

SSB Full-Port Sampling Ball Valves

NPS ½" – 6" full port · Class 150 · PN16 and PN40 to order

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USA

A full-port sampling ball valve for safe, representative sampling of aggressive or toxic liquids from pressurized pipelines without interrupting the process. A fixed sample of approx. 40 ml (1.35 oz) is captured in the ball cavity and isolated from the process as the lockable handle turns 180° between its two stops, then drains into the laboratory bottle through the only opening to atmosphere. CF-8M body, unlined or PFA-lined, with an ISO 5211 flange for direct actuation.



Design

Sizes	NPS ½" – 6" (DN15 – DN150), full port, piggable. Flanged, ASME Class 150; PN16 and PN40 to order.
Body	Stainless steel casting 1.4408 (CF-8M), unlined or lined with PFA or PFA-AS (conductive). Lining tested for porosity at 35 kV.
Ball	Duplex stainless (1.4462) encapsulated in ETFE, with a 40 ml cavity; PFA-AS encapsulation, solid SS316L or alloy C-276 to order.
Seats	PFA, spring-loaded by Belleville springs in spring steel; PFA-AS, PTFE, PTFE-T or PTFE-R to order.
Topworks	Zero stem leakage by an innovative stem sealing mechanism. Lockable SS316L hand lever with two stops for 180° motion; operating torque 180 in-lbs, all sizes. ISO 5211 flange (Ø14-DD11-F05) for direct mounting of pneumatic or electric actuators.
Adapter	GL45 horizontal adapter in PTFE-R/PVDF standard; vertical adapter to order.
Pressure	0.01 psi to 232 psi depending on size, lining and temperature. Pressure-temperature chart on the Swissfluid sheet.
Temperature	–40 °F to +300 °F (+400 °F), depending on lining material; the chart shows separate lined and unlined curves.
Compliance	Testing to EN 12266-1 leakage rate A / API 598; marking to EN 19; certificates to EN 10204 3.1/2.2/2.1; conformity to the European Pressure Equipment Directive (PED).

Source: Swissfluid USA PM 84 us 2021-07.

Main features

- Full-port design, no pressure drop, piggable
- Fixed sample volume of approx. 40 ml (1.35 oz), isolated from the process as the valve is operated
- Only one opening to the atmosphere
- Lockable handle with two stops for easy 180° motion
- ISO 5211 flange for direct automation with pneumatic or electric actuators
- Zero stem leakage by an innovative stem sealing mechanism
- Easy maintenance, same spare parts for all sizes

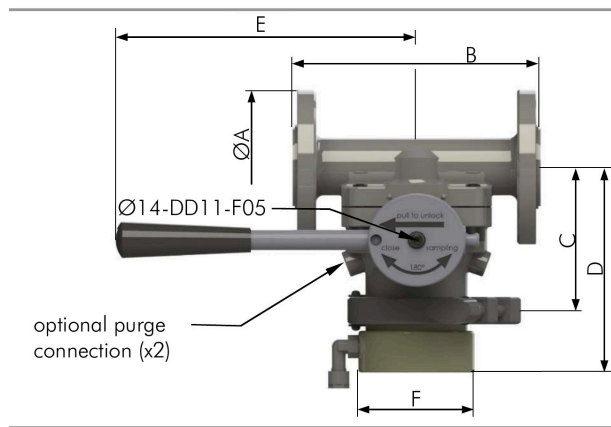
Options

- **Purge connection** Two connections on the body (code Pu)
- **Vertical adapter**
- **Actuation** Pneumatic or electric actuator, with optional timer unit
- **Bottle support** Adjustable, with spring-loaded plate
- **Safety cabinet** Stainless or PP, with windows
- **Activated carbon filter**
- **Sealing plug**
- **Safety lock** Prevents unauthorised operation of the valve
- **RAL** Special paint

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Dimensions

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Dimensions, inches

Size	B face-to-face	C	D	E	F	Torque in-lbs	Valve lbs
½"	6.3*	3.8	5.5	10	3.1	180	10
¾"	6.3*	3.9	5.6	10	3.1	180	11
1"	6.5*	3.9	5.6	10	3.1	180	11
1½"	6.5	4.2	5.9	10	3.1	180	14
2"	7.0	4.4	6.1	10	3.1	180	17
3"	8.0	5.0	6.7	10	3.1	180	27
4"	9.0	4.4	7.2	10	3.1	180	42
6"	11.0*	6.5	8.2	10	3.1	180	57

Weights are for the valve without its lever (lever 2.0 lbs every size). The sheet names no face-to-face standard; * ½", ¾", 1" and 6" lengths are not ASME B16.10 lengths; confirm the installation length when ordering. Flanges Class 150. Source: Swissfluid USA PM 84 us 2021-07.

Note. Pressure-temperature derating (lined and unlined curves) on the Swissfluid sheet. Adapters and accessories are specified separately.

SSB Full-Port Sampling Ball Valves

Ordering code, Construction and service



Ordering code

Build a code from left to right; a standard valve is **SSB · 1" · ANSI150# · G15 · A85 · E67 · U91 · B85 · options**. Some selections require or exclude others; we check every code before it goes to the factory.

Nom. size	DN15 – 150 DN · ½" – 6" NPS
Body rating	PN16 PN16 · PN40 PN40 · ANSI150# ASME Class 150
Body	G15 CF-8M
Body lining	A85 PFA · A86 PFA-AS · - unlined
Elastomer	E60 EPDM · E67 FPM · E68 VMQ
Ball (encaps./solid)	U91 ETFE · U86 PFA-AS · S34 SS316L · S43 C-276 · XX others
Ball seats	B85 PFA · B86 PFA-AS · B80 PTFE · B81 PTFE-T · B95 PTFE-R
Options	Pu purge connection · RAL special paint · ... others

Data and codes: Swissfluid USA PM 84 us 2021-07.

Construction. Body and ball housing in CF-8M, PFA-lined; ETFE-encapsulated duplex ball; PFA seats, one spring-loaded by four Belleville springs; SS316L pressure sleeve and threaded bushing with PTFE sealing sleeve and carbon steel/PTFE bearing; VMQ elastomer insert; FPM and FFPM O-rings; A2-70 socket-head cap screws and name plate; SS304 clamp; SS316L hand lever; PTFE-R/PVDF GL45 horizontal adapter.

Typical service. Sampling of aggressive or toxic liquids from pressurized pipelines, in horizontal or vertical installation, without process interruption; the line keeps full passage and stays piggable.

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Ordering from LinedPipe.Com

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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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Version 1.11 · Released 10-30-2026. Product data from Swissfluid literature as cited under each table; subject to change without notice. **Confirm critical dimensions with the order acknowledgement.**