

SPEAKMAN EMERGENCY TANK SHOWER | SE-8000

Emergency 528 gallon (2000L) Gravity-Fed Tank Shower and Eyewash



For use in indoor and outdoor non-hazardous locations.



Rotationally molded polyethylene, water tank is covered in 1-1/2" reflective rigid polyurethane foam, insulation board and tank structure is further protected by a shroud complete with warning signs.



528 gallon (2000L) overhead insulated tank is fitted with a 3kw immersion heater with high temperature cutoff to prevent overheating conditions.



5w/ft. heating cable protects internal piping from freezing conditions for both shower and eyewash.



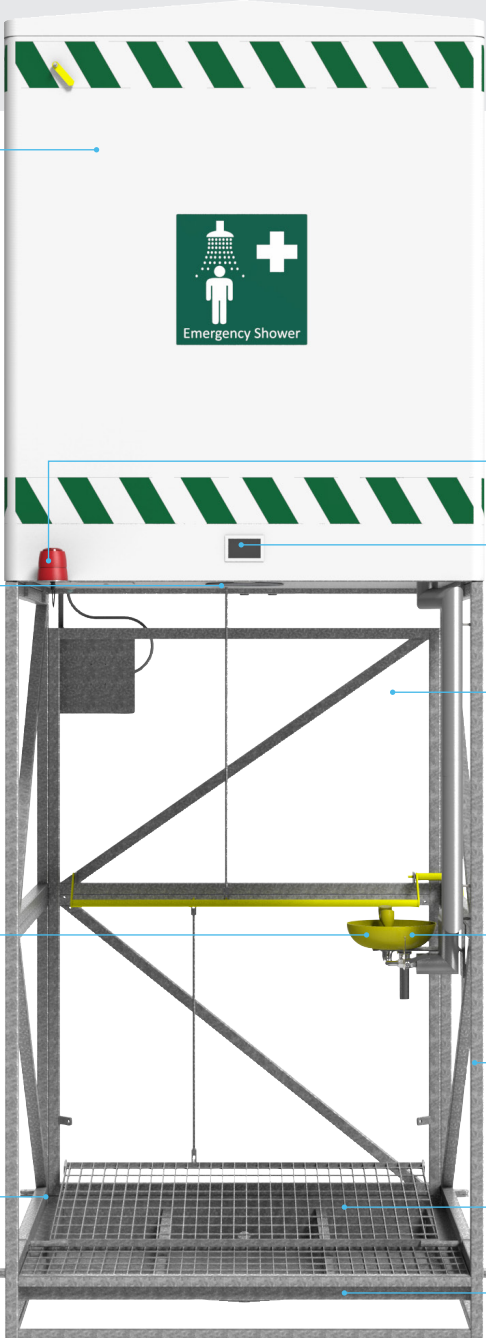
PIR controlled downlight in shower area, and all the electronics required to incorporate these and other electrical optional features such as:

- Digital Display Gauge which indicates water level and water temperature data (option)
- Visual/audio alarm beacon (option)



The power supply hook up to the electrical system shall be 240 volt, single phase, 50/60Hz.

528 gallon capacity tank



Options

- Alarm System for both Shower and Eyewash
- Digital Water Level and Water Temperature Gauge
- Privacy Screens (3) Sides (not shown)
- Eyewash with Stainless Steel Bowl (not shown)
- Stainless Steel Support Frame
- Treadle plate activator for main shower
- Water Collection Bund

SPECIFICATIONS

Features

EYE/FACE WASH FEATURES:

- Yellow Plastic Bowl
- (2) yellow plastic spray outlets with flip-top dust caps
- ½" NPT female brass, chrome-plated, full flow stay-open ball valve
- Stainless steel push handle activator

SHOWER FEATURES:

- Insulated 528 gallon (2000 ltr) Polyethylene Tank
- Support frame constructed from 1-1/2 x 1-1/2 x 1/8 hot dipped galvanized tubular steel, with fixed bolt down brackets
- Ø10-1/4" stainless steel shower head
- 1-1/2" NPT female stainless steel full flow ball valve, activated by yellow steel Push Bar
- Mechanical water level gauge
- 1" NPT water fill inlet, with valve and ball float for automatic shutoff when tank is full
- 1" NPT water overflow outlet
- 240 Volt, Single Phase, 50/60Hz, 13.88 Amps
- 3kw Immersion Heater that will maintain an approximate water temperature of 86° F at an ambient temperature of 14 °F.
- Heat Tracing for Shower and Eyewash Piping
- PIR Sensor and Area Downlight
- Thermal cutoff to shutoff electrical power to prevent overheating conditions
- Universal emergency signage
- Weights:
 - 1598 lbs. (un-filled)
 - 6004 lbs. (filled)

OPTIONS:

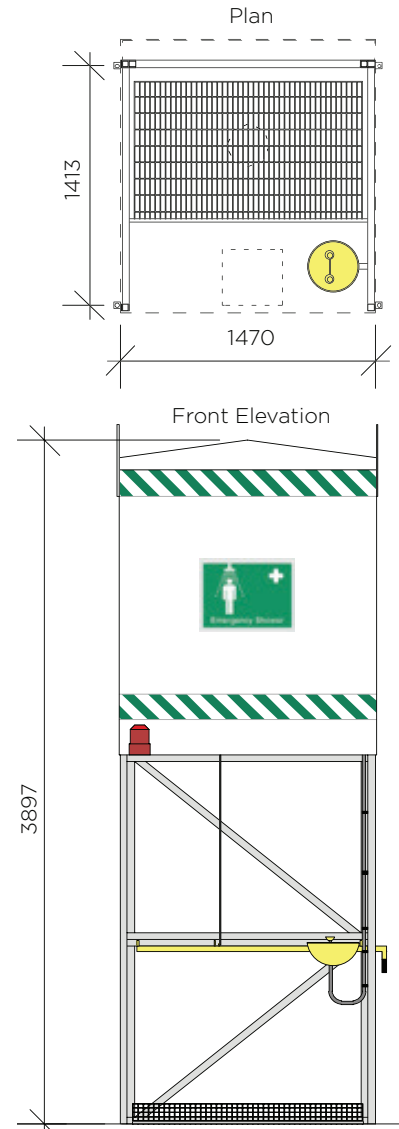
- ❑ TS-TREADLE
Treadle plate activator for main shower
- ❑ TS-BUND
Water Collection Bund
- ❑ TS-SSEYEWASH
Eyewash with Stainless Steel Bowl
- ❑ TS-SCREENS
Privacy Screens (3) Sides
- ❑ TS-SSSUPPORT
Stainless Steel Support Frame
- ❑ TS-GAUGE
Digital Water Level and Water Temperature Gauge
- ❑ TS-ALARM
Alarm System for both Shower and Eyewash

COMPLIANCE:

- Complies to ANSI/ISEA Z358.1
- Constructed using UL Approved Electrical Components

WARRANTY:

- 3 year (general mechanical) limited
- 1 year (electrical equipment) limited



NOTE: 1. All dimensions are in inches (millimeters) unless otherwise specified and are subject to change without notice.

COMPETITIVE ANALYSIS OF KEY FEATURES

Competition

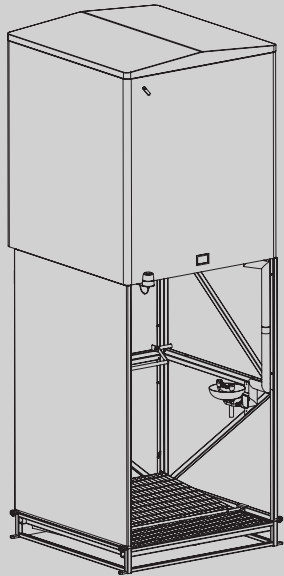
Brand	Image	SKU	Capacity	Structure material	Standard Equipment	Certification
Haws		8770	430 gallons 1628 L	Stainless Steel pipe, fiberglass tank, bronze valves	Shower head + Eye/face wash standard, water-proof side panels	CSA
Hughes		EXP-MH-14K/ 1200-GALVZ12	320 gallons 1200 L	uPVC pipe, high-density polyethylene tank, uPVC shower valve, stainless steel eye wash valve	Shower head + eye/face wash	ANSI/ISEA Z358.1-2009
Guardian		G4710	400 gallons 1514 L	Stainless steel frame/tank/ ball valves	Shower head + eye/face wash	CSA
FSI		F-SSIRT-L2000	528 gallons 2000 L	Stainless steel frame/tank	Shower head + eye/face wash, panic bar	ANSI/ISEA Z358.1-1998
Speakman		SE-8000	528 gallons 2000 L	Rotationally molded polyethylene, water tank covered in 1-1/2" reflective rigid polyurethane foam, insulation board tank structure is protected by a plastic shroud	Shower head + eyewash, panic bar	ANSI/ISEA Z358.1 UL Approved Electrical Components

INSTALLATION

How to install

INSTRUCTIONS FOR MODEL


SE-8000



NEED HELP?

For additional assistance or service please contact:

SPEAKMAN® Company
400 Anchor Mill Road
New Castle, DE 19720

 800-537-2107

 customerservice@speakman.com

 www.speakman.com

TOOLS AND SUPPLIES

Crane



or

Forklift



Philips
Screwdriver



or

Drill



IMPORTANT

- Be sure to read instructions thoroughly before beginning installation.
- It is the responsibility of the installer to ensure all installation of electrical equipment is performed by suitably qualified personnel. Failure to do so can result in injury or death.
- The Tank Shower should only be supplied from a potable water supply. See Cleaning & Maintenance section located in this document regarding inspection and water quality.
- To ensure a full 15 minutes of operation, be sure to refill the tank to full capacity every time the shower or eyewash is activated.

WARRANTY

3 year (general mechanical) limited /
1 year (electrical equipment) limited

- 1** Determine final mounting position per all OSHA, ANSI/ISEA Z358.1 requirements.

- This area should be well lit, and the area around and underneath the equipment needs to have proper drainage to ensure there is no standing water left after activation.
- It's also important to understand the effects any water/overspray and or diluted chemicals could have on equipment in the same area, especially electrical items.
- Proper drainage of unit should follow all associated local, county, and national standards.

NOTE: unit is shipped fully assembled, except for (2) side modesty panels (if supplied).

- 2** Place crated SE-8000 Tank Shower as close to final location as possible.

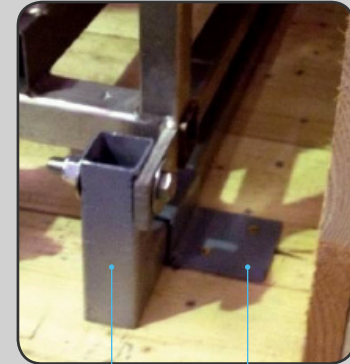
- Leaving enough maneuvering area for crane or suitably high and stable fork truck being used to safely hoist the unit from the shipping crate base.

- 3** Remove top and side panels of shipping crate.



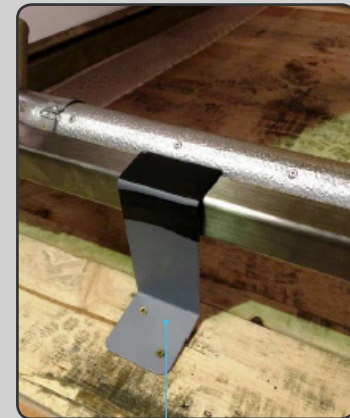
- 4** Disconnect all temporary shipping brackets that are holding the unit in place.

NOTE: After removal of support bracketing, if drain sump pan is included proceed to step #5, if not proceed to step #7.



Temporary shipping bracket top and bottom of tank shower.

Typical temporary hold down brackets.



Typical temporary hold down brackets.

INSTALLATION

How to install

Disconnect all temporary shipping brackets that are holding the unit in place.

NOTE: After removal of support bracketing, if drain sump pan is included proceed to step #5, if not proceed To step #7.



Typical shipping hold down brackets.

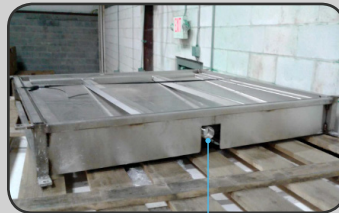


5 The Water collection bund is sent attached to bottom of the Tank Shower. Disconnect, remove and locate and install/mount Water collection bund into final desired position, on suitable concrete foundation. Secure using suitable mounting hardware at all (4) mounting tab locations.

NOTE: This surface shall be flat/level and suitable to support the weight of the unit with a full tank of water (minimum 6000 lbs. total).



6 Connect desired drain piping to outlet of Water collection bund following all applicable local, state, and national plumbing codes.



Outlet



7 Using suitable lifting apparatus (crane, etc.) and rigging, properly attach rigging to lifting mounts at the top of the unit near the tank lid, and carefully stand unit upright. Ensure the center of the unit is directly under the lifting apparatus at all times, until vertical. Watch for unit to swing slightly when lifted from floor.

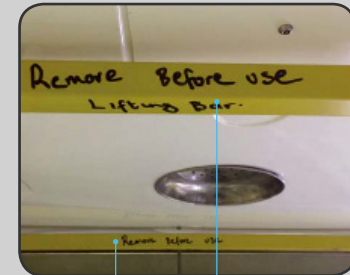


NOTE: The tank shower is also supplied with forklift truck "lifting" braces, located inside the showering area, just below the inner ceiling area for easy vertical upright lifting using forks from a lift crane or fork truck.

8 Orient and install unit in final desired position either on Water collection bund (if supplied) or on suitable concrete foundation, and secure using suitable mounting hardware at all (4) mounting tab locations.

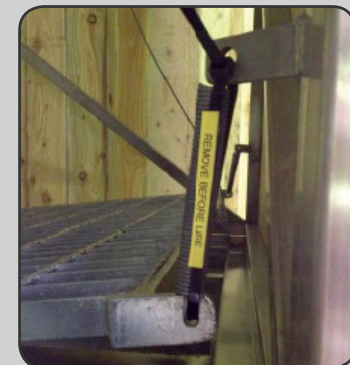
NOTE: This surface shall be flat/level and suitable to support the weight of the unit with a full tank of water (minimum 6000 lbs. total).

9 Remove all "lifting" braces located at top of unit and inside the shower area, along ceiling. Save all bracing for future use.



Lift bracing located in shower area, near ceiling.

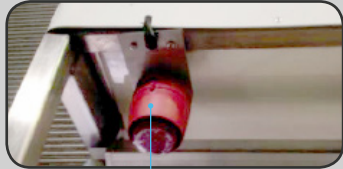
10 Remove strap ties holding foot treadle in place, if supplied.



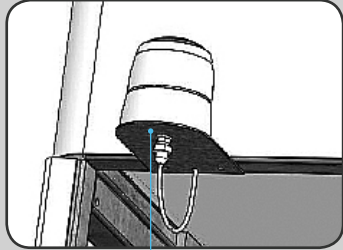
INSTALLATION

How to install

11 OPTIONAL: The Alarm is mounted and shipped, so that the light faces towards the inside of the shower area. The light needs to be removed and flipped so it rests outside the shower.



Shown flipped inside for shipping.



Remove screws and flip to mount alarm, using same holes, so light is outside the shower area.

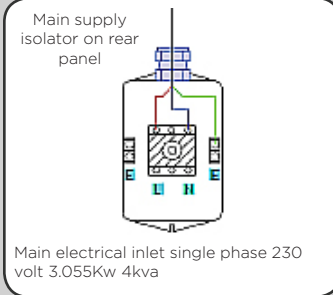
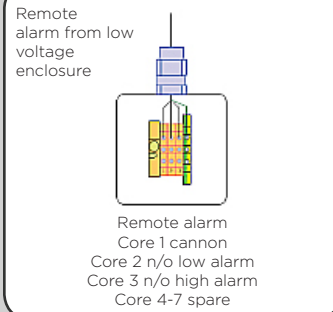
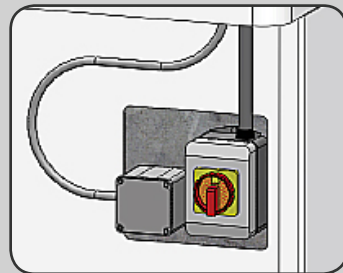
Visual and audible alarms are available to provide a warning when the shower or eyewash has been activated, or to indicate changes in the water temperature/levels.

- The temperature alarm is activated by a temperature probe inside the shower and is connected to the graphic display or a signal conditioning relay if no graphic display is used.
- The water level alarm is monitored by a level transducer fitted to the bottom of the tank and the alarm sounds when the level drops either by usage or testing. The signal from the transducer is connected to the graphic display or a signal conditioning relay if no display is used.
- The eyewash alarm is activated by means of a tilt switch fitted to the operating paddle.
- The local sounder/strobe alarm will sound for 30 minutes before it automatically switches itself off, the strobe light however will continue to flash while an alarm condition still exists.

12 The Tank Shower requires connection to a 240 volt, single phase, 50/60Hz electrical supply, to run the immersion heater and all other electrical components. Any electrical options you have specified should be supplied through a minimum 30mA Ground Fault Protection Device (GFPD).

NOTE: It is the responsibility of the installer to ensure all installation of electrical equipment is performed by suitably qualified personnel. Failure to do so can result in injury or death.

The electrical equipment fitted to the Tank Shower is connected to a suitable miniature circuit breaker for the water heater, lighting, trace heating and alarm system as necessary. If an alarm system is fitted, then a junction box is also fitted in the void of the ceiling space at the front of the shower. The junction boxes are accessible via a removable hatch in the ceiling. If remote alarm monitoring is required, then a 7 core 1mm SY type cable is also brought out to the rear of the Tank Shower for connection to the building automation system. Connections are Hot, Neutral and Ground, with a Single Phase supply of either 50Hz or 60Hz, 240Volts.



13 Connect potable water supply to water inlet located in the back of the unit. When the tank reaches full capacity the Ballcock fill valve, located inside the tank will shut off the supply automatically. The main water supply to the tank shower should be turned off once filling is complete.

WATER SUPPLY: The Tank Shower should only be supplied from a potable water supply. See Cleaning & Maintenance section located in this document regarding inspection and water quality.

NOTE: To ensure a full 15 minutes of operation, be sure to refill the tank to full capacity every time the shower or eyewash is activated.

14 Connect drainage plumbing (if desired) to the tank over-flow outlet, located in the back of the unit.



Unit is supplied standard with mechanical style visual water level indicator located on the front of the shroud face. This level indicator is operated mechanically by a ball float inside the water tank.

OPERATION

How to operate the tank shower

1

- When installing a Tank Shower it is important to remember to allow time for the water to reach the correct temperature before use. Emergency Safety Shower, Eye wash water temperatures must never exceed 100°F or drop below 60°F.

- Activation of a Tank Shower is by way of a yellow push bar that extends across the full width of the rear framework. This opens the stay-open valve. Unit can also be activated by a person other than the contaminated person, by using the same yellow push bar which extends beyond the shower area on the right hand side.

- Once activated the valve will remain open until it is physically shut by pulling the bar upwards.

- The eyewash is activated by way of a push paddle which is located to the side of the eyewash unit. Once activated, the valve will remain open until physically shut off by pulling the paddle back to the upright position.

- If the unit has been fitted with an optional treadle plate the water supply will be activated as user steps on to it.



2

OPTIONAL: The graphic display screen shows the water level with a digital "dial" display and a numeric digital read out with the gallons remaining in the tank. The temperature is also shown with a digital "dial" display and a numeric digital readout in Fahrenheit.

The alarm conditions are as follows:



Blue

1. When the water level drops below a critical level, the local alarm will sound and a WATER DROPLET appears on the display screen, if the remote alarm option is included then a volt free signal is also activated. To reset the alarm the tank must be re-filled.



Blue

2. When the temperature drops below 65 degrees Fahrenheit the local alarm will sound and a BLUE SNOWFLAKE appears on the display screen, if the remote alarm option is included then a volt free signal is also activated.



Red

3. When the water temperature goes above 90 degrees Fahrenheit the local alarm will sound and a RED SNOWFLAKE appears on the display screen, if remote alarm option is included then a volt free signal is also activated.



Bell

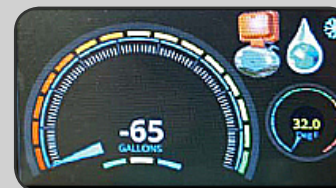
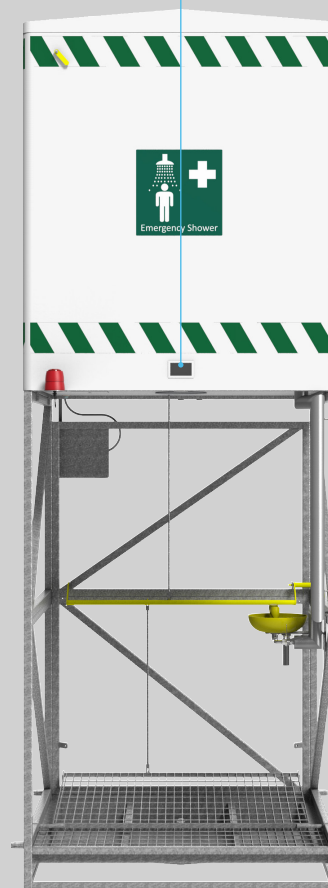
Whenever an alarm condition, high or low, exists an image of a RINGING BELL appears on the display screen.

The eyewash alarm is turned on when water flow is detected through the eyewash and the local sounder/strobe unit will activate, if the remote alarm option is included then a volt free signal is also activated.

The eyewash alarm is not a part of the graphic display and will not turn on any icons until the water level drops to a critical level.

The local alarm sounder/beacon has a built in 30 minute timer that shuts the alarm sound off however the strobe will continue to flash until the alarm condition has been removed, by resetting the system by re-filling tank, and allowing water temperatures to reach acceptable range.

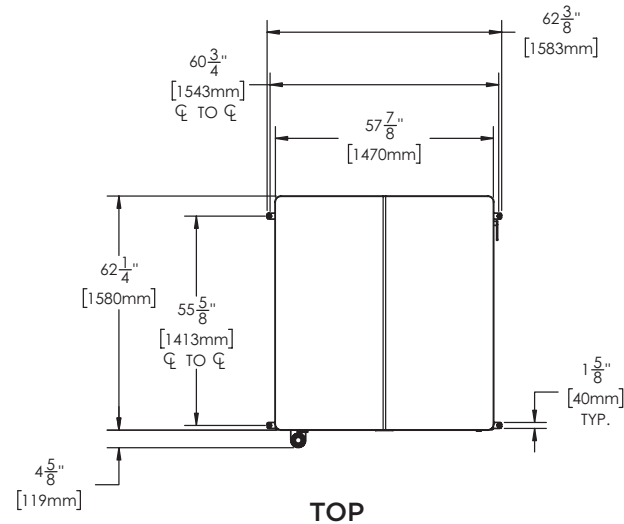
Optional digital display gauge on front of unit



NOTE: The Display pictured is for reference only.

ROUGH-IN

Rough-in

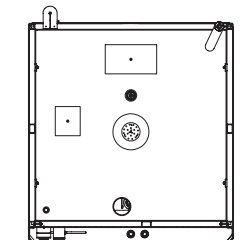
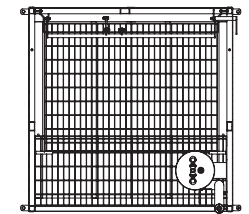
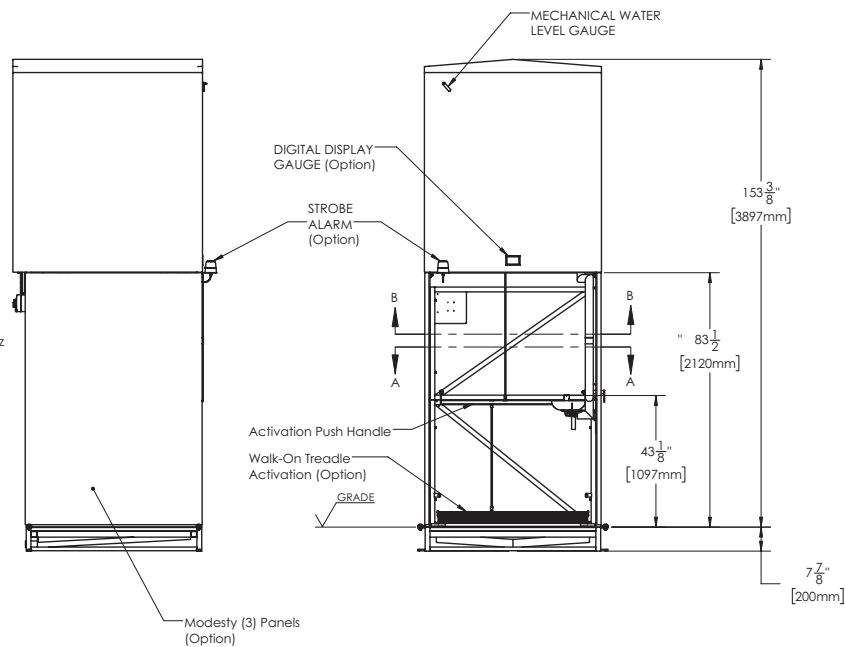
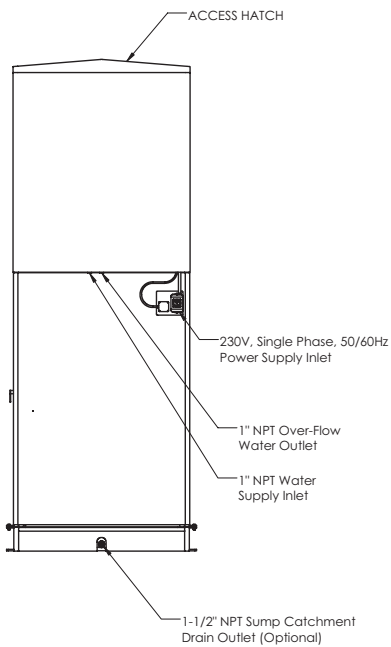


BACK

RIGHT

FRONT

LEFT



KEYS FOR BEST PRODUCT PERFORMANCE

PERIODIC CLEANING AND MAINTENANCE

The time frame for changing the water in the tank will vary depending on the quality of the water, and the surrounding environmental conditions. Per ANSI/ISEA Z358.1 the tank shower “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”. Furthermore, Speakman suggests that the unit should be tested at least once a week to check for optimum performance, and document data to record results for maximum efficiency.

Note: After each activation (including maintenance), the tank should be refilled to ensure it is full and ready for use.

Frequent analysis of the water quality within the unit is recommended to ensure there is no build-up of harmful bacteria. If you are using a water treatment supplement such as EndoSan™, please do so in accordance with all the manufacturer’s recommendations and instructions.



TROUBLESHOOTING GUIDE

Before calling Speakman Company for service, please run through the following checklist of troubleshooting steps.

NOTE: Before trouble shooting any potential issues, confirm the unit has been properly installed following all the supplied SE-8000 Installation Instructions.

No water flows from the Shower or Eyewash

1. Confirm the tank is full of potable water.

Tank fails to fill with water via the inlet pipework.

1. Check inlet ball valve float has not stuck in the full/off position.
2. Check to make sure inlet fill pipe is not blocked.

Tank continually over flows

1. Check inlet ball valve float has not been detached from its operating rod, or has been punctured, causing valve to be stuck in the open position.
2. Check to make sure overflow outlet piping is not blocked, causing water to overflow out of tank, from under Tank Lid.

Eyewash Spray Heads producing inadequate water flow in one or both Spray Heads

1. Confirm there is a full amount of potable water in tank.
2. Check for debris inside the nozzles by unscrewing each nozzle in a counter-clockwise direction to unscrew from the eyewash bullhorn. Clean out and replace.

Main overhead shower head spray pattern is irregular and flow pattern is not full.

1. Confirm there is a full amount of potable water in tank.
2. Check for debris inside shower head by removing the small screws on the perforated spray face and clean out any debris that may be present. Replace spray face in reverse order.

PIR activate Light not working and replacement of the Light Bulb

1. Pull baffle or reflector out of the trim. It may be necessary to insert a small screwdriver between the baffle and the optic holder to pry it free. (fig 14). Twist the black Bulb holder counter clockwise to remove optic and holder (fig 15)



Figure 14

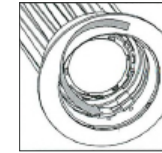


Figure 15

2. Remove Bulb from black Bulb Holder. Snap the new Bulb into the black Bulb Holder (fig16). Align the tabs in the heatsink to the slots in the optic holder and push optic into the fixture. Twist Bulb Holder clockwise to secure. (fig 17).



Figure 16

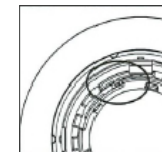


Figure 17

3. Press the baffle or reflector back into the fixture. Note that the baffle has depressions in it that must align with tabs on the trim ring. (fig 18)

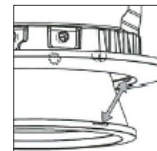


Figure 18

TROUBLESHOOTING GUIDE

Water Heater not heating the water

1. Have fully trained electrician check and confirm the unit is properly hooked up to, and energized with a 240 volt, single phase, 50/60 Hz electric power supply.
2. Check Circuitry by a fully trained electrician by checking that the rod thermostat is operational by testing the voltage in/out of the thermostat.
3. If no voltage is detected from the rod thermostat, remove and replace by disconnecting supply wiring, then proceed to pull the rod thermostat out of its tubular holder.
4. Replace with new one and re-connect and test.
5. If voltage is present at the rod thermostat, then the heater element should be replaced. To gain free access to the heater location, the under-ceiling panel should be removed to facilitate access. Before any attempt to remove the heating element, the power should be isolated and locked off. The tank should be completely emptied of water, including the small heater sump where the Immersion Heater is located, by using whatever means necessary (wet/dry vac, manual pump, etc.). Then the element can safely be removed for checking and/or replacing.

Using the properly sized Box Wrench and 24" Adjustable Wrench, following are the steps to access and remove the 3kW Immersion Heater.

1. Disconnect electric power from unit.
2. Drain as much water out the tank as possible.
3. Remove the heating element access panel.
4. Switch off the rotary isolator behind the access panel to turn off ALL electricity to unit.
5. Remove the shower head by rotating anticlockwise.
6. Remove the heating element terminal cover.
7. Disconnect and remove the supply cable from the heating element.
8. Remove the 25mm cable gland from the element body.
9. Remove the rod thermostat and put aside for safe keeping being careful not to disturb the setting, this will need to be fitted to the replacement element.
10. During the next steps care needs to be taken not to damage the transducer fitted in the sump to the left of the heating element.
11. Going through the shower head hole fit the 24 inch pipe wrench around the brass adapter on the heating element to hold the adapter in place.
12. Going through the heating element access hatch slide the box spanner over the heating element and unscrew the element from the brass adapter.
13. When the heating element is removed any water left in the element sump will pour out.
14. Reassembly is the reverse of the above steps.
15. When fitting the new heating element apply a generous coating of sealant to the threads.

16. Once complete and before refitting the access hatch and showerhead refill the tank and check for leaks. **IMPORTANT**, damage to the immersion heater will occur if the heating element is turned on without any water in the tank.

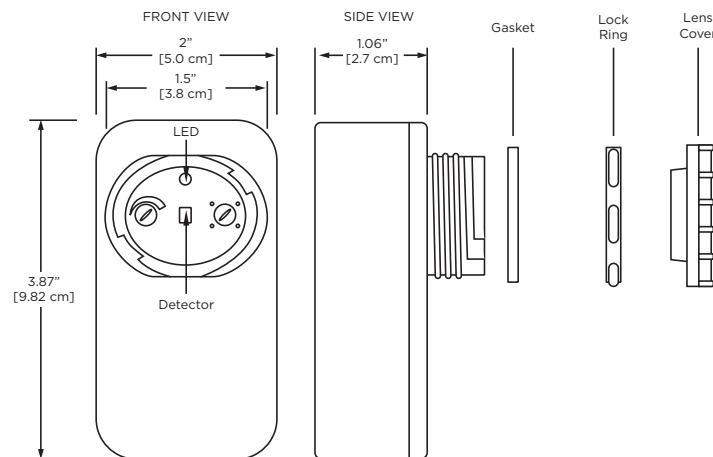
NOTE, if removal of complete ceiling is required, please contact manufacturer for further instruction.

PIR activation Switch for Light fails to activate

1. Have fully trained electrician check and confirm the unit is properly hooked up to, and energized with a 240 volt, single phase, 50/60 Hz electric power supply.
2. Check PIR operation by checking the Green sensor light is illuminated within the lens and responds to movement by flashing off and on.
 - i. Lights will not turn ON
 - a. Lens is dirty or obstructed: Inspect the lens visually and clean if necessary, or remove the obstruction
 - ii. Lights will not turn OFF
 - a. Sensitivity set improperly: Adjust the SENSITIVITY dial.
 - iii. Lights turn OFF and ON too quickly
 - a. Sensitivity set improperly: Adjust the SENSITIVITY dial.
 - iv. Time delay set improperly: Adjust the TIME DELAY dial.



FIG. 8



TROUBLESHOOTING GUIDE

3. Adjustment Settings:

- i. Time-Delay: This adjustment controls the amount of time the lights stay ON after the last detected motion. You may select settings varying from 30 seconds, 10 minutes, 20 minutes and 30 minutes.
- ii. Sensitivity: This adjustment controls the sensitivity of the passive infrared (PIR) detection.

4. Remove the PIR switch by removing the containment screw and turn ¼ turn to release. Then remove under ceiling panel to gain free access to the junction box in which to disconnect the wiring to the switch. Then remove the switch and if faulty replace with a new one.

NOTE: After power is turned on, allow approximately two minutes for charge-up. If the lights turn ON and the LED blinks when a hand is waved in front of the lens, then the Sensor is working properly. If the operation is different, refer to the Troubleshooting Section. The Sensor is factory pre-set to work without any adjustments. If you desire to change the factory settings, refer to the Settings section.

Water Level/Water Heater Digital Display Unit fails to illuminate.

The graphic display screen shows the water level with a dial type display and a digital read out with the gallons remaining in the tank.

The temperature is also shown with a dial type display and a digital readout in Fahrenheit.

The alarm conditions are as follows.

1. When the water level drops below approximately 572 gallons the local alarm will sound and a WATER DROPLET appears on the display screen, if the remote alarm option is included then a volt free signal is also activated. To reset the alarm the display must read at least 575 gallons.
2. When the temperature drops below 65 degrees Fahrenheit the local alarm will sound and a BLUE snowflake appears on the display screen, if the remote alarm option is included then a volt free signal is also activated.
3. When the water temperature goes above 90 degrees Fahrenheit the local alarm will sound and a RED snowflake appears on the display screen, if the remote alarm option is included then a volt free signal is also activated.

Whenever an alarm condition, high or low, exists an image of a RINGING BELL appears on the display screen. The eyebath alarm is turned on when water flow is detected through the eyebath and the local sounder/strobe unit will activate, if the remote alarm option is included then a volt free signal is also activated.

The eyebath alarm is not a part of the graphic display and will not turn on any icons until the water level drops below 572 gallons.

The local alarm sounder/beacon has a built in 30 minute timer that shuts the alarm sound off however the strobe will continue to flash until the alarm condition has been removed.

Filling time for the tank will depend on water pressure and flow rate, usually taking approximately 45 minutes to fill. Heating time depends on the ambient temperature of the filling water; a rise of 50 degrees Fahrenheit will take approximately 9 hours.

If the graphic display screen stays blank then contact manufacturer for replacement.

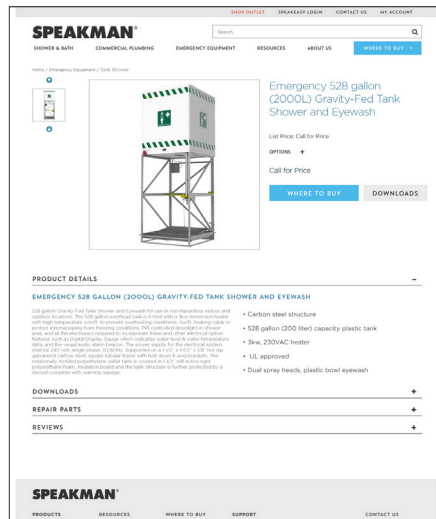
To remove the graphic display turn off MCB 3 in the enclosure above the ceiling panel then carefully run a sharp knife around the top and both sides of the display front to break the seal, carefully prise the display out of the shroud opening and unplug the 32 pin plug. Using a small flat blade screwdriver disconnect the 4 numbered wires from the terminal block.

Replacement of the new display is a reversal of the above, ensure the numbered wires are inserted in the correct numbered terminal and re-seal around the 3 edges, top and both sides.

WEBLINKS

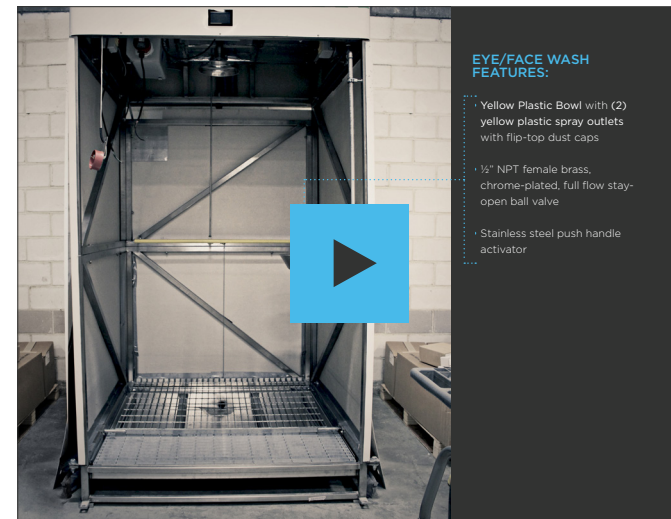
SE-8000 Webpage

COMING SOON



Product Video

COMING SOON



GENERAL HELP

Q & A

QUESTIONS AND ANSWERS

Q. How often should the water in the tank be changed?

A. The time frame for changing the water in the tank will vary depending on the quality of the water, and the surrounding environmental conditions. Per ANSI/ISEA Z358.1 the tank shower “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”. Furthermore, Speakman suggests that the unit should be tested at least once a week to check for optimum performance, and document data to record results for maximum efficiency. Note, after each activation (including maintenance), the tank should be refilled to ensure it is full and ready for use. Frequent analysis of the water quality within the unit is recommended to ensure there is no build-up of harmful bacteria. If you are using a water treatment supplement such as EndoSan™, please do so in accordance with all the manufactures recommendations and instructions.

Q. Who to contact for quote

A. Go to <http://speakman.com/sales-reps/> to find a sales rep near you. Or call 800-537-2107 for a customer service representative.

Q. What is the advantage of a tank-fed safety shower?

A. • When the need for an emergency shower exists and the company/job site is in a remote location without access to running water.
• Older facilities where the pipes cannot produce the 20 gpm flow not meet ANSI/ISEA Z358.1 standard for safety showers.
• Functionality is not dependent on piped water. In the event of a disaster water supply may be shut off to prevent contamination, which would cause plumbed fixtures to be inoperable.

Q. What standards does this meet?

A. This product meets the ANSI/ISEA Z358.1 standards.

Q. Warranty information?

A. 3 year (general mechanical) limited / 1 year (electrical equipment) limited

Q. What is the lead time?

A. 8 weeks

Q. Why is there no published price?

A. Each unit will be quoted to facilitate the needs of each individual customer.

For additional assistance or service please contact:

SPEAKMAN® Company
400 Anchor Mill Road
New Castle, DE 19720



800-537-2107



customerservice@speakman.com



www.speakman.com