

SBC PFA-Lined Ball Check Valves

NPS ½" – 6" · Class 150 flanged · sight-glass body · horizontal or vertical

swissfluid
USA

A lined ball check valve for reliable non-return control of liquid process media. Cast WCB or CF8M body with a PFA or PFA-AS lining, a solid PTFE ball running in PTFE-R guides, borosilicate sight-glass plates to DIN 7080 on both sides of the body, and wide, chambered flange faces that need no additional gaskets.

Design

Sizes	NPS ½" – 6".
Body	Cast steel WCB (1.0619), RAL 5005 signal-blue epoxy coated, body and flanges; CF8M (1.4408) stainless steel to order. SS304 (A2-70) hex head screws and name plate.
Lining	PFA standard; PFA-AS (conductive) to order.
Ball and guides	Solid PTFE ball; PTFE hollow ball to order. Two ball guides in glass-fibre-reinforced PTFE-R. PTFE-AS, PP and UHMWPE balls per the ordering code.
Sight glass	Two borosilicate 8488 glass plates to DIN 7080 with C-4400 asbestos-free gaskets. Metal-reinforced and quartz glass to order.
Connections	Flanges to ASME B16.5 Class 150, horizontal or vertical installation; DIN PN16 to order. Face-to-face to ASME B16.10; 2½", 3" and 6" also in DIN lengths. 2½" and 3" flanges tapped 5/8" UNC, 6" tapped 3/4" UNC.
Pressure	0.01 psia to 145 psig, derated with temperature; PTFE hollow ball 87 psig. Pressure-temperature chart on the Swissfluid sheet.
Temperature	–40 °F to +400 °F depending on lining. Low-temperature or austenitic steels below +14 °F.
Compliance	Pressure Equipment Directive (PED); testing to EN 12266-1 leakage rate A / API 598; marking to EN 19; certificates to EN 10204 3.1, 2.2 or 2.1.

Source: Swissfluid USA PM 41 us 2018-9.

Ordering code

Build a code from left to right; a standard valve is **SBC · 2" · 150# · G10 · A85 · B80 · Gb**. Some selections require or exclude others; we check every code before it goes to the factory.

Size	½"-6" NPS ½" – 6" (DN 15 – 150)
Flange connection	150# ASME Class 150 · PN16 PN 16 · JIS 10K JIS 10K
Body	G10 WCB carbon steel (1.0619) · G15 CF8M stainless (1.4408)
Body lining	A85 PFA · A86 PFA-AS conductive
Ball	B80 PTFE · B82 PTFE-AS · B89 PP · B90 UHMWPE
Glass plate	Gb glass plate PN 16 · Gb40 glass plate PN 40 · Gr reinforced glass · Gq quartz glass
Options	B7 B7 body bolts · Hb PTFE hollow ball · RAL special paint

Data and codes: Swissfluid USA PM 41 us 2018-9.



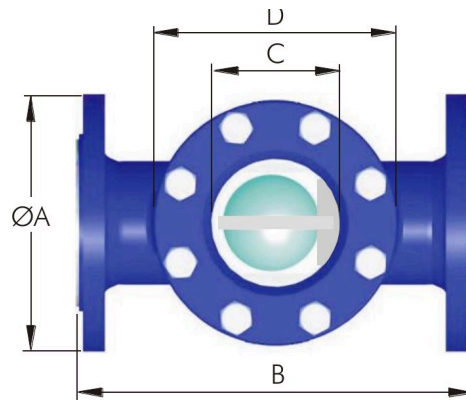
Main features

- Heavy-duty, proven construction, maintenance-free
- Horizontal or vertical installation, Class 150 flanges
- No additional flange gaskets: wide, chambered flange sealing surface
- PTFE solid or hollow balls, guides in PTFE-R
- Large observation opening

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Dimensions, Options, Construction and service

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Dimensions, inches

Size	B face-to-face	Ø C	D	Glass Ø × thickness	Weight lbs
½"	5.12	1.30	□ 2.76	1.77×0.39	8.14
¾"	5.91	1.30	□ 2.76	1.77×0.39	9.46
1"	6.00	1.89	□ 3.35	2.48×0.39	11.22
1½"	7.00	2.56	□ 4.33	3.15×0.47	17.16
2"	8.00	3.15	□ 4.72	3.94×0.59	26.62
2½"	8.50	3.15	Ø 6.89	3.94×0.59	41.14
3"	9.50	3.94	Ø 7.48	4.92×0.79	56.32
4"	11.50	4.92	Ø 8.27	5.91×0.98	102.52
6"	14.00	7.87	Ø 11.42	8.86×1.18	131.56

Face-to-face to ASME B16.10 or EN 558-1 range 1 as tabulated on the sheet; 2½", 3" and 6" also in DIN lengths. Flanges to ASME B16.5 Class 150; 2½" and 3" with tapped holes 5/8" UNC, 6" with 3/4" UNC. Source: Swissfluid USA PM 41 us 2018-9.

Note. Pressure-temperature derating per the Swissfluid chart (PFA/PFA-AS 145 psig; PTFE hollow ball 87 psig).

Options

- **PTFE hollow ball** 87 psig maximum; pressure-temperature chart on the Swissfluid sheet.
- **Glass plates** Metal-reinforced glass plates, quartz glass, FEP glass protection sheet, PN 40 glass plate
- **Body** CF8M stainless steel
- **Lining** PFA-AS conductive
- **Balls** PTFE-AS, PP, UHMWPE
- **Flanges** PN 16, PN 40, JIS 10K
- **Bolting** B7 body bolts
- **Special paint** RAL color to order

Construction. PFA-lined WCB body with two WCB flanges, RAL 5005; two borosilicate glass plates to DIN 7080 with C-4400 gaskets; solid PTFE ball in two PTFE-R guides; sixteen A2-70 stainless hex head screws; stainless name plate.

Typical service. Non-return flow control of liquid process media, installed horizontally or vertically.

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Ordering from LinedPipe.Com



Size, series, lining, class and quantity are enough to start. For a quotation send the service conditions (media, concentration, temperature, pressure, flow), the end connections and the actuation you need; we will confirm the ordering code, the installation dimensions and a delivery time.

Request a quote

(251) 625-4949 · info@linedpipe.com · linedpipe.com/contact/
(the online quote form takes valves line by line and attachments).

What to tell us

- Series and size, full or reduced port, Class 150 or 300
- Lining and ball or disc material, seat and elastomer where they apply
- Body material: WCB carbon steel or CF8M stainless
- Topworks: bare stem, lever, gearbox, pneumatic or electric actuator, fail position, accessories
- Options: conductive lining, grounding strap, chlorine clean, customer tag, special bolting
- Certificates: EN 10204 3.1 material certificates and test reports on request

Dimensions

Face-to-face lengths in this catalog are stated against ASME B16.10 or EN 558-1 as noted; sizes marked * are not ASME B16.10 lengths (the note under each table says what they are). Confirm the installation length on the order acknowledgement before cutting pipe.

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