



VALVES

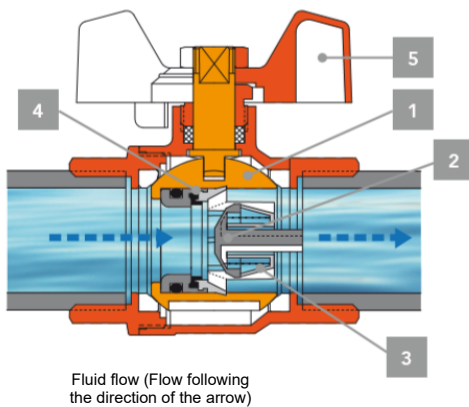
BALL VALVE WITH INTERNAL RETENTION

BOSTON

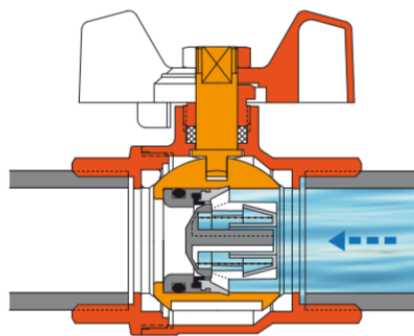


The ball valve with retention, combines in one single body two functions. In the one side the shut off ball and in the other one the control valve. The double function allows to reduce the installation time so that it is a more compact device and reduces the space in the pipe.

The valve is offered in two versions, free nut connections in both sides or thread female connection in one side and movable nut in the other one.



Fluid flow (Flow following the direction of the arrow)



Fluid flow blocked (Flow following the opposite direction of the arrow)



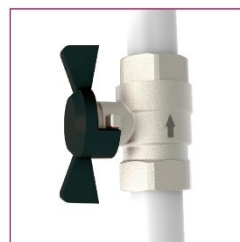
The ball valve with inside retention Boston is composed by a ball (1) which incorporates a plug (2) with a hydrodynamic shape. During the normal circulation of the fluid through the system, the fluid pushes the plug against the spring (3) located in the inside it, thus opening the passage, and allowing that the fluid pass through the valve. When the pression downstream of the valve is higher than upstream pressure, the fluid pushes the plug in the opposite direction against the closing seat of the ball (4), to avoid the return of the fluid.

Even without fluid, the valve is closed by the action of the internal retaining spring (3). The plug, due to the pulling done by the spring (3) and by the downstream pressure, closes completely the fluid pass through the seal (4).

The ball valve, equipped with a butterfly handle (5), acts as standard shut off valve.

The ball valve with interior retention valve Boston must be installed in the system, following the direction of the arrow in the body of the valve. The valve can be installed in the vertical, horizontal, or upside-down position

In the systems with thermosiphon, this valve prevents the natural circulation (for temperature difference) of the water in the installations with regulation pump, where the temperature regulation is done by a thermostat.





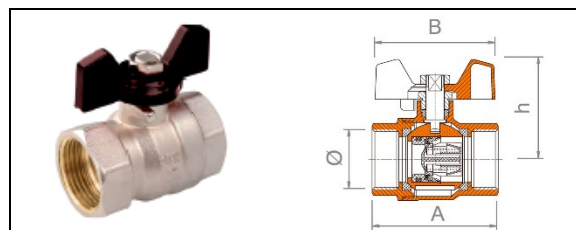
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TECHNICAL DATA	
Maximum pressure	16 bar
Maximum temperatura	90 °C
Range	5 °C to 90 °C

MATERIALS	
Body	Brass (UNE-EN 12164 -12165)
Connections	Brass (UNE-EN 12164 -12165)
Stem and pressing	Brass (UNE-EN 12164 -12165)
Retention	POM
Sealings	PTFE



Código	Ø	A	B	h
35221	1/2"	47	50	39
35222	3/4"	55	50	42
35223	1"	64	64	49

Safety warnings

- Do not operate the lever abruptly and avoid excessive and unnecessary maneuvers.
- Do not use tools. Operation must be done manually; without using wrenches or other utensils.
- Do not exceed the indicated nominal pressure. The system must always operate within the pressure range specified by the manufacturer to avoid damage or failure.
- Install in the correct orientation. These valves have an arrow or mark indicating the direction of water flow. Otherwise, they will not function.
- Never install with pressure in the line. Ensure there is no water flowing or pressure when installing, inspecting, or removing the valve.
- Protect yourself against thermal risk. In facilities with hot water, use gloves or other protective equipment.
- Keep the valve accessible so that it is easy to reach.
- Do not operate if visible damage is detected. In case of leaks, corrosion, difficulty in turning, or any other defect, do not use and report it.
- Do not modify or alter the component. Do not paint, disassemble, or make adjustments without technical authorization.
- After installation, dispose of the packaging in the appropriate containers according to your local regulations.