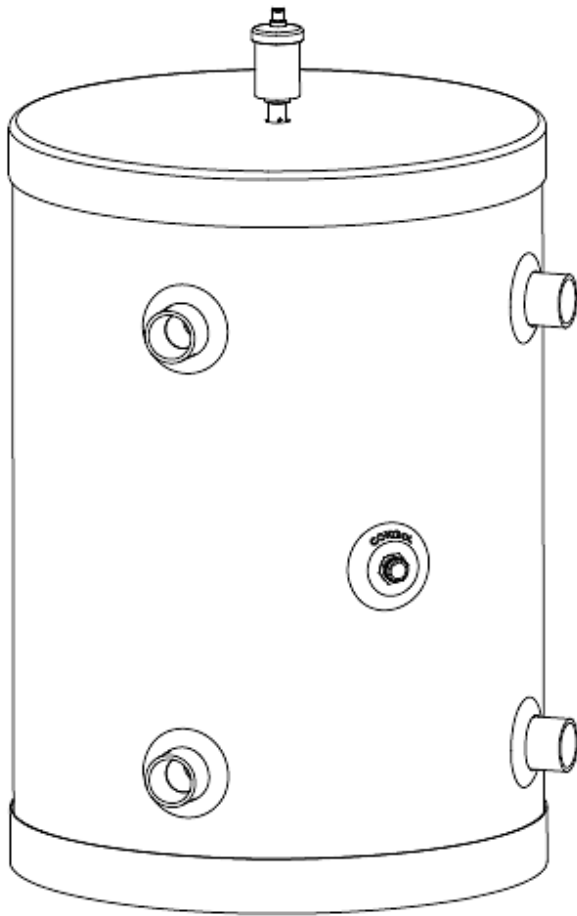




# *SuperStor Ultra Stainless Steel Buffer Tank*



**INSTALLATION**

**START-UP**

**MAINTENANCE**

**PARTS**

**Model**

**SSU-20B**

***For Residential and Commercial Use***

## **⚠ WARNING**

This manual must only be used by a qualified heating installer/service technician. Read all instructions in this manual before installing. Perform steps in the order given. Failure to comply could result in substantial property damage, severe personal injury, or death.

**NOTICE:** HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.

**NOTE TO CONSUMER: PLEASE KEEP ALL INSTRUCTIONS FOR FUTURE REFERENCE.**

## SPECIAL ATTENTION BOXES

The following defined terms are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important product information.

### **DANGER**

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

### **CAUTION**

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

### **CAUTION**

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## FOREWORD

This manual is intended to be used in conjunction with other literature provided with the SuperStor Ultra Stainless Steel Buffer Tank. This includes all related control information. It is important that this manual, all other documents included with this system, and additional publications including the *Code for the Installation of Heat Producing Appliances* (latest version), be reviewed in their entirety before beginning any work.

Installation should be made in accordance with the regulations of the local code authorities and utility companies which pertain to this type of heating system equipment.

## FOR THE INSTALLER

### **WARNING**

This manual must only be used by a qualified heating installer/service technician. Read all instructions in this manual before installing. Perform steps in the order given. Failure to comply could result in substantial property damage, severe personal injury, or death.

This buffer tank must be installed by qualified and licensed personnel. The installer should be guided by the instructions furnished with the buffer tank, and with local codes and utility company requirements.

#### INSTALLATIONS MUST COMPLY WITH:

Local, state, provincial, and national codes, laws, regulations and ordinances.

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**PART 1 – GENERAL SAFETY INFORMATION**

**A. PRECAUTIONS**

This buffer tank is approved for indoor installations only. Clearance to combustible materials: 0” top, bottom, sides and back. Tank must have room for service: 24” front and 6” sides are minimum recommended service clearances. (A combustible door or removable panel is acceptable front clearance.) This buffer tank has been approved for closet installation, and installation on combustible flooring. Install in a location where temperature and pressure relief valve discharge or a leak will not result in damage to the surrounding area. If such a location is not available, install an auxiliary catch pan.

** WARNING**

**INSTALLER** – Read all instructions in this manual before installing. Perform steps in the order given.

**USER** – This manual is for use only by a qualified heating installer/service technician. Have this buffer tank serviced/inspected by a qualified service technician annually.

**FAILURE TO ADHERE TO THE GUIDELINES ON THIS PAGE CAN RESULT IN SUBSTANTIAL PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.**

DO NOT USE THIS BUFFER TANK IF ANY PART HAS BEEN UNDERWATER. Immediately call a qualified service technician.

** WARNING**

**NOTE:** If the buffer tank is exposed to the following, do not operate until all corrective steps have been made by a qualified serviceman:

1. FIRE
2. DAMAGE
3. WATER

Any claims for damage or shortage in shipment must be filed immediately against the transportation company by the consignee.

**CAUTION**

High heat sources (sources generating heat 100°F / 37°C or greater, such as stove pipes, space heaters, etc.) may damage plastic components of the water heater as well as plastic vent pipe materials. Such damages ARE NOT covered by warranty. It is recommended to keep a minimum clearance of 8” from high heat sources. Observe heat source manufacturer instructions, as well as local, state, provincial, and national codes, laws, regulations and ordinances when installing this water heater and related components near high heat sources.

**B. WHEN SERVICING THE WATER HEATING SYSTEM**

- To avoid electric shock, disconnect electrical supply before performing maintenance.
- To avoid severe burns, allow all related water heating equipment to cool before servicing.

**PART 2 – PREPARE THE BUFFER TANK**

**CAUTION**

**UNCRATING BUFFER TANK** – Any claims for damage or shortage in shipment must be filed immediately against the transportation company by the consignee.

**CAUTION**

**COLD WEATHER HANDLING** – If the buffer tank has been stored in a very cold location (BELOW 0°F) before installation, handle with care until the plastic components come to room temperature.

Remove all sides of the shipping crate to allow the buffer tank to be moved into its installation location.

**NOTE:** An automatic air vent is included with the buffer tank, and must be installed in the port provided on the top of the tank. Operating the buffer tank without the air vent will result in a leakage of water and possible property damage. Such damages ARE NOT covered by product warranty.

**A. SPECIFICATIONS AND PERFORMANCE RATINGS**

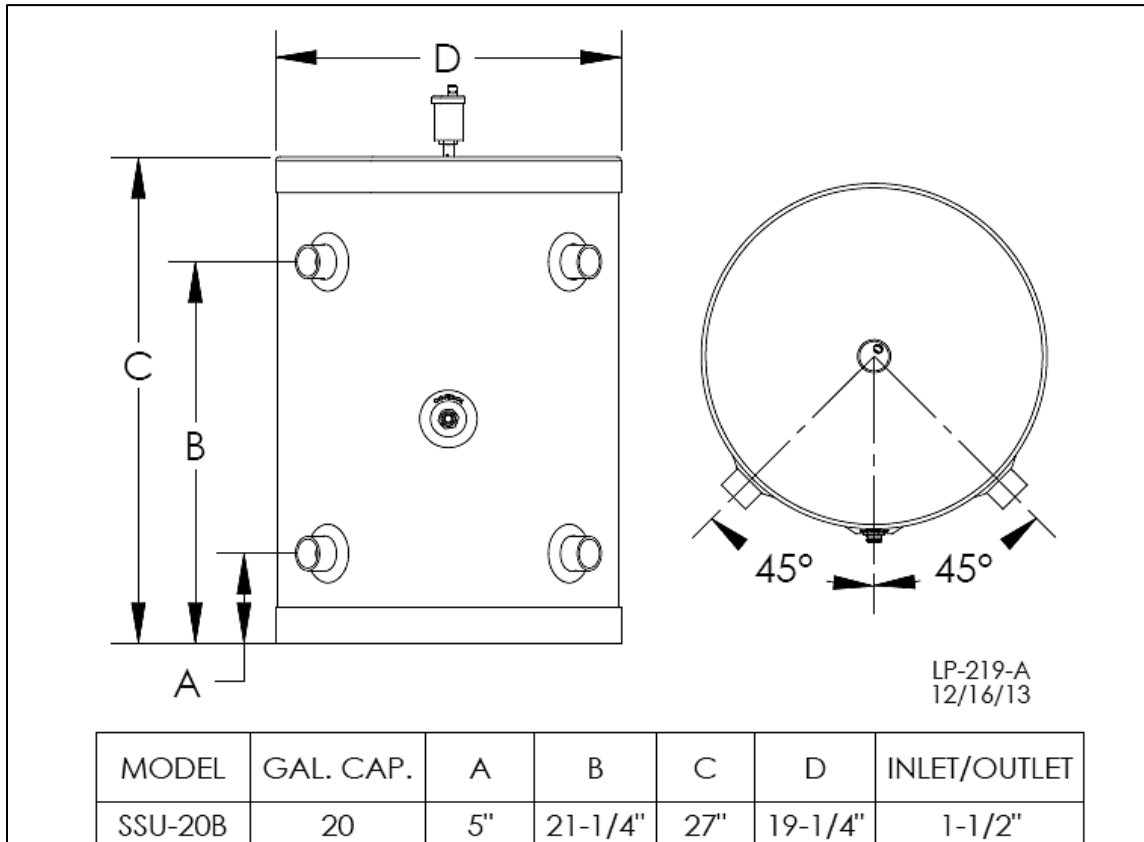


Figure 1

**B. SIZING THE BUFFER TANK**

In order to properly size the buffer tank to the system, determine:

- The minimum boiler firing rate
- Smallest zone in BTU's
- Run time in minutes
- Temperature drop

After these factors have been determined, plug the numbers into the following equation:

$$\frac{(\text{Minimum Boiler Firing Rate} - \text{Smallest Zone in BTU's}) \times \text{Run Time in Minutes}}{\text{Temperature Drop} \times 8.33 \times 60}$$

For example:

$$\frac{(28,000 - 9,600) = 18,400 \times 10 \text{ Minutes} = 184,000}{180 \text{ degrees} - 160 \text{ degrees} \times 500 = 10,000}$$

Buffer Tank Size = 18.4 Gallons

**C. LOCATING THE BUFFER TANK**

This buffer tank is certified for indoor use only. DO NOT INSTALL OUTDOORS. Outdoor installations ARE NOT covered by warranty.

**⚠ CAUTION**

Filled hot water tanks are very heavy and should be located in areas that can structurally support such weight. Failure to properly locate the water heater could lead to structural damage and/or personal injury.

Choose a location for the buffer tank as centralized to the piping system as possible. Also, locate the buffer tank and associated heating piping where it will not be exposed to freezing temperatures. All piping should be insulated. Additionally, place the buffer tank so that the drain, controls, and inlets/outlets are easily accessible.

This buffer tank must be installed vertical on a level surface.

## CAUTION

Locate the buffer tank where any leakage from the relief valve, related piping, tank, or connections will not result in damage to surrounding areas or lower floors of the building. The buffer tank should be located near a floor drain or installed in a drain pan. HTP will NOT be held liable for leakage damages.

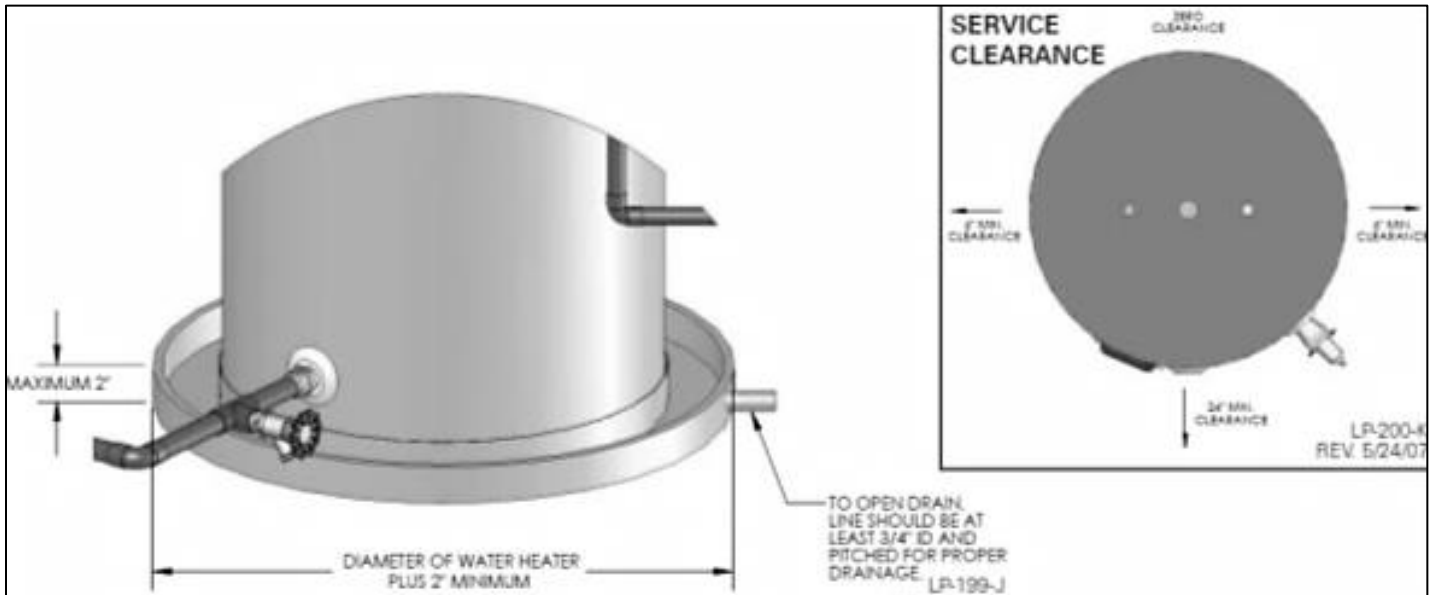


Figure 2

If you do not provide the minimum clearances shown, it might not be possible to service the buffer tank without removing it from the space.

## PART 3 – PIPING

### A. PLUMBING

It is mandatory that all plumbing be done in accordance with federal, local, and state plumbing codes and practices. Failure to properly install the buffer tank WILL VOID the warranty. It is also necessary to use both thread tape and pipe dope on all mechanical plumbing connections.

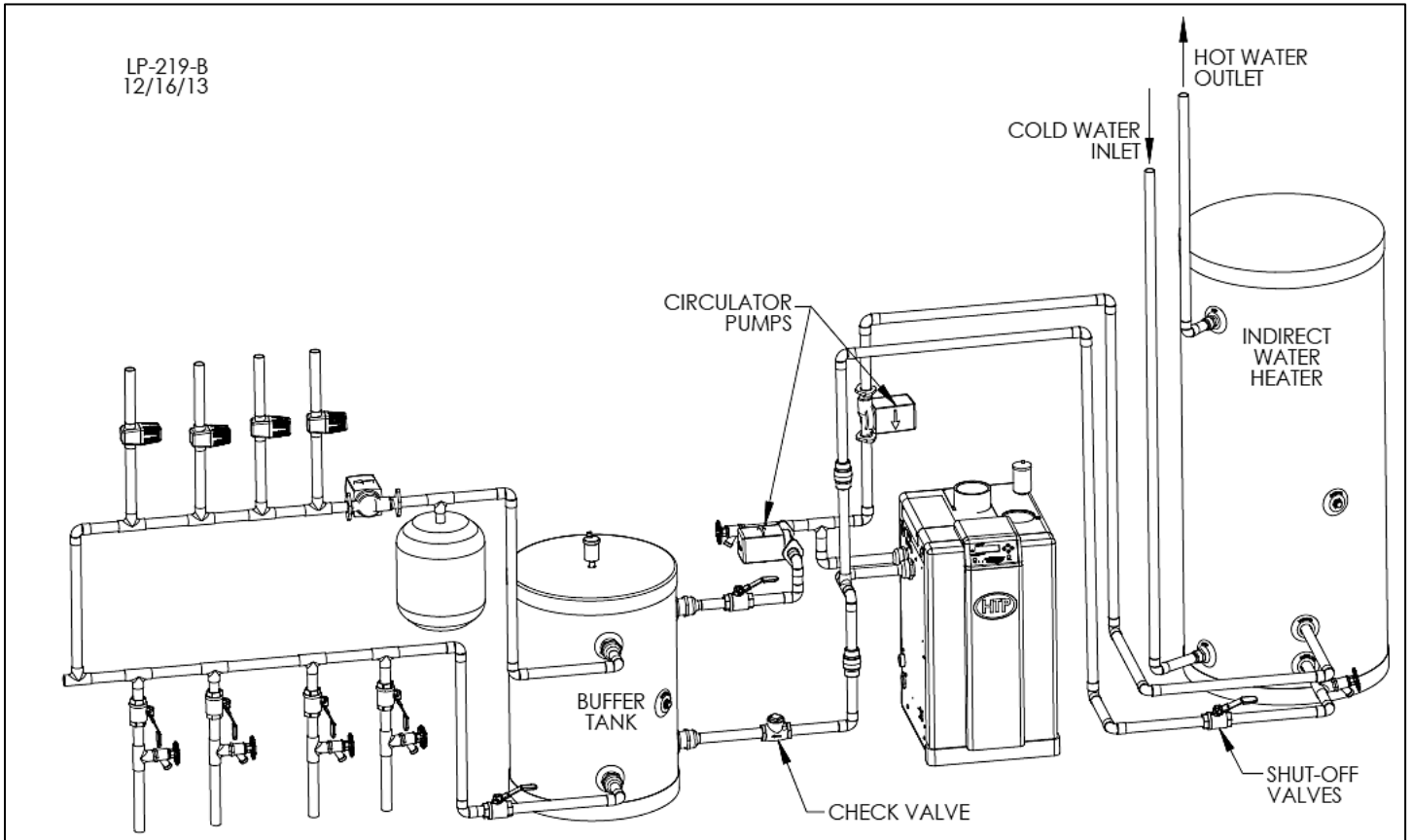
## CAUTION

Never use dielectric fittings or galvanized steel fittings on any water connections. Use only copper or brass fittings. Failure to follow this caution will result in premature failure. Such failure is NOT covered by warranty.

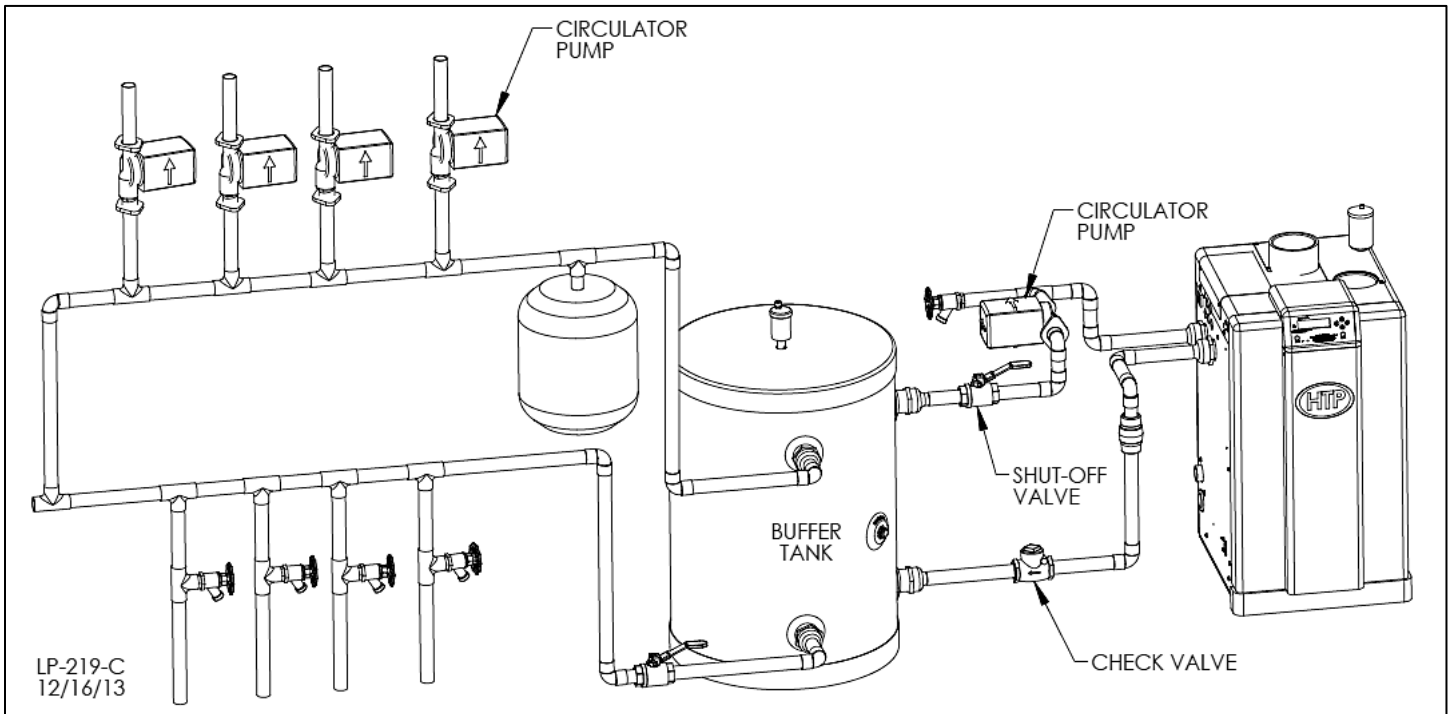
## CAUTION

The use of heat, such as blow torches, near the tank may cause distortion to the high density polyethylene wrapper. Such damage is NOT covered by warranty. Exercise caution whenever using heat sources near tank.

**B. TYPICAL INSTALLATION**



**Figure 3 – NOTES: Drawing demonstrates system piping concept. The installer is responsible for all equipment and detailing per local codes.**



**Figure 4 – NOTES: Drawing demonstrates system piping concept. The installer is responsible for all equipment and detailing per local codes.**

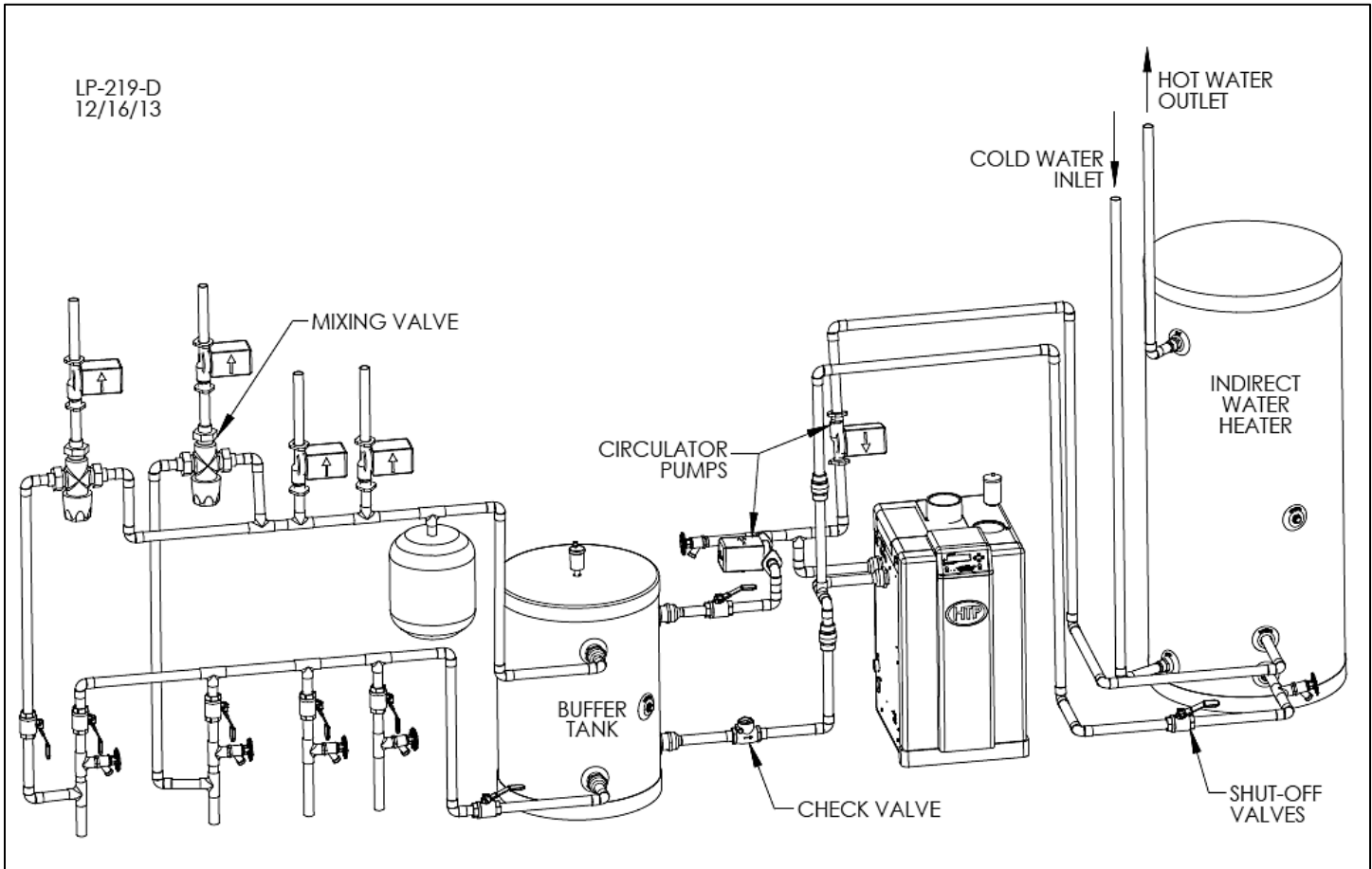


Figure 5 – NOTES: Drawing demonstrates system piping concept. The installer is responsible for all equipment and detailing per local codes.

### HTP CUSTOMER INSTALLATION RECORD FORM

The following form should be completed by the installer for you to keep as a record of the installation in case of a warranty claim. After reading the important notes at the bottom of the page, please also sign this document.

Customer's Name:	
Installation Address:	
Date of Installation:	
Installer's Code/Name:	
Product Serial Number(s):	
Comments:	
Installer's Phone Number:	
Signed by Installer:	
Signed by Customer:	

**IMPORTANT:**

**Customer:** Please only sign after the installer has reviewed the installation, safety, proper operation, and maintenance of the system. In the case that the system has any problems, please call the installer. If you are unable to make contact, please contact your HTP Sales Representative.

*Distributor/Dealer:* Please insert contact details.