

INSTALLATION INSTRUCTIONS IPEX PVC COMMON VENTING BACKFLOW VALVE

For use only with HTP of Ariston Thermo USA LLC ("HTP") appliances

1. Refer to the applicable HTP appliance installation instructions to ensure that the IPEX PVC common venting backflow valve (the "IPEX PVC backflow valve") is approved by HTP for use with your HTP appliances.

CAUTION

The IPEX PVC backflow valve shall **ONLY** be used in a common vent installation that includes appliances of the same type and model **EXCLUSIVELY**.

2. The IPEX PVC backflow valve is rated for a maximum operating temperature of 149°F (65°C).
3. The IPEX PVC backflow valve and the common venting system must be installed in accordance with the following:
 - a. The applicable HTP appliance installation instructions
 - b. These installation instructions
 - c. The System 1738® Installation Methods Guide for IPEX System 1738 Venting Systems for Gas-Burning Appliances Categories II and IV found at ipexna.com
 - d. The applicable local building code
 - e. The NFPA 54 / ANSI Z223.1 National Fuel Gas Code.

NOTICE

The backflow valve spigot and socket connection dimension is 4". Use a PVC reducer bushing or coupling for connecting to a 2" or 3" vent.

4. Before starting the common vent installation, please reference the applicable HTP appliance installation instructions. Reference more specifically instructions concerning:
 - a. Specified vent material
 - b. The maximum number of appliances that can be connected to the common vent system
 - c. Sizing of the appliance vertical vent
 - d. Sizing of the manifold vent
 - e. Allowable common vent configurations
 - f. Equivalent vent lengths
 - g. Termination options
 - h. Minimum clearance requirements
5. After determining the appliance location and vertical pipe diameter, measure the vertical distance between the appliance connection collar and manifold connection.
6. Also taking into consideration the overall height of the backflow valve, mark the required length of the vertical pipe and cut.

NOTICE

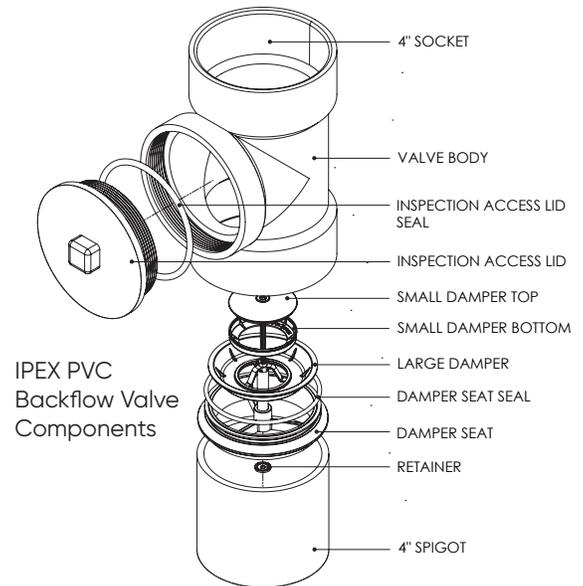
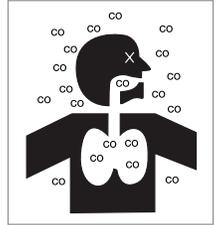
The PVC backflow valve is manufactured from a black PVC material that has been engineered specifically for the application of Flue Gas Venting.

WARNING

Carbon monoxide (CO) can cause brain damage or death.

ONLY use a common venting system approved by HTP for venting of combustion gases.

READ & UNDERSTAND all applicable installation instructions and safety messages before installing the IPEX PVC backflow valve.



WARNING

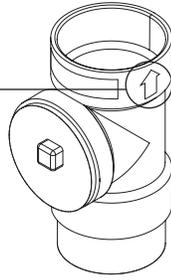
Installation of the IPEX PVC backflow valve with pipe and fittings for the application of common venting gas-fired appliances requires a certain degree of skill to avoid joint failures which could be life threatening. Creating optimal solvent welded connections requires attention to detail, proper preparation of components and an understanding of instructions provided in the System 1738 Installations Method Guide made available on ipexna.com. On-site training is available from IPEX for proper solvent welding procedures as well as other important installation points. Contact IPEX for details.



⚠ WARNING

Always ensure that the backflow valve is installed with the flow direction arrow pointing in an upward position.

The backflow valve will not function properly if the above direction is not followed, resulting in the risk of a carbon monoxide leak causing injury or death.



- Using a PVC cement certified to the minimum requirements of ASTM D2564, solvent weld the vertical pipe to the IPEX PVC backflow valve socket end using the solvent welding procedure outlined in the System 1738 Installation Methods Guide found at ipexna.com. **PLEASE NOTE**, if you are making a transition between CPVC and PVC material, a CPVC cement certified to the minimum requirements of ASTM F493 must be used for that transition.
- It is highly recommended that the pipe is solvent welded into the IPEX PVC backflow valve socket in a horizontal position. This will avoid solvent cement contacting the backflow valve dampers and interfering with the valve function.

NOTICE

Solvent cement shall only come in contact with the fitting socket and pipe. **DO NOT** use excessive cement as it may puddle inside the valve and interfere with the function of the IPEX PVC backflow valve damper. Solvent cement will damage these components and prevent proper sealing. Discard any valve that has solvent cement on these components.

NOTICE

IPEX is not responsible for damages or poor performance due to the improper installation, improper use, or modifications made to the valve.

- Newly assembled joints must be handled with care.
- Following the appliance collar connection method outlined in the HTP appliance installation instructions, connect the spigot of the PVC backflow valve to the HTP appliance collar.

⚠ WARNING

Never use or test the common venting system with compressed air or other compressed gases.

The use of compressed air or gas in pipe and fittings can result in explosive failures and cause severe injury or death.



- Once the common vent system has been fully assembled and before commissioning the system, ensure that the average appliance service time has elapsed for all joints.

** These figures are estimates based on testing conducted under laboratory conditions. Field working conditions may vary significantly. The chart should be used as a general reference only.

AVERAGE APPLIANCE SERVICE TIME SCHEDULE

Average Appliance Service Time	
Temperature Range °F (Fahrenheit)	Joint Size 2" to 4"
60 - 105	30 min
40 - 60	2 hr
3 - 40	12 hr

Note - In damp or humid conditions above 60% relative humidity, increase the set time by at least 50%.

NOTICE

IS APPLICABLE IF THE FOLLOWING CONDITIONS HAVE BEEN MET:

- All joints have been made as per the requirements of the guide
 - All joints pass the 1/2 to 2/3 interference dry fit test
 - Vertical weight loads (i.e. pipe) with freshly made joints, are fully supported during the Appliance Service time
 - The Appliance Service times for various ambient temperatures must be followed (as indicated in the Average Appliance Service Time Schedule above)
- Prior to commissioning each HTP appliance connected to the common vent system, unthread and remove the 4" inspection plug from each IPEX PVC backflow valve and inspect the small and large dampers to ensure they are free of any damage or obstruction.
 - Remove any debris that may be present on the top of the IPEX PVC backflow valve dampers. If any damage to the dampers has been detected, the backflow valve must be replaced.
 - If no damage or obstruction exists, rethread the inspection plug until hand tight. Once hand tight, slowly turn the plug an additional one-half (1/2) turn using a pair of channel lock pliers.

⚠ WARNING

DO NOT apply PTFE tape to the inspection plug threads. Teflon tape will not allow for a proper seal. The EPDM O-ring will help ensure a gas-tight seal.

- If the threads of the inspection plug appear to be damaged or have been cross threaded, the entire IPEX PVC backflow valve must be replaced.

NOTICE

This IPEX PVC backflow valve has been engineered with an inline condensate drain. The valve will independently and automatically drain to the appliance any condensate that collects within the valve. **No additional provision for draining condensate at the valve is required.**