

ADDENDUM NO. 2

August 23, 2018

GREENVILLE UTILITIES COMMISSION
GCP-88 GAS FIRED WATER BATH HEATER INSTALLATION

A. SCOPE

This Addendum No. 2 consists of pages AD2-1 through AD2-3.

Proposers are hereby notified of the following changes in the advertisement, specifications, and/or drawings.

B. ADVERTISEMENT

No changes.

C. SPECIFICATIONS

No changes.

D. DRAWINGS

Additional cut sheet drawings for each Heater is provided.

E. GENERAL

1. Attached is a copy of Questions and Answers received from Potential Proposers.

Greenville Utilities Commission
PO Box 1847
Greenville, NC 27834

Questions and Answers

1. Is a 60 hour week (6-10's) possible to work? If so, will there be a cost to the contractor to paid for the additional inspection if we want to perform covered tasks?
Currently scheduled to work five, ten hour days per week. Contractor can perform work that isn't covered tasks on the sixth day. If working six, ten hour days provides a benefit to the Owner, the Contractor can note this on the exceptions page.
2. Do you have an OQ task list prepared?
Contractor to provide the task list based on the scope of work. Owner and Contractor will agree on OQ Task List prior to starting work.
3. Will a building permit be required?
No.
4. Will a business license for the town/city or county be required?
No.
5. Will coating testing (holiday testing and repair) on epoxy rebar be required? In other words, will it be required to jeep and make coating repairs on the epoxy rebar? If so, what coating will be required?
No, it will not be required to holiday test the epoxy rebar.
6. Will sand blasting be allowed on each site? Will collection of blasting media be required?
Sand blasting will be allowed. No collection of blasting media will be required unless environmental hazards exist.
7. Will hydroexcavation be required?
No. It will be up to the Contractor to determine the best way to protect underground utilities from damage.
8. How will demo'd pipe be disposed of?
Excess piping will be returned to GUC's Operation Center for disposal.
9. Is water available on site for hydrotesting purposes? How will the utility handle hydrotest water disposal?
Water is not available on site for hydrotesting; however, fire hydrants will be near by the work sites and available.
10. What is the weight of each heater? Do you have shop drawings showing the lifting eyes/lugs/points?
Approximate Weights: Gate 3 – 4,500 lbs, Gate 4 – 3,400 lbs, and Gate 5 – 4,500 lbs
Attached are the shop drawings.
11. Will the heaters be supplied with the final coating of paint?
Yes.

12. Is there a P&ID for this piping and the required wiring and instrumentation?
Conduit installation is shown in the drawings issued for bid. GUC will perform the wiring and connections for instrumentation.
13. What are the welder testing requirements specific to your utility?
GUC will require the welder to be tested to API 1104, destructive testing and non-destructive testing will be required.
14. Do you have a system shut-down schedule? How long will we be allowed to shut down each city gate for tie-ins? No shut down schedule determined yet, GUC will work with the Contractor to determine schedule prior to starting work.
15. Customer to provide NDT?
Yes, Owner to provide.
16. Please verify that your utility will be providing all materials including the pipe supports and Hilti anchors for this project other than concrete, gravel, formwork, and incidentals per section 3.3.1.
GUC will provide all materials listed on the title page of each drawing including the heaters, all other materials will be provided by the contractor.

NOZZLE LEGEND

- A** COIL INLET
4"-600# R.F. FLG.
- B** COIL OUTLET
4"-600# R.F. FLG.
- C** FILL CONNECTION
8" PRESSURE VACUUM
- D** DRAIN
2" NPT W/ VALVE & PLUG

BAP-1000
INDIRECT GAS FIRED WATER BATH HEATER
36" O.D. X 12'-0" LG. X 0.75MM BTU/HR
CAPACITY: 475 GALLONS
1-1/2" THK. INSULATION

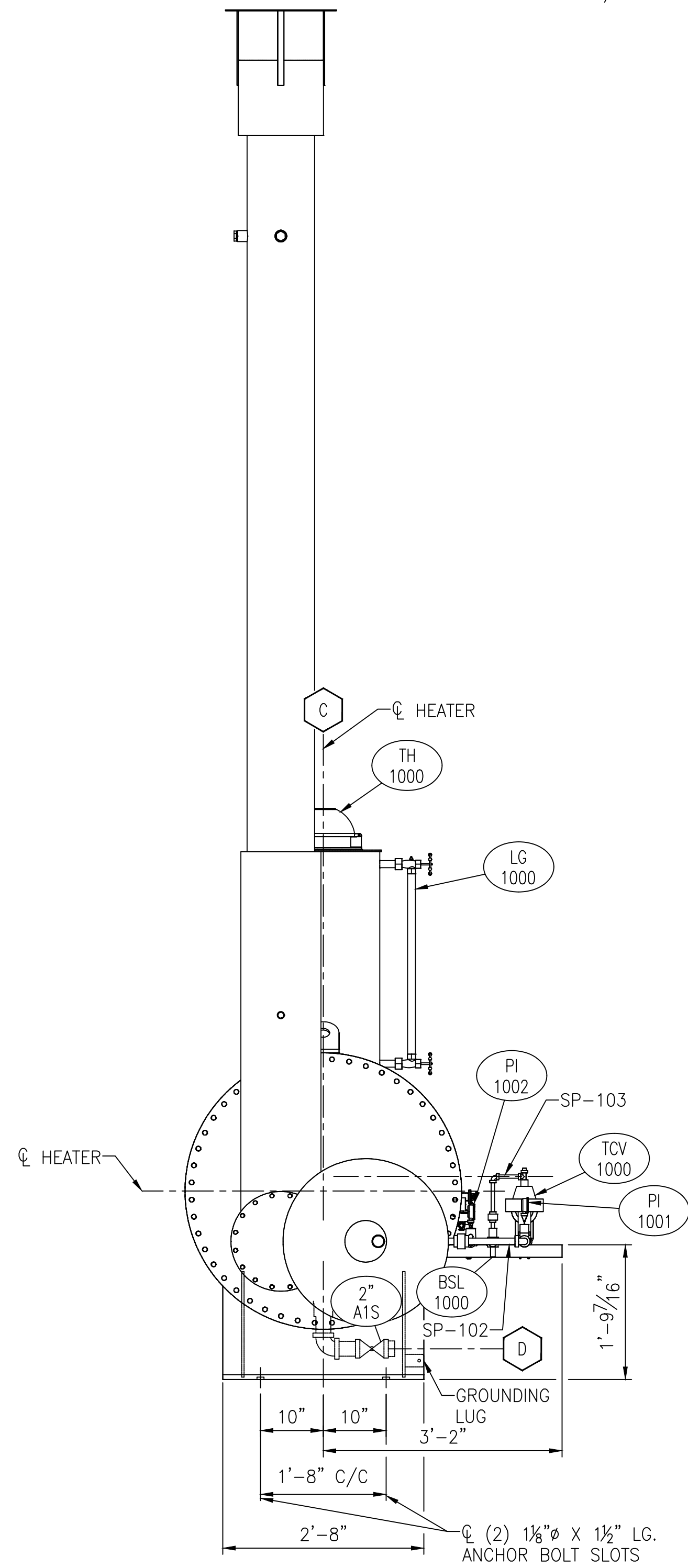
EXP-1000
EXPANSION RESERVOIR
18" O.D. X 3'-0" LG. X ATMOS
CAPACITY: 37 GALLONS

PAINT NOTES:

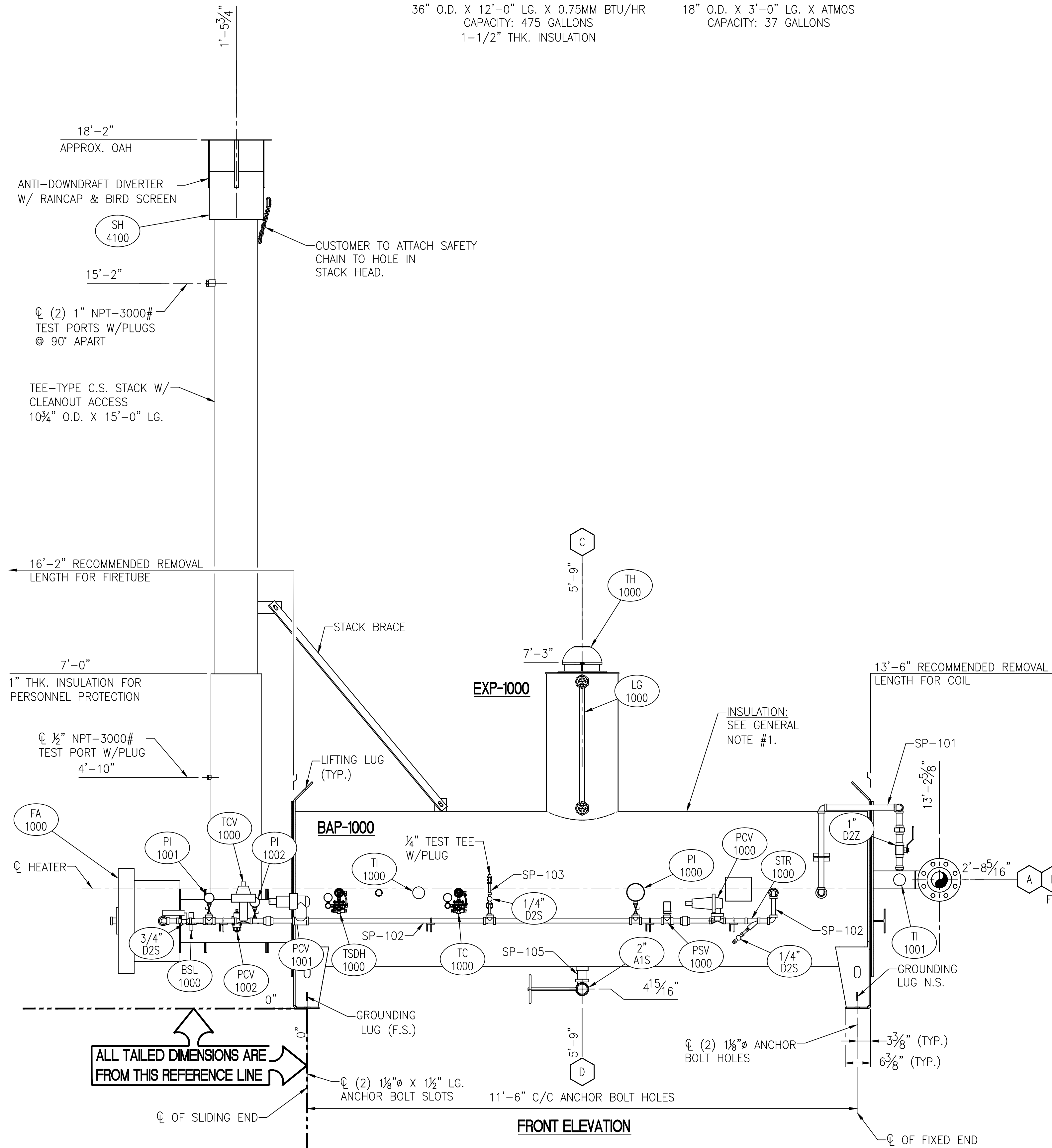
- ALL SURFACES TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:
PRIMER COAT: ONE COAT OF SHERWIN WILLIAMS/KEM KROMIK: COLOR-B50-AZ6 (GRAY), 4 MILS, D.F.T.
- ALL UNINSULATED SURFACES TO BE ADDITIONALLY COATED AS FOLLOWS:
FINISH COAT: ONE COAT OF SHERWIN WILLIAMS/INDUSTRIAL ENAMEL KEM 4000: COLOR SW4026 (SLATE GRAY), 4 MILS D.F.T.
- STACK TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:
PRIMER COAT: PPG HIGH BUILD PRIMER HTC 1027 (ALUMINUM), 5.0-6.0 MILS D.F.T.
FINISH COAT: PPG 100% SILICONE HTC 1000VS (ALUMINUM), 1.5-2.0 MILS D.F.T.

GENERAL NOTES:

- HEATER TO BE COVERED W 1/2" THK. EASY WRAP & COVERED WITH .019" THK. EMBOSSED ALUMINUM JACKETING. JACKETING TO BE HELD IN PLACE W/ 1/2" WIDE STAINLESS STEEL BANDING (JACKETING NOT TO BE PAINTED). LOWER PORTION OF STACK TO BE INSULATED W/ 1" THK. BLANKET FOR PERSONNEL PROTECTION ONLY.
- ALL OPENINGS ARE TO BE PLUGGED OR COVERED SECURELY FOR SHIPMENT. FLANGED OPENINGS ARE TO BE COVERED WITH MOLDED PLASTIC COVERS, THREADED OPENINGS TO HAVE STEEL PLUGS. (NO WOODEN COVERS ALLOWED)
- UNIT WILL BE TEST FIRED PRIOR TO SHIPMENT (UP THROUGH PILOT LIGHT) TO VERIFY PERFORMANCE & ENSURE THAT ALL SAFETY AND CONTROL SYSTEMS WORK AS DESIGNED. (THE MAIN BURNER WILL NOT BE IGNITED DURING THIS TESTING)
- LIFT LUGS ARE FOR LIFTING HEATER EMPTY ONLY.
- APPROXIMATE WEIGHT EMPTY: 4,344#
APPROXIMATE WEIGHT FULL OF WATER: 8,614#

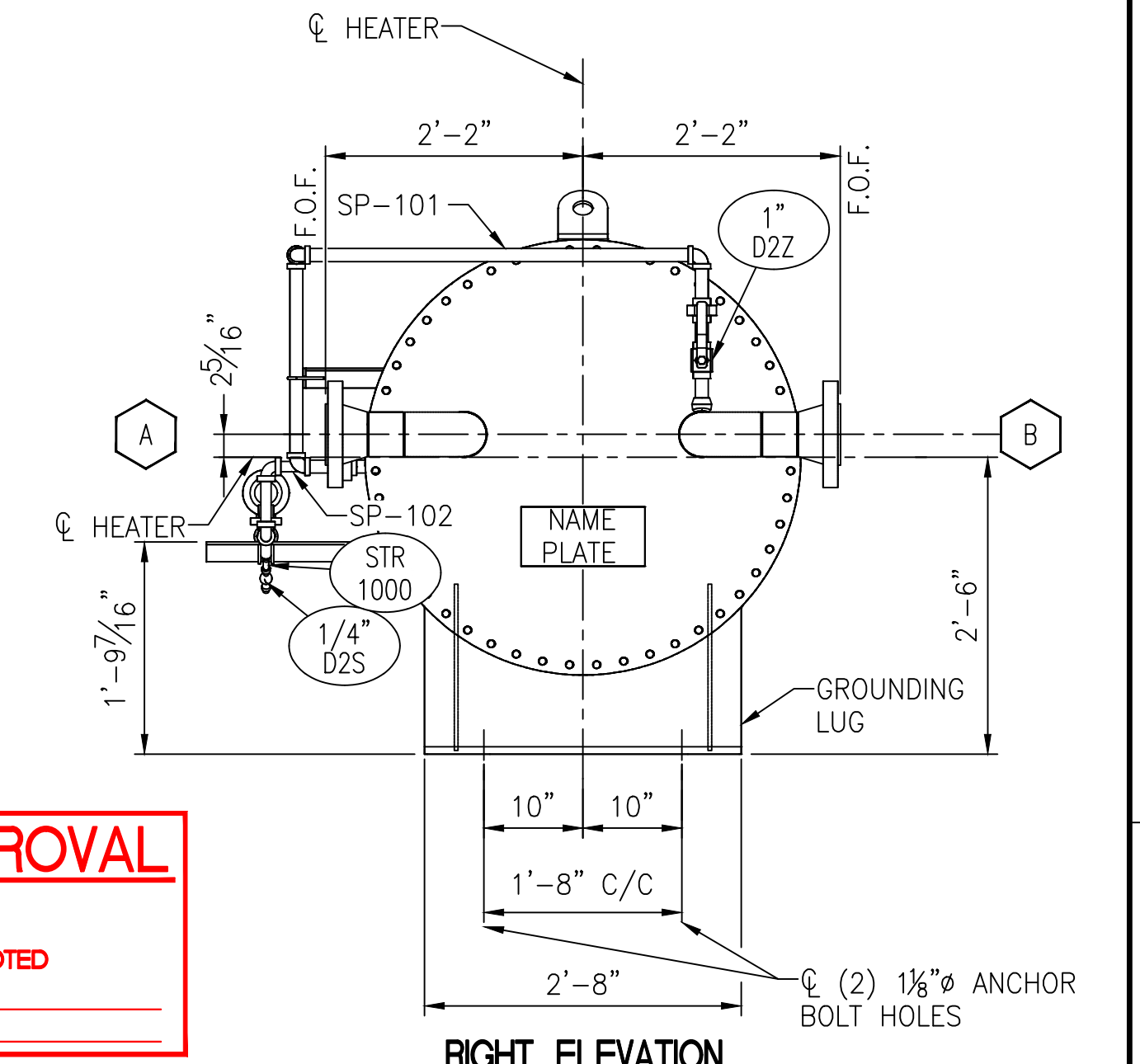


LEFT ELEVATION



FRONT ELEVATION

FOR APPROVAL
 - APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____



RIGHT ELEVATION

PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM																	
NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.												
C	7/24/17	LEW	CB	CHG'D PIPING ORIENTATION PER CUSTOMER REQUEST													
B	6/28/17	LEW	DR	CHG'D. CUSTOMER INFO.													
A	6/14/17	LEW		ISSUED FOR APPROVAL	9184120-101												
<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>ECO</th> <th>DESCRIPTION</th> <th>DWG NO.</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.						
NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.												

ETI
ENGINEERING | TECHNOLOGY | INNOVATION

This drawing and the information contained herein is of a confidential nature and the property of John Zink Company, LLC and shall not be copied, traced, photocopied, or reproduced in any manner nor used for any purpose whatsoever, except by written permission of John Zink Company, LLC. This drawing shall be returned to John Zink Company, LLC upon request. © 2017, John Zink Company, LLC. All rights reserved.

For a list of relevant patents and trademarks, please see johnzinkhamworthy.com/legal-notices

JOHN ZINK HAMWORTHY COMBUSTION.
JOHN ZINK COMPANY, LLC

FOR: GREENVILLE UTILITIES
USER: _____
JOB SITE: GREENVILLE GATE 3, NC

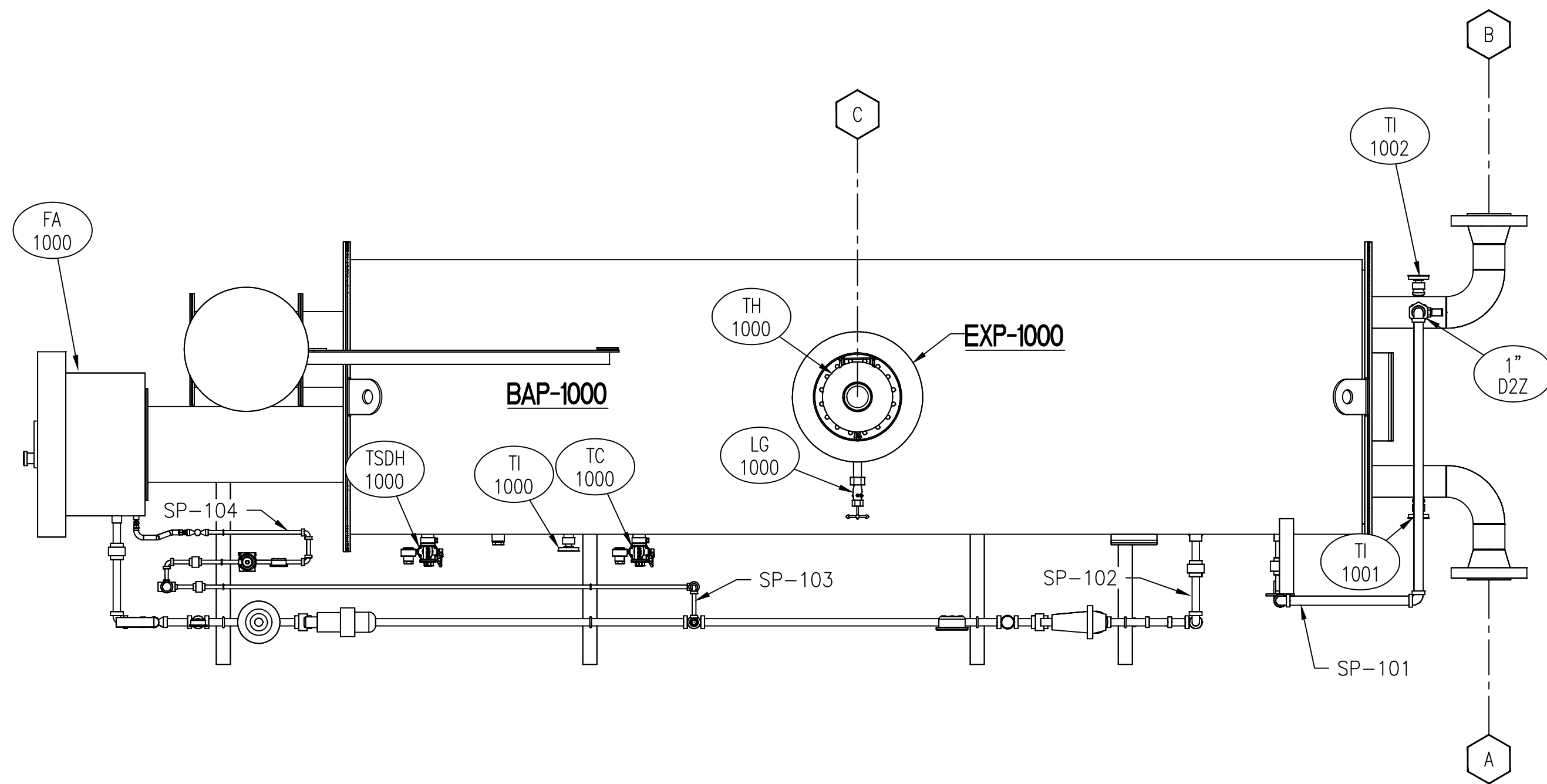
QUOTE NO: D0012716 REV. 3
S.O. NO: 9184120
P.O. NO: _____
SCALE: NOT TO SCALE

DRAWN: LEW
DATE: 6/14/17
DRAWING NUMBER: 9184120-300

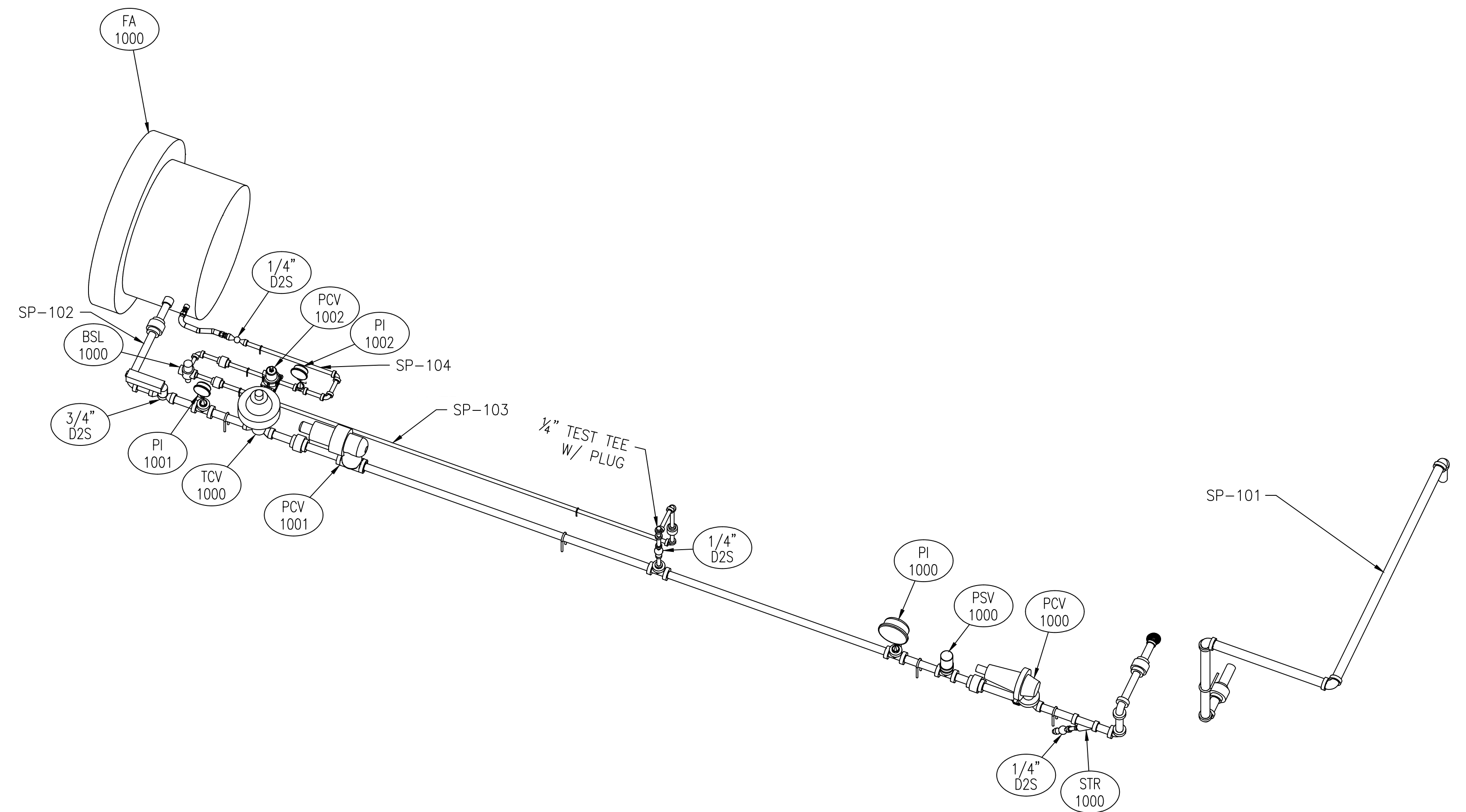
CHEK: *J. Zink*
DATE: _____
PART NUMBER: _____

ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER
36" O.D. X 12'-0" LG. X 0.75MM BTU/HR

APP: *J. Zink*
DATE: _____
SHEET: 1 OF 2



PLAN VIEW



ISOMETRIC OF FUEL TRAIN

FOR APPROVAL

- APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____

By: irmbiet Date: 07/26/17 3:50

PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM

For a list of relevant patents and trademarks, please see johnzinkhamworthy.com/legal-notices

NO.	DATE	BY	ECO	DESCRIPTION	DWG. NO.	DESCRIPTION
C	7/24/17	LEW	CB	CHG'D PIPING ORIENTATION PER CUSTOMER REQUEST		
B	6/28/17	LEW	DR	CHG'D CUSTOMER INFO		
A	6/14/17	LEW		ISSUED FOR APPROVAL	9184120-101	P&ID DRAWING
				REVISIONS	REFERENCE DRAWINGS	



This drawing and the information contained herein is of a confidential nature and the property of John Zink Company, LLC and shall not be copied, traced, photographed, or reproduced in any manner nor used for any purpose whatsoever, except by written permission of John Zink Company, LLC. This drawing shall be returned to John Zink Company, LLC upon request. © 2017, John Zink Company, LLC. All rights reserved.

FOR: GREENVILLE UTILITIES	ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER 36" O.D. X 12'-0" LG. X 0.75MM BTU/HR		
USER:	DRAWN: LEW	CHEK: <i>J. Schmitz</i>	APP: <i>[Signature]</i>
JOB SITE:	DATE: 6/14/17	DATE:	SHEET: 2 OF 2
QUOTE NO: D0012716 REV. 3	DRAWING NUMBER: 9184120-300	PART NUMBER:	REV. C
S.O. NO: 9184120	SCALE: NOT TO SCALE		

BAP-1000
INDIRECT GAS FIRED WATER BATH HEATER
36" O.D. X 12'-0" LG. X 0.75MM BTU/HR
CAPACITY: 479 GALLONS
1-1/2" THK. INSULATION

EXP-1000
EXPANSION RESERVOIR
18" O.D. X 3'-0" LG. X ATMOS
CAPACITY: 37 GALLONS

NOZZLE LEGEND

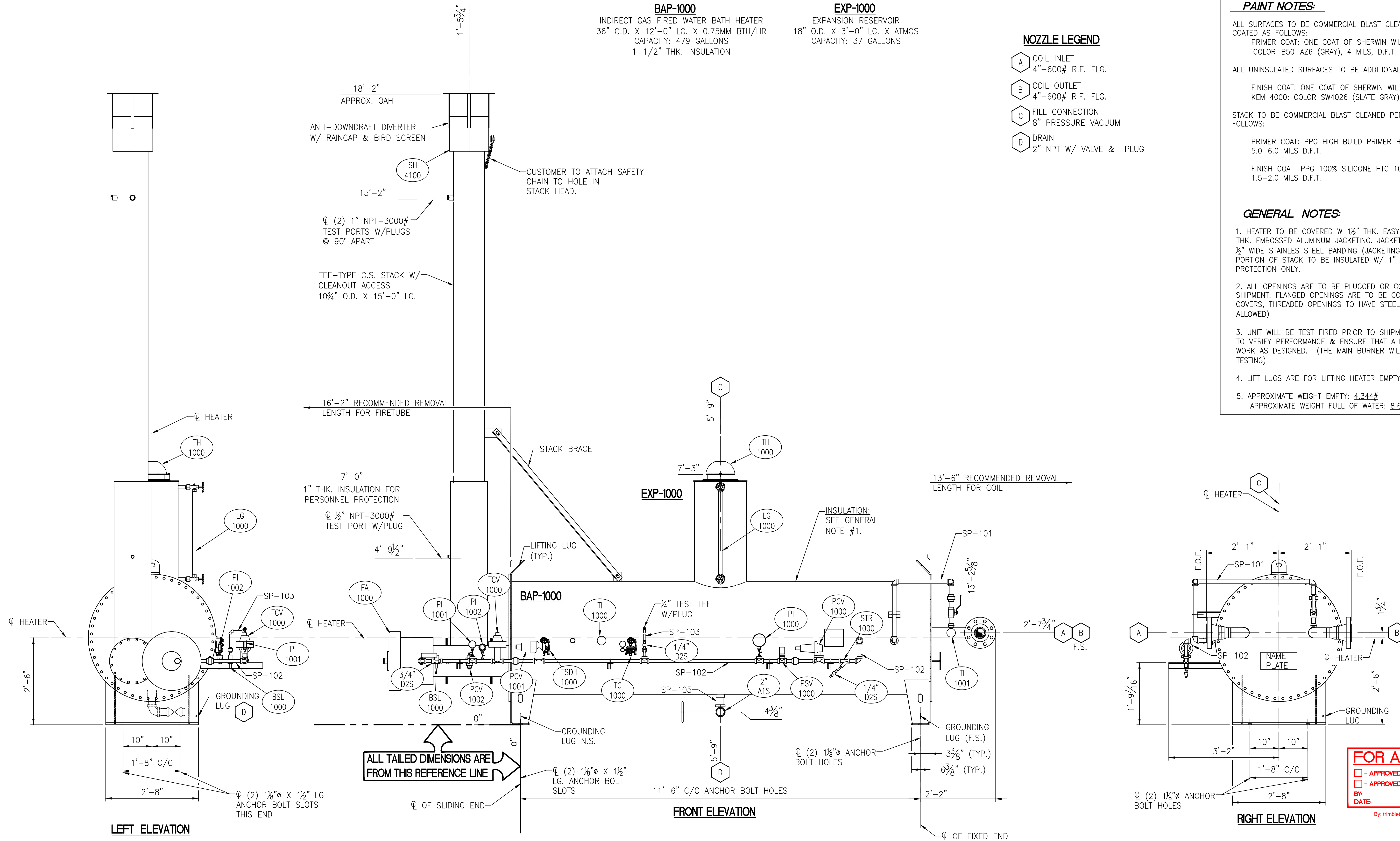
- A COIL INLET
4"-600# R.F. FLG.
- B COIL OUTLET
4"-600# R.F. FLG.
- C FILL CONNECTION
8" PRESSURE VACUUM
- D DRAIN
2" NPT W/ VALVE & PLUG

PAINT NOTES:

ALL SURFACES TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:
PRIMER COAT: ONE COAT OF SHERWIN WILLIAMS/KEM KROMIK: COLOR-B50-AZ6 (GRAY), 4 MILS, D.F.T.
ALL UNINSULATED SURFACES TO BE ADDITIONALLY COATED AS FOLLOWS:
FINISH COAT: ONE COAT OF SHERWIN WILLIAMS/INDUSTRIAL ENAMEL KEM 4000: COLOR SW4026 (SLATE GRAY), 4 MILS D.F.T.
STACK TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:
PRIMER COAT: PPG HIGH BUILD PRIMER HTC 1027 (ALUMINUM), 5.0-6.0 MILS D.F.T.
FINISH COAT: PPG 100% SILICONE HTC 1000VS (ALUMINUM), 1.5-2.0 MILS D.F.T.

GENERAL NOTES:

1. HEATER TO BE COVERED W 1/2" THK. EASY WRAP & COVERED WITH .019" THK. EMBOSSED ALUMINUM JACKETING. JACKETING TO BE HELD IN PLACE W/ 1/2" WIDE STAINLESS STEEL BANDING (JACKETING NOT TO BE PAINTED). LOWER PORTION OF STACK TO BE INSULATED W/ 1" THK. BLANKET FOR PERSONNEL PROTECTION ONLY.
2. ALL OPENINGS ARE TO BE PLUGGED OR COVERED SECURELY FOR SHIPMENT. FLANGED OPENINGS ARE TO BE COVERED WITH MOLDED PLASTIC COVERS, THREADED OPENINGS TO HAVE STEEL PLUGS. (NO WOODEN COVERS ALLOWED)
3. UNIT WILL BE TEST FIRED PRIOR TO SHIPMENT (UP THROUGH PILOT LIGHT) TO VERIFY PERFORMANCE & ENSURE THAT ALL SAFETY AND CONTROL SYSTEMS WORK AS DESIGNED. (THE MAIN BURNER WILL NOT BE IGNITED DURING THIS TESTING)
4. LIFT LUGS ARE FOR LIFTING HEATER EMPTY ONLY.
5. APPROXIMATE WEIGHT EMPTY: 4,344#
APPROXIMATE WEIGHT FULL OF WATER: 8,614#



ALL TAILED DIMENSIONS ARE FROM THIS REFERENCE LINE

FOR APPROVAL
 - APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____
 By: trimble Date: 07/26/17 4:08

PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM

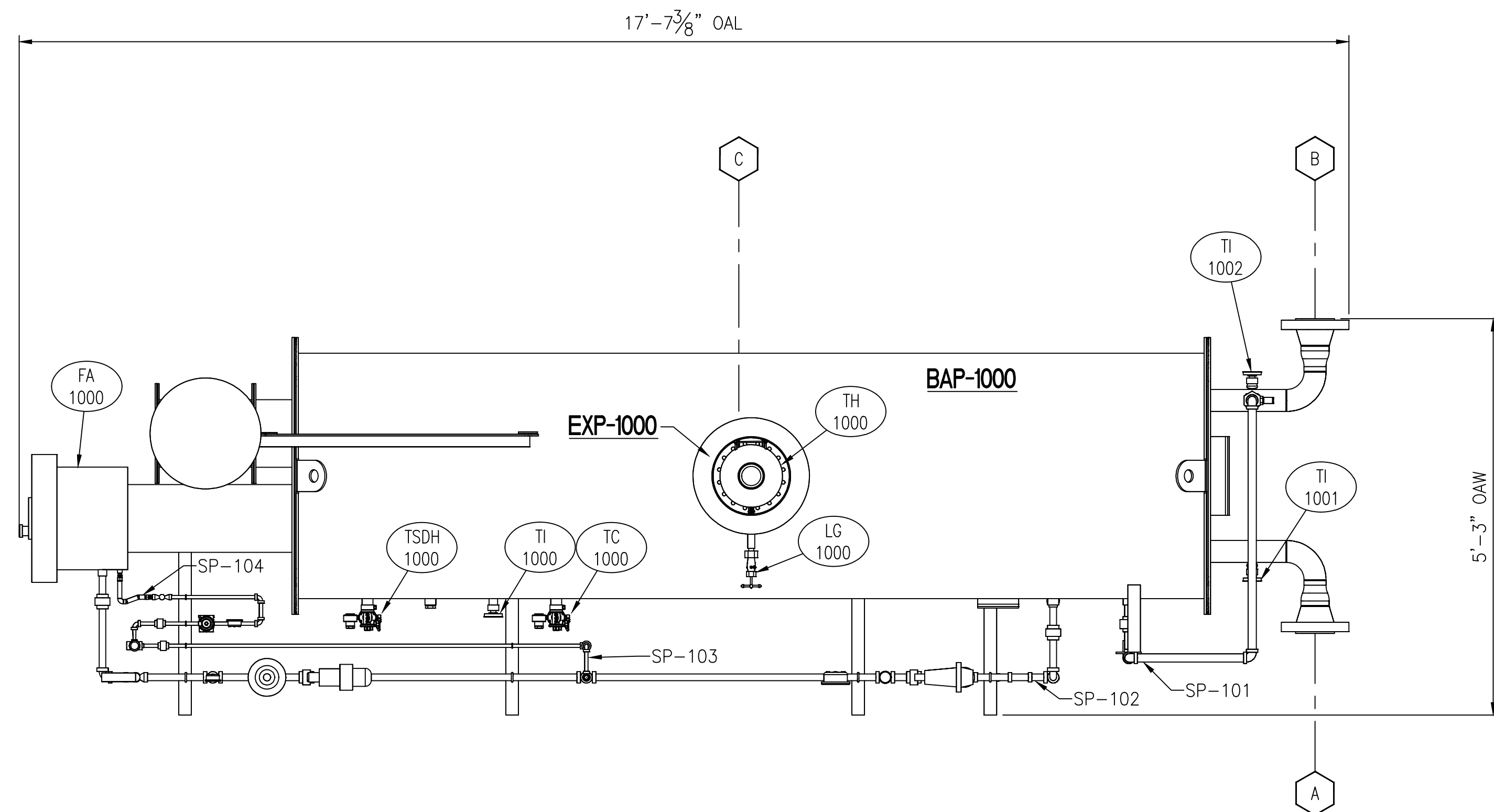


NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.	DESCRIPTION
C	7/26/17	LEW	CB	CHG'D. FUEL TRAIN ORIENTATION PER CUSTOMER REQUEST		
B	6/28/17	LEW	DR	CHG'D. CUSTOMER INFO.	SP-101 TO 104	SPOOL DWG'S.
A	6/15/17	LEW		ISSUED FOR APPROVAL	9184121-101	P&ID DRAWING
				REVISIONS	REFERENCE DRAWINGS	

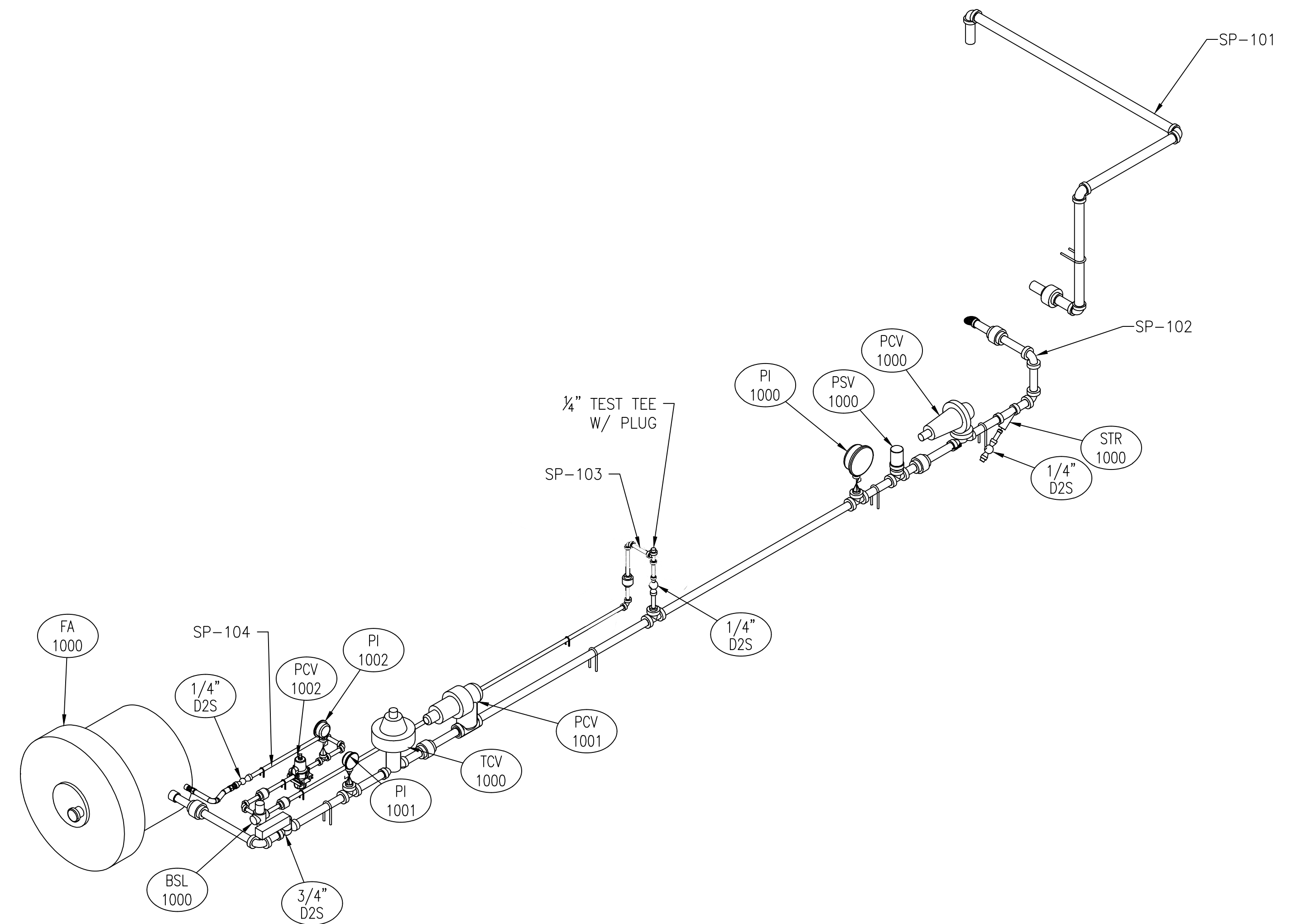
This drawing and the information contained herein is of a confidential nature and the property of John Zink Company, LLC and shall not be copied, traced, photocopied, or reproduced in any manner nor used for any purpose whatsoever, except by written permission of John Zink Company, LLC. This drawing shall be returned to John Zink Company, LLC upon request. © 2017, John Zink Company, LLC. All rights reserved.

For a list of relevant patents and trademarks, please see johnzinkhamworthy.com/legal-notices

FOR: GREENVILLE UTILITIES	USER:	JOBSITE: GREENVILLE GATE 5, NC	QUOTE NO: D0012816 REV 3	S.O. NO: 9184121	DATE: 6/15/17	CHEK: <i>J. Hamworthy</i>	APP: <i>J. Hamworthy</i>	SHEET: 1 OF 2
ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER 36" O.D. X 12'-0" LG. X 0.75MM BTU/HR		DRAWN: LEW	DATE: 6/15/17	DRAWING NUMBER: 9184121-300	PART NUMBER:	SCALE: NOT TO SCALE	REV: C	



PLAN VIEW



ISOMETRIC OF FUEL TRAIN

FOR APPROVAL

- APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____

By: trimble Date: 07/26/17 4:08

PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM



This drawing and the information contained herein is of a confidential nature and the property of John Zink Company, LLC and shall not be copied, traced, photographed, or reproduced in any manner nor used for any purpose whatsoever, except by written permission of John Zink Company, LLC. This drawing shall be returned to John Zink Company, LLC upon request. © 2017, John Zink Company, LLC. All rights reserved.

For a list of relevant patents and trademarks, please see johnzinkhamworthy.com/legal-notices

JOHN ZINK HAMWORTHY		COMBUSTION.		JOHN ZINK COMPANY, LLC	
FOR: GREENVILLE UTILITIES		ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER			
USER:		36" O.D. X 12'-0" LG. X 0.75MM BTU/HR			
JOB SITE: GREENVILLE GATE 5, NC		DRAWN: LEW		CHK: <i>J. Dumble</i>	APP: <i>[Signature]</i>
QUOTE NO: D0012816 REV 3	DATE: 6/15/17	DATE: 6/15/17	DATE: 6/15/17	DATE: 6/15/17	SHEET: 2 OF 2
S.O. NO: 9184121	DRAWING NUMBER:	PART NUMBER:		REV:	C
P.O. NO:	9184121-300				
SCALE: NOT TO SCALE					

NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.	DESCRIPTION
C	7/26/17	LEW	CB	CHG'D FUEL TRAIN ORIENTATION PER CUSTOMER REQUEST		
B	6/28/17	LEW	DR	CHG'D. CUSTOMER INFO.	SP-101 TO 104	SPOOL DWG'S.
A	6/15/17	LEW		ISSUED FOR APPROVAL	9184121-101	P&ID DRAWING
				REVISIONS	REFERENCE DRAWINGS	

BAP-1000
INDIRECT GAS FIRED WATER BATH HEATER
30" O.D. X 10'-0" LG. X 0.40MM BTU/HR
CAPACITY: 278 GALLONS
1-1/2" THK. INSULATION

EXP-1000
EXPANSION RESERVOIR
18" O.D. X 2'-0" LG. X ATMOS
CAPACITY: 25 GALLONS

NOZZLE LEGEND

- A COIL INLET
3"-600# R.F. FLG.
- B COIL OUTLET
3"-600# R.F. FLG.
- C FILL CONNECTION
8" PRESSURE VACUUM
- D DRAIN
2" NPT W/ VALVE & PLUG

IMPORTANT METER NOTE:

METER (M-1000) TO BE FURNISHED BY CUSTOMER AND FIELD INSTALLED.

PAINT NOTES:

ALL SURFACES TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:
PRIMER COAT: ONE COAT OF SHERWIN WILLIAMS/KEM KROMIK: COLOR-B50-A26 (GRAY), 4 MILS, D.F.T.

ALL UNINSULATED SURFACES TO BE ADDITIONALLY COATED AS FOLLOWS:
FINISH COAT: ONE COAT OF SHERWIN WILLIAMS/INDUSTRIAL ENAMEL KEM 4000: COLOR SW4026 (SLATE GRAY), 4 MILS D.F.T.

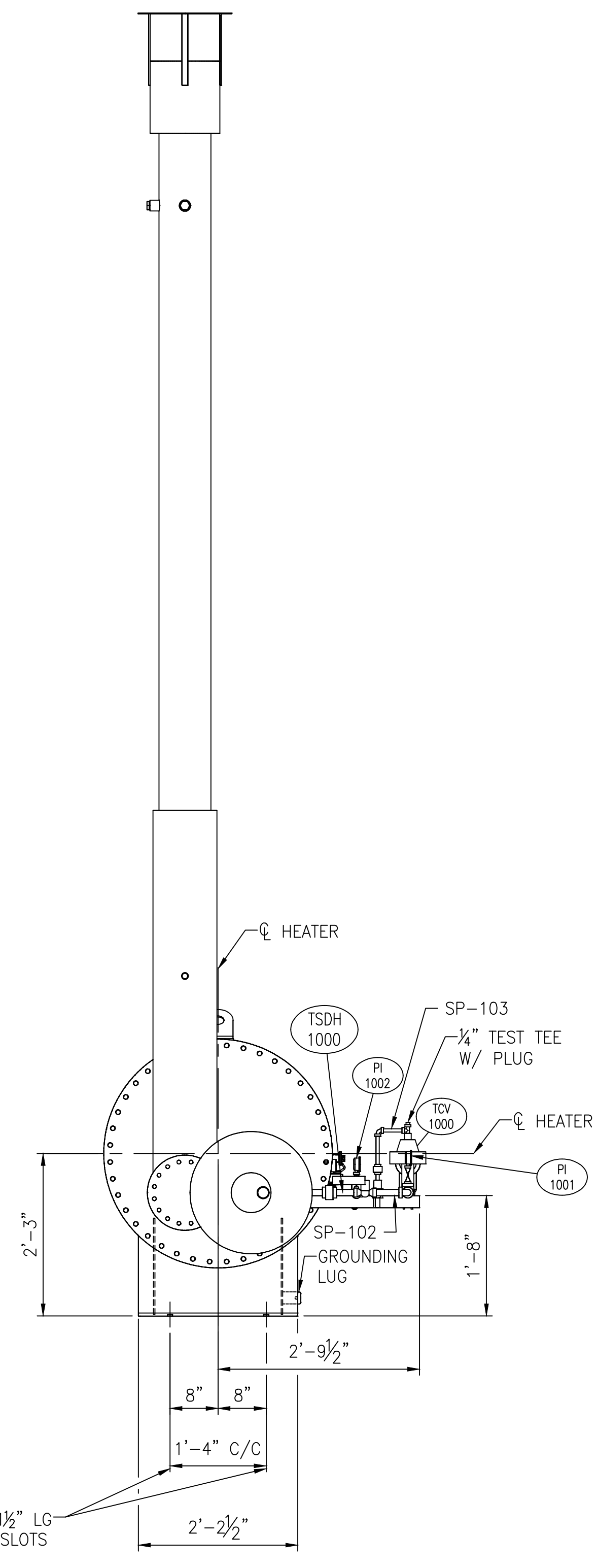
STACK TO BE COMMERCIAL BLAST CLEANED PER SSPC-SP-6 AND COATED AS FOLLOWS:

PRIMER COAT: PPG HIGH BUILD PRIMER HTC 1027 (ALUMINUM), 5.0-6.0 MILS D.F.T.

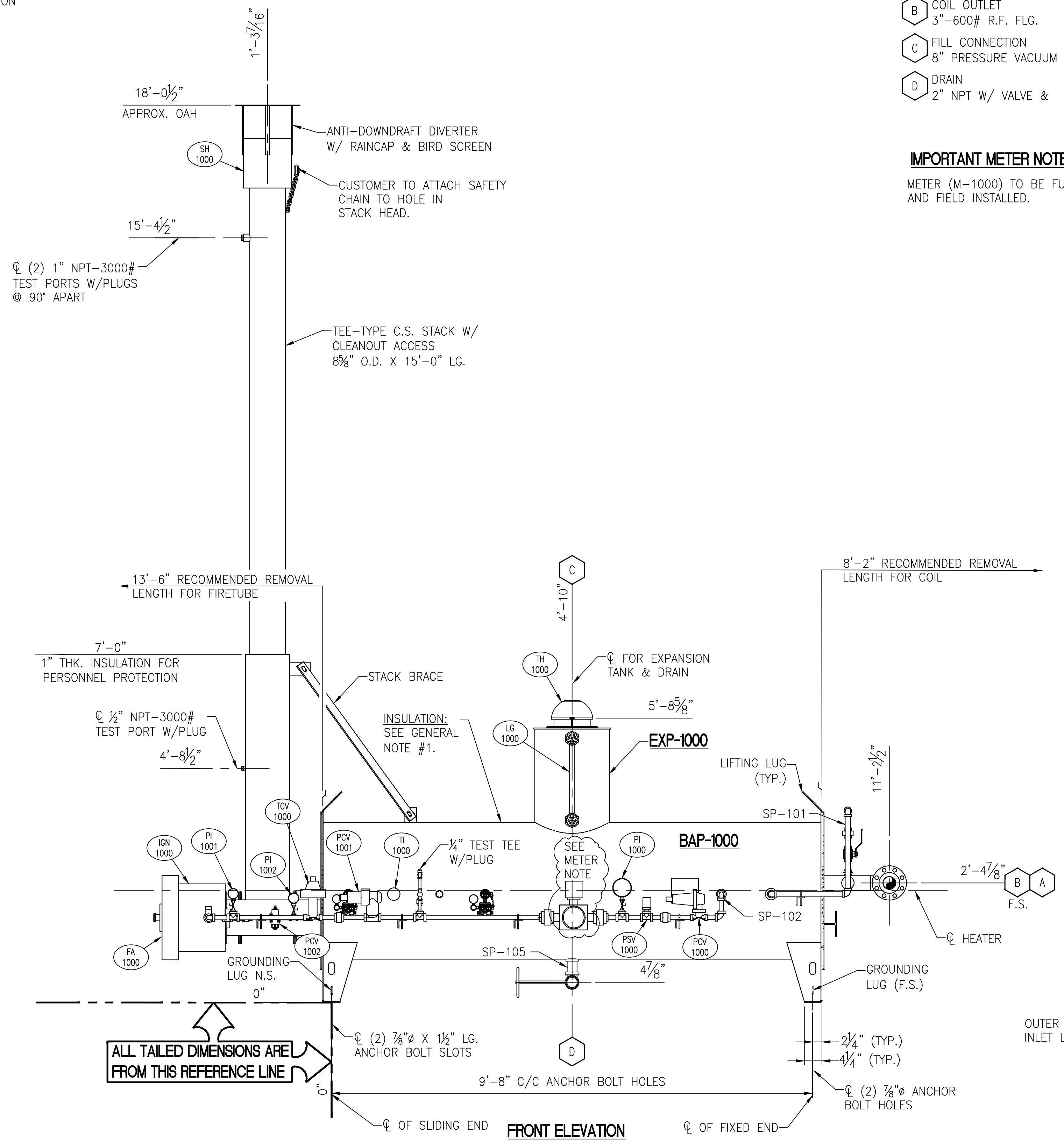
FINISH COAT: PPG 100% SILICONE HTC 1000VS (ALUMINUM), 1.5-2.0 MILS D.F.T.

GENERAL NOTES:

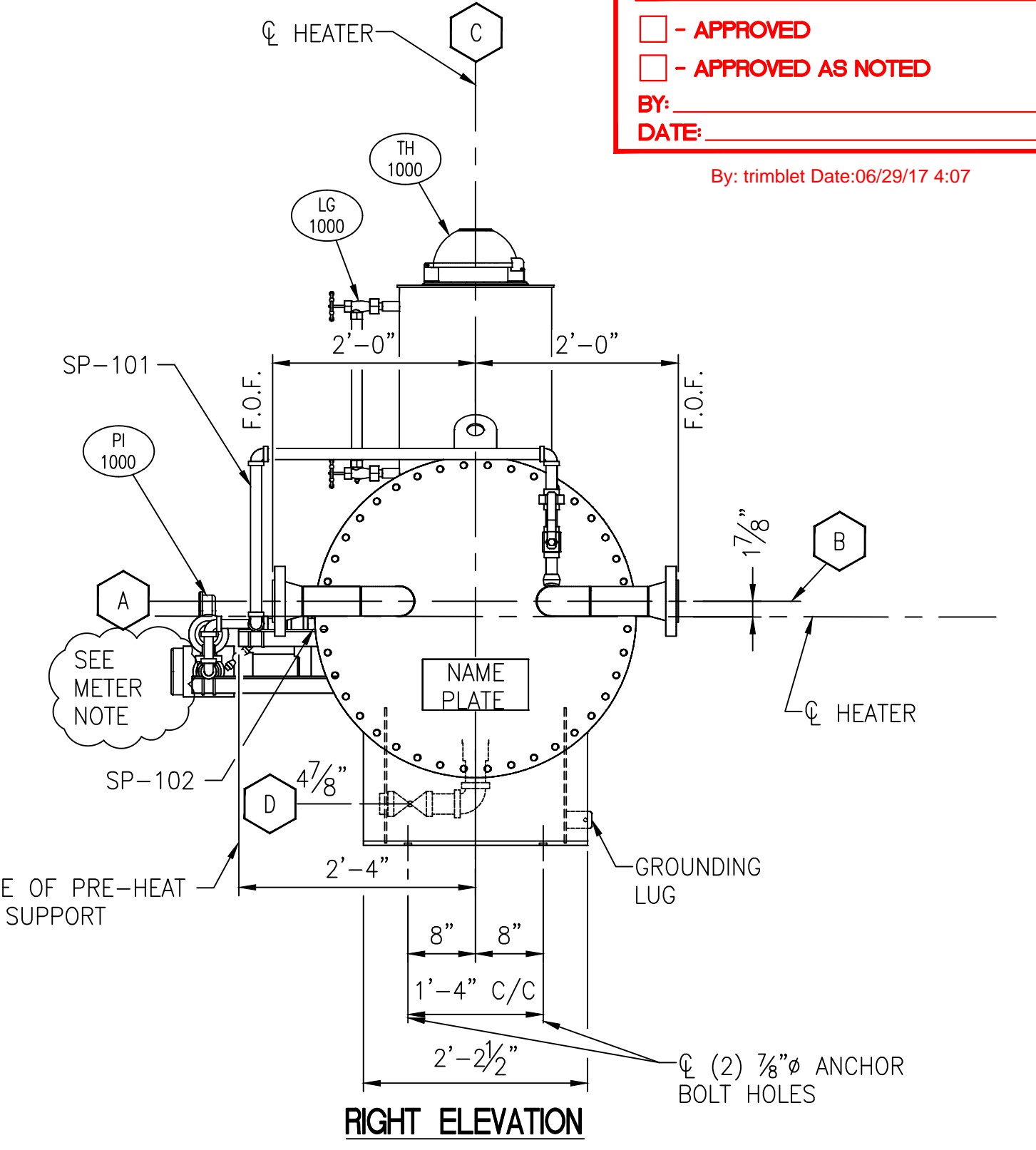
1. HEATER TO BE COVERED W 1/2" THK. EASY WRAP & COVERED WITH .019" THK. EMBOSSED ALUMINUM JACKETING. JACKETING TO BE HELD IN PLACE W/ 1/2" WIDE STAINLESS STEEL BANDING (JACKETING NOT TO BE PAINTED). LOWER PORTION OF STACK TO BE INSULATED W/ 1" THK. BLANKET FOR PERSONNEL PROTECTION ONLY.
2. ALL OPENINGS ARE TO BE PLUGGED OR COVERED SECURELY FOR SHIPMENT. FLANGED OPENINGS ARE TO BE COVERED WITH MOLDED PLASTIC COVERS, THREADED OPENINGS TO HAVE STEEL PLUGS. (NO WOODEN COVERS ALLOWED)
3. UNIT WILL BE TEST FIRED PRIOR TO SHIPMENT (UP THROUGH PILOT LIGHT) TO VERIFY PERFORMANCE & ENSURE THAT ALL SAFETY AND CONTROL SYSTEMS WORK AS DESIGNED. (THE MAIN BURNER WILL NOT BE IGNITED DURING THIS TESTING)
4. LIFT LUGS ARE FOR LIFTING HEATER EMPTY ONLY.
5. APPROXIMATE WEIGHT EMPTY: 4,344#
APPROXIMATE WEIGHT FULL OF WATER: 8,614#



LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION

FOR APPROVAL
 - APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____
 By: trimblet Date: 06/29/17 4:07

ALL TAILED DIMENSIONS ARE FROM THIS REFERENCE LINE

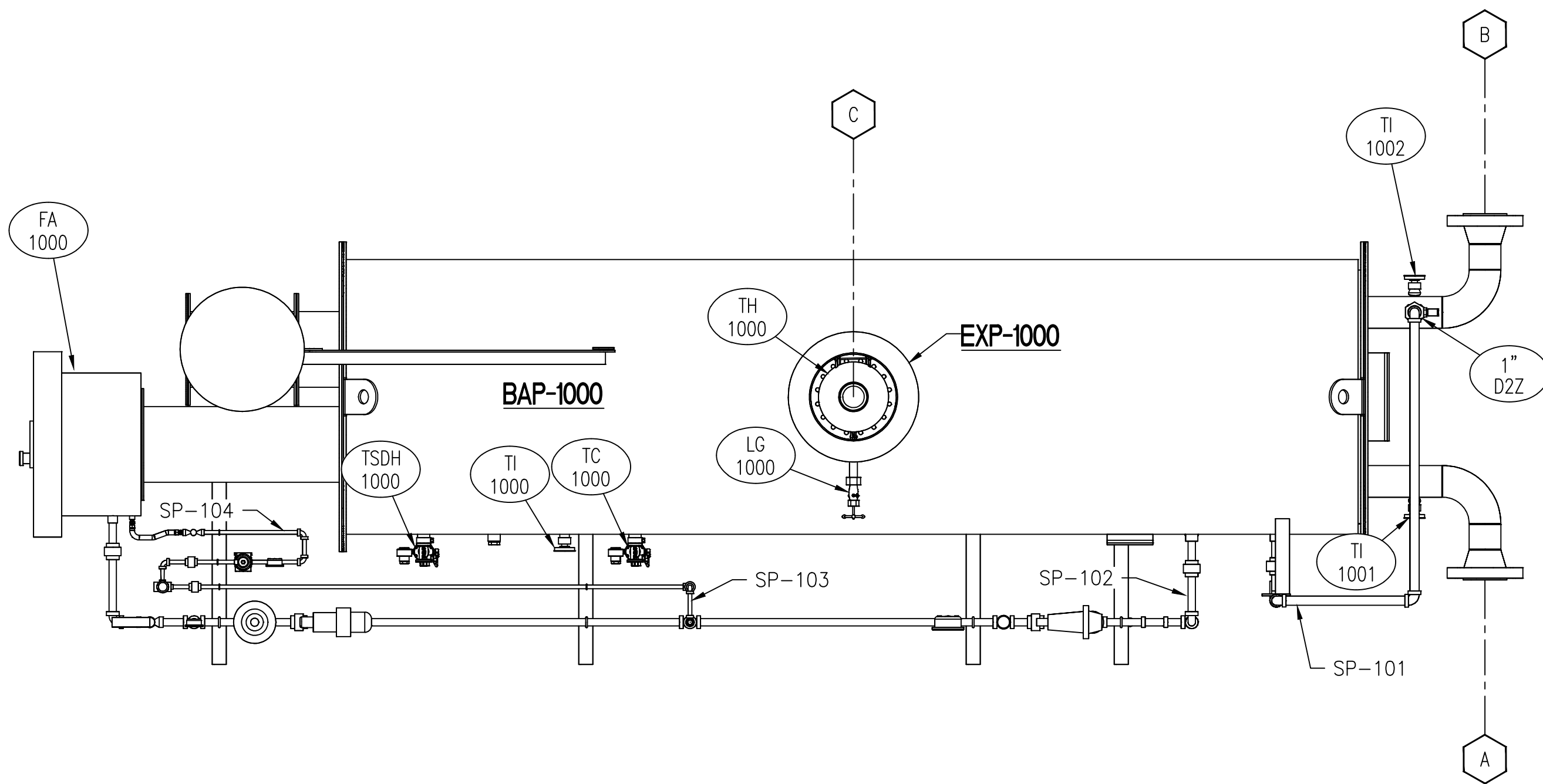
PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM



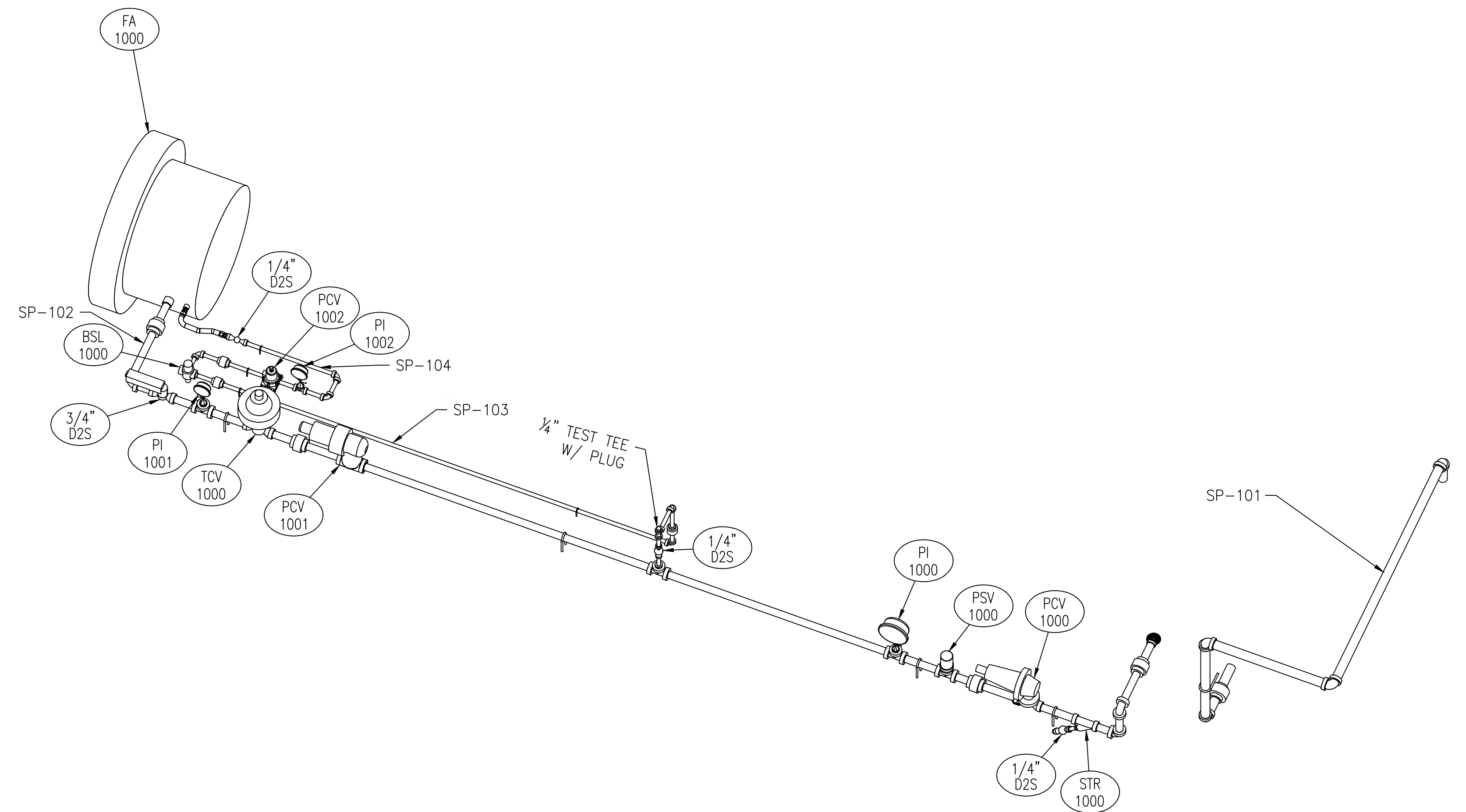
JOHN ZINK HAMWORTHY
COMBUSTION
JOHN ZINK COMPANY, LLC

FOR: GREENVILLE UTILITIES	ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER 30" O.D. X 10'-0" LG. X 0.40MM BTU/HR
USER:	
JOB SITE: GREENVILLE GATE 4, NC	
QUOTE NO: D0012916 REV 3	DRAWN: LEW
S.O. NO: 9184124	DATE: 6/15/17
P.O. NO:	DRAWING NUMBER: 9184124-300
SCALE: NOT TO SCALE	PART NUMBER:

NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.	DESCRIPTION
B	6/28/17	LEW	DR	CHG'D. CUSTOMER INFO.		
A	6/27/17	LEW	DR	ISSUED FOR APPROVAL	9184124-101	P&ID DRAWING



PLAN VIEW



ISOMETRIC OF FUEL TRAIN

FOR APPROVAL

- APPROVED
 - APPROVED AS NOTED
 BY: _____
 DATE: _____

By: irmbiet Date: 07/26/17 3:50

PARTS AND SERVICE, PHONE 1-918-492-0508, EMAIL SALES@ETIENGINEERING.COM

For a list of relevant patents and trademarks, please see johnzinkhamworthy.com/legal-notices

NO.	DATE	BY	ECO	DESCRIPTION	DWG NO.	DESCRIPTION
C	7/24/17	LEW	CB	CHG'D PIPING ORIENTATION PER CUSTOMER REQUEST		
B	6/28/17	LEW	DR	CHG'D CUSTOMER INFO		
A	6/14/17	LEW		ISSUED FOR APPROVAL	9184120-101	P&ID DRAWING
REVISIONS				REFERENCE DRAWINGS		



This drawing and the information contained herein is of a confidential nature and the property of John Zink Company, LLC and shall not be copied, traced, photographed, or reproduced in any manner nor used for any purpose whatsoever, except by written permission of John Zink Company, LLC. This drawing shall be returned to John Zink Company, LLC upon request. © 2017, John Zink Company, LLC. All rights reserved.

FOR: GREENVILLE UTILITIES	ASSEMBLY FOR INDIRECT GAS FIRED WATER BATH HEATER 36" O.D. X 12'-0" LG. X 0.75MM BTU/HR		
USER:	DRAWN: LEW	CHEK: <i>J. Schmitz</i>	APP: <i>[Signature]</i>
JOB SITE:	DATE: 6/14/17	DATE:	SHEET: 2 OF 2
QUOTE NO: D0012716 REV. 3	DRAWING NUMBER: 9184120-300	PART NUMBER:	REV. C
S.O. NO: 9184120	SCALE: NOT TO SCALE		