SSC PFA-Lined Swing Check Valves

NPS 1½" – 24" · Class 150 wafer · 2-piece body to 12" · 3-piece body 14" – 24"

swissfluid USA

A wafer-style lined swing check valve for safe non-return control of corrosive media in process piping, installed horizontally or vertically between Class 150 flanges. Two- or three-piece cast body in WCB or CF8M, PFA or PFA-AS lining and encapsulation, a PFA-encapsulated disc on a duplex stainless core, centering eyes for secure positioning and a flap disc secured against falling out.

Design

Sizes	NPS 1½" – 24". Two-piece body 1½" – 12"; three-piece body with retaining ring 14" – 24".
Body	Cast steel WCB (1.0619), RAL 5005 signal-blue epoxy coated, or CF8M (1.4408) stainless steel throughout.
Lining	PFA to ASTM D3307 standard; PFA-AS (conductive) to order.
Disc	Duplex stainless steel core (1.4469), PFA or PFA-AS encapsulated. Solid discs in SS316L (1.4404), titanium Gr. 2 (3.7035) or alloy C to order.
Retaining ring	Carbon steel (1.0570) or 1.4404 stainless, 14" – 24" only.
Connections	Wafer, for flanges to ASME B16.5 Class 150, horizontal or vertical installation. Face-to-face to ASME B16.10; overall lengths to EN 558-1 series 20.
Pressure	0.01 psi to 145 psi per the pressure-temperature chart, derated above 300 °F; vacuum service.
Temperature	−40 °F to +400 °F depending on lining. Low-temperature or austenitic steels below +14 °F.
Compliance	Pressure Equipment Directive (PED); FDA-compliant materials; testing to EN 12266-1 leakage rate A / API 598; linings high-voltage tested at 35 kV for freedom from pores; marking to EN 19; certificates to EN 10204 3.1, 2.2 or 2.1.

Source: Swissfluid USA PM 42 us 2025-06.

Main features

- Optimized design
- Two- or three-piece body in WCB, RAL 5005 epoxy coated, or fully CF8M stainless
- Linings and encapsulations in PFA or PFA-AS
- Discs PFA-encapsulated, or solid in SS316L, titanium Gr. 2 or alloy C
- Easy installation into existing piping; silent operation, maintenance-free
- Centering eyes for secure positioning
- Flap disc secured against falling out
- Face-to-face to ASME B16.10

Ordering code

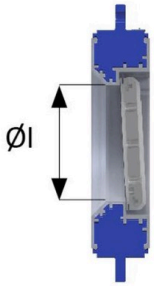
Build a code from left to right; a standard valve is **SSC · size · Class 150 · G10 · A85 · U85**. Some selections require or exclude others; we check every code before it goes to the factory.

Size	**1½"–24"** NPS 1½" – 24"
Flange connection	**Class 150** ASME Class 150 · **Class 300** ASME Class 300
Body	**G10** WCB carbon steel · **G15** CF8M stainless
Body lining	**A85** PFA · **A86** PFA-AS conductive
Disc	**U85** PFA · **U86** PFA-AS · **S34** SS316L · **S40** Ti Grade 2 · **S41** Ti Grade 7 · **S43** alloy C-276
Options	**RAL** special coating · **GC** grounding cable

Data and codes: Swissfluid USA PM 42 us 2025-06.

SSC PFA-Lined Swing Check Valves

Dimensions, Options, Construction and service



2-piece
NPS 1½"–12"

3-piece
NPS 14"–24"
with reatainer ring

Dimensions, inches · wafer

Size	B width	Ø D	Ø I	Weight lbs
1½"	1.30	3.22	0.87	2.42
2"	1.69	3.97	1.18	4.62
3"	1.81	5.23	2.00	7.93
4"	2.04	6.37	2.83	12.12
6"	2.20	8.54	4.37	19.84
8"	2.36	10.55	6.10	30.86
10"	2.68	12.79	7.99	46.29
12"	3.07	14.76	9.96	72.75
14"	3.62	17.20	11.02	143.00
16"	4.01	19.17	11.81	167.55
18"	4.49	21.14	13.78	253.53
20"	5.00	23.38	15.75	335.10
24"	6.06	27.32	19.61	462.97

Wafer width B per EN 558-1 series 20, for ASME B16.5 Class 150 flanges; Class 300 by ordering code. Source: Swissfluid USA PM 42 us 2025-06.

Note. Pressure-temperature derating on the Swissfluid chart; confirm the rating above 300 °F with the factory.

Options

- **Body** CF8M stainless steel
- **Lining** PFA-AS conductive
- **Solid discs** Titanium Gr. 2 (3.7035) or alloy C; SS316L and titanium Gr. 7 per the ordering code
- **Encapsulated disc** PFA-AS conductive
- **Flanges** Class 300 per the ordering code
- **Grounding cable** Code GC
- **Special coating** RAL color to order

Construction. Two-piece (1½" – 12") or three-piece (14" – 24") wafer body in epoxy-coated WCB or CF8M, PFA lining to ASTM D3307, PFA-encapsulated disc on a duplex 1.4469 stainless core, retaining ring in carbon steel 1.0570 or 1.4404 stainless on 14" – 24".

Typical service. Non-return flow control of corrosive fluid media in process piping, installed horizontally or vertically.

SSC PFA-Lined Swing Check Valves

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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