



Inline Sampling Valves SSV Series, full-port design

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

Modular Design

Inline Sampling Valves SSV Series are available as DIN- or ANSI-valves, with standard deadman lever. The valves are distinguished by its dead-space-free design as well as the extremely short outlet way for the representative sample. Standard actuation by spring to close handwheel, optionally by deadman handlever.

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 or deadman handlever with integrated interlocking
- 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
- Sizes DN25/40/50/80 PN16
- Face to face acc. to EN 558-1, range 1

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

Options



Needle adapter, bottle with septum, incl. safety basket, valve with deadman lever



automated, with pneumatic actuator

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
- Safety padlock
- Activated carbon filter
- Vertical adapter
- Metal safety basket



Operating Conditions

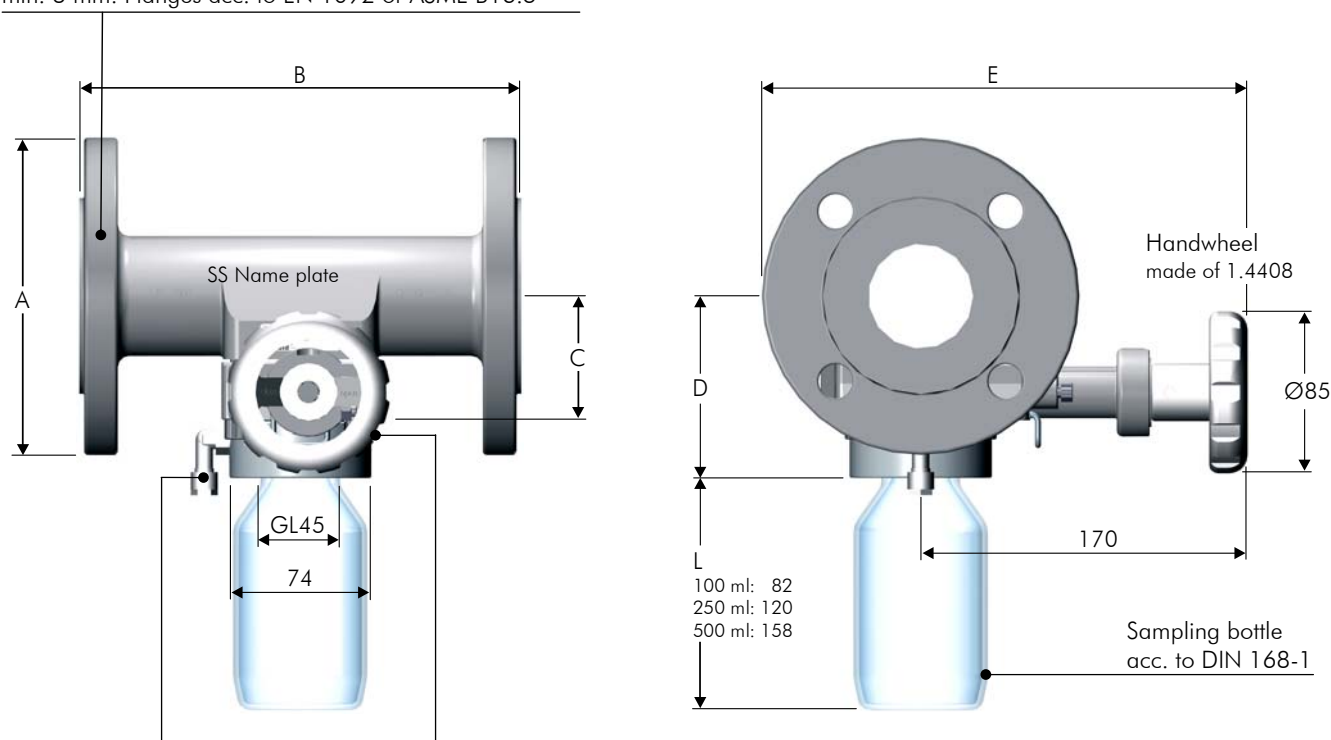
- Temperature range from -10°C up to +160°C (depending on selected materials)
- Line pressure max. 16 bar

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, and spark testing at 35 kV to assure lining integrity. Marking of valves on body and name plate acc. to EN 19.
- Material- resp. test certificate acc. to EN 10204-3.1

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



Bottle adapter made of PTFE glassfibre-reinforced, incl. vent connection

Valve block made of ss casting 1.4408 (CF-8M), valve seat of TFM and sealing cone of Perfluor elastomer

Technical Data Dimensions in mm

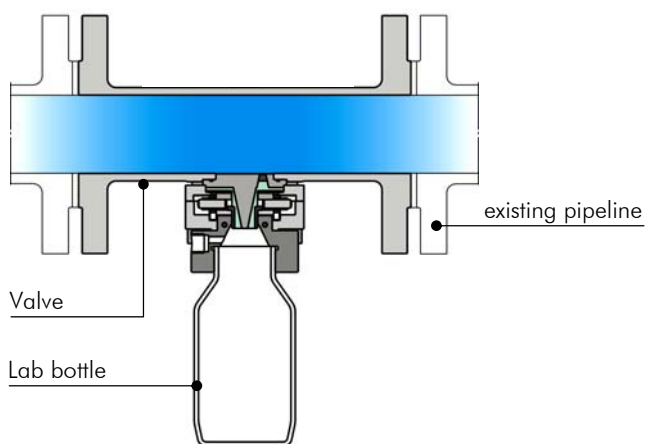
DN	A DIN	A ANSI	B DIN	B ANSI	C	D	E	Kg*
15/1/2"	95	95	160	160	46	77	218	3.8
20/3/4"	98	98	160	160	48	79	222	4.8
25/1"	115	108	160	165	52	83	227	5.3
40/1 1/2"	150	127	200	165	60	91	245	7.4
50/2"	165	152	230	178	65	96	252	9.1
80/3"	200	190	310	203	81	112	270	14.5

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)



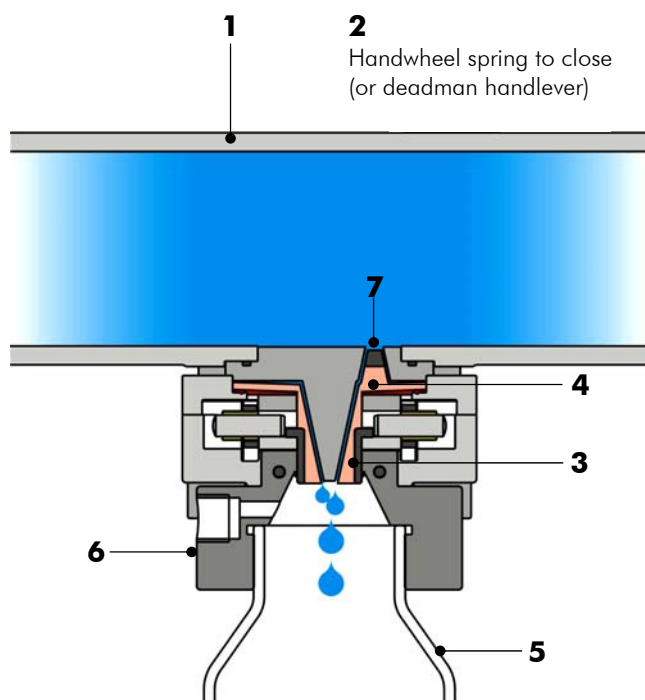
Valve in closed position

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 locked in its initial position by means of spring return.

In order to prevent any unauthorized operation, the handwheel (or deadman lever as an option) can be equipped with a safety padlock.

Valve in opened position for sampling



Liquid product flows through the valve (1).

For taking out a sample, handwheel (2) is pulled out of coupling and subsequently operated counter-clockwise.

Thus, the 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 and returns 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 the sealing cone (7), dead-space-free.

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.

Through simple stroke adjustment fine dosing is possible if required.

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.



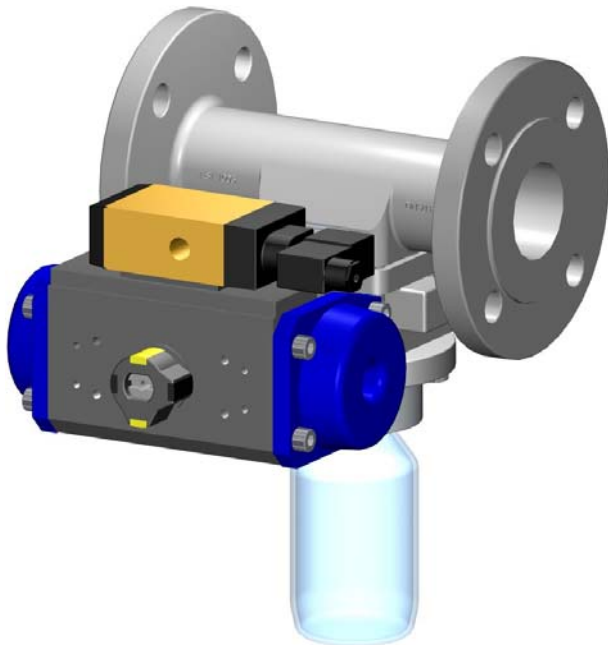
Valve Versions



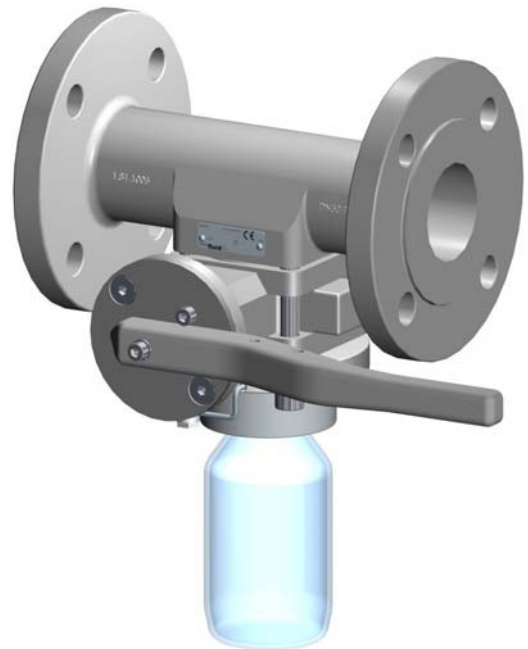
Standard Valve, with spring to close handwheel



Standard Valve, with spring to close handlever

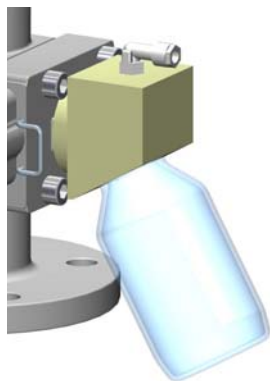


Automated, with pneum. quarter turn actuator

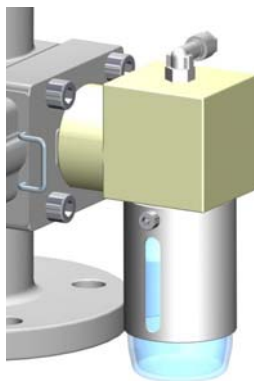


Sampling Ball Valve, with handlever, 90° turn

Mounting Versions / Options



Standard Valve, with 30° adapter



with vertical 90° adapter and protection tube



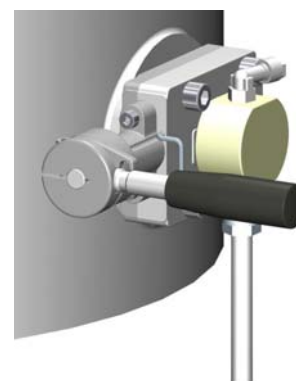
adjustable bottle support, spring loaded adapter



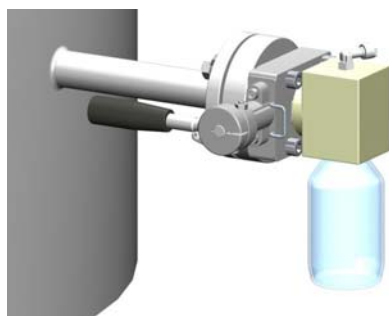
adjustable bottle support, spring loaded plate



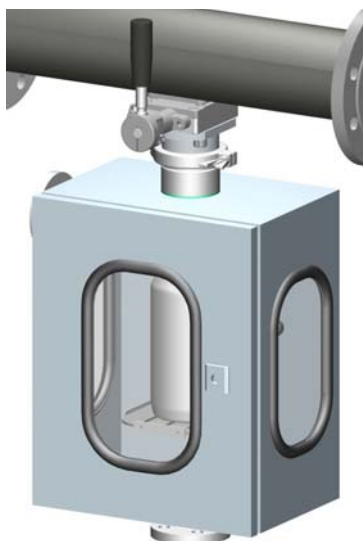
Standard Valve, with adapter and safety basket



Valve Unit, direct mounting onto vessel, vert. Outlet



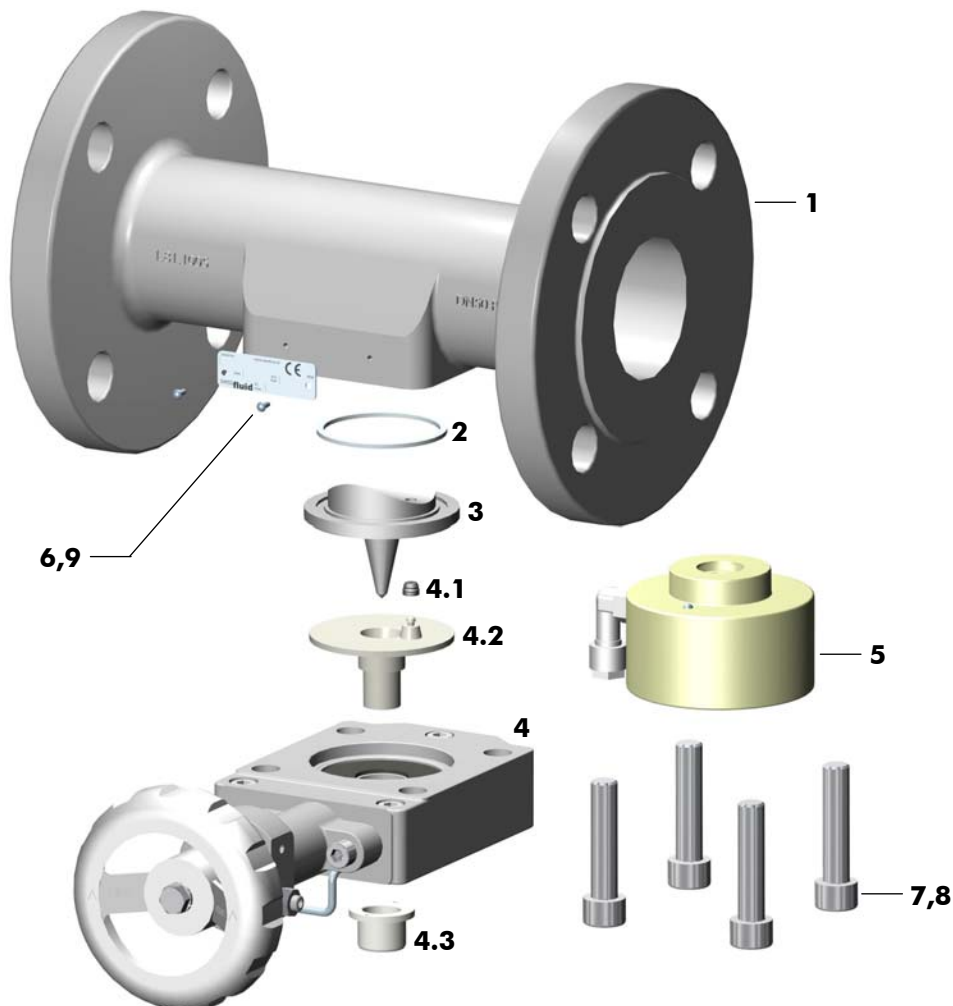
Valve Unit, mounting onto vessel flange, vert. adapter



Special Valve, with clamp on ss safety cabinet



Standard Version (Picture showing DN 50 PN16, Stainless Steel, with handwheel spring to close)



Item	Qty.	Description	R	Materials		No.
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

R = Spare Parts • = recommended ◦ = optional

SSV: Specification

81 Inline Sampling Valves, full-port

PM 81 M.10 e

June 2003



Project-/Customer Data		Inquiry/Date:	Ref. Swissfluid
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 ³ /hr	

Pressure	Temperature	Mode	Installation / Environment	
max. ____ bar	max. ____ °C	<input type="checkbox"/> On/Off	<input type="checkbox"/> horizontal	<input type="checkbox"/> Room dry
min. ____ bar	min. ____ °C	<input type="checkbox"/> Flow Control	<input type="checkbox"/> vertical	<input type="checkbox"/> Room humid
____ mbar abs.		____ cycles/ ____	<input type="checkbox"/> _____	<input type="checkbox"/> outdoor

Remarks:

Specification of a complete Inline Sampling Valve SSV Series

