

FEATURES & BENEFITS

QUALITY CONTROL

Fully assembled and tested for quick placement and hook-up.

STANDARDIZED PLATFORM

Offering a standardized line of water tempering solutions providing shorter lead times, advanced compliance, cost efficiencies, and customizable configuration options.

BLENDING SYSTEM

Safe, fully engineered thermostatic mixing valve for mixing large volumes of hot and cold water guarded with anti-scald protection and full flow cold water bypass to provide tempered water in adverse situations.

TANK SYSTEM OPTIONS

Tanks available: 119 Gal non-ASME (450 L), 120 Gal (454 L) ASME, or 200 Gal (757 L) ASME that will store enough hot water to provide a single 15 minute shower and eye/face wash use. Also available in ASME is a 318 Gal (1203 L) or 400 Gal (1514 L) that stores enough hot water to provide two 15 minute shower and eye/face wash uses before tank recovery is required.

EXPANDABLE/FLEXIBLE CAPABILITIES

System can be designed to a number of variations including the hot water supply, the electrical type, the blending capabilities, and pump options including VFD controlled pump.

ELECTRICAL SYSTEM OPTIONS

Haws provides systems at various voltage options, including 480V 3ph, 600V 3ph, 208V 1ph, 208V 3ph, 240V 1ph, and 240V 3ph. Electrical area rating option includes Type 4 Ordinary Location.



SPECIFICATIONS

Model 8785 enclosed tempering system shall include an all-weather 5' x 5' (1.52 x 1.52m) booth which provides optional operating temperature ranges of -50° to 120° F (-45.5° to 49.8° C), and is constructed of corrosion resistant aluminum paneling with polyester based powder coating. This single or multiple shower and/or eyewash tempering water unit with galvanized piping is designed to operate with a number of tempering and electrical options. Standard hook-up is a 480V, three phase inlet inside a TYPE 4 enclosure. The internal booth temperature can be maintained by an optional space heater. The tank water temperature is maintained by an immersion heater. The electrical system can be easily adapted to voltages upon request. The 8785 tempering booth utilizes the Haws Tempered Water Blending System to provide tempered water under dire situations, and incorporates fail-safe features like anti-scald protection and full flow cold water bypass in the event of hot water failure. 1-1/2" tepid and cold water inlets. CSA Certified

OPTIONS

- Temperature control packages including 4 or 10 kW immersion heaters, integrated space heater
- Alarm package
- Stainless steel valves and/or piping
- Recirculation pump or booster/recirc pump

For more information, visit www.hawscos.com or call (888) 640-4297.

APPLICATIONS

Perfect for outdoor facilities that may encounter dangerous chemical hazards and need a complete tempering system, and/or need a feeder to other remote booth substations or other drench systems and/or eyewash stations.

NOTES:

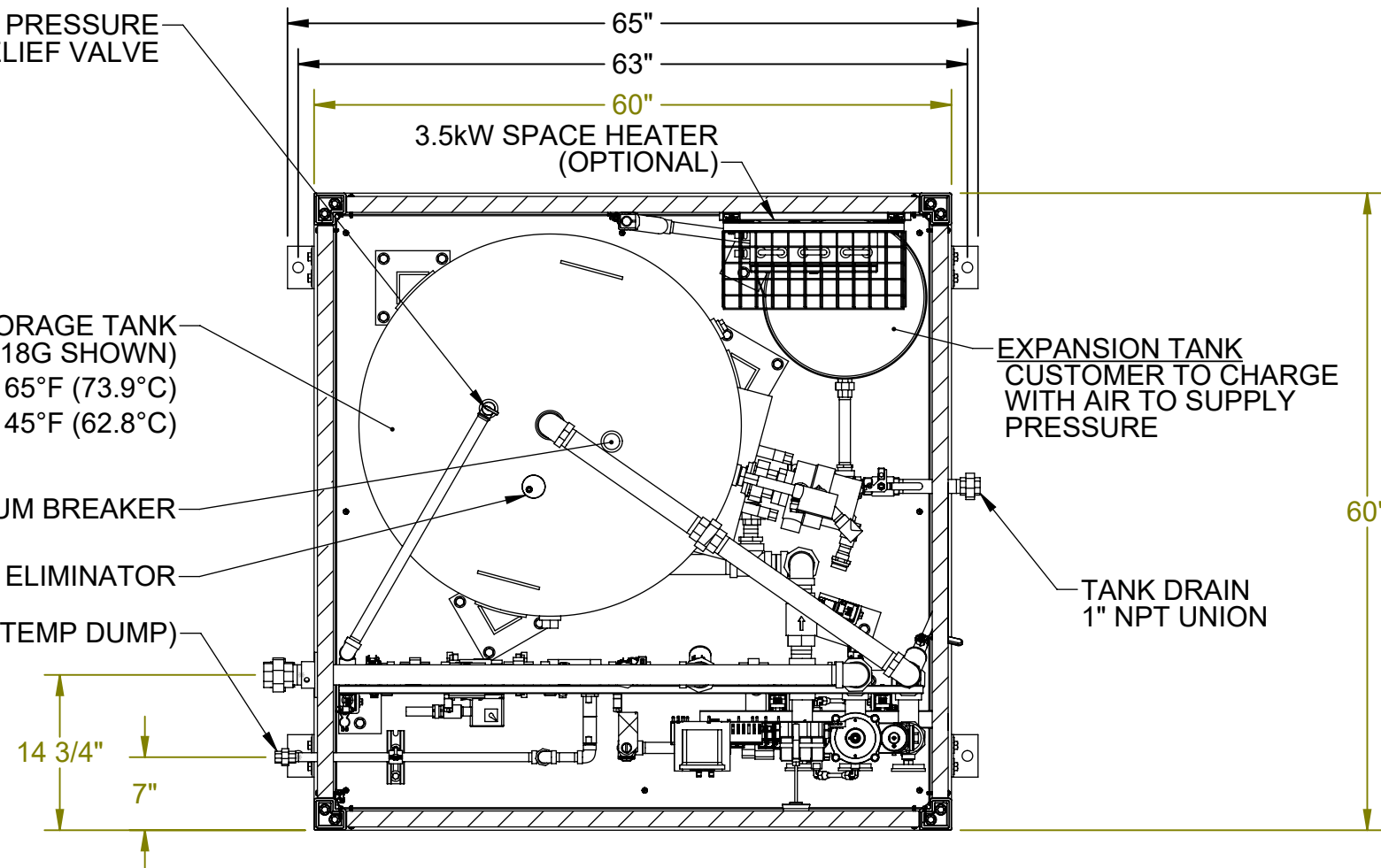
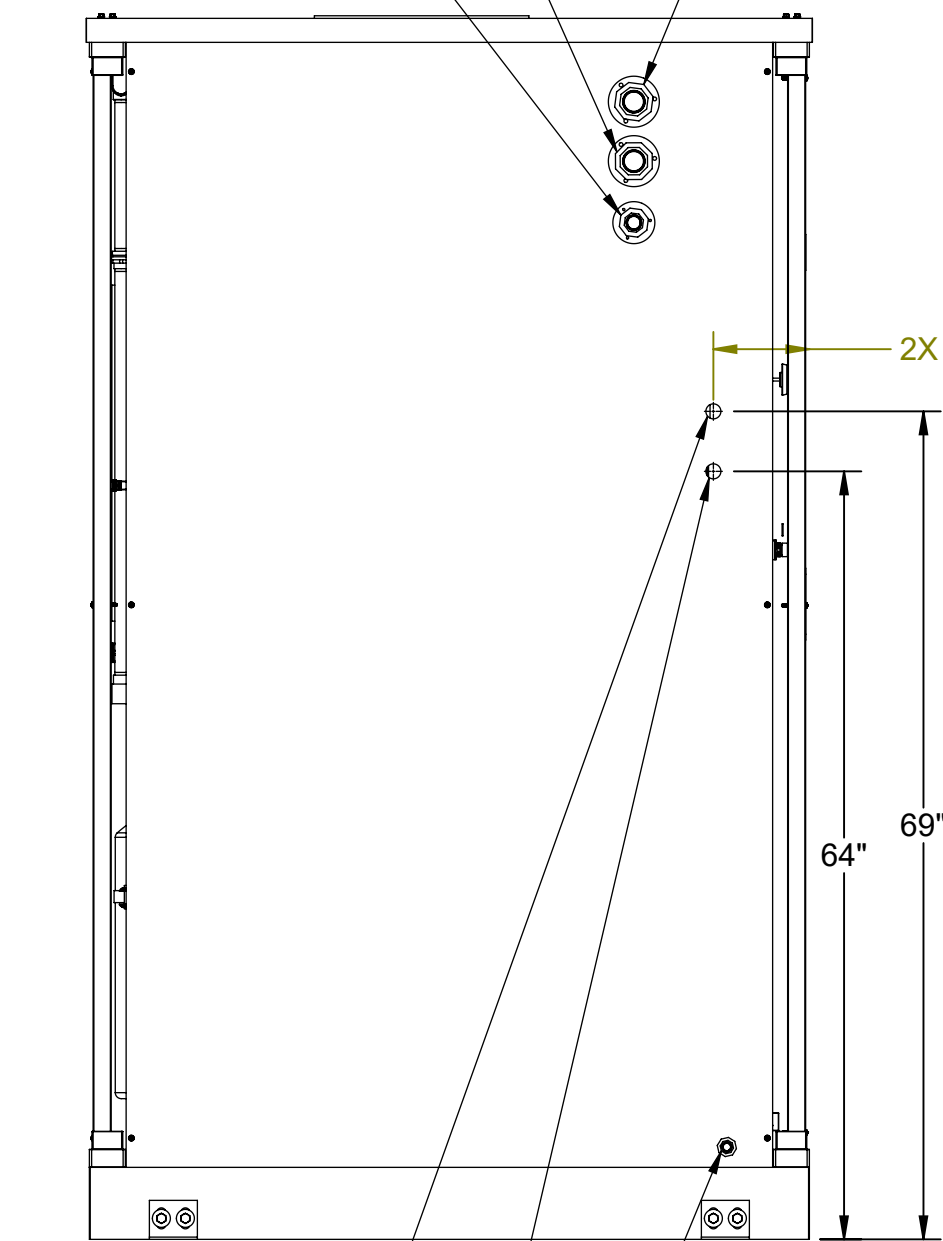
1. DIMENSIONS IN INCHES.
2. ALL TOLERANCES: $\pm 1/2"$
3. ESTIMATED WEIGHT:
DRY: 1300 LB
WET: 4000 LB
4. AREA CLASSIFICATION: ORDINARY
5. AVAILABLE AMBIENT TEMPERATURE RANGES:
-50°F-104°F (-45.6°C-40°C), 32°F-104°F (0°C-40°C)
6. RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION
7. NOT ALL FEATURES ARE STANDARD

OPTIONS		DWG REF.
PUMP CONFIGURATION	NO PUMP	P5-0
	RECIRCULATION PUMP	P5-1
JUNCTION BOX TYPE RATING	TYPE 4, STEEL	P7-0
	TYPE 4X, 304 SST	P7-1
ALARM (IN USE)	NONE	-
	ISOLATED DRY CONTACTS	P12-3
MIXING VALVE QTY.	SINGLE	P30-1
	DUAL	P30-2
EXPANSION TANK	NON-ASME	P10-T
	ASME	P10-A/E

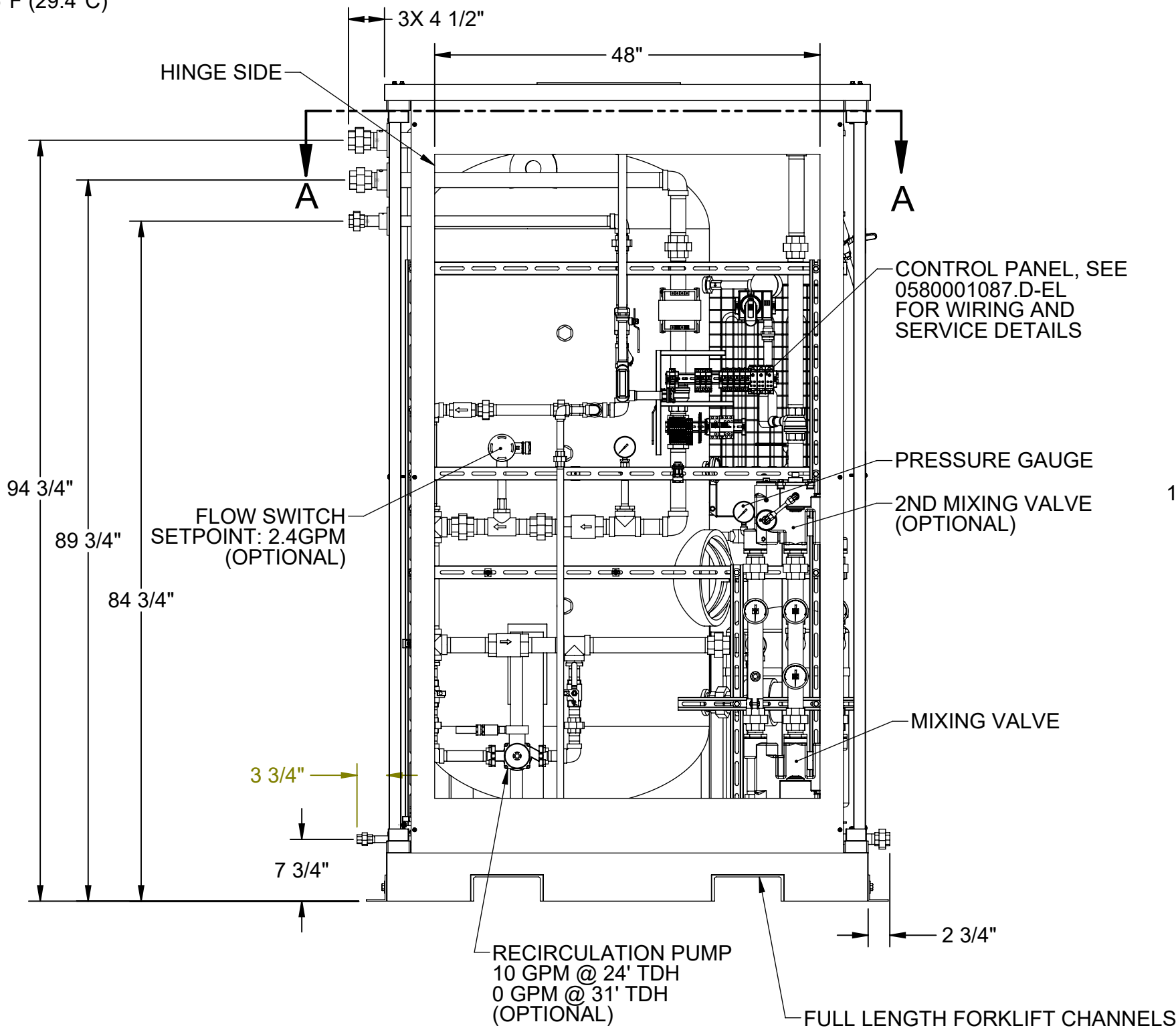
CUSTOMER CONNECTION
COLD WATER INLET
1-1/2" NPT UNION
95°F MAX (35°C MAX)

CUSTOMER CONNECTION
RECIRC RETURN INLET
1" NPT UNION
(PUMP UNITS ONLY)

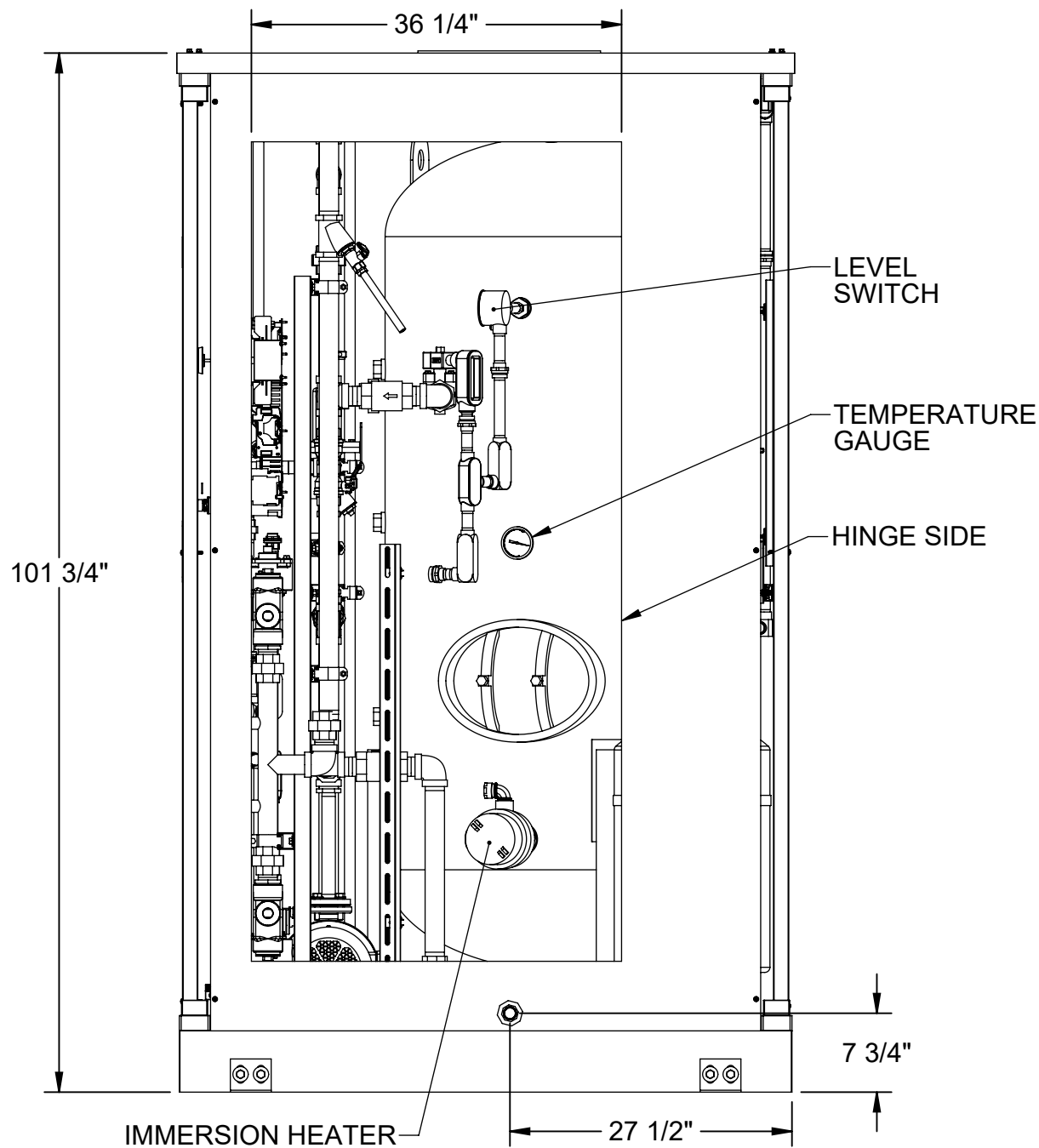
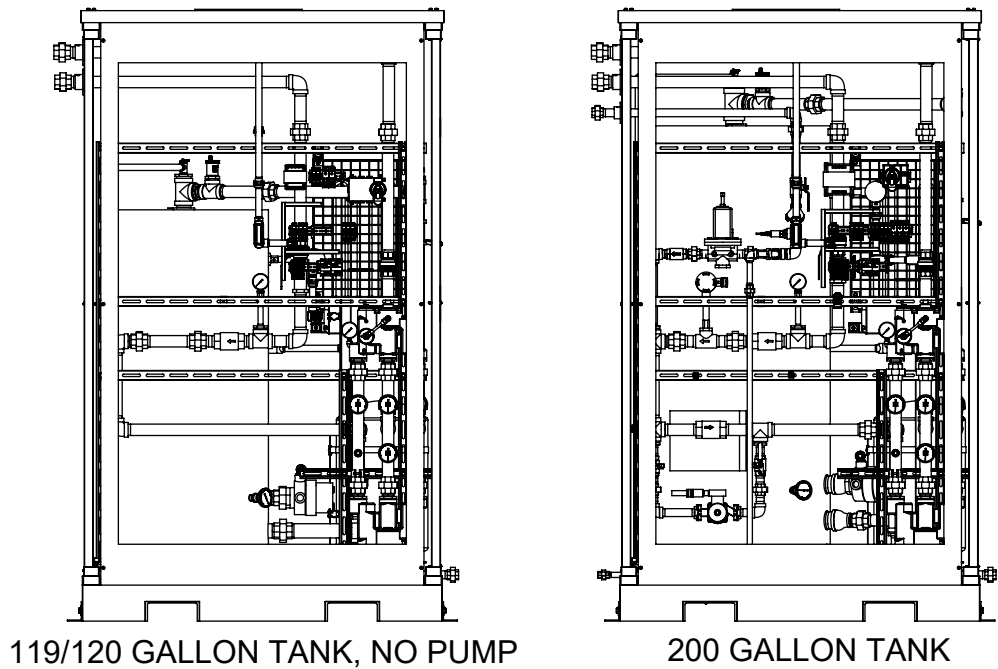
CUSTOMER CONNECTION
TEMPERED WATER OUTLET
1-1/2" NPT UNION
SET TEMP: 85°F (29.4°C)




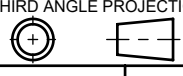
SECTION A-A



TANK SIZE				
(TANK TEMPERATURES ARE SET AT 165°F (73.9°C) FOR USA AND 145°F (62.8°C) FOR CANADA)				
TANK SIZE	TANK TEMP.	SHOWER CAPACITY (15 MIN.)	MINIMUM INLET TEMP.	OPTION SELECTED
119G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
120G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
200G	145°F/62.8°C	1	35°F/1.7°C	
	165°F/73.9°C	1	32°F/0°C	
318G	145°F/62.8°C	2	50°F/10°C	
	165°F/73.9°C	2	39°F/3.9°C	
400G	145°F/62.8°C	2	35°F/1.7°C	N/A
	165°F/73.9°C	2	32°F/0°C	N/A



THE ATTACHED DESIGNS ARE CONSIDERED TRADE SECRETS AND POTENTIALLY PATENTABLE. IN ACCORDANCE WITH CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT, THESE DESIGNS IN ACTUAL OR CONCEPTUAL FORMS CANNOT BE DISCLOSED, REPRODUCED OR USED WITHOUT HAWS' EXPRESS WRITTEN CONSENT.

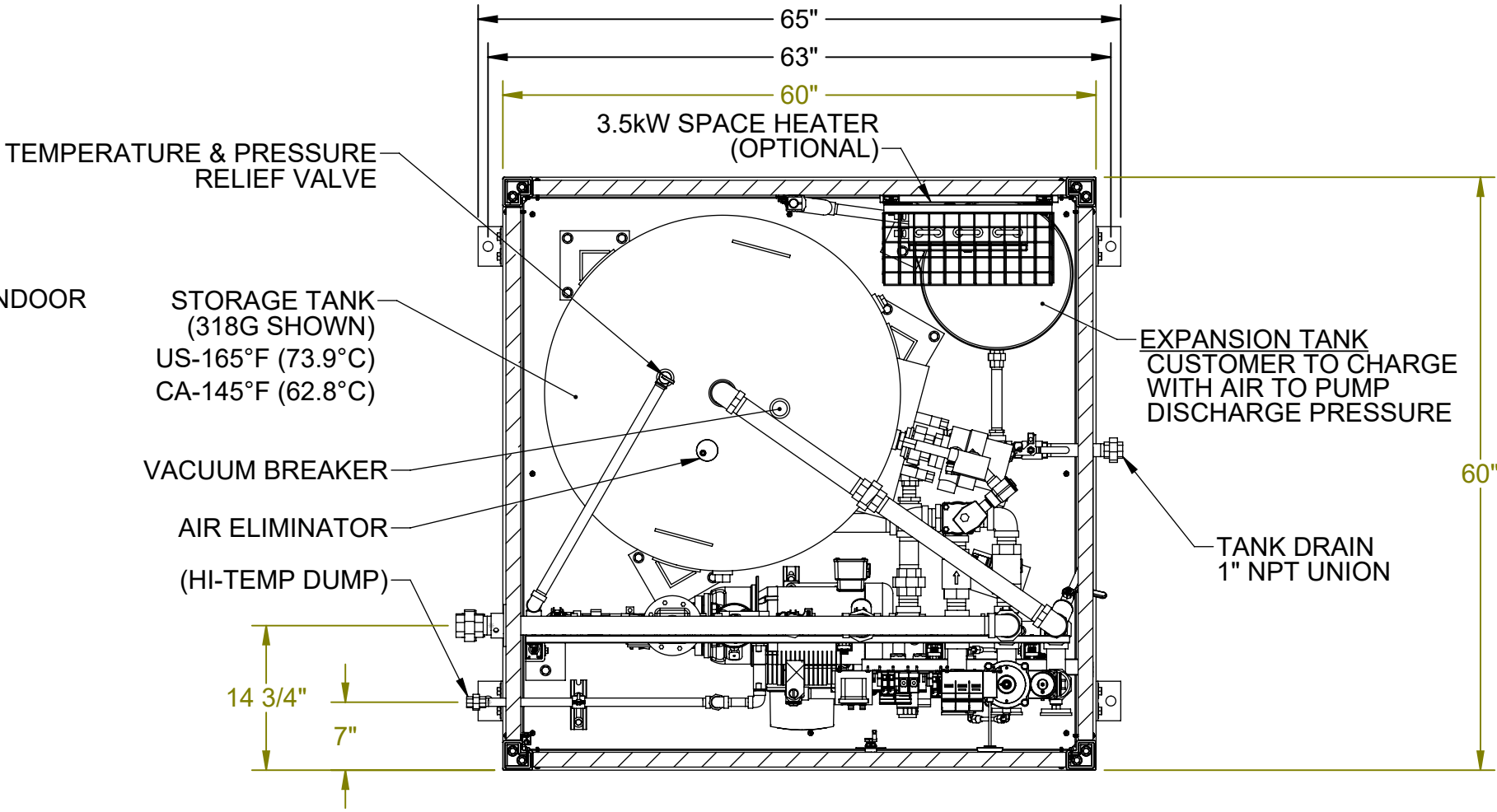
CUSTOMER INFO/TAG #:		 1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
JOB NUMBER:		TITLE ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH	
DRAWN BY:	IR	NOTICE OF PROPRIETARY INFORMATION INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF HAWS CORPORATION AND THIS DOCUMENT AND THE DATA DISCLOSED HEREIN OR HEREWITH IS NOT TO BE REPRODUCED, USED OR DISCLOSED IN WHOLE OR IN PART TO ANYONE WITHOUT THE PERMISSION OF HAWS CORPORATION.	
DRAWN DATE:	07/26/21	THIRD ANGLE PROJECTION 	
CHECKED BY:	DW	GA SH 1 OF 1	
CHECKED DATE:	12/11/23	SCALE SIZE PART NO. 1:16 C 0580001087.D-GA	
APPROVED BY:	IR	REV. 4	
APPROVAL DATE:	12/11/23		

NOTES:

1. DIMENSIONS IN INCHES.
2. ALL TOLERANCES: $\pm 1/2"$
4. ESTIMATED WEIGHT:
DRY: 1300 LB
WET: 4000 LB
5. AREA CLASSIFICATION: ORDINARY
6. AVAILABLE AMBIENT TEMPERATURE RANGES:
 -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
7. NOT ALL FEATURES ARE STANDARD
8. RECOMMENDED RECIRCULATION FLOWRATE: 10GPM
9. PRESSURE TRANSMITTER SETPOINT IS TYPICALLY SET TO 30PSI + ELEVATION CHANGE FROM SKID TO HIGHEST SHOWER (1FT = .433PSI)
10. A BACK PRESSURE REGULATOR IS REQUIRED FOR THE FOLLOWING CONDITION: SUPPLY PRESSURE < 30PSI + ELEVATION CHANGE FROM SKID TO HIGHEST SHOWER RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION
- 11.

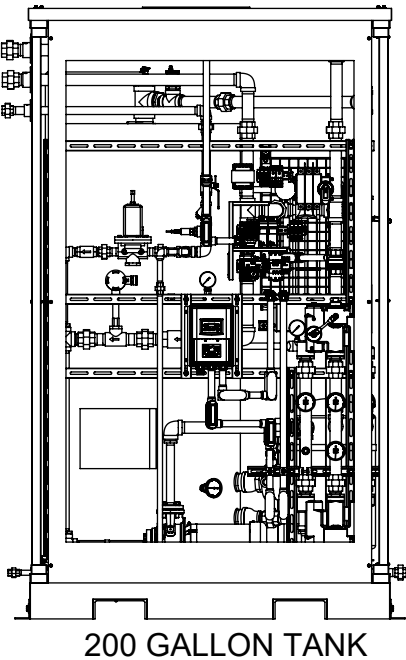
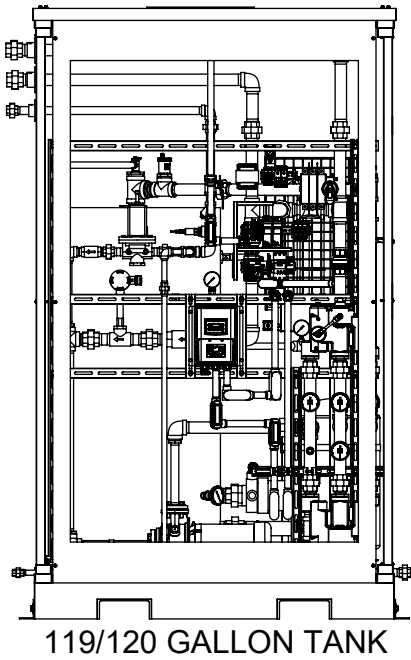
OPTIONS		DWG REF.
PUMP CONFIGURATION	BOOSTER/RECIRC W/ VFD	P5-3
JUNCTION BOX TYPE RATING	TYPE 4, STEEL	P7-0
	TYPE 4X, 304 SST	P7-1
ALARM (IN USE)	NONE	-
	ISOLATED DRY CONTACTS	P12-3
MIXING VALVE QTY.	SINGLE	P30-1
	DUAL	P30-2

MODELS WITH VFD RECIRC/BOOSTER PUMP



REVISIONS				
REV	DESCRIPTION	ECN	DATE	BY
4	PER ECO	5963	11/22/2023	DW

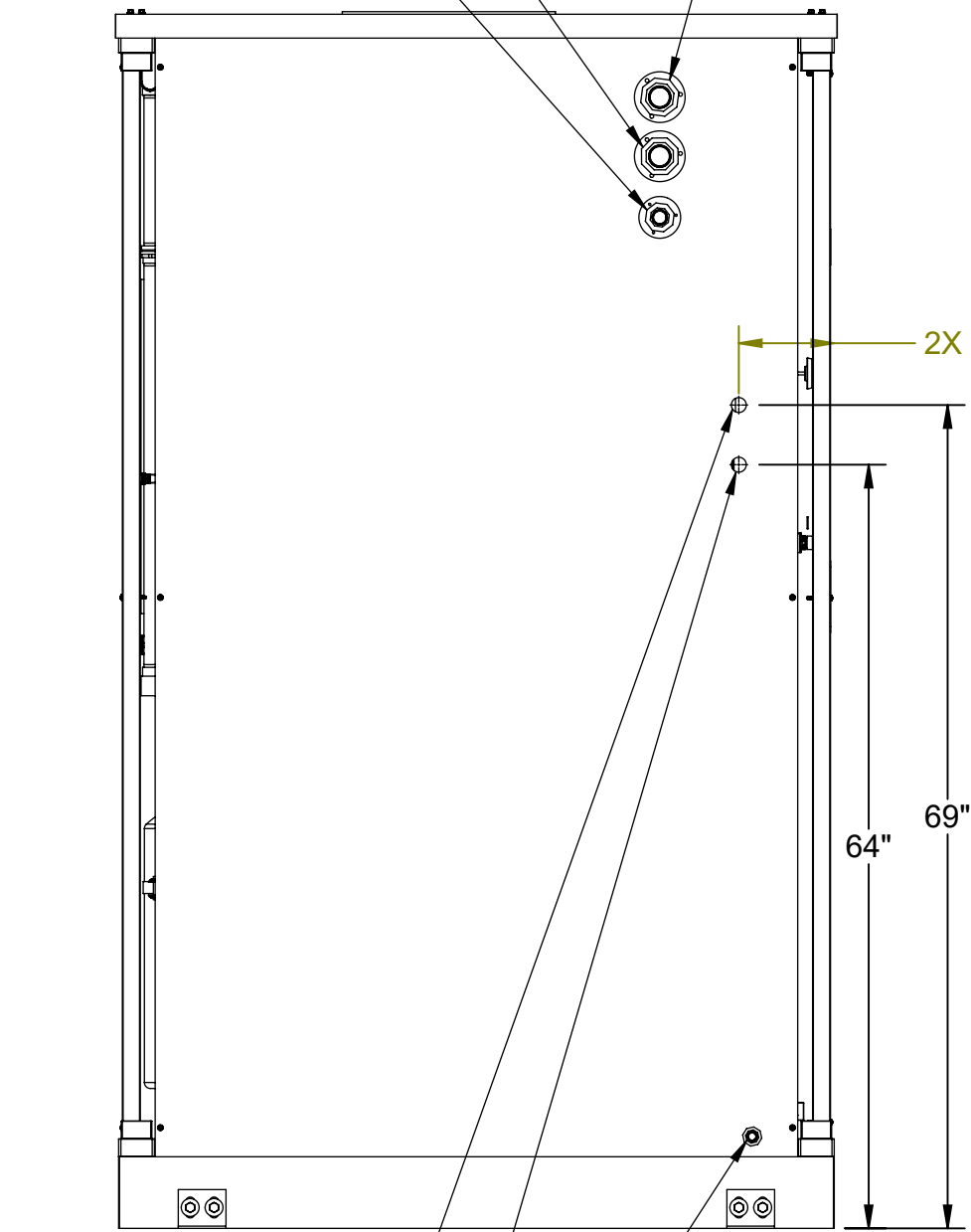
TANK SIZE				
(TANK TEMPERATURES ARE SET AT 165°F (73.9°C) FOR USA AND 145°F (62.8°C) FOR CANADA)				
TANK SIZE	TANK TEMP.	SHOWER CAPACITY (15 MIN.)	MINIMUM INLET TEMP.	OPTION SELECTED
119G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
120G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
200G	145°F/62.8°C	1	35°F/1.7°C	
	165°F/73.9°C	1	32°F/0°C	
318G	145°F/62.8°C	2	50°F/10°C	
	165°F/73.9°C	2	39°F/3.9°C	
400G	145°F/62.8°C	2	35°F/1.7°C	N/A
	165°F/73.9°C	2	32°F/0°C	N/A



CUSTOMER CONNECTION
COLD WATER INLET
1-1/2" NPT UNION
95°F MAX (35°C MAX)

CUSTOMER CONNECTION
TEMPERED WATER OUTLET
1-1/2" NPT UNION
SET TEMP: 85°F (29.4°C)

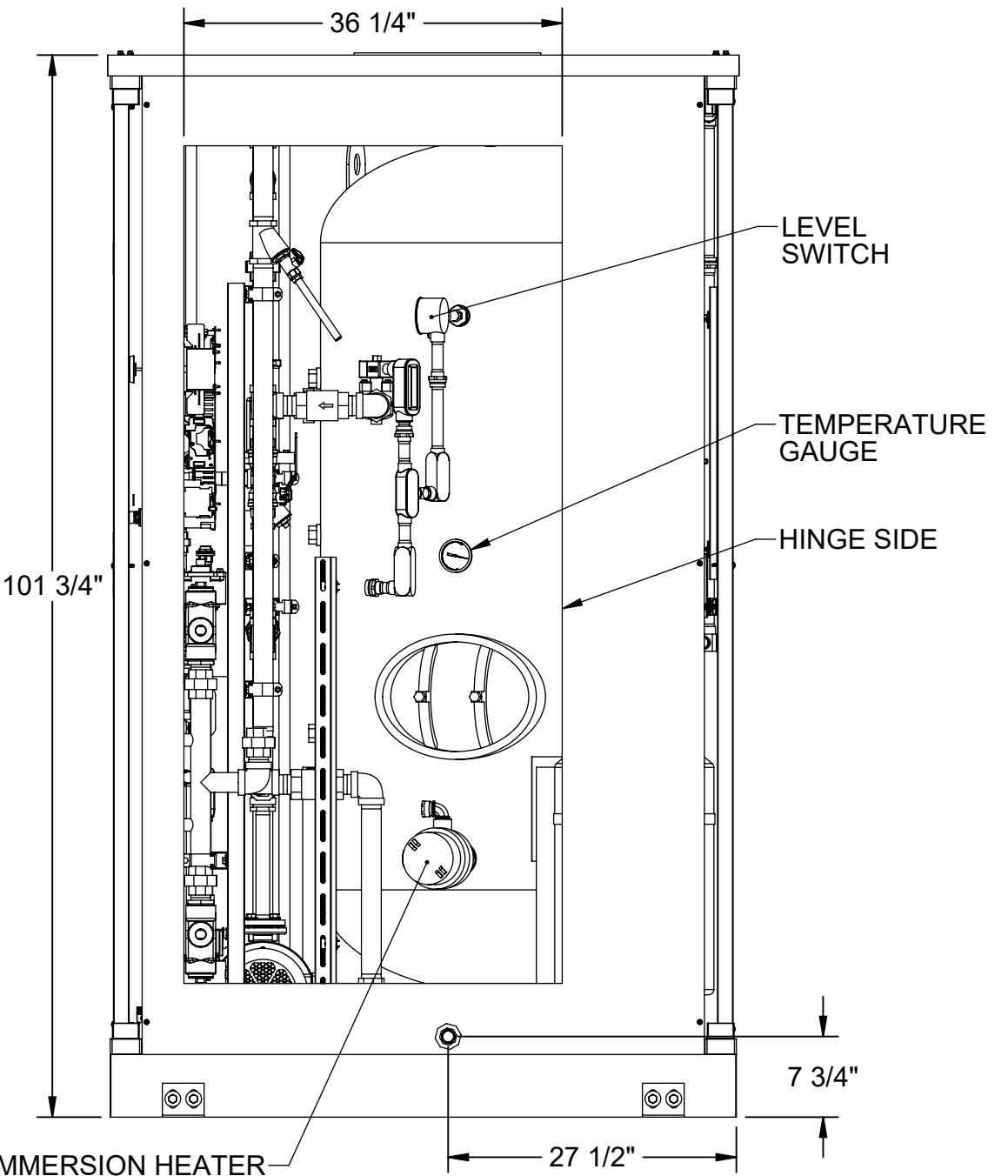
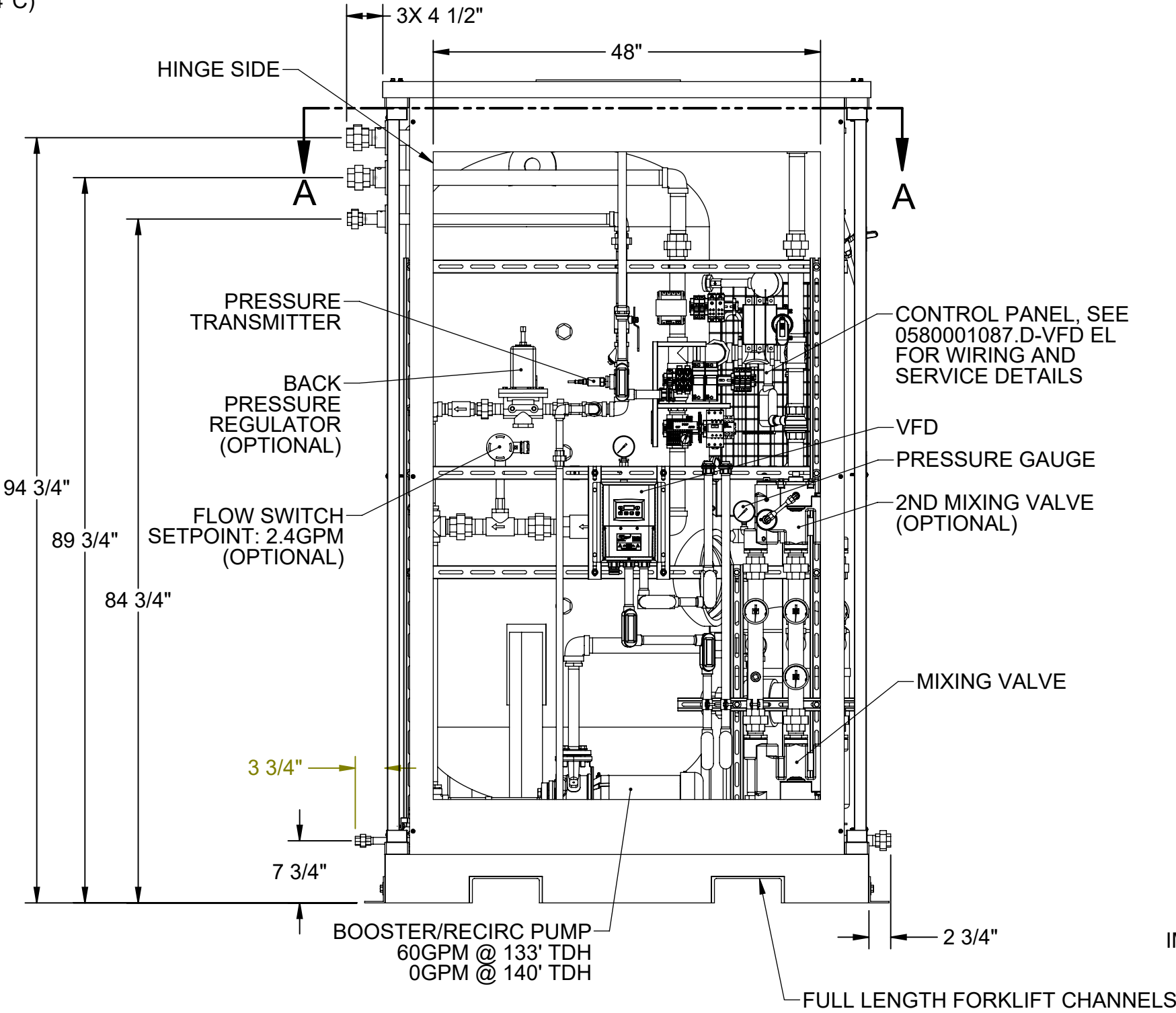
CUSTOMER CONNECTION
RECIRC RETURN INLET
1" NPT UNION



CUSTOMER ENTRY
3/4" CONDUIT
POWER CONNECTION

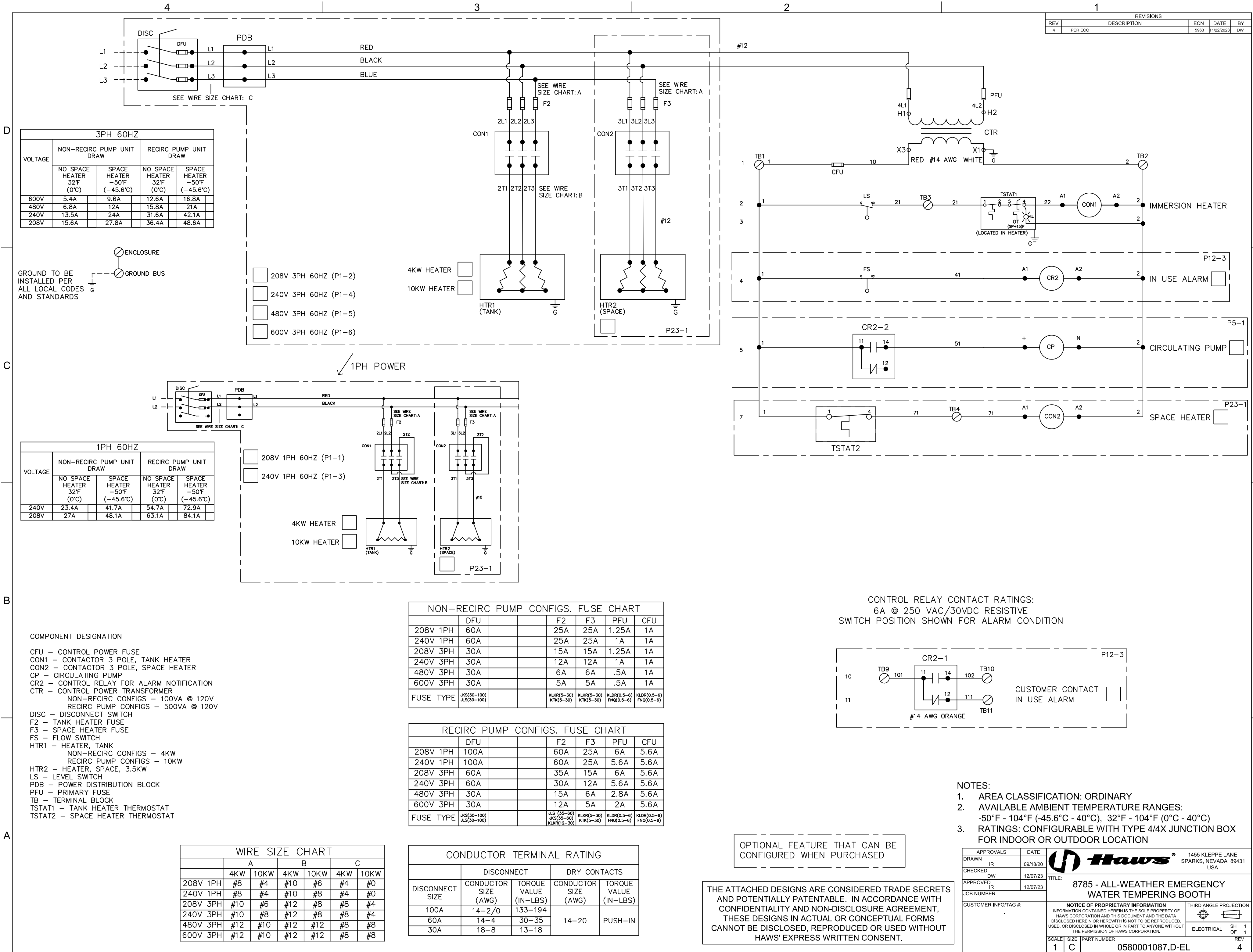
CUSTOMER ENTRY
3/4" CONDUIT
ALARM DRY CONTACTS

CUSTOMER CONNECTION
HI-TEMP DUMP
1/2" NPT UNION
>95°F (35°C)



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CUSTOMER INFO/TAG #:		1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
JOB NUMBER:		TITLE ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH	
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DRAWN DATE:	07/26/21	THIRD ANGLE PROJECTION 	
CHECKED BY:	DW	GA SH 1 OF 1	
CHECKED DATE:	12/11/23	SCALE SIZE PART NO. 1:16 C 0580001087.D-VFD GA	
APPROVED BY:	IR	REV. 4	
APPROVAL DATE:	12/11/23		

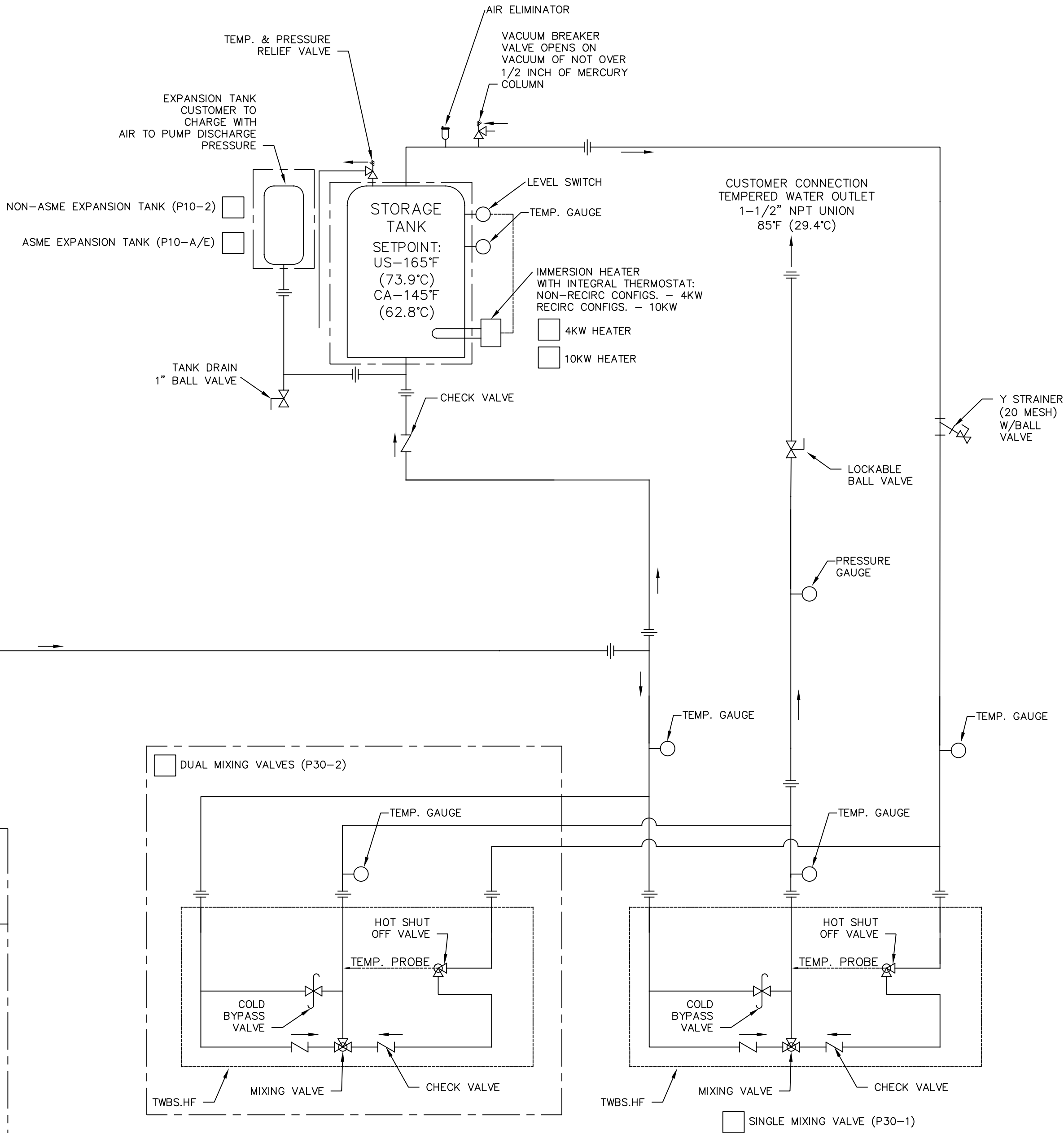


- NOTES:
1. AREA CLASSIFICATION: ORDINARY
 2. AVAILABLE AMBIENT TEMPERATURE RANGE: -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
 3. SEE TABLE 1 FOR PRESSURE DROP ACCROSS SKID. SHOWERS AND EYEWASHES REQUIRE 30PSI MINIMUM AT THEIR HIGHEST FLOW RATE.
 4. RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION


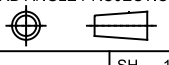
PRESSURE DROP ACROSS SKID (SINGLE COMBINATION SHOWER FLOWS 30GPM)		
SKID CONFIGURATION	PRESSURE DROP	
60GPM/SST PIPE/2 TWBS	17 PSI	
60GPM/GALV PIPE/2 TWBS	24 PSI	
60GPM/SST PIPE/1 TWBS	30 PSI	
60GPM/GALV PIPE/1 TWBS	37 PSI	
30GPM/SST PIPE/2 TWBS	4 PSI	
30GPM/GALV PIPE/2 TWBS	6 PSI	
30GPM/SST PIPE/1 TWBS	8 PSI	
30GPM/GALV PIPE/1 TWBS	10 PSI	

TABLE 1

TANK SIZE (TANK TEMPERATURES ARE SET AT 165°F (73.9°C) FOR USA AND 145°F (62.8°C) FOR CANADA)				
TANK SIZE	TANK TEMP.	SHOWER CAPACITY (15 MIN.)	MINIMUM INLET TEMP.	OPTION SELECTED
119G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
120G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
200G	145°F/62.8°C	1	35°F/1.7°C	
	165°F/73.9°C	1	32°F/0°C	
318G	145°F/62.8°C	2	50°F/10°C	
	165°F/73.9°C	2	39°F/3.9°C	
400G	145°F/62.8°C	2	35°F/1.7°C	N/A
	165°F/73.9°C	2	32°F/0°C	N/A



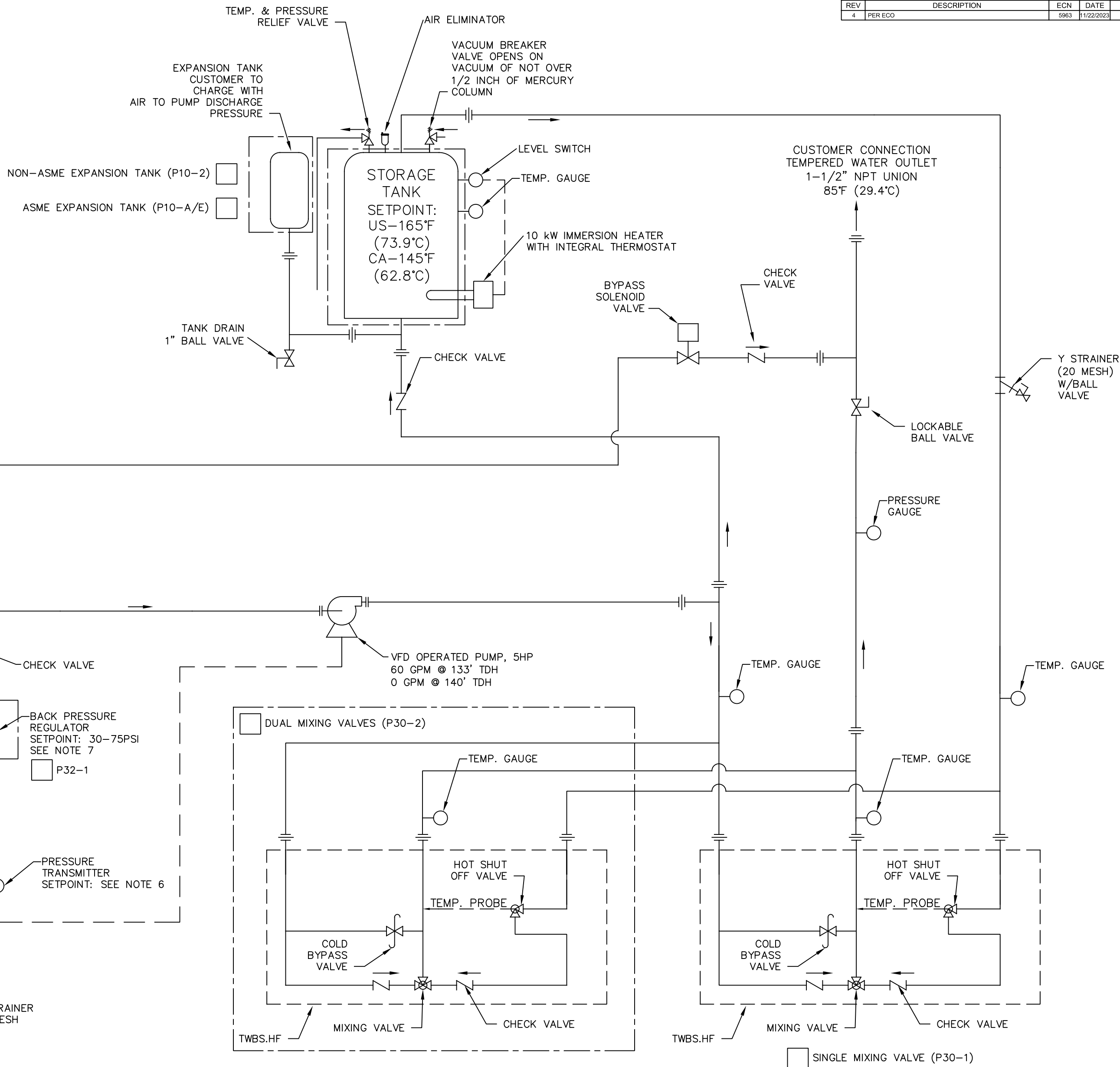
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APPROVALS		DATE			1455 KLEPPE LANE SPARKS, NEVADA 89431 USA			
DRAWN	IR	09/18/20						
CHECKED	DW	12/07/23	TITLE: 8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH					
APPROVED	IR	12/07/23						
JOB NUMBER			CUSTOMER INFO/ TAG #:					
			NOTICE OF PROPRIETARY INFORMATION INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF HAWS CORPORATION AND THIS DOCUMENT AND THE DATA DISCLOSED HEREIN OR HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR IN PART TO ANYONE WITHOUT THE PERMISSION OF HAWS CORPORATION.					
SCALE	SIZE	PART NUMBER	THIRD ANGLE PROJECTION				P&ID	SH OF 1
N/A	C	0580001087.D-PID						REV 4

ALLOWABLE SHOWER LOOP PRESSURE DROPS (20PSI INLET, ELEVATION GAIN INCLUDED, SINGLE COMBINATION SHOWER FLOWS 30GPM)	
SKID CONFIGURATION	PRESSURE DROP
60GPM/SST PIPE/2 TWBS	30 PSI
60GPM/GALV PIPE/2 TWBS	24 PSI
60GPM/SST PIPE/1 TWBS	17.5 PSI
60GPM/GALV PIPE/1 TWBS	11 PSI
30GPM/SST PIPE/2 TWBS	43.5 PSI
30GPM/GALV PIPE/2 TWBS	42 PSI
30GPM/SST PIPE/1 TWBS	39.5 PSI
30GPM/GALV PIPE/1 TWBS	38 PSI

TABLE 1

TANK SIZE (TANK TEMPERATURES ARE SET AT 165°F (73.9°C) FOR USA AND 145°F (62.8°C) FOR CANADA)				
TANK SIZE	TANK TEMP.	SHOWER CAPACITY (15 MIN.)	MINIMUM INLET TEMP.	OPTION SELECTED
119G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
120G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
200G	145°F/62.8°C	1	35°F/1.7°C	
	165°F/73.9°C	1	32°F/0°C	
318G	145°F/62.8°C	2	50°F/10°C	
	165°F/73.9°C	2	39°F/3.9°C	
400G	145°F/62.8°C	2	35°F/1.7°C	N/A
	165°F/73.9°C	2	32°F/0°C	N/A


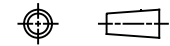


NOTES:

1. AREA CLASSIFICATION: ORDINARY
2. AVAILABLE AMBIENT TEMPERATURE RANGE: -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
3. RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION
4. SEE TABLE 1 FOR ALLOWABLE PRESSURE DROP FROM SKID OUTLET TO SHOWERS. PRESSURE DROP INCLUDES ELEVATION CHANGES. PRESSURE DROP VALUES GIVEN FOR SUPPLY PRESSURE OF 20PSI, IF SUPPLY PRESSURE IS HIGHER, ADD THE DIFFERENCE BETWEEN SUPPLY PRESSURE AND 20PSI TO THE PRESSURE DROP GIVEN TO GET ADJUSTED ALLOWABLE PRESSURE DROP. ALLOWABLE PRESSURE DROP SHOULD NEVER EXCEED 60PSI WITH OUT FURTHER ANALYSIS AS THIS COULD LEAD TO OVER-PRESSURIZING SHOWERS.
5. RECOMMENDED RECIRCULATION FLOWRATE: 10GPM
6. PRESSURE TRANSMITTER SETPOINT IS TYPICAL SET TO 30PSI + ELEVATION CHANGE FROM SKID TO HIGHEST SHOWER (1FT = .433PSI)
7. A BACK PRESSURE REGULATOR IS REQUIRED FOR THE FOLLOWING CONDITION: SUPPLY PRESSURE < 30PSI + ELEVATION CHANGE FROM SKID TO HIGHEST SHOWER

OPTIONAL FEATURE THAT CAN BE CONFIGURED WHEN PURCHASED

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APPROVALS		DATE	 Haws®	1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
DRAWN	IR	09/18/20			
CHECKED	DW	12/07/23			
APPROVED	IR	12/07/23			
JOB NUMBER					
CUSTOMER INFO/TAG #:			TITLE:		
			8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH W/VFD PUMP		
			NOTICE OF PROPRIETARY INFORMATION INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF HAWS CORPORATION AND THIS DOCUMENT AND THE DATA DISCLOSED HEREIN OR HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR IN PART TO ANYONE WITHOUT THE PERMISSION OF HAWS CORPORATION.		
			THIRD ANGLE PROJECTION		
					
			P&ID		SH OF 1
					1
SCALE		SIZE	PART NUMBER		
N/A		C	0580001087.D-VFD-PID		REV 4