

## GLOBE VALVES

## STOP CHECK PRESSURE SEAL BONNET

Unlocked valve  
open position



Unlocked valve  
closed position



Locked valve



These valves, normally orientated at an angle of 45° (“Y-pattern”), are frequently employed in power generation plants, in the presence of superheated steam or feed water. They can also be installed in process lines (i.g. refining plants) for medium/ high pressures and temperatures. They work as non-return valves (so they can be compared to “lift piston check” valves) and can be locked close. They are normally supplied with a pressure seal bonnet and manual actuator, with exception to those when they are mounted on site that is difficult to reach (in this case the actuator is electric).

FLUITEK ORSENIGO VALVES has a great experience in the supply of these valves. Field application has shown potential functioning problems in relation to the fluid type and flow rate. As a consequence, FLUITEK ORSENIGO VALVES has adopted a computational system that allows to simulate valves fluiddynamic behaviour and, if necessary, to modify the disc according to the operating conditions in order to optimise the functioning.

The operating pressures are normally high (classes 900, 1500 and 2500 ASME).

The available materials range from carbon steel to low-alloy steels and austenitic steels, both forged and cast (examples: A105/WCB, F22/WC9, F91/C12A, F92, F347/CF8C).

Several design alternatives to ASME standards are available: UNI EN 12516, with materials that can be PED harmonised or not (example: 15NiCuMoNb5 for medium temperatures and very high operating pressures, 600 bar).



A typical example are class-1500 ASME valves, which are normally supplied according to this dimensional table. Other dimensions and pressure classes available as per customer request.

CHARACTERISTICS – ANSI 1500#						
Nominal Size [inches]	Pressure class	Bore diameter [mm]	Face to face [mm]	From valve center line to the top [mm]	Fluid minimum velocity [superheated steam] [m/s]	Total weight [kg]
3"	1500	60	305	397	50	80 <sup>(1)</sup>
4"	1500	75	406	480	50	160
6"	1500	126	559	674	50	320
8"	1500	150	711	770	45	640
10"	1500	190	864	945	42	960
12"	1500	220	991	1148	40	1596
14"	1500	240	1067	1200	38	1800
16"	1500	280	1194	1560	36	2400
18"	1500	310	1194	1750	35	3100
20"	1500	360	1194	1980	35	3980
24"	1500	430	1432	2375	32	5300
28"	1500	508	1675	2771	31	6180

(1) Handwheel operated