



tajo 2000 solar



TECNICAL SHEET 05/2015 | IPO5030

SCOPE

TAJO 2000 SOLAR has been designed to be used in solar thermal installations. It can be installed in solar thermal primary and secondary installations, as it is suitable to be in contact with drinking water. They also can be used in:

Solar Thermal Panel installations.

Hot water networks

Heating systems

In general all those applications where it is required a valve to stop the fluid supply, assuring the leaktightness in accordance to the working conditions.

SERVICE CONDITIONS

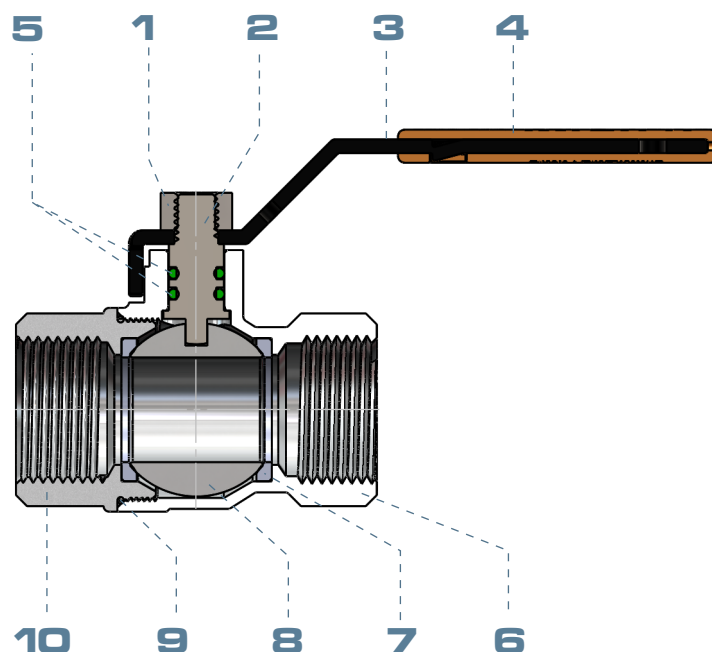
Nominal pressure:	10 bar
Test pressure:	15 bar
Temperature range:	-20° up to 200 °C excluding frozen.
Fluid:	Water Glycol (up to 50%)*, Thermal oil*, Drinking water and hot water.

*For uses over the 50% please contact with our Technical department.



COMPONENTS

Item	Component	Material	Treatment
1	Handle nut	Stainless steel/Steel	Inox/Zinkplated
2	Stem	European brass CW614N	Nickel plated
3	Handle	Stainless steel	Inox/Epoxi
4	Cover	LDPE	
5	O-rings	Vitón*	
6	Body	European brass CW617N	Chrome plated
7	Seat	Graphite-filled PTFE	
8	Ball	European brass CW614N	Chrome plated
9	O-rings	NBR	
10	Lateral	European brass CW617N	Chrome plated



MAIN CONSTRUCTIVE FEATURES

TAJO 2000 SOLAR is conceived to work with high temperature liquids, that is the reason why its constructive features differ from a standard TAJO 2000

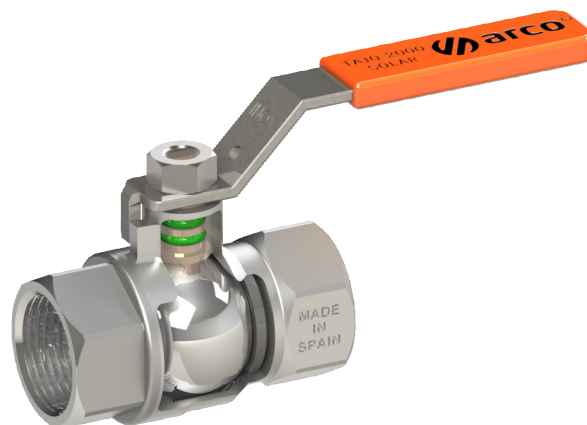
Seats

Seats are manufactured of Graphite-filled PTFE, which adapts perfectly to the metallical surfaces avoiding internal and external leaks. This feature increases the resistance to high temperature as well as avoiding deformations, ensuring leaktighness and a smooth maneuver of the valve.

Anti-Tampering System

TAJO 2000 SOLAR is a valve intended to work at high temperature conditions. Based on its working conditions it has been designed with an anti-tampering stem, which avoids its disassembly or manipulation preventing accidents and leaking of hot fluids.

The anti-tampering system consist on two Viton® o-rings assembly on the stem, which ensure the external leaktighness from temperatures up to 200°C.





MAIN CONSTRUCTIVE FEATURES

Sealants & lubricants

All the sealants and lubricants used on the TAJO 2000 SOLAR have been selected to resist temperatures up to 200°C

Body and Lateral

Main body manufactured in European brass alloy CW617N, by the mean of a hot stamping process. This process confers to the European brass alloy the following advantages against casting parts:

- Pores and bumpy texture absence.
- Surfaces with better finished.
- Higher mechanical endurance

Spherical Closure

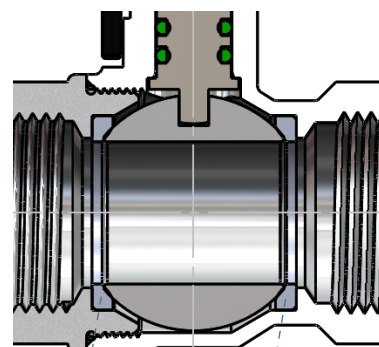
Spherical closure is made of European brass alloy CW614N, ensuring a higher mechanical endurance against high pressure and maneuvers.

Its diamond mechanized and chrome plated ball surface assures a long lifespan and a smooth maneuver.

Internal Leaktightness (Closed position)

Internal leaktightness is assured in both directions by the Graphite-filled PTFE seats that press against the spherical closure.

These seats confer stiffness and resistance from high temperature deformations.



Graphite-filled
PTFE Seat

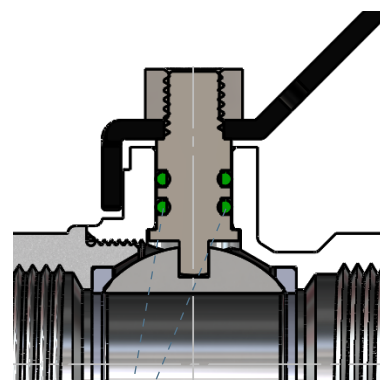


MAIN CONSTRUCTIVE FEATURES

External Leaktightness (Open position)

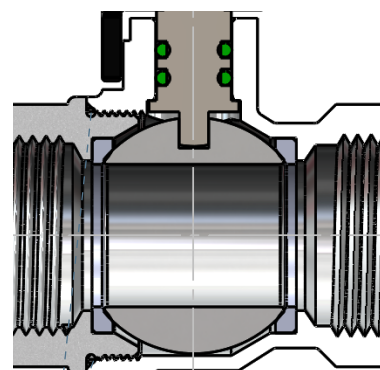
External leaktightness (spherical closure in half open position) is assured by two Viton® o-rings

The plug features a tamper-proof system that prevents accidental or intentional removal.



Vitón®
Seals

The joint between the main body and lateral adds an o-ring ensuring a mechanical leaktightness..



O-ring

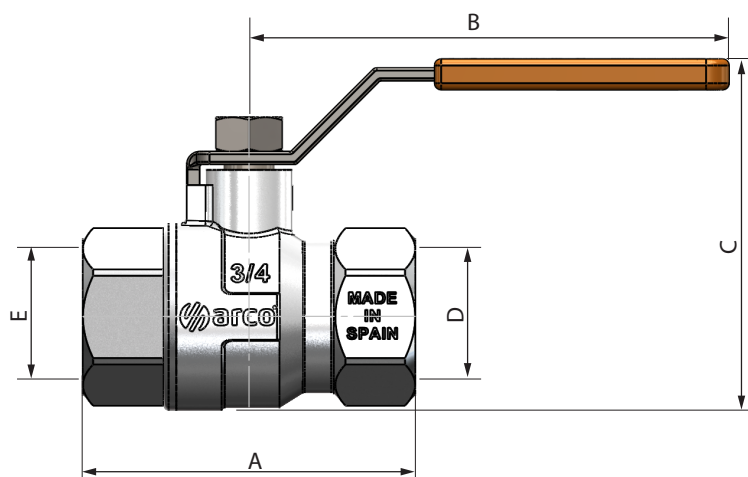


DIMENSIONS

Female - female. Inox Lever handle

Size	A	B	C	D	E
1/4 FF	44	63	40	G 1/4	G 1/4
1/2 FF	60	93	62	G 1/2	G 1/2
3/4 FF	66	93	70	G 3/4	G 3/4
1 FF	80	112	81	G 1	G 1
1 1/4 FF	89	112	90	G 1 1/4	G 1 1/4
1 1/2 FF	108	152	107	G 1 1/2	G 1 1/2
2 FF	125	152	127	G 2	G 2

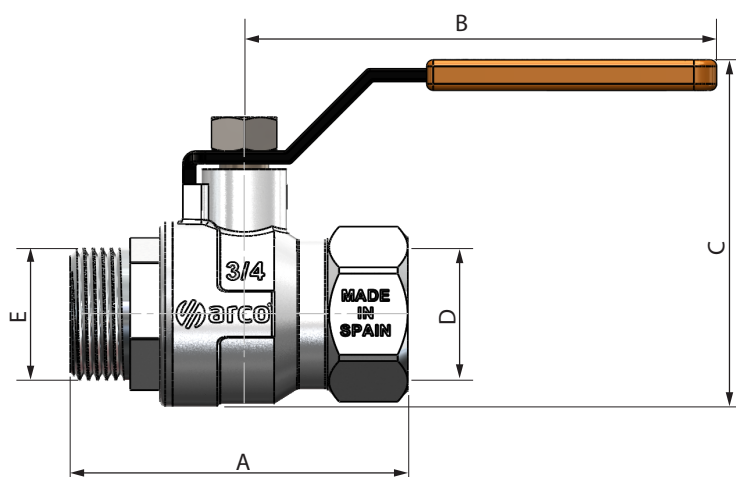
Threads (G) ISO 228



Male - female. Inox Lever handle

Size	A	B	C	D	E
1/2 MF	60	93	62	G 1/2	G 1/2
3/4 MF	66	93	70	G 3/4	G 3/4
1 MF	80	112	81	G 1	G 1

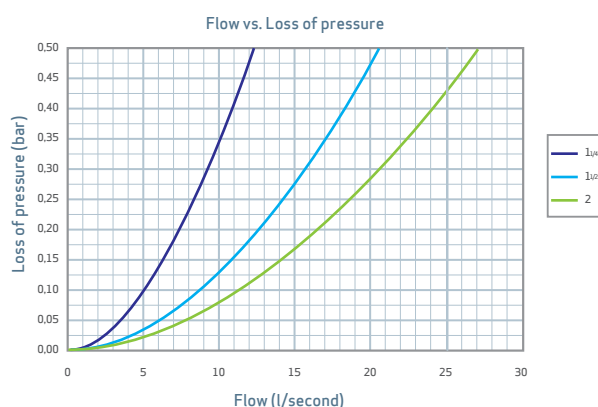
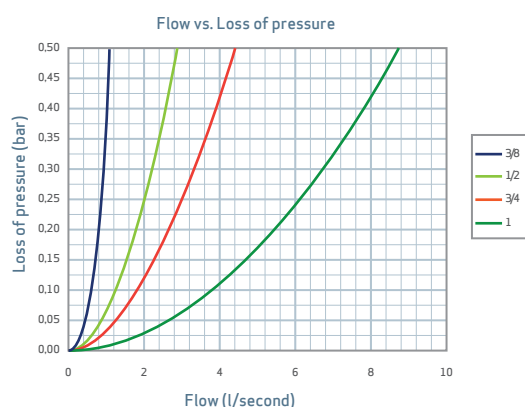
Threads (G) ISO 228





HYDRAULIC FEATURES

TAJO 2000 SOLAR series have been tested in our laboratory, hydraulic features obtained according to European Standard EN 1267.



INSTALLATION AND ASSEMBLY

Hold the valve from faces of the hexagons, never from the central part or the its neck, that will avoid internal components deformations (in other case valve could be damaged inevitably).

The maximum valve life is obtained with the closure sphere in the full open or close position, it is recommended do not work in intermediate positions for long time periods.

Valve must be maneuver every 3 month, this frequencies must be increased for waters with a French hardness over 50°.

