

**Backflow preventer with intermediate atmospheric vent**

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**573 Series**

**Installation, commissioning and servicing instructions**



**Function**

The backflow preventer with atmospheric vent is designed to protect drinking water systems from the return, caused by backsiphonage or backpressure, of contaminated fluids.

The Caleffi 573 series is certified by ICC-ES to be in compliance with the International Plumbing Code (IPC), International Residential Code (IRC), Uniform Plumbing Code (UPC), and standards ASSE 1012-2009, and CSA B64.3-94. Additionally, it is also compliant with NSF/ANSI 372, low lead, as certified by ICC-ES, Drinking Water System Components – Lead Content Reduction of Lead in Drinking Water Act, California Health and Safety Code 116875 S.3874, Reduction of Lead in Drinking Water Act.



**Product range**

573 series backflow preventer with atmospheric vent  
 size 1/2" - 3/4" NPT female threaded connection with union  
 size 1/2" sweat connection with union  
 size 1/2" press connection with union

**Technical characteristics**

Connections:	1/2" - 3/4" NPT female with union 1/2" SWT with union 1/2" press with union
Materials:	Body: low lead brass Filter: stainless steel Check valve: PSU Check valve stem: brass Diaphragm: peroxide-cured EPDM Seals: peroxide-cured EPDM
Maximum working pressure:	175 psi (12 bar)
Maximum working temperature:	210°F (99°C)
Emergency back pressure temperature:	250°F (121°C)
Medium:	water

Certified to: CSA B64.3-94 and ASSE 1012-2009  
 NSF/ANSI 372-2011, Drinking Water System Components-Lead Content  
 Reduction of Lead in Drinking Water Act, California Health and Safety Code 116875  
 S.3874, Reduction in Drinking Water Act, as certified by ICC-ES, file PMG-1360.



## SAFETY INSTRUCTION / CONSIGNE DE SÉCURITÉ

This safety alert symbol will be used in this manual to draw attention to safety related **instructions**.  
**When used, the safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.**

Ce symbole d'avertissement servira dans ce manuel à attirer l'attention sur la sécurité concernant instructions. Lorsqu'il est utilisé, ce symbole signifie **ATTENTION ! DEVEZ-VOUS ALERTE ! VOTRE SÉCURITÉ EST EN JEU ! NE PAS SUIVRE CES INSTRUCTIONS PEUT PROVOQUER UN RISQUE DE SÉCURITÉ.**



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**AVERTISSEMENT:** Ce produit peut vous exposer à des produits chimiques comme le plomb, qui est connu dans l'État de Californie pour causer le cancer, dommages à la naissance ou autre. Pour plus d'informations rendez-vous [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



**CAUTION:** All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of systems in accordance with all applicable codes and ordinances.

**ATTENTION:** Tous les travaux doivent être effectués par du personnel qualifié formé à la bonne application, installation et maintenance des systèmes conformément aux codes et règlements locaux.



**CAUTION:** If the backflow preventer is not installed, commissioned and maintained properly, according to the instructions contained in this manual, it may not operate correctly and may endanger the user.

**ATTENTION:** Si Disconnecteur n'est pas installé, mis en service et entretenu correctement, selon les instructions contenues dans ce manuel, il peut ne pas fonctionner correctement et peut mettre en danger l'utilisateur.



**CAUTION:** Make sure that all the connecting pipework is water tight.

**ATTENTION:** S'assurer que tous les raccords sont étanches.



**CAUTION:** When making the water connections, make sure that the backflow preventer connecting pipework is not mechanically over-stressed. Over time this could cause breakages, with consequent water losses which, in turn, could cause harm to property and/or people.

**ATTENTION:** Lorsque vous effectuez les raccords d'eau, assurez-vous que la tuyauterie reliant le disconnecteur n'est pas mécaniquement sur-sollicitée. Au fil du temps, ceci pourrait causer des ruptures, avec pour conséquence des pertes en eau qui, à leur tour, peuvent causer des dommages à la propriété et/ou les gens.



**CAUTION:** Water temperatures higher than 100 degrees F can be dangerous. During the installation, commissioning and maintenance of the backflow preventer, take the necessary precautions to ensure that such temperatures do not endanger people.

**ATTENTION:** Les températures de l'eau supérieure à 100 degrés peut être dangereux. Au cours de l'installation, mise en service et l'entretien de la disconnecteur, prendre les précautions nécessaires afin de s'assurer que de telles températures ne compromettent pas les gens.



**CAUTION:** In the case of highly aggressive water, arrangements must be made to treat the water before it enters the backflow preventer, in accordance with current legislations. Otherwise, the valve may be damaged and will not operate correctly.

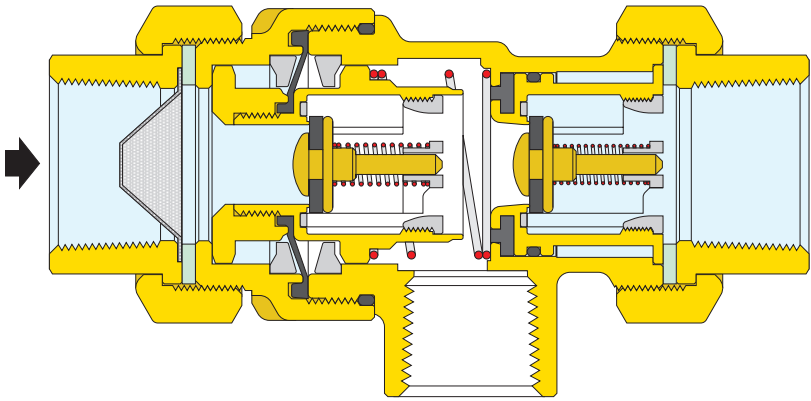
**ATTENTION:** Dans le cas de l'eau fortement agressifs, des dispositions doivent être prises pour traiter l'eau avant qu'elle ne pénètre dans le disconnecteur, conformément à la législation actuelle. Sinon la soupape pourrait être endommagée et ne fonctionnent pas correctement.



**CAUTION:** Caleffi shall not be liable for damages resulting from stress corrosion, missapplication or misuse of its products.

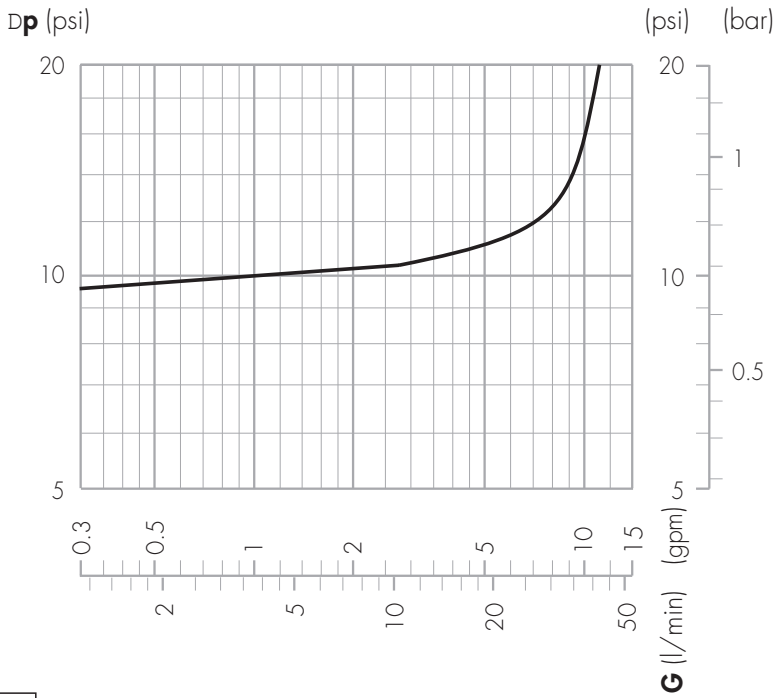
**ATTENTION:** Caleffi ne sera pas responsable des dommages résultant de la corrosion sous tension, d'une mauvaise application ou d'une mauvaise utilisation de ses produits.

**LEAVE THIS MANUAL FOR THE USER  
LAISSÉZ CE MANUEL AVEC L'UTILISATEUR**



## VENT

### Flow rate graph



**Cv = 0.7**

## Installation

The Caleffi 573 series backflow preventer with atmospheric vent must be installed in accordance with the diagrams contained in this instruction manual taking into account all the applicable Codes and Regulations.

Before installing a Caleffi 573 series backflow preventer, the system must be thoroughly flushed to remove impurities or any debris which may have accumulated during installation. Failure to remove dirt or debris may affect performance and the manufacturer's guarantee.

The Caleffi 573 series backflow preventer must be installed preferably horizontally and following the flow direction indicated by the arrow on the valve body.

The Caleffi 573 series backflow preventer must be installed with one isolating valve and a strainer upstream and one isolating valve downstream.

The Caleffi 573 series backflow preventer must be installed in an accessible location to facilitate testing and servicing.

The Caleffi 573 series backflow preventer must be installed with the vent port connected via an air gap to a discharge line, in accordance with the plumbing code requirements and keeping a minimum distance of 12" from the floor.

Do not install where the discharge can could cause damage.

If field testing is required by code, it must be installed in accordance with the relevant diagram in this instruction manual.

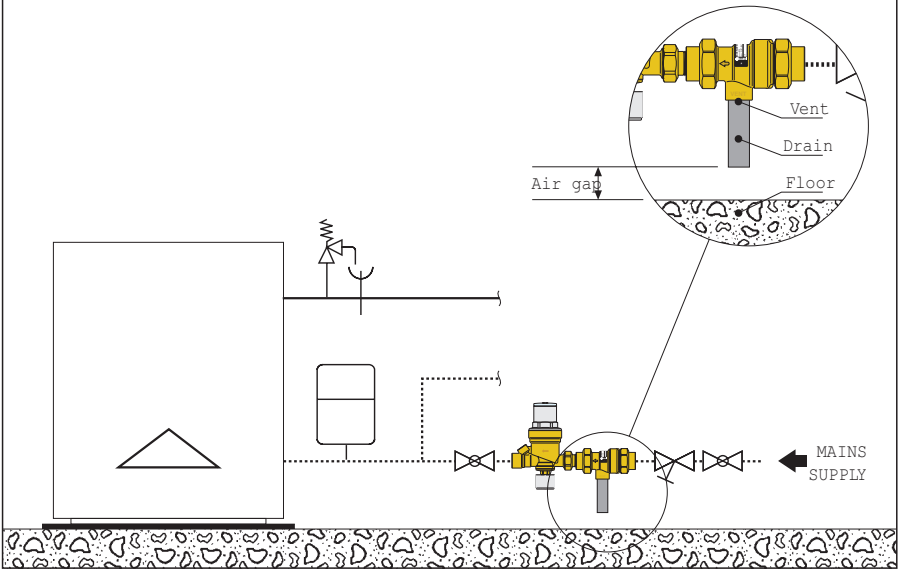
### NOTE:

For a proper seal at a Caleffi union connection first hand tighten the nut then tighten another 1/4 turn (maximum) until snug using an appropriate wrench. Do not overtighten (do not exceed 40 ft-lbs of torque).

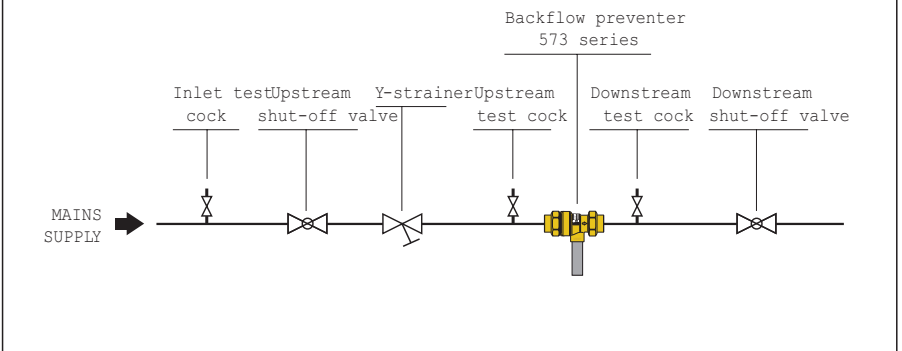


# Installation diagram

## Heating system application



## Field testing installation



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## Field testing procedure

1) Check operation of the discharge. When inlet water pressure drops to atmospheric, the valve must open the vent port and discharge the contained amount of water in the valve body.

a. -close shutoff valves upstream and downstream.

b. -open the upstream test cock

The water contained in the body must be discharged, indicating that the diaphragm has opened the vent port.

2) Check for tightness of the internal second check valve. When backpressure is applied to the downstream side of the valve, the internal second check valve must close back drip tight on its seat.

a. -close shutoff valves upstream and downstream.

b. -open the upstream test cock

c. -install a removable bypass hose connecting inlet test cock to downstream test cock and open them for admitting pressure to the downstream side of the internal second check valve  
Water must not drip from the vent port indicating that the second check valve is not leaking.

## Service

The internal parts of the backflow preventer are replaceable. Spare parts are available upon request.



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