

## DN15 – DN150 resp. ½" – 6"

### full-port design

for safe and representative sampling of aggressive or even toxic liquids from pipelines or vessels – under pressurized conditions, without any process interruptions.

### Modular Design

SSV Inline Sampling Valves are available with standard spring return handwheel. The valves are distinguished by its dead-space-free design as well as the extremely short outlet way for the representative sample.

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



### Main Features

- Unique, patented construction, no pressure drop, dead-space-free
- Full port design, easy cleaning
- Only one opening to the atmosphere
- High safety through double cone system
- Easy and safe operation by spring return handwheel
- Fine dosing through simple stroke adjustment, even for smallest, representative samples
- All-purpose valve unit – installation on large size pipelines, vessels etc.
- Modular mounting of options on valve unit
- Flange conn. acc. to DIN PN16 or ANSI 150lbs

**CE** Conformity acc. to European Pressure Equipment Directive 97/23/EC (PED)

### Options/Accessories

- Bodies with heating jacket, buttwelding ends (clamp, threads) etc.
- Needle adapter for bottle with septum
- Bottle support, adjustable
- Safety cabinet with inspection windows
- Flanges with groove
- Activated carbon filter
- Vertical adapter
- Metal safety basket

### Operating Conditions

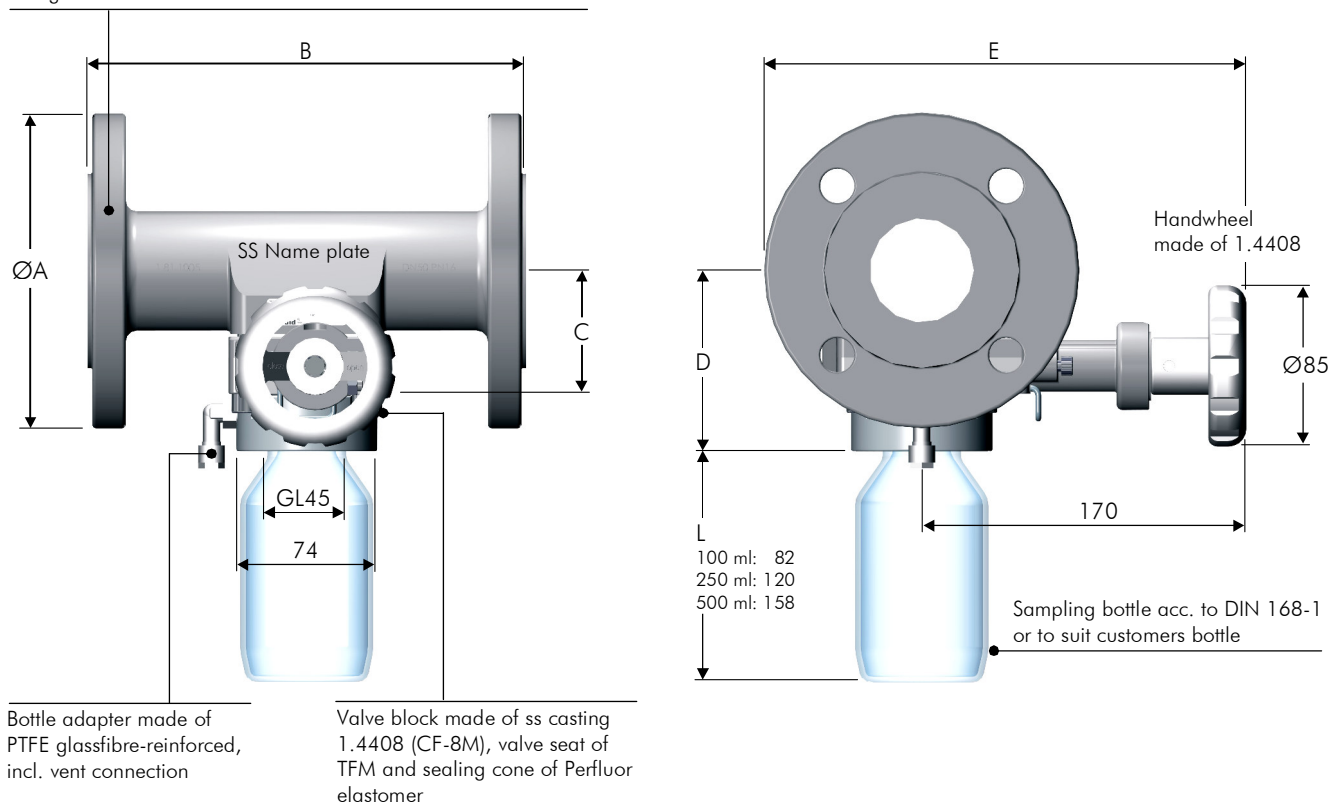
- Temperature range from -10°C (+14°F) up to +160°C (+320°F), depending on lining material
- Pressure range up to 16 bar (232 psi), depending on size/pressure/temperature

### 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

### Construction of Valve

Body made of stainless steel casting 1.4408 (CF-8M) or with linings made of PFA or PFA-AS (anti-static), thickness min. 3 mm. Flanges acc. to EN 1092 or ASME B16.5



### Technical Data

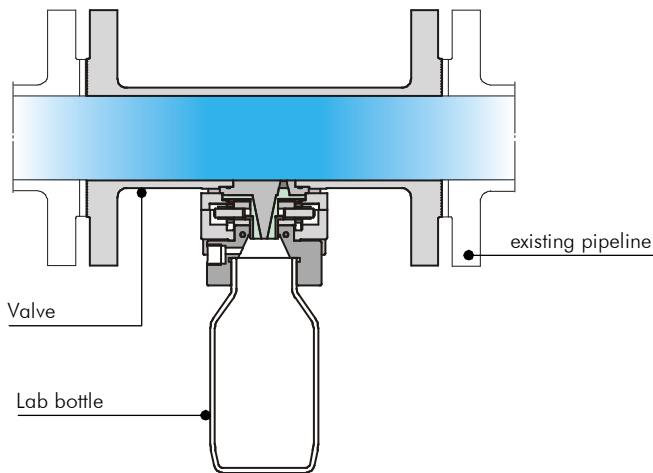
Dimensions in mm (lbs = kg x 2.2)

DN Size	ØA DIN	ØA ANSI	B DIN	B ANSI	C	D	E	kg* DIN	kg* ANSI
15/1/2"	95	95	160	160	46	86	218	3.8	3.8
20/3/4"	98	98	160	160	48	88	222	4.8	4.8
25/1"	115	108	160	165	52	90	227	5.3	5.4
40/1 1/2"	150	127	200	165	60	98	245	7.4	6.5
50/2"	165	152	230	178	65	103	252	9.1	7.8
80/3"	200	190	310	203	81	119	270	14.5	16.0
100/4"	220	229	350	229	96	134	280	21.0	19.6
150/6"	285	279	480	267	118	156	312	35.0	29.0

Face to face B acc. to DIN EN 558-1 range 1 resp. range 3 and ASME B16.10

\* Weights (estim. values, w/o sampling bottle)

**Operating Principle SSV Series** (Sampling under pressure, with bottle)

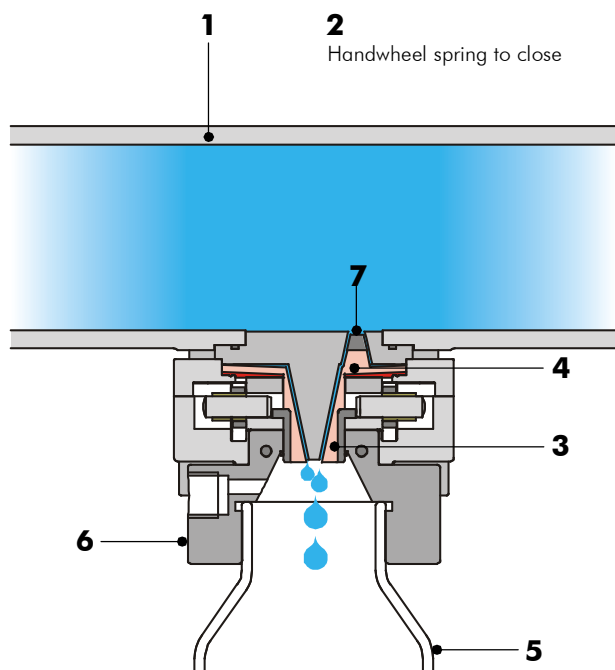


**Valve in closed position**

The valve is installed into a horizontal pipeline. The line still provides full passage and allows easy cleaning at any time.

In closed valve position, the handwheel is locked in its initial position by means of spring return.

**Valve in opened position for sampling**



**Valve in opened position for sampling**

Liquid product flows through the valve (1). For taking out a product sample, handwheel (2) is pulled out of coupling and subsequently operated counter-clockwise.

Thus, the entire sealing unit (3) is pulled out of the conical seat (4). The representative sample flows through the generated annular gap into the lab bottle (5). Trapped air inside the bottle escapes through vent connection of the adapter (6).

As soon as the required sampling volume has been taken out, handwheel can be released in order to return automatically in its initial position, locking in place again. During this operation, the sealing unit is pushed back into the seat and the valve is sealed through sealing cone (7), dead-space-free again.

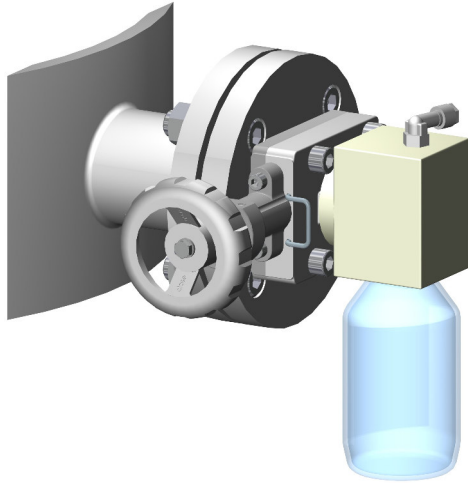
In order to prevent exceeding of required volume or even overfilling of the bottle, particularly at high pressures sampling procedure has to be done very carefully.

**Applications**

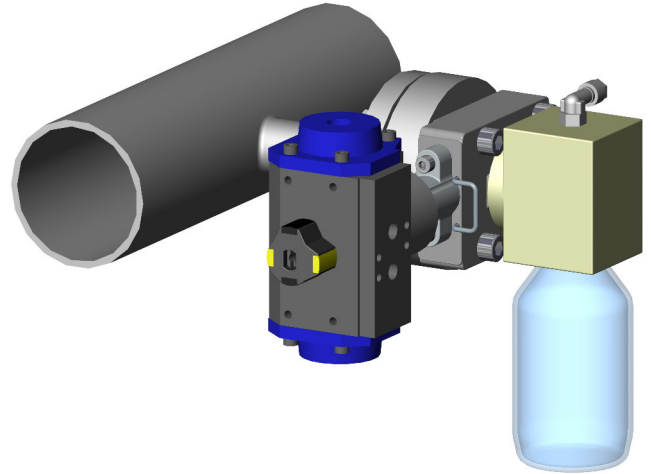
For critical applications such as vacuum service or at viscous resp. solids-containing media, the manufacturer has to be consulted.

Special executions or use of a sampling ball valve will be considered as possible problem solving options.

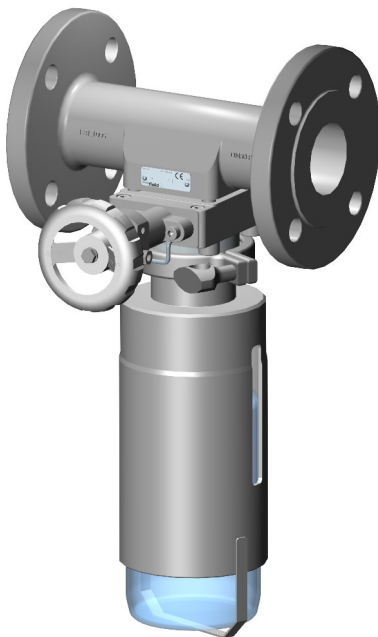
Examples



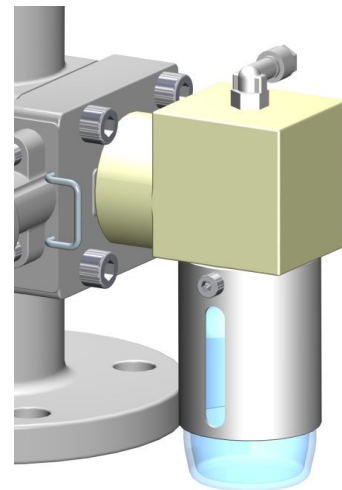
Valve unit manually, mounting onto vessel flange, with vertical bottle adapter



Automated, with pneum. quarter turn actuator FC, mounting onto lateral flange of pipeline



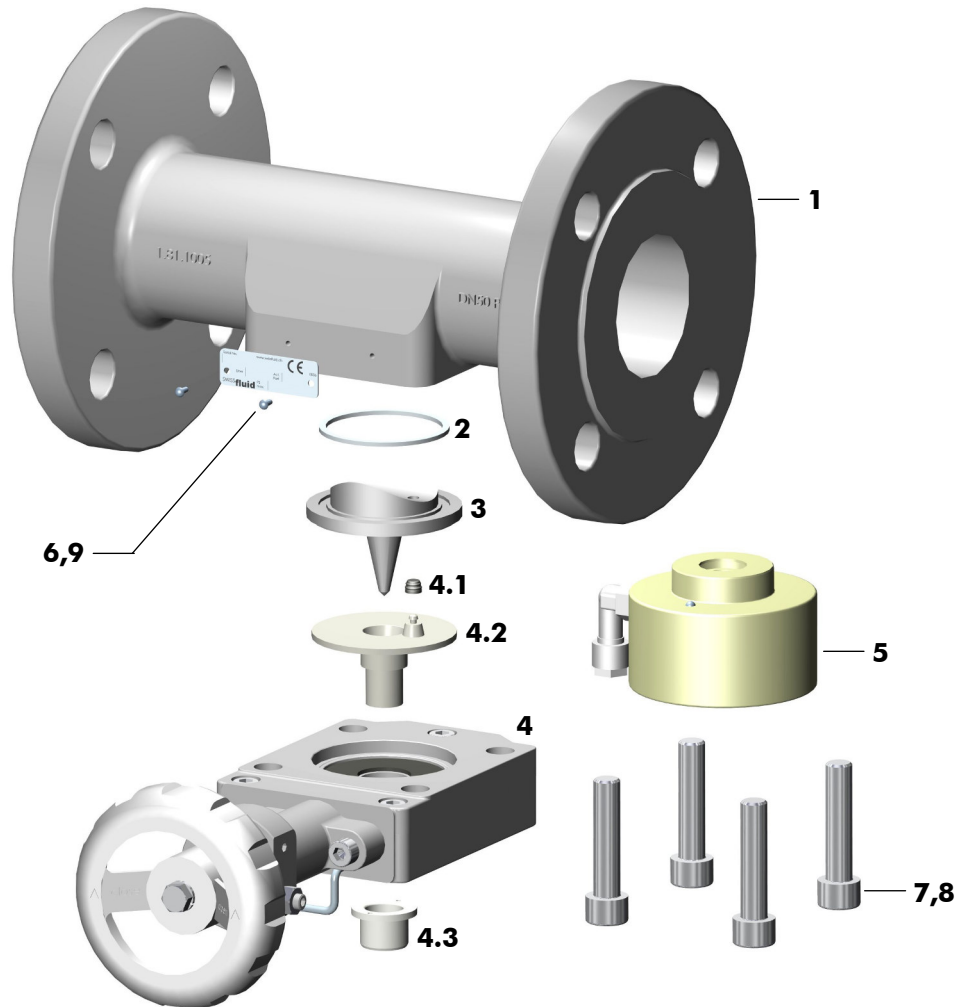
Standard Valve flanged, with needle adapter



Valve flanged, with vertical adapter and protection tube

Parts List  
Manual Valve compl.

**Standard Version** (Picture showing DN 80 PN16, PFA-lined, with handwheel)



Item	Qty.	Description	Materials		No.
			Stainless Steel	lined	
1	1	Body DN50 PN16 1.4408	CF-8M	PFA	1.4408
2	1	Body Gasket	Gylon white		3510
3	1	Cone Plate	CF-8M	PFA	1.4408
4	1	Valve Unit with Handwheel	CF-8M		1.4408
4.1	1	Sealing Cone	FFPM (Perfluor)		
4.2	1	Valve Seat	PTFE-T		
4.3	1	Tension Sleeve	PTFE-R		
5	1	Bottle Adapter compl.	PTFE-R / PVDF		
6	1	Name Plate 42x14 CE	A2		1.4301
7	4	Socket Head Cap Screw M10x45	A2-70		1.4310
8	2	Lock Washer M10	A2		1.4310
9	2	Hammer Screw 2.49x4.76	A2		1.4310

Specification

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

**Operating Conditions**

**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 <sup>3</sup> /hr	

**Pressure**

max. \_\_\_\_ bar  
min. \_\_\_\_ bar

**Temperature**

max. \_\_\_\_ °C  
min. \_\_\_\_ °C

**Installation / Environment**

<input type="checkbox"/> horizontal	<input type="checkbox"/> Room dry
<input type="checkbox"/> vertical	<input type="checkbox"/> Room humid
<input type="checkbox"/> _____	<input type="checkbox"/> outdoor

Remarks: \_\_\_\_\_

**SSV Product Code**

Specification of a complete Inline Sampling Valve SSV Series

Product code	Nom. size	Flange conn.	Body	Lining	Valve seat	Sealing cone	Bottle adapter	Bottle thread
<b>SSV</b>	<b>DN50</b>	<b>PN16</b>	<b>G15</b>	<b>A85</b>	<b>B81</b>	<b>E72</b>	<b>H95</b>	<b>45</b>
	DN15 - 150 ½" - 6"	PN16 ANSI150# ANSI300# JIS 10K	G15 CF-8M G34 SS316L	A85 PFA A86 PFA-T	B81 PTFE-T	E72 FPM E60 EPDM E67 FPM	H95 PTFE-R hor. H97 PTFE-T-AS hor. H32 SS316L hor. V95 PTFE-R vert. V97 PTFE-T-AS vert. V32 SS316L vert.	45 GL45 32 GL32