

# Agilent CrossLab



## Supplies Selection Guide for HPLC and Electrochemistry Systems

2013 EDITION



The Measure of Confidence

Put Agilent quality supplies  
to work across your lab

Agilent CrossLab HPLC works with WATERS | SHIMADZU | THERMO SCIENTIFIC | AND MORE



Agilent Technologies

# Agilent CrossLab Selection Guide for HPLC & Electrochemistry Systems

## Table of Contents

1	<b>CrossLab Product Introductions</b>
27	<b>CrossLab Supplies for Waters HPLC Systems</b>
42	<b>CrossLab Supplies for Shimadzu HPLC Systems</b>
49	<b>CrossLab Supplies for Dionex HPLC Systems*</b>
64	<b>CrossLab Supplies for CTC Analytics HPLC Autosamplers</b>
65	<b>CrossLab Vials and Closures</b>
89	<b>CrossLab Well Plates and Sealing Mats</b>
92	<b>CrossLab Supplies for pH Meters</b>

\*Dionex is now a part of Thermo Scientific

# Agilent CrossLab

Agilent CrossLab offers a growing portfolio of HPLC and electrochemistry supplies manufactured for seamless performance with a variety of analytical instruments in your lab. Look inside this selection guide to find a wide range of products for your applications.

## We currently support HPLCs from:

- Waters
- Shimadzu
- Dionex\*
- CTC Analytics

## We currently support pH Meters from:

- Mettler Toledo
- Thermo Scientific
- HANNA Instruments

And more to come

## Our growing HPLC supplies portfolio includes the following products:

- Autosampler syringes
- Capillaries, tubing, and fittings
- Detector lamps
- Performance Maintenance kits
- Pump supplies
- Sample loops
- Valve supplies
- Vials and closures
- Well plates and sealing mats

## Our growing Electrochemistry supplies portfolio includes the following products:

- pH electrodes
- pH buffer solutions

## Agilent CrossLab is more than supplies:

- Over 40 years of chromatography expertise
- The right supplies for both routine and challenging applications
- Hassle-free operations and reproducible results
- High-quality products manufactured to Agilent standards
- Technical and application support
- Dependable worldwide availability and delivery
- Convenience of consolidating purchasing
- 90-day risk-free money-back guarantee

\*Dionex is now a part of Thermo Scientific

Agilent CrossLab HPLC works with | WATERS | SHIMADZU | THERMO SCIENTIFIC | AND MORE



Long-life deuterium lamp, 8005-0705

## CrossLab Detector Lamps

### Our detector lamps are designed for precise alignment and thermal stability

Agilent CrossLab lamps are designed and built to be compatible with a wide variety of detectors, including Variable Wavelength Detectors (VWD), Multiple Wavelength Detectors (MWD), and Diode Array Detectors (DAD) or Photodiode Array Detectors (PDA). Each lamp adheres to the tightest specifications for consistent quality and reproducible performance over the lifetime of the lamp. Test equipment is regularly calibrated using optical standards certified by NIST (National Institute of Standards and Technology) or PTB (Physikalisch-Technische Bundesanstalt).

- Manufactured in an ISO 9001 certified environment
- Quartz glass bulbs for extended lifetime
- Individually tested for light intensity, noise and drift, correct operating voltage, and proper alignment for low lamp-to-lamp variability
- Tight QA/QC with traceability for each lamp throughout every step of the product process
- Both deuterium lamps and tungsten lamps available



### Tips & Tools

Each time after a replacement of a detector lamp, it is recommended to perform a wavelength calibration test and an intensity test after warm up.

### Deuterium lamps

- High output stability and intensity for extended detection capabilities and improved qualification at trace level
- Guaranteed lifetime of 2,000 hours

### Tungsten lamps

- Offer coverage in the visible wavelength range for high sensitivity detection
- Average lifetime range from 1,200 to 5,000 hours depending on operation conditions such as operation cycles, soft start, and operation voltage

## CrossLab Vials and Closures

Agilent CrossLab vials and closures are thoroughly tested to ensure the highest level of quality. Additionally, CrossLab vials are designed for use in a wide range of GCs and HPLCs, including those from Bruker (formerly Varian), Dionex (now Thermo Scientific), PerkinElmer, Shimadzu, Thermo Scientific, and Waters. They are:

- Manufactured in an ISO 9001 certified facility
- Made from First Hydrolytic Type 1 Class A or Class B borosilicate glass, which conforms to US FDA, USP, and EU Pharmacopeia standards
- Protected by proprietary packaging with a crush barrier to reduce vial breakage
- Packaged in material that has been tested and selected for cleanliness
- Subjected to rigorous end-of-line sampling and quality control procedures to ensure all vials remain within specifications
- Compatible with a wide variety of autosamplers regardless of make and model



Snap top vials with write-on spot,  
8010-0025

# CrossLab Well Plates and Sealing Mats

Choose the cleanest well plates and sealing mats for your autosamplers



96-well plate,  
8010-0534

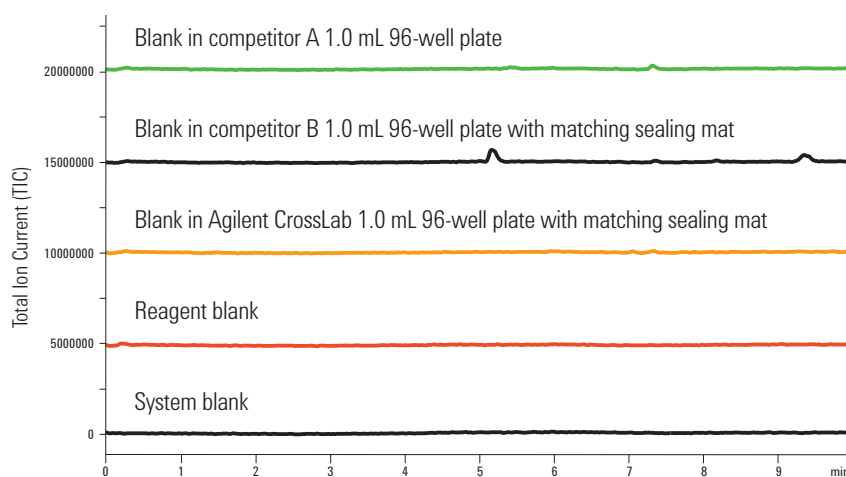
### Advantages of Agilent CrossLab well plates:

- Made from polypropylene
- Free from RNase, DNase, Endotoxins, and human DNA
- Chemically resistant to common solvents
- Autoclavable (121 °C/20 min)
- Alpha-numeric grid
- Compatible with pipetting workstations and multi-channel pipettes
- Raised rims are available with 0.5 mL and 1.0 mL deep well plates for efficient sealing and a reduced risk of cross-contamination during rigorous vortexing
- Available in 96- or 384-well plate format
- 96-well plates range from 0.2 mL to 2 mL
- 384-well plates available in 0.1 mL and 0.25 mL
- Stackable

### Advantages of Agilent CrossLab sealing mats:

- Protect well contents during storage
- Free from RNase, DNase, Endotoxins, and human DNA
- Highly flexible for a tight seal and exact fit
- Insets in every well eliminate the need for glue during connection
- Pierceable with pipette tips (0.5 mL and 1.0 mL sealing mats)
- Prevent solvent evaporation
- Made from thermoplastic elastomer (TPE) or ethylene-vinyl acetate (EVA)
- Compatible with common solvents

### Cleanliness of well plates and sealing mats: Agilent CrossLab vs. the competition



The chemical extraction experiments demonstrate the superior cleanliness of the Agilent CrossLab well plates and sealing mats compared to the competition, making them ideal for LC/MS applications.

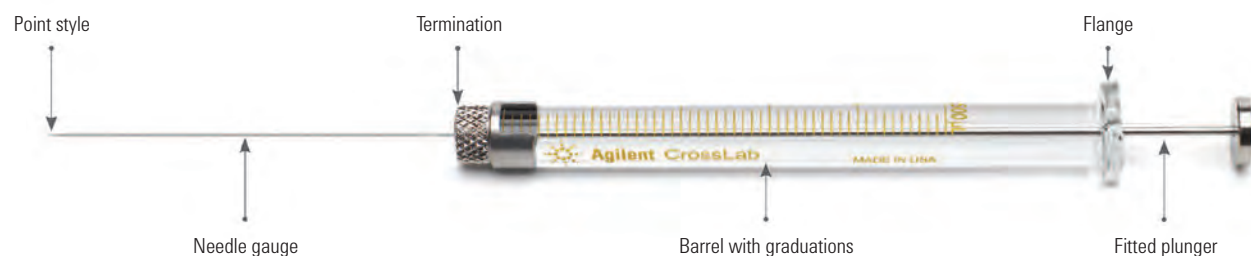
LC/MS ESI positive chromatogram comparison. Reagent blank: 1:1 Acetonitrile/H<sub>2</sub>O with 0.1% formic acid

## Agilent CrossLab Autosampler Syringes and Manual Syringes

Agilent's CrossLab HPLC syringe portfolio contains a broad selection of syringe styles and volumes to provide what you need for accurate and effective sampling. From autosampler syringes in both large or small volume, to syringes for pump priming, CrossLab syringes meet all form, fit, and function criteria to support your HPLC systems.

- Accuracy to within  $\pm 1\%$  of nominal volume with a precision of 1% at 80% of the total volume
- A chemically inert fluid path of stainless steel, borosilicate Type I glass, or PTFE
- Robust design for long lifetime

### Agilent CrossLab Syringe Features



# CrossLab Product Introductions

Syringe terminations at the end of the syringe barrel function as the interface between the syringe and its mating connection, such as the needle. Terminations are offered in a number of different needle and connection configurations to accommodate a broad range of applications.



## Fixed Needle

- Economical option for injections
- Preferred for applications requiring trace level samples
- Needle is cemented into the glass syringe barrel at a point corresponding to the zero graduation mark
- Dead volume is limited to the needle's internal volume
- Not autoclavable
- Recommended for use where probability of needle bending is minimal



## Removable Needle

- Versatile option for injections
- Needle seats precisely at the zero graduation mark
- Needle can be replaced if damaged or clogged
- Allows for a removable needle without increasing dead volume
- Ideal for when there is a risk of needle clogging
- Autoclavable when disassembled (repeated autoclaving shortens syringe life)



## PTFE Luer Lock

- PTFE, male Luer taper with nickel-plated brass locking hub for use with Kel-F needles or metal hub needles, and universal connectors
- Autoclavable when disassembled, except on 25 mL or greater syringes (repeated autoclaving shortens syringe life)

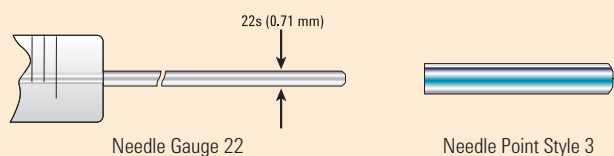


## Chem

- 1/4-28 UNF male fitting thread connection
- Used for low-volume applications where system dead volume must be minimized
- Can be screwed directly into injection valves



## CrossLab Product Introductions



**Note:** Most manual HPLC injection valves are designed to be used with a 22-gauge, or a 22s-gauge blunt needle point style 3.

## Gauge Selection Chart

Gauge	Nominal OD		Nominal ID		Wall Thickness		Volume μL/in
	in	mm	in	mm	in	mm	
22s*	0.0280-0.0285	0.718	0.0055-0.0077	0.168	0.022	0.55	0.563
22	0.0280-0.0285	0.718	0.0155-0.0170	0.413	0.012	0.30	3.403

\*Note: 22s needles have a smaller inner diameter and a thicker wall for better durability.

## Tips &amp; Tools

Replace syringe if dirt is noticeable, syringes cannot be cleaned, or plunger does not slide easily.



## Tips &amp; Tools

Follow manufacturer's recommendation for syringe cleaning and regularly inspect syringe barrel for sample build-up and needle tip for wear.



## Autosampler Routine Maintenance

Routine autosampler maintenance should be performed on a regular basis to keep your HPLC system performing at its optimum level. You can perform all maintenance procedures at once or as needed. Some parts may need to be replaced more often than others depending upon your application and solvent preparation procedures.

Regular autosampler maintenance helps lower operating costs and generate precise results with the utmost confidence. By following a regular maintenance routine, you can count on maximum uptime during the life of your autosampler.

### Waters Autosampler Routine Maintenance Procedures

- Replace the metering syringe
- Rebuild the injector seal pack and replace the needle
- Rebuild the high-pressure motorized valves
- Replace the in-line filter insert
- Adjust the seal pack seal valves

#### Waters Autosampler Routine Maintenance and Troubleshooting

Symptom	Cause	Solution
Poor injection reproducibility	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn metering syringe	Replace the metering syringe assembly
	Worn high-pressure motorized valve seals	Rebuild the high-pressure motorized valves
	Leaking waste valve	Replace the waste valve
	Worn injector seals	Rebuild the injector seal pack, replace the needle, and adjust the seal pack seal valves
Leaking syringe	Worn metering syringe	Replace the metering syringe assembly
Sample carryover	Needlewash solvent exhausted	Refill the needlewash solvent reservoir
	Dirty needlewash seals	Rebuild the seal pack and adjust seal pack seal valves
	Faulty needlewash valve	Replace the needlewash valve
Sample vials filling during injection cycle	Worn high-pressure motorized valve seal	Rebuild the high-pressure motorized valves
Low peak response	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn metering syringe	Replace the metering syringe assembly
	Worn high-pressure motorized valve seals	Rebuild the high-pressure motorized valves
	Leaking waste valve	Replace the waste valve
	Worn injector seals	Rebuild the injector seal pack, replace the needle, and adjust the seal pack seal valves

## Shimadzu Autosampler Routine Maintenance Procedures

- Replace the sample metering drive plunger seal
- Replace the sample needle
- Replace the needle seat seal
- If equipped, replace the rinse port septum
- If equipped, clean the high-pressure valve and replace the high-pressure valve rotor seal
- If equipped, clean the low-pressure valve and replace the low-pressure valve rotor seal
- If equipped, clean the injection valve and replace the injection valve rotor seal
- Adjust the needle if necessary

### Shimadzu Autosampler Routine Maintenance and Troubleshooting

Symptom	Cause	Solution
Poor injection reproducibility	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn metering seal	Replace the metering plunger seal
	Damaged metering plunger	Replace the metering plunger
	Worn high-pressure valve seals	Rebuild the high-pressure valve
	Worn low-pressure valve seals	Rebuild the low-pressure valve
	Leaking waste valve	Replace the waste valve
	Damaged sample needle	Replace the sample needle and needle seat seal
Sample carryover	Needlewash solvent exhausted	Refill the needlewash solvent reservoir
	Dirty needlewash seals	Rebuild the seal pack and adjust seal pack seal values
	Contaminated rinse port	Clean and flush the rinse port
Low peak response	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn metering plunger seal	Replace the metering plunger seal
	Damaged metering plunger	Replace the metering plunger
	Worn high-pressure valve seals	Rebuild the high-pressure valve
	Leaking waste valve	Replace the waste valve
	Damaged sample needle	Replace the sample needle and needle seat seal

## Dionex\* Autosampler Routine Maintenance Procedures

- Replace the sample metering syringe
- Replace the sample needle
- Replace the needle seat seal
- If equipped, clean the injection valve and replace the injection valve rotor seal
- Replace the buffer tubing
- Replace the capillary tubing
- Fill the syringe reservoir
- Adjust the needle if necessary

**\*Dionex is now a part of Thermo Scientific**

### Dionex Autosampler Routine Maintenance and Troubleshooting

Symptom	Cause	Solution
Poor injection reproducibility	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn metering syringe seal	Replace the metering syringe
	Worn syringe valve	Replace the syringe valve
	Worn injection valve seal	Rebuild the injection valve
	Leaking waste valve	Replace the waste valve
	Leaking fittings	Check all the fittings for leaks
	Damaged sample needle	Replace the sample needle and needle seat seal
Sample carryover	Needlewash solvent exhausted	Refill the needlewash solvent reservoir
	Dirty needlewash seals	Rebuild the seal pack and adjust seal pack seal valves
	Contaminated rinse port	Clean and flush the rinse port
Leaking syringe	Damaged syringe	Replace the syringe
	Worn syringe valve	Check for leaks and replace if necessary
Low peak response	Low sample level in vials	Confirm sample level in the vials is at minimum a quarter full
	Worn syringe valve	Replace the metering syringe
	Damaged syringe valve	Check the syringe valve for leaks and replace if necessary
	Worn injector valve seal	Rebuild the injection valve
	Leaking waste valve	Replace the waste valve
	Leaking fittings	Check all the fittings for leaks
	Damaged sample needle	Replace the sample needle and needle seat seal

## CrossLab Pump Supplies

### Proper pump maintenance helps ensure precise, consistent results and lower operating costs

Regular pump maintenance helps lower operating costs and ensure precise and consistent results. By following a regular maintenance routine, you can count on maximum uptime, steady and accurate solvent flow, pressure stability throughout the life of a pump, and keep your HPLC system in its optimum condition.



Sapphire plunger assembly, 8005-0538



Plunger seal replacement kit, 8005-0541

### CrossLab Plungers and Seals

Plungers (or pistons) and seals are two of the most important components of a pump. All Agilent CrossLab plungers combined with seals undergo extensive testing under temperature stress with common HPLC solvents for reproducible results.

#### Plungers:

- Available in sapphire or ceramic
- Sapphire plungers are made from high purity monocrystalline sapphire for optimal concentricity and resistance to wear
- Are meticulously cut and polished for great durability and long life

#### Seals:

- Manufactured from ultra-high-molecular-weight polyethylene (UHMWPE) or graphite-filled polytetrafluoroethylene (GFP)
- Designed to provide precise sealing around the plungers
- Engineered to deliver top performance over highly dynamic flow and pressure ranges



Face seals replacement kit, 8005-0536

#### Tips & Tools



Plungers (or pistons) should be exchanged on a regular basis in combination with seals to maintain the best sealing surface and durability for optimal instrument performance.

#### Tips & Tools



Depending on your applications and solvent preparation protocols, some parts may need to be replaced more often than the others.



### CrossLab Check Valves

Check valves are key components for a pump, and their lifetime is often related to the solvents used. A defective valve can lead to pressure fluctuation, inconsistent flow, and a noisy baseline.

Agilent CrossLab check valves and assembly components:

- Made to operate at different pressures (up to 16,000 psi, or 1,100 bar) per specifications from the Original Equipment Manufacturers (OEMs)
- Made from a variety of materials, such as stainless steel, titanium, ceramic, and PEEK, depending on OEM specifications
- Carefully assembled to ensure reliability and consistent performance
- Each ruby or ceramic ball and sapphire or ceramic seat is manufactured under extremely tight tolerances to ensure proper sealing within the operating pressure range



#### Tips & Tools

Don't forget to check your check valve regularly and replace check valve cartridges to ensure proper pump operations.

## HPLC Pump Routine Maintenance

Routine pump maintenance should be performed on a regular basis to keep your HPLC system performing at its optimum level. You can perform all maintenance procedures at once or as needed. Some parts may need to be replaced more often than others depending upon your application and solvent preparation procedures.

Regular pump maintenance helps lower operating costs and generate precise results with the utmost confidence. By following a regular maintenance routine, you can count on maximum uptime and a steady, accurate solvent flow for the life of the pump.

### Tips & Tools



Pump seals should be replaced when there are leaks on the bottom of the pump head, when retention times are inconsistent, or when the pressure ripple is unstable.

## Waters Pump Routine Maintenance Procedures

- Replace the seals and plungers (or pistons)
- Replace the in-line filter insert
- Replace the check valve cartridges
- Replace the seal wash seals and tube seals
- Replace the solvent inlet frits



Sapphire plunger assembly, 8005-0523

### Waters Pump Routine Maintenance Procedures

Symptom	Cause	Solution
Pressure ripple unstable	Dirty check valve cartridge(s)	Run static leak test to verify and exchange the check valve cartridge(s)
	Leak on pump head	Run static leak test to verify and exchange the in-line filter insert and plunger (or piston) seals
Gradient performance problems Intermittent pressure fluctuations	Blocked solvent filter(s)	Change the solvent filter(s)
A pressure drop of greater than 10 bar (150 psi) across the in-line filter (5 mL/min H <sub>2</sub> O during wet priming)	Dirty in-line filter	Exchange the in-line filter insert
Leaks at lower pump head side Unstable retention time Pressure ripple unstable	High seal wear	Run leak test to verify and exchange the pump seals and in-line filter insert
Seal lifetime shorter than normally expected	Scratch on plunger	Check plungers while changing the seals Exchange the plungers if damaged or scratched
Loss of wash solvent	Leaky wash seals	Exchange the wash seals



Plunger seal, 8001-0502

## Shimadzu Pump Routine Maintenance Procedures

- Replace the seals and plungers (or pistons)
- Replace the in-line filter cartridge
- Replace the check valve cartridges
- Replace the seal wash seals
- Replace the solvent inlet frits

### Shimadzu Pump Routine Maintenance and Troubleshooting

Symptom	Cause	Solution
Pressure ripple unstable	Dirty check valve cartridge(s)	Run Pump Pressure test to verify and exchange the check valve cartridge(s)
	Leak on pump head	Run Pump Pressure test to verify and exchange the in-line filter insert and plunger (or piston) seal
		Check inlet and outlet fittings for leaks
		Tighten all fittings and re-run the Pump Pressure test
Gradient performance problems	Blocked solvent filter(s)	Change the solvent filter(s)
Intermittent pressure fluctuations		
A pressure drop of greater than 10 bar (150 psi) across the in-line filter (5 mL/min H <sub>2</sub> O during wet priming)	Dirty in-line filter	Exchange the in-line filter insert
Leaks at lower pump head side	High seal wear	Run Pump Pressure test to verify and exchange the pump seals and in-line filter cartridge
Unstable retention time		
Pressure ripple unstable		
Broad peaks or peak tailing		
Seal lifetime shorter than normally expected	Scratch on plunger	Check plungers while changing the seals
		Exchange the plungers if damaged or scratched
Loss of wash solvent	Leaky wash seals	Exchange the wash seals



## Dionex\* Pump Routine Maintenance Procedures

- Replace the purge valve cap seal
- Replace the seals, seal rings, and plungers (or pistons)
- Replace the in-line filter cartridge
- Replace the check valve cartridges
- Replace the seal wash seals and seal wash tubing
- Replace the mixing chamber gasket
- Replace the solvent inlet filter frits

**\*Dionex is now a part of Thermo Scientific**



VespeL rotor seal, 8002-0602

### Dionex Pump Routine Maintenance and Troubleshooting

Symptom	Cause	Solution
Pressure ripple unstable	Dirty check valve cartridge(s)	Run Pump Pressure test to verify and exchange the check valve cartridge(s)
	Leak on pump head	Run Pump Pressure test to verify and exchange the in-line filter insert and plunger (or piston) seal
		Check inlet and outlet fittings for leaks
		Tighten all fittings and re-run the Pump Pressure test
Gradient performance problems, Intermittent pressure fluctuations	Blocked solvent filter(s)	Change the solvent filter(s)
A pressure drop of greater than 10 bar (150 psi) across the in-line filter (5 mL/min H <sub>2</sub> O during wet priming)	Dirty in-line filter	Exchange the in-line filter insert
Leaks at lower pump head side	High seal wear	Run Pump Pressure test to verify and exchange the pump seals and in-line filter cartridge
Unstable retention time		
Pressure ripple unstable		
Broad peaks or peak tailing		
Seal lifetime shorter than normally expected	Scratch on plunger	Check plungers while changing the seals
		Exchange the plungers if damaged or scratched
Loss of wash solvent	Leaky wash seals	Exchange the wash seals and seal wash tubing



Rotor, 6-port valve, 8001-0601

## CrossLab Valve Supplies

Agilent CrossLab valve supplies work seamlessly with your HPLC systems for reliable, accurate, and reproducible results.

### Rotor seals:

#### A variety of materials for a wide range of applications

A rotor seal is a polymeric disk that creates a high-pressure seal against the stator or stator face seal. A variety of materials are available for different applications. It is important to replace rotor seals on a routine basis to prevent excessive wear. The recommended replacement interval for most rotor seals is once per year for preventive maintenance or as needed depending on stresses imposed by specific applications.



#### Tips & Tools

PEEK rotor seals are incompatible with concentrated nitric and sulfuric acids.

- **Vespel:** Vespel is a polyimide with low wear and high chemical resistance. Recommended for use with solutions under pH 10 because more basic solutions dissolve Vespel over time and damage the rotor seal
- **PEEK (Polyetheretherketone):** PEEK offers high resistance, versatility, and applicability for the entire pH range between 0 and 14
- **Tefzel:** Recommended for use in applications where PEEK cannot be used, such as higher concentrations of methylene chloride or dimethyl sulfoxide (DMSO)



#### Tips & Tools

For any solution above pH 10, a PEEK rotor seal is recommended.

#### Recommended pH levels for rotor seal materials

pH Range	0-7	7-10	10-14
Vespel			
PEEK			
Tefzel			



### Looking for electrochemistry supplies?

Please see page 92.

The Agilent CrossLab Electrochemistry portfolio includes a variety of electrodes and pH buffers designed for pH meters from Mettler Toledo, Thermo Scientific, and HANNA Instruments.

## Stators

- Available in 316 stainless steel, PEEK, and ceramic depending on the specifications of OEMs
- Typically require replacement only if the ports or sealing surfaces become damaged, which can be prevented by using proper injection needles



Stator, 6-port valve, 8001-0604

## Sample Loops

### Stainless Steel Sample Loops:

- Have burr-free and square-cut ends to ensure a flush connection to valve ports
- Actual volumes might differ due to tolerance of metal tubing bore
- Accuracy of large metal loops (1.0 mm, 0.040 in bore) is  $\pm 14\%$ , intermediate loops (0.5 mm, 0.020 in bore) is  $\pm 21\%$ , and small loops (0.2 mm, 0.007 in bore) is  $\pm 65\%$

### PEEK Sample Loops

- Alternative to stainless steel sample loops
- Clean, straight cuts for easy valve installation and low dead volume connections
- Inert to almost all organic solvents and biocompatible
- Actual volumes might differ due to tolerance of metal tubing bore
- Accuracy of large PEEK loops (0.8 mm, 0.030 in bore) is  $\pm 5\%$ , intermediate loops (0.5 mm, 0.020 in bore) is  $\pm 10\%$ , and small loops (0.2 mm, 0.007 in bore) is  $\pm 30\%$
- Wall thickness, temperature, concentration of organic solvent, and solvent exposure time affect the durability of PEEK tubing

#### Tips & Tools

Concentrated nitric acid and sulfuric acid weaken PEEK tubing while tetrahydrofuran (THF), methylene chloride, and DMSO cause swelling.



#### Tips & Tools

Since both standards and unknowns are usually analyzed using the same sample loops, knowledge of the actual, accurate volume is rarely needed. If the sample loop volume must be known, it is best to calibrate the loop in place on the valve so the flow passages in the valve are taken into account.





515 pump PM kit, 8005-0913



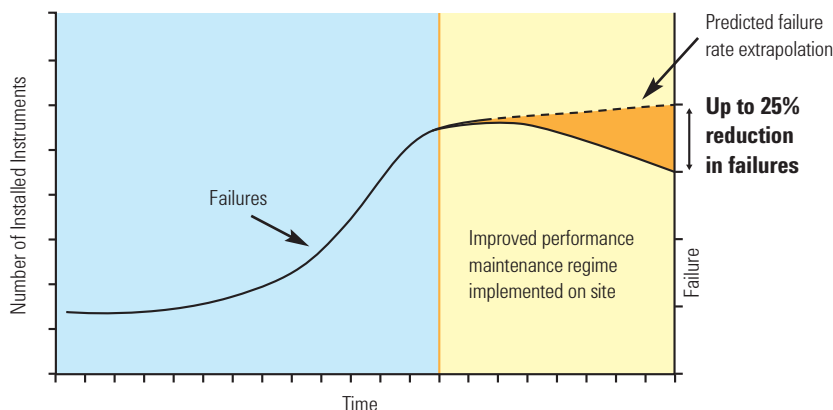
2960/2965 PM kit, 8005-0915

## CrossLab Performance Maintenance (PM) Kits

PM kits make it easier to keep your instruments running at peak performance

Many instrument failures are not caused by functional breakdowns, but by a lack of performance maintenance. As suggested by a recent study, a regular performance maintenance program can reduce instrument failure rates up to 25%, and is critical to ensure optimal overall system operations.

### The Effect of Performance Maintenance



Agilent CrossLab PM kits contain the normal wear parts, tools for disassembly/reassembly, and instructions necessary to keep your systems operating at peak performance. The kits provide a convenient, cost-effective way to make sure your instruments are properly maintained. Each kit contains all the parts you need to:

- Boost system efficiency and reliability
- Reduce unplanned downtime and repair costs
- Increase accuracy by enhancing precision and sensitivity
- Comply with regulatory requirements, or meet quality accreditation standards
- Extend instrument life
- Eliminate individual part ordering
- PM kits available for pumps, valves, autosamplers, and HPLC systems

# General HPLC Supplies

## CrossLab HPLC Capillaries and Tubing

### Your link to analytical success

Agilent CrossLab offers a range of capillaries and tubing made from stainless steel and PEEK. Used in combination with the right fittings, they are ideal for HPLC system plumbing, providing an inert surface, tight, leak-free connections, and zero dead volumes.

#### Stainless steel capillaries

- Made of ultra-clean stainless steel tubing
- Ideal for most standard applications, and the best choice for reliable high-pressure sealing
- Smooth inner surface for the lowest backpressure
- Precision cutting for burr-free, square-cut ends without inner-diameter distortion
- Both ends accept standard fittings
- Predefined lengths for specific path locations to avoid peak broadening
- Individually tested to ensure reproducibility
- Available in pre-swaged and non pre-swaged

#### PEEK tubing

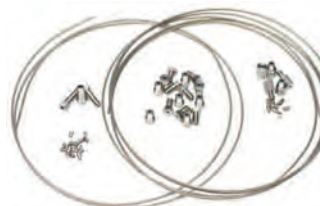
- Flexible and easy to cut to desired lengths
- Ideal for frequently changed connections
- Resists mechanical and solvent damage, even at high temperatures
- Biocompatible and inert to almost all organic solvents
- A durable alternative to stainless steel connections
- Accepts both stainless steel and PEEK fittings



CrossLab capillary, stainless steel, 8005-0825



ETFE tubing for use between the inlet block and the check valve, 8001-0807



CrossLab capillary and fitting kit, 8002-0817

#### Tips & Tools

Always use the smallest capillary internal diameter and the shortest length to keep sample dispersion as low as possible.





Flangeless nut, M6, 8001-0813



Blind nut, FS-8 biocompatible, 8002-0802

## CrossLab Fittings

### The right HPLC fittings make the best connections

To ensure leak-free connections, and to prevent the loss of peak shape and resolution, always use the recommended fitting style for columns, valves and unions.

With Agilent CrossLab fittings, you get the confidence and choice that come with:

- Robust design for long life and smooth, leak-free operation
- Stainless steel nuts and ferrules for high-pressure systems
- Polymer fittings for biocompatible applications



## CrossLab HPLC In-Line Filters

### Help stop time-wasting blockages

Column inlet frit contamination can increase backpressure and reduce efficiency. Microbore column blockages are of particular concern, due to the frit's small diameter.

To help prevent time-wasting contamination and blockages, the Agilent CrossLab portfolio offers two types of HPLC filters made from clean, high-quality stainless steel parts:

- In-line solvent filters, installed between the HPLC pump and injector, prevent blockages by removing particles from solvents before they reach the injector
- Column inlet filters, positioned immediately before an HPLC column, remove particles from both the injection system and sample



Stainless steel in-line filter, 8001-0808



Filter frit for titanium in-line filter, 2  $\mu$ L,  
8002-0806

### CrossLab pH Electrodes

Agilent CrossLab pH electrodes contain various selections to meet different application requirements. The portfolio is supported by uncompromising construction, materials, and quality control for ease-of-use, durability, and accuracy.

- Quick response and accurate results due to a unique reference system assured by proprietary materials and manufacturing process
- Made from multi-layered composite materials for extra durability compared to the traditional single-layer breathable membrane
- Built-in barrier for protecting glass bubble against breakage
- Annular fiber polymer materials being leveraged for some electrode liquid junctions to mitigate clogging and sample contamination
- Universal connections for easy interchange with a wide range of popular benchtop meters
- Compatible with pH meters from Mettler Toledo, Thermo Scientific, and HANNA Instruments



Non-refillable pH combination electrode with ABS body, 8010-0975



pH combination electrode, 8010-0986



Non-refillable pH electrode with glass body, 8010-0973



## Troubleshooting Guide for HPLC Systems

The at-a-glance tables can help you pinpoint and solve the most common problems for your HPLC systems and ensure maximum instrument uptime and productivity.

HPLC Troubleshooting		
Symptom Type	Possible Cause	Solution
Baseline disturbance at void time	Positive/negative – Difference in refractive index of injection solvent	Use mobile phase for sample solvent
Detector leaks	Plugged inlet frit	Replace seals/gaskets
Drifting baseline	Positive direction – Contaminant buildup/elution	Flush column, clean up sample, use pure solvents
	Positive/negative – Difference in refractive index of injection solvent	Use mobile phase for sample solvent
	Negative direction (gradient) – Absorbance of "A" mobile phase solvent	Use non-absorbing or HPLC-grade or better solvent
	Positive direction (gradient) – Absorbance of "B" mobile phase solvent	Use non-absorbing or HPLC-grade or better solvent
	Random – Temperature changes	Insulate column and tubing
	Random – Temperature changes	Thermostat column and tubing
	Wavy or undulating – Temperature changes in room	Monitor room temperature and control
Ghost peaks	Peaks from previous injection	Flush column to remove contaminants
	Contamination	Sample cleanup or pre-fractionation
	Unknown interferences in samples	Sample cleanup or pre-fractionation
	Ion-pair – Upset equilibrium	Prepare sample in actual mobile phase to minimize disturbance
	Peptide mapping – Oxidation of TFA	Prepare fresh daily; use anti-oxidant
	Reversed-phase – Contaminated water	Check suitability of water by running different amount through reversed-phase column and measure peak height with elution; use HPLC grade solvents
	Spikes – Bubbles in solvent	De-gas solvents

(Continued)

HPLC Troubleshooting		
Symptom Type	Possible Cause	Solution
High column backpressure	Column blockage, adsorbed sample	Better sample cleanup; use guard column
	Mobile phase viscosity too high	Use lower viscosity solvents or higher temperature
	Particle size too small	Use larger $d_p$ packing
	Plugged inlet frit	Replace column
	Plugged inlet frit	Reverse solvent flow
Leaks	Subtle – White powder at fitting/loose fitting	Tighten fittings, cut tubing, or replace ferrules
Leaks, injection valve	Catastrophic – Worn valve rotor	Replace rotor in valve
Leaks, column or other fittings	Catastrophic – Loose fittings	Tighten or replace fittings
Leak, pump	Catastrophic – Pump seal failure	Replace pump seal
Negative peaks	RI detector – solute refractive index less than solvent	No problem; reverse polarity to make positive
	UV detector – solute absorbance less than mobile phase	Use mobile phase with lower UV absorbance; do not recycle solvent too long
Noisy baseline	Random – Contaminant buildup	Flush column; clean up sample; use HPLC-grade solvent
	Continuous – Detector lamp problem	Replace detector lamp
	Occasional – External electrical interference	Use voltage stabilizer for LC system
Peak doubling	Sample volume too large	Reduce the volume e.g. by half and re-inject
	Injection solvent too strong	Use weaker injection solvent or mobile phase
	Blocked frit	Replace and use 0.5 $\mu$ m porosity in-line filter
	Column void or channeling	Replace column; for some columns, fill in void with packing
	Un swept injector flowpath	Replace injector rotor
	Void at head of column	Replace column, top off column with packing
	Column overloaded with sample	Use higher capacity stationary phase
		Increase column diameter
		Decrease sample size
	Single peak – interfering components	Sample cleanup; pre-fractionation

(Continued)

HPLC Troubleshooting		
Symptom Type	Possible Cause	Solution
Peak tailing	Beginning of peak doubling	See "peak doubling"
	Unsweped dead volumes	Minimize number of connections Ensure injector seal is tight Ensure fittings are properly seated
	Basic compounds – Silanol interactions	Choose endcapped bonded phase Switch to polymeric phase
	Basic substances – Silanol interactions	Use stronger mobile phase or add competing base (e.g. TMA)
	Silica-based – Column degradation	Use specialty column; polymeric column or sterically protected
Peaks are broad	Injection volume too large	Decrease solvent strength of injection solvent to focus solute
	Peak dispersion in injector valve	Introduce air bubble in front/back of sample to decrease dispersion
	Sampling rate of data system too slow	Increase frequency of sampling
	Slow detector time constant	Adjust time constant to match peak width
	Mobile phase viscosity too high	Increase column temperature
	Detector cell volume too large	Use smallest possible cell volume with no heat exchanger in system
	Injector volume too large	Decrease injection volume
Pressure fluctuation	Long retention times	Use gradient elution or stronger mobile phase
	Leaky check valve	Replace check valve
	Pump seal leaks	Replace pump seals
Pressure increasing	Buildup of particulates	Filter sample; in-line filter; filter mobile phase
	Buildup of particulates	Filter sample; in-line filter; filter mobile phase
	Water/organic systems – buffer precipitation	Test buffer-organic mixtures; ensure compatibility
Retention beyond total permeation volume	Size exclusion – specific interactions	Add mobile phase modifiers or change solvent

(Continued)

HPLC Troubleshooting		
Symptom Type	Possible Cause	Solution
Retention times changing	Column temperature varying	Thermostat column; insulate column; ensure lab temperature constant
	Equilibration time insufficient with gradient run or changes in isocratic mobile phase	Make sure at least 10 column volumes pass through column after solvent change or gradient conclusion
	Selective evaporation of mobile phase component	Less vigorous helium sparging; keep solvent reservoirs covered; prepare fresh mobile phase
	Buffer capacity insufficient	Use >20 mM concentration of buffer
	Inconsistent on-line mobile phase mixing	Ensure gradient system delivering constant composition; check vs. manual prep of mobile phase
	Contamination buildup	Occasionally flush column with strong solvent to remove contaminants
	First few injections – Adsorption on active sites	Condition column by initial injection of concentrated sample
Retention times decreasing	Flow rate increasing	Check pump to make sure correct; if not, reset
	Column overloaded with sample	Decrease sample size
	Loss of bonded stationary phase	Keep mobile phase pH between 2 and 8.5
Retention times increasing	Flow rate is slowing	Fix leaks in liquid lines, replace pump seals, check for pump cavitation or air bubbles
	Active sites on silica packing	Use mobile phase modifier
	Loss of bonded stationary phase	Keep mobile phase pH between 2 and 8.5
	Mobile phase composition changing	Make sure mobile phase container is covered
	Active sites on silica packing	Add competing base to mobile phase
	Active sites on silica packing	Use higher coverage packing for stationary phase
Sensitivity problem	Peaks are outside of linear range of detector	Dilute/concentrate to bring into linear region
	First few sample injections – Absorption of sample in loop or column	Condition loop/column with concentrated sample
	Autosampler flow lines blocked	Check flow and make sure there are no blockages
	Injector sample loop underfilled	Make sure that loop is overfilled with sample
	Sample-related losses during preparation	Use internal standard during sample prep; optimize sample prep method
Slow column equilibration times (ion-pairing)	Equilibration time slow for long-chain ion-pairing reagents	Use shorter alkyl chain ion-pair reagent

# CrossLab Supplies for Waters HPLC Systems

## Detector Lamps, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
2996 Photodiode Array Detector	Long-life deuterium lamp, 2,000 hours	WAT052586	8005-0705
996 Photodiode Array Detector			
ACQUITY UPLC 2996 Photodiode Array Detector			
2487 Dual Wavelength Absorbance Detector	Long-life deuterium lamp, 2,000 hours	WAS081142	8005-0704
2488 Multichannel Absorbance Detector			
ACQUITY TUV Detector			
UPLC TUV Detector	Long-life deuterium lamp, 2,000 hours	700000356	8005-0702
486 Tunable UV/Visible Absorbance Detector			
LC Module 1		WAT052666	

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Long-life deuterium lamp, 8005-0705



Long-life deuterium lamp, 8005-0704



Long-life deuterium lamp, 8005-0702

# CrossLab Supplies for Waters HPLC Systems

## Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/ Length (mm)/ Tip	Similar to OEM Part No.	Agilent CrossLab Syringe	Agilent CrossLab Replacement Needle	Agilent CrossLab Replacement Plunger	Similar to OEM Part No.
2777 Compact Sample Manager	10	Fixed needle	22s/51/3	430000859	8010-0445*		8010-0457, 10/pk	700002212
2777 Sample Manager	25	Fixed needle, gas tight	22s/51/3	430000861	8010-0441		8010-0458, 10/pk	700002213
	100	Fixed needle, gas tight	22s/51/3	430000864	8010-0442*		8010-0459, 10/pk	700002214
		Fixed needle, gas tight	22/51/3	430000863	8010-0446*		8010-0459, 10/pk	700002214
	250	Fixed needle, gas tight	22/51/3	430000865	8010-0467		8010-0456, 10/pk	700002215
	500	Fixed needle, gas tight	22/51/3	430000866	8010-0468		8010-0460, 10/pk	700002216
	1,000	Fixed needle, gas tight	22/51/3	430000867	8010-0443		8010-0455	700002217
	2,500	Fixed needle, gas tight	22/51/3	430000868	8010-0444		8010-0448	700002218
510 HPLC Pump	10000	Luer Lock	No needle	WAT025559	8005-0414			
515 HPLC Pump								
600 MultiSolvent Delivery System								
CapLC System								
CapLC XE System								

\*Barrel od is 6.7 mm. All other 10, 25, and, 100 µL syringes have 7.9 mm od.

(Continued)

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## Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/ Length (mm)/ Tip	Similar to OEM Part No.	Agilent CrossLab Syringe	Agilent CrossLab Replacement Needle	Agilent CrossLab Replacement Plunger	Similar to OEM Part No.
600 MultiSolvent Delivery System Rheodyne Injector	25	Removable needle, gas tight	22s/51/3	WAT033381	8005-0416		8005-0422	
2690 Separations Module 2690D Dissolution Separations Module 2695 Separations Module 2695D Dissolution Separations Module	25	Chem (1/4-28 UNF screw threads), gas tight	No needle	WAT077343	8005-0420			
2790 Separations Module 2795 Separations Module LC Module 1 717/717plus Autosampler	250	Chem (1/4-28 screw threads UNF), gas tight	No needle	WAT073109	8005-0419			
Rheodyne Injector	100	Removable needle, gas tight	22s/51/3	WAT033383	8005-0417	8005-0418, 6/pk	8005-0423	

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CrossLab syringe, PTFE-tipped plunger,  
25 µL, 8005-0420



Autosampler syringe, gas tight, 8005-0417



CrossLab syringe needle, 22s/51/3,  
8005-0418

## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Plungers and Seals</b>				
2690 Separations Module	Sapphire plunger assembly, standard	1/pk	WAT270959	8005-0538
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2795 Separations Module				
2796 Bioseparations Module				
2690 Separations Module	Plunger seals, clear	2/pk	700001326	8005-0514
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2690 Separations Module	Plunger seal replacement kit, standard, yellow	2/pk	WAT270938	8005-0535
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2795 Separations Module				
Alliance GPC/V 2000 Systems				
2690 Separations Module	Plunger seal replacement kit, black	2/pk	WAT271066	8005-0541
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2690 Separations Module	Face seals replacement kit	4/pk	WAT270939	8005-0536
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution				
Separations Module				
2790 Separations Module				
2795 Separations Module				
Alliance GPC/V 2000 Systems				

(Continued)



Plunger seal replacement kit, 8005-0535



Plunger seal replacement kit, 8005-0541



Face seals replacement kit, 8005-0536



## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Plungers and Seals</b>				
2690 Separations Module	Seal wash face seal kit	1/pk	WAT271017	8005-0539
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2795 Separations Module				
Alliance GPC/V 2000 Systems				
2796 Bioseparations Module	Seal wash, plunger seal	4/pk	700002258	8005-0516
2796 Bioseparations Module	Plunger seal, standard	2/pk	700002257	8005-0515
2690 Separations Module	Seal wash plunger seal replacement kit	2/pk	WAT271018	8005-0540
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2795 Separations Module				
Alliance GPC/V 2000 Systems				
510 HPLC Pump	Sapphire plunger	1/pk	WAT025656	8005-0527
600 MultiSolvent Delivery System	Oriented sapphire plunger	1/pk	WAT069511	8005-0533
610 PowerLine Isocratic Pump				
LC Module 1				
510 HPLC Pump	Plunger seal, graphite-filled PTFE (GFP), black	1/pk	WAT026613	8005-0529
515 HPLC Pump				
600 MultiSolvent Delivery System				
LC Module 1				
510 HPLC Pump	Plunger seal, black, 225 µL	1/pk	WAT026644	8005-0530
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				

(Continued)

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Seal wash face seal kit, 8005-0539

## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Plungers and Seals</b>				
616 LC System	Sapphire plunger	1/pk	WAT031788	8005-0531
626 LC System				
1515 HPLC Pump	Sapphire plunger assembly	1/pk	WAS207069	8005-0523
1525 HPLC Pump				
515 HPLC Pump				
1515 HPLC Pump	Plunger seal, clear	1/pk	WAT022934	8005-0524
1525 HPLC Pump	Plunger seal, clear	4/pk	WAT022946	8005-0525
510 HPLC Pump				
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				
1515 HPLC Pump	Aqueous seal kit, 100 µL, ultra-high-molecular-weight polyethylene (UHMWP)	2/pk	WAT025296	8005-0909
1525 HPLC Pump				
510 HPLC Pump	Aqueous seal kit, 100 µL, ultra-high-molecular-weight polyethylene (UHMWP)	4/pk	WAT025297	8005-0910
515 HPLC Pump				
600 MultiSolvent Delivery System				
LC Module 1				
<b>Check Valves and Cartridges</b>				
2690 Separations Module	Check valve cartridge replacement kit	2/pk	WAT270941	8005-0537
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2790 Separations Module				
2795 Separations Module				
Alliance GPC/V 2000 Systems				

(Continued)

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Sapphire plunger assembly, 8005-0523



Check valve cartridge replacement kit, 8005-0537

## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Check Valves and Cartridges</b>				
626 LC System	Check valve cartridge	1/pk	WAT024120	8005-0526
1515 HPLC Pump	Check valve cartridge	2/pk	700000254	8005-0513
1525 HPLC Pump				
2695 Separations Module				
2695D Dissolution Separations Module				
2795 Separations Module				
510 HPLC Pump				
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				
1525 HPLC Pump	Check valve cartridge	1/pk	700002399	8005-0508
2695 Separations Module				
2695D Dissolution Separations Module				
2795 Separations Module				
515 HPLC Pump				
600 MultiSolvent Delivery System				
1515 HPLC Pump	Cartridge check valve system	2/pk	700000253	8005-0512
1525 HPLC Pump				
515 HPLC Pump				
600 MultiSolvent Delivery System				
LC Module 1				
510 HPLC Pump	Outlet check valve rebuild kit, 225 µL	2/pk	WAT026014	8005-0528
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				

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## Detector Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
2996 Photodiode Array Detector	Cell gasket	2/pk	WAT057924	8005-0532
996 Photodiode Array Detector				

## Valve Replacement Parts, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
2767/2747 Sample Manager	Stator, 6 port, stainless steel	700001560	8005-0601
Column/Fluidics Organizer			
Rheodyne 7725(i) Injector	Vespel rotor seal, for Rheodyne 7725(i)	WAT055946	8005-0604
626 LC System	Tefzel rotor seal	WAT015781	8005-0603
Rheodyne 9125 Injector			
2700 Sample Manager	Rotor seal	WAT272615	8005-0605
2707 Autosampler	Rotor seal	700003851	8005-0602

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Vespel rotor seal, for Rheodyne 7725(i), 8005-0604



Tefzel rotor seal, 8005-0603

### Looking for Performance Maintenance Kits for Rheodyne Valves?

See page 38.



## Sample Loops, 1/pk

Model	Volume (µL)	Material	Similar to OEM Part No.	Agilent CrossLab Part No.
2690 Separations Module	100	Stainless steel	430001194	8005-0840
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2695 Separations Module	200	Stainless steel	430001630	8005-0841
2695D Dissolution Separations Module				
2796 Bioseparations Module	20	PEEK	430000782	8005-0838
2796 Bioseparations Module	100	PEEK	430000783	8005-0839
2707 Autosampler	5	Stainless steel	700000683	8005-0843
CapLC System				
CapLC XE System				
2707 Autosampler	10	Stainless steel	700003872	8005-0845
2707 Autosampler	20	Stainless steel	700000680	8005-0842
CapLC System				
CapLC XE System				
2707 Autosampler	50	Stainless steel	700003928	8005-0846
2707 Autosampler	100	Stainless steel	700000685	8005-0844
CapLC System				
CapLC XE System				

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Separation Modules</b>				
2690 Separations Module	2690/95 Performance Maintenance Kit	Contains 2 sapphire plungers, 2 seal wash plunger seal kits, 2 plunger seals replacements kits (standard, yellow), 4 wash tube seal replacement kits, 1 battery, 1 diffuser assembly, 4 face seal replacement kits, 4 solvent reservoir filters (10 µm), 1 250 µL syringe, 1 precolumn filter insert assembly, 2 check valve cartridges, 1 seal pack rebuild kit with needle, 1 wash tube seal, 1 sealwash tube, 1 PTFE washer, 1 filter retainer, 1 lower wash seal frit, 1 needlewash frit, 1 TFE washer, 1 needle assembly, 2 injector seals, 1 stainless steel ferrule 1/16 in, 1 compression screw	WAT270944	8005-0915
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				
2690 Separations Module	Seal Pack Rebuild Kit With Needle	Contains 1 wash tube seal, 1 sealwash tube, 1 PTFE washer, 1 filter retainer, 1 lower wash seal frit, 1 needlewash frit, 1 TFE washer, 1 needle assembly, 2 injector seals, 1 stainless steel ferrule 1/16 in, 1 compression screw	WAT271019	8005-0916
2690D Dissolution Separations Module				
2695 Separations Module				
2695D Dissolution Separations Module				

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2960/2965 PM kit, 8005-0915

## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
515 HPLC Pump	515 Pump Performance Maintenance Kit	Contains 2 sapphire plunger assemblies, 2 plunger seals, 1 solvent reservoir filter (10 µm), 1 sparge diffuser, 4 check valve cartridges	WAT052587	8005-0913
600 MultiSolvent Delivery System 610 PowerLine Isocratic Pump	600 Pump Performance Maintenance Kit	Contains 2 sapphire plungers, 2 plunger seals, 4 solvent reservoir filters (10 µm), 4 check valve cartridges, 1 reference valve rebuild kit, 1 inlet manifold rebuild kit, 4 sparge diffusers	WAT052675	8005-0930
616 LC System	616 LC Performance Maintenance Kit	Contains 2 sapphire plungers, 1 plunger seal kit (ultra high molecular weight polyethylene, yellow), 4 check valve cartridges, 4 sparge diffusers, 4 solvent reservoir filters (10 µm)	WAT052672	8005-0928
626 LC System	626 LC Performance Maintenance Kit	Contains 2 sapphire plungers, 2 ultra high molecular weight polyethylene plunger seals (yellow), 4 solvent reservoir filters (10 µm), 4 check valve cartridges, 4 sparge diffusers	WAT052673	8005-0929
1515 HPLC Pump	1515 Pump Performance Maintenance Kit	Contains 2 sapphire plungers, 2 plunger seals, 4 check valve cartridges, 1 reference valve rebuild kit, 1 solvent reservoir filter (10 µm)	201000113	8005-0925
1525 HPLC Pump	1525 Pump Performance Maintenance Kit	Contains 4 sapphire plungers, 4 plunger seals, 8 check valve cartridges, 1 reference valve rebuild kit, 2 solvent reservoir filters (10 µm)	201000114	8005-0926
616 LC System 626 LC System	Plunger and Wash Seal Rebuild Kit	Contains parts for both pump heads, 2 plunger seals, 2 plunger wash seals, 2 retainer seal O-rings, 6 plunger bearings	WAT031790	8005-0912

(Continued)

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515 pump PM kit, 8005-0913

## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
Performance Maintenance Kits for Pumps				
1515 HPLC Pump	Reference Valve Rebuild Kit	Contains 1 diaphragm for check valve, 1 gasket for check valve, 1 reference valve button	WAT025746	8005-0911
1525 HPLC Pump				
510 HPLC Pump				
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
510 HPLC Pump	Outlet Check Valve Rebuild Kit	Contains 2 ball and seat for outlet check valves, 2 polychlorotrifluoroethylene (PCTFE) inserts, 2 stainless steel cup filters (2 µm), 4 large PTFE washers, 2 small PTFE washers	WAT026014	8005-0528
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				
510 HPLC Pump	Inlet Check Valve Rebuild Kit	Contains 2 ball and seat for inlet check valves, 2 retainer gaskets, 2 TFE washers, 2 PTFE washers, 2 PCTFE inserts	WAT060495	8005-0914
515 HPLC Pump				
600 MultiSolvent Delivery System				
610 PowerLine Isocratic Pump				
LC Module 1				
Performance Maintenance Kits for Autosamplers				
717 Autosampler	717 Autosampler Performance Maintenance Kit	Contains 1 seal pack replacement kit, 1 250 µL syringe, 1 filter (2.3 x 11.5 in), 2 filters (2 x 7 in)	WAT052669	8005-0927
Performance Maintenance Kits for Rheodyne Valves				
Rheodyne Injector, 3725(i)	Performance Maintenance Kit for Rheodyne 3725(i) Injector Valves	Contains 1 rotor seal (PEEK), 1 stator face assembly (PEEK), 1 isolation seal, 1 needle guide, 1 needle port cleaner, 1 5/64 in hex key, 1 9/64 in hex key	201000116	8005-0901
Rheodyne Injector, 7010	Performance Maintenance Kit for Rheodyne 7010 Injector Valves	Contains 1 isolation seal, 1 rotor seal (Vespel), 1 5/64 in hex key, 1 9/64 in hex key	201000117	8005-0902
Rheodyne Injector, 7125 and 7126	Performance Maintenance Kit for Rheodyne 7125 and 7126 Injector Valves	Contains 1 rotor seal (Vespel), 1 stator face assembly (PEEK/ceramic), 1 isolation seal, 1 needle guide, 1 needle port cleaner, 1 5/64 in hex key, 1 9/64 in hex key, instructions	201000118	8005-0903

(Continued)

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Rheodyne Valves</b>				
Rheodyne Injector, 7725(i)	Performance Maintenance Kit for Rheodyne 7725(i) Injector Valves	Contains 1 stator face assembly (PEEK/ceramic), 1 rotor seal (Vespel), 1 isolation seal, 1 needle guide, 1 needle port cleaner, 1 5/64 in hex key, 1 9/64 in hex key, instructions	201000119	8005-0904
Rheodyne Injector, 7750E	Performance Maintenance Kit for Rheodyne 7750 Injector Valves	Contains 1 stator face assembly (PEEK/ceramic), 1 rotor seal (Vespel), 1 isolation seal, 1 9/64 in hex key, instructions	201000122	8005-0907
Rheodyne Injector, 7750E-075	Performance Maintenance Kit for Rheodyne 7750E-075 Valves	Contains 1 rotor seal (PEEK), 1 stator face assembly (PEEK), 1 isolation seal, 1 9/64 in hex key, instructions	201000125	8005-0908
Rheodyne Injector, 8125 and 8126	Performance Maintenance Kit for Rheodyne 8125 and 8126 Injector Valves	Contains 1 stator face assembly (PEEK/ceramic), 1 rotor seal (PEEK), 1 isolation seal, 1 needle guide, 1 needle port cleaner, 1 5/64 in hex key, 1 9/64 in hex key, instructions	201000120	8005-0905
Rheodyne Injector, 9125 and 9126	Performance Maintenance Kit for Rheodyne 9125 and 9126 Injector Valves	Contains 1 stator face assembly (PEEK/ceramic), 1 rotor seal (Tefzel), 1 isolation seal, 1 needle guide, 1 needle port cleaner, 1 5/64 in hex key, 1 9/64 in hex key, instructions	201000121	8005-0906

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Rheodyne 7725(i) PM kit, 8005-0904



Rheodyne 9125 PM kit, 8005-0906

## HPLC Capillaries, 1/pk

Model	From	To	Material	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
2690 Separations Module 2690D Dissolution Separations Module 2695 Separations Module 2695D Dissolution Separations Module	Pump	Autosampler	Stainless steel	1.6	0.23	760	With fittings, pre-swaged on both ends	WAT270975	8005-0824
2690 Separations Module 2690D Dissolution Separations Module 2695 Separations Module 2695D Dissolution Separations Module 2790 Separations Module 2795 Separations Module	Autosampler	Column Thermostat Valve	Stainless steel	1.6	0.23	760	With fittings, pre-swaged on both ends	WAT270979	8005-0825
2695 Separations Module 2695D Dissolution Separations Module	Autosampler	Column Thermostat Valve	PEEK	1.6	0.13	6000	With fittings, non pre-swaged	430000922	8005-0812

(Continued)



CrossLab capillary, stainless steel, 8005-0825



Agilent CrossLab capillary, PEEK, 8005-0812

## HPLC Capillaries, 1/pk

Model	From	To	Material	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
Alliance	Column Thermostat Valve	Column	Stainless steel	1.6	0.23	3000	No fittings	WAT026973	8005-0823
	Column	Detector							
Alliance	Column Thermostat Valve	Column	Stainless steel	1.6	0.508	3000	No fittings	WAT026804	8005-0826
	Column	Detector							
Alliance	Column Thermostat Valve	Column	Stainless steel	1.6	1.02	3000	No fittings	WAT026805	8005-0822
	Column	Detector							

### Fittings

Alliance	Compression screws and ferrules	WAT025604	8005-0835*
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\*This fitting is used with 8005-0823, 8005-0826, and 8005-0822



CrossLab capillary, stainless steel, 8005-0823

## HPLC Fittings, Ferrules, and Unions

Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
Compression screw, stainless steel, 1/16 in od	10/pk	WAT005070	8005-0837
Compression screws and ferrules	5/pk	WAT025604	8005-0835
Union, stainless steel, 1/16 in od	1/pk	WAT097332	8005-0836

# CrossLab Supplies for Shimadzu HPLC Systems



Long-life deuterium lamp, 8001-0701



Long-life deuterium lamp, 8001-0702



Long-life deuterium lamp, 8001-0704

## Detector Lamps, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
SPD-M10Avp	Long-life deuterium lamp, 2,000 hours	228-34016-00	8001-0701
SPD-M20A	Tungsten lamp, 1,200 hours	228-34410-91 228-34410-00	8001-0703
SPD-20A/AV SPD-10A/AVvp SPD-10AV	Long-life deuterium lamp, 2,000 hours	228-34016-02	8001-0702
SPD-20AV SPD-10AVvp SPD-10AV	Tungsten lamp, 1,200 hours	670-14602-00	8001-0705
LC-2010 LC-2010HT	Long-life deuterium lamp, 2,000 hours	228-37401-00	8001-0704

## Autosampler Syringes, 1/pk

Model	Volume (μL)	Description	Similar to OEM Part No.	Agilent CrossLab Syringe	Agilent CrossLab Replacement Plunger	Agilent CrossLab Replacement Barrel
SIL-10A SIL-10Ai	500	Chem (1/4-28 UNF screw threads), gas tight	228-25237-04	8001-0401	8001-0403	8001-0405
SIL-10A SIL-10Ai	2,500	Chem (1/4-28 UNF screw threads), gas tight	228-25237-06	8001-0402	8001-0406	

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Replacement syringe plunger, 500 μL, 8001-0403



Autosampler syringe, 8001-0401

## Pump Supplies, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Plungers and Seals</b>			
LC-10ADvp	Sapphire plunger	228-35601-92	8001-0503
LC-2010 (HT)		228-34498-91	
LC-20AD	Sapphire plunger	228-35601-93	8001-0504
LC-20ADXR			
LC-20AB			
LC-20AT	Sapphire plunger assembly	228-35009-93	8001-0501
LC-2010	Sapphire plunger assembly	228-35281-93	8001-0514
LC-10ATvp	Ceramic plunger assembly	228-35009-92	8001-0533
LC-10ADvp	Ceramic plunger assembly	228-35601-91	8001-0534
LC-10ADvp	Plunger holder	228-35602-91	8001-0515
LC-20AD/20ADXR/AB			
LC-30			
LC-10AD/ADvp/LC-600/LC-9A	Plunger seal, graphite-filled PTFE (GFP)	228-35146-00	8001-0502
LC-20AD/AB			
LC-2010 A/C (HT)			
LC-10ATvp	Plunger seal, graphite-filled PTFE (GFP)	228-35145-00	8001-0522
SIL-10ADvp			
SIL-20A/AC			
LC-20AT			
LC-2010 A/C			
LC-2010HT			
SIL-HT			



Sapphire plunger, 8001-0504



Sapphire plunger assembly, 8001-0501



Plunger seal, 8001-0502

(Continued)

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## Pump Supplies, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Plungers and Seals</b>			
LC-20AD/20AB and LC-10ADvp	Plunger seal, polyethylene	228-32628-00	8001-0530
LC-10ATvp/10AT/10AS	Plunger seal, polyethylene	228-21975-00	8001-0527
LC-10AS/10AT/10ATvp	Plunger rinse seal, polyethylene	228-28499-00	8001-0615
LC-20AT	Rinse seal	228-35935	8001-0520
LC-20AT	Back-up ring for ring seal	228-35934	8001-0516
LC-20AT	Plunger seal spacer	228-42700	8001-0510
LC-10AD	PTFE diaphragms, 2/pk	228-32784-91	8001-0513
LC-10ADvp			
LC-2010			
LC-20AD/AB			
<b>Check Valves and Cartridges</b>			
LC-10AT/ATvp	Check valve IN	228-32166-91	8001-0528
LC-10ADvp	Check valve IN	228-39093-92	8001-0535
LC-10ADvp/ATvp	Check valve OUT	228-34976-91	8001-0532
LC-10AD and LC-600 and LC-9A	Check valve IN	228-33492-91	8001-0531
LC-10AT/AD and LC-600 and LC-9A	Check valve OUT	228-32531-92	8001-0529
LC-20AD/AB XR	Check valve IN	228-48249-91 228-45557-91	8001-0511
LC-20AD/AB	Outlet check valve	228-45705-91	8001-0521
LC-10ADvp/ATvp		228-45563-95	
LC-2010	Inlet valve cartridge	228-37149-92	8001-0519
LC-2010HT		228-37149-91	
LC-2010	Outlet check valve	228-37147-93	8001-0506
LC-2010HT		228-37147-92	
LC-20AT	Primary inlet check valve assembly	228-48249-93	8001-0512

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## Valve Replacement Parts, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
SiL-10A/10Ai/10A <sub>XL</sub>	Rotor, 6-port valve	228-21217-91	8001-0601
SIL-10Ai	Seal rotor, Vespel, 6-port valve	228-32511-31	8001-0606
SIL-10ADvp	Rotor, 6V assembly, stainless steel surround	228-21217-97	8001-0603
SIL-10ADvp	Stator, 6V assembly, ceramic with stainless steel surround	228-21220-94	8001-0605
SIL-10A/10Ai	Stator, 6-port valve	228-21220-91	8001-0604
SiL-10AP	Rotor assembly, Vespel, preparative	228-21217-93	8001-0602
SIL-20A/AC	Stator, 5-port low pressure valve (LPV)	228-36917-01	8001-0607
LC-2010			
SIL-20A/AC	Rotor, PEEK, high pressure valve (HPV)	228-41310-92	8001-0612
SIL-HT		228-40750-92	
LC-2010	Rotor, Vespel, high pressure valve (HPV)	228-38556-01	8001-0609
SIL-20A/AC	High-pressure valve (HPV) stator assembly	228-45408-91	8001-0613
LC-2010	Rotor, PEEK, low pressure valve (LPV)	228-36923-00	8001-0608
LC-2010HT			
SIL-20			
SIL-HT			
LC-10ADvp	O-ring for drain valve, perfluoroelastomer	670-11518	8001-0614
LC-10ATvp			
SIL-10ADvp			
LC-20AT			
LC-2010/HT			



Rotor, 6-port valve, 8001-0601



Stator, 6-port valve, 8001-0604



PEEK rotor, low pressure valve (LPV), 8001-0608

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## Looking for Performance Maintenance Kits for Rheodyne Valves?

Please see page 38.



# CrossLab Supplies for Shimadzu HPLC Systems

## Sample Loops, 1/pk

Model	Volume (µL)	Material	Similar to OEM Part No.	Agilent CrossLab Part No.
SIL-20A/AC	100	Stainless steel	228-45402-91 228-45402-95	8001-0814
SIL-10ADvp	100	Stainless steel, extended for pre-treatment	228-39751-92	8001-0812
LC-2010	100	Stainless steel	228-41370-91	8001-0809
LD-2010HT			228-37549-91	
SIL-HT				
	100	Stainless steel, 1/16 in	220-90800-20	8001-0801
	100	Stainless steel, 1/8 in	220-90800-30	8001-0802

## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
LC-20AD	Performance Maintenance Kit for LC-20AD	Contains 2 graphite-filled PTFE (GFP) plunger seals, 1 stainless steel in-line filter, 1 stainless steel suction filter assembly, 1 plunger holder assembly, 4 stainless steel ferrules 1.6F, 4 stainless steel male nuts 1.6MN for 1/16 in tubing, 4 PEEK fingertight male nuts for 1/16 in tubing, 1 stainless steel capillary (1.6 mm od x 0.3 mm id x 2 m)	228-45593-91	8001-0901
LC-20AT	Performance Maintenance Kit for LC-20AT	Contains 2 graphite-filled PTFE (GFP) plunger seals, 1 stainless steel in-line filter, 1 stainless steel suction filter assembly, 2 plunger seal spacers, 1 sapphire plunger assembly, 1 rinse seal holder assembly (includes rinse seal, seal holder, backup ring, and O-ring), 4 stainless steel ferrules 1.6F, 4 stainless steel male nuts 1.6 MN for 1/16 in tubing, 4 PEEK fingertight male nuts for 1/16 in tubing, 1 stainless steel capillary (1.6 mm od x 0.3 mm id x 2 m)	228-45593-92	8001-0902
LC-20AT	Rinse seal holder assembly	Contains 1 rinse seal, 1 stainless steel rinse seal holder, 1 back up ring, 1 perfluoroelastomer O-ring for drain valve	228-35946-92	8001-0517

(Continued)

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Valves</b>				
SIL-10ADvp	Stator assembly for SIL-10ADvp	Contains 1 ceramic rotor, 1 stator, 1 housing C manifold with intermediate plate	228-36730-91 228-39349-01 228-39755-91	8001-0610
LC-2010	Stator assembly for LC-2010	Contains 1 housing C manifold (stainless steel) packing, 1 stator, and pins	228-40254-91	8001-0509
<b>Performance Maintenance Kits for Autosamplers</b>				
SIL-10ADvp	Performance Maintenance Kit for SIL-10ADvp	Contains 1 6-port injection valve rotor, 1 needle seal (Vespel), 1 stainless steel solvent filter, 1 graphite-filled PTFE (GFP) plunger seal, 1 stainless steel injection transfer tubing (0.13 mm id x 200 mL), 3 notch septa, 2 PEEK male nuts, 1 tubing pinch clamp	228-39835-91	8001-0903

## HPLC Capillaries, 1/pk

Model	From	To	Material	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
LC-2010	Autosampler	Column	Flexible stainless steel	0.6	0.17	200	No fittings	228-38043-91	8001-0810
SIL-10ADvp	Injector	High pressure valve port #1	Flexible stainless steel	0.6	0.13	200	With fittings, non pre-swaged	228-39756-92	8001-8020
SIL-10ADvp	Pump	Autosampler	Stainless steel	1.6	0.3	600	No fittings	228-22306-00	8001-0818
SIL-20A/AC									
LC-20AP			Stainless steel	1.6	0.8	2000	No fittings	228-49820-00 228-50579-43	8001-0821
LC-20AT			Stainless steel	1.6	0.3	2000	No fittings	228-36993-96	8001-0822
LC-20AD								228-50579-91	
SIL-10ADvp									

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Capillary assembly, flexible stainless steel, 8001-8020

# CrossLab Supplies for Shimadzu HPLC Systems



ETFE tubing for use between the inlet block and the check valve, 8001-0807



PTFE ferrule, 3.0 F-T, 8001-0803



Flangeless nut, M6, 8001-0813



Stainless steel male nut, 1.6 MN, for 1/16 in tubing, 8001-0805



Stainless steel male nut, 1.6 MN, W6 (taller hex portion), 8001-0806



Stainless steel in-line filter, 8001-0808

## Tubing

Model	Description	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
LC-2010 LC-20AD	ETFE tubing for use between the inlet block and the check valve	1.6	0.8	3000	No fittings	228-18495-01	8001-0807
LC-2010 SII-20A/AC	FEP tubing	3	1.5	3000	No fittings	670-10321-05	8001-0823
SPD-20A/AV SPD-M20A	PEEK tubing	1.6	0.25	500	No fittings	670-10324-01 228-33376-50	8001-0824

## HPLC Fittings, Ferrules, and Unions

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
LC-2010	PTFE ferrule, 3.0 F-T	1/pk	228-12493-00	8001-0803
LC-20AT LD-20AD	Stainless steel ferrule, 1.6 F	1/pk	228-16000-10	8001-0816
LC-2010	Flangeless nut, M6	1/pk	228-39999-05	8001-0813
SIL-20A/AC LC-20AT LC-20AD	Stainless steel male nut, 1.6 MN, for 1/16 in tubing	1/pk	228-16001-00	8001-0805
SIL-10ADvp SIL-20A/AC	Stainless steel male nut, 1.6 MN, W6 (taller hex portion)	1/pk	228-16001-03	8001-0806
LC-20AD/AB LC-10ADvp	PEEK male nut, 1.6 MN, for plumbing line between inlet block and check valve	1/pk	228-35403-00	8001-0819
	PEEK male nut, fingertight for 1/16 in tubing	1/pk	228-18565-84	8001-0817

## HPLC In-Line Filters

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
LC-2010	Stainless steel in-line filter	1/pk	228-35871-96	8001-0808
LC-20AD/AB/AT LC-10ADvp/ATvp			228-35871-94	

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# CrossLab Supplies for Dionex HPLC Systems

## Detector Lamps, 1/pk

Model	Description	Similar to OEM Part No.	Agilent CrossLab Part No.
VWD-3000 Series MWD-3000 Series DAD-3000 Series	Tungsten lamp, 2,000 hours	6074.2000	8002-0705
UVD 170/340 UVD 160/320	Long-life deuterium lamp, 2,000 hours	5053.1204	8002-0701
PDA-100 AD-25	Tungsten lamp, 5,000 hours	056123T	8002-0706



Long-life deuterium lamp, 8002-0701

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# CrossLab Supplies for Dionex HPLC Systems

## Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Similar to OEM Part No.	Agilent CrossLab Syringe	Agilent CrossLab Replacement Needle (Needle Gauge/Length (mm)/Tip)	Agilent CrossLab Replacement Plunger
WPS-3000SL	25	Chem (1/4-28 UNF screw threads), gas tight	6822.0001	8002-0405		
	250	Chem (1/4-28 UNF screw threads), gas tight	6822.0003	8002-0407		
ASI-100	100	Removable needle, gas tight	5805.2920	8002-0401*	8002-0413, 22/51/3, 6/pk 8002-0412, 22s/51/3, 6/pk	8002-0402
	1,000	Removable needle, gas tight	5805.2940	8002-0403*	8002-0414, 22/51/3, 6/pk 8002-0415, 22s/51/3, 6/pk	8002-0406
	2,500	Removable needle, gas tight	5805.2950	8002-0404*	8002-0414, 22/51/3, 6/pk 8002-0415, 22s/51/3, 6/pk	8002-0408

\*Needles are sold separately

## Autosampler Supplies

Model	Material	OD (mm)	ID (mm)	Length (mm)	Volume (µL)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Needle Seat Capillaries, 1/pk</b>								
WPS-3000SL	Stainless steel	0.8	0.12	120	1.35	With fittings, non pre-swaged	6820.2407	8002-0808
WPS-3000SL	Stainless steel	0.8	0.18	120	3.1	With fittings, non pre-swaged	6820.2408	8002-0809
WPS-3000SL Semiprep	Stainless steel	0.8	0.5	120	24	With fittings, non pre-swaged	6820.2409	8002-0810

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Chem (1/4-28 UNF screw threads), gas tight, 8002-0405



Removable needle, gas tight, 8002-0401



## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Pistons and Seals</b>				
ISO-3100A	Piston, sapphire	1/pk	6035.2240	8002-0515
LPG-3400A				
LPG-3400AB				
LPG-3400M				
LPG-3400MB				
DGP-3600A				
DGP-3600AB				
DGP-3600M				
DGP-3600MB				
HPG-3x00A				
HPG-3x00M				
ISO-3100SD	Piston seal, reversed-phase	2/pk	6040.0304	8002-0502
LPG-3400SD				
LPG-3400RS				
DGP-3600SD				
DGP-3600RS				
HPG-3x00SD				
HPG-3x00RS				
ISO-3100SD	Support ring for pistons seals	2/pk	6040.0012	8002-0501
LPG-3400SD				
LPG-3400RS				
DGP-3600SD				
DGP-3600RS				
HPG-3x00SD				
HPG-3x00RS				
UltiMate 3000 pump series	Ring seal, DR-8, PTFE	10/pk	2266.0082	8002-0601

(Continued)

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# CrossLab Supplies for Dionex HPLC Systems

## Pump Supplies

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Check Valves and Cartridges</b>				
UltiMate 3000 RS pumps, optional for SD and BM pumps	Check valve cartridge, ceramic	1/pk	6041.2301	8002-0517
ISO-3100A	Check valve cartridge, sapphire, biocompatible	1/pk	6035.2300	8002-0516
LPG-3400A			6041.2300	
LPG-3400M				
LPG-3400MB				
LPG-3400AB				
DGP-3600A				
DGP-3600M				
DGP-3600MB				
DGP-3600AB				
HPG-3x00A				
HPG-3x00M				
HPG-3200P				

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## Valve Replacement Parts

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
FLM-3x00	Rotor seal, proprietary inert polymer composite, 2-position 10-port C2 switching valve (standard)	1/pk	6720.0110	8002-0607
FLM-3x00	Rotor seal, polyaryletherketone/PTFE composite, 2-position 10-port C2 switching valve (biocompatible)	1/pk	6720.0092	8002-0605
FLM-3x00	Stator, stainless steel, 2-position 10-port C2 switching valve (standard)	1/pk	6720.0111	8002-0608
ASI-100	Tefzel rotor seal	1/pk	709.7010.071	8002-0604
ASI-100	Vespel rotor seal	1/pk	709.7010.039	8002-0602
Rheodyne injectors				
ASI-100	Stainless steel stator	1/pk	709.7010.040	8002-0603
Rheodyne injectors				

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Tefzel rotor seal, 8002-0604



Vespel rotor seal, 8002-0602



Stainless steel stator, 8002-0603

## Sample Loops, 1/pk

Model	Description	Volume (µL)	Material	Similar to OEM Part No.	Agilent CrossLab Part No.
ASI-100 series	For 100 µL syringe	100	Stainless steel	5810.3012	8002-0859
ASI-100	For 250 µL syringe	150	Stainless steel	5810.3003	8002-0856
ASI-100T					
ASI-100 series	For 1000 µL syringe	1000	Stainless steel	5810.3010	8002-0857
ASI-100P	For 250 µL syringe	2500	Stainless steel	5810.3011	8002-0858
ASI-100PT					
WPS-3000SL Analytical	For 100 µL syringe	100	Stainless steel	6820.2406	8002-0807
WPS-3000RS					
WPS-3000SL Analytical	Standard sample loop	250	Stainless steel	6820.2422	8002-0812
WPS-3000RS					

## Buffer Loops, 1/pk

Model	Volume (µL)	Material	Similar to OEM Part No.	Agilent CrossLab Part No.
WPS-3000SL Analytical	100	Stainless steel	6820.2413	8002-0860
WPS-3000RS				
WPS-3000SL Semiprep	>250	Stainless steel	6820.2421	8002-0811

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## Looking for Performance Maintenance Kits for Rheodyne Valves?

Please see page 38.



## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
ISO-3100SD	Performance Maintenance Kit for ISO-3100SD pump	Contains 1 solvent line filter holder, 1 stainless steel solvent line filter frit (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 3 tube connectors for 1.0-2.0 mm id tubing, 4 piston seals (reversed-phase), 2 support rings, 1 PTFE O-ring seal (9 mm x 1.5 mm) for seal wash system, 1 PTFE O-ring seal (32 mm x 1.5 mm) for seal wash system, 1 check valve cartridge (sapphire), 1 cap seal for purge valve knob	6040.1950	8002-0907
ISO-3100BM	Performance Maintenance Kit for ISO-3100BM pump	Contains 1 solvent line filter holder, 1 PEEK solvent line filter frit (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 3 tube connectors for 1.0-2.0 mm id tubing, 4 piston seals (reversed-phase, biocompatible), 2 support rings, 1 PTFE O-ring seal (9 mm x 1.5 mm) for seal wash system, 1 PTFE O-ring seal (32 mm x 1.5 mm) for seal wash system, 1 check valve cartridge (sapphire), 1 cap seal for purge valve knob	6042.1950	8002-0917
LPG-3400SD	Performance Maintenance Kit for LPG-3400SD pump	Contains 4 solvent line filter holders, 4 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 3 tube connectors for 1.0-2.0 mm id tubing, 4 piston seals (reversed-phase), 2 support rings, 1 PTFE O-ring seal (9 mm x 1.5 mm) for seal wash system, 1 PTFE O-ring seal (32 mm x 1.5 mm) for seal wash system, 1 check valve cartridge (sapphire), 1 cap seal for purge valve knob	6040.1951	8002-0908
LPG-3400RS	Performance Maintenance Kit for LPG-3400RS pump	Contains 4 solvent line filter holders, 4 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 3 tube connectors for 1.0-2.0 mm id tubing, 4 piston seals (reversed-phase), 1 PTFE O-ring seal (9 mm x 1.5 mm) for seal wash system, 1 PTFE O-ring seal (32 mm x 1.5 mm) for seal wash system, 1 check valve cartridge (ceramic), 1 cap seal for purge valve knob	6040.1954	8002-0911

(Continued)

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
LPG-3400BM	Performance Maintenance Kit for LPG-3400BM pump	Contains 4 solvent line filter holders, 4 PEEK solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 3 tube connectors for 1.0-2.0 mm id tubing, 4 piston seals (reversed-phase, biocompatible), 2 support rings, 1 PTFE O-ring seal (9 mm x 1.5 mm) for seal wash system, 1 PTFE O-ring seal (32 mm x 1.5 mm) for seal wash system, 1 titanium inline filter frit (Porosity: 2 µm), 1 check valve cartridge (sapphire), 1 cap seal for purge valve knob	6042.1951	8002-0918
DGP-3600SD	Performance Maintenance Kit for DGP-3600SD pump	Contains 6 solvent line filter holders, 6 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 5 tube connectors for 1.0-2.0 mm id tubing, 8 piston seals (reversed-phase), 4 support rings, 2 PTFE O-ring seals (9 mm x 1.5 mm) for seal wash system, 2 PTFE O-ring seals (32 mm x 1.5 mm) for seal wash system, 2 check valve cartridges (sapphire), 2 cap seals for purge valve knob	6040.1952	8002-0909
DGP-3600RS	Performance Maintenance Kit for DGP-3600RS pump	Contains 6 solvent line filter holders, 6 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 5 tube connectors for 1.0-2.0 mm id tubing, 8 piston seals (reversed-phase), 2 PTFE O-ring seals (9 mm x 1.5 mm) for seal wash system, 2 PTFE O-ring seals (32 mm x 1.5 mm) for seal wash system, 2 check valve cartridges (ceramic), 2 cap seals for purge valve knob	6040.1955	8002-0912
DGP-3600BM	Performance Maintenance Kit for DGP-3600BM pump	Contains 6 solvent line filter holders, 6 PEEK solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.3 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 5 tube connectors for 1.0-2.0 mm id tubing, 8 piston seals (reversed-phase, biocompatible), 4 support rings, 2 PTFE O-ring seals (9 mm x 1.5 mm) for seal wash system, 2 PTFE O-ring seals (32 mm x 1.5 mm) for seal wash system, 2 titanium inline filter frits (Porosity: 2 µm), 2 check valve cartridges (sapphire), 2 cap seals for purge valve knob	6042.1952	8002-0919

(Continued)

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
HPG-3x00SD	Performance Maintenance Kit for HPG-3x00SD pump	Contains 4 solvent line filter holders, 4 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 5 tube connectors for 1.0-2.0 mm id tubing, 8 piston seals (reversed-phase), 4 support rings, 2 PTFE O-ring seals (9 mm x 1.5 mm) for seal wash system, 2 PTFE O-ring seals (32 mm x 1.5 mm) for seal wash system, 2 check valve cartridges (sapphire), 1 cap seal for purge valve knob	6040.1953	8002-0910
HPG-3x00RS	Performance Maintenance Kit for HPG-3x00RS pump	Contains 4 solvent line filter holders, 4 stainless steel solvent line filter frits (Porosity: 10 µm), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 5 tube connectors for 1.0-2.0 mm id tubing, 8 piston seals (reversed-phase), 2 PTFE O-ring seals (9 mm x 1.5 mm) for seal wash system, 2 PTFE O-ring seals (32 mm x 1.5 mm) for seal wash system, 2 check valve cartridges (ceramic), 1 cap seal for purge valve knob	6040.1956	8002-0913
ISO-3100A LPG-3400A and M DGP-3600A and M HPG-3x00 A and M	Performance Maintenance Kit for UltiMate 3000 pumps with floating pistons	Contains 2 solvent line filter holders, 1 stirrer, 1 ECTFE tubing (1.60 mm od x 0.75 mm id x 1 m L), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 2 fittings (for 1/8 in od tubing, PEEK), 2 solvent line locking rings (PEEK), 2 solvent line support flanges (PEEK), 2 knurled head screws (1/4 in-28 for ferrule 1/16 in, PEEK), 1 tube connector for 1.0-2.0 mm id tubing, 2 ferrules (1/16 in for 1/4 in-28 head screw, PEEK), 4 ring seals (DR-8), 8 piston seals (reversed-phase), 2 mixing chamber gaskets, 4 O-rings (22 mm x 2 mm, silicone), 4 pistons (sapphire), 4 inline filter frits (stainless steel; porosity: 0.5 µm), 4 inline filter frits (stainless steel; porosity: 10 µm), 8 solvent line filter frits (stainless steel; porosity: 10 µm), 2 piston support hemispheres, 4 support rings, 2 micro flow ring seals, and 4 check valve cartridges (sapphire)	6035.1961	8002-0904

(Continued)

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# CrossLab Supplies for Dionex HPLC Systems

## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
LPG-3400AB and MB DGP-3600AB and MB	Performance Maintenance Kit for UltiMate 3000 pumps with floating pistons, Biocompatible	Contains 1 ECTFE tubing (1.6 mm od x 0.75 mm id x 1 m L), 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 2 PEEK fittings for 1/8 in od tubing, 2 solvent line locking rings (PEEK), 2 solvent line support flanges (PEEK), 2 knurled head screws (1/4 in-28 for ferrule 1/16 in, PEEK), 1 tube connector for 1.0-2.0 mm id tubing, 2 ferrules (1/16 in for 1/4 in-28 head screw, PEEK), 4 ring seals (DR-8), 8 piston seals (reversed-phase), 4 O-rings (22 mm x 2 mm, silicone), 4 pistons (sapphire), 4 inline filter frits (titanium; Porosity: 10 µm), 4 inline filter frits (PEEK; Porosity: 0.5 µm), 2 solvent line filter holders, 6 solvent line filter frits (titanium; Porosity: 10 µm), 2 piston support hemispheres, 4 support rings, 2 micro flow ring seals, 4 check valve cartridges (sapphire), and 2 mixing chamber gaskets	6035.1963	8002-0906
HPG-3200P	Performance Maintenance Kit for HPG-3200P pump	Contains 1 stirrer, 1 silicone tubing (2.80 mm od x 1.30 mm id x 1.5 m L), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm L), 1 FEP tubing (4.5 mm od x 3.0 mm id x 2 m L), 1 tube connector for 1.0-2.0 mm id tubing, 2 tube adaptors (3.0 mm id 1/4 in-28), 4 ring seals (DR-8), 8 piston seals (reversed-phase, semi-preparative), 2 mixing chamber gaskets, 4 ceramic pistons (semi-preparative), 4 stainless steel inline filter frits (Porosity: 10 µm), 2 stainless steel solvent line filters (Porosity: 10 µm), 4 support rings (semi-preparative), 4 check valve cartridges (sapphire)	6035.1962	8002-0905
ISO-3100A LPG-3400 A and M DGP-3600 A and M HPG-3x00 A and M	Piston seal/support ring kit, reversed-phase	Contains 1 support ring and 2 piston seals	6025.2010A	8002-0923
LPG-3400AB LPG-3400MB DGP-3600AB DGP-3600MB ISO-3100BM LPG-3400BM DPG-3600BM	Piston seal/support ring kit, reversed-phase, biocompatible	Contains 1 support ring and 2 piston seals	6025.2012	8002-0901

(Continued)

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## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
HPG-3200P P680	Piston seal/support ring kit, reversed-phase, semi-preparative	Contains 1 support ring and 2 piston seals	6030.9010	8002-0902
HPG-3200P P680	Piston seal/support ring kit, normal phase, semi-preparative	Contains 1 support ring and 2 piston seals	6030.9011	8002-0903
ISO-3100A LPG-3400A LPG-3400M DGP-3600A DGP-3600M HPG-3x00A HPG-3x00M ISO-3100SD LPG-3400SD DGP-3600SD HPG-3x00SD	Piston seal/support ring kit, normal phase	Contains 1 support ring and 2 piston seals	6025.2011A	8002-0924
ISO-3100SD ISO-3100BM LPG-3400SD LPG-3400BM LPG-3400RS DGP-3600SD DGP-3600BM DGP-3600RS HPG-3x00SD HPG-3x00RS HPG-3200BX	PTFE seal kit for rear seal wash system	Contains 5 PTFE O-ring seals 9 mm x 1.5 mm, 5 PTFE O-ring seals 32 mm x 1.5 mm	6040.2208	8002-0915

(Continued)

The cross references to the original equipment manufacturer (OEM) part numbers listed here serve as a recommendation that the Agilent CrossLab products are viable alternatives to OEM products. CrossLab products are compatible with the corresponding OEM instruments, although in some cases, the CrossLab products may have slightly different designs as compared to the OEM counterparts. All CrossLab supplies are backed by Agilent's 90-day money-back warranty.

## Performance Maintenance Kits

Model	Description	Kit Contents	Similar to OEM Part No.	Agilent CrossLab Part No.
<b>Performance Maintenance Kits for Pumps</b>				
ISO-3100SD	Tubing Kit for Rear Seal Wash System	Includes 1 silicone tubing (2.80 mm od x 1.3 mm id x 1.5 m), 1 PharMed tubing for peristaltic pump (3.2 mm od x 1.6 mm id x 180 mm), 7 tube connectors for 1-2 mm id tubing	6040.9502	8002-0916
ISO-3100BM				
LGP-3400SD				
LGP-3400RS				
LGP-3400BM				
DGP-3600SD				
DGP-3600RS				
DGP-3600BM				
HPG-3x00SD				
HPG-3x00RS				
<b>Performance Maintenance Kits for Autosamplers</b>				
WPS-3000TBSL Autosampler	Rotor Seal and Stator Face Seal Kit	Contains 1 rotor seal and 1 stator face	6722.9014	8002-0611
WPS-3000SL	Rotor Seal Kit	Contains 2 PEEK rotor seals, 1 9/64 in hex key, instructions	6840.0012	8002-0610
WPS-3000RS				
WPS-3000SL	Injection volume kit, 250 µL	Contains 1 stainless steel sample loop, 250 µL; 1 syringe, 250 µL; and 1 stainless steel buffer loop, > 250 µL	6822.2432	8002-0922
WPS-3000RS				

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### Looking for Performance Maintenance Kits for Rheodyne Valves?

Please see page 38.

## HPLC Capillaries, 1/pk

Model	From	To	Material	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
UltiMate 3000 RS	Pump	Autosampler	Flexible stainless steel	0.6	0.13	450	With fittings, non pre-swaged	6040.2345	8002-0822
UltiMate 3000 SD	Pump	Autosampler	Flexible stainless steel	0.6	0.18	450	With fittings, non pre-swaged	6040.2365	8002-0824
UltiMate 3000 RS	Autosampler	Column Thermostat Valve	Flexible stainless steel	0.6	0.13	350	With fittings, non pre-swaged	6040.2335	8002-0821
UltiMate 3000 SD	Autosampler	Column Thermostat Valve	Flexible stainless steel	0.6	0.18	350	With fittings, non pre-swaged	6040.2375	8002-0825
UltiMate 3000	Autosampler	Column Thermostat Valve	Stainless steel	1.6	0.23	340	With fittings, non pre-swaged	6820.2418	8002-0837
UltiMate 3000 RS	Column Thermostat Valve	Column	Flexible stainless steel	0.6	0.13	550	With fittings, non pre-swaged	6040.2305	8002-0818
UltiMate 3000 RS	Pump	Autosampler	Flexible stainless steel	0.6	0.18	550	With fittings, non pre-swaged	6040.2355	8002-0823
UltiMate 3000 SD	Column Thermostat Valve	Column							
UltiMate 3000 RS	Column	Detector	Flexible stainless steel	0.6	0.13	250	With fittings, non pre-swaged	6040.2325	8002-0820
UltiMate 3000 SD	Column	Detector	Flexible stainless steel	0.6	0.18	250	With fittings, non pre-swaged	6040.2385	8002-0826
UltiMate 3000	Column	Detector	Stainless steel	1.6	0.13	250	With fittings, non pre-swaged	6074.2410	8002-0833
UltiMate 3000	Column	Detector	PEEK	1.6	0.13	250	With fittings, non pre-swaged	6074.2415	8002-0834
UltiMate 3000	Column	Detector	Stainless steel	1.6	0.23	250	With fittings, non pre-swaged	6074.2400	8002-0831

(Continued)

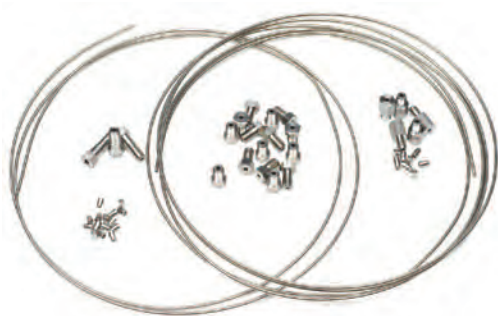
The cross references to the original equipment manufacturer (OEM) part numbers listed here serve as a recommendation that the Agilent CrossLab products are viable alternatives to OEM products. CrossLab products are compatible with the corresponding OEM instruments, although in some cases, the CrossLab products may have slightly different designs as compared to the OEM counterparts. All CrossLab supplies are backed by Agilent's 90-day money-back warranty.



## HPLC Capillaries, 1/pk

Model	From	To	Material	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
UltiMate 3000	Column	Detector	PEEK	1.6	0.25	250	With fittings, non pre-swaged	6074.2405	8002-0832
UltiMate 3000 RS			Flexible stainless steel	0.6	0.13	150	With fittings, non pre-swaged	6040.2315	8002-0819
VWD-3100			PEEK	1.6	0.25	2000	No fittings	6251.6001	8002-0835
VWD-3100RS									
VWD-3400									
VWD-3400RS									
DAD-3000									
DAD-3000RS									
MWD-3000									
MWD-3000RS									
ISO-3100BM									
LPG-3400AB									
LPG-3400MB									
LPG-3400BM									
DPG-3600AB									
DPG-3600MB									
DPG-3600BM									
Summit P680	Pump	Autosampler	Stainless steel	1.6	0.508	178	With fittings, non pre-swaged	5030.3020	8002-0816
Summit ASI-100	Autosampler	Column	Stainless steel				With fittings, non pre-swaged	6000.0020	8002-0817*
UVD 170U	Column	Detector	PEEK	1.6	0.5	1000	No fittings	2251.6002	8002-0815
UVD 340U									

\*CrossLab capillary and fitting kit, for ASI-100 Autosampler, contains 1 stainless steel capillary (0.7 mm id x 1 m), 2 stainless steel capillaries (0.25 mm id x 2 m), 15 10-32UNF stainless steel fittings, 5 10-32UNF stainless steel long fittings, 3 10-32UNF stainless steel extra long fittings, 15 stainless steel ferrules 1/16 in, and 8 stainless steel long ferrules 1/16 in



CrossLab capillary and fitting kit, 8002-0817

The cross references to the original equipment manufacturer (OEM) part numbers listed here serve as a recommendation that the Agilent CrossLab products are viable alternatives to OEM products. CrossLab products are compatible with the corresponding OEM instruments, although in some cases, the CrossLab products may have slightly different designs as compared to the OEM counterparts. All CrossLab supplies are backed by Agilent's 90-day money-back warranty.



## Tubing

Model	Description	OD (mm)	ID (mm)	Length (mm)	Fittings	Similar to OEM Part No.	Agilent CrossLab Part No.
LPG-3x00 peristaltic pump	PharMed biocompatible tubing	3.2	1.6	180	No fittings	6000.5000	8002-0803

## HPLC Fittings, Ferrules, and Unions

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
UltiMate 3000 Series	Blind nut, FS-8 biocompatible	1/pk	6000.0144 6000.0044	8002-0802
WPS-3000(T)SL WPS-3000(T)SL Semiprep WPS-3000(T)RS	Ferrule and fitting kit, contains 6 ferrules and 6 long fitting screws		6822.0011	8002-0921



Blind nut, FS-8 biocompatible, 8002-0802

## HPLC In-Line Filters

Model	Description	Unit	Similar to OEM Part No.	Agilent CrossLab Part No.
LPG-3400BM DGP-3600BM	In-line filter, 10 µL	1/pk	6042.5014	8002-0805
LPG-3400BM DGP-3600BM	Filter frit for titanium in-line filter, 2 µL	1/pk	6268.0036	8002-0806



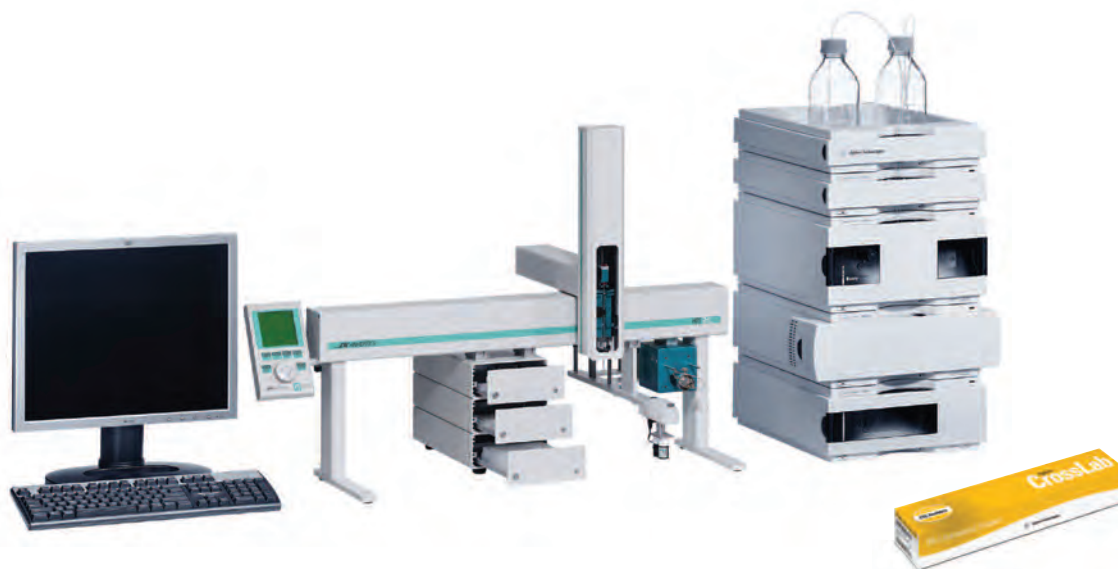
Filter frit for titanium in-line filter, 2 µL, 8002-0806

The cross references to the original equipment manufacturer (OEM) part numbers listed here serve as a recommendation that the Agilent CrossLab products are viable alternatives to OEM products. CrossLab products are compatible with the corresponding OEM instruments, although in some cases, the CrossLab products may have slightly different designs as compared to the OEM counterparts. All CrossLab supplies are backed by Agilent's 90-day money-back warranty.

# CrossLab Supplies for CTC Analytics HPLC Autosamplers

## Autosampler Syringes for CTC HTS and HTC PAL

Volume (μL)	OD (mm)	Description	Needle Gauge/Length (mm)/Tip	Agilent CrossLab Syringe Part No.	Agilent CrossLab Replacement Plunger Part No.
10	6.7	Fixed needle	22s/51/3	8010-0440, 1/pk	
	6.7	Fixed needle, gas tight	22s/51/3	8010-0445, 1/pk	8010-0457, 10/pk
25	7.9	Fixed needle, gas tight	22s/51/3	8010-0441, 1/pk	8010-0458, 10/pk
	6.7	Fixed needle, gas tight	22s/51/3	8010-0449, 1/pk	8010-0450, 10/pk
100	6.7	Fixed needle, gas tight	22s/51/3	8010-0442, 1/pk	8010-0459, 10/pk
	6.7	Fixed needle, gas tight	22/51/3	8010-0446, 1/pk	8010-0459, 10/pk
250	7.9	Fixed needle, gas tight	22/51/3	8010-0467, 1/pk	8010-0456, 10/pk
500	7.9	Fixed needle, gas tight	22/51/3	8010-0468, 1/pk	8010-0460, 10/pk
1.0 mL	7.9	Fixed needle, gas tight	22/51/3	8010-0443, 1/pk	8010-0455, 1/pk
2.5 mL	7.9	Fixed needle, gas tight	22/51/3	8010-0444, 1/pk	8010-0448, 1/pk



# CrossLab Vials and Closures







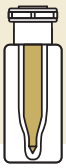



























The table below illustrates that the Agilent CrossLab vial portfolio is compatible with a wide range of HPLC and GC autosamplers.

CrossLab Vial Compatibility						
Manufacturer	Autosampler	8 mm Screw Top	9 mm Screw Top	15 x 45 mm, 4 mL	11 mm Crimp Top	Headspace
Waters	717 Plus				✓	
	Acquity	✓	✓		✓	
	Alliance 2690	✓	✓			
	CapLC	✓	✓		✓	
	WISP			✓		
Shimadzu	AOC14/1400	✓	✓		✓	
	AOC-20		✓	✓	✓	
	AOC 88/9	✓	✓		✓	
	AOC-5000	✓	✓		✓	Magnetic
	HSS-2B/4B					✓
	LC 2010	✓	✓		✓	
	SIL-6A/6B/9A	With flange				
	SIL-10A, SIL-10Ai, SIL-10AxL	✓	✓			
	SIL-HT/10ADVP	✓	✓		✓	
Thermo Scientific	A-200S/AS 150/800/8000	✓	✓		✓	
	AS 3000/TRACE GC		✓		✓	
	ASI-100	✓	✓		✓	
	SURVEYOR LC	✓	✓		✓	
	TriPlus		✓		✓	
	WPS-3000RS	✓	✓		✓	
	WPS-3000SL	✓	✓		✓	
Bruker, Varian*	8034/8035/8100/8200	✓	✓		✓	
	9095/9100	✓	✓		✓	
	CP-8410		✓	✓	✓	
	Genesis					✓
PerkinElmer	Autosystem GC/XL/AS-2000	✓	✓	✓	✓	
	Clarus 500/600		✓		✓	
	HS16/40					✓
	Integral 4000	✓	✓		✓	
	ISS-100/200	✓	✓		✓	
	LC 600 42 vial tray		✓			
	LC Plus	✓	✓	✓		
	TurboMatrix 40/110					✓
CTC Analytics	CombiPal		✓	✓	✓	Magnetic

\*Formerly Varian systems, now Bruker products

## Agilent CrossLab Vial Identification Chart with Recommended Fill Volumes

The Agilent CrossLab vial identification chart below provides a quick reference on vial dimensions, fill volumes, and Agilent CrossLab part numbers for a variety of vials, along with the recommended closures, for both HPLC and GC autosamplers.

Wide Opening Screw Top Vials (9 mm)			Narrow Opening Screw Top Vials (8 mm)			Wide Opening Crimp Top Vials (11 mm)		
								
Dimensions: 32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm
Recommended Fill: 1.7 mL	1.3 mL	0.3 mL	1.5 mL	1.7 mL	1.3 mL	0.3 mL		
Part Number: 8010-0014	8010-0018	8010-0008	8010-0010	8010-0001	8010-0004	8010-0006		
Recommended Cap*: 8010-0086	8010-0086	8010-0086	8010-0061	8010-0050	8010-0050	8010-0050		
Wide Opening Snap Top Vials			Micro Vials			Polypropylene Vials		
								
Dimensions: 32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm	32 mm x 12 mm
Recommended Fill: 1.5 mL	1.3 mL	0.8 mL	0.1 mL	250 µL	250 µL	250 µL	250 µL	0.7 mL
Part Number: 8010-0023	8010-0028	8010-0153	8010-0154	8010-0155	8010-0158	8010-0160	8010-0161	8010-0159
Recommended Cap*: 8010-0108	8010-0108	8010-0050	8010-0050	8010-0050	8010-0050	8010-0050	8010-0061	8010-0050
						Glass Insert	Glass Insert	
Headspace Vials								
								
Dimensions: 45 mm x 22 mm	45 mm x 22 mm	75 mm x 22 mm	75 mm x 22 mm	75 mm x 22 mm	45 mm x 22 mm	45 mm x 22 mm	75 mm x 22 mm	75 mm x 22 mm
Recommended Fill: 10 mL	10 mL	20 mL	20 mL	20 mL	10 mL	10 mL	20 mL	20 mL
Part Number: 8010-0029	8010-0030	8010-0033	8010-0034	8010-0152	8010-0037	8010-0038	8010-0041	8010-0042
Recommended Cap*: 8010-0116	8010-0116	8010-0116	8010-0116	8010-0116	8010-0119	8010-0119	8010-0119	8010-0119
Specialty Vials			Inserts for Wide Opening Vials (11 mm & 9 mm)			Inserts for Narrow Opening Vials (8 mm)		
								
Dimensions: 37 mm x 22 mm	45 mm x 15 mm	37 mm x 22 mm	30 mm x 5.6 mm	31 mm x 5.6 mm	31 mm x 5.6 mm	28 mm x 4.8 mm	31 mm x 4.8 mm	31 mm x 4.8 mm
Recommended Fill: 6 mL	4 mL	6 mL	250 µL	250 µL	200 µL	150 µL	150 µL	150 µL
Part Number: 8010-0151	8010-0020	8010-0022	8010-0131	8010-0132	8010-0136	8010-0124	8010-0125	8010-0126
Recommended Cap*: 8010-0116	8010-0095	8010-0101						

Agilent provides this septa compatibility information as a guide and starting reference point. We realize that chemical compatibility can vary depending on the concentration of the solvent, temperature, molecular weight of the solvent, and other factors. Therefore, it is always recommended that you try a variety of septa to determine the best one for your analysis.

Vial Septum Chemical Compatibility Chart						
	PTFE	PTFE/Silicone	PTFE/ Silicone/PTFE*	PTFE/ Red Rubber	Viton	PTFE/Butyl
Acetonitrile	✓	✓	✓	✓		✓
Hydrocarbons (hexane, heptane, methane)	✓		✓	✓	✓	
Methanol	✓	✓	✓	✓		✓
Benzene	✓		✓		✓	
THF	✓		✓			
Toluene	✓		✓			
DMF	✓	✓	✓			✓
DMSO	✓	✓	✓			✓
Ether	✓	✓	✓			
Chlorinated Solvents (methylene chloride)	✓		✓		✓	
Alcohols (ethanol)	✓	✓	✓	✓	✓	✓
Acetic Acid	✓	✓	✓			✓
Acetone	✓	✓	✓			
Phenol	✓	✓	✓		✓	✓
Cyclohexane	✓		✓	✓	✓	

\*PTFE/silicone/PTFE has the same chemical compatibility of PTFE ONLY UNTIL PUNCTURED

## CrossLab Vials and Closures

Vial Cap and Septum Compatibility							
	Thin PTFE	PTFE/Silicone*	PTFE/ Silicone/PTFE*	PTFE/ Red Rubber	Viton	Butyl	High Performance Septa
Temperature range	Up to 260 °C	-40 °C to 200 °C	-40 °C to 200 °C	-40 °C to 90 °C	-40 °C to 260 °C	-50 °C to 150 °C	Up to 300 °C for up to 1 hour
Use for multiple injections	No	Yes	Yes	No	No	No	Yes
Price	Very economical	Economical	Most expensive	Very economical	Economical	Economical	More expensive
Resistance to coring	None	Excellent	Excellent	None	None	None	Excellent
Recommended for storage	No	Yes	Yes	No	No	No	No
Best for	Superior chemical inertness, short cycle times, and single injections	Most common HPLC and GC analyses, not as resistant to coring as P/S/P	Superior performance for ultra trace analysis, repeat injections, internal standards	Chlorosilanes, more economical option for single injections	Chlorinated solvents, higher temperatures	Organic solvents, acetic acids; impermeable to gases	High temperature headspace applications

\*Agilent CrossLab silicone is platinum cured (versus peroxide cured), making it more inert and less likely to interact with samples

## CrossLab Screw Top Vials and Closures

Combine the excellent autosampler handling of a crimp cap profile with the ease of a screw cap. CrossLab screw caps and precision-fit septa give a secure seal with microvolume inserts.

### 2 mL Wide Opening (9 mm) Screw Top Vials and Closures

- 2 mL, 12 x 32 mm, 9 mm diameter
- Available in unique packaging designed to reduce vial breakage
- Wider opening prevents syringe problems
- Unique thread design for consistently secure seal
- Precision-formed neck for optimal robotic arm handling
- Optional ceramic write-on spot with fill marks

#### 2 mL Wide Opening (9 mm) Screw Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0015
Clear, write-on spot	100/pk	8010-0014
	1000/cs	8010-0175
Amber	100/pk	8010-0017
Amber, write-on spot	100/pk	8010-0016
	1000/cs	8010-0176
<b>Screw Top Vials with Fixed Inserts</b>		
Clear, 300 µL insert volume	100/pk	8010-0008
Amber, 300 µL insert volume	100/pk	8010-0009



Clear, 2 mL wide opening (9 mm) screw top glass vials, 8010-0015



Wide opening screw top vials with write-on spot, 8010-0014

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

## Screw Caps for Wide Opening (9 mm) Vials



Orange screw caps with PTFE/silicone septa for wide opening (9 mm) vials, 8010-0084

Color	Septa Type	Unit	Agilent CrossLab Part No.
Blue	PTFE/silicone	100/pk	8010-0086
	PTFE/silicone/PTFE	100/pk	8010-0087
	Pre-slit PTFE/silicone	100/pk	8010-0078
	Bonded PTFE/silicone	100/pk	8010-0077
	PTFE lined	100/pk	8010-0080
	Open top, no septa	100/pk	8010-0079
Red	PTFE/silicone	100/pk	8010-0088
	PTFE/silicone/PTFE	100/pk	8010-0089
	Pre-slit PTFE/silicone	100/pk	8010-0082
	Bonded PTFE/silicone	100/pk	8010-0081
	Open top, no septa	100/pk	8010-0083
Orange	PTFE/silicone	100/pk	8010-0084
		1000/cs	8010-0186
	PTFE/silicone/PTFE	100/pk	8010-0085
		1000/cs	8010-0187
	Pre-slit PTFE/silicone	100/pk	8010-0075
	Bonded PTFE/silicone	100/pk	8010-0074
	Open top, no septa	100/pk	8010-0076



Septa for wide opening screw caps, 8010-0094

## Septa for Wide Opening (9 mm) Screw Caps

Septa Type	Color	Unit	Agilent CrossLab Part No.
PTFE/red silicone	Ivory	100/pk	8010-0093
PTFE/white silicone/red PTFE	Red	100/pk	8010-0091
		1000/cs	8010-0188
Pre-slit PTFE/white silicone	Blue	100/pk	8010-0094
PTFE/white silicone	Red	100/pk	8010-0092

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.



**2 mL Wide Opening (9 mm) Screw Top Vial Convenience Packs, 100/pk**

Vial Type	Septa Type	Cap Color	Agilent CrossLab Part No.
Clear	Pre-slit PTFE/silicone	Red	8010-0425
Clear, write-on spot	PTFE/silicone	Orange	8010-0198
Clear, write-on spot	Pre-slit PTFE/silicone	Orange	8010-0542
Clear, write-on spot, 300 µL insert volume	PTFE/silicone	Orange	8010-0545
Clear, write-on spot, 300 µL insert volume	Pre-slit PTFE/silicone	Orange	8010-0547
Amber, write-on spot	PTFE/silicone	Orange	8010-0199
Amber, write-on spot	Pre-slit PTFE/silicone	Orange	8010-0543
Amber, write-on spot, 300 µL insert volume	PTFE/silicone	Orange	8010-0546
Amber, write-on spot, 300 µL insert volume	Pre-slit PTFE/silicone	Orange	8010-0548



CrossLab vial kit, screw top,  
clear with write-on spot,  
300 µL insert volume, orange cap,  
pre-slit PTFE/silicone septa, 8010-0547

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa,  
go to **[www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)**

## 2 mL Standard Opening (8 mm) Screw Top Vials and Closures

- 2 mL, 12 x 32 mm, 8 mm diameter
- 8-425 thread design
- Optional ceramic write-on spot with fill marks



Clear 2 mL standard opening (8 mm) screw top glass vials, 8010-0011

### 2 mL Standard Opening (8 mm) Screw Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0011
Clear, write-on spot	100/pk	8010-0010
Amber	100/pk	8010-0013
Amber, write-on spot	100/pk	8010-0012

### 2 mL Standard Opening (8 mm) Screw Top Glass Vial Convenience Packs

Vial Type	Septa Type	Cap Color	Unit	Agilent CrossLab Part No.
Clear	PTFE/silicone	Black	100/pk	8010-0414
Clear	PTFE/butyl	Black	100/pk	8010-0426
Clear, 100 µL insert volume	PTFE/butyl	Black	100/pk	8010-0427
Amber	PTFE/silicone	Black	100/pk	8010-0415

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

**Screw Caps for Standard Opening (8 mm) Vials**

Color	Septa Type	Unit	Agilent CrossLab Part No.
Blue	PTFE/silicone	100/pk	8010-0061
	Pre-slit PTFE/silicone	100/pk	8010-0062
	PTFE/silicone/PTFE	100/pk	8010-0063
	PTFE/butyl	100/pk	8010-0064
	Open top, no septa	100/pk	8010-0065
Red	PTFE/silicone	100/pk	8010-0066
	Pre-slit PTFE/silicone	100/pk	8010-0067
	PTFE/silicone/PTFE	100/pk	8010-0068
	PTFE/butyl	100/pk	8010-0069
	Open top, no septa	100/pk	8010-0070
Orange	PTFE/silicone	100/pk	8010-0056
	Pre-slit PTFE/silicone	100/pk	8010-0057
	PTFE/silicone/PTFE	100/pk	8010-0058
	PTFE/butyl	100/pk	8010-0059
	Open top, no septa	100/pk	8010-0060
Black	PTFE/silicone	100/pk	8010-0054
	Open top, no septa	100/pk	8010-0055
<b>Flanged Caps (Compatible with Shimadzu Autosamplers)</b>			
Orange	Flanged, PTFE/silicone	100/pk	8010-0141
	Flanged, pre-slit PTFE/silicone	100/pk	8010-0142
	Flanged, no septa	100/pk	8010-0166



Orange screw caps with PTFE/silicone septa for standard opening vials, 8010-0056

**Septa for Standard Opening (8 mm) Vials**

Septa Type	Unit	Agilent CrossLab Part No.
Red PTFE/white silicone/red PTFE	100/pk	8010-0071
Red PTFE/white silicone	100/pk	8010-0072
PTFE/butyl	500/pk	8010-0073

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

## 4 mL (13 mm) Screw Top Vials and Closures

- 4 mL, 15 x 45 mm
- Compatible with WISP 48 style autosamplers
- Precision-formed screw threads (13 x 425) for consistently secure seal
- Can be used as wash, waste, or storage vials

### 4 mL (13 mm) Screw Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0020
Amber	100/pk	8010-0021



### Screw Caps for 4 mL (13 mm) Vials

Color	Septa Type	Unit	Agilent CrossLab Part No.
Black	Red PTFE/silicone	100/pk	8010-0095
	Open top, no septa	100/pk	8010-0096

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

**Septa for 4 mL (13 mm) Vials**

Septa Type	Unit	Agilent CrossLab Part No.
Red PTFE/white silicone	100/pk	8010-0098
White PTFE	100/pk	8010-0099
Pre-slit PTFE/silicone	100/pk	8010-0557

**4 mL (13 mm) Screw Top Vial Convenience Packs, 100/pk**

Vial Type	Septa Type	Cap Color	Agilent CrossLab Part No.
Clear	PTFE/silicone	Black	8010-0553
Clear	Pre-slit PTFE/silicone	Black	8010-0555
Clear, 250 µL insert volume	PTFE/silicone	Black	8010-0559
Clear, 250 µL insert volume	Pre-slit PTFE/silicone	Black	8010-0561
Amber	PTFE/silicone	Black	8010-0554
Amber	Pre-slit PTFE/silicone	Black	8010-0556
Amber, 250 µL insert volume	PTFE/silicone	Black	8010-0560
Amber, 250 µL insert volume	Pre-slit PTFE/silicone	Black	8010-0562



CrossLab vial kit, screw top, clear,  
250 µL insert volume, black cap,  
pre-slit PTFE/silicone septa, 8010-0561

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa,  
go to **[www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)**



Screw caps for 6 mL (16 mm) vials

## 6 mL (16 mm) Screw Top Vials and Closures

### 6 mL (16 mm) Screw Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0022

### Screw caps for 6 mL (16 mm) vials

Septa Type	Unit	Agilent CrossLab Part No.
PTFE/silicone	100/pk	8010-0101
Pre-slit PTFE/silicone	100/pk	8010-0102
Open top, no septa	100/pk	8010-0100

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa,  
go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

## 10 mL (22 mm) Screw Top Vials and Closures

## 10 mL (22 mm) Screw Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0563



CrossLab vial, screw top, 10 mL, 22 mm, clear, 8010-0563

## Screw Caps for 10 mL (22 mm) Vials

Septa Type	Color	Unit	Agilent CrossLab Part No.
No septa	Black	100/pk	8010-0565

## Septa for 10 mL (22 mm) Vials

Septa Type	Unit	Agilent CrossLab Part No.
PTFE/silicone	100/pk	8010-0564

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

## CrossLab Crimp Top Vials and Closures

The wide opening crimp cap provides a larger target area for improved autosampler needle accuracy. Select from a variety of cap colors and septa. Whatever your crimp top vial needs, Agilent has what you are looking for.

### 2 mL (11 mm) Crimp Top Vials and Closures

- 2 mL, 12 x 32 mm
- Available in unique packaging designed to reduce vial breakage
- Tightly controlled crown for improved crimping
- Precision-formed neck for improved autosampler handling
- Rigorous quality assurance provides dimensional accuracy from lot to lot
- Optional ceramic write-on spot with fill marks



Crimp top glass vials with write-on spot,  
8010-0001

### 2 mL (11 mm) Crimp Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0002
Clear, write-on spot	100/pk	8010-0001
	1000/cs	8010-0170
Amber, write-on spot	100/pk	8010-0003
	1000/cs	8010-0172
<b>Crimp Top Vials with Fixed Inserts</b>		
Clear, 300 µL insert volume	100/pk	8010-0006
Amber, 300 µL insert volume	100/pk	8010-0007

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.



#### TIPS & TOOLS

Agilent offers ergonomic manual crimpers and decappers, designed to significantly reduce hand strain. Electronic versions are also available, featuring a longer life battery designed for quick, powerful use. For more information, please visit [www.agilent.com/chem/crimper](http://www.agilent.com/chem/crimper)





**Crimp Caps with 11 mm Septa**

Cap Color	Septa Type	Unit	Agilent CrossLab Part No.
Silver aluminum	PTFE/silicone/PTFE	100/pk	8010-0049
		1000/cs	8010-0182
	PTFE/silicone	100/pk	8010-0050
		1000/cs	8010-0183
	Pre-slit PTFE/Silicone	100/pk	8010-0582
	PTFE/butyl	100/pk	8010-0051
	Thin membrane rubber	25/pk	8010-0053
	PTFE/red rubber	100/pk	8010-0045
		1000/cs	8010-0181
Blue aluminum	PTFE/red rubber	100/pk	8010-0046
Green aluminum	PTFE/red rubber	100/pk	8010-0047
Red aluminum	PTFE/red rubber	100/pk	8010-0048
Gold aluminum	Magnetic	100/pk	8010-0052



Magnetic crimp caps, 8010-0052

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa,  
go to **[www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)**

**TIPS & TOOLS**

Red rubber septa have a tendency to cause needle sticking during sampling and are more likely to core. Agilent recommends using silicone septa as a higher quality alternative to prevent contamination and issues related to septa coring.



## 2 mL (11 mm) Crimp Top Vial Convenience Packs, 100/pk



CrossLab crimp top vial kit, amber with write-on spot, 3000 µL insert volume, conical with feet, silver aluminum cap, pre-slit PTFE/silicone septa, 8010-0569

Vial Type	Septa Type	Cap Color	Agilent CrossLab Part No.
Clear, write-on spot	PTFE/silicone	Silver aluminum	8010-0195
Clear, write-on spot, 300 µL insert volume, conical with feet	PTFE/silicone	Silver aluminum	8010-0566
Clear, write-on spot, 300 µL insert volume, conical with feet	Pre-slit PTFE/silicone	Silver aluminum	8010-0568
Amber, write-on spot	PTFE/silicone	Silver aluminum	8010-0196
Amber, write-on spot, 300 µL insert volume, conical with feet	PTFE/silicone	Silver aluminum	8010-0567
Amber, write-on spot, 300 µL insert volume, conical with feet	Pre-slit PTFE/silicone	Silver aluminum	8010-0569

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

## Crimp Top Micro Vials

Agilent CrossLab offers a selection of crimp top micro vials designed for a variety of autosamplers, including HTS and HTC PAL systems, to cope with today's high-throughput LC/MS demands. Additionally, Agilent CrossLab crimp top micro vials work seamlessly with CombiPAL and GC PAL magnetic needle guides and barcode readers.

### Crimp Top Micro Vials

Description	Volume	Unit	Agilent CrossLab Part No.
Amber, flat bottom	0.8 mL	1000/cs	8010-0153
Clear, tapered bottom	0.1 mL	500/pk	8010-0154
Clear, rounded bottom	0.3 mL	500/pk	8010-0155



Amber, flat bottom crimp top micro vials, 8010-0153

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

## CrossLab Snap Top Vials and Closures

Snap top vials and caps are the simple, efficient way to a secure seal without crimping. It's as easy as push-on, pull-off. Crimp caps can also be used with wide opening snap top vials.

**Note:** Snap cap vials cannot be pressurized.

### 2 mL (11 mm) Snap Top Vials and Closures

- 2 mL, 12 x 32 mm
- Use with any 11 mm snap or crimp cap
- Available in unique packaging designed to reduce vial breakage
- Precision-formed neck improves autosampler handling
- Optional ceramic write-on spot



Snap top vials with write-on spot,  
8010-0025

### 2 mL (11 mm) Snap Top Glass Vials

Description	Unit	Agilent CrossLab Part No.
Clear	100/pk	8010-0024
Clear, write-on spot	100/pk	8010-0023
	1000/cs	8010-0177
Amber	100/pk	8010-0026
Amber, write-on spot	100/pk	8010-0025
	1000/cs	8010-0178

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

## Snap Caps with 11 mm Septa

Cap Color	Septa Type	Unit	Agilent CrossLab Part No.
Clear	PTFE/red silicone	100/pk	8010-0104
	PTFE/silicone/PTFE	100/pk	8010-0105
	Pre-slit PTFE/white silicone	100/pk	8010-0106
	Clear polyethylene membrane	100/pk	8010-0107
Blue	PTFE/red silicone	100/pk	8010-0108
	PTFE/white silicone	100/pk	8010-0112
Green	PTFE/red silicone	100/pk	8010-0109
Orange	PTFE/red silicone	100/pk	8010-0103
	PTFE/red silicone	1000/cs	8010-0189
	PTFE/white silicone	100/pk	8010-0111
	Pre-slit PTFE/white silicone	1000/cs	8010-0190
	Pre-slit PTFE/white silicone	100/pk	8010-0113
Red	PTFE/red silicone	100/pk	8010-0110
Polyurethane		100/pk	8010-0115



Orange snap caps with PTFE/red silicone  
11 mm septa, 8010-0103

## 2 mL (11 mm) Snap Top Vial Convenience Packs

Vial Type	Septa Type	Cap Color	Unit	Agilent CrossLab Part No.
Clear, write-on spot	PTFE/silicone	Orange	100/pk	8010-0200
Amber, write-on spot	PTFE/silicone	Orange	100/pk	8010-0411

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa,  
go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

## Snap Top Solvent Vial Convenience Packs

### Snap Top Solvent Vial Convenience Packs

Vial Type	Septa Type	Cap Color	Unit	Agilent CrossLab Part No.
<b>5 mL Snap Top Solvent Vial Convenience Pack</b>				
Clear	PTFE/silicone	Clear	100/pk	8010-0416
<b>10 mL Snap Top Solvent Vial Convenience Pack</b>				
Clear	Red PTFE/white silicone	Clear	100/pk	8010-0422

### Snap Cap for 5 mL and 10 mL Solvent Vials

Cap Color	Septa Type	Unit	Agilent CrossLab Part No.
Clear	PTFE/silicone	50/pk	8010-0423

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

**19 mm Septa for 5 mL and 10 mL Snap Caps**

Septa Type	Unit	Agilent CrossLab Part No.
Red rubber	100/pk	8010-0430



CrossLab vial, snap top shell vial, 1 mL, 8 mm, clear, with polypropylene cap, 8010-0574

**1 mL (8 mm) Snap Top Shell Vial Convenience Packs, 100/pk**

Vial Type	Cap	Agilent CrossLab Part No.
Clear	Polypropylene	8010-0574
Amber	Polypropylene	8010-0575



CrossLab vial, snap top shell vial, 1 mL, 8 mm, amber, with polypropylene cap, 8010-0575

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

## CrossLab Polypropylene Vials



CrossLab polypropylene vial, crimp/snap top, 8010-0158



Polypropylene crimp/snap top vial with glass insert, 8010-0160

Wide opening 12 x 32 mm vials are manufactured from virgin polypropylene, meeting the requirements of 21 CFR 177.1520. Polypropylene vials are translucent and can be used with crimp or snap caps.

### Polypropylene Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Agilent CrossLab Part No.
Polypropylene, crimp/snap top	250 µL	440 µL	100/pk	8010-0158
Polypropylene, crimp/snap top	250 µL	440 µL	1000/cs	8010-0193
Polypropylene, crimp/snap top	0.7 mL	1 mL	100/pk	8010-0159
Polypropylene, screw top	250 µL	440 µL	100/pk	8010-0161
Polypropylene, screw top	250 µL	440 µL	1000/cs	8010-0194
Polypropylene with glass insert, crimp/snap top	250 µL	350 µL	100/pk	8010-0160
Polypropylene with glass insert, screw top	250 µL	350 µL	100/pk	8010-0162

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.



## CrossLab Micro-V Vials

- Wide opening, 1.5 mL vials with low residual volume
- Made from first hydrolytic glass Type 1
- Standard 12 x 32 mm dimension
- Compatible with 11 mm crimp closures

### Micro-V Vials

Description	Unit	Screw Top	Crimp Top	Snap Top
Clear, screw top	100/pk	8010-0018	8010-0004	8010-0027
Amber	100/pk	8010-0019	8010-0005	8010-0028

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)



Clear, crimp top Micro-V vial, 8010-0004

### TIPS & TOOLS



For economical and effective microsampling, choose the polypropylene vial with molded glass flanged insert. Its polypropylene body has a glass flanged insert molded to the inside, so the sample comes in contact only with the high quality glass insert and the septum.



Microvolume inserts

## CrossLab Microvolume Inserts

To meet your microsampling needs, Agilent offers a variety of microvolume inserts with capacities and designs that can transform your vials from full-capacity to limited volume with one simple step.

### Microvolume Inserts for 8 mm Screw Top Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Agilent CrossLab Part No.
Glass conical insert with polymer feet	150 µL	200 µL	100/pk	8010-0124
Glass pulled-point insert	150 µL	200 µL	100/pk	8010-0125
Flat bottom insert	200 µL	220 µL	100/pk	8010-0126



250 µL conical insert with polymer feet, 8010-0131

### Microvolume Inserts for 11 mm Crimp Top or 9 mm Screw Top Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Agilent CrossLab Part No.
Conical insert with polymer feet	250 µL	330 µL	100/pk	8010-0131
Pulled-point insert	250 µL	350 µL	100/pk	8010-0132
Flat bottom insert	400 µL	440 µL	500/pk	8010-0136



250 µL pulled-point glass insert, 8010-0132

### Microvolume Inserts for 4 mL (13 mm) Screw Top Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Agilent CrossLab Part No.
Pulled-point insert with flange	250 µL	350 µL	100/pk	8010-0558



400 µL flat bottom glass insert, 8010-0136

To obtain an optimal fit and seal of any vial and closure, we strongly recommend buying an entire CrossLab vial assembly (including a vial, cap, and septum, as well as a vial insert if needed). Please avoid mixing and matching any CrossLab vials with any other brand of closures, or any CrossLab closures with any other brand of vials.

For additional help in selecting vials, caps, and septa, go to [www.agilent.com/chem/SelectVials](http://www.agilent.com/chem/SelectVials)

## CrossLab Well Plates and Sealing Mats

Agilent CrossLab offers a range of polypropylene 96-well or 384-well plates with a variety of sealing options for collection of samples, storage, and use in autosamplers.

### Well Plates

Description	Well Volume (mL)	Material	Plate Height (mm)	Well Depth (mm)	Well Shape	Bottom Shape	Unit	Agilent CrossLab Part No.
96-well plate	0.2	Polypropylene	20.9	20.9	Round	Conical	50/pk	8010-0532
96-well plate	0.5	Polypropylene	26.5	21.6	Round	Round	56/pk	8010-0533
96-well plate	1.0	Polypropylene	39.1	37.1	Round	Round	32/pk	8010-0534
96-well plate	2.0	Polypropylene	44	41.85	Round	Round	32/pk	8010-0536
384-well plate	0.1	Polypropylene	14.4	11.7	Square	Round	120/pk	8010-0538
384-well plate	0.25	Polypropylene	22	19.5	Square	Round	60/pk	8010-0539

### Sealing Mats and Accessories

Description	Unit	Agilent CrossLab Part No.
Sealing mat for 0.2 mL 96-well plates, Thermoplastic Elastomers (TPE)	5/pk	8010-0577
Sealing mat for 0.5 mL and 1.0 mL 96-well plates, Thermoplastic Elastomers (TPE)	50/pk	8010-0535
Sealing mat for 2 mL 96-well plate, Ethylene Vinyl Acetate (EVA)	50/pk	8010-0537
Sealing tape for 384-well plate, polyethylene	100/pk	8010-0540
Sealing foil, self adhesive, high transparency, for all plates, Polyethylene terephthalate (PET)	100/pk	8010-0541
Sealing foil, self adhesive, for all plates, Polypropylene	100/pk	8010-0578



96-well plate  
with removable sealing mat,  
8010-0534



Sealing mat for 0.2 mL 96-well  
plates, Thermoplastic Elastomers  
(TPE), 8010-0577



Sealing mat for 2 mL 96-well plate,  
Ethylene Vinyl Acetate (EVA),  
8010-0537

## CrossLab Vials Cross Reference List

The cross references to the original equipment manufacturer (OEM) part numbers listed here serve as a recommendation that the CrossLab products are viable alternatives to OEM products. CrossLab products are compatible with the corresponding OEM instruments, although in some cases, the CrossLab products may have slightly different designs as compared to the OEM counterparts.

### CrossLab Vials for Bruker/Varian

Similar to Bruker/Varian Part No.	Agilent CrossLab Part No.
392611525	8010-0195
392611530	8010-0414
392611549	8010-0198
392611550	8010-0199
392611593	8010-0125
190010204	8010-0131
392611594	
392620538	
392611596	8010-0132
392611636	
392611607	8010-0143
392611607	8010-0413
392611613	8010-0142
392611613	8010-0412
392611631	8010-0050
392611632	8010-0051
390886500	8010-0002
392611634	
392611639	8010-0011
392620550	
CP10271	
392611640	8010-0013
392611641	8010-0056
392611641	8010-0061
392611645	8010-0064
392611641	8010-0066

(Continued)

### CrossLab Vials for Bruker/Varian

Similar to Bruker/Varian Part No.	Agilent CrossLab Part No.
392611645	8010-0059
392611645	8010-0069
392611646	8010-0015
392611653	
392611654	8010-0017
392611659	8010-0084
392611659	8010-0086
392611659	8010-0088
392611667	8010-0159
392611675	8010-0034
392612021	
MLA202100	
392611857	8010-0151
392610003	8010-0116
392611858	
ROK7382420	
392611859	8010-0121
392611871	8010-0108
392611970	8010-0416
392611974	
392611975	
392611980	
392611981	
392611982	
392620104	8010-0040
392620202	8010-0042

(Continued)

### CrossLab Vials for Bruker/Varian

Similar to Bruker/Varian Part No.	Agilent CrossLab Part No.
392620204	8010-0044
392620302	8010-0139
392620304	
392620306	8010-0140
392620401	8010-0417
392620403	
392620500	8010-0175
CPLC40111B	
CPLC40111R	
190010209	8010-0092
392620510	
190010209	8010-0093
392620510	
392620514	8010-0008
392620517	8010-0170
392620526	8010-0032
392620528	8010-0036
1600069800	8010-0070
390614901	8010-0072
6900016900	
R005486RT1	
CP10204	8010-0029
CP10205	8010-0033
CP10277	8010-0020
CP741315	8010-0038
CP913323	

(Continued)

### CrossLab Vials for Bruker/Varian

Similar to Bruker/Varian Part No.	Agilent CrossLab Part No.
CP912446	8010-0418
CP913077	
CP959464	8010-0420
CP959485	8010-0155
39260500	8010-0014
CPLC40111B	
CPLC40111R	
CPLCL07CPVA	8010-0172
CPLCL11ACBST144	8010-0183
MLA110040M	8010-0152
392611860	8010-0165
392612017	
MLA2000051ML	
MLA21000	8010-0030
R000548SCY	8010-0160

**CrossLab Vials  
for PerkinElmer**

Similar to PerkinElmer Part No.	Agilent CrossLab Part No.
B0104239	8010-0143
B0104241	8010-0144
B4000022	8010-0122
B4000025	8010-0121
N6356478	8010-0030
N6356479	8010-0038
N9300500	8010-0195
N9300700	8010-0198
N9301385	8010-0002
N9302680	8010-0003
N9302684	8010-0047
N9302685	8010-0048
N9302686	8010-0046
N9303416	8010-0106
N9303416	8010-0113
N9303417	8010-0105
N9303417	8010-0112
N9303418	8010-0024
N9303419	8010-0104
N9303419	8010-0111
N9303441	8010-0055
N9303442	8010-0073
N9303992	8010-0413
N9306015	8010-0051
N9306052	8010-0054
N9306075	8010-0042
N9306077	8010-0119
N9306079	8010-0034
N9306201	8010-0015
N9306202	8010-0086
N9306207	8010-0023
N9306208	8010-0025
N9306220	8010-0017
N9306228	8010-0050
N9306229	8010-0049
N9306240	8010-0152
N9306247	8010-0020

**CrossLab Vials  
for Shimadzu**

Similar to Shimadzu Part No.	Agilent CrossLab Part No.
038-00165-06	8010-0011
220-90384-00	8010-0055
220-90393-00	8010-0020
220-90394-00	8010-0096
220-91521-14	8010-0095
220-94562-00	8010-0412
220-94563-00	8010-0413
220-94796-01	8010-0042
220-94796-02	8010-0119
220-94796-07	8010-0038
221-34271-92	8010-0054
221-34271-92	8010-0056
221-34271-92	8010-0072
228-21290-91	8010-0098
228-45450-91	8010-0198
228-45452-91	8010-0199

**CrossLab Vials  
for Thermo Scientific**

Similar to Thermo Scientific Part No.	Agilent CrossLab Part No.
60180-507	8010-0008
10-800-247	8010-0038
14-824-365	8010-0042
60180-502	8010-0001
C4011-1W	
2-CV	
11 09 0476	
60180-504	8010-0030
10-800-246	
60180-505	8010-0032
14-824-360	
60180-506	8010-0034
60180-507	8010-0008
60180-508	8010-0010
60180-509	8010-0014
C4000-1W	
2SVW	
11 09 0519	
60180-510	8010-0020
C4015-1	
4-SV	
13 09 0222	
60180-511	8010-0116
60180-513	8010-0117
60180-514	8010-0055
60180-514	8010-0060
60180-514	8010-0065
60180-514	8010-0070
60180-515	8010-0061
60180-516	8010-0086
60180-521	8010-0122
60180-522	

(Continued)

**CrossLab Vials  
for Thermo Scientific**

Similar to Thermo Scientific Part No.	Agilent CrossLab Part No.
60180-526	8010-0046
60180-560	8010-0012
60180-561	8010-0016
C4000-2W	
2SVW(A)	
11 09 0520	
60180-562	8010-0066
60180-597	8010-0195
60180-599	8010-0198
60180-713	8010-0112
C4013-98Y	8010-0166

**CrossLab Vials  
for Waters**

Similar to Waters Part No.	Agilent CrossLab Part No.
186000842	8010-0557
186001420	8010-0563
186001421	8010-0565
186001422	8010-0564
186000307C	8010-0542
186000838C	8010-0553
186000839C	8010-0555
186000847C	8010-0543
186001133C	8010-0554
186001134C	8010-0556
WAT025053C	8010-0575
WAT025054C	8010-0574

## CrossLab pH Electrodes

The electrodes shown here use universal connections, so you can use them interchangeably on a wide range of popular benchtop meters.

				
<b>8010-0985</b>	<b>8010-0986</b>	<b>8010-0972</b>	<b>8010-0975</b>	<b>8010-0973</b>
<ul style="list-style-type: none"> <li>• Combination electrode with glass body               <ul style="list-style-type: none"> <li>• Refillable</li> </ul> </li> <li>• BNC connector</li> <li>• Glass bulb measuring tip</li> </ul>	<ul style="list-style-type: none"> <li>• Combination electrode with PC body               <ul style="list-style-type: none"> <li>• Refillable</li> </ul> </li> <li>• BNC connector</li> <li>• Flat measuring tip</li> </ul>	<ul style="list-style-type: none"> <li>• Combination electrode with PC body               <ul style="list-style-type: none"> <li>• Non-refillable</li> </ul> </li> <li>• BNC connector</li> <li>• Glass bulb measuring tip</li> </ul>	<ul style="list-style-type: none"> <li>• Combination electrode with ABS body               <ul style="list-style-type: none"> <li>• Non-refillable</li> </ul> </li> <li>• BNC connector</li> <li>• Spear-tipped measuring tip</li> </ul>	<ul style="list-style-type: none"> <li>• Electrode with glass body               <ul style="list-style-type: none"> <li>• Non-refillable</li> </ul> </li> <li>• BNC connector</li> <li>• Glass bulb measuring tip</li> </ul>

**Agilent CrossLab pH Electrodes – Applications and Compatibility Table**

Original Equipment Manufacturer (OEM)	OEM pH Meter	Application	Similar to OEM Electrode	CrossLab Electrode Description	Agilent CrossLab Part No.
Mettler Toledo	SevenMulti	Routine measurement of most samples, field measurement and student/education use. Recommended for biological samples, such as buffers, and proteins enzymes	InLab Basics BNC InLab Routine	Refillable pH combination electrode with glass body	8010-0985
	SevenCompact				
	FiveEasy	Measurements that may damage the lifetime of the electrode, such as corrosive or organic samples	InLab Mono	Non-refillable pH electrode with glass body	8010-0973
	FiveEasy Plus				
Thermo Scientific	Orion Star A111	Routine measurement of most samples, field measurement and student/education use. Recommended for biological samples, such as buffers, and proteins enzymes	8102BNUWP	Refillable pH combination electrode with glass body	8010-0985
	Orion Star A211				
	Orion VERSA STAR 10	Fruit, cheese, meat and other solid measurements	8163BNWP	Non-refillable pH combination electrode with ABS body	8010-0975
	Orion 3-Star				
	Orion 4-Star				
HANNA Instruments	HI 2221	Routine measurement of most samples in harsher environments, such as field or plant use	9156APWP	Non-refillable pH combination electrode with PC body	8010-0972
		Routine measurement of most samples		Refillable pH combination electrode with glass body	8010-0985
		Fruit, cheese, meat and other solid measurements		Non-refillable pH combination electrode with ABS body	8010-0975
		Routine measurement of most samples in harsher environments, such as field or plant use		Non-refillable pH combination electrode with PC body	8010-0972
		Flat surface samples such as skin, paper, leather, etc.		Refillable pH combination electrode with PC body	8010-0986

To learn more about CrossLab electrodes and a full range of CrossLab pH buffers, visit [www.agilent.com/chem/CrossLabElectrochemistry](http://www.agilent.com/chem/CrossLabElectrochemistry).

Key	Description
PC	Polycarbonate
ABS	Acrylonitrile Butadiene Styrene

## CrossLab pH Electrode Specifications

Model	8010-0985	8010-0986	8010-0972	8010-0975	8010-0973
Measurement Range	(0-14) pH	(0-14) pH	(0-14) pH	(0-14) pH	(0-14) pH
PTS	≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 98.5%
Response time	30s	60s	30s	60s	60s
Electrode impedance	≤ 300 MΩ	≤ 500 MΩ	≤ 300 MΩ	≤ 500 MΩ	≤ 250 MΩ
Reference type	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	—
Liquid junction material	Ceramic	Fiber	Porous polymer	Fiber	—



Refillable pH combination electrode with glass body, 8010-0985

## CrossLab pH Electrode Recommended Uses\*

Industry	Sample	8010-0985	8010-0986	8010-0972	8010-0975	8010-0973
Drinks and Dairy products	Milk	✓		✓		✓
	Soy Sauce	✓		✓		✓
	Beer	✓		✓		✓
	Soft drinks (iced black tea)	✓		✓		✓
Food and Agricultural products	Compound fertilizer			✓		
	Jam					✓
	Meat				✓	
	Vegetables	✓		✓		✓
	Waste	✓				
Chemical reagents and electrolytes	Electroplate liquid	✓				✓
Coatings, dyes, and latex	Suspended solid (soil)			✓		
Daily water	Tap water	✓		✓		
	Drinking water (barreled water)					✓ (Static)
	Distilled water					✓ (Sealed)
Drug or biological samples	Protein sample/protein powder	✓		✓		
Surface measurement	Droplet size of the sample		✓			
	Textiles		✓			
Cosmetics and viscous samples	Shampoo	✓				✓
	Cosmetics paste	✓				✓

\*Laboratory test; for reference only.



**CrossLab pH Electrodes\***

<b>Description</b>	<b>Agilent CrossLab Part No.</b>
Refillable pH combination electrode with glass body, and 30 mL pH reference solution	8010-0985
Refillable pH combination electrode with Polycarbonate (PC) body, and 30 mL pH reference solution	8010-0986
Non-refillable pH combination electrode with Polycarbonate (PC) body	8010-0972
Non-refillable pH combination electrode with Acrylonitrile Butadiene Styrene (ABS) body	8010-0975
Non-refillable pH electrode with glass body	8010-0973

\*All CrossLab pH electrodes are shipped with a certificate of conformance and the certificate is also available online in the literature library, [www.agilent.com/chem/library](http://www.agilent.com/chem/library).

**CrossLab pH Buffer and Reference Solutions\***

<b>Description</b>	<b>Amount</b>	<b>Agilent CrossLab Part No.</b>
pH buffer solutions, 4.01, 7.00, 10.01, NIST traceable	3 x 250 mL	8010-0976
pH buffer, 4.01	3 x 250 mL	8010-0978
pH buffer, 10.01	3 x 250 mL	8010-0979
pH buffer, 7.00	3 x 250 mL	8010-0980
Reference solution, pH	3 x 30 mL	8010-0984

\*All CrossLab pH buffer and reference solutions are shipped with a certificate of analysis and are also available online in the literature library, [www.agilent.com/chem/library](http://www.agilent.com/chem/library).

## CrossLab Supplies Online Interactive Selection Tool



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