



## INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

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No. 0580001082(2)

### Model 8720

Outdoor Overhead Tank Shower and Eyewash System

Area Classification - Ordinary



## DISCLAIMER

### IMPORTANT

Read this installation manual completely to ensure proper installation, then file it with the owner or maintenance department. Compliance and conformity to drain requirements and other local codes and ordinances is the responsibility of the installer.

Separate parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

Flush the water supply lines before beginning installation and after installation is complete. Test the unit for leaks and adequate water flow. Please refer to the enclosed instructions for flushing the unit prior to use.

The ANSI Z358.1 standard requires an uninterrupted supply of flushing fluid. Flushing fluid should be tepid per ANSI Z358.1.

The inspection and testing results of this equipment should be recorded weekly to verify proper operation. This equipment should be inspected annually to ensure compliance with ANSI Z358.1.

Installation and maintenance of this system must be completed by a qualified plumber and electrician in accordance to the information contained in this installation manual and in compliance with all national and local codes. When making electrical connections be sure to follow all lockout-tag out safety procedures.

It is recommended that all water supply and electrical connections be made at temperatures above freezing (32°F (0°C)). Failure to do so may result in major product and or property damage.

**For technical support, contact:**

**Haws Services | (800) 766-5612 | [www.hawsco.com/services](http://www.hawsco.com/services)**

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## DESCRIPTION OF PRODUCT

Haws Corporation Model 8720 overhead tank shower is a foam-insulated, aluminum skinned structure with high visibility green chemical and UV resistant polyester-based powder coating. Large graphics identify the building as an emergency shower/eyewash station and assist in guiding the user to the double swing doors. The interior is illuminated green during standby and changes to white light when someone enters the doors, or the shower or eyewash is activated. Optional space heating is available for user safety and comfort and equipment protection.

Tepid water, generated via an immersion heater, is stored in the water tank. The tank temperature is maintained at  $85^{\circ}\text{F} \pm 2^{\circ}\text{F}$  ( $29^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ). The system is designed to flow a maximum of 30gpm for 15 minutes. Flow is maintained at a minimum flowrate of 20gpm for the shower and 3gpm for the eye/face wash through a specially designed redundant siphon system.

The 8720 booth includes a Haws® combination shower and eyewash that is protected with a scald valve. Optional alarms are activated by proximity switches when the shower and/or eyewash are in use. Dry contacts can be provided for remote alarm notification and/or both visual and audible alarms with a silencing circuit that auto resets can be provided.

## SHIPPING, HANDLING AND STORAGE

Performance Series Model	Description	Dimensions W x L x H	Weight	Dimensions W x L x H (Crated)	Weight (Crated)
8720	Tank	60" x 60" x 78 1/2"	1360 lbs.	66" x 65" x 85"	1560 lbs.
	Shower Enclosure	66" x 79 1/2" x 100 1/2"	1240 lbs.	72" x 85" x 106"	1440 lbs.

### Recommended Equipment, Materials and Supplies to be provided by Installer:

- Existing slab on grade. The installer shall verify that the following minimum requirements of the existing slab-on-grade are satisfied.
  - Allowable Soil Bearing Pressure: 1500 psf
  - Slab-on-grade minimum thickness: 6 inches
  - Compressive Strength of slab, f'c: 3000 psi
  - Adequate footprint area (minimum 6' x 6' recommended)
  - Adequate vertical space (minimum 20 ft. recommended, 15 ft. required)
- Recommended anchors (Not Included, customer to determine anchor suitability):  
 High strength adhesive anchors (ICC-ES Report ESR-3187): Hilti HIT-HY 200 Safe Set epoxy adhesive anchorage system with Hilti hollow drill bit system with Hilti HIT-Z Rod and ASTM A563 Grade A nuts. Frame Feet mounting holes are 17/32" diameter. Each Frame Foot has four (4) 17/32" diameter clearance holes (16 total anchors).
- A forklift capable of lifting 2,000 lbs. should be utilized to transport the unit from truck to site and to lift tank into position.

### Tools and Supplies

- Impact drill/driver with 5/16" nut driver (For Optional Eye/Face Wash Option).
- Steel Strap Shears
- Torque wrench with 7/8" and 9/16" sockets.
- 7/8" and 9/16" box end wrenches.
- Plumbing supply materials including potable water-safe thread sealant for PVC.  
 (Automatic refill water connection is 1-1/4" NPT male pipe fitting.)
- Appropriate personal protective equipment including safety glasses and work gloves.

### **Storage**

The unit should be stored in a clean, dry place until ready for installation unless otherwise specified.

## INSTALLATION PROCEDURE

- a. Remove unit from crate.
- b. The unit should be secured on a level site, using the supplied brackets and suitable anchoring devices.
- c. If the booth is to be placed over a drain, the drain should be able to handle a flow of 35 GPM; otherwise, the slab should be made to allow the water to drain out the sides and away from the booth (see Figure 1). The unit discharges hundreds of gallons of water, which can cause significant property damage if not drained properly.

**WARNING: Drainage means shall not create an obstruction or tripping hazard.**

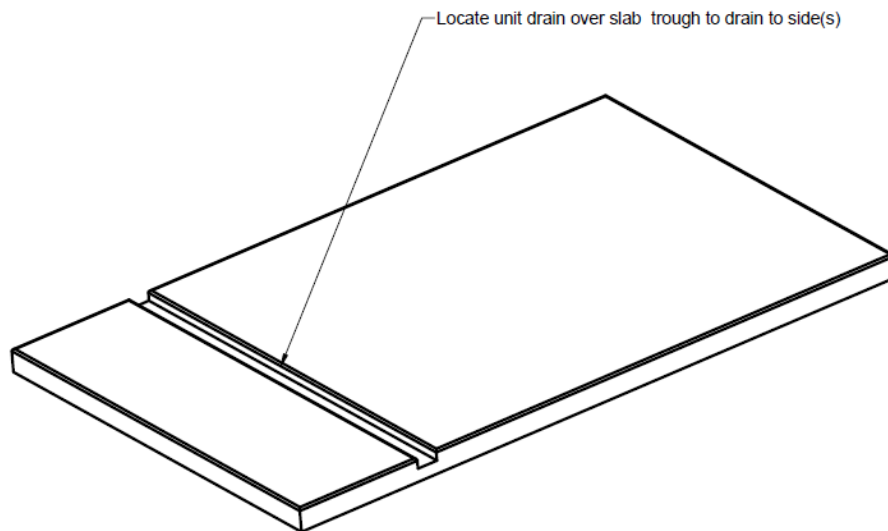


Figure 1. Example of Slab with Drain Trough

**WARNING: Failure to allow water to drain may result in premature failure of booth and void of product warranty.**

- d. Attach tank to booth using the supplied hardware. Connect the electrical connections between the booth and the tank.
- e. The connection provided for the water supply is a 1-1/2" NPT union. The system includes a 30gpm flow control in the water supply line to prevent the unit from being filled too quickly. The water fill

line should run for a few minutes to eliminate any debris before it enters the equipment. Stop filling system when low water indicator light turns off or water begins to drain out of tank overflow.

- f. Connect electrical supply to the Power Disconnect Switch (see Figure 2).

**NOTICE: All Power Connections must be made according to local codes and standards using components which are compliant with the area the unit is being installed in.**



Figure 2. Disconnect Switch Junction Box

**CAUTION: Do not apply power to the unit until all water connections are made and the tank and piping are full of water. Applying power prematurely will damage the equipment.**

- g. Once all water and power connections are made, **open an emergency shower or eyewash valve (Figure 3) to eliminate any air that may be in the lines**, and allow water in the system to flow. Inspect plumbing for leaks and repair as necessary. During transit, some plumbing may have become loose, allowing water to leak from the threads. Once the plumbing has been checked, the shower should run for several minutes to evacuate any debris that might have entered the system. Turn shower off once water is clear of debris.



Figure 3. Eyewash

- h. Replace any water lost during the previous step and disconnect fill line.
- i. At this point the power can be turned on. Heating can take up to 14 hours, depending on supply water temperature and ambient conditions.

**CAUTION: Before turning on the power, close all electrical boxes.**

- j. The internal space heater has an adjustable thermostat, which is factory set at 70°F (21°C).

**WARNING: System is not freeze protected without an energized electrical connection. It is recommended that installation be completed when ambient temperature is above freezing.**



### Checklist for start-up

CHECK LIST FOR START-UP	Complete OK	Inspector Initials
<b>Pre-connection Check</b>		
Check all components for any connections or connectors that may have loosened during shipping.		
<b>System Flush (All Electrical Power off for System Flush)</b>		
Drain is attached and able to handle a flow of 35 GPM.		
System water supply is connected, and all water supply valves opened.		
Water is clear and free of any contamination, particles or discoloration.		
<b>Connections</b>		
System is filled with water.		
Connect remote monitoring via plant control system (if applicable).		
<b>Applying Power to the System</b>		
Verify that the proper voltage is present.		
Verify that equipment ground is properly connected.		
Apply power to the system.		
Verify that the space heater thermostat is set to 70° F (21°C). Increase the thermostat set point and verify that the heater is producing. Return the thermostat to 70°F.		
Verify that the tank heater thermostat is set to 165° F (74°C) for US applications and 145°F (63°C) for Canada applications. Increase the thermostat set point and verify that the heater is producing heat. Return the thermostat to original setpoint.		
Verify that interior and exterior lights are illuminated (if equipped).		
<b>HAWS® Shower and Eye/Facewash</b>		
Flow water through an eyewash or shower.		
Verify that the exterior light flashes at 1 second intervals and that the audible alarm sounds (if equipped).		
Press the alarm silence button and verify that the exterior light is flashing, and the audible alarm is silent (if equipped).		
Deactivate the shower or eyewash that is active, verify that the exterior light is not flashing, and that the audible alarm is silent (if equipped).		

## PROGRAMMABLE CONTROLLER

The programmable controller executes the following functions:

- Deactivates the tank heater when the tank level is low.
- Deactivates the tank heater when the temperature switch setpoint is exceeded.
- Switches the alarm light from steady to flashing when eyewash/shower is in use.
- Opens dry contacts for Common alarm when tank level is low, or tank temperature is high.
- Opens dry contact for In Use alarm when eyewash/shower is in use.
- Changes interior light from green to white when doors are opened.

The following table lists the inputs and outputs available with the system. System may not contain all components.

Input	Function		Output	Function
I-01	Horn Silence Button		Q-01	Tank Heater Contactor
I-02	Flow Switch or Proximity Switch		Q-02	Area/ Alarm Light
I-03	Proximity Switch		Q-03	Alarm Horn
I-04	Level Switch		Q-01 (Exp. Mod.)	Customer Contact (Common)
I-05	Door Proximity Switch		Q-02 (Exp. Mod.)	Customer Contact (In Use)
I-06	Tank Temperature Switch		Q-03 (Exp. Mod.)	Interior Light (Green/White)

NOTE: For model specific program, please contact Haws Services at 1-800-766-5612.

## PREVENTIVE MAINTENANCE

Note: These are general instructions applicable to all Haws Model 8720 Overhead Tank Shower Booths. Additional maintenance activities may apply to particular configurations/options supplied.

### Weekly

- Verify the tank temperature readout on the display reads.  $85^{\circ}\text{F} \pm 2^{\circ}\text{F}$  ( $29^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ).
- Verify area lights located inside and outside the booth are operational.
- Verify space heater is functioning by raising space heater thermostat to a set point above the ambient temperature. After several minutes the space heater should begin to emit heat. Return space heater thermostat to  $70^{\circ}\text{F}$  ( $21^{\circ}\text{C}$ ).
- Self-contained combination units shall be visually checked weekly to determine if flushing fluid needs to be changed or supplemented. Such inspection shall be conducted in accordance with manufacturer's instructions.

### Monthly

- Check for evidence of leakage on freeze and scald valves.

### Quarterly

- Flush Y – strainers (if installed)
- Verify eyewash flows. Alarm light and horn should activate when water is flowing. Verify that remote alarms connected to plant controls are functioning.
- Verify shower flow. Alarm light and horn should activate when water is flowing. Verify that remote alarms connected to plant controls are functioning.
- Drain and refill tank with fresh potable water. Add suitable amount and anti-microbial solution to tank.
- Take proper precautions to help prevent the growth of potentially harmful bacteria in flushing fluid tanks. We recommend **either** of the following procedures:
  - Procedure 1: Use suitable Sterile Antimicrobial Preservative Model 9082 to help prevent the growth of bacteria in flushing fluid tank. The flushing fluid tank should be drained, flushed and refilled with clean potable water and Sterile Antimicrobial Preservative Model 9082 as directed by the preservative's manufacturer.
  - Procedure 2: Use suitable immersible cleansing stick Model 9084 to help prevent the growth of bacteria in flushing fluid tank. Model 9084 last up to 3 years and requires inspection every 6 months.
  - Procedure 3: Drain, flush and refill portable units with clean potable water at least once every week. Thoroughly cleanse tank at least once every month.

- After activating the units for whatever reason, ensure the following steps are implemented:
  - Refill tank with potable water to the full level.
  - If water is discharged for any reason – follow Procedure 1 or 3 above to ensure that water quality is maintained.

#### **Annually**

- Check tank heater and tank for deposit buildup. Drain tank and clean/replace heater if necessary.
- All valves should be periodically tested; at least once a year, more often if water is dirty.
- Drain tank and verify level switch operation.
- All emergency showers and eye/face washes shall be inspected annually to assure conformance of ANSI Z358.1. This includes, but not limited to, proper installation, accessible locations, proper flow rate and temperature of flushing fluid. Please refer to the most current standards document for more information.

## **MAINTENANCE, TESTING, REPAIR**

### **Booth**

The booth is made of aluminum skins laminated to an insulating foam core then powder coated. Should cleaning be necessary, a mixture of water with household glass cleaner or rubbing alcohol can be used. For repairs to small holes in the booth, Sikaflex 1A Construction Sealant, silicone, or a similar sealant can be used to seal openings in the booth's surface.

### **Double Swinging Doors**

#### **CAUTION: KEEP FINGERS AWAY FROM PINCH POINTS!**

The doors have been adjusted at the factory with proper tension to allow for closure of doors. Should doors need to be adjusted, tension can be changed by adjusting the screws at the top and bottom of the hinges.

### **Combination Shower/Eyewash**

Verify shower and eyewash flow per ANSI requirements.

NOTE: If shower and/or eyewash does not flow per ANSI requirements or at all, consult Haws Services.

### **Freeze and Scald Valve**

Scald valve is designed to open before internal water temperature exceeds 100°F (37.8°C).

Freeze is designed to open before internal water temperature drops below 35°F (1.7°C).

NOTE: If valve does not fully open/close, check valve seat for debris or scale build. If no debris or scale present, consult Haws Corporation.

**CAUTION: Extreme hot/cold temperatures in booth may cause valves to open.**

**For technical support, contact:**

**Haws Services | (800) 766-5612 | [www.hawsco.com/services](http://www.hawsco.com/services)**

## TROUBLESHOOTING

TROUBLE	REPAIR CHECKLIST
Tank temperature too cold (set point 85°F (29°C)):	<p><b>a)</b> Used recently? Full recovery for each tank and heater size below:</p> <ul style="list-style-type: none"> <li>• 530 gallon/4kW, 14 hours</li> </ul> <p><b>b)</b> Check thermostat setting (85°F).</p> <p><b>c)</b> Check heater circuit fuses F1.</p> <p><b>d)</b> Check control voltage and power supply fuses PFU &amp; CFU.</p>
Tank temperature too hot:	<b>a)</b> Check thermostat setting.
Space heater not on when temperature is below 70°F (21°C):	<p><b>a)</b> Check thermostat setting.</p> <p><b>b)</b> Check heater fuses F2.</p>
Uneven water flow to eyewash:	<p><b>a)</b> Eyewash must be level.</p> <p><b>b)</b> Clogged eyewash head. Clean or replace eyewash head.</p>
Insufficient water flow to eyewash or shower:	<p><b>a)</b> Check ball valves. Must be open and unclogged.</p> <p><b>b)</b> Clogged or malfunctioning siphon</p>
Clear exterior light off:	<p><b>a)</b> Check LED.</p> <p><b>b)</b> Check fuses PFU &amp; CFU</p>
Exterior light does not flash, and alarm does not sound when shower or eyewash is activated:	<p><b>a)</b> Check proximity switch actuation.</p> <p><b>b)</b> Check proximity switch wiring connections.</p>
Exterior alarm does not flash but alarm is sounding when shower or eyewash is activated:	<p><b>a)</b> Check LED.</p> <p><b>b)</b> Check wiring to light.</p>

**For technical support, contact:**

**Haws Services | (800) 766-5612 | [www.hawsco.com/services](http://www.hawsco.com/services)**

## **SPARE PARTS**

Please call Haws Services to order spare parts: 1-800-766-5612

## **DRAWINGS**

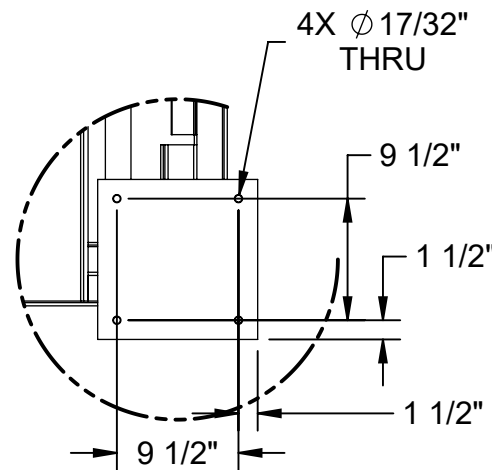
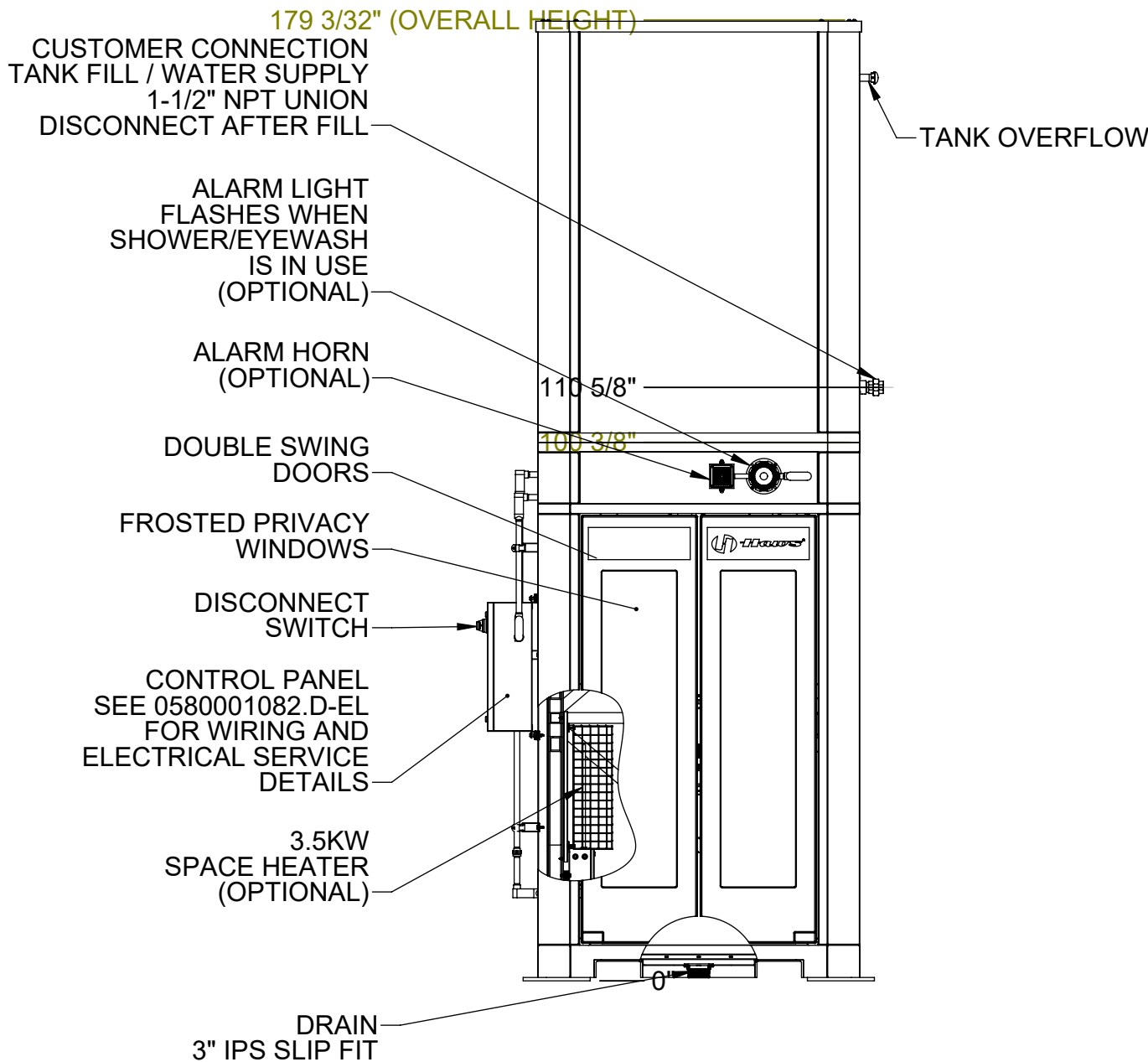
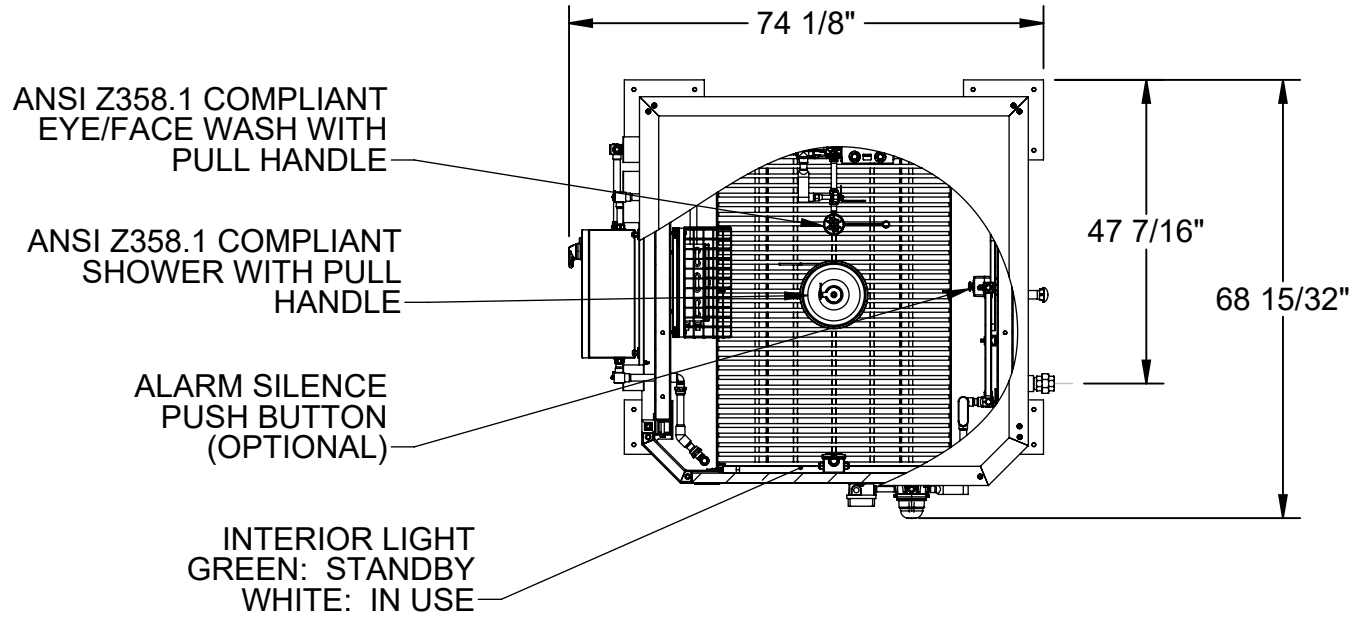
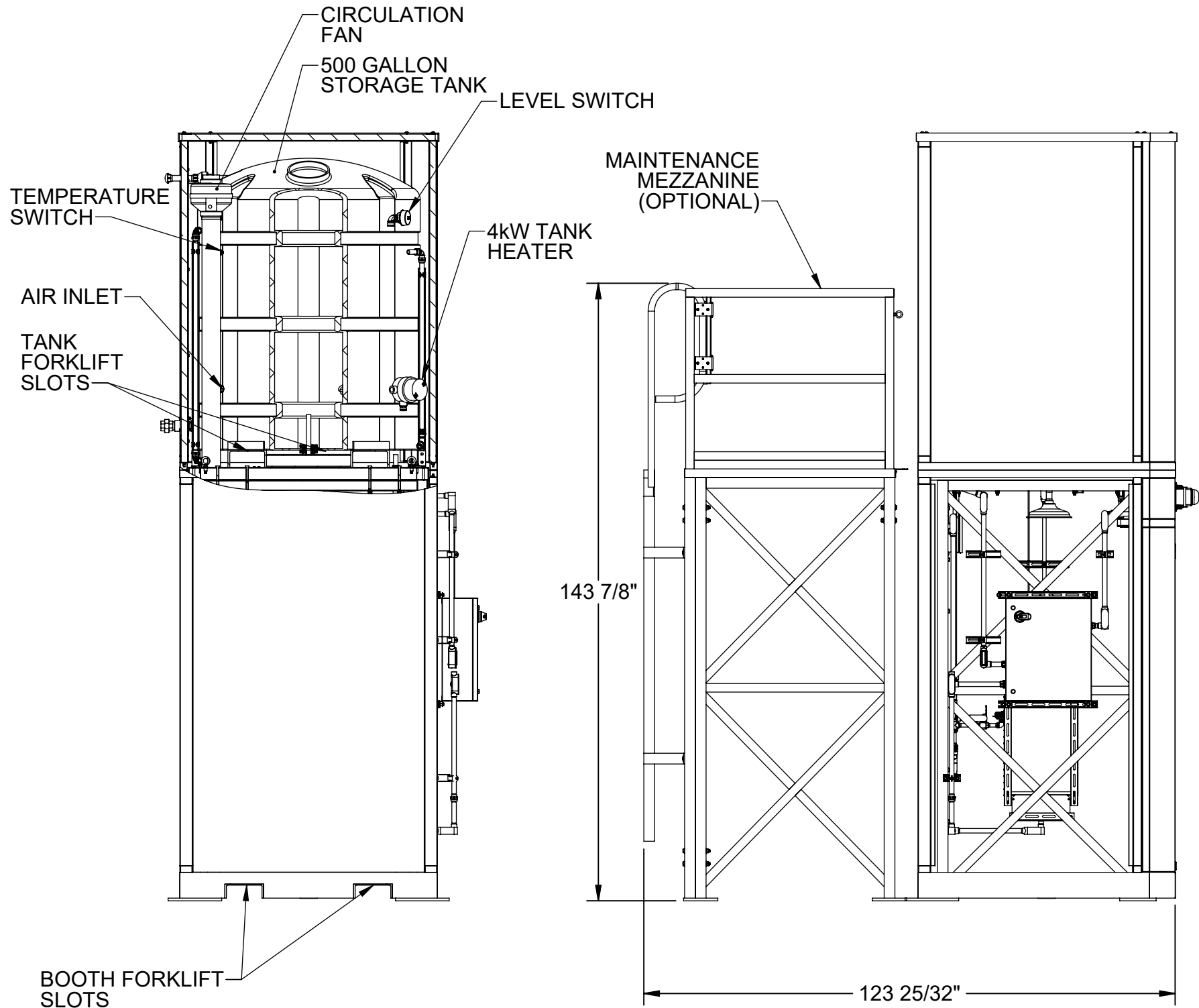
**General Arrangement Drawing (0580001082.D-GA)**



NOTES:

1. DIMENSIONS IN US INCHES
2. ALL TOLERANCES:  $\pm 1/2"$
3. ESTIMATED WEIGHT:  
  DRY: 2500 LBS  
  WET: 6900 LBS
4. AREA CLASSIFICATION: ORDINARY
5. AVAILABLE AMBIENT TEMPERATURE RANGES:  
   $-50^{\circ}\text{F}$  TO  $104^{\circ}\text{F}$ ,  $-30^{\circ}\text{F}$  TO  $104^{\circ}\text{F}$ ,  $32^{\circ}\text{F}$  TO  $120^{\circ}\text{F}$
6. RATINGS: CONFIGURABLE WITH TYPE 4/4X JUNCTION BOX FOR INDOOR OR OUTDOOR LOCATION
7. NOT ALL FEATURES ARE STANDARD



REVISIONS				
REV	DESCRIPTION	ECN	DATE	BY
1	INITIAL RELEASE	5589	9/18/2020	IR
2	PER ECO	5624	11/22/2021	IR



4X DETAIL A  
SCALE 1 : 15

NOTE: WHERE APPLICABLE, 16 EACH  
HILTI CONCRETE ANCHORS  
P/N HIT-HY-200 + HIT-Z 1/2  
ARE RECOMMENDED (NOT SUPPLIED)  
SEE INSTALLATION MANUAL FOR  
INSTALLATION DETAILS

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  OUTDOOR OVERHEAD TANK COMBINATION SHOWER			
DRAWN BY:					
DRAWN DATE:		<b>NOTICE OF PROPRIETARY INFORMATION</b> INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF HAWS CORPORATION AND THIS DOCUMENT AND THE DATA DISCLOSED HEREIN OR HEREINWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR IN PART TO ANYONE WITHOUT THE PERMISSION OF HAWS CORPORATION.		THIRD ANGLE PROJECTION	
CHECKED BY: AM				GA SH 1 OF 1	
CHECKED DATE: 11/23/21				REV. 2	
APPROVED BY: IR		SCALE 1:32 C		PART NO. 0580001082.D-GA	
APPROVAL DATE: 11/30/21					

**Electrical Schematic (0580001082.D-EL)**



**Piping and Instrumentation Diagram (0580001082.D-PID)**



## LIMITED WARRANTY

HAWS warrants that this specific product is guaranteed against defective material or poor workmanship for a period of **one year from date of shipment**. HAWS liability under this warranty shall be discharged by furnishing without charge F.O.B. HAWS Factory any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first class workmanship, provided that claim is made in writing to Haws within a reasonable period after receipt of the product. Where claims for defects are made, the defective part or parts shall be delivered to the Company, prepaid, for inspection. HAWS will not be liable for the cost of repairs, alterations, or replacements, or for any expense connected therewith made by the owner or his agents, except upon written authority from HAWS, Sparks, Nevada. HAWS will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that Haws has made no other warranties either expressed or implied in addition to those above stated, except that of title with respect to any of the products or equipment sold hereunder and that HAWS shall not be liable for general, special, or consequential damages claimed to arise under the contract of sale.

The emergency equipment manufactured by HAWS is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended. This product is intended to supplement first-aid treatment. Due to widely varying conditions, Haws cannot guarantee that the use of this emergency equipment will prevent serious injury or the aggravation of existing or prior injuries.

**NO OTHER WARRANTIES EXPRESSED OR IMPLIED ARE AUTHORIZED, PROVIDED OR GIVEN BY HAWS.**

### **SHOULD YOU EXPERIENCE DIFFICULTY WITH THE INSTALLATION OF THIS MODEL PLEASE CALL:**

**HAWS SERVICES: 1-800-766-5612**

**FOR CUSTOMER SERVICE: 1-888-640-4297**

For more information on Haws products, see our website: [www.hawSCO.com](http://www.hawSCO.com)

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