Bottle Sampling Systems

Sampling volumes 25 - 1000 mL

Are you ready to get the best liquid sampling results?

- We guarantee to control your quality, preventing production loss
- Quality improvement by taking representative liquid samples
- Reducing costs by process optimization
- Closed loop design sampling systems, NO WASTE, NO POLLUTION, NO EMISSION

Mechatest designed the most innovative liquid bottle sampler solution on the market, based on standard laboratory sample bottles with GL32 and GL 45 threads, cap and septa.

This typical “needle” bottle sampler for liquids is closed loop and suitable for emission free sampling of toxic, dangerous or volatile liquids. Mechatest’s unique liquid sampler is an outstanding answer to other types of liquid samplers but now modular and with a dozen of interchangeable options, it is economical and safer for sample, personnel and environment. Safety begins with you!

INDUSTRIES

UPSTREAM PETROCHEMICALS SAMPLING
MIDSTREAM PETROCHEMICALS SAMPLING
DOWNSTREAM PETROCHEMICALS SAMPLING
POWER INDUSTRY SAMPLING

CHEMICAL
PETROLEUM
PHARMACEUTICAL
WATER
Select a type of Valve, Body & Needle and Bottle Holder from the columns below
(Other choices available on request)

<table>
<thead>
<tr>
<th>SAMPLING VALVES</th>
<th>BODY &amp; NEEDLES</th>
<th>BOTTLE HOLDERS</th>
<th>ACCESSORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanged Valves</td>
<td>Sampler Body Needles</td>
<td>GL32 or GL 45 Bottle Holder</td>
<td>Spring return handles for instrumentation valves protect personnel and environment from unnecessary sample waste.</td>
</tr>
<tr>
<td>Wafer Type In-Line</td>
<td>Process Needles</td>
<td>Bottle Holder</td>
<td>Carbon or other filters to connect on the vent outlet of the sampling system</td>
</tr>
<tr>
<td>2-way or 3-way Valves</td>
<td>Vent Needles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NeSSI Valves</td>
<td>NeSSI Body Needles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Thru Valves</td>
<td>Sampler Body Tube</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piston Valve</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Bottle Sampling Configurator

Build an Bottle sampler ordering number by combining the designators in the sequence shown below

![Designators](image)

Example Ordering No. ECO 1 1 1 0 1 - 0 0 V X

### Designators

<table>
<thead>
<tr>
<th>Designator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO</td>
<td>Body Material</td>
</tr>
<tr>
<td>1</td>
<td>Sample Bottle Volume</td>
</tr>
<tr>
<td>2</td>
<td>Process Needle Size</td>
</tr>
<tr>
<td>3</td>
<td>Process Needle Length</td>
</tr>
<tr>
<td>4</td>
<td>Vent Needle Size</td>
</tr>
<tr>
<td>5</td>
<td>Vent Needle Length</td>
</tr>
<tr>
<td>6</td>
<td>Needle Point Style</td>
</tr>
<tr>
<td>7</td>
<td>Seal Material (Needles)</td>
</tr>
<tr>
<td>8</td>
<td>Options</td>
</tr>
</tbody>
</table>

### Designator Details

<table>
<thead>
<tr>
<th>Designator</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO</td>
<td>Body Material</td>
</tr>
<tr>
<td>1</td>
<td>Sample Bottle Volume</td>
</tr>
<tr>
<td>2</td>
<td>Process Needle Size</td>
</tr>
<tr>
<td>3</td>
<td>Process Needle Length</td>
</tr>
<tr>
<td>4</td>
<td>Vent Needle Size</td>
</tr>
<tr>
<td>5</td>
<td>Vent Needle Length</td>
</tr>
<tr>
<td>6</td>
<td>Needle Point Style</td>
</tr>
<tr>
<td>7</td>
<td>Seal Material (Needles)</td>
</tr>
<tr>
<td>8</td>
<td>Options</td>
</tr>
</tbody>
</table>

#### Build an Bottle Sampler Ordering Number

*Example Ordering Number: ECO 1 1 1 0 1 - 0 0 V X*

### Summary

- **Body Material**
  - 1: 316 SS (Standard)
  - 2: Duplex
  - 3: Hastelloy C-276
  - 4: TFM
  - 5: PVC

- **Sample Bottle Volume**
  - 1: 50 ml (GL32)
  - 2: 100 ml (GL45)
  - 3: 250 ml (GL45)
  - 4: 500 ml (GL45)
  - 5: 1000 ml (GL45)
  - X: Other bottle volumes and types available on request

- **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)

- **Process Needle Length**
  - 0: 30 mm (Standard)

- **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)

- **Vent Needle Length**
  - 0: 25 mm (Standard)

- **Needle Point Style**
  - 0: Lancet point (standard)

- **Seal Material (Needles)**
  - V: Viton® (Standard)
  - K: Kalrez®
  - B: Buna-N

- **Options**
  - X: No options
  - P: Panel mounting bracket 316 SS
  - N: NACE sour sample service
  - P1: Process needle purge
  - P2: Process back purge
  - R: Reducing sleeve
  - S: Second bottle retaining clip for 500 ml bottle
  - F: Carbon filter to connect on the vent outlet of the sampling system
  - O: Orifice Fitting

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.
TYPICAL SAMPLING CONFIGURATIONS

- **On/Off Configuration** MBS-A1/A2
- **Bypass Configuration** MBS-A3
- **Back Purge Configuration** MBS-A4
- **Needle Purge Configuration** MBS-A5
- **Back & Needle Purge Configuration** MBS-A6
- **Inline Flow Thru, Needle Purge Configuration** MBS-A8

- **On/Off Flanged Configuration** MBS-B1/B2
- **Piston Valve Configuration** MBS-C
- **DB&B Configuration**
- **DB&B Mono Flange Configuration**
- **NeSSI Configuration**

YOUR ADVANTAGES

- Wetted parts 316SS and available in exotic Alloy materials or chemical resistance plastics
- Replaceable Needle assemblies for Process and Vent needle, independent to choose in smaller or larger size
- Replaceable bottle holders makes the sampler very flexible, possibility to change later from bottle volume
- Bottle adapters for client and Dopak bottles
- Additional, bottle safety sleeves and spring return handles on valves

All of our sampling systems can be mounted in a protection enclosure, available in Stainless 304/316 (optional with offshore coating), Fiberglass, and Painted Steel.

Sample coolers can bring down the sample temperature in a sampling system for optimal conditions to take safely a manual sample.

APPLICATIONS

- Single phase liquid samples
- Toxic liquid samples
- Dangerous liquid samples
- Volatile liquid samples
- Mostly refined (commercial) gas oil, diesel oil, fuels, lubricating oil
- Water / condensate samples (tap, brackish, saline, demi)