

DN15 – DN150 / 1/2" - 6", full port

for safe and representative sampling of aggressive or even toxic liquids from pressurized pipelines without any process interruptions.

Modular Design

SSB Sampling ball valves are distinguished by their fixed sample volume of 40ml (1.35oz) which is isolated from the process as the valve is being operated.

The sturdy bodies are made of stainless steel casting 1.4408 (CF-8M), optional with chemically resistant linings such as PFA or PFA-AS (conductive).



CE Conformity acc. to European Pressure Equipment Directive 2014/68/EU (PED)

Main Features

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

Options

- Purge Connection
- Vertical adapter
- Pneumatic or electric actuator (with optional timer unit)
- Adj. bottle support with spring-loaded plate
- Safety cabinet (SS or PP) with windows
- Activated carbon filter
- Sealing plug



With vertical adapter



With pneum. actuator

Operating Conditions

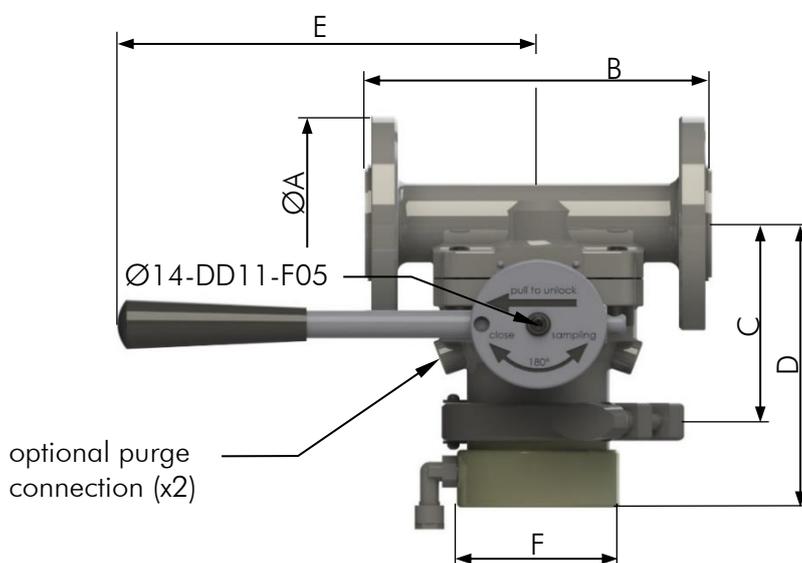
- Temperature range from -40°C (-40°F) up to $+200^{\circ}\text{C}$ ($+400^{\circ}\text{F}$), depending on lining material
- Pressure range from 1mbar (0.01 psi) up to 16 bar (232 psi), depending on size/pressure/temperature

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, resp. API 598
- Marking of valves on body and name plate acc. to EN 19
- Material- resp. test certificates acc. to EN 10204-3.1/2.2/2.1
- Testing of the plastic lining for porosity with 35 kV

Manual Valve

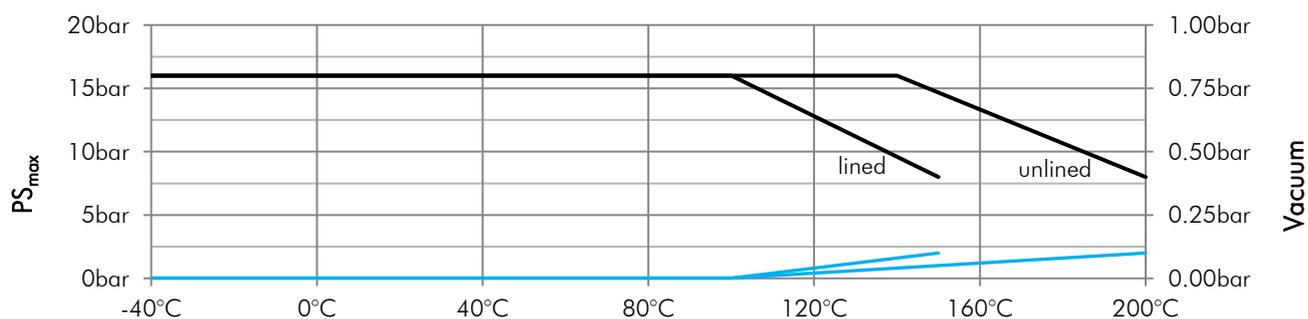
Standard version with hand lever



Dimensions in mm (lbs = kg x 2.2)

DN Size nom.	ØA DIN	ØA ANSI	B DIN	B ANSI	C	D	E	F	torque [Nm]	kg DIN	kg ANSI	kg Handle
15/1/2"	95	90	160	160	97	140	250	77.5	24Nm	4.8	4.8	0.9
20/3/4"	105	100	160	160	98	141	250	77.5	24Nm	5.2	5.2	0.9
25/1"	115	110	160	165	100	143	250	77.5	24Nm	5.5	5.0	0.9
40/1 1/2"	150	125	200	165	107	150	250	77.5	24Nm	7.0	6.5	0.9
50/2"	165	150	230	178	113	156	250	77.5	24Nm	9.2	7.8	0.9
80/3"	200	190	310	203	127	170	250	77.5	24Nm	12.7	12.2	0.9
100/4"	220	230	350	229	139	182	250	77.5	24Nm	19.0	19.0	0.9
150/6"	285	280	480	267	165	208	250	77.5	24Nm	32.0	26.0	0.9

Pressure-/Temperature Diagram



SSB Sampling Ball Valve

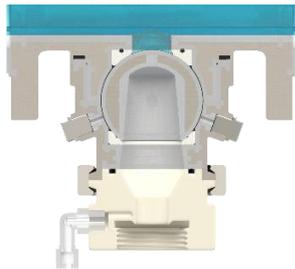
Principle of operation type SSB (Sampling under pressure, with laboratory bottle)



Horizontal installation

Sample volume/Charge ca. 40 ml (1.35 oz)

Comment: depending on the desired volume, the sampling procedure is repeated accordingly
 Option: Safety lock to prevent unauthorised operation of the valve



Valve in closed position

The sampling ball valve is installed in a horizontal process line. The line still has full passage and is piggable.

In closed valve position, the hand lever is in the horizontal starting position by means of a mechanical stop. The ball seals upwards.



Valve in open position for sampling

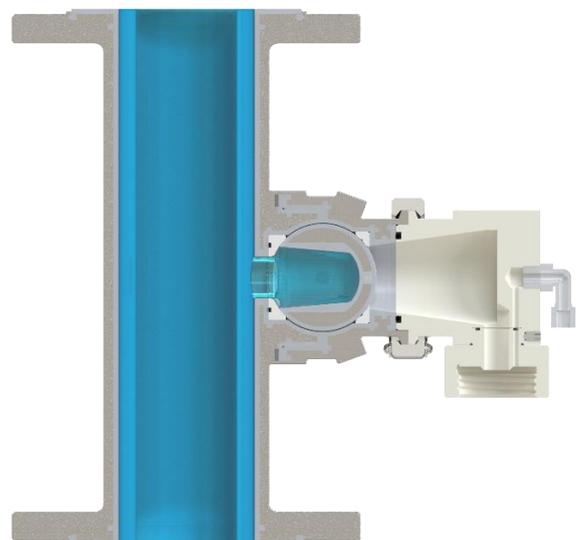
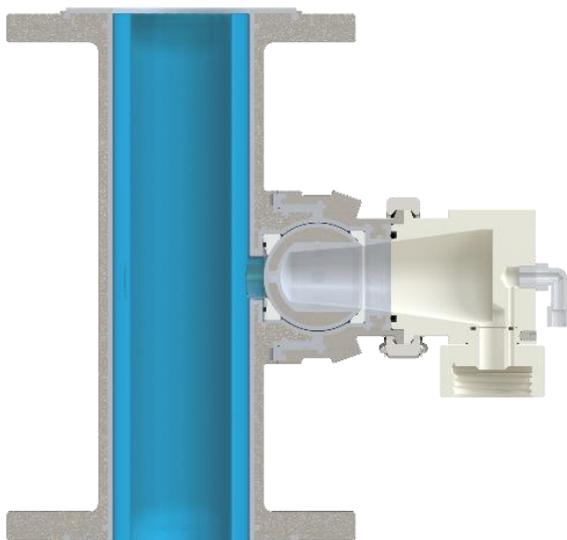
The process medium flows through the valve in any ball-position. For sampling, the hand lever is operated counterclockwise by 180° until it stops. The cavity of the ball is filled with the representative sample.

After only a few seconds the hand lever can be turned back to its original position. During the process, the enclosed sample flows into the laboratory bottle.

Vertical installation

Sample/Charge ca. 40 ml (1.35 oz)

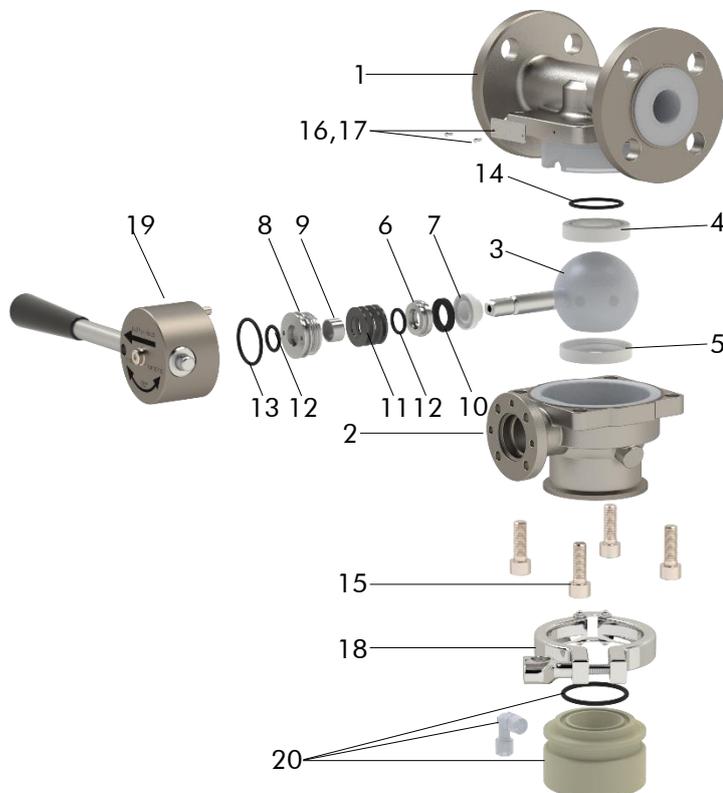
Sampling procedure as described under horizontal installation.



Manual Valve (Picture showing Valve DN25 PN16 CF-8M, PFA-lined, with Handlelever)

Parts List

Manual Valve compl.



Item	Qty.	Description	Material description	Material No.
1	1	Body DN25	CF-8M/PFA	1.4408/PFA
2	1	Ball Housing	CF-8M/PFA	1.4408/PFA
3	1	Ball encapsulated 40ml	SS-Duplex/ETFE	1.4462/ETFE
4	1	Ball Seat spring loaded	PFA	-
5	1	Ball Seat	PFA	-
6	1	Pressure Sleeve	SS316L	1.4404
7	1	Sealing Sleeve	PTFE	-
8	1	Threaded Bushing	SS316L	1.4404
9	1	Bearing 1409 DU	C.St./PTFE	-
10	1	Elastomer Insert	VMQ	-
11	4	Belleville Spring	Spring Steel	1.8159
12	2	O-Ring	FPM	-
13	1	O-Ring	FPM	-
14	1	O-Ring	FFPM	-
15	4	Socket Head Cap Screw	A2-70	1.4301
16	1	Name Plate 42x14	A2-70	1.4301
17	2	Hammer Screw 2.49x4.76	A2	1.4301
18	1	Clamp	SS304	1.4301
19	1	Handlelever compl.	SS316L	1.4404
20	1	Adapter compl. GL45 horizontal	PTFE-R/PVDF	-

Project- / Customer Data

Inquiry/Date: _____		Ref. SF _____	
Company: _____	Contact Person: _____	Phone: _____	
Address: _____	Function: _____	Fax: _____	
ZIP/Place: _____	Department: _____	E-mail: _____	
Project: _____	Phone direct: _____	Mobile: _____	

Application

Media / Chemical Composition:

<input type="checkbox"/> liquid	<input type="checkbox"/> powdery	<input type="checkbox"/> crystallizing	<input type="checkbox"/> sticky	<input type="checkbox"/> Spec. Grav. ____
<input type="checkbox"/> gaseous	<input type="checkbox"/> Solids ____ %	<input type="checkbox"/> viscous	<input type="checkbox"/> Flow Velocity ____ m/s	
<input type="checkbox"/> abrasive	<input type="checkbox"/> Particle ____ mm	<input type="checkbox"/> Visc. ____ cp	<input type="checkbox"/> Flow Rate ____ m ³ /hr	

Pressure

max. ____ bar
min. ____ bar

Temperature

max. ____ °C
min. ____ °C

Mode

On/Off
 Flow Control
____ cycles/ ____

Installation / Environment

horizontal Room dry
 vertical Room humid
 _____ outdoor

Remarks: _____

SSB Product Code

Specification of a complete Ball Valve SSB Series

Product Code	Nom. Size	Body	Body	Body lining	Elastomer	Ball (encaps./solid)	Ball Seats	Options
SSB	1"	150lbs	G15	A85	E67	U91	B85	...
	DN15 – 150 1/2" - 6"	PN16 PN40 ANSI150#		A85 PFA A86 PFA-AS - unlined	E60 EPDM E67 FPM E68 VMQ	U91 ETFE U86 PFA-AS S34 SS316L S43 C-276 XX Others	B85 PFA B86 PFA-AS B80 PTFE B81 PTFE-T B95 PTFE-R	Pu Purge connection RAL Special paint ... others

Note: Actuators, Adapter options and accessories to be specified separately.