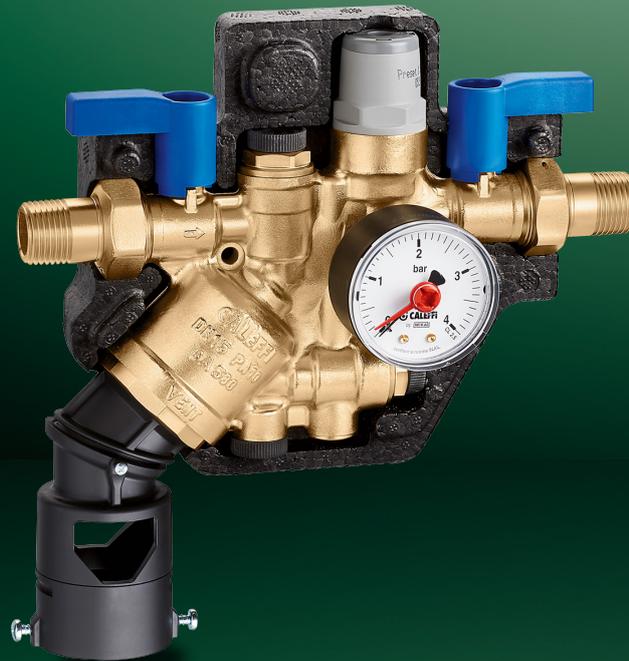




# Automatic compact charging unit with BA-type backflow preventer valve

580 series

[www.caleffi.com](http://www.caleffi.com)



**PATENT**

- The compact automatic charging unit is composed of a shut-off valve with an inspectable strainer, a BA-type controllable reduced pressure zone backflow preventer and an automatic filling unit.
- It maintains the pressure of the system stable at a set value, automatically topping up with water as required.
- The compact charging unit is composed by all devices required by standard EN 1717 to compose BA backflow protection units.
- The self-contained cartridge comprises, all in one piece, the membrane, the upstream check valve, the discharge valve and the whole activation system.
- The shut-off valves and the three pressure test ports (to EN 12729) allow periodic operation checks of the backflow preventer and the reducing valve in accordance with EN 806-5.
- The unit has been designed with compact dimensions to facilitate installation in confined spaces.



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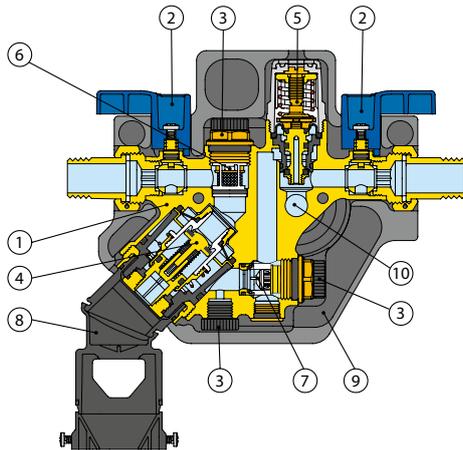
## PRODUCT RANGE



CODE	CONN.	SIZE
580011	1/2"	DN 25

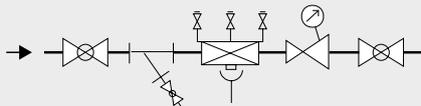


## CHARACTERISTIC COMPONENTS



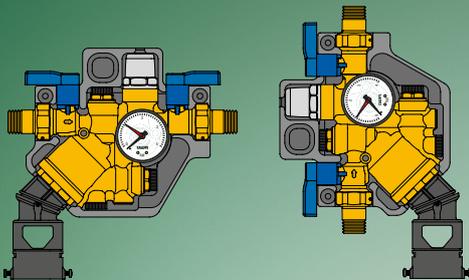
1. Compact, self-contained body
2. Two shut-off valves
3. Three pressure test ports
4. Type BA backflow preventer cartridge (EN 12729)
5. Filling unit cartridge (pressure reducing valve) (EN 1567 - W570-3)
6. Inspectable/removable upstream strainer
7. Inspectable/removable downstream check valve (EN 13959)
8. Discharge tundish (EN 1717)
9. Insulation
10. Pressure gauge connection on two sides.

**Protection unit:** The compact charging unit comprises of all the devices required by EN 1717 to form the protection unit of the BA backflow preventer (shut-off valves, inspectable strainer), in addition to the pressure reducing valve (filling unit).



## VERSATILITY

Thanks to the adjustable tundish, the filling unit can be installed on both horizontal and vertical pipes with an upward flow.



## TECHNICAL SPECIFICATIONS

Filling unit setting pressure range	0,8–4 bar
Filling flow rate	1,1 m <sup>3</sup> /h @ Δp=1,5 bar
Max. working pressure	10 bar
Backflow preventer	EN 12729 standard
Pressure reducing valve	EN 1567 standard

## CONSTRUCTION DETAILS



### Self-contained cartridge and membrane of the backflow preventer

The self-contained cartridge comprises, all in one piece, the membrane, the upstream check valve, the discharge valve and the whole activation system. In case of maintenance, it can be easily extracted from the body without the aid of further seal elements.



### Automatic filling unit

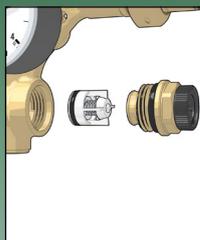
The system filling pressure may be set, turning the regulating screw, during the system filling phase. The effective pressure is read on the pressure gauge. The cartridge containing the diaphragm, seat, obturator and compensation piston is a pre-assembled unit with a cover, and can be removed to facilitate inspection and maintenance procedures.



### Shut-off valve, pressure test ports and inspectable strainer upstream

The shut-off valves and the three pressure test ports (to EN 12729) allow periodic operation checks of the backflow preventer and the reducing valve in accordance with EN 806-5.

The inspectable upstream strainer protects the backflow preventer from any impurities in the mains water supply that could impair its operation.



### Downstream check valve

The downstream check valve is positioned before the filling unit and is held in place by a locking nut. For maintenance, simply remove the locking nut.

### Insulation

The unit is supplied complete with insulation dimensioned to limit thermal losses.

## REFERENCE DOCUMENTS

580 series

- Technical brochure 01361

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