

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.

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.hawso.com or call (888) 640-4297.



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

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:

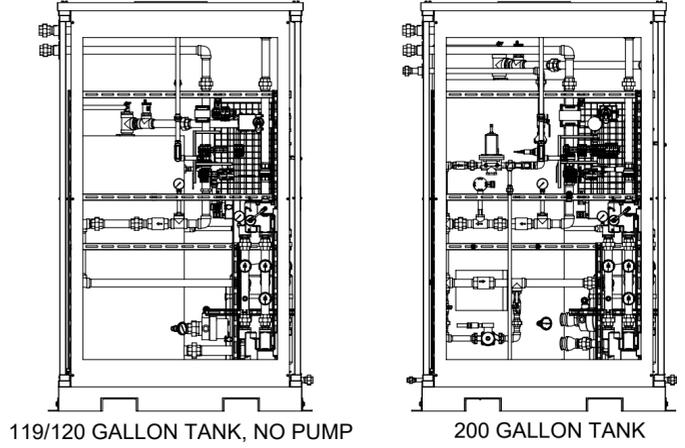
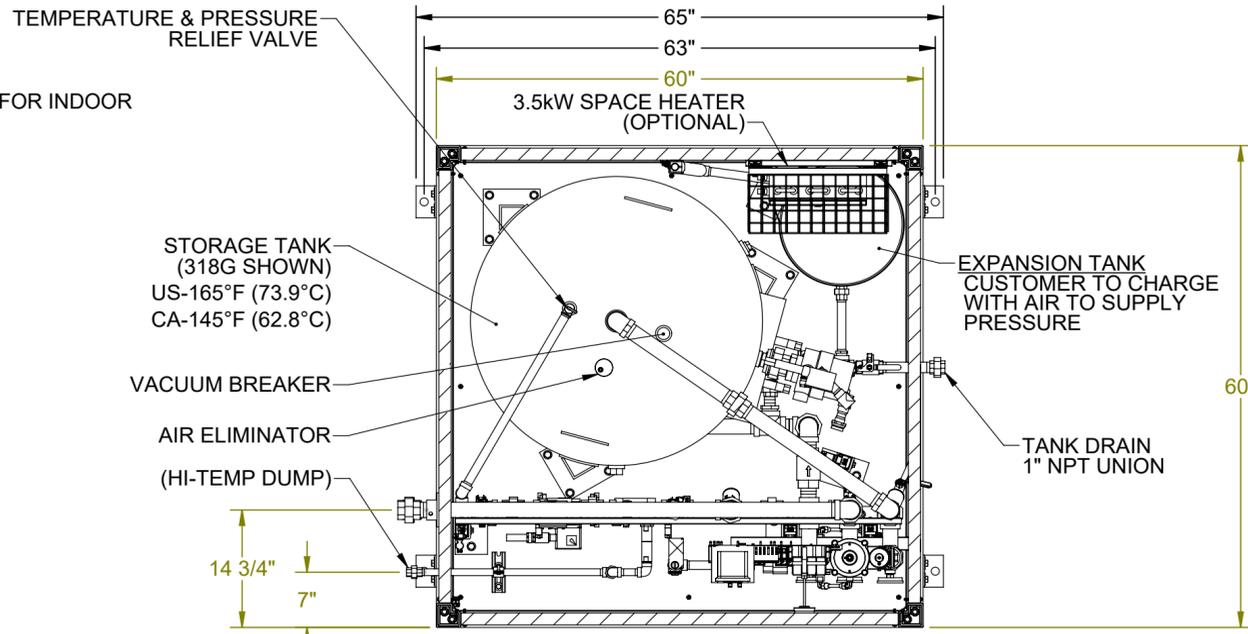
1. DIMENSIONS IN INCHES.
2. ALL TOLERANCES: $\pm 1/2"$
3. ESTIMATED WEIGHT:
 DRY: 1300 LB
 WET: 4000 LB
4. AREA CLASSIFICATION: ORDINARY
5. AVAILABLE AMBIENT TEMPERATURE RANGES:
 -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
6. RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR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

MODELS WITH RECIRCULATION PUMP OR NO PUMP

REVISEMENTS			
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

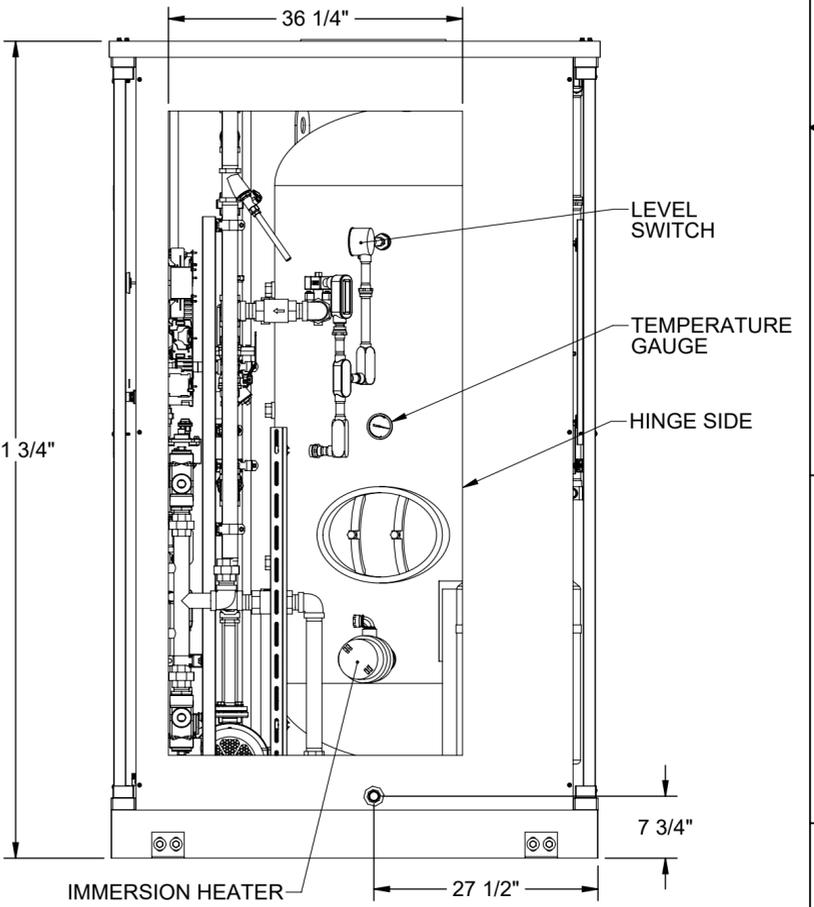
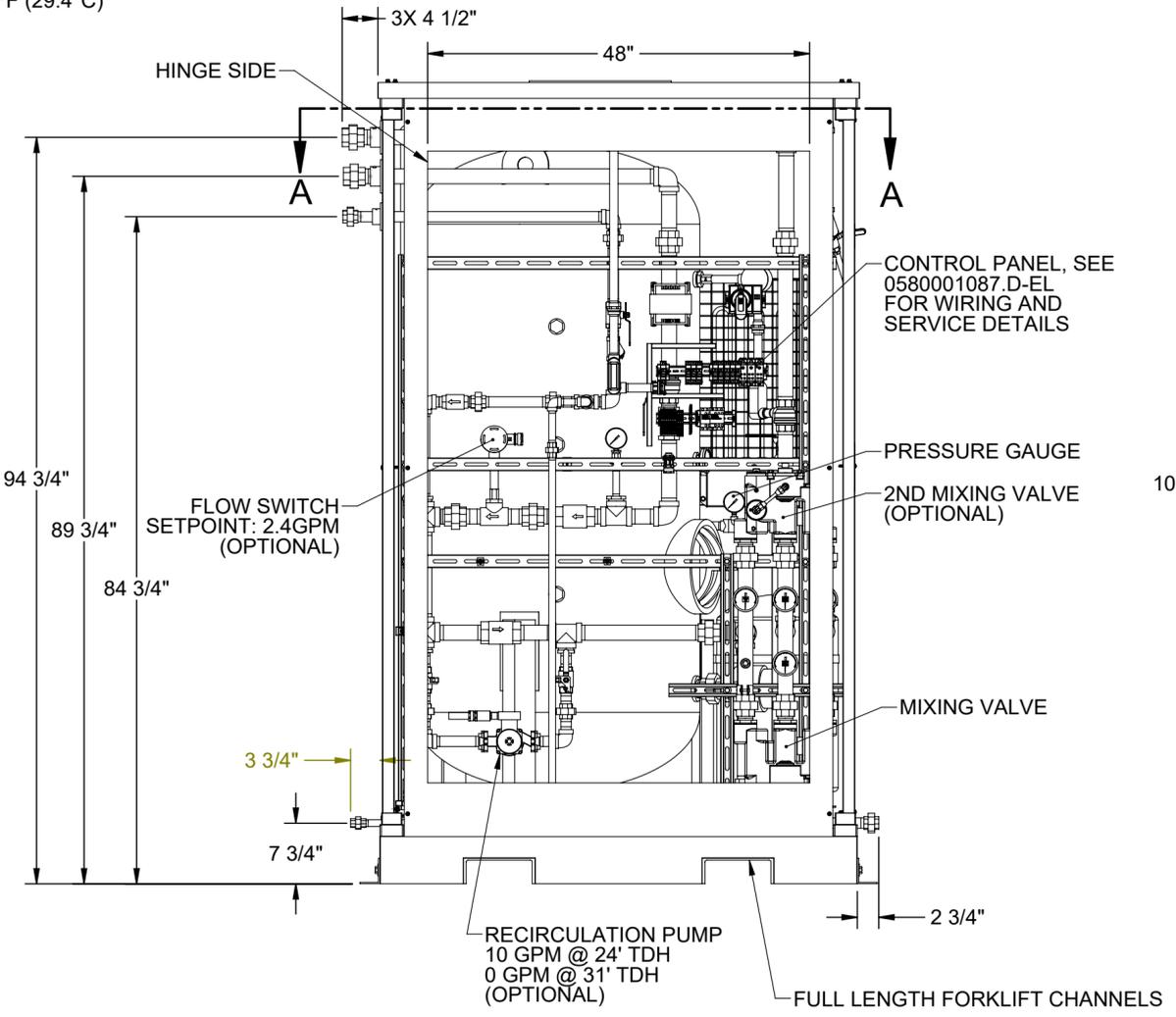
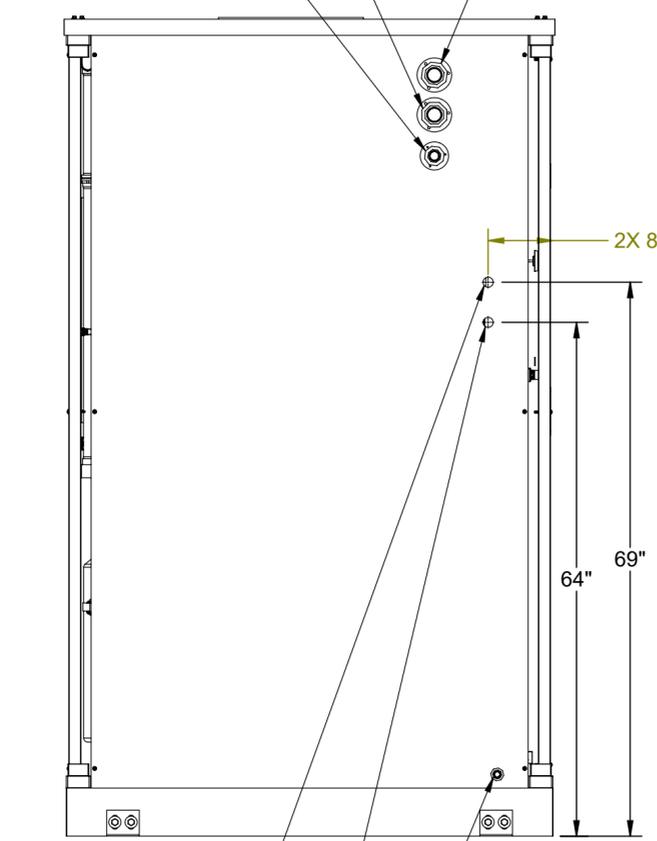
OPTIONS		DWG REF.
PUMP CONFIGURATION	NO PUMP	P5-0
	RECIRCULATION PUMP	P5-1
JUNCTION BOX TYPE RATING	TYPE 4, STEEL	P7-0
	TYPE 4X, 304 SST	P7-1
ALARM (IN USE)	NONE	-
	ISOLATED DRY CONTACTS	P12-3
MIXING VALVE QTY.	SINGLE	P30-1
	DUAL	P30-2
EXPANSION TANK	NON-ASME	P10-T
	ASME	P10-A/E



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)



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

NOTES:

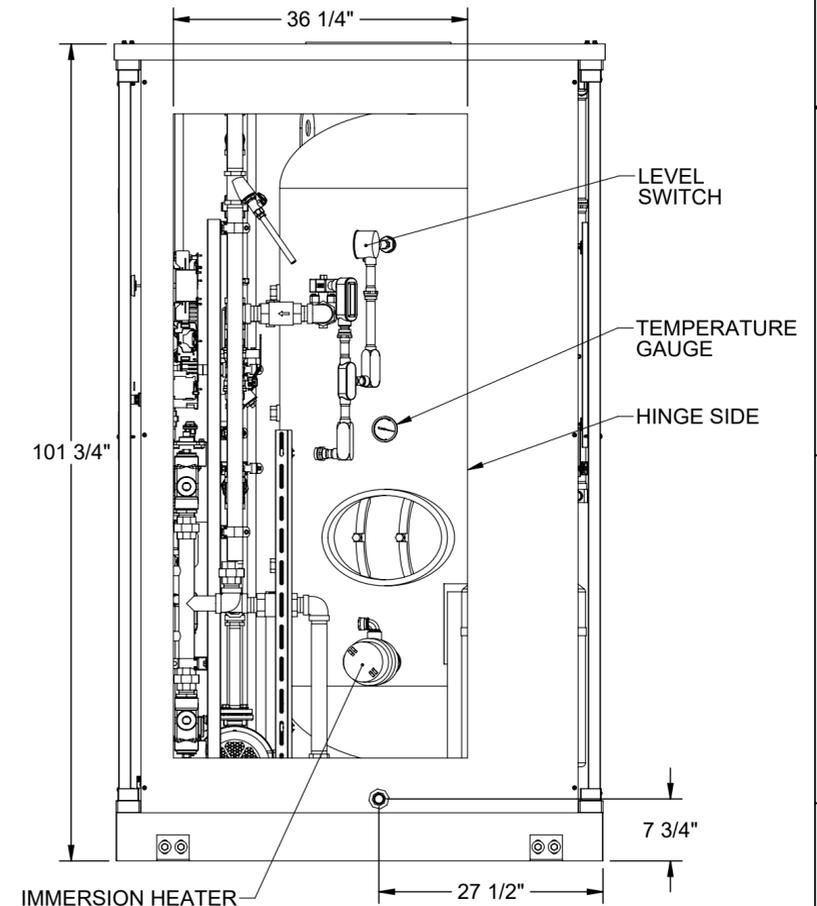
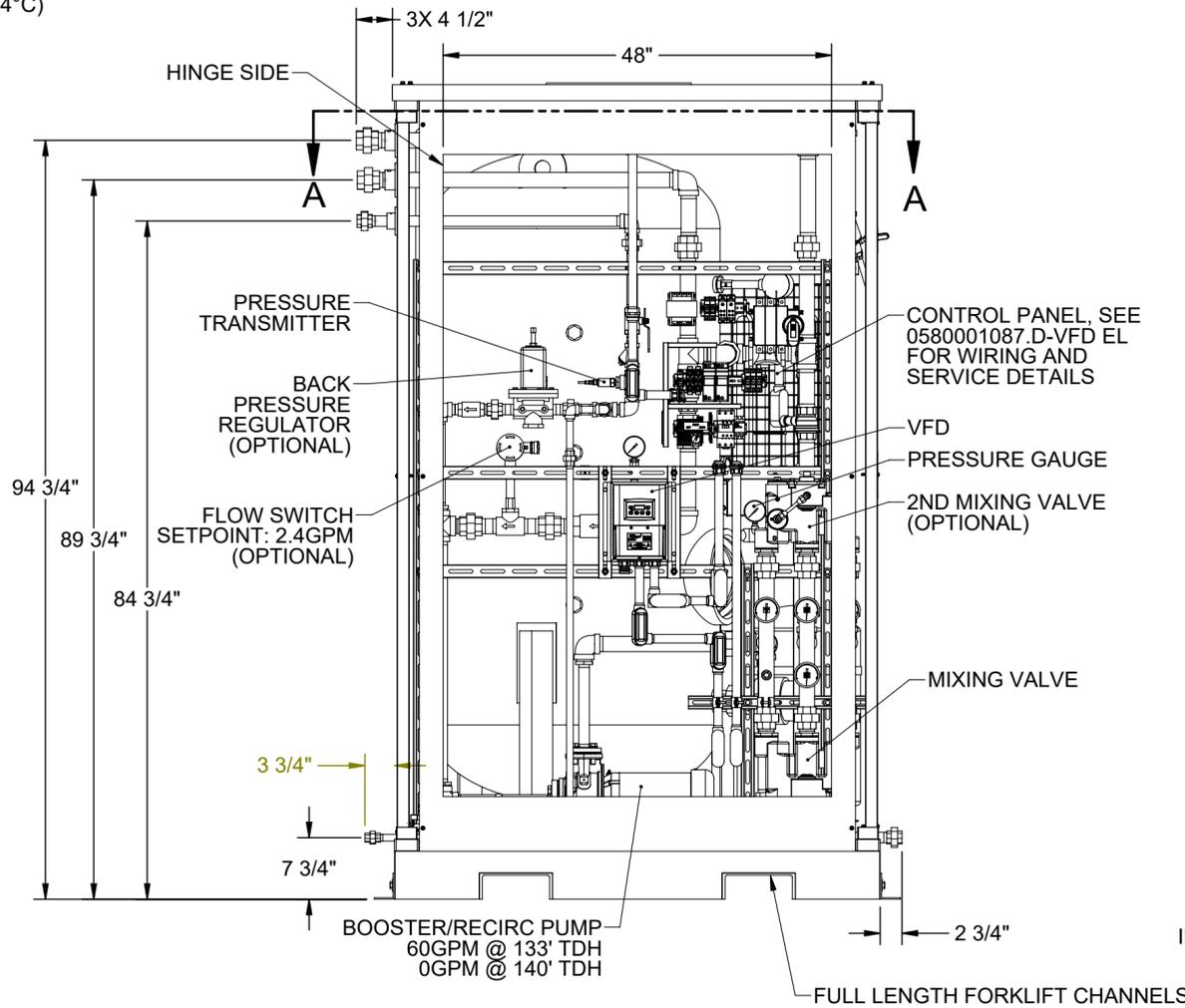
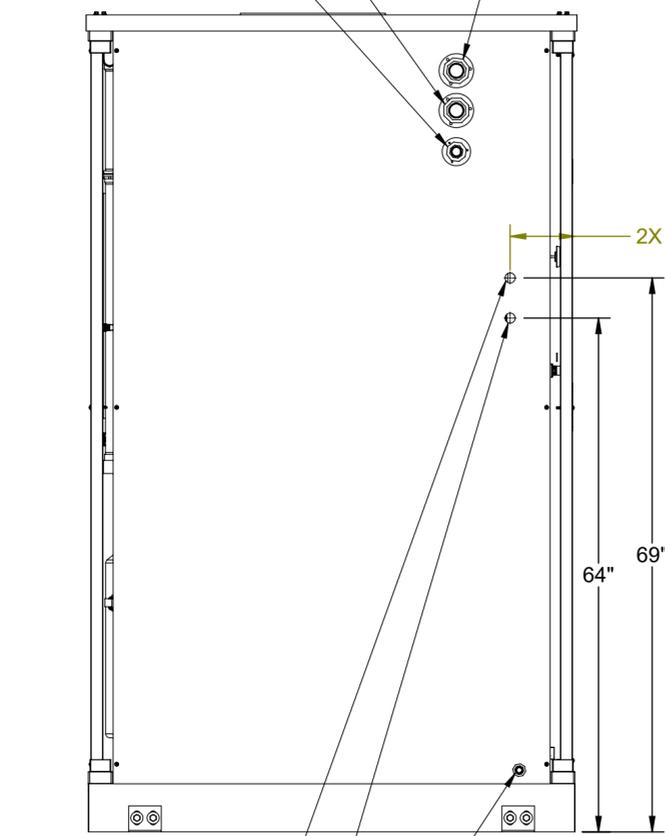
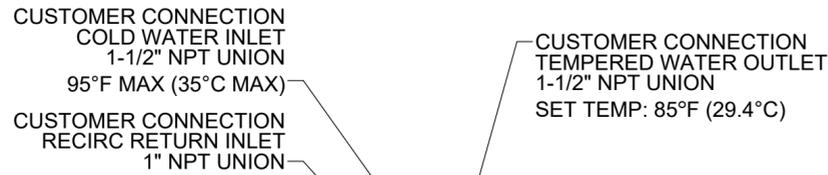
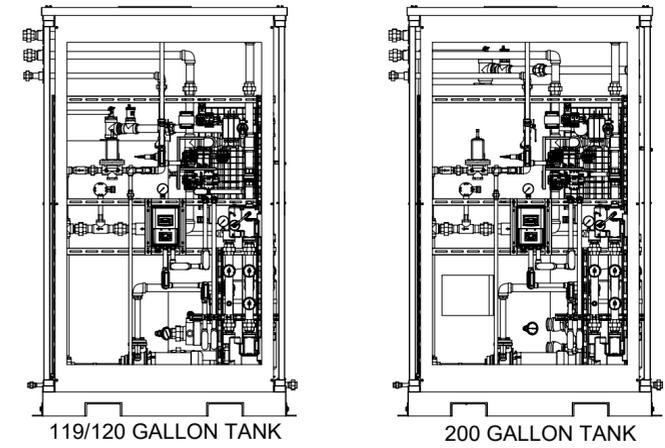
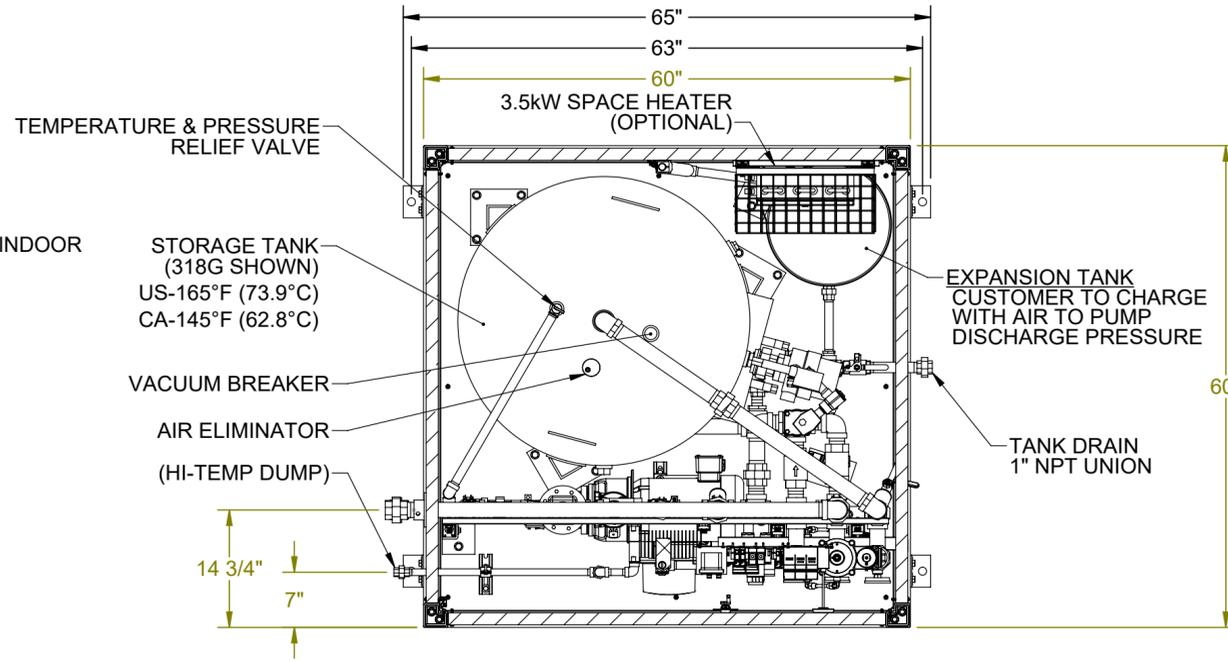
1. DIMENSIONS IN INCHES.
2. ALL TOLERANCES: $\pm 1/2"$
3. ESTIMATED WEIGHT:
 DRY: 1300 LB
 WET: 4000 LB
4. AREA CLASSIFICATION: ORDINARY
5. AVAILABLE AMBIENT TEMPERATURE RANGES:
 $-50^{\circ}\text{F}-104^{\circ}\text{F}$ ($-45.6^{\circ}\text{C}-40^{\circ}\text{C}$), $32^{\circ}\text{F}-104^{\circ}\text{F}$ ($0^{\circ}\text{C}-40^{\circ}\text{C}$)
6. NOT ALL FEATURES ARE STANDARD
7. RECOMMENDED RECIRCULATION FLOWRATE: 10GPM
8. PRESSURE TRANSMITTER SETPOINT IS TYPICALLY SET TO 30PSI + ELEVATION CHANGE FROM SKID TO HIGHEST SHOWER (1FT = .433PSI)
9. 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

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

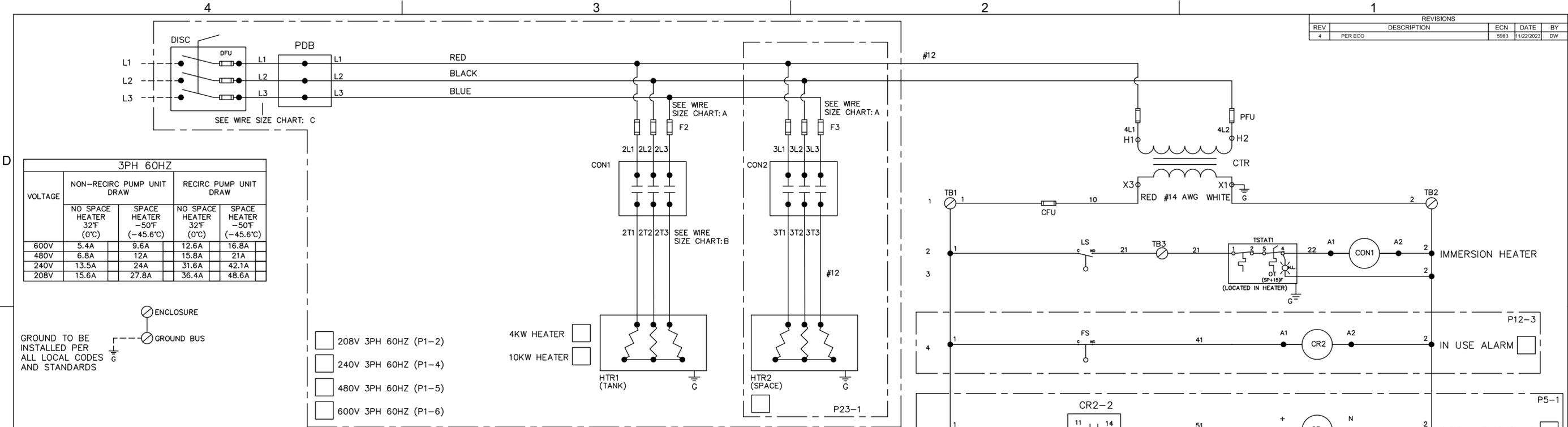
TANK SIZE				
(TANK TEMPERATURES ARE SET AT 165°F (73.9°C) FOR USA AND 145°F (62.8°C) FOR CANADA)				
TANK SIZE	TANK TEMP.	SHOWER CAPACITY (15 MIN.)	MINIMUM INLET TEMP.	OPTION SELECTED
119G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
120G	145°F/62.8°C	1	62°F/16.7°C	
	165°F/73.9°C	1	54°F/12.2°C	
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



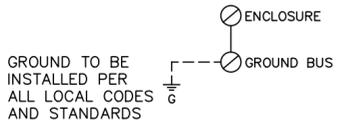
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CUSTOMER INFO/TAG #:		Haws 1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
JOB NUMBER:	IR	TITLE	
DRAWN BY:	IR	ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH	
DRAWN DATE:	07/26/21	NOTICE OF PROPRIETARY INFORMATION	
CHECKED BY:	DW	INFORMATION CONTAINED HEREIN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

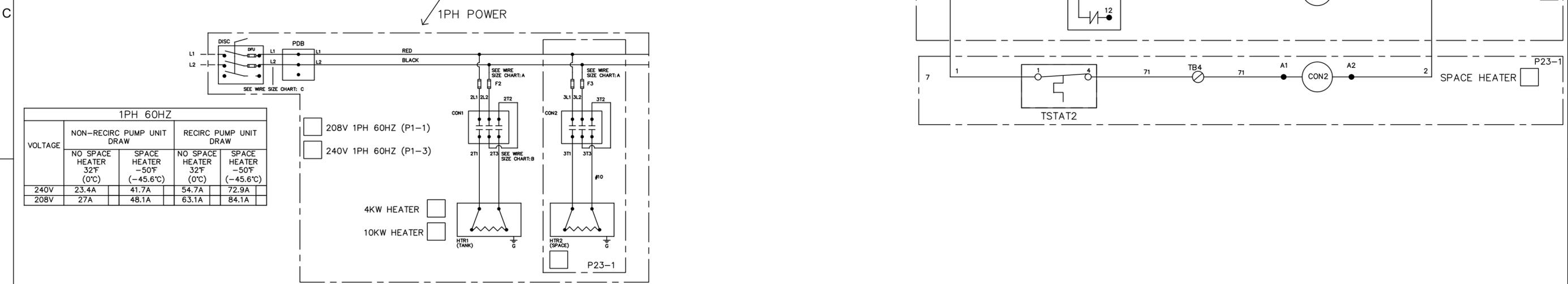
REVISIONS			
REV	DESCRIPTION	ECN	DATE
4	PER ECO	5963	11/22/2023



3PH 60HZ				
VOLTAGE	NON-RECIRC PUMP UNIT DRAW		RECIRC PUMP UNIT DRAW	
	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)
600V	5.4A	9.6A	12.6A	16.8A
480V	6.8A	12A	15.8A	21A
240V	13.5A	24A	31.6A	42.1A
208V	15.6A	27.8A	36.4A	48.6A



- 208V 3PH 60HZ (P1-2)
- 240V 3PH 60HZ (P1-4)
- 480V 3PH 60HZ (P1-5)
- 600V 3PH 60HZ (P1-6)



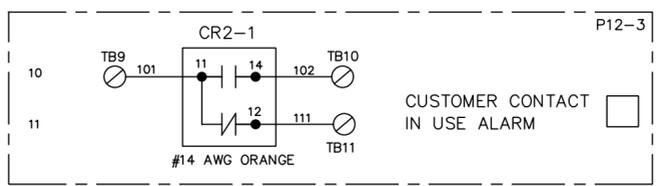
1PH 60HZ				
VOLTAGE	NON-RECIRC PUMP UNIT DRAW		RECIRC PUMP UNIT DRAW	
	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)
240V	23.4A	41.7A	54.7A	72.9A
208V	27A	48.1A	63.1A	84.1A

- 208V 1PH 60HZ (P1-1)
- 240V 1PH 60HZ (P1-3)

NON-RECIRC PUMP CONFIGS. FUSE CHART						
	DFU	F2	F3	PFU	CFU	
208V 1PH	60A	25A	25A	1.25A	1A	
240V 1PH	60A	25A	25A	1A	1A	
208V 3PH	30A	15A	15A	1.25A	1A	
240V 3PH	30A	12A	12A	1A	1A	
480V 3PH	30A	6A	6A	.5A	1A	
600V 3PH	30A	5A	5A	.5A	1A	
FUSE TYPE	JKS(30-100) JLS(30-100)	KLKR(5-30) KTK(5-30)	KLKR(5-30) KTK(5-30)	KLDR(0.5-6) FNQ(0.5-6)	KLDR(0.5-6) FNQ(0.5-6)	

RECIRC PUMP CONFIGS. FUSE CHART						
	DFU	F2	F3	PFU	CFU	
208V 1PH	100A	60A	25A	6A	5.6A	
240V 1PH	100A	60A	25A	5.6A	5.6A	
208V 3PH	60A	35A	15A	6A	5.6A	
240V 3PH	60A	30A	12A	5.6A	5.6A	
480V 3PH	30A	15A	6A	2.8A	5.6A	
600V 3PH	30A	12A	5A	2A	5.6A	
FUSE TYPE	JKS(30-100) JLS(30-100)	JLS(35-60) JKS(35-60) KLKR(12-30)	KLKR(5-30) KTK(5-30)	KLDR(0.5-6) FNQ(0.5-6)	KLDR(0.5-6) FNQ(0.5-6)	

CONTROL RELAY CONTACT RATINGS:
6A @ 250 VAC/30VDC RESISTIVE
SWITCH POSITION SHOWN FOR ALARM CONDITION



- COMPONENT DESIGNATION
- CFU - CONTROL POWER FUSE
 - CON1 - CONTACTOR 3 POLE, TANK HEATER
 - CON2 - CONTACTOR 3 POLE, SPACE HEATER
 - CP - CIRCULATING PUMP
 - CR2 - CONTROL RELAY FOR ALARM NOTIFICATION
 - CTR - CONTROL POWER TRANSFORMER
 - NON-RECIRC CONFIGS - 100VA @ 120V
 - RECIRC PUMP CONFIGS - 500VA @ 120V
 - DISC - DISCONNECT SWITCH
 - F2 - TANK HEATER FUSE
 - F3 - SPACE HEATER FUSE
 - FS - FLOW SWITCH
 - HTR1 - HEATER, TANK
 - NON-RECIRC CONFIGS - 4KW
 - RECIRC PUMP CONFIGS - 10KW
 - HTR2 - HEATER, SPACE, 3.5KW
 - LS - LEVEL SWITCH
 - PDB - POWER DISTRIBUTION BLOCK
 - PFU - PRIMARY FUSE
 - TB - TERMINAL BLOCK
 - TSTAT1 - TANK HEATER THERMOSTAT
 - TSTAT2 - SPACE HEATER THERMOSTAT

	WIRE SIZE CHART					
	A		B		C	
	4KW	10KW	4KW	10KW	4KW	10KW
208V 1PH	#8	#4	#10	#6	#4	#0
240V 1PH	#8	#4	#10	#8	#4	#0
208V 3PH	#10	#6	#12	#8	#8	#4
240V 3PH	#10	#8	#12	#8	#8	#4
480V 3PH	#12	#10	#12	#12	#8	#8
600V 3PH	#12	#10	#12	#12	#8	#8

CONDUCTOR TERMINAL RATING				
DISCONNECT SIZE	DISCONNECT		DRY CONTACTS	
	CONDUCTOR SIZE (AWG)	TORQUE VALUE (IN-LBS)	CONDUCTOR SIZE (AWG)	TORQUE VALUE (IN-LBS)
100A	14-2/0	133-194	14-20	PUSH-IN
60A	14-4	30-35		
30A	18-8	13-18		

OPTIONAL FEATURE THAT CAN BE CONFIGURED WHEN PURCHASED

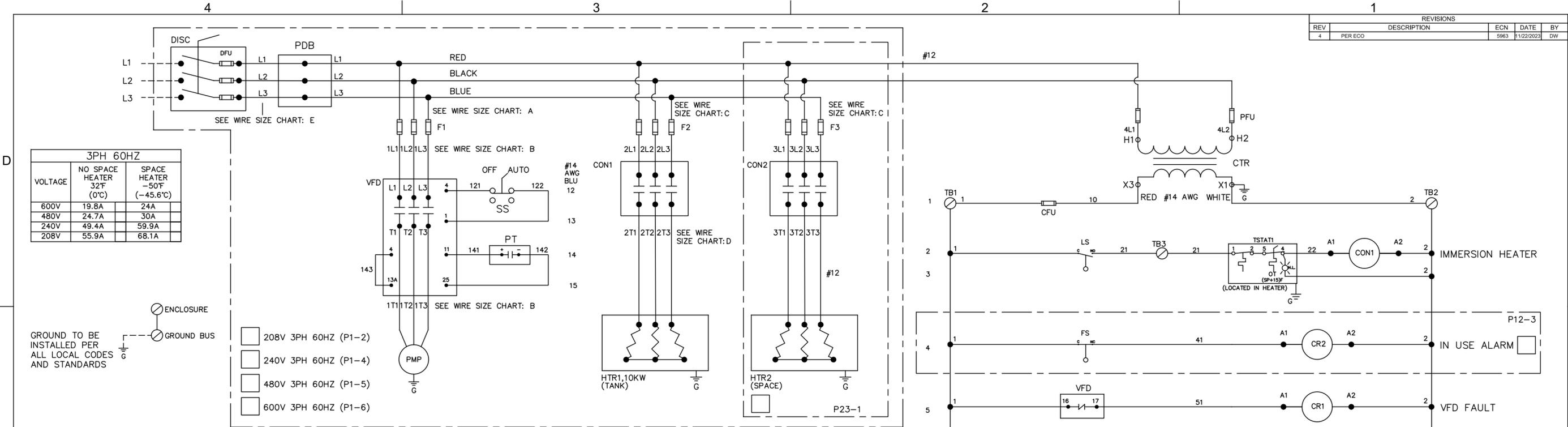
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NOTES:

- AREA CLASSIFICATION: ORDINARY
- AVAILABLE AMBIENT TEMPERATURE RANGES: -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
- RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION

APPROVALS	DATE	1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
DRAWN IR	09/18/20		
CHECKED DW	12/07/23		
APPROVED IR	12/07/23		
JOB NUMBER			
TITLE:		8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH	
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	REV
1	C	0580001087.D-EL	4

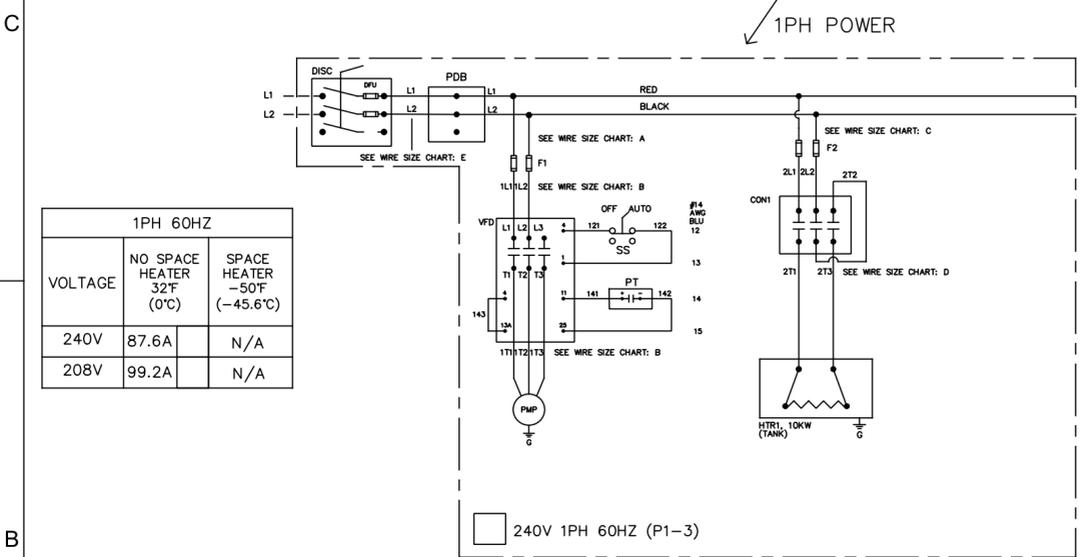
REVISIONS				
REV	DESCRIPTION	ECN	DATE	BY
4	PER ECO	5963	11/22/2023	DW



3PH 60HZ		
VOLTAGE	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)
600V	19.8A	24A
480V	24.7A	30A
240V	49.4A	59.9A
208V	55.9A	68.1A

GROUND TO BE INSTALLED PER ALL LOCAL CODES AND STANDARDS

- 208V 3PH 60HZ (P1-2)
- 240V 3PH 60HZ (P1-4)
- 480V 3PH 60HZ (P1-5)
- 600V 3PH 60HZ (P1-6)



1PH 60HZ		
VOLTAGE	NO SPACE HEATER 32°F (0°C)	SPACE HEATER -50°F (-45.6°C)
240V	87.6A	N/A
208V	99.2A	N/A

240V 1PH 60HZ (P1-3)

COMPONENT DESIGNATION

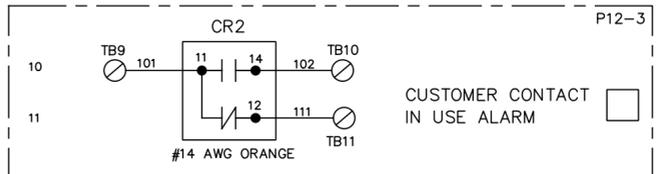
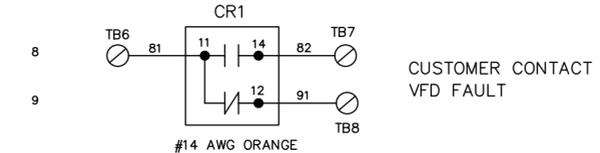
- CFU - CONTROL POWER FUSE
- CON1 - CONTACTOR 3 POLE, TANK HEATER
- CON2 - CONTACTOR 3 POLE, SPACE HEATER
- CR1 - CONTROL RELAY FOR ALARM NOTIFICATION
- CR2 - CONTROL RELAY FOR ALARM NOTIFICATION
- CTR - CONTROL POWER TRANSFORMER - 100VA @ 120V
- DISC - DISCONNECT SWITCH
- F1 - PUMP FUSE
- F2 - TANK HEATER FUSE
- F3 - SPACE HEATER FUSE
- FS - FLOW SWITCH
- HTR1 - HEATER, TANK, 10KW
- HTR2 - HEATER, SPACE, 3.5KW
- LS - LEVEL SWITCH
- PDB - POWER DISTRIBUTION BLOCK
- PFU - PRIMARY FUSE
- PMP - PUMP
- PT - PRESSURE TRANSMITTER
- SS - SELECTOR SWITCH OFF/AUTO
- SV - SOLENOID VALVE
- TB - TERMINAL BLOCK
- TSTAT1 - TANK HEATER THERMOSTAT
- TSTAT2 - SPACE HEATER THERMOSTAT
- VFD - VARIABLE FREQUENCY DRIVE

WIRE SIZE CHART					
	A	B	C	D	E
208V 1PH	#6	#8	#4	#6	#0
240V 1PH	#6	#10	#4	#8	#0
208V 3PH	#6	#12	#6	#8	#0
240V 3PH	#8	#12	#8	#8	#4
480V 3PH	#12	#12	#10	#12	#8
600V 3PH	#12	#12	#10	#12	#8

CONDUCTOR TERMINAL RATING				
DISCONNECT SIZE	DISCONNECT		DRY CONTACTS	
	CONDUCTOR SIZE (AWG)	TORQUE VALUE (IN-LBS)	CONDUCTOR SIZE (AWG)	TORQUE VALUE (IN-LBS)
100A	14-2/0	133-194	14-20	PUSH-IN
60A	14-4	30-35		
30A	18-8	13-18		

FUSE CHART						
	DFU	F1	F2	F3	PFU	CFU
208V 1PH	100A	45A	60A	N/A	1.25A	1A
240V 1PH	100A	45A	60A	N/A	1A	1A
208V 3PH	100A	30A	35A	15A	1.25A	1A
240V 3PH	60A	30A	30A	12A	1A	1A
480V 3PH	30A	20A	15A	6A	.5A	1A
600V 3PH	30A	12A	12A	5A	.5A	1A
FUSE TYPE	JKS(30-100) JLS(30-100)	JKLN(45) KLR(12-30) KTK (12-30)	JKS(35-60) KLR(12-30) KTK (12-30)	KLDR(0.5-6) FNQ(0.5-6)	KLDR(0.5-6) FNQ(0.5-6)	KLDR(0.5-6) FNQ(0.5-6)

CONTROL RELAY CONTACT RATINGS:
6A @ 250 VAC/30VDC RESISTIVE
SWITCH POSITION VAC FOR ALARM CONDITION



OPTIONAL FEATURE THAT CAN BE CONFIGURED WHEN PURCHASED

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.

NOTES:

- AREA CLASSIFICATION: ORDINARY
- AVAILABLE AMBIENT TEMPERATURE RANGES: -50°F - 104°F (-45.6°C - 40°C), 32°F - 104°F (0°C - 40°C)
- RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION

APPROVALS	DATE	1455 KLEPPE LANE SPARKS, NEVADA 89431 USA	
DRAWN: IR	09/18/20		
CHECKED: DW	12/07/23		
APPROVED: IR	12/07/23	TITLE: 8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH W/VFD PUMP	
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: 1	SIZE: C	PART NUMBER: 0580001087.D-VFD EL	REV: 4

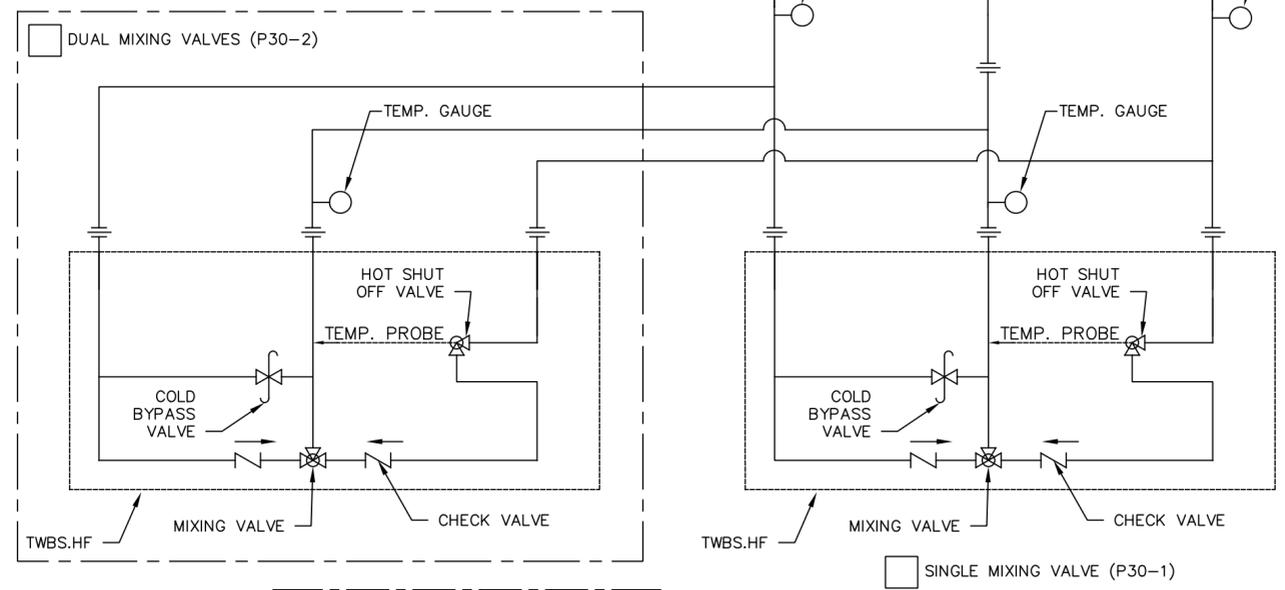
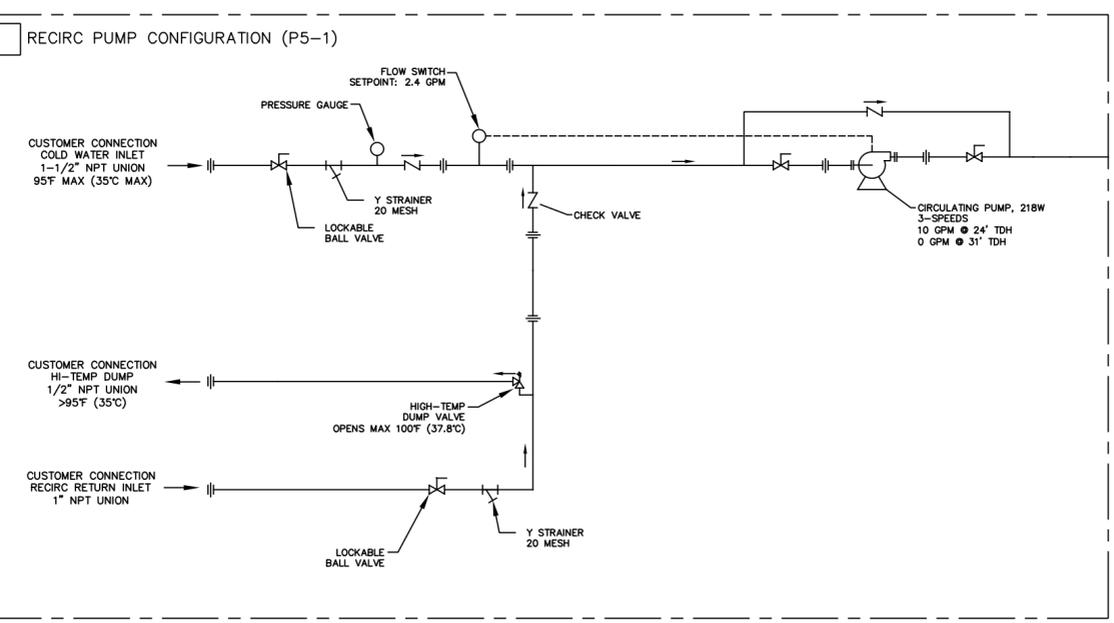
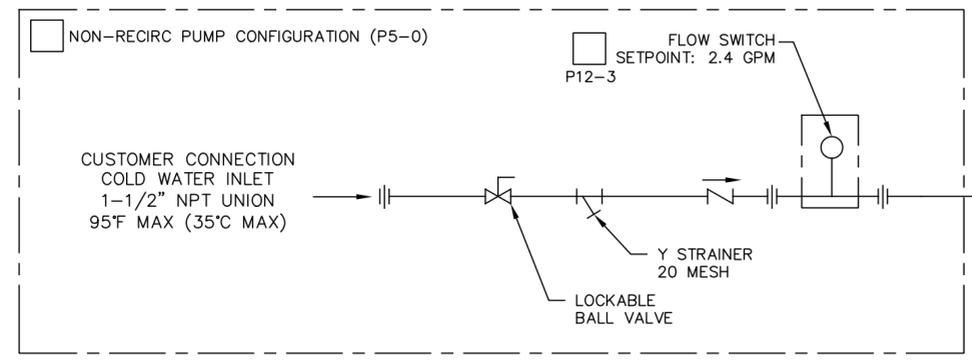
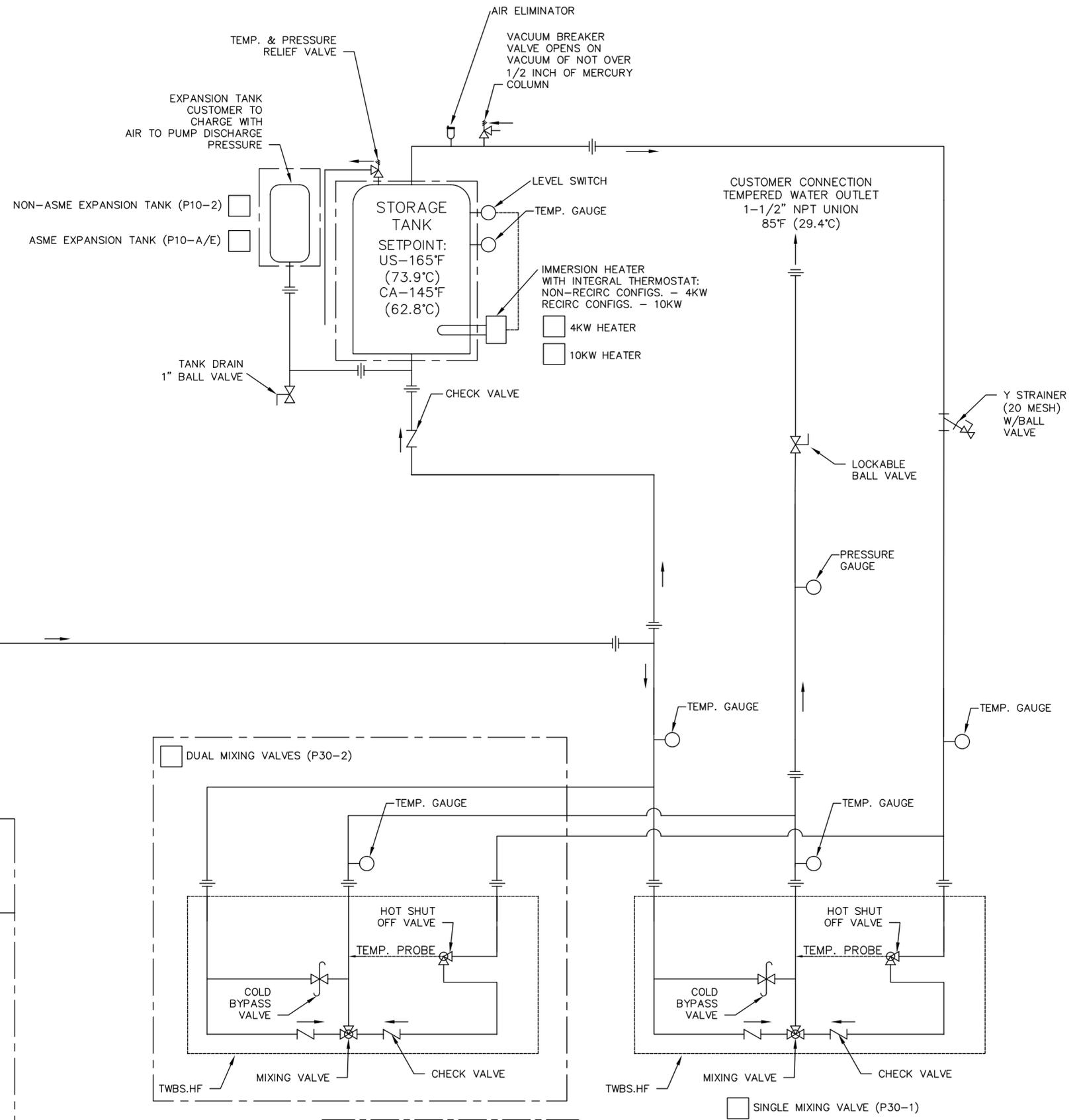
REV		REVISIONS		
REV	DESCRIPTION	ECN	DATE	BY
4	PER ECO	5963	11/22/2023	DW

- 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 ACROSS 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

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 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



OPTIONAL FEATURE THAT CAN BE CONFIGURED WHEN PURCHASED

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APPROVALS	DATE	 Haws 1455 KLEPPE LANE SPARKS, NEVADA 89431 USA
DRAWN	09/18/20	
CHECKED	12/07/23	
APPROVED	12/07/23	
JOB NUMBER		TITLE: 8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH
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	THIRD ANGLE PROJECTION P&ID SH OF 1 REV 4
N/A	C	PART NUMBER: 0580001087.D-PID

ALLOWABLE SHOWER LOOP PRESSURE DROPS
(20PSI INLET, ELEVATION GAIN INCLUDED, SINGLE COMBINATION SHOWER FLOWS 30GPM)

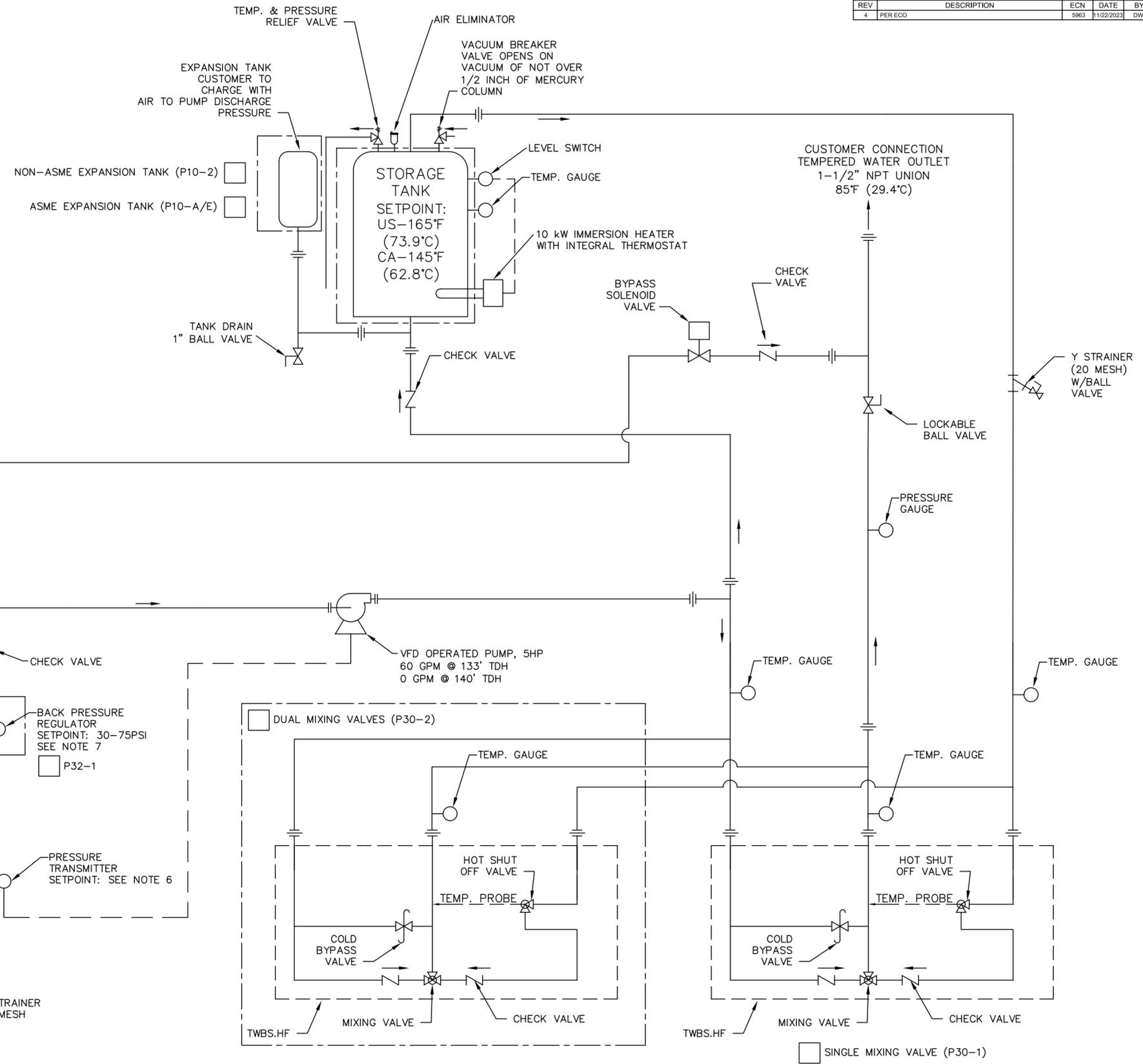
SKID CONFIGURATION	PRESSURE DROP
60GPM/SST PIPE/2 TWBS	30 PSI
60GPM/GALV PIPE/2 TWBS	24 PSI
60GPM/SST PIPE/1 TWBS	17.5 PSI
60GPM/GALV PIPE/1 TWBS	11 PSI
30GPM/SST PIPE/2 TWBS	43.5 PSI
30GPM/GALV PIPE/2 TWBS	42 PSI
30GPM/SST PIPE/1 TWBS	39.5 PSI
30GPM/GALV PIPE/1 TWBS	38 PSI

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

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



- 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	<p>1455 KLEPPE LANE SPARKS, NEVADA 89431 USA</p>
DRAWN	09/18/20	
CHECKED	12/07/23	
APPROVED	12/07/23	
JOB NUMBER		<p>TITLE: 8785 - ALL-WEATHER EMERGENCY WATER TEMPERING BOOTH WVFD PUMP</p> <p>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.</p>
CUSTOMER INFO/TAG #:		<p>THIRD ANGLE PROJECTION</p> <p>P&ID SH OF 1</p> <p>SCALE: SIZE PART NUMBER</p> <p>N/A C 0580001087.D-VFD-PID REV 4</p>