

DESCRIPTION:

Test and Drain Valve is a type of ball valve used in fire systems, especially for testing whether the system is working or not. It is installed on the system from the fire alarm valves to the sprinkler installation in the required zones.

The ball used in the test and drain valve is rotatable via the stem by the lever and consists of 3 positions as test, drain and off. In the test position, the ball hole is an orifice of the diameter determined according to the smallest diameter sprinkler that is located at the zonal. With this orifice it is possible to calculate and test the amount and duration of the water to be discharged from the sprinkler if needed. The drain position ensures that it can be used as a drain valve when requested. The flow through the sight glass on both sides of the Test and Drain Valve can be observed.

TYPICAL APPLICATIONS:

- Wet Pipe Fire Systems
- Sprinkler Applications

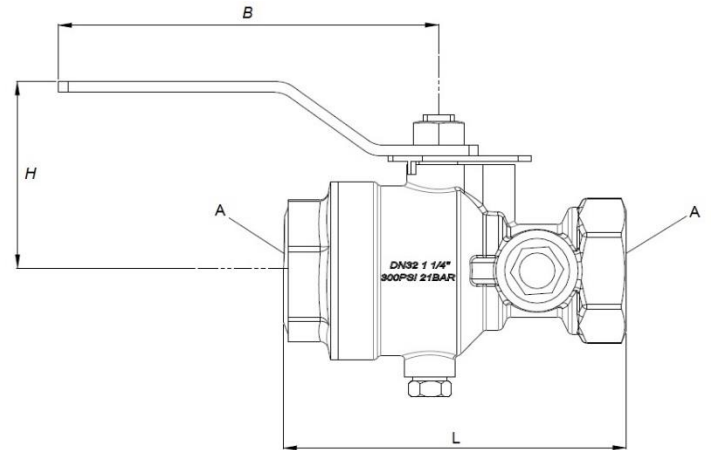
TECHNICAL SPECIFICATIONS:

General Specifications	
Pressure Class	21Bar / 300 Psi
Temperature	-10°C (14°F) 80°C (176°F)
Valve Sizes	1" – 1 ¼" – 1 ½" – 2"
Valve Type	Brass Body, 90 ° position fixing
Orifice	1/2" – 17/32"
K Factor (UL Listed)	K5.6(80) for 1"-1 ¼"-1 ½"-2" K8.0(115) for 1 ¼" – 1 ½"-2"
Material Properties	
Body - Bonnet	Ms 58-CuZn40Pb2-CW617N
Ball	Ms58 (Chromium Plating)
Ball Seat	PTFE
Sight Glass	Polycarbonate
Handle	Galvanized(Vinyl Coating)
Indicator Plate	AISI 304
Spring	AISI 302
Ball Bearing	AISI 304
O-ring	NBR
Connection	
Threaded	BSP - NPT

**TD
Test&Drain Valve**



SIZES:



	DN25 / DN32	DN40 / DN50
A	1" – 1 ¼"	1 ½" – 2"
B	142 mm	154 mm
H	72 mm	92 mm
L	129 mm	176 mm

OPERATION PRINCIPLES:

There are 3 different positions in the test and drain valve, "OFF" - "DRAIN" - "TEST". The angle between the positions is 90°. Under the positions are ball stops which allow the position of the valve to remain constant.

There is no water passage while the valve is in the "OFF" position. When set to "DRAIN", it can be used as a discharge valve.

The valve is different from the ball valve thanks to it have "test" position. When the valve switches to the test position, thanks to the special design of the valve bonnet; the water passages from orifice. Thus the sprinkler burst is simulated. At the same time it helps to test the alarm devices.

INSTALLATION:

- The Test and Drain Valve can be installed horizontally or vertically.
- Before installing the Test and Drain Valve, the pipeline must be cleaned from the foreign materials by passing the fluid.
- When the Test and Drain Valve is mounted, it should be in the same direction as the pipeline.
- Install the Test Drain Valve in the direction of the arrow indicated.

MAINTENANCE:

- The line where the valve is located must be closed and the valve should be at non-pressure before the any maintenance. The valve should be cleaned with water.
- Seals and other components should be checked. If a condition such as corrosion or deformation is detected in the sealing elements and other components, a new one should be provided.

TROUBLESHOOTING:

Failure	Causes	Correcting
Leakage from the valve	<ul style="list-style-type: none"> • Damage on the ball. • Damage on the seals. 	<ul style="list-style-type: none"> • Check the ball. If the ball is damaged, replace it with a new one. • Replace damaged seals with new ones.
Leakage on the valve stem	<ul style="list-style-type: none"> • Seals between the stem and handle may have been damaged. 	<ul style="list-style-type: none"> • Seals between stem and handle should be checked and changed which one is damaged.

APPLICATION:

