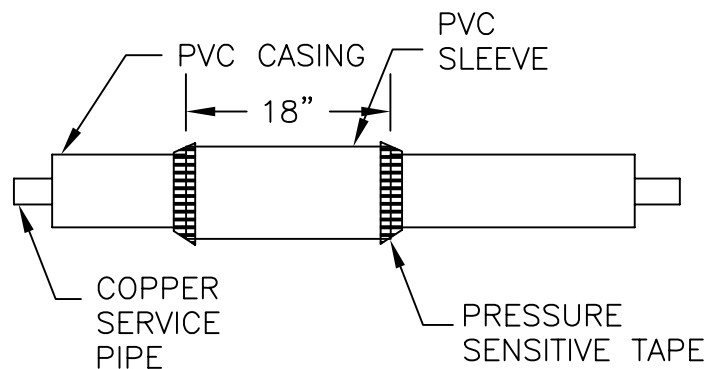
TEST ALL BRAZED JOINTS AS REQUIRED.

PHASE 2



FIT POLYURETHANE FOAM HALF SHELLS OVER SERVICE PIPE AND SECURE IN PLACE.

PHASE 4



SLIDE PVC SLEEVE ONTO CENTER OF JOINT OVER INSULATION. APPLY A WRAP OF PRESSURE SENSITIVE TAPE AROUND THE AREA WHERE THE CASING AND SLEEVE MEET. ALLOW A 2" OVERLAP OF TAPE ONTO BOTH SURFACES.

IN COLDER WEATHER, TAPE MUST BE KEPT WARM UNTIL TIME OF USE.

COPPER FIELD JOINT KIT DETAIL WITH RIGID POLYURETHANE FOAM & PVC CASING.

TRICON COPPER

Date: 03/09/06 Dwg. No.: Cu-10A

Rev.:



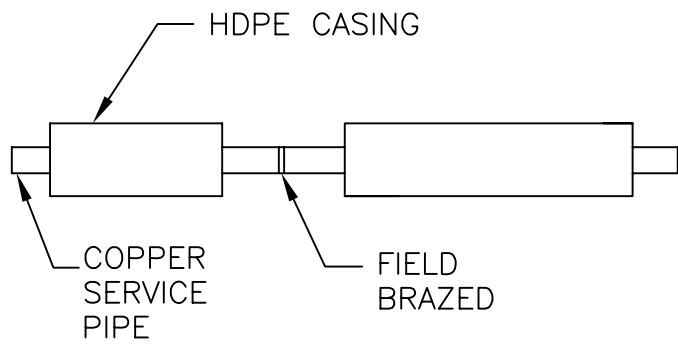
TRICON

Piping Systems, Inc.®

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

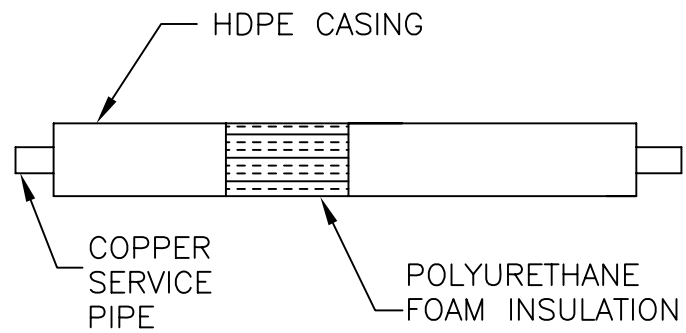
Tel: 315.697.8787 Fax: 315.697.8788

PHASE 1



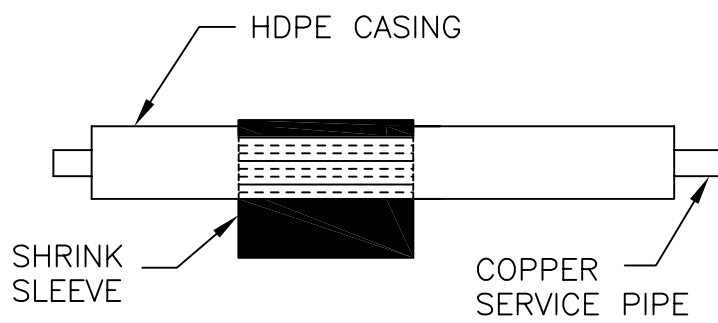
AFTER BRAZING SERVICE PIPE, TEST PER RECOMMENDATIONS.

PHASE 2



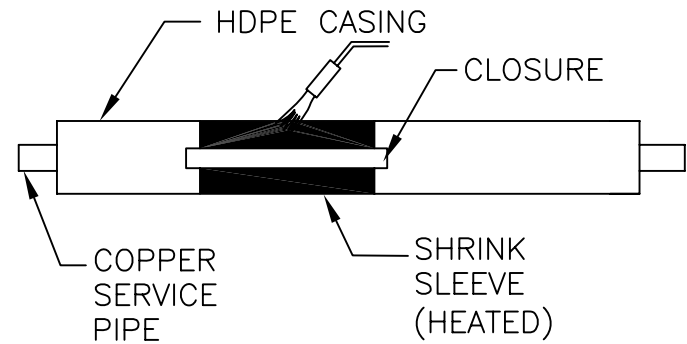
INSTALL RIGID URETHANE INSULATION TO PIPE. SECURE IN PLACE TO HDPE CASING

PHASE 3



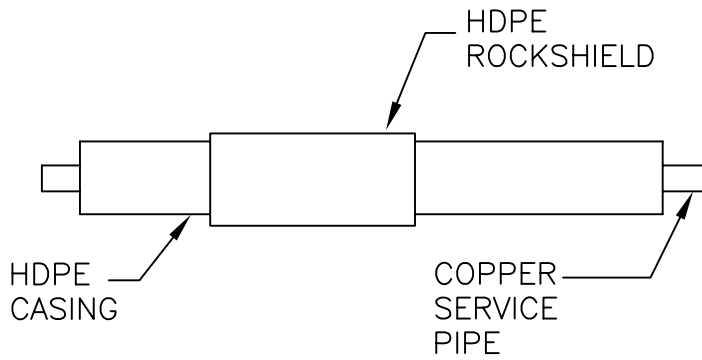
REMOVE RELEASE LINER AND PLACE SHRINK SLEEVE AROUND JOINT AND PIPE INSULATION. OVERLAP SLEEVE AT THE 10 TO 12 O'CLOCK POSITION. GENTLY HEAT BACKING OF SLEEVE AND CLOSURE. PRESS THE CLOSURE FIRMLY INTO PLACE. GENTLY HEAT CLOSURE AND PAT DOWN WITH HAND.

PHASE 4



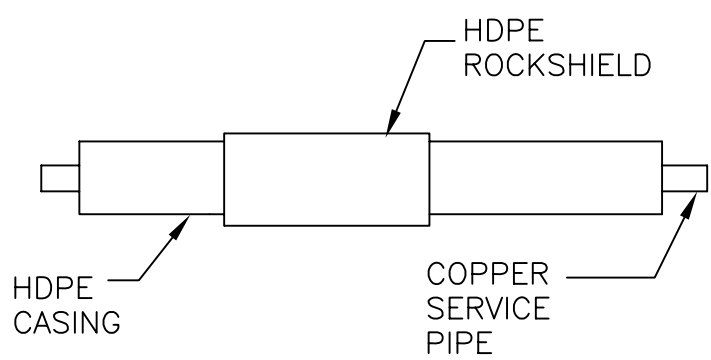
WITH LOW YELLOW FLAME, HEAT THE SHRINK SLEEVE FROM THE MIDDLE TOWARD EACH SIDE OF THE SLEEVE UNTIL RECOVERY IS COMPLETE. SHRINKING IS COMPLETED WHEN ADHESIVE OOZES FROM SIDES. AVOID EXCESSIVE HEAT TO OVERLAP AREA.

PHASE 5



SLIDE HDPE CASING OVER JOINT SO THAT SHRINK SLEEVE IS COMPLETELY COVERED

PHASE 6



SECURE HDPE ROCKSHIELD IN PLACE. FIELD JOINT IS NOW COMPLETE.

COPPER FIELD JOINT KIT DETAIL WITH RIGID POLYURETHANE FOAM & HDPE CASING.



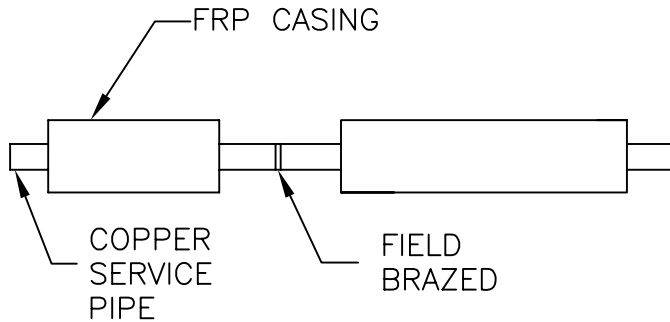
TRICON COPPER

Date: 03/09/06 Dwg. No.:Cu-10B

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

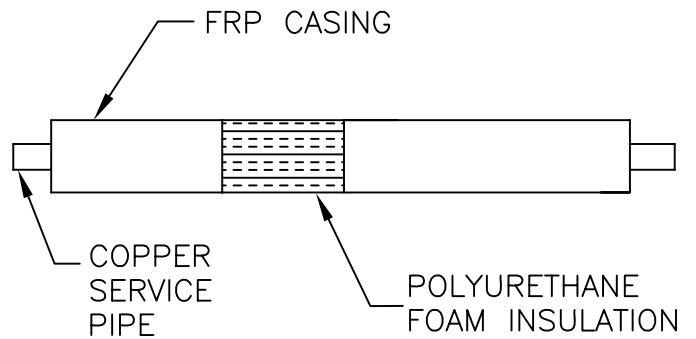
Rev.:

PHASE 1



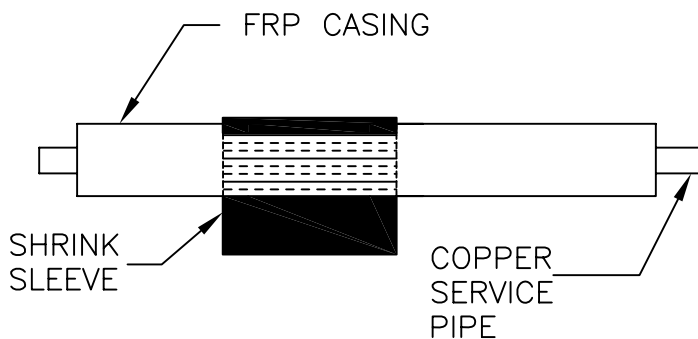
AFTER SILVER BRAZING SERVICE PIPE, TEST PER RECOMMENDATIONS.

PHASE 2



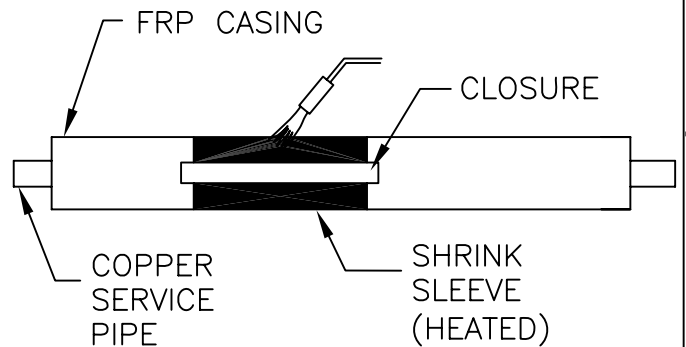
INSTALL RIGID URETHANE INSULATION TO PIPE. SECURE IN PLACE TO FRP CASING

PHASE 3



REMOVE RELEASE LINER AND PLACE SHRINK SLEEVE AROUND JOINT AND PIPE INSULATION. OVERLAP SLEEVE AT THE 10 TO 12 O'CLOCK POSITION. GENTLY HEAT BACKING OF SLEEVE AND CLOSURE. PRESS THE CLOSURE FIRMLY INTO PLACE. GENTLY HEAT CLOSURE AND PAT DOWN WITH HAND.

PHASE 4



WITH LOW YELLOW FLAME, HEAT SHRINK SLEEVE USING CIRCUMFERENTIAL STROKES. AVOID EXCESSIVE HEAT TO OVERLAP AREA. DO NOT BACKFILL UNTIL SHRINK SLEEVE IS COOL TO THE TOUCH.

COPPER FIELD JOINT KIT DETAIL WITH RIGID POLYURETHANE FOAM & FRP CASING.



TRICON

Piping Systems, Inc.®

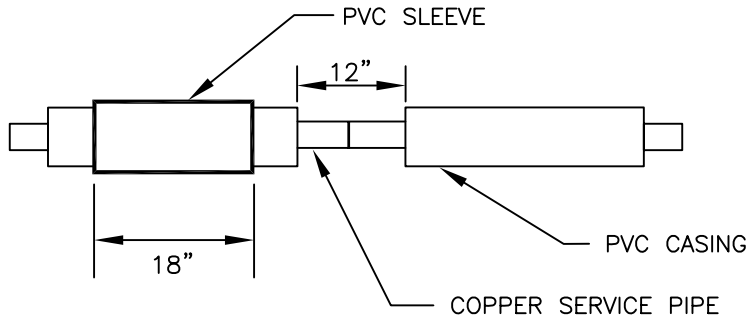
P.O. Box 361, Canastota, New York 13032
Tel: 315.697.8787 Fax: 315.697.8788

TRICON COPPER

Date: 03/09/06 Dwg. No.:Cu-10C

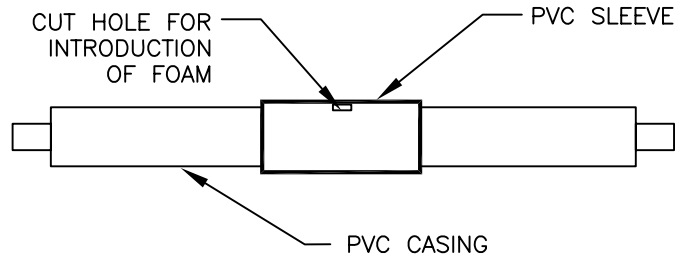
Rev.:

STEP 1



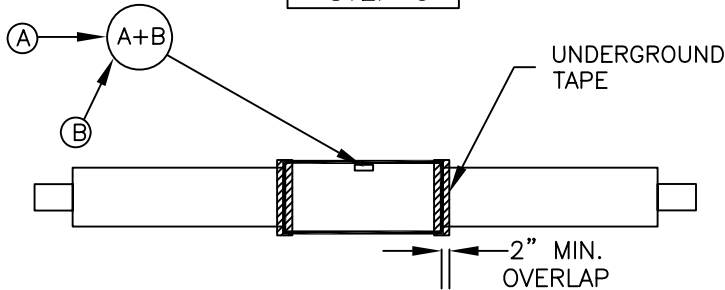
SLIDE SPLIT PVC SLEEVE OVER END OF PIPE CASING. TEST ALL SILVER BRAZED JOINTS AS REQUIRED.

STEP 2



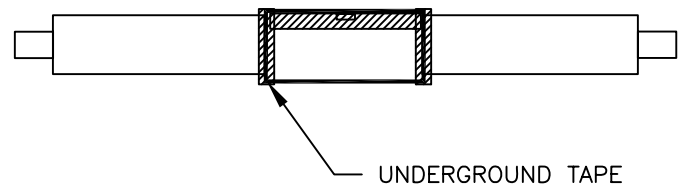
CENTER PVC SLEEVE OVER JOINT AND SECURE IN PLACE. CUT HOLE IN TOP OF PVC SLEEVE FOR INTRODUCTION OF POLYURETHANE FOAM MIXTURE.

STEP 3



APPLY UNDERGROUND TAPE WHERE PVC SLEEVE AND CASING MEET. PROVIDE FOR A MINIMUM OVERLAP OF 2". REFER TO CHART BELOW FOR FOAM AMOUNT BASED ON JACKET SIZE. POUR FOAM INTO OPENING. WHEN FOAM REACTS, TEMPORARILY SEAL THE OPENING WITH DUCT TAPE TO MAXIMIZE INSULATION IN CAVITY.

STEP 4



TRIM OFF EXCESS MATERIAL AFTER CURING IS COMPLETE. APPLY ADDITIONAL UNDERGROUND TAPE TO HOLE IN PVC SLEEVE.

POLYURETHANE FOAM MIXTURE CHART

JACKET SIZE	FIELD JOINT
3	3
4	4
5	5
6	6
8	8
10	10
12	12
14	14
16	16

CHART INDICATES PROPORTIONS OF EACH COMPONENT (NAMELY "A" & "B") TO BE MIXED PRIOR TO INTRODUCTION INTO PIPE CAVITY. A NOMINAL INSULATION THICKNESS OF 1-1/2" IS ASSUMED FOR PURPOSES OF THIS CHART. FOR THICKNESS OTHER THAN 1-1/2", CONTACT TRICON FOR QUANTITIES. EXAMPLE: FOR AN 8 INCH JACKET, 8 OUNCES OF "A" AND 8 OUNCES OF "B" ARE REQUIRED. REQUIRED PROPORTIONS MAY VARY AS A RESULT OF CHANGES IN WEATHER CONDITIONS. NOTE THAT CHEMICAL REACTION WILL TAKE LONGER IN COLDER WEATHER. CONTACT TRICON FOR ADVICE DURING INCLEMENT WEATHER. IN COLDER WEATHER, TAPE MUST BE KEPT WARM UNTIL TIME OF USE.

COPPER STANDARD POUR IN PLACE
FIELD JOINT KIT DETAIL WITH PVC CASING.

TRICON COPPER

Date: 03/09/06 Dwg. No.: Cu-10D

Rev.:



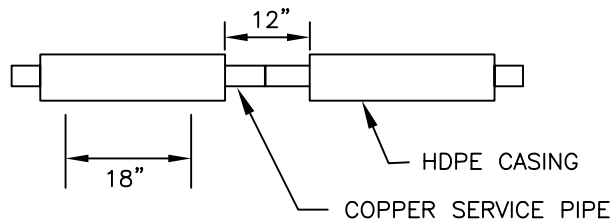
TRICON

Piping Systems, Inc.®

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

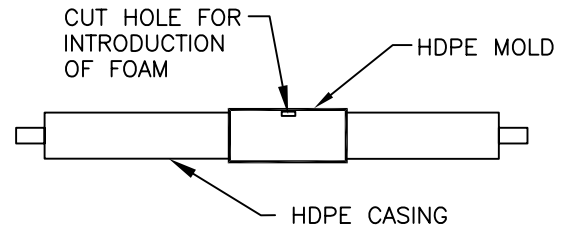
Tel: 315.697.8787 Fax: 315.697.8788

STEP 1



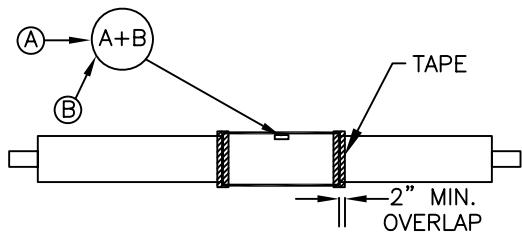
TEST ALL BRAZED JOINTS AS REQUIRED.

STEP 2



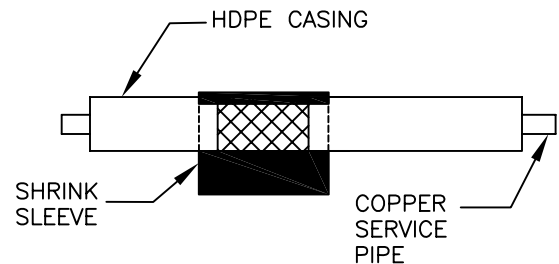
CENTER HDPE MOLD OVER JOINT AND SECURE IN PLACE. CUT HOLE IN TOP OF HDPE MOLD FOR INTRODUCTION OF POLYURETHANE FOAM MIXTURE.

STEP 3



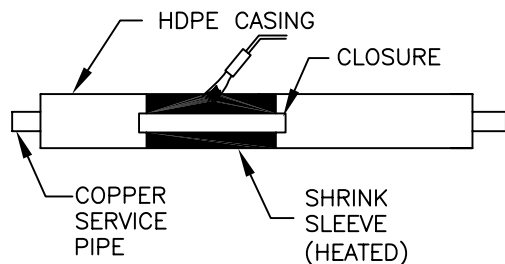
APPLY UNDERGROUND TAPE WHERE HDPE MOLD AND CASING MEET. PROVIDE FOR A MINIMUM OVERLAP OF 2". REFER TO CHART BELOW FOR FOAM AMOUNT BASED ON JACKET SIZE. POUR FOAM INTO OPENING. WHEN FOAM REACTS, TEMPORARILY SEAL THE OPENING WITH DUCT TAPE TO MAXIMIZE INSULATION IN CAVITY.

STEP 4



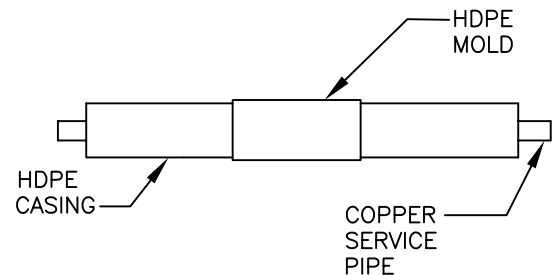
AFTER FOAM HAS REACTED, TRIM OFF ANY EXCESS AND REMOVE MOLD. PLACE SHRINK SLEEVE AROUND JOINT AND URETHANE. OVERLAP SLEEVE BETWEEN 10 & 12 O'CLOCK POSITION.

STEP 5



WITH LOW YELLOW FLAME, HEAT SHRINK SLEEVE USING CIRCUMFERENTIAL STROKES. AVOID EXCESSIVE HEAT TO OVERLAP AREA.

STEP 6



WHEN SHRINK SLEEVE HAS COOLED DOWN, APPLY HDPE MOLD AND SECURE IN PLACE. FIELD JOINT IS NOW COMPLETE.

POLYURETHANE FOAM MIXTURE CHART

JACKET SIZE	FIELD JOINT	JACKET SIZE	FIELD JOINT
3	3	10	10
4	4	12	12
5	5	14	14
6	6	16	16
8	8		

CHART INDICATES THE PROPORTIONS OF EACH COMPONENT ("A" & "B") TO BE MIXED PRIOR TO INTRODUCTION INTO PIPE CAVITY. INSULATION THICKNESS OF 1-1/2" IS ASSUMED FOR THE PURPOSES OF THIS CHART. EXAMPLE: FOR AN 8 INCH JACKET, 8 OUNCES OF "A" AND 8 OUNCES OF "B" ARE REQUIRED. PROPORTIONS MAY VARY AS A RESULT OF CHANGES IN WEATHER CONDITIONS. NOTE: CHEMICAL REACTION WILL TAKE LONGER IN COLDER WEATHER. CONTACT TRICON FOR ADVICE DURING INCLEMENT WEATHER.

COPPER STANDARD POUR IN PLACE
FIELD JOINT KIT DETAIL WITH HDPE CASING.

TRICON COPPER

Date: 03/09/06

Dwg. No.: Cu-10E

Rev.:



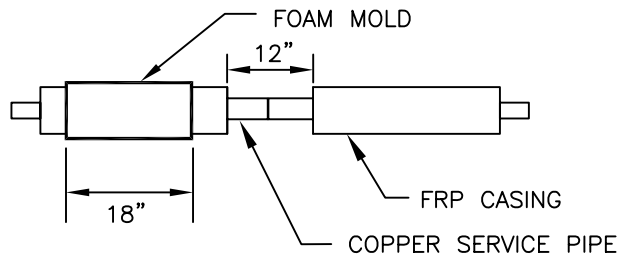
TRICON

Piping Systems, Inc.®

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

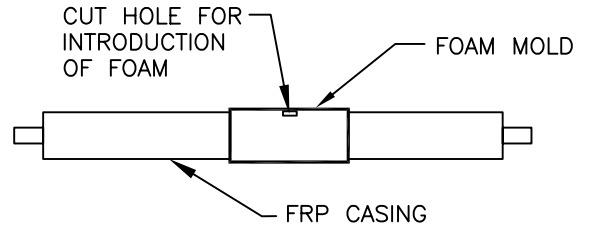
Tel: 315.697.8787 Fax: 315.697.8788

STEP 1



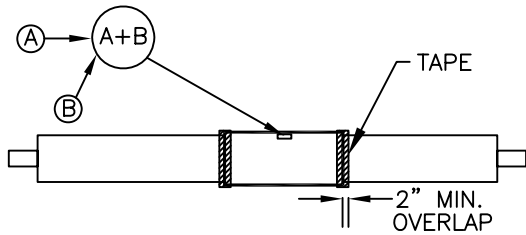
TEST ALL BRAZED JOINTS AS REQUIRED. SLIDE FOAM MOLD OVER JOINT.

STEP 2



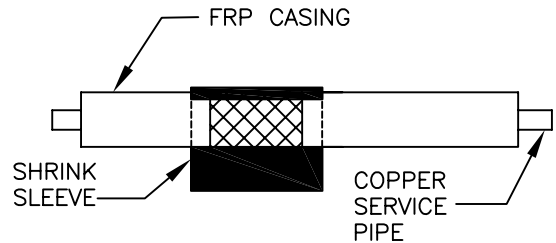
CENTER FOAM MOLD OVER JOINT AND SECURE IN PLACE. CUT HOLE IN TOP OF FOAM MOLD FOR INTRODUCTION OF POLYURETHANE FOAM MIXTURE.

STEP 3



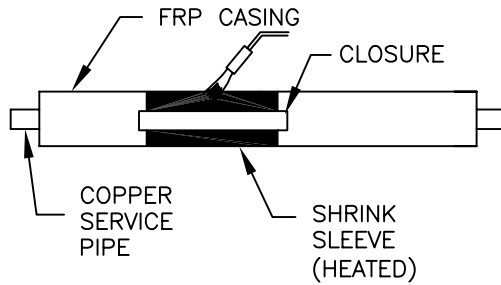
APPLY UNDERGROUND TAPE WHERE FOAM MOLD AND CASING MEET. PROVIDE FOR A MINIMUM OVERLAP OF 2". REFER TO CHART BELOW FOR FOAM AMOUNT BASED ON JACKET SIZE, POUR FOAM INTO OPENING. WHEN FOAM REACTS, TEMPORARILY SEAL THE OPENING WITH DUCT TAPE TO MAXIMIZE INSULATION IN CAVITY.

STEP 4



AFTER FOAM HAS REACTED, TRIM OFF ANY EXCESS AND REMOVE MOLD. PLACE SHRINK SLEEVE AROUND JOINT AND URETHANE. OVERLAP SLEEVE BETWEEN THE 10 & 12 O'CLOCK POSITION.

STEP 5



WITH YELLOW FLAME, HEAT SHRINK SLEEVE USING CIRCUMFERENTIAL STROKES. AVOID EXCESSIVE HEAT TO OVERLAP AREA. DO NOT BACKFILL UNTIL SHRINKSLEEVE IS COOL TO THE TOUCH.

POLYURETHANE FOAM MIXTURE CHART

JACKET SIZE	FIELD JOINT	JACKET SIZE	FIELD JOINT
3	3	10	10
4	4	12	12
5	5	14	14
6	6	16	16
8	8		

CHART INDICATES THE PROPORTIONS OF EACH COMPONENT ("A" & "B") TO BE MIXED PRIOR TO INTRODUCTION INTO PIPE CAVITY. INSULATION THICKNESS OF 1-1/2" IS ASSUMED FOR THE PURPOSES OF THIS CHART. EXAMPLE: FOR AN 8 INCH JACKET, 8 OUNCES OF "A" AND 8 OUNCES OF "B" ARE REQUIRED. PROPORTIONS MAY VARY AS A RESULT OF CHANGES IN WEATHER CONDITIONS. NOTE: CHEMICAL REACTION WILL TAKE LONGER IN COLDER WEATHER. CONTACT TRICON FOR ADVICE DURING INCLEMENT WEATHER.

COPPER STANDARD POUR IN PLACE FIELD JOINT KIT DETAIL WITH FRP CASING.



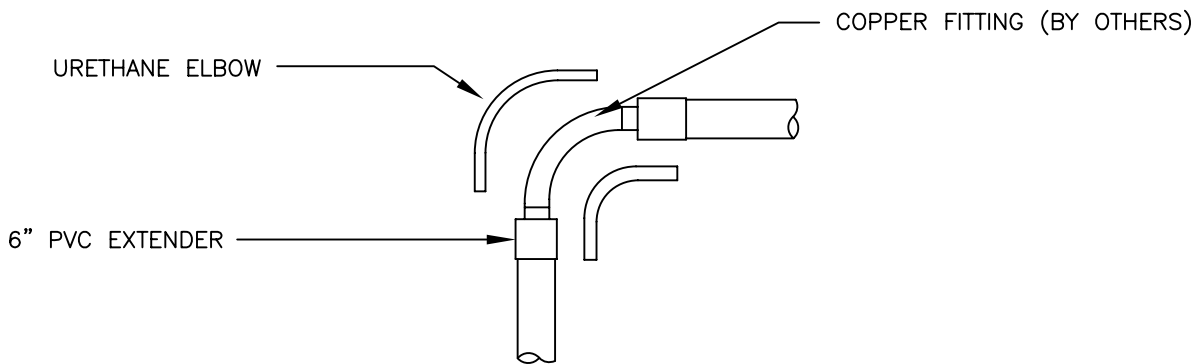
TRICON COPPER

Date: 03/09/06 Dwg. No.: Cu-10F

Rev.:

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

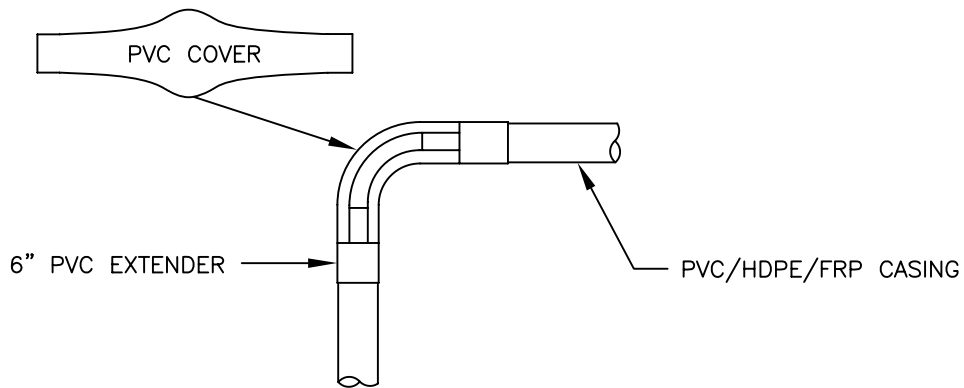
STEP 1



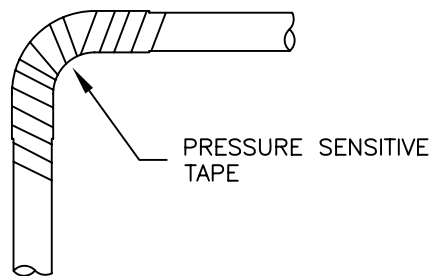
1. SLIDE PVC SLEEVE EXTENDERS ONTO END OF PIPE CASING BEFORE ELBOW IS BRAZED.
2. TEST ALL BRAZED JOINTS AS REQUIRED.
3. FIT POLYURETHANE FOAM INSULATION OVER FITTING AND SECURE IN PLACE.
4. CUT AND FIT STRAIGHT PIPE COVERING INTO PLACE THAT URETHANE ELBOW DOES NOT COVER.
5. SLIDE EXTENDERS IN PLACE AND SECURE WITH POLYKEN TAPE.

STEP 2

6. FIT PVC COVER OVER FITTING.



STEP 3



IN COLDER WEATHER, TAPE MUST BE KEPT WARM UNTIL TIME OF USE.

7. WRAP FITTING WITH PRESSURE SENSITIVE TAPE AS SHOWN.

COPPER STANDARD FIELD INSULATED ELBOW
FITTING KIT DETAIL WITH RIGID INSULATION

TRICON COPPER

Date: 03/09/06

Dwg. No. Cu-11

Rev.:



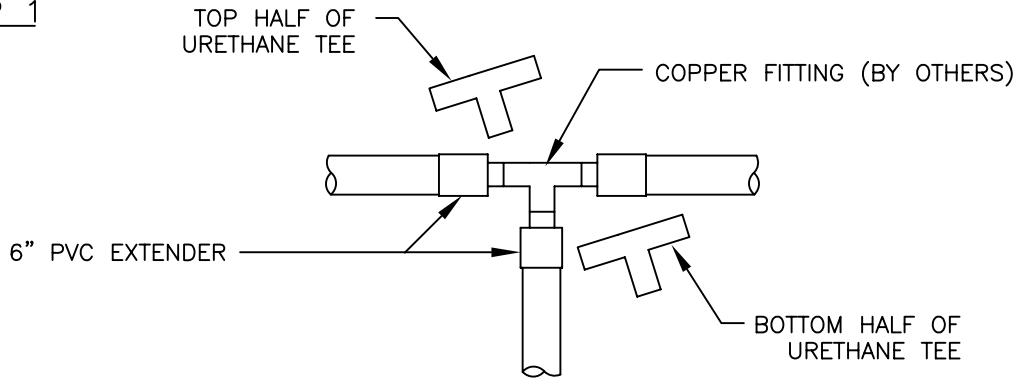
TRICON

Piping Systems, Inc.®

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

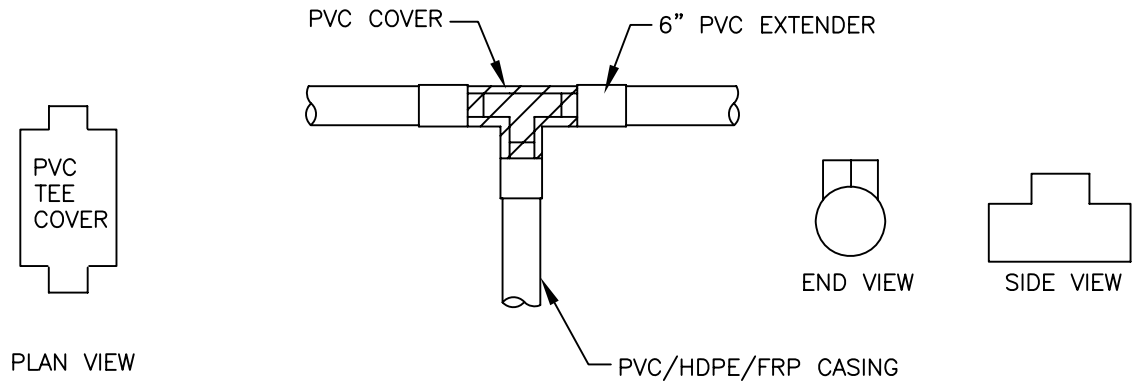
Tel: 315.697.8787 Fax: 315.697.8788

STEP 1



1. SLIDE 6" PVC SLEEVE EXTENDERS ONTO END OF PIPE BEFORE TEE IS BRAZED.
2. TEST ALL BRAZED JOINTS AS REQUIRED.
3. FIT POLYURETHANE FOAM INSULATION OVER FITTING AND SECURE IN PLACE.
4. CUT AND FIT STRAIGHT PIPE COVERING INTO PLACE THAT URETHANE TEE DOES NOT COVER.
5. SLIDE EXTENDERS IN PLACE AND SECURE WITH POLYKEN TAPE.

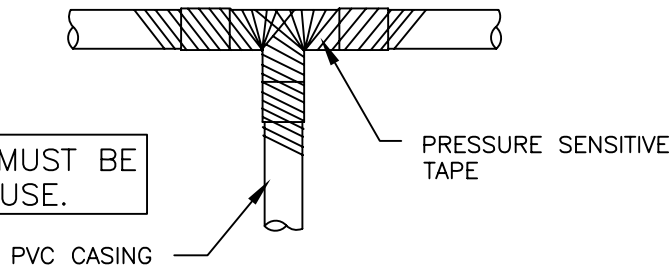
STEP 2



6. FIT PVC COVER OVER FITTING.

STEP 3

IN COLDER WEATHER, TAPE MUST BE KEPT WARM UNTIL TIME OF USE.



7. SPIRALLY WRAP FITTING WITH PRESSURE SENSITIVE TAPE AS SHOWN.

COPPER STANDARD FIELD INSULATED ELBOW FITTING KIT DETAIL WITH RIGID INSULATION



TRICON

Piping Systems, Inc.®

TRICON COPPER

Date: 03/09/06

Dwg. No. Cu-12

Rev.:

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

Tel: 315.697.8787 Fax: 315.697.8788