**Analytical syringes**

**PLUS MININERT VALVES AND MICRO VALVES**

from VICI Precision Sampling

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**Micro Valves for GC and LC**

- 200 psi, .060” bore
- Compact 1” design
- Convenient panel mount
- Variety of configurations

Simplify your liquid or gas handling application with a VICI Precision Sampling Micro valve. The unique design of the fitting detail allows a leak-free seal with no potential for rotor damage from overtightening. Internal parts are PEEK and PTFE.

(Fittings not included. For example fittings, see pages 68-69.)

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**Micro valves for GC and LC**

<table>
<thead>
<tr>
<th>Flow Path</th>
<th>Ports</th>
<th>Prod No</th>
<th>1/4-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;T&quot;</td>
<td>3</td>
<td>PS-660100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PS-660110</td>
<td></td>
</tr>
<tr>
<td>180°</td>
<td>2</td>
<td>PS-660200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PS-660210</td>
<td></td>
</tr>
<tr>
<td>90°</td>
<td>2</td>
<td>PS-660300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>PS-660310</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PS-660320</td>
<td></td>
</tr>
</tbody>
</table>

**SPECS**

- 200 psi gas
- 500 psi liquid
- .060” bore
- 1/4-28 fitting detail
- All polymer-based materials

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1 Tested with Helium using 1/16” OD x 0.84 mm ID PTFE tubing with PEEK collapsible ferrules
2 Tested with Isopropanol using 1/8” OD x 0.75 mm ID PTFE tubing with CTFE collapsible ferrules

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**TO ORDER**

Toll-free 800–828–1653
Tel. 225–927–1128
Fax. 225–923–1331

**FOR OUR COMPLETE LINE OF PRODUCTS**

Visit our website at viciprecisionsampling.com or call us for a catalog:
VICI Precision Sampling’s patented Pressure-Lok® syringes feature a PTFE plunger tip, stress-formed by a special process to ensure a leak-tight seal. The self-lubricating plunger tip stays smooth for the life of the syringe, with none of the seizing or residue buildup associated with conventional all-metal plungers.

The needle is sealed by a PTFE sleeve, or packing, which effectively isolates the sample from the needle cement and prevents any possible dissolution of the adhesive or contamination of the sample. All Pressure-Lok syringes feature ultra smooth bores, easily replaceable parts, low dead volume, crisp clean graduations, and precision calibration.

**Series A-2**

The A-2 features a push-button valve for 250 psi sample storage in syringes as small as 25 µl. Small liquid samples with low-boiling components are not lost through evaporation, as often occurs with ordinary syringes.

The positive rear stop (in 250 µl and larger sizes) prevents plunger blowout at elevated pressures. The Series A-2 syringe has all the standard Pressure-Lok features such as a PTFE plunger tip, PTFE-sealed needle, and ultrasmooth bore. Replacement components are available for easy repairs.

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Standard Prod No</th>
<th>Luer Prod No</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 µl</td>
<td>PS-050023</td>
<td>PS-050043</td>
</tr>
<tr>
<td>50 µl</td>
<td>PS-050024</td>
<td>PS-050044</td>
</tr>
<tr>
<td>100 µl</td>
<td>PS-050025</td>
<td>PS-050045</td>
</tr>
<tr>
<td>250 µl</td>
<td>PS-050031</td>
<td>PS-050051</td>
</tr>
<tr>
<td>500 µl</td>
<td>PS-050032</td>
<td>PS-050052</td>
</tr>
<tr>
<td>1 ml</td>
<td>PS-050033</td>
<td>PS-050053</td>
</tr>
<tr>
<td>2 ml</td>
<td>PS-050034</td>
<td>PS-050054</td>
</tr>
<tr>
<td>5 ml</td>
<td>PS-050035</td>
<td>PS-050055</td>
</tr>
<tr>
<td>10 ml</td>
<td>PS-050036</td>
<td>PS-050056</td>
</tr>
</tbody>
</table>

**NEEDLE TIPS**

- Blunt, open end
- Bevel, open end
- Side port, taper

**SAFEY NOTE**

To prevent possible injury, proper safety precautions should always be observed when pressurizing glass cylinders such as syringes.

Not for medical use.

**SPECS**

Removable needles
Bevel, open end
Needle size:
- .028” x .005” x 2”
- .028” x .016” x 2”

(25, 50, and 100 µl)
- .029” x .012” x 2”

(all other sample sizes)

250 psi max, gases and liquids
Gas and liquid syringes

ANALYTICAL SYRINGES

Series C-160

The C-160 offers day-in, day-out dependability at an economical price. A plunger tip of stress-formed virgin PTFE is self-lubricating and durable, and the PTFE needle seat at the rear of the needle prevents possible dissolution of the needle cement or contamination of the sample.

Choose between a fixed or removable needle version. Replacement needles are open end bevel type, .019” x .005” x 2.25”, and come complete with an integral PTFE seal for a low dead volume connection and a leak-tight fit.

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Fixed needle Prod No</th>
<th>Removable needle Prod No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 µl</td>
<td>PS-160021</td>
<td>PS-160021R</td>
</tr>
<tr>
<td>10 µl</td>
<td>PS-160022</td>
<td>PS-160022R</td>
</tr>
<tr>
<td>25 µl</td>
<td>PS-160023</td>
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</tr>
<tr>
<td>50 µl</td>
<td>PS-160024</td>
<td>PS-160024R</td>
</tr>
<tr>
<td>100 µl</td>
<td>PS-160025</td>
<td>PS-160025R</td>
</tr>
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Replacement needles (Pkg/3)

<table>
<thead>
<tr>
<th>Size</th>
<th>Prod No</th>
</tr>
</thead>
<tbody>
<tr>
<td>.019” x .005” x 2.25”</td>
<td>PS-123050</td>
</tr>
</tbody>
</table>

Syringes for Valco, Cheminert, and Rheodyne HPLC injectors

Syringes used to fill a loop on a sample injection valve have needles with blunt, smooth ends. For a sample to be delivered with any repeatability, the end of the needle must contact the bottom of the valve’s fitting detail uniformly and seal on the outside of the tip. All Precision Sampling syringes for valve injections have smooth, burr-free ends that fit the valve fitting details perfectly. The standard HPLC syringe is our basic C-160 with a 2” long 22 gauge blunt tip needle.

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<td>5 µl</td>
<td>PS-160021R</td>
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</thead>
<tbody>
<tr>
<td>PS-123050R</td>
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</table>
Mininert™ push-button valves are highly dependable, leak-tight closures for screw-cap vials and other laboratory containers. When used with a glass vial, only PTFE and glass are in contact with the contents. Their unique features make Mininert valves the ideal closure for calibration standards, air- or moisture-sensitive fluids, derivatizing reagents, or volatile chemicals. Operation is extremely simple – push the green button to open the valve, insert the needle through the septum and take a sample, withdraw the needle, and push the red button to close the valve.

Valves for vials
The screw-cap Mininert is available in a variety of sizes. The crimp-top valve for 13 mm ID glassware slides into the neck of the vial and features a threaded flange which is turned to provide a leak-tight fit.

Pkg/12:  Cap / thread size     Prod No
13 mm-425  PS-614158
15 mm-425  PS-614160
18 mm-400  PS-614161
20 mm-400  PS-614170
24 mm-400  PS-614163
Crimp top   PS-614250

Valves with threaded fittings
Our threaded designs offer positive on/off fluid control as an in-line valve or syringe access as a termination valve at a sample point. In-line valves are 1/4-28 male to male or 1/4-28 female to female. Termination valves are offered in 1/4-28 male or female and 1/8” NPT male or female.

In-line valves     Prod No
1/4-28 male to male PS-631205
1/4-28 female to female PS-631206

Termination valves
1/4-28 male PS-631201
1/4-28 female PS-631203
1/8” NPT male PS-631202
1/8” NPT female PS-631204

Replacement septa and septum installation tool
These silicone septa fit all Mininert valves. The installation tool is a handy device for quickly removing and replacing needle seal septa.

Septa, pkg/50   PS-644350
Installation tool PS-644850

Mininert syringe valves
These convenient add-on valves allow our Series C and D syringes to store samples at up to 250 psi. The valve body is all PTFE, with a stainless steel stem. Also available to fit luer-tip syringes from any manufacturer. All accept traditional luer needles.

For C or D syringe PS-654050
For Luer-tip syringe PS-654051

SPECS
TEMPERATURES
Mininert valves can be used at temperature up to 40°C. However, after use at high temperatures, the valve may leak slightly when cooled to room temperature.

MATERIALS
PTFE is highly inert and may be used with most common materials. It is particularly useful for working with most acids and organic solvents. However, problems may be encountered when used with organometallics and some strong bases. We recommend actual exposure tests before use with any material.

PRESSURE
The sealing ability of Mininert valves is more than adequate for containing most volatile liquids and gases at low pressures. Mininert valves have been used as high as 120 psi without leakage, but this is not a recommendation for pressurizing glass containers to these levels. Such pressurization of glass containers can be extremely dangerous.