



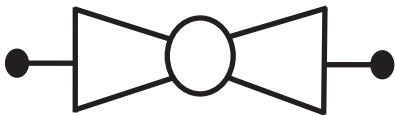
2 Way Ball Valve (FBV)

Ref No:- FHT3001

Release : 09/2010

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2 WAY BALL VALVE (BALL SHUT-OFF VALVE)

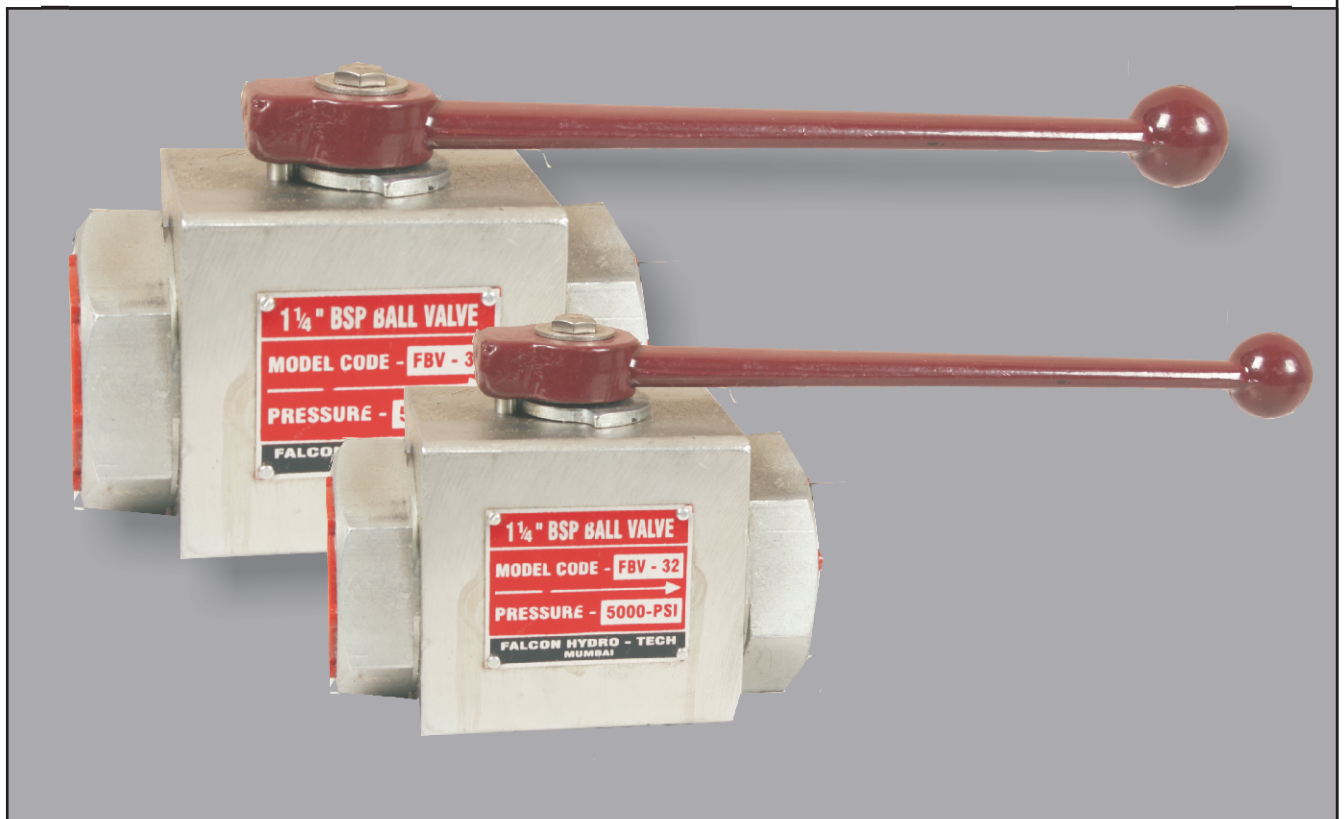


Type FBV

Nominal Sizes 6 to 50

Maximum operating pressure 500 bar (7300 PSI)

Maximum flow 500 L/min





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-: DESCRIPTION :-

Falcon high pressure 2 WAY BALL VALVE (FBV) provides full, unrestricted flow & positive shut-off of fluid flow under extreme service conditions. High pressure ball valve are available to accommodate system pressure from 315 bar to 500 bar. These ball valves can be used with various fluid.

-: Valve Design :-

Falcon high pressure BALL VALVE (FBV) are design based on the “ floating ball” principle, which allows the ball to turn freely between the ball seals.

A positive seal is attained by fluid pressure acting on the upstream surface of ball. The system pressure pushes the ball against the non-pressurised side of the selling cup & producing a constant uniform contact between the downstream ball selling cup and the ball. It is shut-off the flow leakage free.

The ball is operated by a sealed spindle with a projected square end to which the control handle. By turning the control spindle clockwise or anti clockwise moves the ball from the open to closed or closed to open switching position.

Valve positioning controlled by a stop pin & limit washer. Even locking devices also available with help of limit washer. Flow direction indicated by milling slot in control spindle.

-: APPLICATION :-

Falcon high pressure 2 WAY BALL VALVE (FBV) are used to manually open or shut-off the flow into a hydraulic circuit. These ball valve are use to isolation of pressure gauge or shut-off particular line.

Area of application are for example:-

- » Machine Tools
- » System Engineering
- » Mobile Hydraulics
- » Agricultural Machinery

-: NOTE :-

These Ball Valve are not designed to be used as flow control valves. It's intended to be used as on/off flow control devices, therefore they should be either fully open or fully closed to avoid damaging the sealing cups.

To ensure correct functioning, the pressure & temperature specifications must be observed.



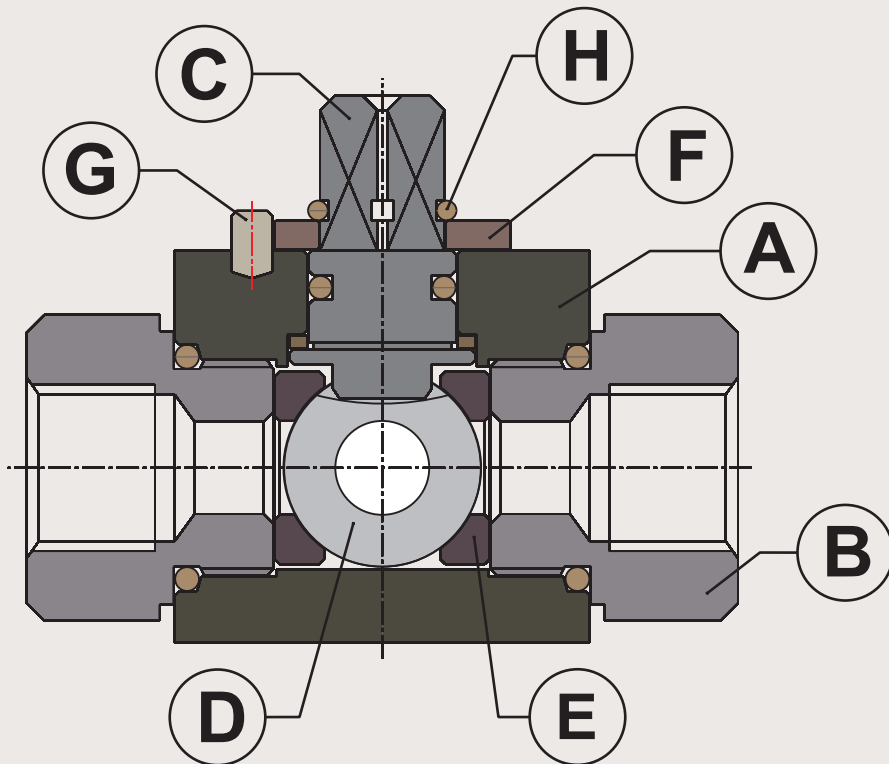
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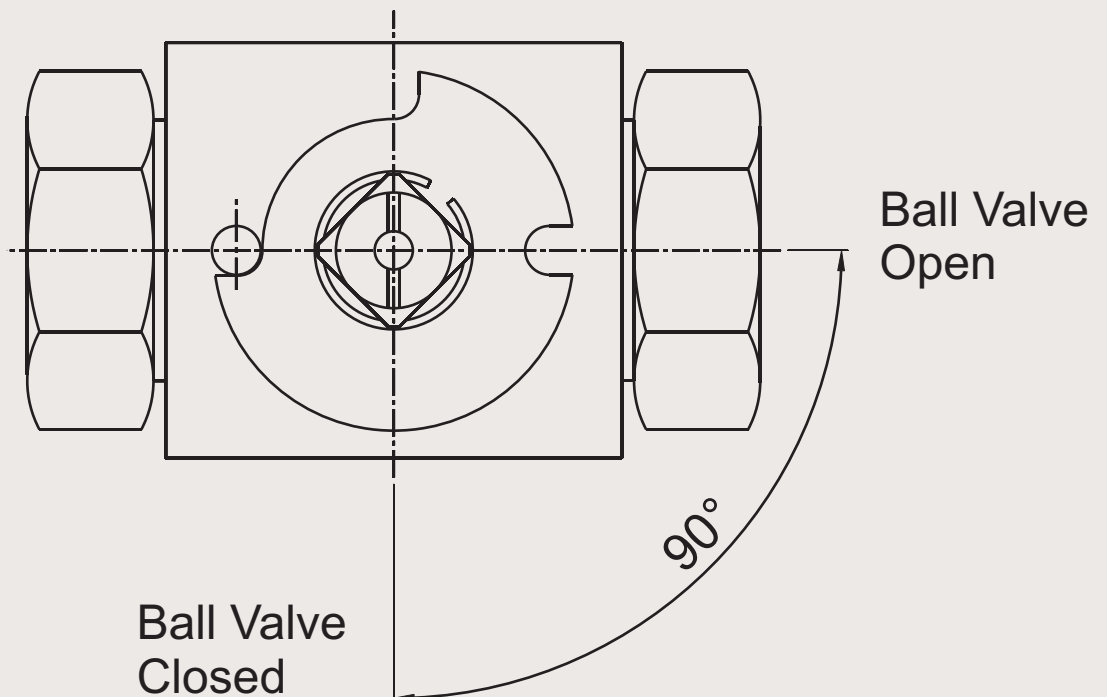
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FBV



- A) Valve Body,
- B) Connection Adaptor,
- C) Control Spindle,
- D) Ball,
- E) Ball Seal,
- F) Limit Washer,
- G) Stop Pin,
- H) Circlip Ring,





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-: TECHNICAL SPECIFICATION :-

General

1) Type of construction	FBV:- Shut off device is a ball.
2) Type of mounting	Optional,
3) Direction of flow	Optional,
4) Material	Valve body :- Mild steel with white zinc plated, Connection adaptor :- Mild steel with white zinc plated, Control spindle :- En-8 with white zinc plated, Ball :- S.S 304 with hard chromed, Ball seal :- High synthetic material (POM), "O" ring :- Nitrile,
5) Fluid temperature range	min : -10 °C / max : +80 °C,

Hydraulic

6) Operating pressure	DN - 06 to 12 - 500 BAR, DN - 20 to 25 - 350 BAR, DN - 32 to 50 - 315 BAR,
7) Operating fluid	Mineral oil,
8) Fluid temperature range	min : -10 °C / max : +80 °C,
9) Flow	FBV - 06 = 30 lpm, FBV - 10 = 50 lpm, FBV - 12 = 70 lpm FBV - 20 = 120 lpm, FBV - 25 = 180 lpm, FBV - 32 = 220 lpm, FBV - 40 = 300 lpm, FBV - 50 = 500 lpm.



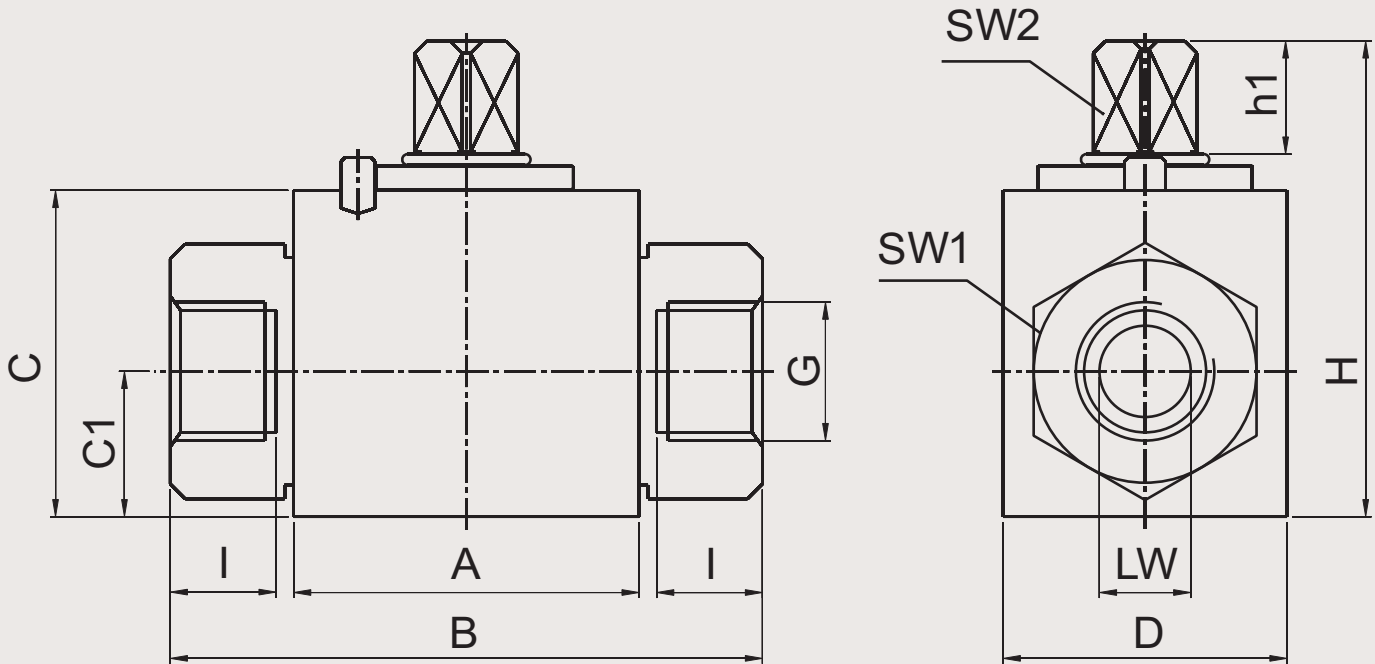
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BSP End Connection



SIZE	G	DN	LW	A	B	C	c1	D	I	H	h1	SW1	SW2
FBV-06	1/4" BSP	06	06	42	72	38	16	32	15	51	9	25.4	9
FBV-10	3/8" BSP	10	10	42	72	38	16	32	15	51	9	25.4	9
FBV-12	1/2 " BSP	12	12	47	83	40	17.5	40	16	53	9	30	9
FBV-20	3/4 " BSP	20	19	57	95	57	25.4	57	18	76	15	41	14
FBV-25	1 " BSP	25	24	63	113	60	26	60	21	79	15	46	14
FBV-32	1 1/4 " BSP	32	29	80	119	75	33.5	67	23	95	16	60	17
FBV-40	1 1/2 " BSP	40	38	89	130	88	40	80	25	110	18	70	17
FBV-50	2 " BSP	50	48	110	142	107	49.5	99	25	129	18	90	17



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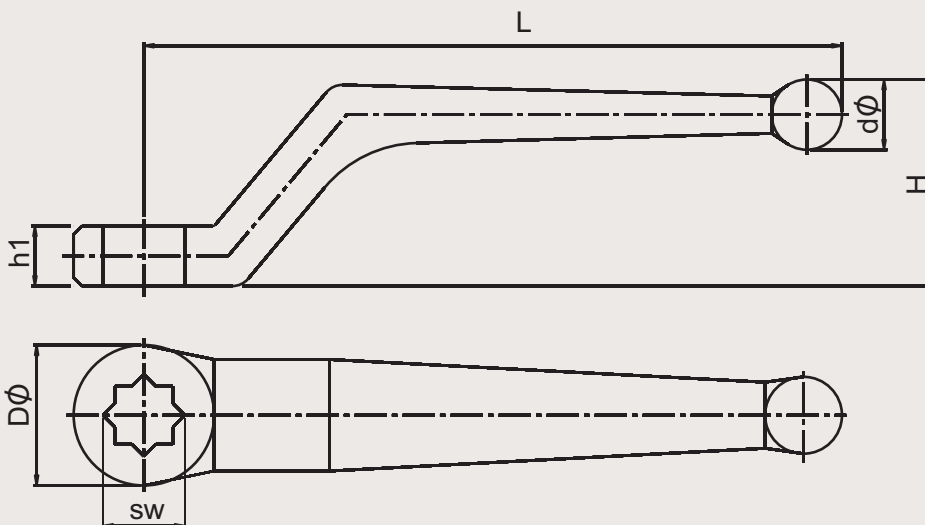
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-: Handles :-

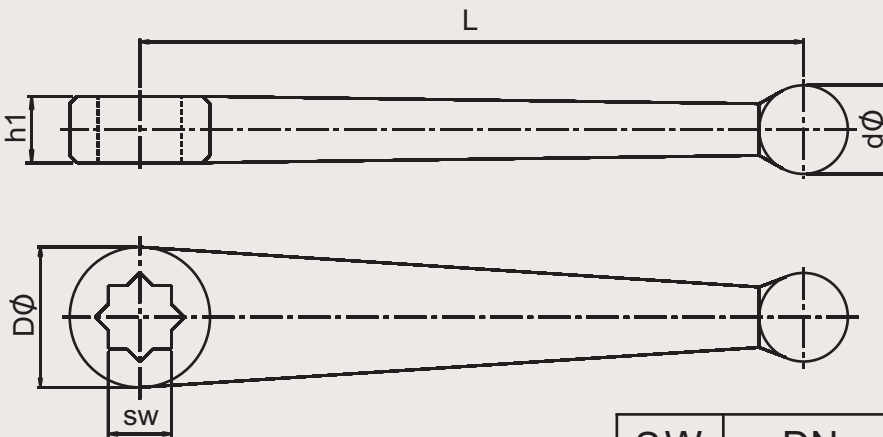
- » Handle are used to switch shut-off Ball Valves.
- » The handle is pushed onto the square end of the ball valve spindle. The bolt on handle is screwed to the ball valve control spindle by means of a fixing bolt from above.
- » Handle material is Aluminium casting. Aluminium grade is LM6.

Cranked Handle-Bolt On Handle



SW	DN	L	Dφ	dφ	H	h1	Torque
9	06 to 12	117	25	13	38	10	3Nm

Straight Handle-Bolt On Handle



SW	DN	L	Dφ	dφ	h1	Torque
14	20 to 32	220	33	25	15	5Nm
17	40 to 50	260	46	25	18	7Nm