

Q11FS 3-piece Female Thread Ball Valve

● Working Principle

A ball valve operates by rotating 90°; its plug is in the form of a sphere with a circular opening or passage running through its axis. In piping systems, ball valves are used to shut off flow, distribute fluid, and change the direction of flow. They can be closed tightly with just a 90° rotation and a small amount of torque. Ball valves are most suitable for use as on/off valves or shut-off valves, but recent developments have led to designs that enable them to also regulate flow rates, such as V-type ball valves.

● Features

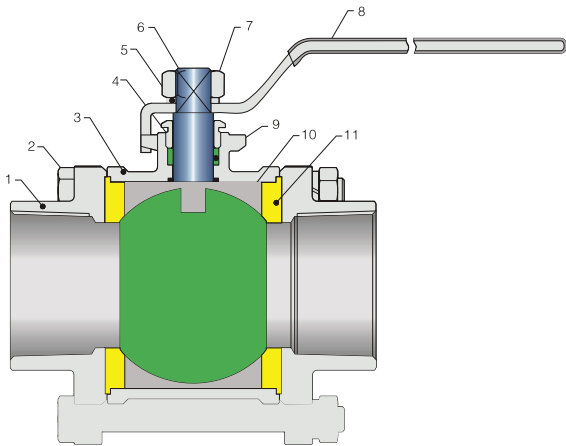
Ball valves feature a compact structure, reliable sealing, and simplicity; they are easy to maintain. The sealing surface and the ball itself remain in a closed state, which prevents them from being eroded by the medium flowing through them. They are easy to operate and service. They are suitable for use with various media such as water, solvents, acids, and natural gas, as well as for harsh working conditions involving gases like oxygen, hydrogen peroxide, methane, and ethylene. Ball valves are widely used in various industries. Their valve bodies can be either monolithic or modular in design.

● Advantages

1. It has low fluid resistance; ball valves with a full bore virtually have no flow resistance at all.
2. They feature a simple structure, are small in size, and light in weight.
3. They are reliable and tight-fitting. They have two sealing surfaces, and various plastics are commonly used as materials for these sealing surfaces, ensuring good sealing performance and complete isolation. They are also widely used in vacuum systems.
4. They are easy to operate; it takes only 90° of rotation to switch them from fully open to fully closed, which facilitates remote control.
5. Maintenance is straightforward due to the simple structure of the ball valve, and the sealing rings are usually removable, making it easy to replace them.
6. When the valve is fully open or fully closed, the sealing surfaces of the ball and the valve seat are separated from the medium, so the medium does not cause erosion of these sealing surfaces as it passes through.
7. They have a wide range of applications, with diameters ranging from a few millimeters to several meters, and they can be used in conditions ranging from high vacuum to high pressure.
8. Because the ball valve has a wiping action during opening and closing, it can be used with media that contain suspended solid particles.



Materials for main parts



No.	Name	Material
1	Bonnet	WCB/CF8/CF8M
2	Bolt	35/304
3	Body	WCB/CF8/CF8M
4	Gland	45/304
5	Nut	45/304
6	Spring washer	45/304
7	Stem	420/304/316
8	Handle	45/304
9	Packing	PTFE/PPL
10	Ball	420/304/316
11	Seat	PTFE/PPL

Order Selection Table

Q11FS - 40 - P - DN25

Model Code

3-piece Female Thread Ball Valve

Nominal Pressure

16: 1.6 MPa
40: 4.0 MPa

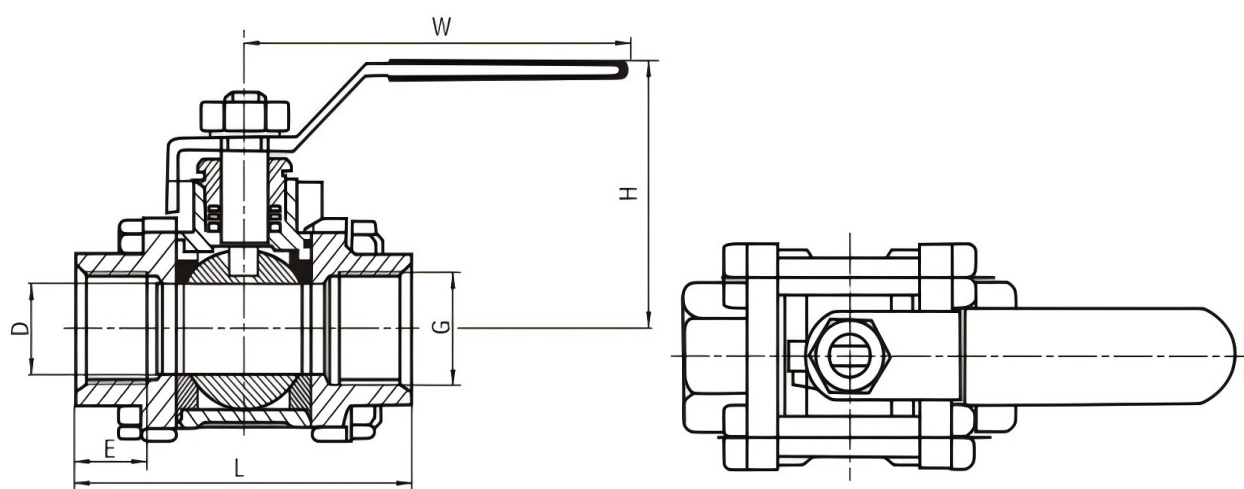
Body Material

P: Stainless Steel

Nominal Diameter

DN6、DN10、DN15、DN20、DN25、DN32
DN40、DN50、DN65、DN80、DN100

● Overall Dimensions



Nominal Diameter	G	D	L	H	W	E
DN6	G1/4	8	67	45	98	9.7
DN10	G3/8	10	67	45	98	10.1
DN15	G1/2	15	72	55	102	15
DN20	G3/4	20	82	60	120	14.5
DN25	G1	25	88	68	135	16.8
DN32	G1 1/4	32	109	80	165	19.1
DN40	G1 1/2	38	118	97	170	19.1
DN50	G2	50	141	98	180	23.4
DN65	G2 1/2	64	180	122	215	26.7
DN80	G3	76	205	145	250	29.8
DN100	G4	100	259	172	300	35.8

Thread Type: Pipe Thread G BSPP