

## Field of application

The CA Backflow Preventer type 6800, which complies with the European Standard EN 1717 prevents back-siphonage or backflow of non potable water into the public potable water system and provides protection up to the fluid category 3.

## Design

The CA Backflow Preventer, class a is composed of a backflow preventer cartridge CA, integral strainer, primary and secondary check valve and a tundish.

### Materials

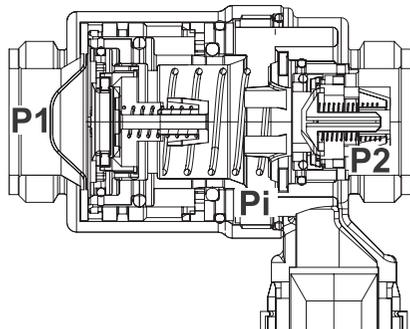
- Body made of hot pressed brass
- Check valve made of high-quality synthetic material
- Sealing elements made of NBR and EPDM
- Internal parts made of high-quality synthetic material / gunmetal
- Tundish made of high-quality synthetic material

## Technical specifications

Fluid:	potable water
Upstream pressure:	max. 10 bar
Min. inlet pressure:	1,5 bar
Mounting position:	horizontal, discharge valve facing downwards
Operating temperature:	max. 65 °C
Drain pipe connection:	DN 40
Flow rate:	DN 15: 2,0 m³/h, Δp 1,7 bar DN 20: 3,2 m³/h, Δp 1,7 bar

## Function

The CA Backflow Preventer from SYR includes all components required by EN 1717 and is designed as nonverifiable 3-pressure-zones system with an upstream, intermediate and downstream pressure zone. The CA Backflow Preventer includes 2 consecutive check valves. The intermediate pressure zone can be vented to the atmosphere. When no water is drawn off, the primary and secondary check valves and the discharge valve of the intermediate pressure zone are closed. When the supply pressure drops, the primary check valve closes, the discharge valve opens and the secondary check valve is closed in order to prevent backsiphonage, backpressure and backflow. ( $p_1 < p_i < p_2$ )



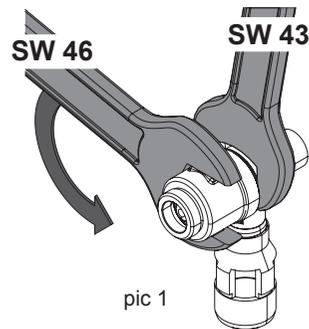
## Einbau

Thoroughly flush the pipe prior to installation. Isolating valves upstream and downstream of the Backflow Preventer are required for maintenance. The first isolating valve located upstream of the CA Backflow Preventer should be equipped with a drain. Install the CA Backflow Preventer in the pipe with the discharge valve facing downwards to allow perfect functionality of the tundish. Free access to the device should be provided to simplify maintenance and inspection. It shall not be installed in locations liable to frost, flooding or high temperatures. Ensure that the location is well ventilated. The drain pipe must be able to collect the drained volume. It is recommended to install a potable water filter upstream of the device in accordance with the European Standard EN 13443, part 1 to ensure perfect and durable functionality. Follow the instructions of the European Standard EN 12056 for the connection of the tundish to the sewage system.

## Exchange Backflow preventer cartridge

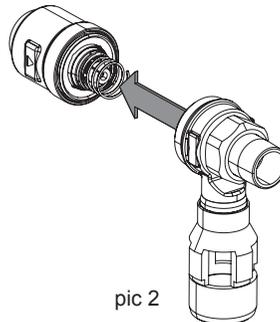
**The valve must be depressurized before opening!**

- Close shutoff valves in front and behind the backflow preventer.
- Remove the backflow preventer.
- Open the housing of the backflow preventer (pic 1).



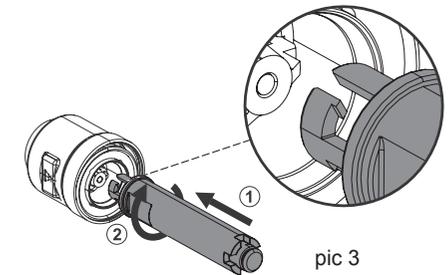
pic 1

- Remove the front part of the housing including the backflow preventer cartridge (pic 2).



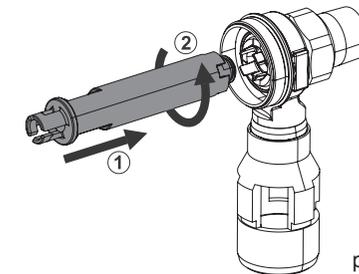
pic 2

- Use the tool (6600.00.971) to remove the cartridge from the housing. Insert the tool and turn clockwise until the lugs engage. Pull out the cartridge (pic 3).



pic 3

- With the other side of the tool, remove the backflow preventer from the housing. Insert the tool again and turn the RV out counterclockwise (pic 4).



pic 4

- Installation in reverse order.

**When installing the conical spring, make sure that it is inserted with the larger diameter first into the CA cartridge, and that the smaller diameter of the spring lies against the check valve or points in direction of the check valve!**

- Install the backflow preventer again.
- Open shutoff valves in front and behind the backflow preventer.

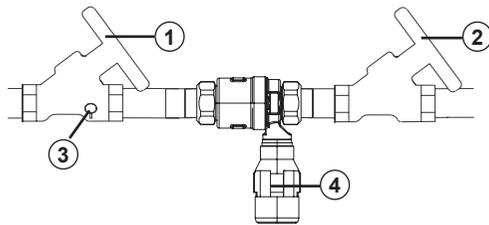
## Maintenance

As the CA Backflow Preventer should be serviced on a regular basis, service agreements between user and installer are recommended. Verify the correct function of the device after one year of service and then periodically according to the operating conditions, but at least once per year. The maintenance of the Backflow Preventer is simple due to the cartridge system. When servicing the CA cartridge, clean the integral strainer with clear cold water.

## Verification secondary check valve

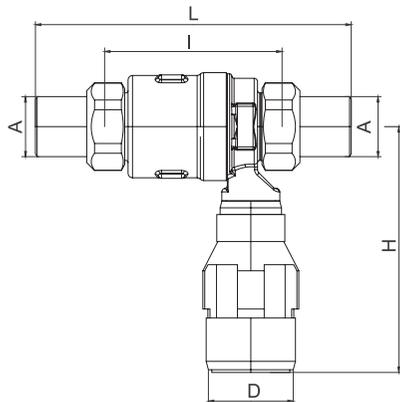
To verify the secondary check valve, reduce the pressure in the upstream pressure zone. Proceed as follows:

- Fully close the first isolating valve (1).
  - Open the drain (3). Collect the drained volume with a suitable receptacle.
  - Watch the tundish (4). When the check valve works properly, only the intermediate pressure zone is drained through the tundish (4). The drained water quantity is usually very small.
  - In case of continuous leak, verify the secondary check valve and replace it, if required.
- Malfunctions may be caused by impurities or mechanical defects.
- When the function test is completed, fully close the drain (3) and slowly open the isolating valve (1).



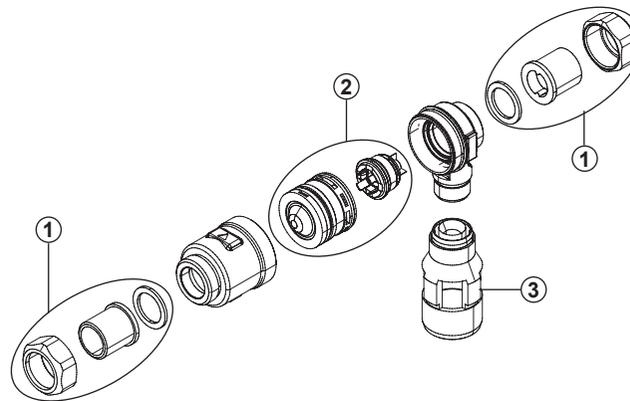
- ① First isolating valve  
 ② Second isolating valve, without drain  
 ③ Drain  
 ④ Tundish

## Dimensions



Nominal size		DN 15	DN 20
	A	R 1/2"	R 3/4"
Dimensions	D (mm)	40	40
	L (mm)	135,5	141,5
	H (mm)	109	109
	I (mm)	79,5	79,5

## Models available / Spare parts



Systemtrenner CA DN 15: 6800.15.000  
 Systemtrenner CA DN 20: 6800.20.000

- ① Threaded unions: DN 15: 0812.15.903  
 DN 20: 0812.20.903  
 ② Backflow preventer cartridge with check valves: 6800.00.903  
 ③ Tundish: 6800.00.901  
 no. pic. maintenance tool: 6600.00.971

### WARNING

Installation and maintenance shall be carried out by authorised installers only. Follow the maintenance instructions! The warranty does not cover malfunctions caused by impurities.

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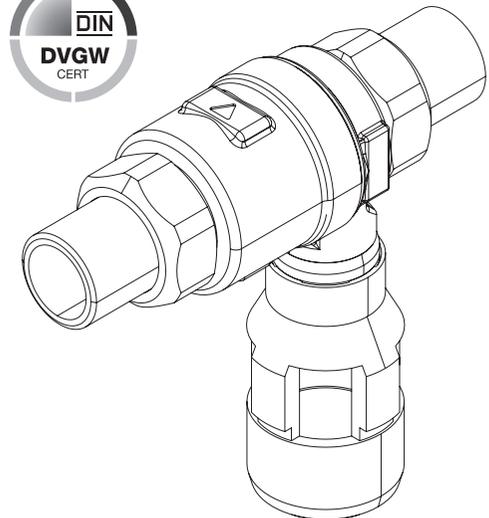
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Made in Germany

## Instructions for use



**Backflow preventer CA  
6800**