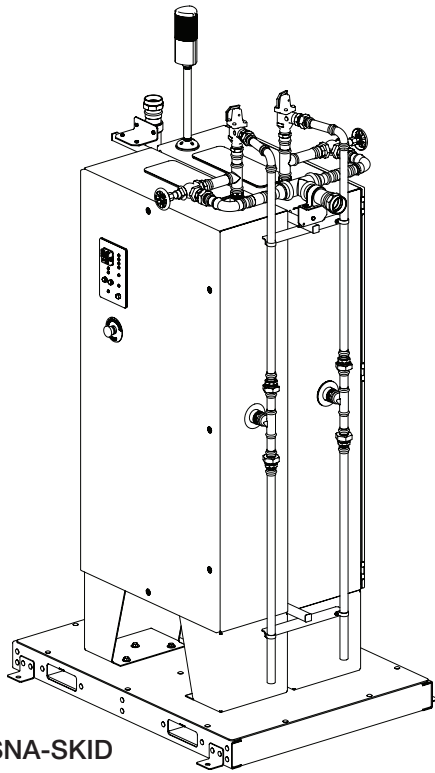


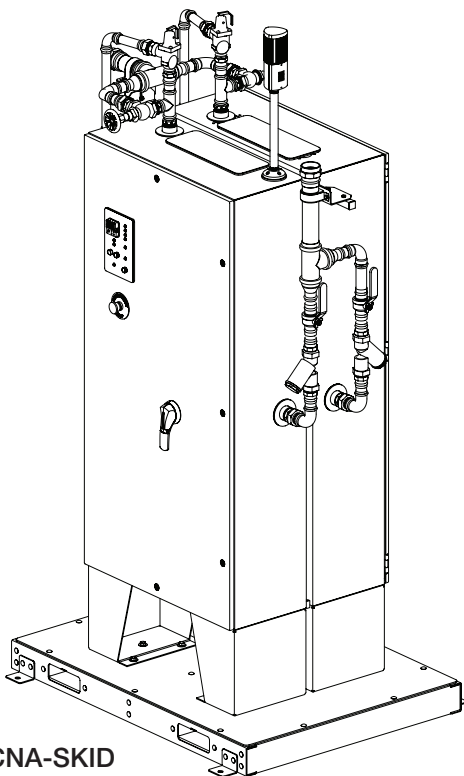
Installation

Bradley® SNA-SKID Emergency Water Heating Skid *Powered by Keltech™*

Bradley® CNA-SKID Industrial Water Heating Skid *Powered by Keltech™*



SNA-SKID



CNA-SKID

SNA & SNAR-108	Voltage options for models:
SNA & SNAR-126	600V 3-Phase
SNA & SNAR-144	480V 3-phase
CNA & CNAR-108	415V 3-phase
CNA & CNAR-126	400V 3-phase
CNA & CNAR-144	380V 3-phase

Table of Contents

Pre-Installation Information	2-3
Storage Instructions	3
Packaging	4
Transporting the Skid	4
Mounting Skid	5
Plumbing Installation	5-7
Start Up Check List	8



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 1016, 1069, 1070 or 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.bradleycorp.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 SNA-SKID and CNA-SKID Series Systems provide instant and precise temperature-controlled hot water, preassembled and pre-piped, with two Bradley® Tankless Water Heaters **Powered by Keltech™** mounted back to back and secured to a heavy duty steel skid. These systems can be used for most commercial and industrial hot water applications. To insure proper performance, install the heater according to the following installation instructions and in compliance with applicable national and local codes.

Contact **Bradley** for further information on available models.

Operation and Setup

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

Application Specific Requirements

The SNA-SKID and CNA-SKID Series Systems can be used in many different applications that require custom tuning for specific applications to maximize performance of the system.

For use in a recirculation loop, the incoming loop temperature should not exceed 140°F (60°C) to ensure water cooling of the solid state relay.

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



Keep Bradley SNA-SKID and CNA-SKID Series Systems stored in original packaging until installation.

Recommended storage criteria:

Store Bradley 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, Bradley SNA-SKID and CNA-SKID Series Systems 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 Bradley SNA-SKID and CNA-SKID Series Systems are 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 heaters with ENHT freeze protection option: 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" (19) OSB.

Crate dimensions approx: 48" x 60" x 100" (1219 x 1524 x 2540)

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, Bradley 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.

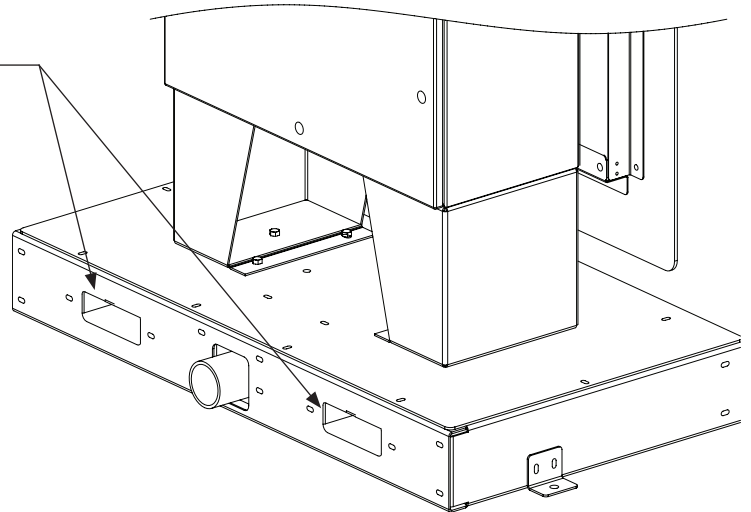
NOTICE! Check the load ratings on equipment intended to be used to transport the system.

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.

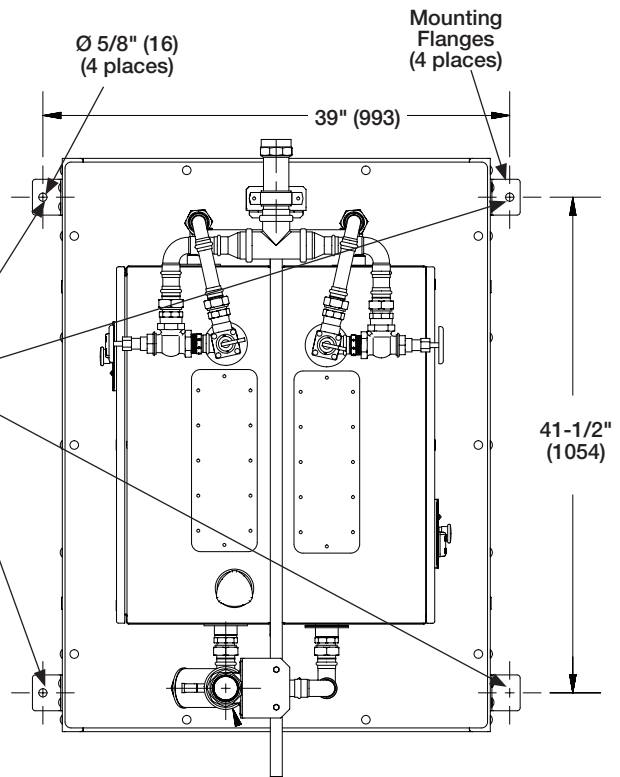


2 Mounting Skid System

- 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 needed.

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

Components Included:

- (10) Union 2"
- (2) Pressure and Temperature Relief Valve (150 psi/10 bar)
- (2) Gate or Ball Type Valves
- Drain pipe
- Elbows, nipples and fittings as needed

Components included in the SNA-SKID and CNA-SKID Series Systems are different from the standard SNA and CNA Heater Series.

See dimensional drawings for reference and suggested installation configuration.

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

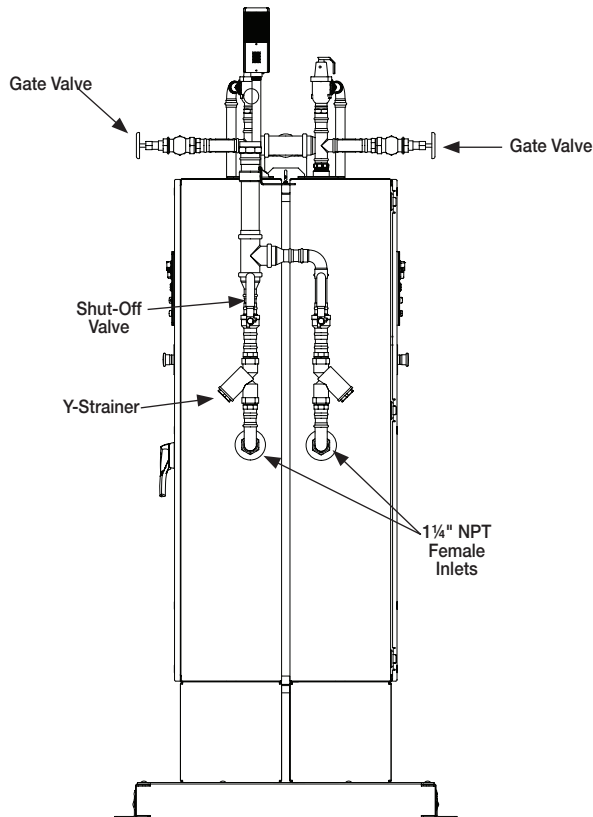
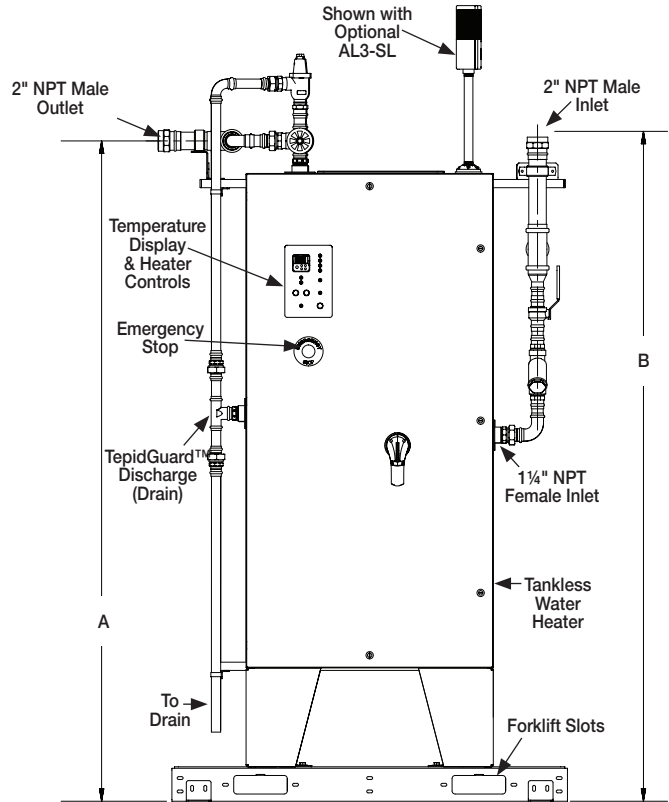
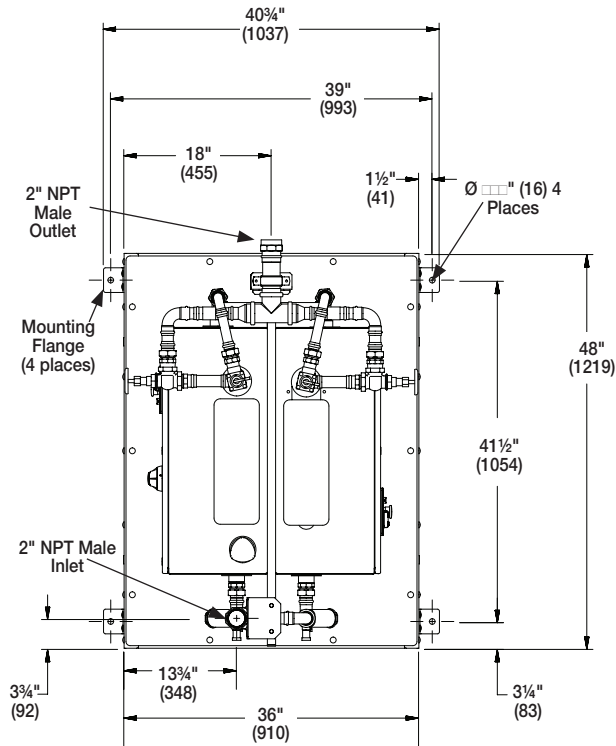
A Use 2" hard copper tubing as needed.

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.

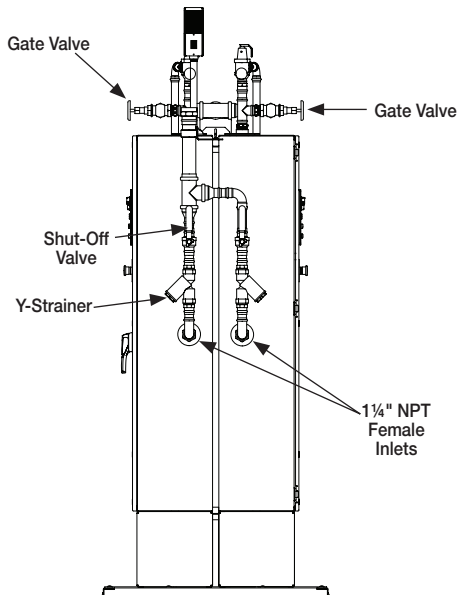
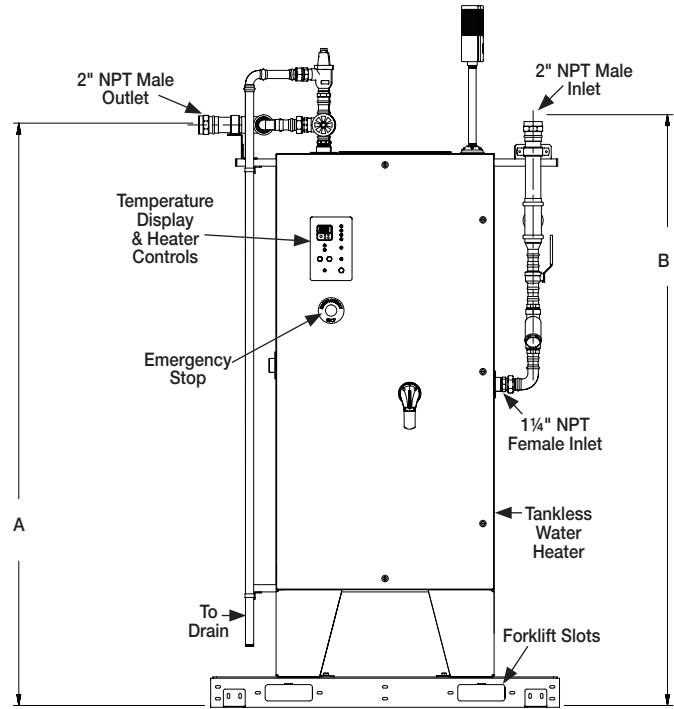
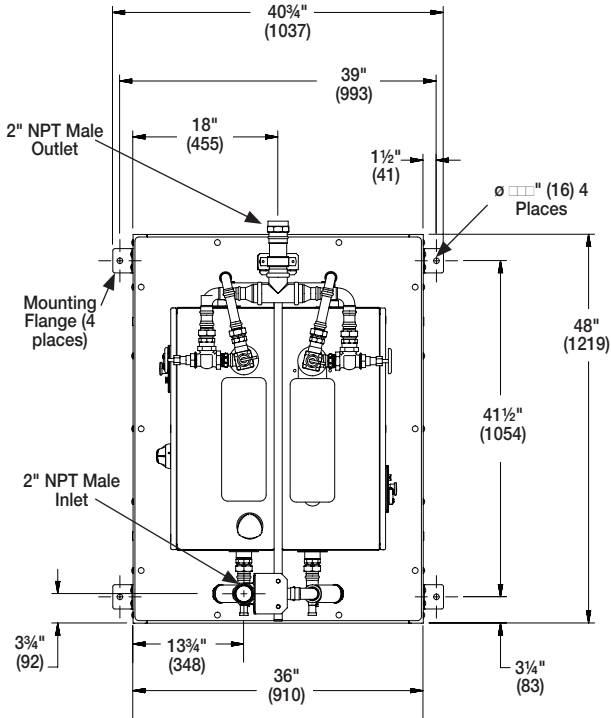
SNA-SKID Dimensions



	Dim. "A"	Dim. "B"
108kW	68 1/4" (1734)	69 1/4" (1759)
126kW	80 1/4" (2035)	81 1/4" (2065)
144kW	80 1/4" (2035)	81 1/4" (2065)

3 Plumbing Installation cont.

CNA-SKID Dimensions



	Dim. "A"	Dim. "B"
108kW	68 1/4" (1734)	69 1/4" (1759)
126kW	80 1/4" (2035)	81 1/4" (2065)
144kW	80 1/4" (2035)	81 1/4" (2065)

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.
- 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 or CNA-Series Heater Installation Guide for remaining setup and operational instructions for the heater selected.