

# Piston Valve Liquid Sampler

Bottle sampler with piston valve  
MBS - C

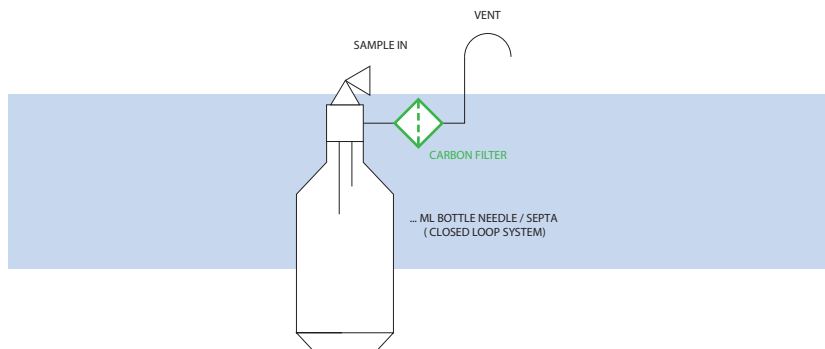


## Piston type valves always gives a live sample

- Direct wall mount, sampling into pipelines, tanks, reactors, mixers
- No dead spots, piston completely fills valve interior
- Taking representative spot samples from crude oil to chemicals
- Safe, closed loop design sampling systems, NO WASTE, NO POLLUTION, NO EMISSION

The big advantage of the Mechatest piston type valve sampler is the direct into the wall mounting principle. The sample is directly taken of the inside of a tank, container, pipeline, reactor or mixer and prevents dead volume of sample spaces.

Suitable to take representative samples of liquids with higher viscosity by using a piston valve, the entire line diameter can be cleared by the return of the piston and always gives a representative sample. Sample dosing and filling of the sample bottle is made possible and regulated with a crank or hand wheel, in contrast to a ball valve.



## KEY FEATURES

- Sample volumes 50, 100, 250, 500 and 1000 ml (other on request)
- Sampling in bottles (glass or plastic)
- Max. Process Pressure 8 barg (116 psig)
- Max. Vapor Pressure 0.7 barg (10 psig)
- Safe (sampling) Temperature 60°C (140°F)
- Materials SS316, Inconel, Monel, HC-276, etc.
- Sealing PTFE, Viton, Kalrez

## BENEFITS

- Multiple choice piston sampling valves
- Cannot clog and does not leak
- Bottle holders standard GL32 and GL45 with screw cap and septum (client bottles on request)
- Modular design and with a dozen of interchangeable options
- Safer for the operator and sample

# Piston Valve Liquid Sampler Configurator

Build an Piston Valve liquid sampler ordering number by combining the designators in the sequence shown below

Designators

1 2 3 4 5 - 6 7 8 9 10

Example Ordering No. MBS - C1 - 1 1 1 0 1 - 0 0 V 0 X

Ordering No. [ ] - [ ] [ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ]

## 1 SAMPLER MATERIAL

- 1 316 SS (Standard)
- 2

## 2 SAMPLE BOTTLE VOLUME <sup>(1)</sup>

- 1 50 ml
- 2 100 ml
- 3 250 ml
- 4 500 ml
- 5 1000 ml
- X Other volumes on request

## 3 PROCESS NEEDLE SIZE

- 1 1.5 mm outer diameter (inner diameter = 1.1 mm)
- 2 2.0 mm outer diameter (inner diameter = 1.5 mm)
- 3 3.0 mm outer diameter (inner diameter = 2.5 mm)
- 4 4.0 mm outer diameter (inner diameter = 3.5 mm)
- 5 5.0 mm outer diameter (inner diameter = 4.0 mm)

## 4 PROCESS NEEDLE LENGTH

- 0 30 mm (Standard)

## 5 VENT NEEDLE SIZE

- 1 2.0 mm outer diameter (inner diameter = 1.5 mm)
- 2 3.0 mm outer diameter (inner diameter = 2.5 mm)
- 3 4.0 mm outer diameter (inner diameter = 3.5 mm)
- 4 5.0 mm outer diameter (inner diameter = 4.0 mm)

## 6 VENT NEEDLE LENGTH

- 0 25 mm (Standard)

## 7 NEEDLE POINT STYLE

- 0 Lancet point (standard)
- (The needles are available in 316 SS (Standard), Duplex or Hastelloy C22)

## 8 SEAL MATERIAL (NEEDLES)

- V Viton® (Standard)
- K Kalrez®
- B Buna-N

## 9 SAMPLE VALVE SIZE

- 0 DN 1/2" NPTM threads
- 1 DN 3/4" NPTM threads
- 2 DN 1" NPTM threads
- 3 DN 1/2" Flanged ANSI 150# - RF
- 4 DN 3/4" Flanged ANSI 150# - RF
- 5 DN 1" Flanged ANSI 150# - RF

## 10 OPTIONS <sup>(2)</sup>

- X No options
- N NACE sour sample service

The liquid sampler is available for sour sample service, all wetted parts in accordance with NACE MR0175 / ISO 15156

### P1 Process needle purge

Removes sample, eliminates plugging and permits representative sample. The Purge-system will be provided with a blockvalve, a pressure regulator and a checkvalve

### P2 Process back purge

For back purge the sample point and line, ensure representative sample. The purge-system will be provided with blockvalve, a pressure regulator and a checkvalve.

### R Reducing sleeve

- R2 Sleeve for 50 ml bottle in 100 ml sampler
  - R3 Sleeve for 50 ml bottle in 250 ml sampler
  - R4 Sleeve for 50 ml bottle in 500 ml sampler
  - R5 Sleeve for 50 ml bottle in 1000 ml sampler
- Second bottle retaining clip for 500 ml bottle

Only in combination with the 100 or 250 ml sample bottle.

### F Carbon filter to connect on the vent outlet of the sampling system

(Other filters on request)

### O Orifice Fitting

(Restrict flow in process)

- (1) The mechatest ECO-line sampler is designed for Schott - Duran sample bottles with screw cap and septum.
- (2) Select from the 'options' designator one or more options and fill in all these letters in the same column.

**Mechatest Sampling Solutions**  
Tel: +31(0)153105183  
sales@mechatest.com  
www.mechatest.com

Koperslager 3  
2631 RK Nootdorp  
The Netherlands  
**Be part of the best solution**



Mechatest is a Certified Industrial Sampling Systems Company with over 26 years of experience in design and manufacturing of fluid sampling systems. We understand how a sample behaves at the sample tap and transport into the lab. We offer the best knowledge, equipment and sampling solutions in the field.