

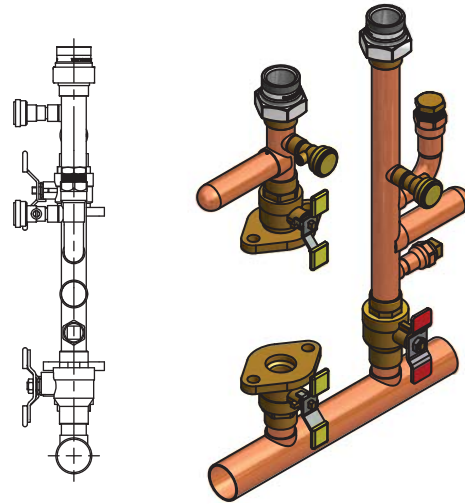
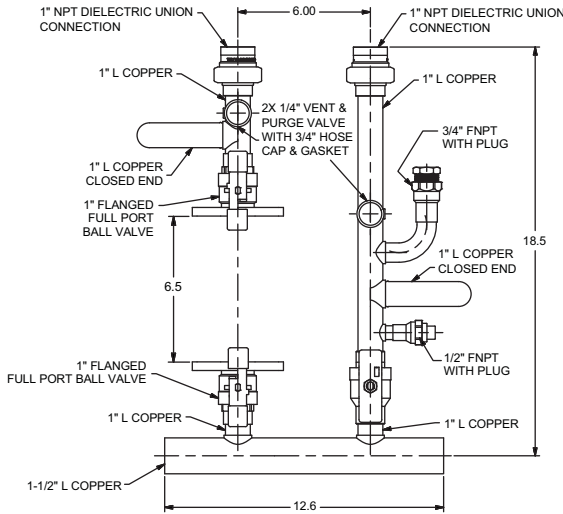
CAUTION

Please follow these installation instructions carefully in order to avoid a safety hazard and/or injury.

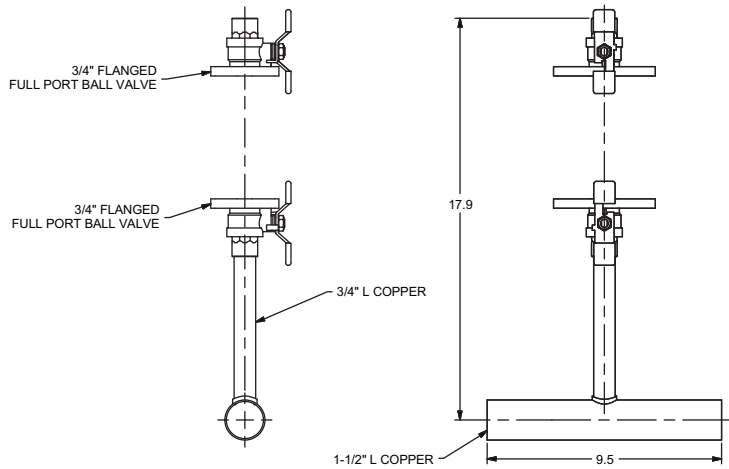
- The Navien Primary Manifold is approved for use with Navien NHB Series boilers ONLY.
- The Navien Secondary Manifolds may be used on any heating system with compatible piping.
- This accessory must be installed and serviced by a qualified installer or service agency.
- For additional information, refer to the NHB Series Boiler Installation Manual.

INCLUDED PARTS AND DIMENSIONS

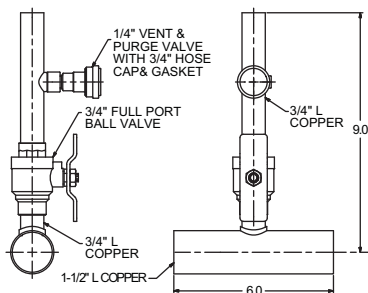
(all dimensions in inches)



NHB Series Primary Manifold (#GFFM-MSOZUS-001) - for use with single boiler units only



NHB Series Secondary Supply Manifold (#GFFM-SKTZUS-001)*



* Both Secondary RETURN and SUPPLY Manifolds are included in one package.

NHB Series Secondary Return Manifold (#GFFM-SKTZUS-001)*

PREPARE FOR INSTALLATION

- Before installing the Primary Manifold, shut off the water supply to the installation site and make sure that the boiler is properly mounted on the wall according to the NHB Series Installation Manual.
- Apply thread sealant to the 1" Heating RETURN and SUPPLY fittings located at the bottom of the boiler unit (see **FIGURE 1**).

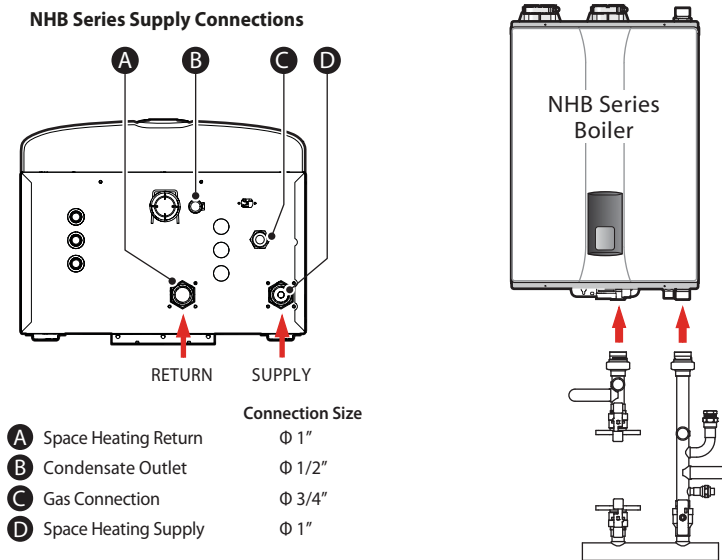


FIGURE 1: Supply and Return Connections on the NHB Series Boiler

MANIFOLD INSTALLATION

- Identify the SUPPLY (red handle) and RETURN (yellow handle) pipe connections on the Primary Manifold. Use the provided 1" unions from the manifold to attach the piping to their proper connections on the boiler.
- **Note** Make sure that the water connections are tightly sealed to prevent water leaks.
- Install the boiler pump (not included) onto the 1" flange connections available on the Heating Return piping. The length between the flanges is 6-1/2". Check the pump dimensions before installation for compatibility.
- Install the rest of the piping system to the accessory. Water flow should travel from left to right with the Heating Return entering the manifold from the left side and the Heating Supply exiting from the right. Attach the Heating Supply and Return system piping to the 1-1/2" main hot water pipe on the Primary Manifold and provide sufficient weight support for the plumbing system. This accessory is also compatible with smaller pipe sizes based on BTU demand and flow rate requirements.
- Install any required accessories such as an air separator, expansion tank, check valve, etc. on the heating supply side as illustrated in **FIGURE 2** below.

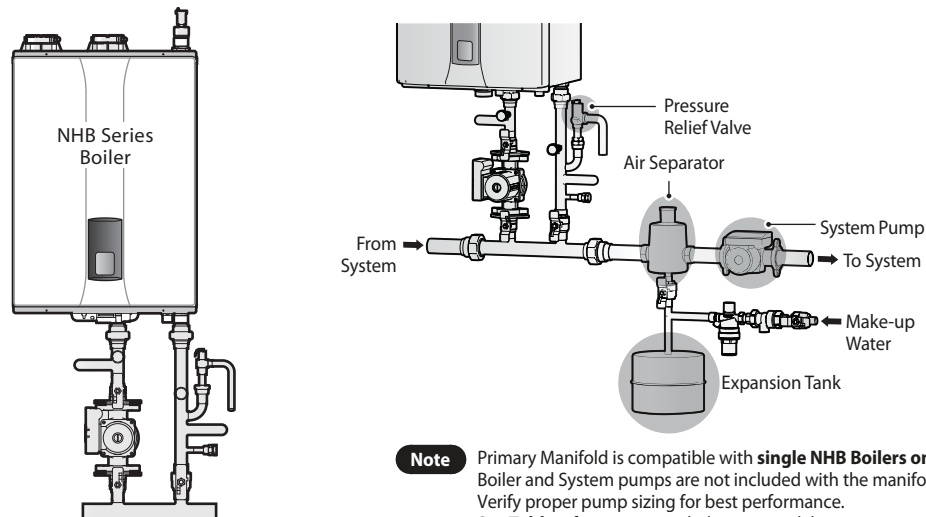


FIGURE 2: Primary Manifold Piping Setup with Accessories

MANIFOLD INSTALLATION (continued)

Pump Manufacturer	Model for NHB-055	Model for NHB-080	Model for NHB-110	Model for NHB-150
Grundfos	UPS15-58	UPS15-58	UPS15-58	UPS26-99
Armstrong	ASTRO 230CI	ASTRO 230CI	ASTRO 230CI	ASTRO 280CI
Taco	0015-MSF3-IFC	0015-MSF3-IFC	0015-MSF3-IFC	0013-F3
Wilo	Star S 16F	Star S 16F	Star S 16F	n/a
Bell & Gossett	NRF-25	NRF-25	NRF-25	NRF-36

TABLE 1: Recommended Pump Models with the NHB Primary Manifold

- Additional accessories such as relief valves, indirect hot water tanks, or temperature/pressure gauges can be installed onto the additional ports below (see **FIGURE 3**). Stub outs are provided for the direct connection of an indirect water heater. Refer to the NHB Installation and Operation Manual for accessory piping and wiring requirements.

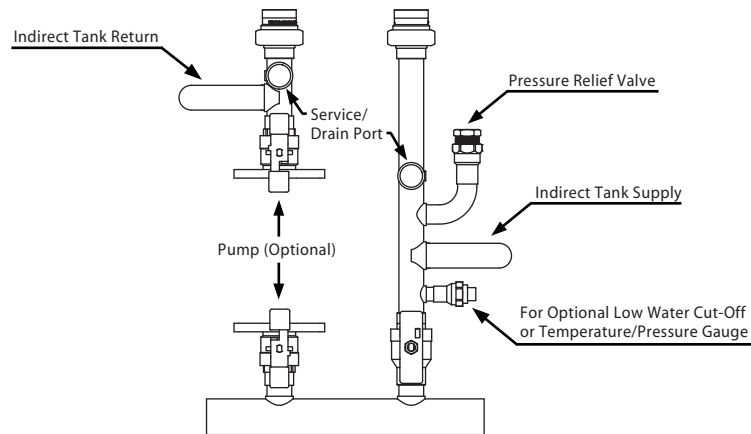


FIGURE 3: Available Ports on the Primary Manifold

- When the boiler is used to distribute hot water to hydronic heating components such as radiators (baseboard or cast iron), radiant zone, and/or forced air systems, Secondary SUPPLY and RETURN Manifolds are recommended for best performance and ease of installation (see **FIGURE 4**).

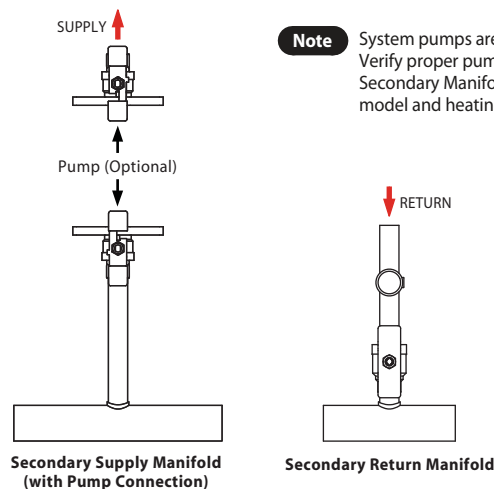


FIGURE 4: Secondary SUPPLY and RETURN Manifold Piping

- Once all steps are completed, it is recommended to flush, purge, and fill the system in order to remove excess pipe debris. Check for any leaks from the piping before initial operation of the heating system.