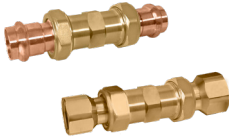


FlowShield™ DuC Dual check backflow preventer

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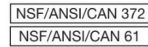
3048 Series

Function



Low lead dual check valve backflow preventer is designed for residential domestic water supply lines or commercial low-hazard backflow applications. It prevents reverse flow of unsafe water into main system water supply. This can occur due to pressure changes in the distribution network that can force water flow in reverse, or backwards. The two inline serviceable check valves prevent any contact between the two systems, closing automatically when backflow conditions occur.

The Caleffi 3048 series FlowShield™ DuC complies with standards ASSE 1024, CSA B64.6, NSF/ANSI/CAN 61 (180 °F/82 °C Commercial Hot), NSF/ANSI/CAN 372 and codes IPC, IRC, UPC certified by ICC-ES.



Product range

3048 Series NPT male, NPT female, press, sweat, PEX crimp, PEX expansion union sizes 1/2", 3/4", 1"

Technical specifications

Materials

Body, retaining ring and lock nut:	DZR low-lead brass CW724R-M
Check valve:	EPDM, PPO
Spring:	stainless steel
O-rings:	peroxide-cured EPDM

Performance

Max. working pressure:	175 psi (12 bar)
Operating temperature range:	32 to 180 °F (0 to 82 °C)

Medium:	water
Flow rate:	see graph

The backflow preventer complies with standards ASSE 1024, CSA B64.6, NSF/ANSI/CAN 61 (180 °F/82 °C Commercial Hot), NSF/ANSI/CAN 372 and codes IPC, IRC, UPC certified by ICC-ES.



SAFETY INSTRUCTION

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.**



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.P65Warning.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 ordinances.



CAUTION: Over-tightening and breakage can occur with the use of Teflon® pipe joint compounds. Teflon® provides lubricity so that care must be exercised not to over-tighten joints. Failure to follow these instructions could result in property damage and / or personal injury.



CAUTION: System fluids under pressure or temperature can be hazardous. Be sure the pressure has been reduced to zero and the system temperature is below 100 °F (38 °C). Failure to follow these instructions could result in property damage and/or personal injury.



CAUTION: Clean the pipes of any debris, rust, incrustations, welding slag and any other contaminants. For optimal operation, air in the system must be removed.



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



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

Caleffi shall not be liable for damages resulting from stress corrosion, misapplication or misuse of its products.



CONSIGNE DE SÉCURITÉ

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 ALERTE ! VOTRE SÉCURITÉ EST EN JEU ! NE PAS SUIVRE CES INSTRUCTIONS PEUT PROVOQUER UN RISQUE DE SECURITE.**



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.



AVERTISSEMENT: 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.



AVERTISSEMENT: Un serrage excessif et une rupture peuvent survenir avec l'utilisation de Teflon® composés de joint de tuyau. Le Teflon® offre un pouvoir lubrifiant de sorte que les soins doivent être exercé pour ne pas trop serrer les joints. Non-respect de ces instructions pourrait entraîner des dommages matériels et / ou des blessures corporelles.



AVERTISSEMENT: Les liquides du système sont sous pression ou de la température peuvent être dangereux. Être sûr que la pression a été réduite à zéro et la température du système est inférieure à 100 °F (38 °C). Le non-respect de ces instructions peut entraîner des dommages matériels et/ou des blessures.



AVERTISSEMENT: Nettoyer les tuyaux de tout débris, roille, incrustations, scories de soudure et d'autres contaminants. Pour un fonctionnement optimal, de l'air dans le system doit être retiré.



AVERTISSEMENT: Si la valve, n'est pas installée, mise en service et Entretien correctement, selon les instructions contenues dans ce manuel, il Peut ne pas fonctionner correctement et peut mettre en danger l'utilisateur.



AVERTISSEMENT: S'assurer que tous les raccords sont étanches.

Caleffi ne pourra être tenue responsable des dommages résultant de la corrosion, d'une mauvaise utilisation ou d'une mauvaise utilisation des produits.

Installation:

The Caleffi 3048 series FlowShield DuC dual check backflow preventer is typically installed downstream of a water meter. A pressure reducing valve (if required) may be installed on either side of the dual check backflow preventer, all subject to local codes and standards.

The dual check backflow preventer can be installed in either a horizontal or vertical pipe; the checks are spring loaded and will function independent of orientation. Verify that the flow direction matches the flow indication arrow on the dual check backflow preventer.

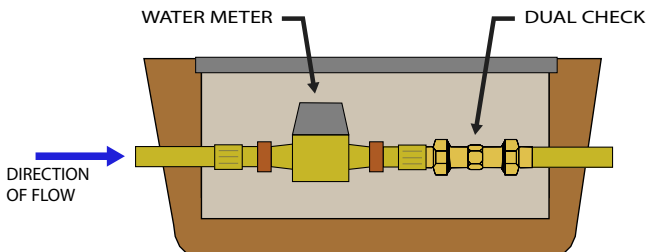
If installing models with sweat tailpiece connectors, always sweat the connectors in place then install the 3048 union body. Attempting to sweat the fittings with the body in place may damage the check valves.

For serviceability, always install the 3048 FlowShield DuC in an accessible location and protect the 3048 from potential freezing conditions. Installing isolation valves is highly recommended to permit disassembly for servicing.

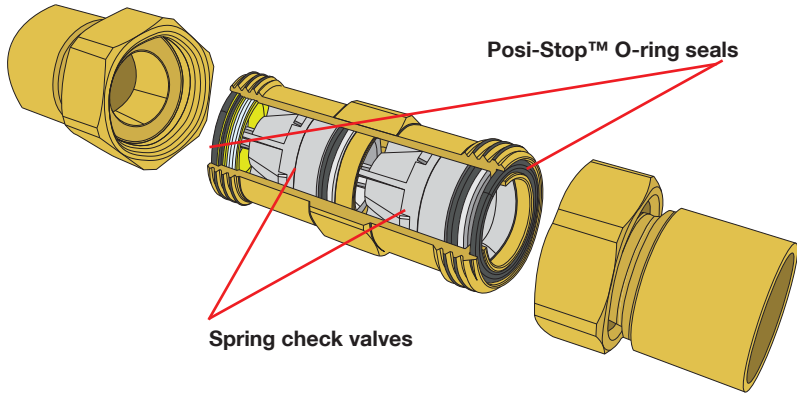
When installing the dual check backflow preventer, make sure not to over-tighten the connections. Over time, a material stress failure can occur with subsequent water leakage causing damage.

The 3048 FlowShield DuC has dual union connections with Posi-Stop o-ring seals which do not require pipe dope or tape. See graphic on next page.

Typical dual check backflow preventer pit installation:



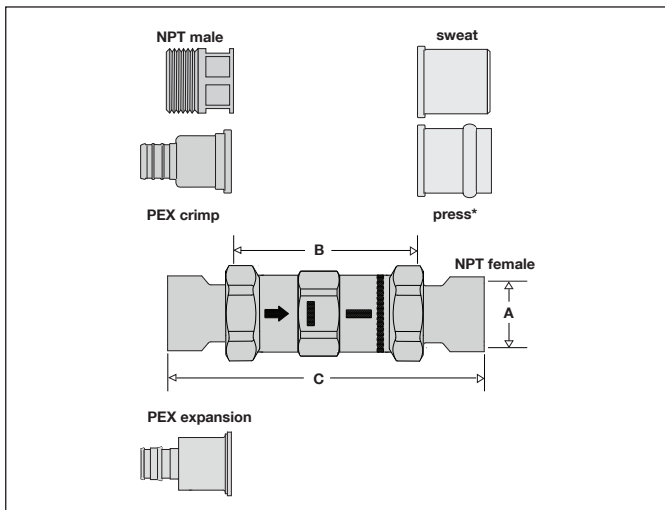
**3048 series FlowShield DuC
dual check backflow preventer section view:**



Service, maintenance:

The Caleffi 3048 series FlowShield DuC dual check backflow preventer should be inspected and cleaned, rebuilt or replaced every 5 years. If excessive pressure drop is experienced in the domestic water supply, dirt or other debris may be causing higher than normal pressure drop in the dual check backflow preventer. The 3048 can be easily inspected by removing the body from the dual union connectors. To disassemble the check valves, remove the sealing brass ring from the downstream side.

Dimensions:



Code	A	B	C	Wt. (lb/kg)
NPT female threaded connections				
304843A	1/2"	2 13/16"	5 1/4"	1.2/0.5
304853A	3/4"	2 13/16"	5 1/2"	1.6/0.7
NPT male threaded connections				
304840A	1/2"	2 13/16"	5 1/8"	1.0/0.4
304850A	3/4"	2 13/16"	5 1/8"	1.2/0.5
304860A	1"	2 13/16"	5 15/16"	1.6/0.7
Sweat connections				
304849A	1/2"	2 13/16"	4 9/16"	1.2/0.5
304859A	3/4"	2 13/16"	5 1/8"	1.6/0.7
304869A	1"	2 13/16"	5 13/16"	1.6/0.7

Code	A	B	C	Wt. (lb/kg)
Press connections*				
304846A	1/2"	2 13/16"	5 3/8"	1.0/0.4
304856A	3/4"	2 13/16"	5 15/16"	1.2/0.5
304866A	1"	2 13/16"	5 7/8"	1.4/0.6
PEX crimp connections				
304847A	1/2"	2 13/16"	6 7/16"	1.0/0.4
304857A	3/4"	2 13/16"	6 7/16"	1.2/0.5
304867A	1"	2 13/16"	6 5/8"	1.4/0.6
PEX expansion connections				
304848A	1/2"	2 13/16"	7 7/16"	1.0/0.4
304858A	3/4"	2 13/16"	7 7/16"	1.2/0.5
304868A	1"	2 13/16"	7 7/16"	1.4/0.6

***Lay length for press:**

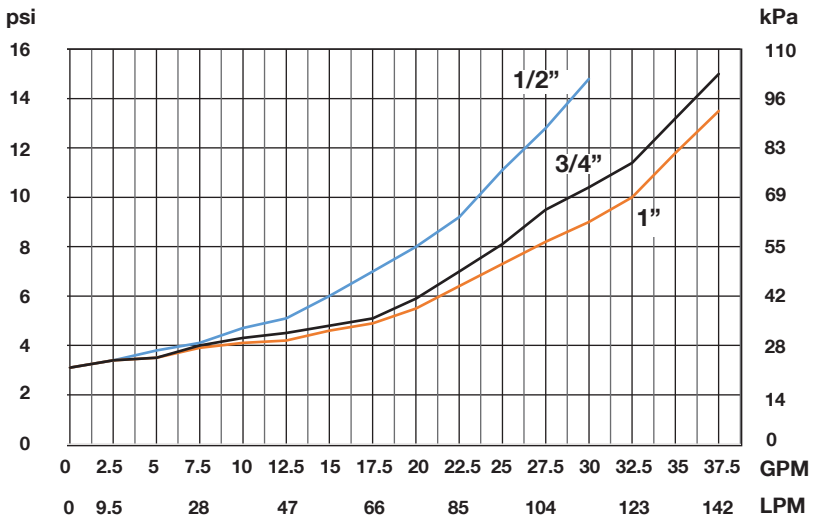
size 1/2": 3 1/2 inch
 size 3/4": 3 3/8 inch
 size 1": 3 7/8 inch



Safety

If the 3048 FlowShield DuC dual check backflow preventer valve is not installed, commissioned and maintained properly in accordance with these instructions, it may not operate correctly, and may cause damage to objects and/or people. Make sure all the connections are watertight.

Hydraulic characteristics



3048 series	1/2 inch	3/4 inch	1 inch
Cv	8.0	9.5	10.5

NOTES

LEAVE THIS MANUAL WITH THE USER.

Laissez ce manuel à la disposition de l'utilisateur.



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10-2023

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