

## Fixed Volume Sampler For Bottles Type SMART FVS

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The sampling system is designed to take samples safely, representative and dead space free.

design: acc. to PED Pressure Equipment Directive (97/23/EC),  
classified art. 3 § 3 = "manufactured in accordance  
with the sound engineering practice"

product classification: gases / vapours in group 1 (dangerous fluids)  
product: liquids  
maximum allowable pressure PS: 16 bar(g)  
maximum allowable temperature TS: 200 °C

- functional principle: Fixed Volume Sampler FVS for extracting fixed volume from process lines: The fixed volume is isolated by turning the operation handle about 180°. In the end position of 180° operation movement the sample volume runs out into the bottle. In the home position the product flows through the pre-chamber of the FVS. The sample is extracted with a single operation. During the process of sampling the product inlet and outlet are closed first in order to pre-chamber the sample volume. Now the outlet and the purge can be opened by turning the handle to the end position. The sample volume is filled into the sampling bottle and ready for further handling. All operations are mutually exclusive, making it impossible to turn the lever to an incorrect position.
- system holding device: mounting panel (1.4301)  
earthing bolt, 4 anchor points
- general tube connections: 1/2" NPT, 1/4" NPT, compression fittings
- installation conditions: bypass line
- tubing sizes: Ø12x1,5mm
- wetted parts: stainless steel design:  
1.4571, 316/316L, 1.4301, 304/304L, 1.4408 or similar
- product inlet / outlet: flange connections acc. to EN1092-1, DN25 / PN40, form B1  
reduced to Ø 12 mm compression fittings
- ball valve system: mechanical synchronized multi-way-ball valve combination  
(DN 8,5, PTFE-HT packing, seats PEEK, TA-Luft certified),  
180° manual operation
- pre-chamber: nominal volume: 200 ml (or acc. customer's wishes)  
important note: pre-chamber is free of installations (like spindle  
connections), no narrowings
- bottle head: equipped with PTFE flat gasket, gasket interchangeable,  
adapted to bottles with GL45 (glass thread acc. to DIN168-1)

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- vent: pressure release / vent for bottle not necessary, gas/vapours are recirculated into pre-chamber during filling of the bottle
- bottle support: spring loaded anti splash-table, adapted to 250 ml glass bottle
- marking acc. to PED: PS, TS, PED3.3 etched on panel

### Important notes:

- Please take care for a sufficient differential pressure from inlet to outlet forcing the liquid to flow through the system.
- We guarantee the materials quality and not the chemical resistance to your products.
- tracing, isolation and painting not scope of supply

