

# Analytical syringes

PLUS MININERT VALVES AND MICRO VALVES

from VICI Precision Sampling

## 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.)

## Micro valves for GC and LC

1/4-28

	Prod No				
"T" flow path	3 ports	PS-660100		3 PORT	"T"
	4 ports	PS-660110		4 PORT	
180° flow path	2 ports	PS-660200		2 PORT	180°
	4 ports	PS-660210		4 PORT	
90° flow path	2 ports	PS-660300		2 PORT	90°
	3 ports	PS-660310		3 PORT	
	4 ports	PS-660320		4 PORT	

### SPECS

200 psi gas <sup>1</sup>  
 500 psi liquid <sup>2</sup>  
 .060" bore  
 1/4-28 fitting detail  
 All polymer-based materials

<sup>1</sup> Tested with Helium using 1/16" OD x 0.84 mm ID PTFE tubing with PEEK collapsible ferrules

<sup>2</sup> Tested with Isopropanol using 1/8" OD x 0.75 mm ID PTFE tubing with CTFE collapsible ferrules

### MORE INFORMATION

1/4-28 fittings . . . . p.68-9

### 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](http://viciprecisionsampling.com) or call us for a catalog:



**ANALYTICAL SYRINGES**

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**

for GC

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.

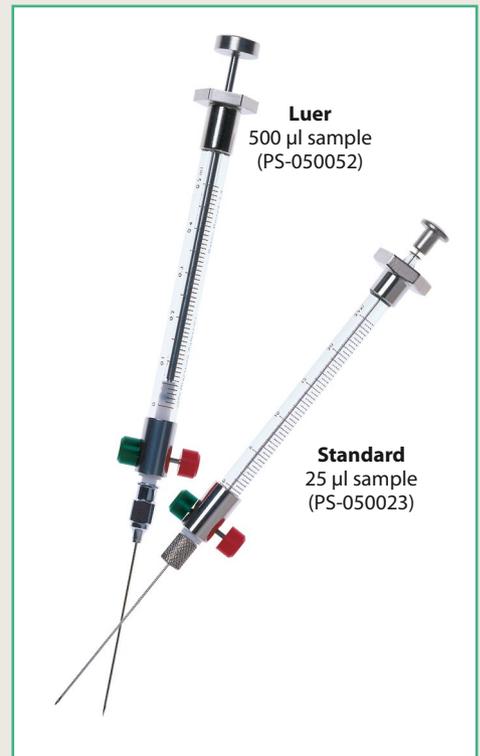
The positive rear stop (in 250 µl and larger sizes) prevents plunger blowout at elevated pressures. The Series A-2 syringe has all the standard Pressure-Lok features such as a PTFE plunger tip, PTFE-sealed needle, and ultrasmooth bore. Replacement components are available for easy repairs.

**SPECS**

Removable needles  
Bevel, open end  
Needle size:  
.028" x .005" x 2"  
(25, 50, and  
100 µl)  
.029" x .012" x 2"  
(all other  
sample sizes)  
250 psi max,  
gases and liquids

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

Replacement needles (Pkg/3)	Bevel, open end	Side port, taper
Size	Prod No	Prod No
<b>Pressure-Lok</b>		
.028" x .005" x 2"	PS-943050	—
.029" x .012" x 2"	PS-943051	PS-943052
<b>Luer</b>		
.028" x .006" x 2"	PS-943060	—
.028" x .016" x 2"	PS-943061	PS-943062



**SAFETY NOTE**  
To prevent possible injury, proper safety precautions should always be observed when pressurizing glass cylinders such as syringes.  
Not for medical use.

**NEEDLE TIPS**

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

## ANALYTICAL SYRINGES

### Series C-160

for GC

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.

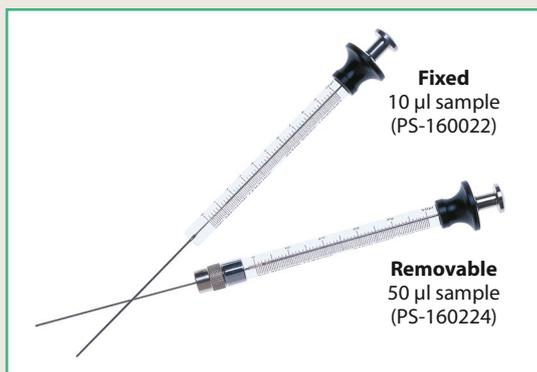
#### SPECS

Fixed and removable needles  
 Bevel, open end  
 Fixed needle size: .019" x .005" x 2"  
 Removable needle size: .019" x .005" x 2.25"  
 250 psi max, gases and liquids

	Fixed needle	Removable needle
Sample size	Prod No	Prod No
5 µl	PS-160021	PS-160221
10 µl	PS-160022	PS-160222
25 µl	PS-160023	PS-160223
50 µl	PS-160024	PS-160224
100 µl	PS-160025	PS-160225

**Replacement needles (Pkg/3)**      **Bevel, open end**

Size	Prod No
.019" x .005" x 2.25"	PS-123050



### Syringes for Valco, Cheminert, and Rheodyne HPLC injectors

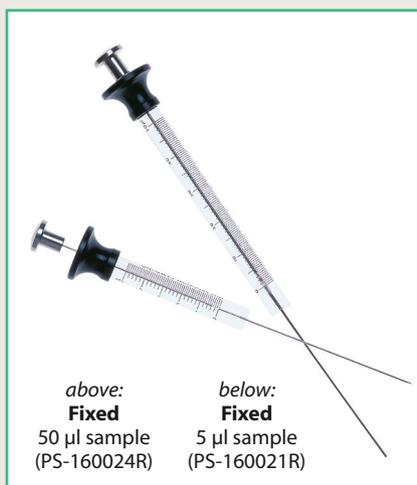
Syringes used to fill a loop on a sample injection valve have needles with blunt, smooth ends. For a sample to be delivered with any repeatability, the end of the needle must contact the bottom of the valve's fitting detail uniformly and seal on the outside of the tip. All Precision Sampling syringes 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.

#### SPECS

Removable needles  
 Blunt tip, open end  
 Needle size: 22 gauge x 2"  
 250 psi max

	Fixed needle	Removable needle
Sample size	Prod No	Prod No
5 µl	PS-160021R	PS-160221R
10 µl	PS-160022R	PS-160222R
25 µl	PS-160023R	PS-160223R
50 µl	PS-160024R	PS-160224R
100 µl	PS-160025R	PS-160225R

**Replacement needles (Pkg/3)**      **Prod No**  
 PS-123050R



#### MORE INFORMATION

Fill ports . . . . . page 40  
 Luer adapters . . . . . 41

#### NEEDLE TIPS



**Blunt, open end**



**Bevel, open end**



**Side port, taper**

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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	Prod No
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.

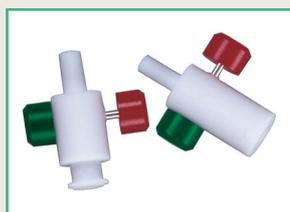
Septa, pkg/50	PS-644350
Installation tool	PS-644850



**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.