

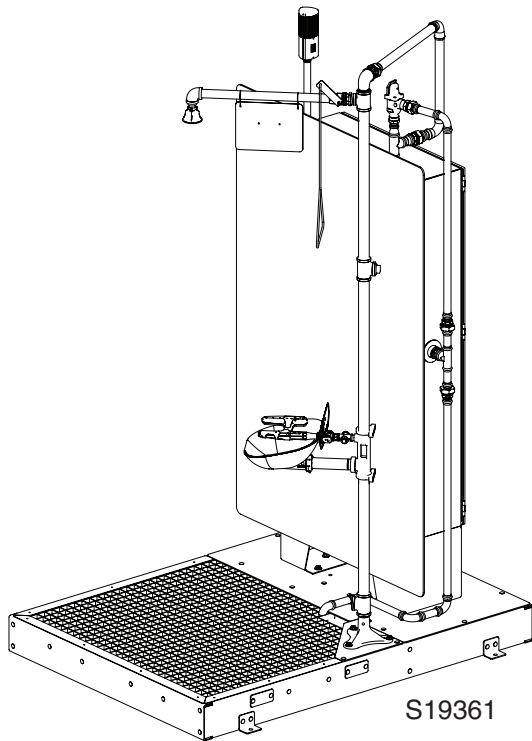
Installation

Keltech® S19361 Heater Safety Fixture Skid

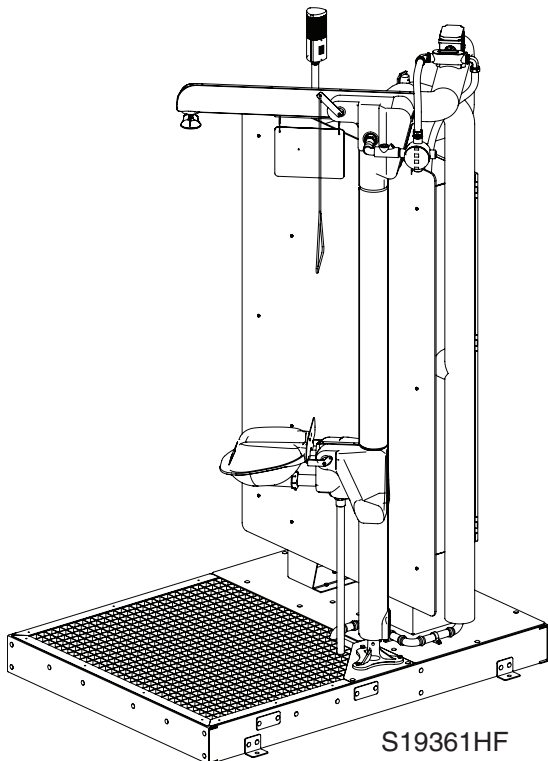
Keltech® S19361HF Freeze Protected Heater Safety Fixture Skid

SNA-54, SNA-63, SNA-72, SNA-108, SNA-126,
& SNA-144

Voltage options:
600V 3-phase
480V 3-phase
415V 3-phase
400V 3-phase
380V 3-phase



S19361



S19361HF

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DANGER

Tipover hazard. System can crush you resulting in serious injury or death. Read and follow precautions in this installation manual that accompanied the skid system for instructions on how to safely transport and mount skid. Do not transport using pallet end slots.

WARNING

Read this manual **BEFORE** using this equipment. Failure to read and follow all safety and user information could result in death, serious personal injury, minor burns, property damage, or damage to the equipment. Keep this Manual for future reference. Failure to comply with proper installation and maintenance instructions could contribute to the heater's failure.

A qualified plumber or electrician should install and service this system. Install system according to these instructions and in compliance with national and local codes.

ASSE standard 1071 listed devices should be used at fixtures to prevent possible injury. Severe bodily injury including scalding, chilling, and/or death may result depending upon system water pressure changes and/or supply water temperature changes.

Risk of electrical shock! Disconnect power supply before opening heater door.

Failure to ground this system may result in death or serious injury.

Make sure that all water supply lines have been flushed and then completely turned off before beginning installation. Debris in supply lines can cause valves to malfunction.

Proper transportation procedures need to be followed when transporting the skid and mounting in place to avoid personal injury and damage to the skid system. The skid system requires mounting to a level surface.

CAUTION

Hot pipes! Do not touch, may cause minor burns.

NOTICE

Consult local building and plumbing codes prior to installation. Should these codes differ from the information in the Manual, follow the local codes. Inquire with governing authorities for additional local requirements.

Periodic inspection and yearly maintenance by a licensed contractor is required. Corrosive water conditions, and/or unauthorized adjustments or repairs could render the skid system ineffective for its intended service. Frequency of cleaning and inspection depends upon local water conditions.

IMPORTANT

Read this entire installation manual to ensure proper installation. When finished with the installation, file this manual with the owner or maintenance department. Compliance and conformity to local codes and ordinances is the responsibility of the installer. Product warranties may be found on our web site www.keltech-inc.com.

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.

For questions regarding the operation, installation or maintenance of this product, visit bradleycorp.com or call 800.BRADLEY (800.272.3539)

Pre-Installation Information

General Information

The Keltech Safety Shower Skid System includes a tankless heater that provides instant and precise temperature-controlled tepid water, preassembled with a Bradley safety fixture and mounted to a heavy-duty steel skid. These systems can be used in most commercial and industrial hot water applications. To insure proper performance, install the skid system according to the following installation instructions and in compliance with applicable national and local codes.

Contact your local Keltech Representative or **KELTECH, INC.** for further information on available models.

Operation and Setup

SNA-Series heaters supply an unlimited amount of tepid water with specific flow and temperature rise capabilities to safety fixtures. These heaters are energy efficient, reliable, and provide optimum performance in the most demanding applications.

Application Specific Requirements

The Safety Shower Heater Skid System can be used in many different applications that require safety shower eye/face wash combination fixtures.

For applications utilizing quick close valves or solenoid valves, it is important to install a hammer arrestor or surge tank close to the point of use to absorb pressure spikes.

Storage Instructions

IMPORTANT! Keep Keltech Safety Shower Heater Skid System stored in original packaging until installation.

Recommended storage criteria:

Store Keltech skid systems where temperatures exceed 35°F (2° C) at all times.

Indoor storage is recommended.

Minimize excessive on-site transport to reduce risk of shock and impact damage.

Alternate storage:

If in the original crate, Keltech Electric Tankless Water Heaters will withstand outside storage for approximately 1 month in most climates. Crate may not be capable of protecting the heater if left outside longer than this time frame.

If the Keltech Safety Shower Heater Skid System is stored in an outdoor environment, care should be taken to protect the heaters from:

- Rain or other falling precipitation via tarp or other waterproof media.
- Runoff and accumulation of groundwater from any source that may exceed 1 inch (25mm).

NOTE: For the S19361HF Freeze Protected Skid System: If the heater is stored where the temperature could fall below 45°F(7°C), the heater must be powered immediately after hydro testing to ensure internal freeze protection components are activated. Once the heater is installed and the on-site plumbing has been hydro tested, the power supply must remain constant until the risk of freeze is eliminated. **If this is not possible, the heater must be drained of water. Freezing of the heater can cause serious damage. Follow notes in Start Up Check List section.**

Packaging

Crates are constructed from 3/4" OSB (19mm).

S19361 crate dimensions approx: 60" x 78" x 100" (1524mm x 1981mm x 2540mm)

S19361HF crate dimensions approx: 60" x 78" x 118" (1524mm x 1981mm x 2997mm)

Crates should not be stacked.

Safety issues related to packaging:

- Product should be transported with the care associated to packages labeled "FRAGILE" even if packaging is not marked accordingly.
- Standard safety procedures for forklift transport and large items less than 2000lbs (907kgs) should be followed at all times.
- When stored, crate must be supported in entirety of its length and width.

1 Transporting the Skid System



Unless otherwise requested, Keltech Skid Systems are transported within the continental United States and Canada via commercial truck.



Each skid system will be accompanied by document packaging that includes the installation instructions. Store skid system documents for reference.

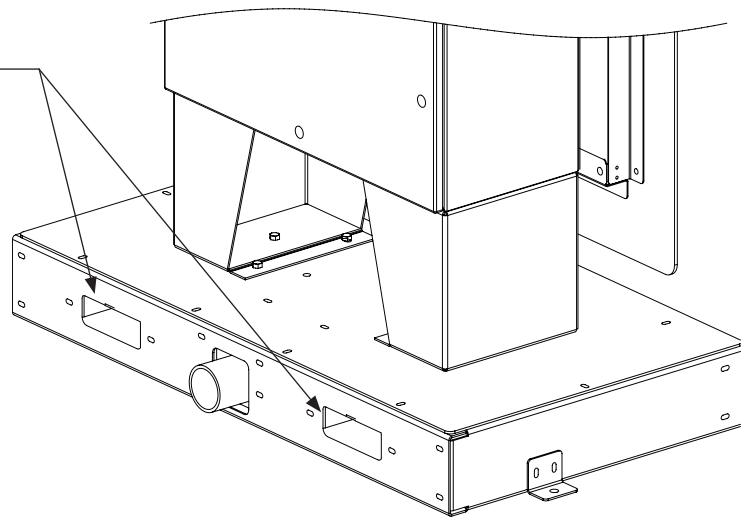
NOTICE! Check the load ratings on equipment intended to be used to transport the system.

A Remove skid system from the shipping crate. Locate the forklift tubes on the skid system and lift for transport.

NOTICE! During transit, transport close to the ground. Use all standard safety measures and precautions prior to and during transit.

NOTICE! Use caution when transporting. Always use proper lifting techniques. Weight distribution is unbalanced and the product is susceptible to tipping which will result in damage to the product.

B Transport the skid system to the final installation location.

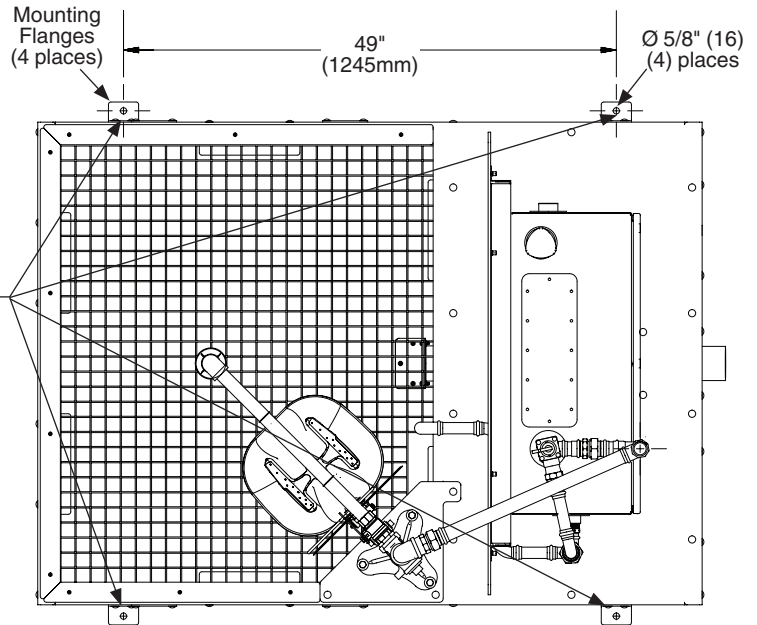


2 Mounting Skid System

- For best results, install system as close as possible to the point of use.
- Long pipe runs are not recommended. A heat loss of 1°F for every 10ft (3 meters) of uninsulated pipe can occur.
- When determining a mounting location, ensure accessibility of the cabinet enclosure door and other plumbing for service and maintenance. A minimum of 36" (914mm) from the front of the cabinet enclosure and a minimum of 48" (1219mm) above the top of the cabinet enclosure is required.

A Verify skid system is in final installation location.

B Secure the base to concrete at the (4) mounting locations using suitable concrete anchoring devices with expansion sleeves (supplied by installer). The skids use 3/8" (10mm) or 1/2" (13mm) mounting hardware/anchoring devices. Install anchors per manufacturer recommendation. Review and follow all local codes and ordinances that regulate anchoring.



3 Plumbing Installation

- For S19361HF Models, skip step A and proceed to step B to begin plumbing installation.

Components Included:

- Pressure and Temperature Relief Valve (150 psi/10 bar)
- (6) Union 1-1/4"
- Drain pipe for TepidGuard discharge

Components Needed:

- Shutoff Valve
- Y-Strainer (100 mesh) or Inline Filter (150 microns)
- Drain pipe
- Elbows, nipples and fittings as needed

Components included and needed in the S19361/S19361HF skid systems are different from the standard SNA Heater Series.

See dimensional drawings for reference and suggested installation configuration.

Failure to install proper filtration may result in a flow sensor malfunction.

A For S19361 Only: Remove and install the showerhead assembly and copper piping that is attached to the skid. For more information, see the appropriate installation guides shipped with this skid system.

B Install shutoff valve above (upstream of) the heater inlet.

C Install one union on the water inlet side of the heater and another union upstream of the 100 Mesh (150 micron) y-strainer.

Make sure no shutoff valve is between the relief valve discharge and the drain.

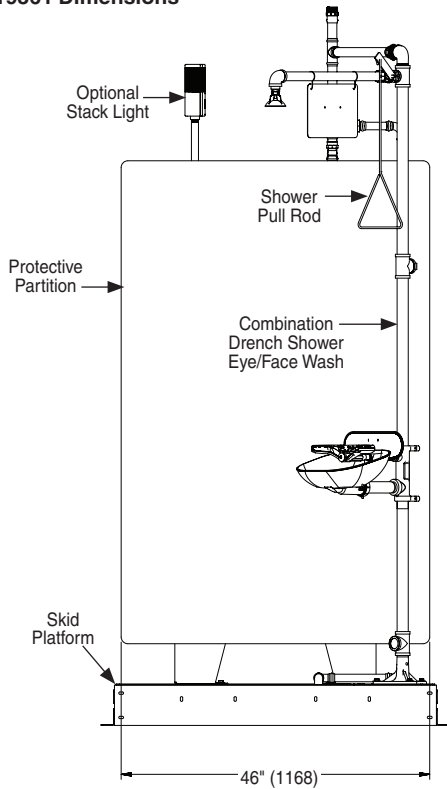
D Use 1-1/4" hard copper tubing or pipe as needed.

NOTICE! To avoid water damage, install a drain pipe from the pressure relief valve to an unrestricted drain.

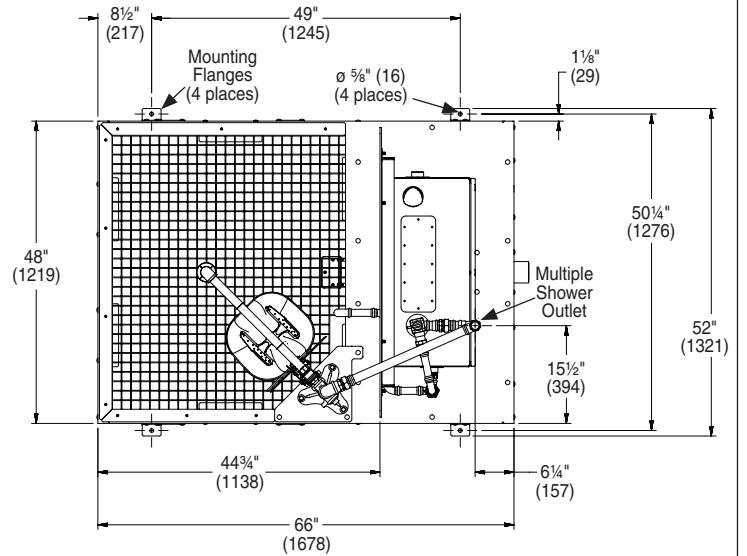
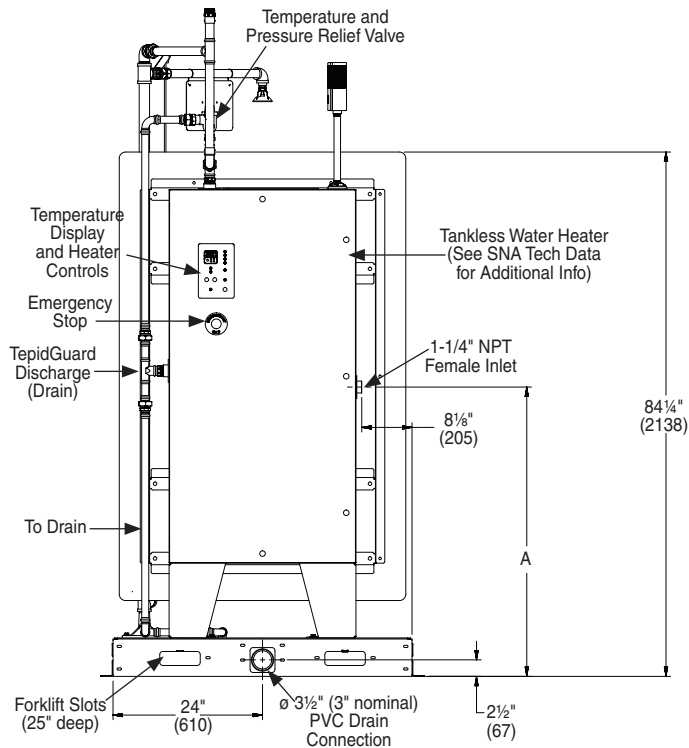
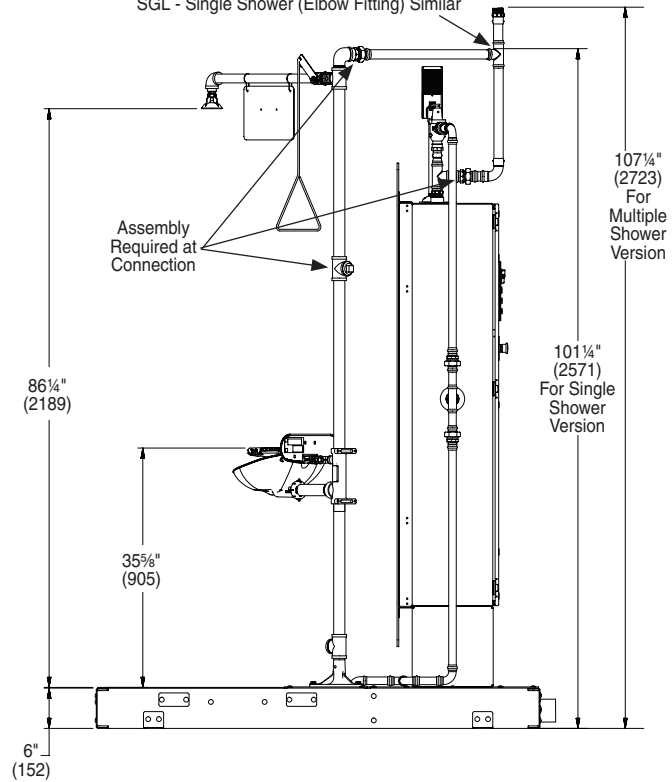
If end use fixture is not at the highest point in the plumbing loop, then an automatic air vent valve must be added at the highest point in the system or at any drop to eliminate trapped air.

3 Plumbing Installation cont.

S19361 Dimensions

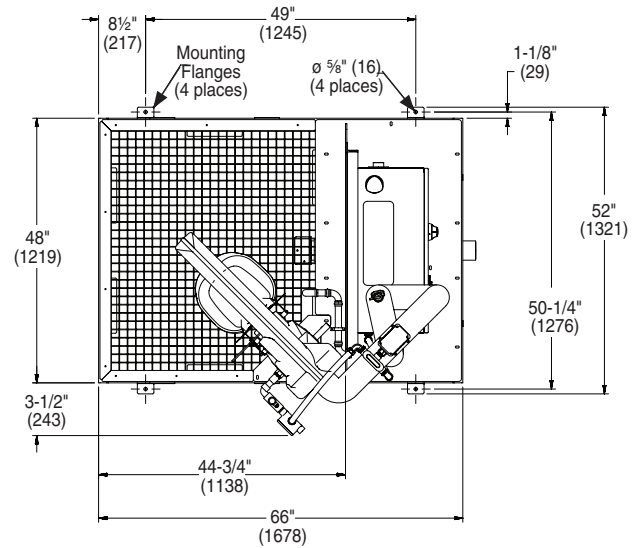
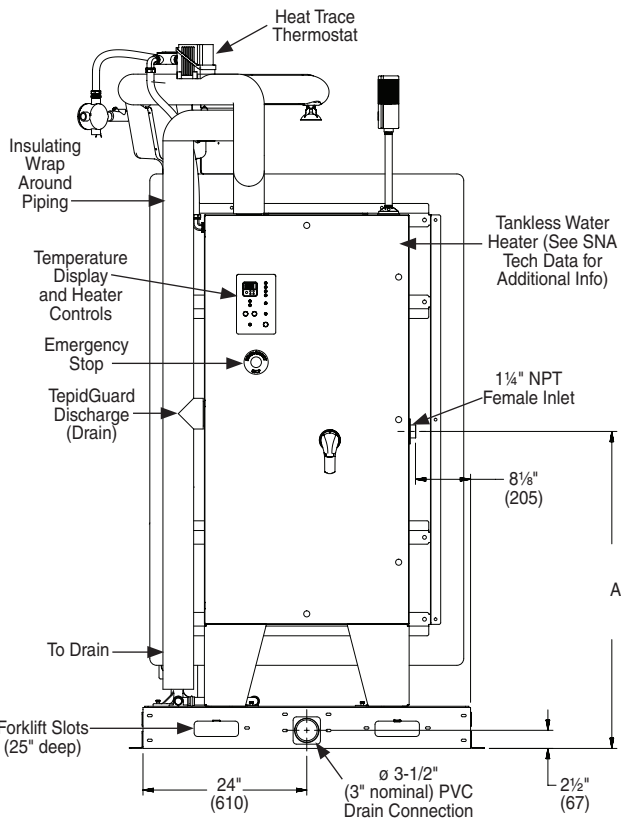
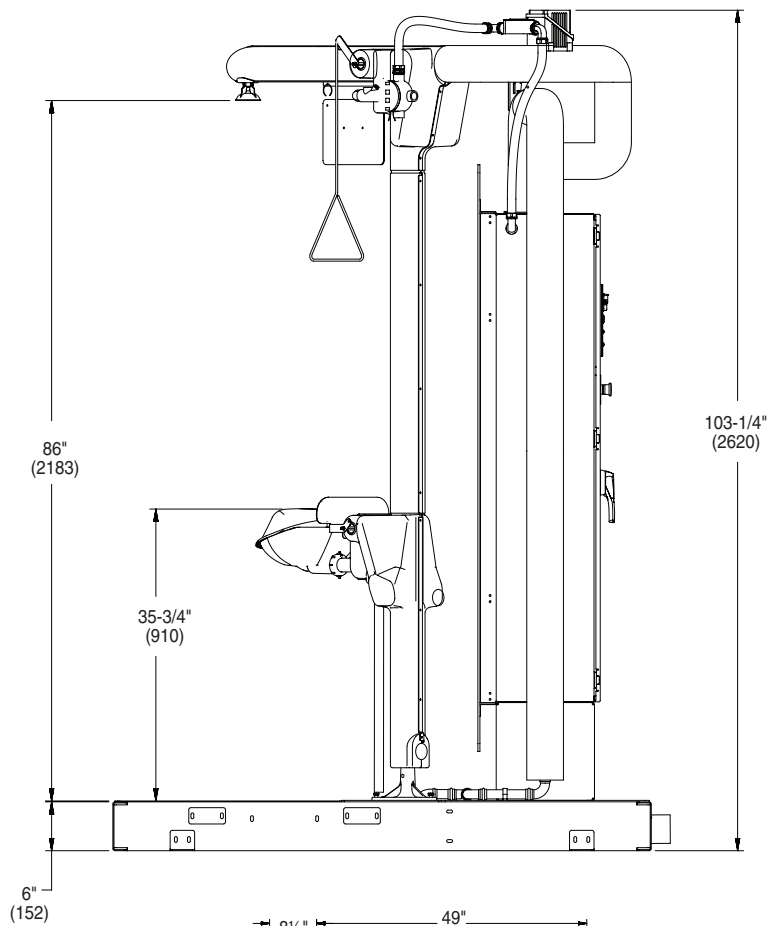
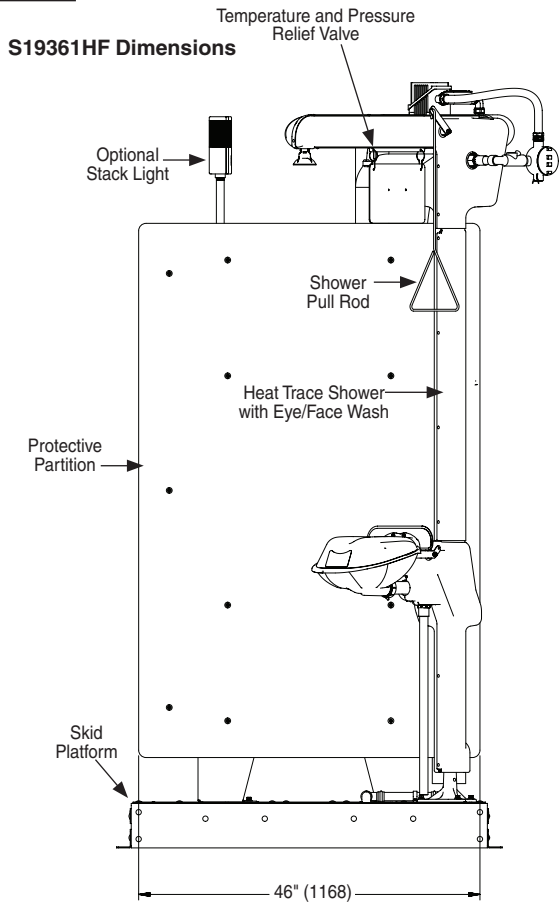


MTL - Multiple Shower (Tee Fitting) Shown, 1/4" NPT Male
 SGL - Single Shower (Elbow Fitting) Similar



Dim. "A"	
54kW	34-1/2" (876)
63kW	46-1/2" (1180)
72kW	34-1/2" (876)
108kW	34-1/2" (876)
126kW	46-1/2" (1180)
144kW	46-1/2" (1180)

3 Plumbing Installation cont.



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54kW	34-1/2" (876)
63kW	46-1/2" (1180)
72kW	34-1/2" (876)
108kW	34-1/2" (876)
126kW	46-1/2" (1180)
144kW	46-1/2" (1180)

4 Start Up Check List

Plumbing

- System is set in a vertical, level, and upright position with the outlet located at the top. Skid is mounted to the ground by (4) 3/8" or 1/2" anchoring devices.
- Confirm Installation of shutoff valve above (upstream of) the union on the inlet connection. Confirm Installation of a Y-strainer (100 mesh screen) or inline filter (150 micron) between the inlet shutoff valve and the heater.
- Verify pressure and temperature relief valve is installed on tepid water outlet immediately following the union. No valve or restriction is between the relief valve and the system or the relief valve and drain. Shutoff valve is installed after pressure and temperature relief valve on outlet if required by local or national plumbing codes.
- If the hot water process is not at the highest point in the plumbing loop, then an automatic air vent valve must be added at the highest point in the system plumbing loop to eliminate trapped air.

See SNA-Series Heater Installation Guide and S19314 Halo Combination Safety Fixture or S19-304 Heat Trace Shower with Eye/Face Wash Unit Installation Guide for remaining setup and operational instructions for the heater and safety fixture.