



Series FSB 1D Wafer Type 1-Piece

Full Port Ball Valve with Flanged End

1/2" - 4" (DN15 - DN100)
PN 16 / PN 40



Compact, Space-Saving, Fire-Safe

DIE ERSTE Series FSB 1D wafer type ball valve is designed to be used in compact pipeline system, where spaces are limited and weight problem are essential. Similar to other one-piece ball valve, Series FSB 1D has retainer screw-in structure. The reduced length of valve body provides shorter distance; also the weight is decreased up to 40% of other conventional one-piece body ball valve. Series FSB 1D ball valve can be installed on pipeline system without extra support, regardless of the pipeline length. The mono-body design avoids using extra joint faces with bolts or threads, and thus, reduces the chances of leakage from valve body joints.

Fire-safe design package and ISO 5211 direct mount is included for more possibilities. The fire-safe design package includes fire-safe lip, anti-static device, and graphite seals. The fire-safe lip is perfectly machined to fit with the ball shape. In the case of fire, where the soft ball seats have been decomposed, the floating ball becomes in contact with the fire-safe lip. With the pressure from upstream, the floating ball and the fire-safe lip forms a secondary metal-to-metal seal, and thus, chances of leakage will lower to the minimum. Anti-static device provides a grounding path for electric charges built up from frequent valve openings and closings. Graphite seals are used particularly in high temperature applications due to its high temperature resistance of graphite.

Blowout-proof stem is equipped for Series FSB 1D ball valves. The live-loaded and self-adjusting stem is designed and manufactured have a protruded ring surrounded the stem body. This design allows the stem to stay in the valve body during excess pressure occurs in the pipeline system.

Certifications for FSB 1D

API 607 4th Edition Certified API 607 Fire Test for Soft Seated Quarter Turn Valves

CRN REGISTERED Canadian Registration Number

Ex ATEX Directive 94/9/EC Explosive Prevention

CE Marking  0035

The whole series of ball valves are approved according to European Directive 97/23/EC.

Compact Uni-Body Design

The reduced length and lighter body weight of the valve body allows Series FSB 1D ball valve to be installed in compact working conditions. The uni-body design also reduces the possibilities of leaking.

Fire-Safe Design

Series FSB 1D ball valve can still operate after fire damage the soft PTFE seat. Valve ball comes into contact with the specially designed fire-safe lip and establishes a metal-to-metal contact sealing.

Size Range

DN15 ~ DN100

Pressure Rating

PN16 for sizes DN65~DN100

PN40 for sizes DN15~DN50

150 psi (10 bar) with saturated steam

Temperature Range

- -20°F to 350°F (-28°C to 176°C) with PTFE seat
- -20°F to 400°F (-28°C to 200°C) with RPTFE 15% seat

End Connection

Wafer type RF flanged end connection.

Body Material

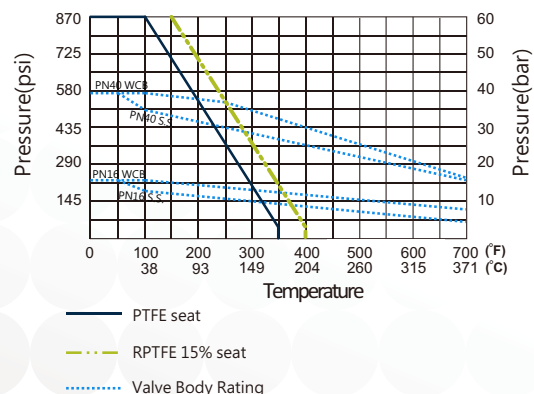
ASTM CF8M, CF8, WCB (DIN 1.4408, 1.4308, 1.0619)

Standards and Specifications

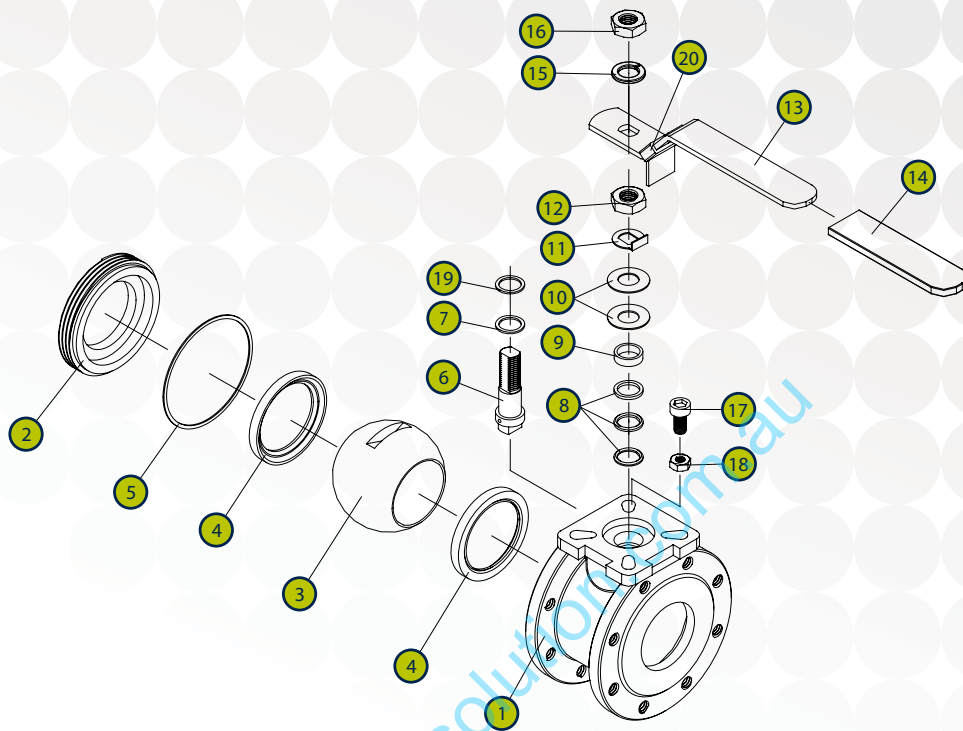
Flanged end connection basic construction design according to ANSI B16.34

Valve body and retainer connections are high quality investment cast. Heat treatments of different material are available for highest quality: stainless steel with annealing, and carbon steel with normalization. Series FSB 1D ball valves are factory tested and inspected according API 598 standards. For fire-safe certification, Series FSB 1D have been tested and approved for API 607 5th Edition Fire-Safe Test.

Valve Body Rating with Seat Material Plot



FSB 1D Wafer Type 1pc Ball Valve



NO	PART NAME	MATERIAL
1	BODY	1.4408 / 1.0619
2	END CAP	1.4408 / 1.0619
3	SOLID BALL	SS 316
4	BALL SEAT	PTFE RPTFE 15% RPTFE 25%
5	BODY SEAL	GRAPHITE
6	STEM	SS 316
7	THRUST WASHER	GRAPHITE
8	STEM PACKING	GRAPHITE
9	GLAND	SS 304
10	BELLEVILLE SPRING	SS 301

NO	PART NAME	MATERIAL
11	LOCK SADDLE WASHER	SS 304
12	GLAND NUT	SS 304
13	HANDLE	SS 304
14	HANDLE SLEEVE	VINYL
15	SPRING WASHER	SS 304
16	HANDLE NUT	SS 304
17	STOP BOLT	SS 304
18	STOP NUT	SS 304
19	O-RING	VITON
20	LOCKING DEVICE	SS 304

