Care and Feeding of your HPLC System: Preventative Maintenance Tips

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Columns and Supplies Technical Support

Agilent
Trusted Answers

Instrument Supplies

- Critical points of instrument maintenance
- Supplies to have on hand

Not keeping up with regular preventive maintenance could cause:

- System failure and increased downtime
- Contamination peaks and carryover
- Reduced signal-to-noise ratio and lower detection limits
- Inconsistent and inaccurate results
- Inefficiency and long-term higher cost-of-ownership

Instrument Supplies Model Numbers

G#####A/B/C

Solvent Bottles and Solvent Inlet Filters

InfinityLab LC Filtration

- 5191-6776: InfinityLab Solvent Filtration Assembly, Including Glass Funnel, 250 mL, Membrane Holder Glass Base, Glass Flask, 1 L, and Aluminum Clamp
- 5191-4340: InfinityLab Filter Membrane, Regenerated Cellulose 47 mm, Pore Size 0.2 µm, 100/pk

Filter buffer and salt solutions

- Filter porosity: 0.45 or 0.2 µm
- Make sure the filter material is compatible

Inlet filters – not a replacement for good mobile phase hygiene

- Glass solvent inlet filter (20 µm), 5041-2168
- Stainless steel solvent inlet filter (recommended for LC/MS), 01018-60025

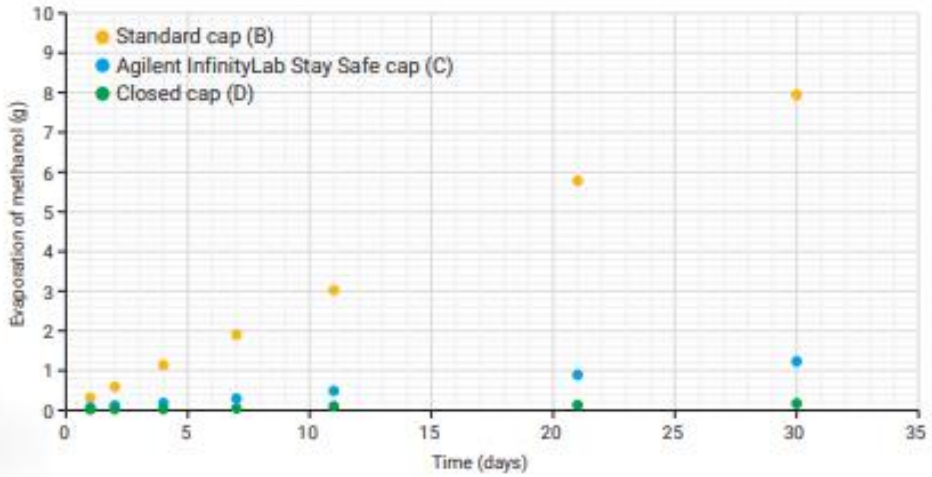
Lack of maintenance can lead to problems

- A dirty solvent inlet frit can cause cavitation. The “bubbles” formed can lead to pump issues.
- Mobile phase with microbial growth can cause high pressure and ghost peaks.
- Replace glass filter or clean steel filter semi-annually.

InfinityLab Stay Safe Caps

- Minimize harmful vapors and maintain solvent consistency
- Prevent solvents from leaching into the air
- Increase long-term mobile phase consistency

Methanol evaporation over time from solvent bottles equipped with specified caps.



Cap Type	Loss of Methanol g	Loss of Methanol %
Open bottle	76.6	19.1
Standard cap	7.9	2.0
Agilent InfinityLab Stay Safe cap	1.2	0.3
Closed bottle	0.2	0.0

−98% −85%

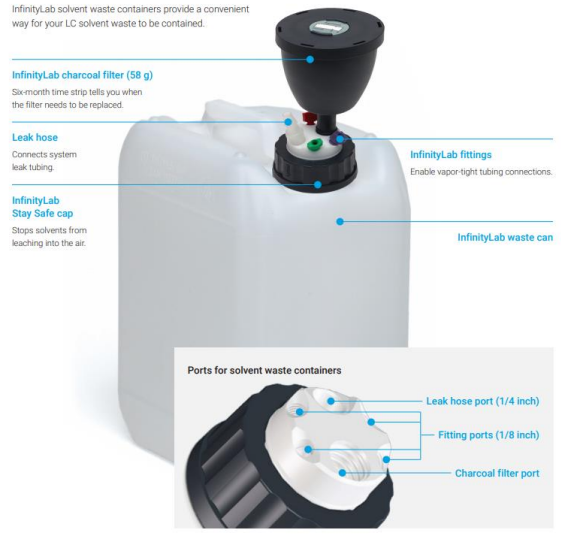
Loss of methanol after 30 days. With InfinityLab Stay Safe caps, the evaporation of methanol was reduced by 85% compared to a standard cap, and by 98% compared to an open bottle.

Go from this...

- ✖ Evaporation of hazardous solvent vapors into your lab environment
- ✖ Airborne contaminants entering the solvent bottle, causing bacterial growth and ghost peaks

To this...

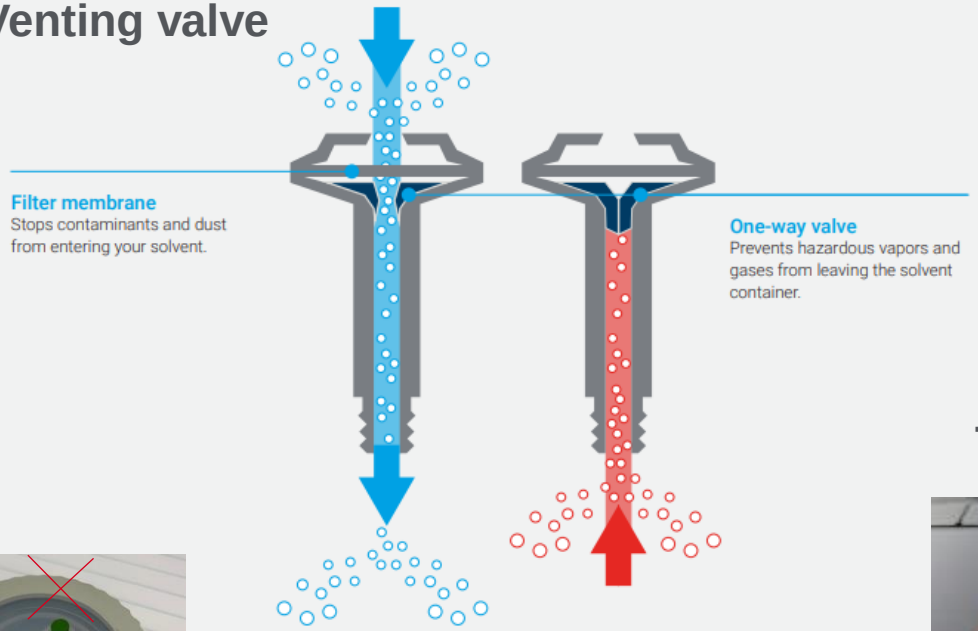
- ✔ A safer work environment: Solvents, vapors, and gases are restricted to their container
- ✔ More reliable HPLC/UHPLC: Stop dust and other air contaminants from affecting your results

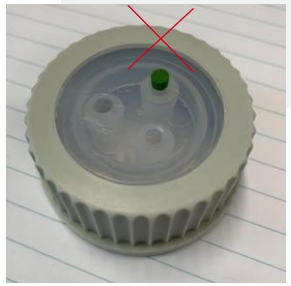


InfinityLab Stay Safe caps

The venting valve and the charcoal filter play an important role in maintaining a clean and safe workspace. They prevent harmful vapors from escaping the solvent bottle and the waste container. A time strip indicates the time of use and reminds users when to replace the valve or charcoal filter.

Venting valve



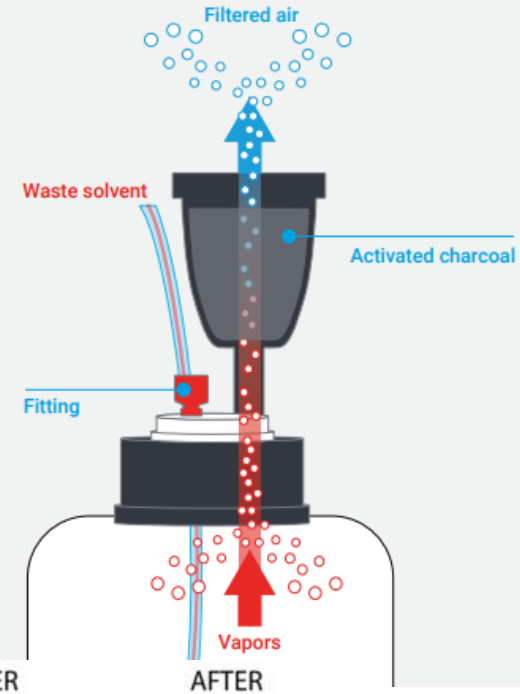


Time strip

Charcoal filter

Charcoal filter: keep solvent vapors at bay

The Agilent InfinityLab charcoal filter absorbs the harmful solvent vapors coming from the waste container, ensuring clean air.

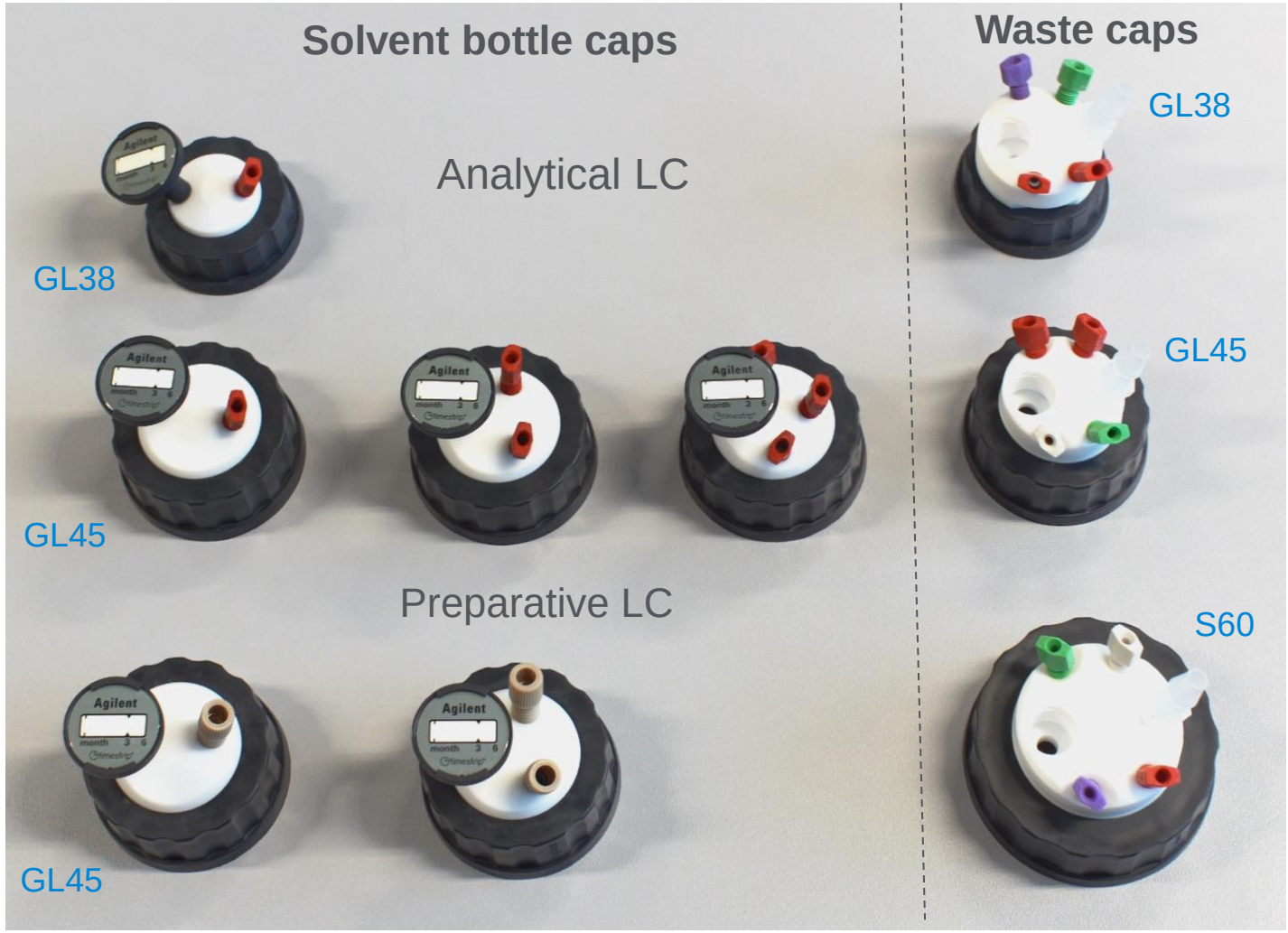


InfinityLab Stay Safe caps

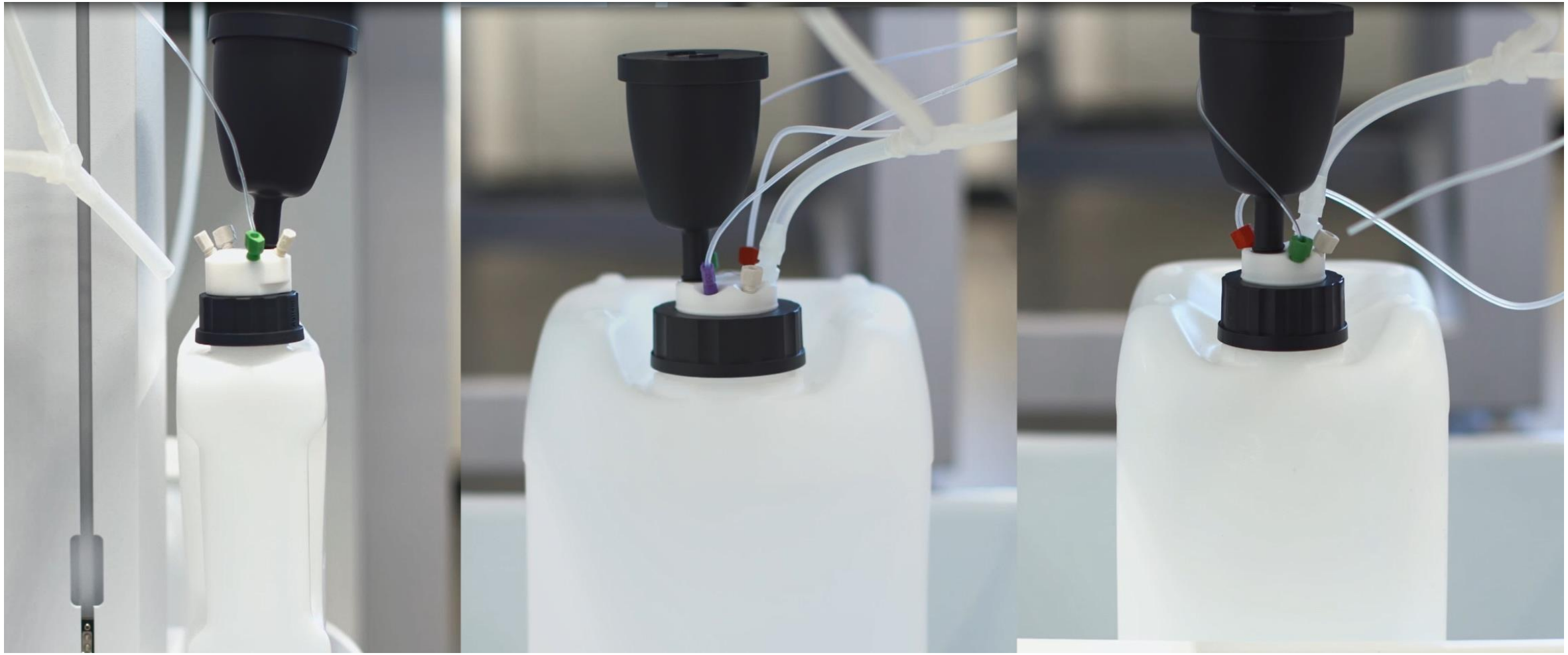
A variety of dimensions and configurations

GL45

~45 mm



Waste Canisters with Stay Safe Caps



5 L narrow for Agilent InfinityLab Flex Bench MS, GL38 thread

10 L, S60 thread

6 L, GL45 thread

Stay Safe Cap Parts

Publication number: 5994-1798EN

5043-1217
GL45 cap with one port,
one vent valve, one 3.2 mm id fitting

5043-1196
6-liter waste can GL45

5043-1218
GL45 cap with 2 ports,
1 vent valve, two 3.2 mm id fitting

5043-1214
Fittings 1.6 mm tubing
Color code: green

5043-1220
GL45 cap with four ports,
one leak hose, four fittings: 3.2 mm (2),
2.3 mm (1), 1.6 mm (1)

5043-1215
Fittings 2.3 mm
Color code: purple

5043-1190
Venting valve with
six-month time strip

55043-1216
Fittings 3.2 mm
Color code: red

5043-1193
Charcoal filter 58 g
with six-month time strip

5043-1195
Screw plug, 1/4 inch, PTFE, 1/pk

5043-1198
Screw plug, 1/8 inch, PTFE, 2/pk
(Shown in image)

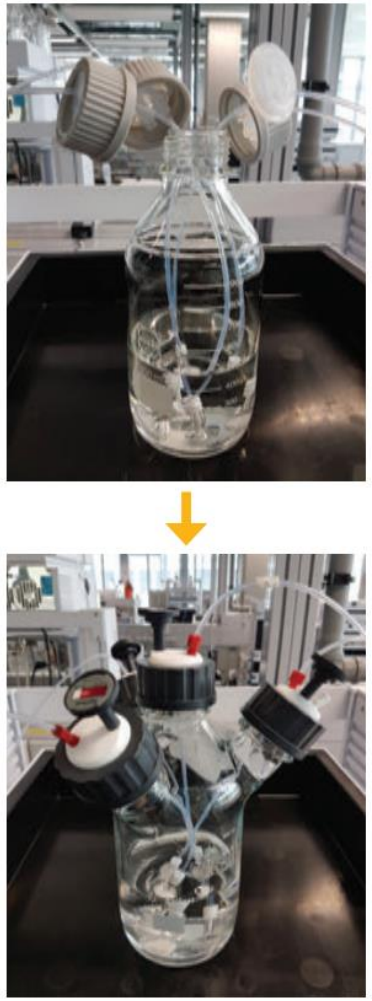
55043-1191
Thread adapter PTFE
GL45(M) to GL40(F)

5043-1192
Thread adapter PTFE
GL45(M) to GPI38(F)
(Shown in image)

5043-1207
2-port waste collector

5043-1216	Fitting for 3.2 mm tubing, PFA, 2/pk	For solvent supply lines from bottle head assemblies
5043-1215	Fitting for 2.3 mm tubing, PFA, 2/pk	For seal wash silicone tubing
5043-1214	Fitting for 1.6 mm tubing, PFA, 2/pk	Use for 1.6 mm od tubing from seal wash supply line, detector, and automated purge valve outlet tubing

InfinityLab Stay Safe Purging Bottle



Bottle 5043-1339
Or kit with caps 5043-1340

	Traditional purging process	Purging with InfinityLab Stay Safe purging bottle
Avoid harmful solvent vapor	Solvent vapors can leach into laboratory air because the solvent bottle is either open or just covered with parafilm or aluminum foil.	No leaching of harmful solvent vapors into the air. Closing caps seal off mobile phase bottles during purging.
Ease-of-handling	All solvent channels with bulky solvent filters run through the narrow GL45 bottle opening. Solvent filters can fall off when pulling the solvent tubing out of the bottle.	Solvent lines can be easily put into or pulled out of the bottle, with no risk of losing solvent filters.
Prevent air in LC lines	Solvent lines and bottle caps hang loosely. Filters can slide out of the solvent leading to suction of air into the LC.	Solvent lines are securely attached, preventing suction of air into the LC.

Pump Supplies

Maintenance points on pumps

- PTFE frits that trap pump seal wear (semi-annually)
- Pump seals (annually)
- Inlet valve
- Outlet valve

PTFE frits

P/n: 01018-22707

Lack of maintenance can lead to:

- Pressure fluctuations
- Shifting retention time
- UV baseline problems

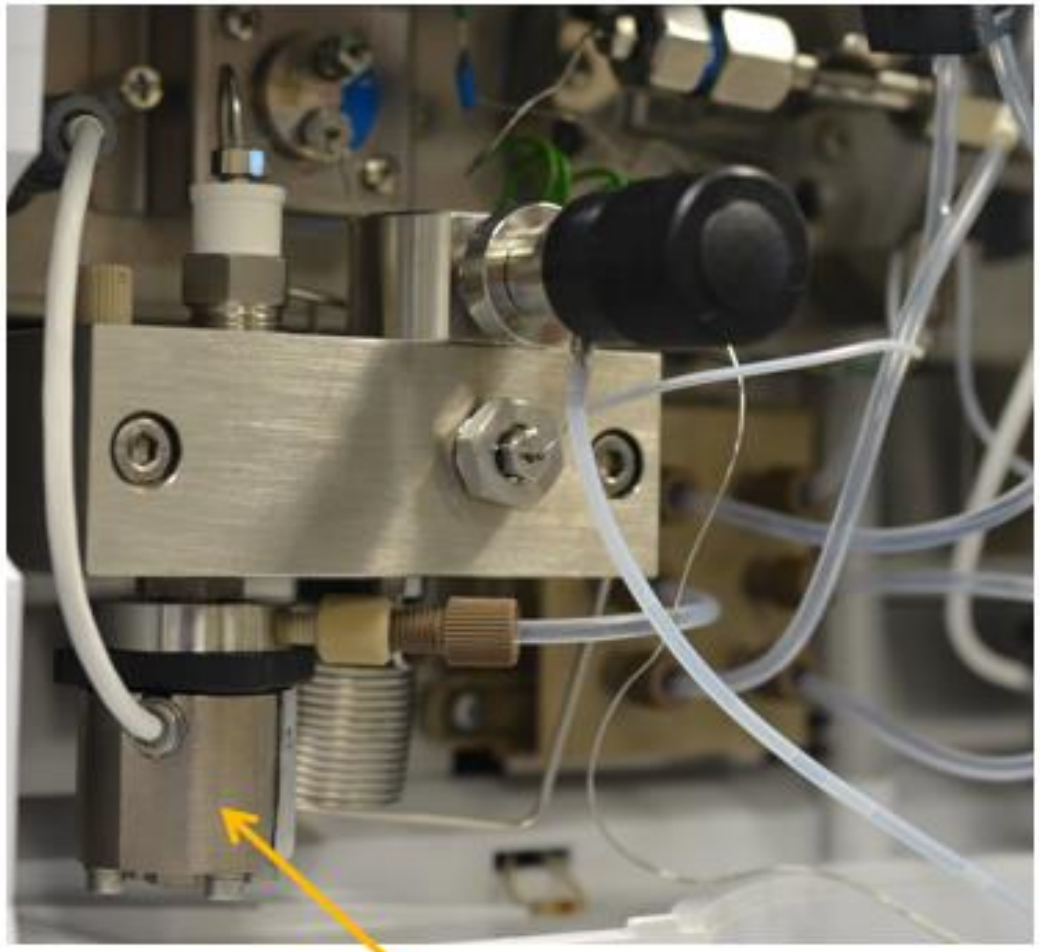
Outlet valve

Passive inlet valve: Better for retention time reproducibility

or

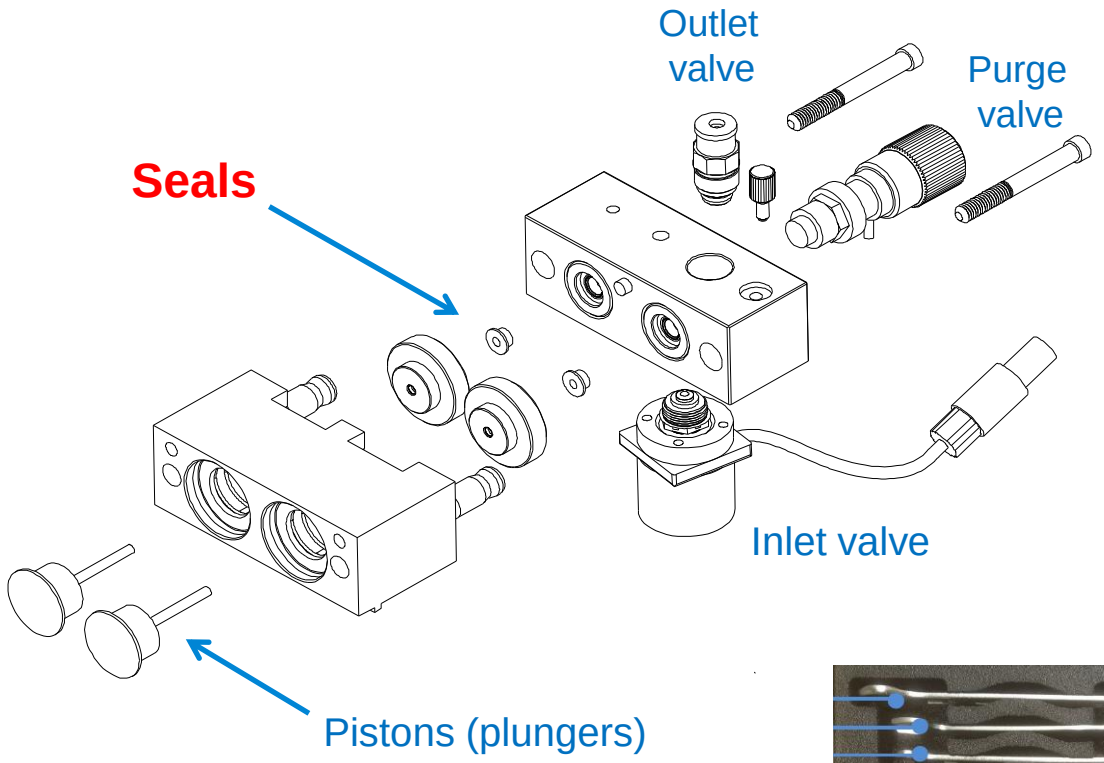
Active inlet valve: Better for robustness with buffered mobile phases

Pump – Inlet Valve



14 mm wrench

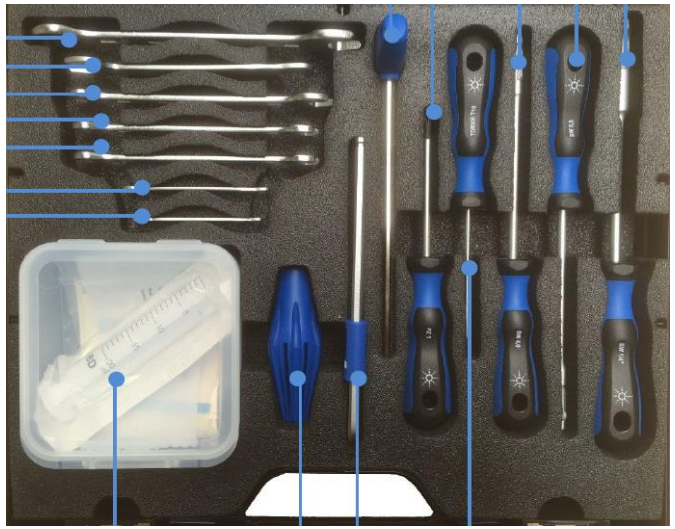
Pump Head



5063-6589, PTFE (reversed-phase)

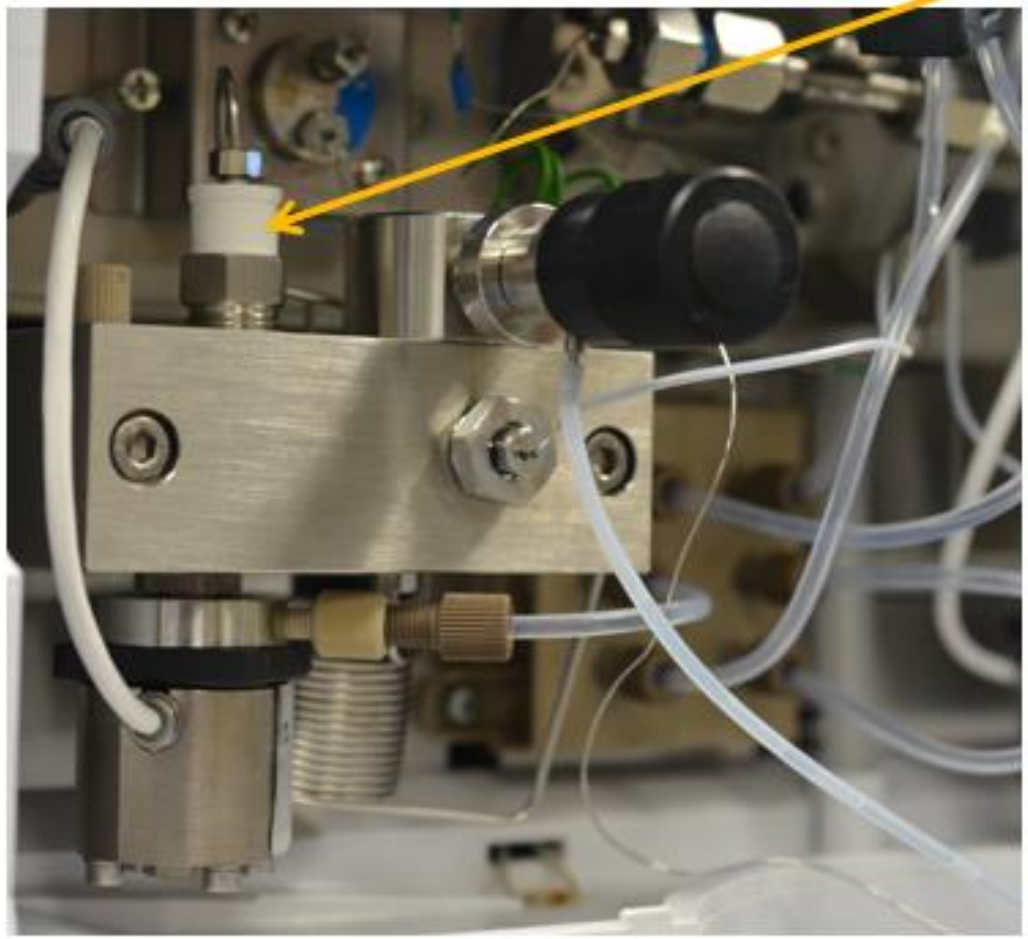
0905-1420, polyethylene (normal phase)

0905-1719, 1290/high speed/flexible pump



Tool kit
G7120-68708

Pump – Outlet Valve

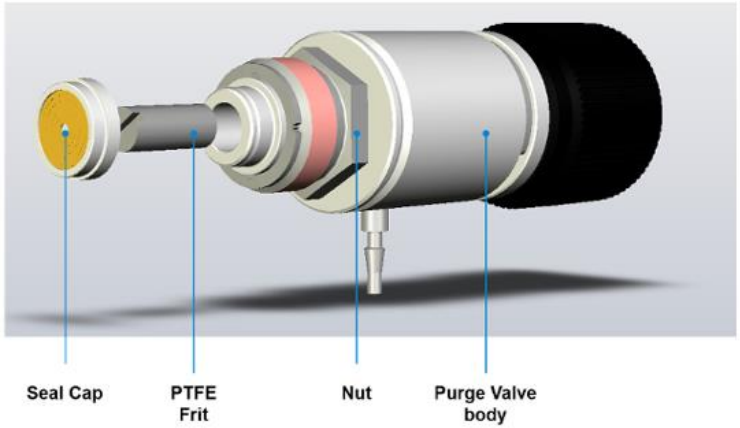


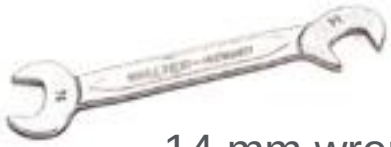
14 mm wrench

8710-1924

Pump – Purge Valve

- A dirty frit is a source of high pressure
- A pressure drop of >10 bar across the frit (5 mL/min water with the purge valve open) could indicate a blockage
- Change it after changing pump seals



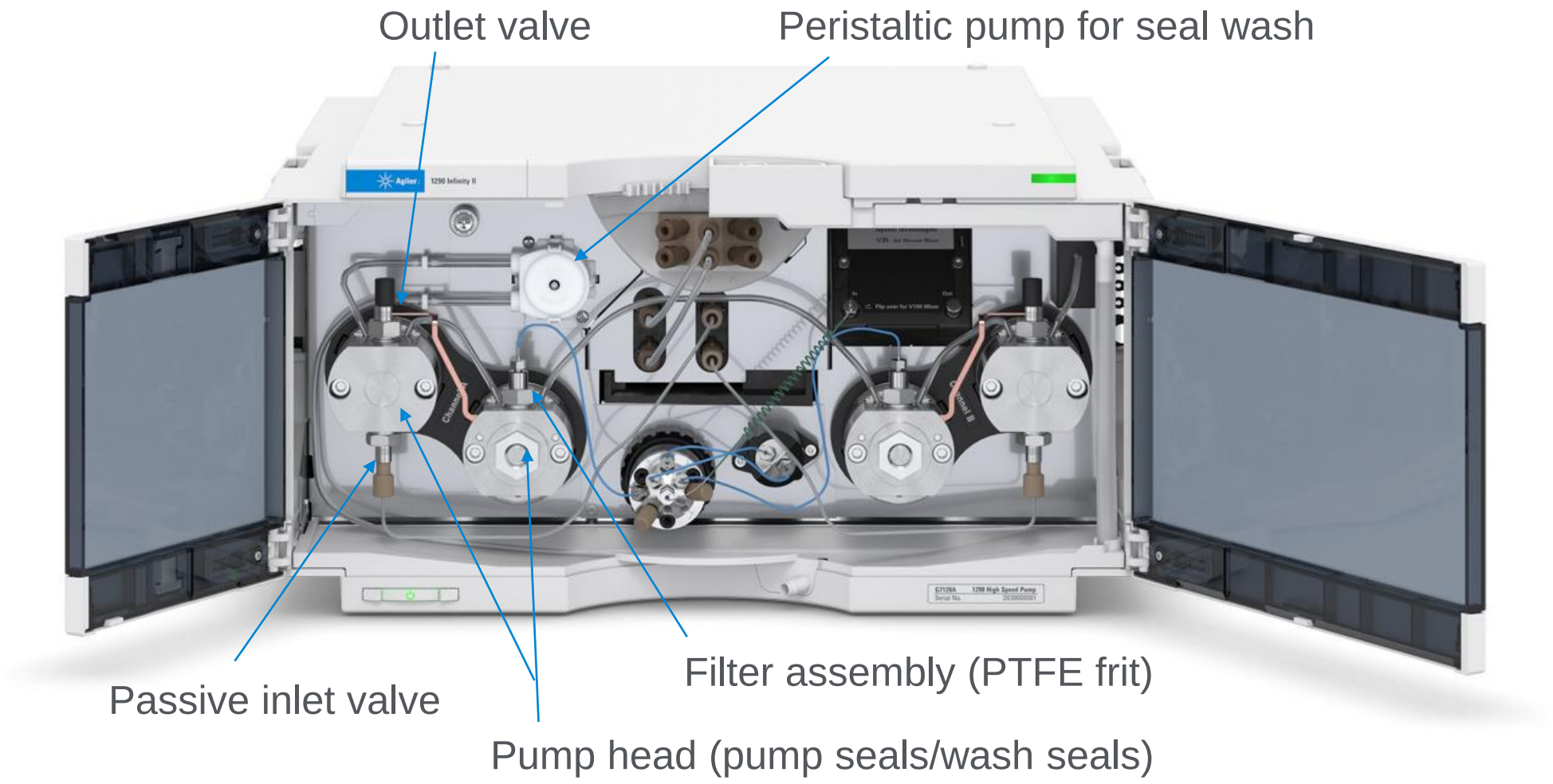


14 mm wrench

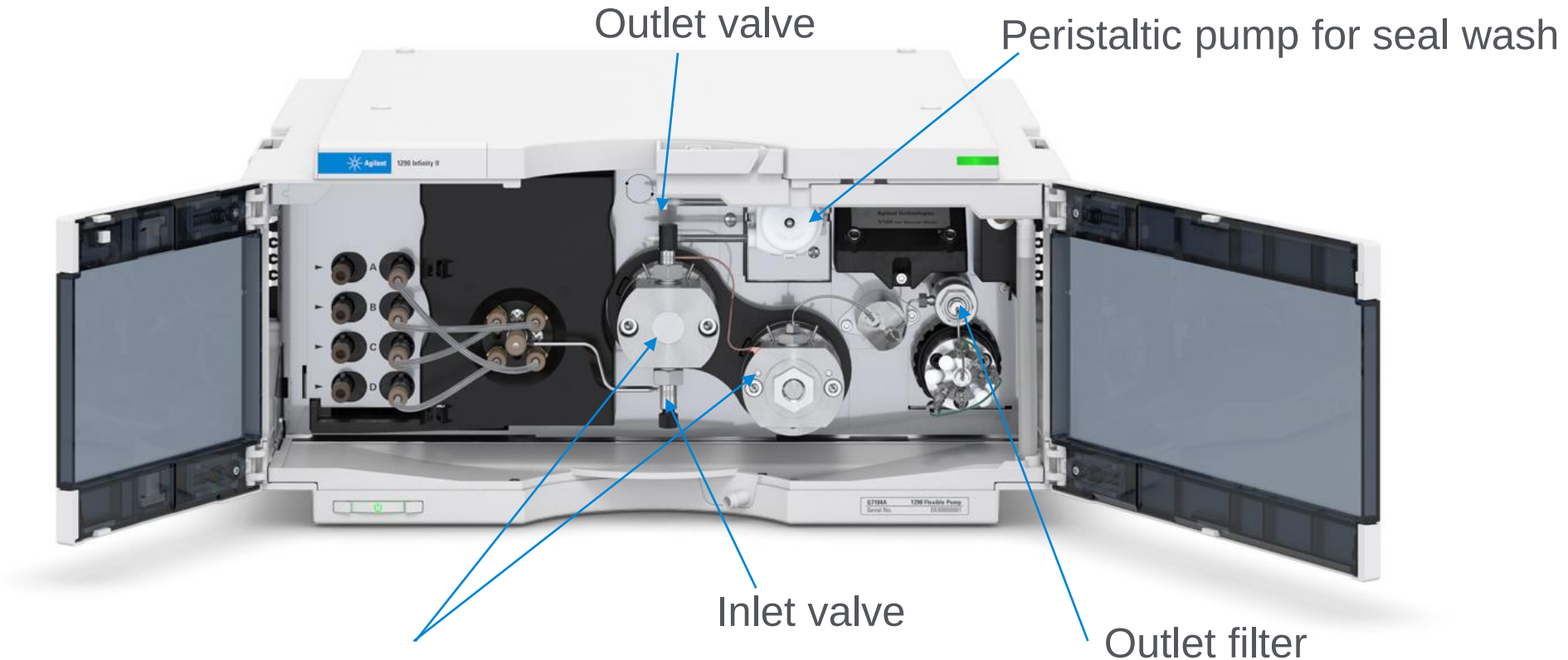
Seal cap
5067-4728

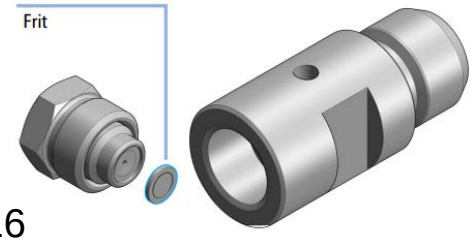
PTFE frits
01018-22707

1290 Infinity II High Speed Pump



1290 Infinity II Flexible Pump





5067-5716

Autosampler and Column Compartment

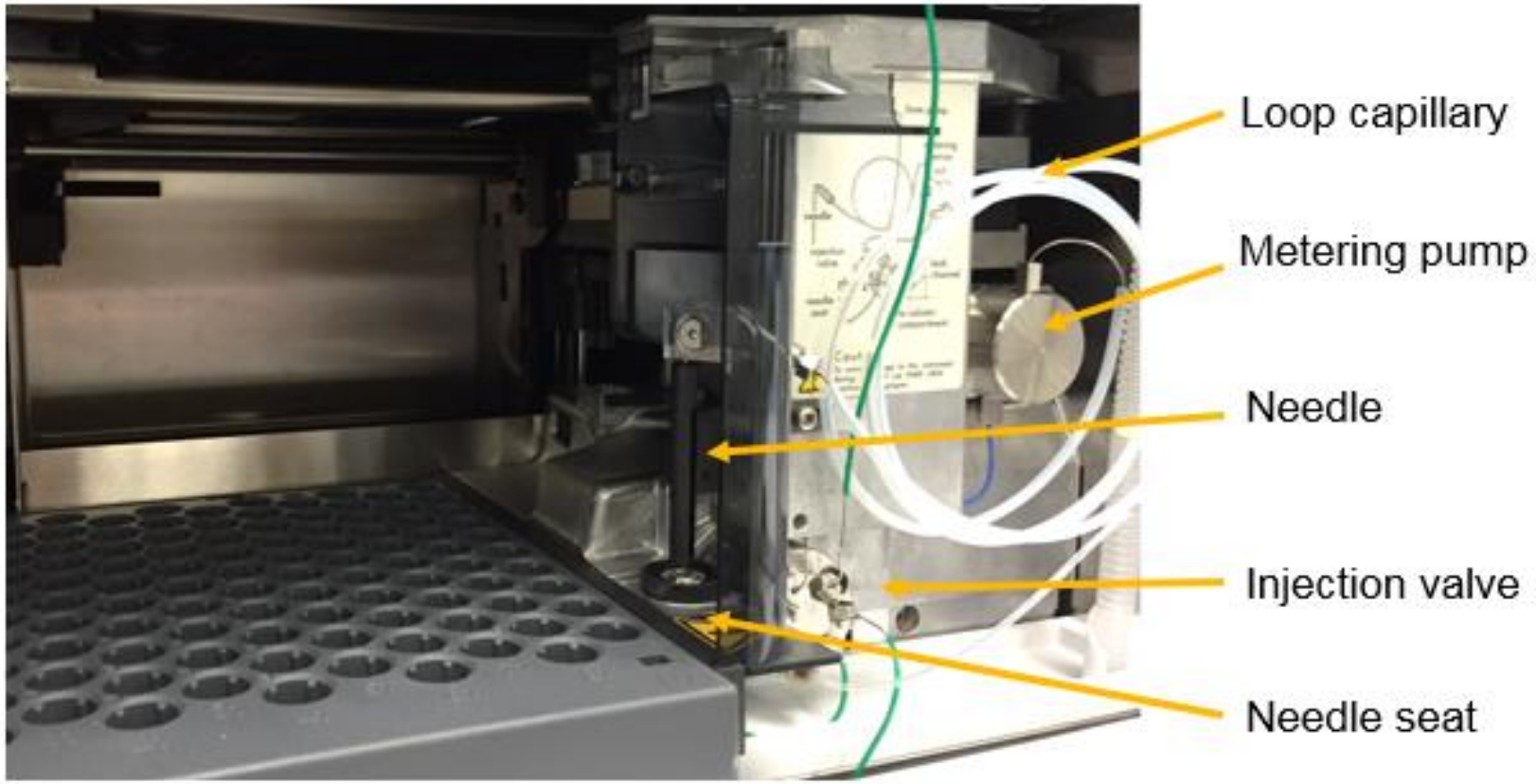
Maintenance points on autosampler

- Needle (annually)
- Loop capillary
- Needle seat (annually)
- Injection valve rotor seal (annually)
- Metering device seal

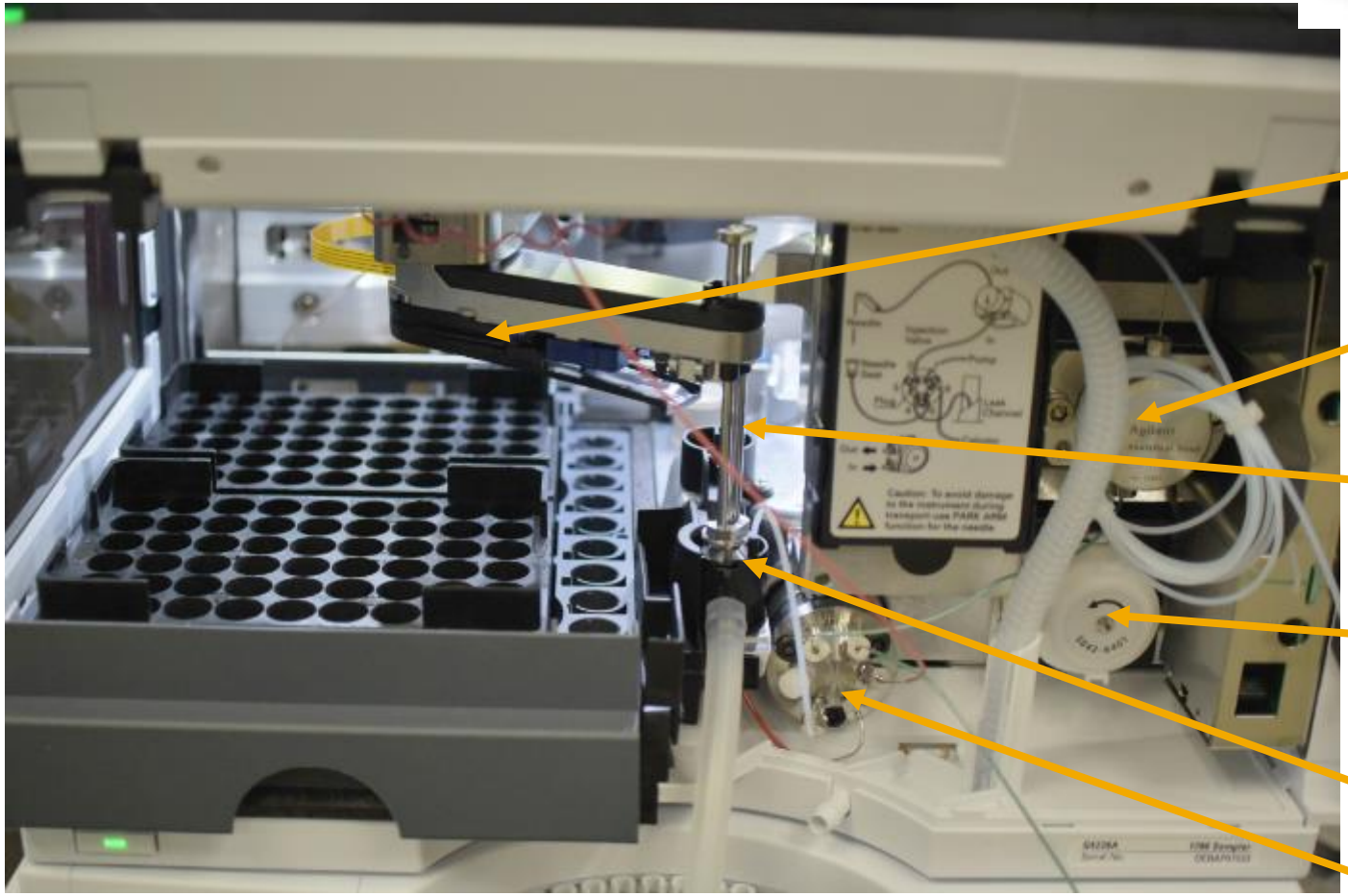
Lack of maintenance can lead to:

- Carryover
- Poor reproducibility
- Clogging

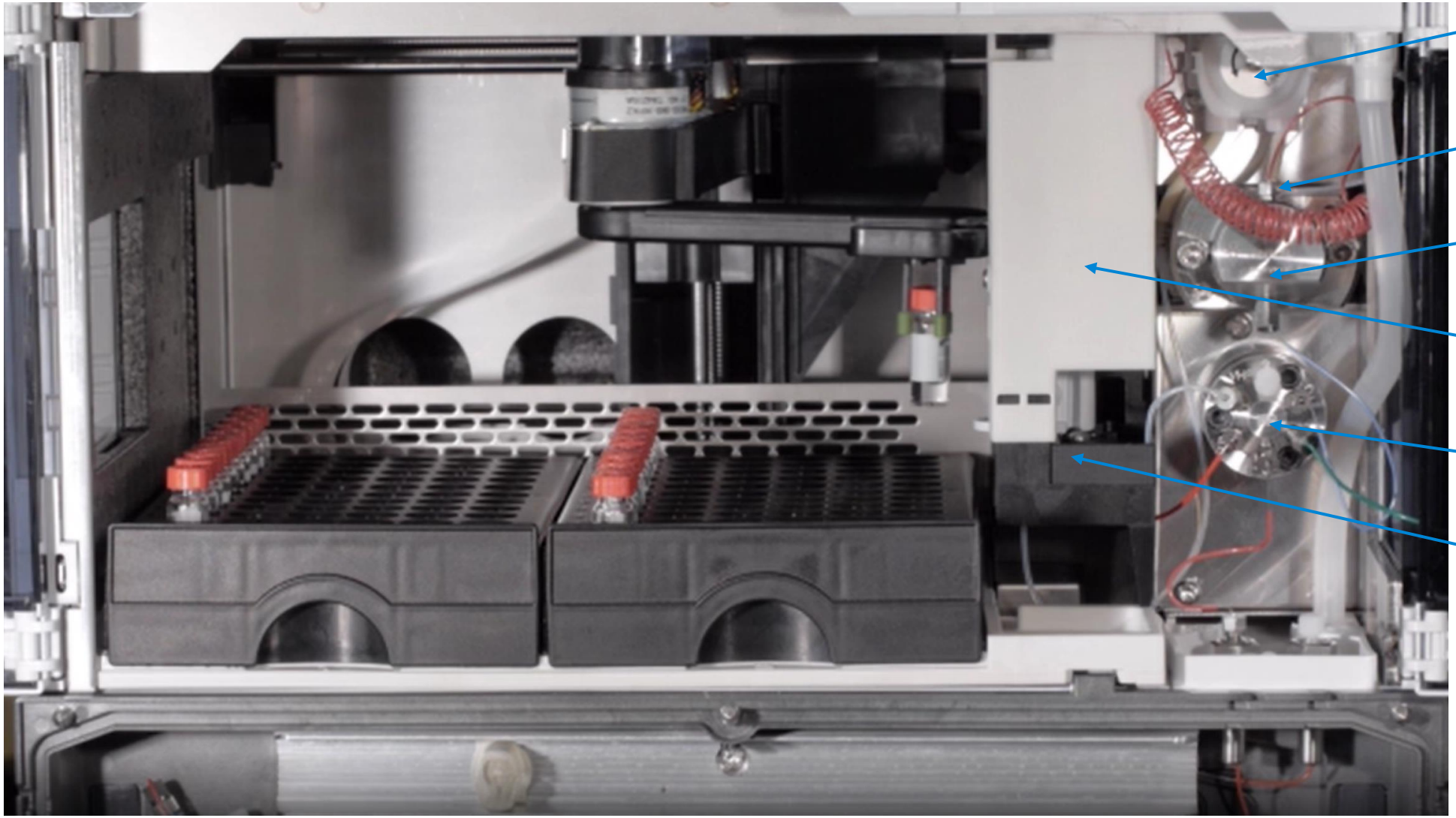
Classic Infinity Standard Autosampler



Classic Infinity Well Plate ALS (HiP)



Infinity II Vialsampler



Infinity II Multisampler

Needle wash pump

- Peristaltic pump
- Needle wash (one solvent)

6-port peripheral valve

Metering device

Dual-needle setup

Needle seat

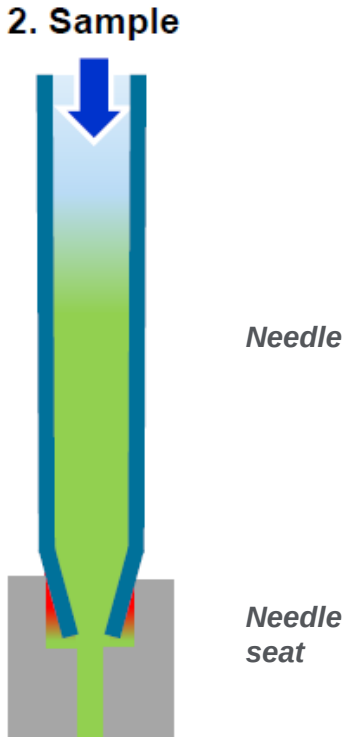
Injection valve

- Identical metering volumes
- Different metering volumes

Cartridge head options

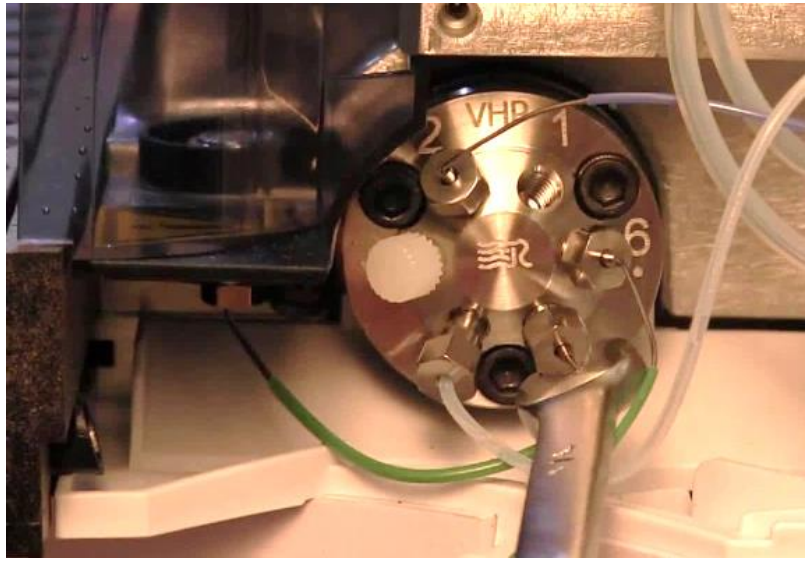
- 40 µL (Default for 1290 G7167B)
- 100 µL (Default for 1260 G7167A)
- 900 µL metering device (►400 bar limit)
- Multidraw option (single needle)

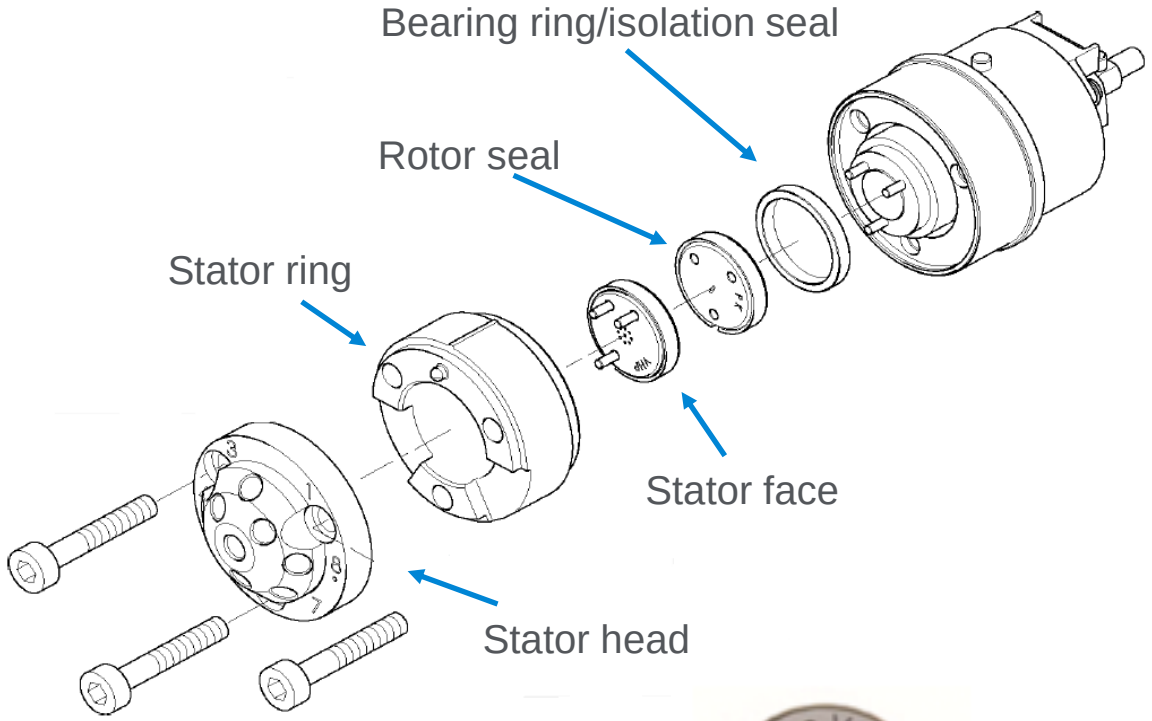
Autosampler Issues – Needle and Needle Seat



- Wear can affect the sample delivery into the system
- May see carryover, broader peaks, or reproducibility issues
- Always replace the needle seat and the needle together

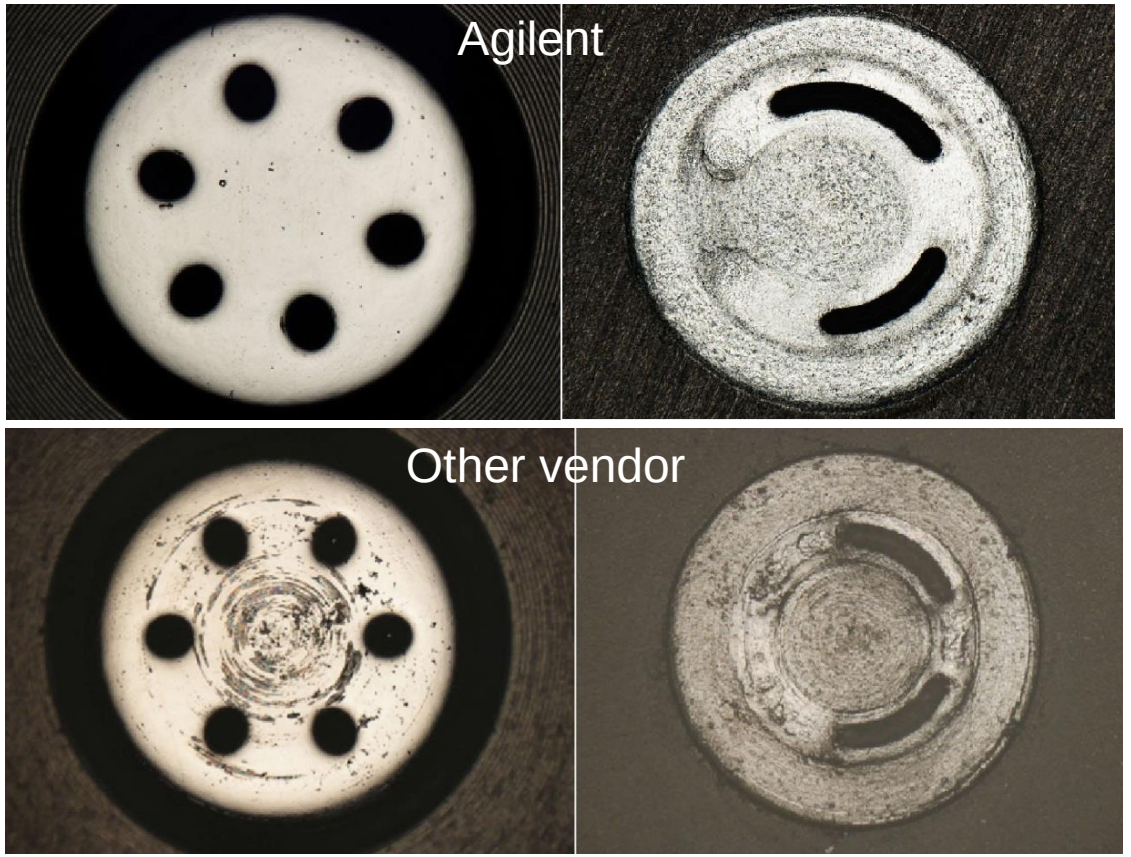
Autosampler Care – Injection Valve





- Exchange rotor seal when the injection reproducibility indicates wear
- Rotor seal wear is often a cause of sample carryover

Rotor Seals
Life time



Stator and rotor surface of 30,000 (Agilent) or 26,000 (other vendor) switch cycles

- After 30,000 switches, the Agilent rotor surface is still flat and consistent, and the contacting stator surface clean.
- The rotor seal from the other vendor showed severe surface damage and a contaminated stator surface after 26,000 switches.

Vials

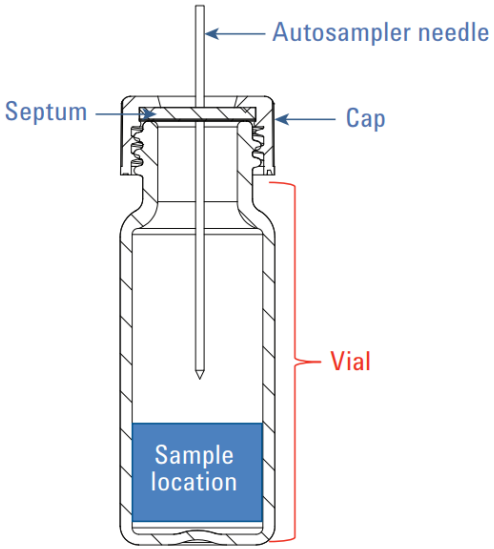
5991-6769EN
5990-9022EN

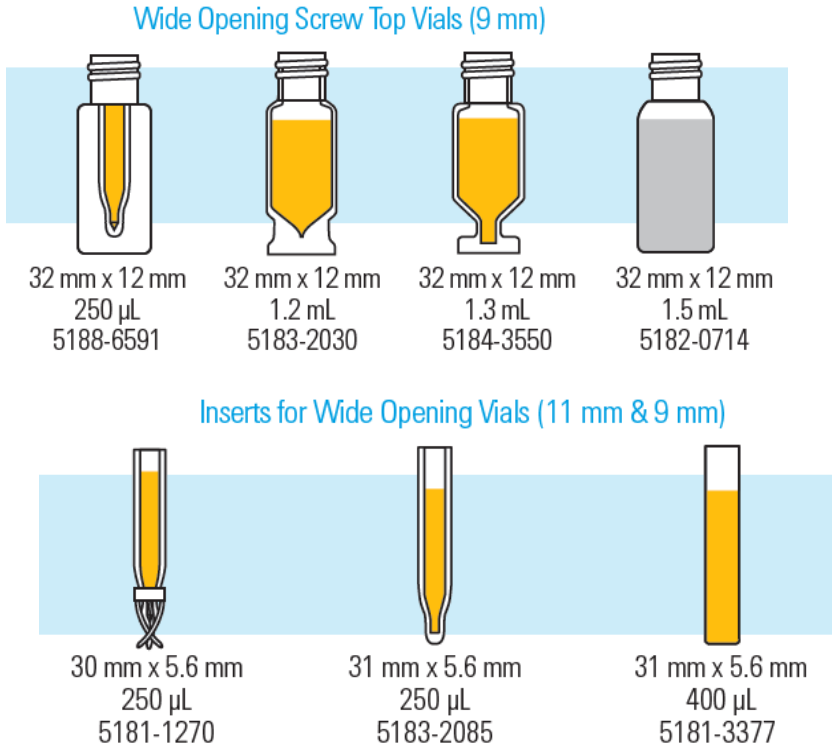
33/51 Best in glass: All vials are made of type 33-51 coefficient of expansion for top performance

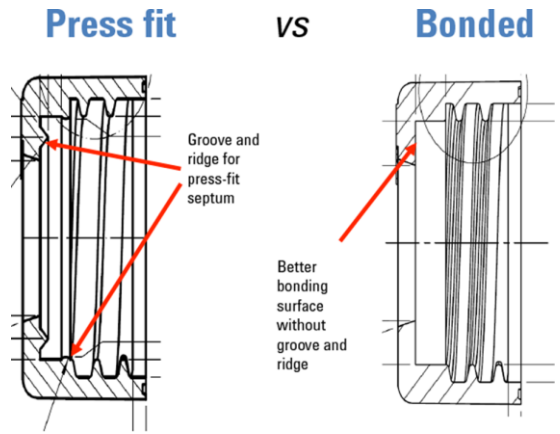
30+ Inspection points. So you get the tightest dimensional specifications, every time

Choose wide opening vials (9 mm) for Agilent autosamplers

- Choose Agilent Certified vials
  - Tested for full compatibility
  - Vial neck and shoulder are the proper height
  - Competitors do not meet our exact specifications
  - Choose bonded caps to prevent septum push-through

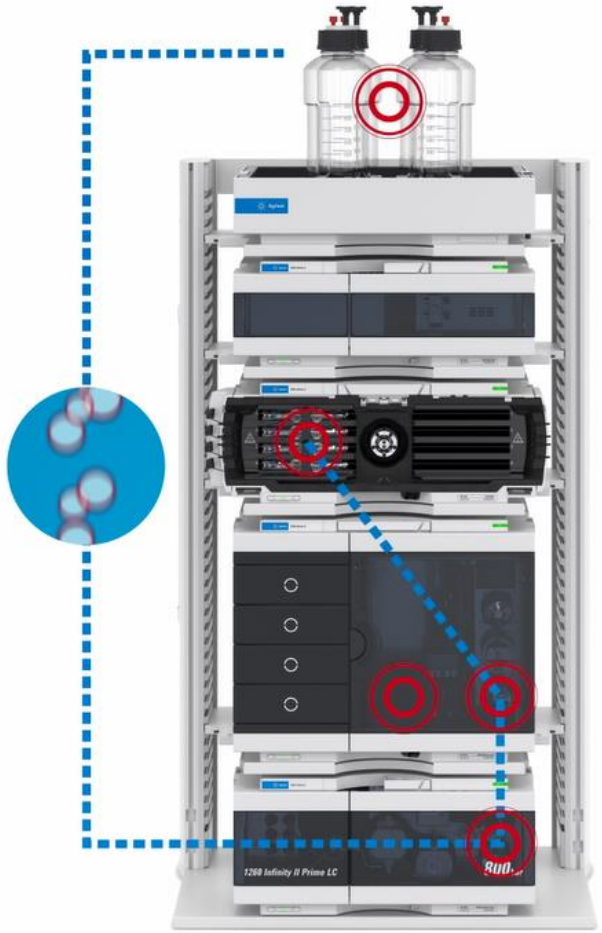


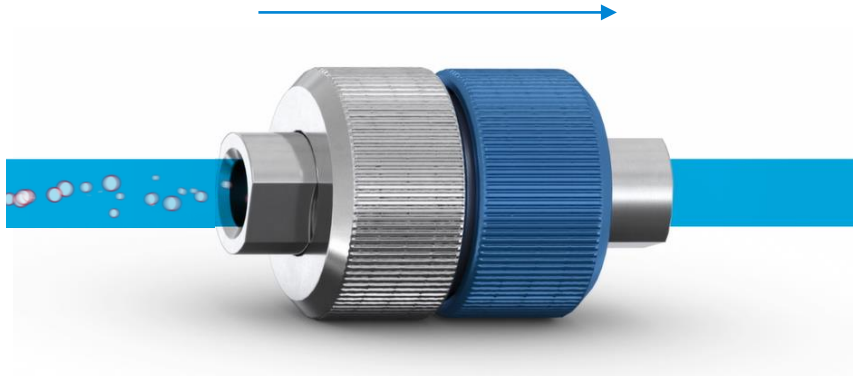




Why Use an Inline Filter?

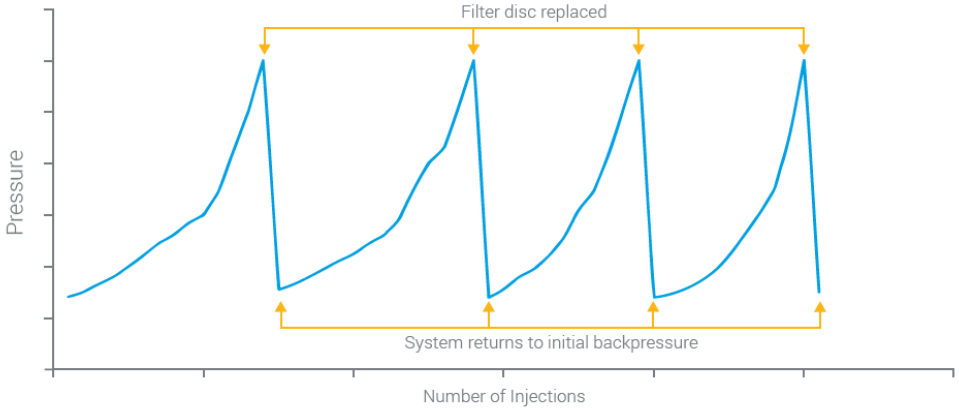
Particles lead to blockage





Filter particles to prevent column clogging

Extend column lifetime and reduce cost-per-sample



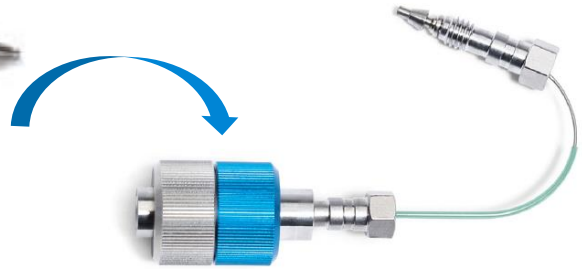
Accelerated lifetime test shows how inline filter removes particles

InfinityLab Quick Change Inline Filter

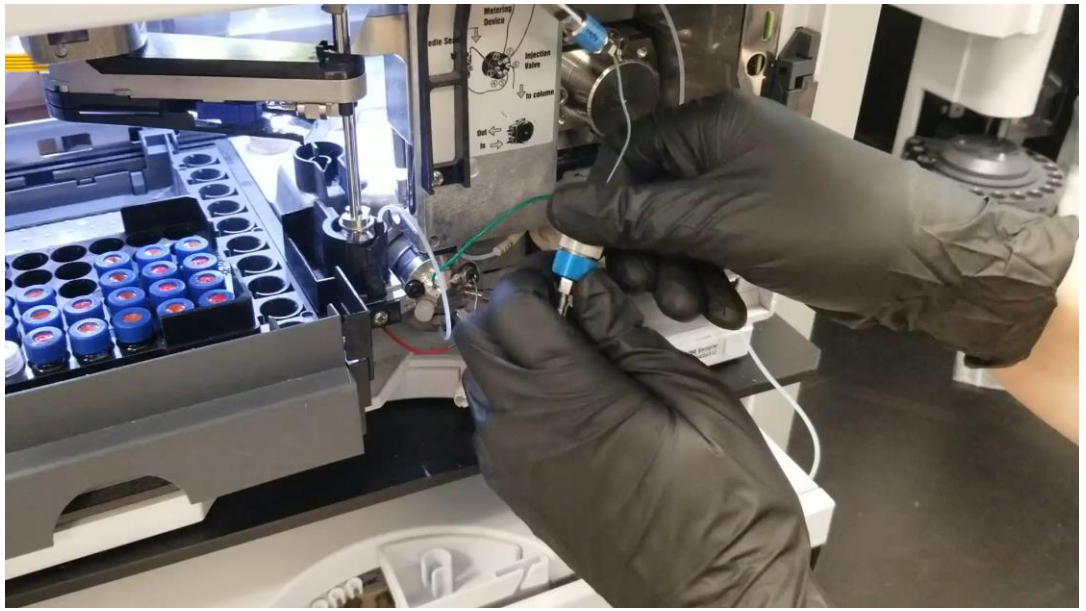
From:

1290 inline filter

RRLC inline filter



For 2.1 mm columns: 5067-1603
For 4.6 mm columns: 5067-1602

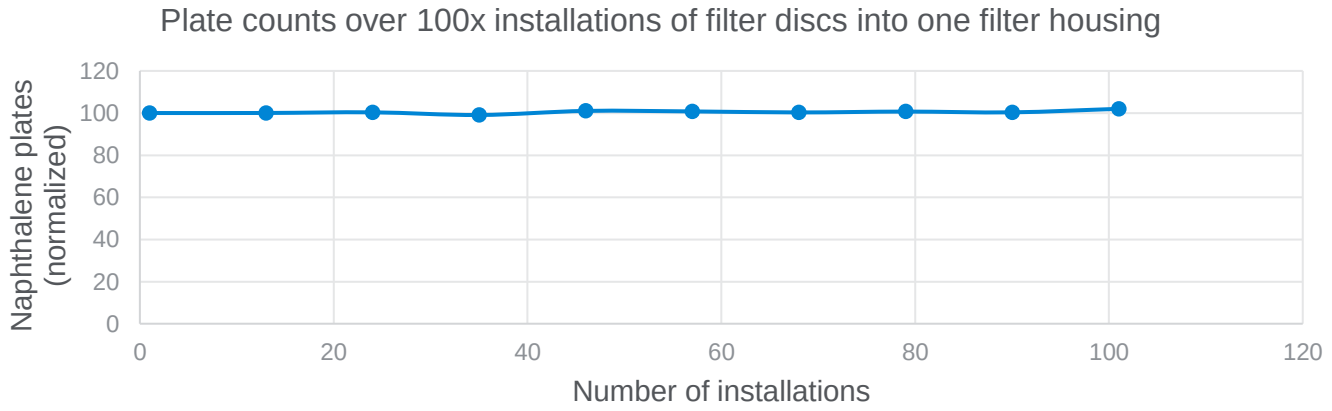


Ultimate ease-of-use:

- **Finger-tight, tool-free** replacement of filter disc
- **Click and seal**: a click alerts users when the filter is tight up to 1300 bar, assuring no risk of over- or under-tightening

Robustness for low operational cost

Robust filter housing that enables **over 100 replacements** of filter discs without any damage



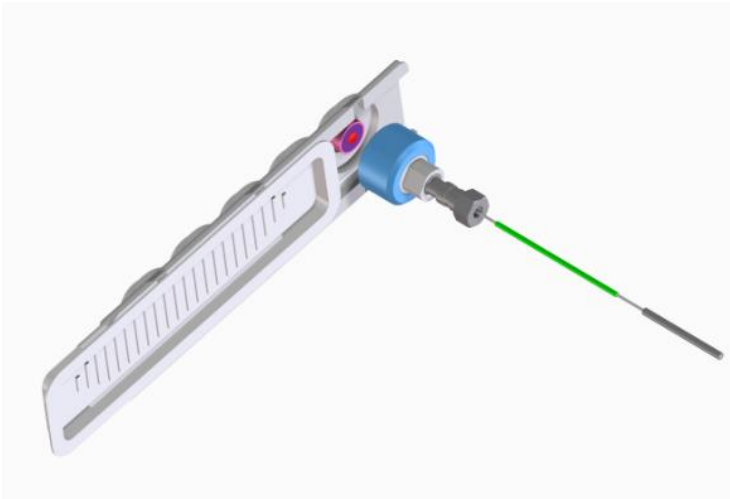
InfinityLab Quick Change Inline Filter – Filter Discs

High efficiency, easy-to-use filter discs

- **Vaious dimensions and porosities** - filter discs are available in 2.1 mm and 4.6 mm inner diameters with different pore sizes. The filter housing is compatible with all types of filter discs.
- **Touchless packaging to avoid potential contamination** – with specially designed packaging, you're able to insert the filter disc into filter housing without touching it to avoid potential contamination
- **In situ replacement** of filter disc - no need to disconnect the inline filter from the system
- **Smart alerts** to remind users of when to replace the filter discs

Different dimensions and porosities of filter discs

Filter discs in touchless packaging



No-touch insertion of the filter disc into filter housing

Detector Lamps

When changing a lamp:

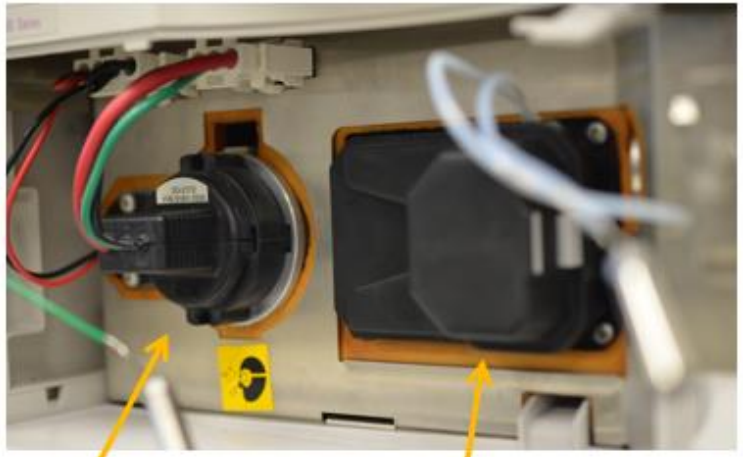
- Do not touch the glass bulb
- Any deposit in the light path can affect performance
- Wait 10 minutes for warmup

Agilent lamps

- Designed and certified for Agilent detectors
- Much narrower aperture providing increased light intensity and decreased noise
- Higher signal-to-noise ratio
- Typical long-life lamp life is 2000 hours

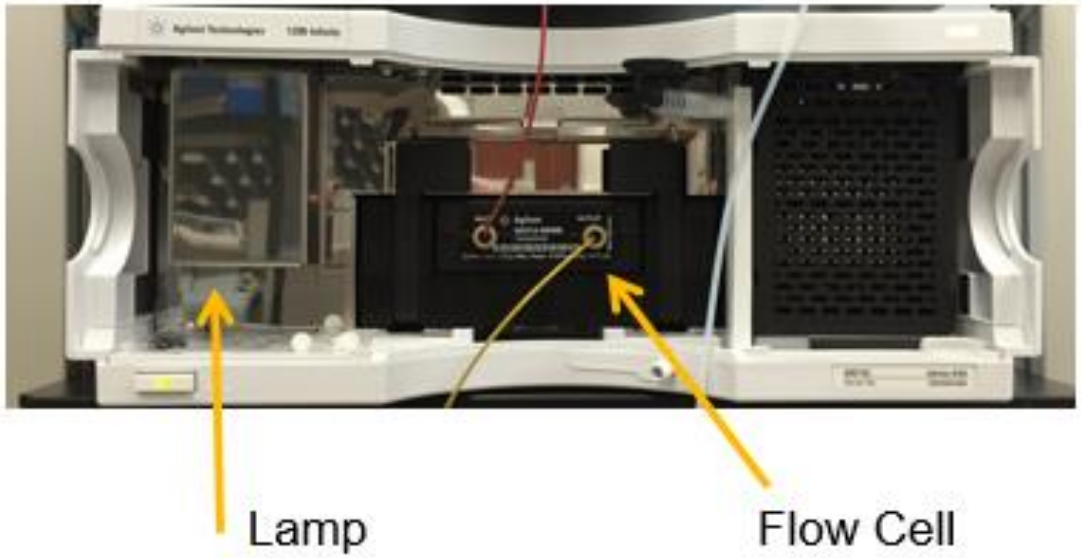
UV Detectors – DAD/MWD and VWD

DAD

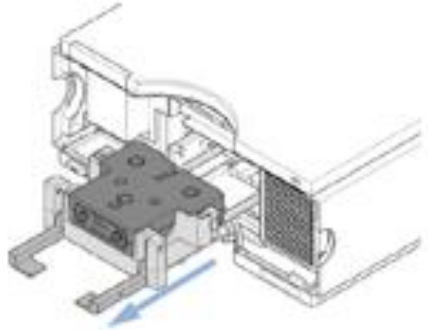


VWD

UV Detectors – Max-Light



Max-Light cartridge



1290 and some 1260 systems

- Lamp and flow cells are available with RFID to track usage and to predict replacement

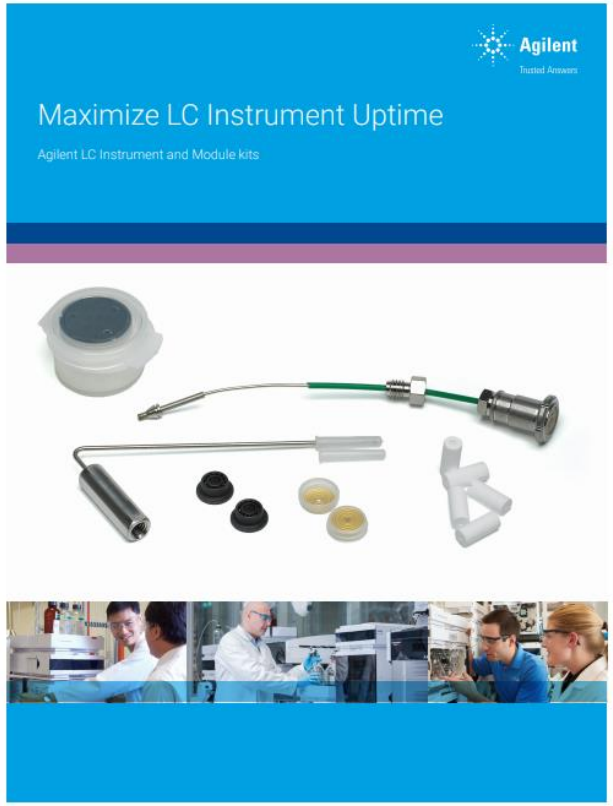
Instrument Supplies References

Agilent InfinityLab Supplies for the Agilent 1260 Infinity II LC with Vialsampler

Agilent Technologies is committed to optimizing your laboratory's productivity, so we have produced this list of the most commonly ordered supplies and parts for the 1260 Infinity II LC with Vialsampler.

Pump supplies	PM*	Part number
Bottle head assembly		G7120-60007
Glass filter, solvent inlet, 20 µm pore size		5041-2168
Stainless steel filter, solvent inlet, 10 µm pore size		01018-60025
Piston seal PTFE, 2/Pk (reversed phase)	1 each	5063-6589
Piston seal PE, 2/Pk (normal phase)	1 each optional	0905-1420
Sapphire piston		5063-6586
Passive inlet valve		G1312-60066
Passive inlet valve (normal phase)		G1312-60166
Cartridge for active inlet valve, 600 bar		G1312-60020
Outlet valve		G1312-60067
Outlet valve (normal phase)		G1312-60167
Purge valve		G1312-60071
PTFE frits, for purge valve (pack of 5)	1 each	01018-22707
Seal cap for purge valve	1 each	5067-4728
Wash seal PTFE (reversed phase)	2 each	0905-1175
Wash seal PE (normal phase)	2 each optional	0905-1718
Gasket seal wash (pack of 6)	1 each	5062-2484
Peristaltic pump for seal wash (pharmed tubing)	1 each	5065-4445
PM kit for isocratic / quaternary pumps (G7110B/G7111A and B)	kit	G1310-68741
PM kit for binary pump (G7112B)	kit	G1312-68741
Seal wash preventive maintenance kit for quaternary and binary pumps		G1310-68742

* PM (preventive maintenance) relevant part information:
- x each: amount of part needed per PM
- kit: preventive maintenance kit that includes all standard parts for PM
- optional: part required for PM only if referring option is installed



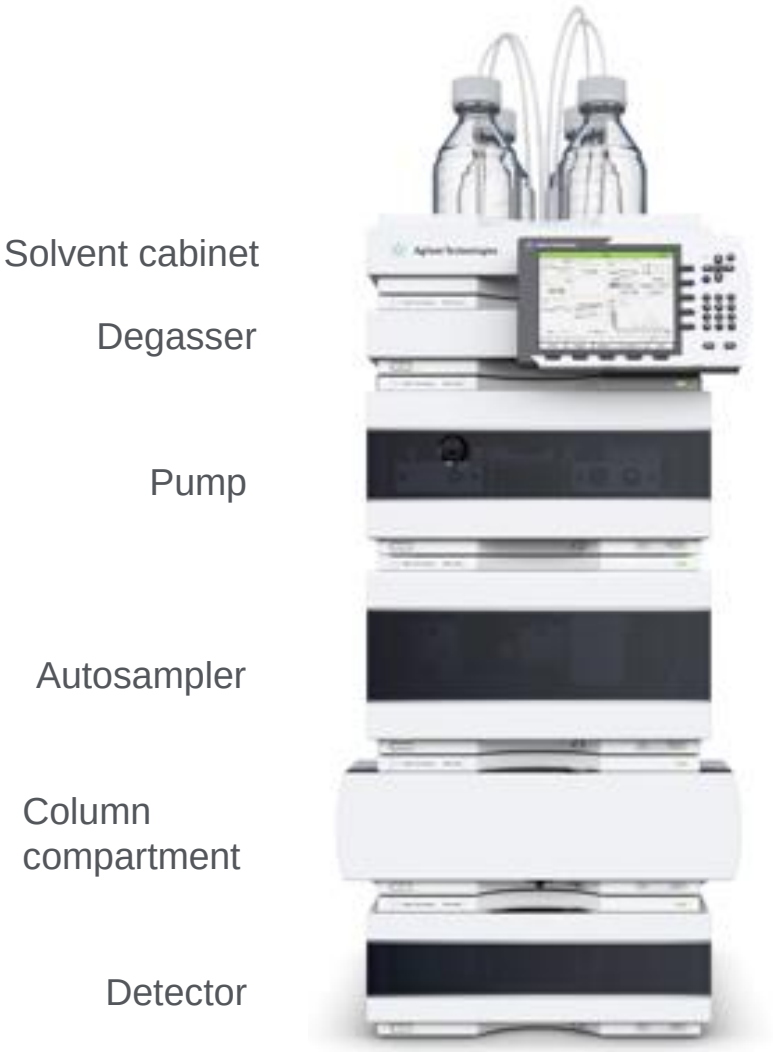
5994-0017EN

UV Detector Lamps

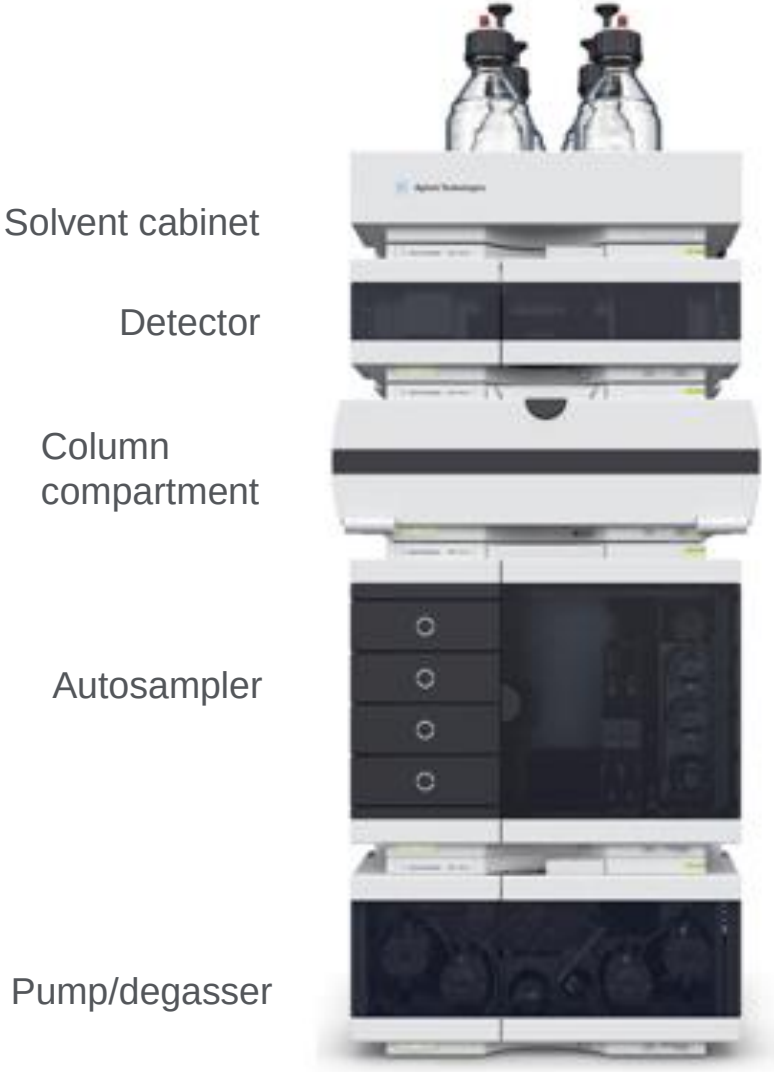
Detector lamps

Description	Used in	Part no.
Variable Wavelength Detector		
InfinityLab long-life HiS deuterium lamp with RFID tag	For G1314D/E/F and G7114A/B	G1314-60101
Long-life deuterium lamp	For G1314A/B/C, 1120 and 1220 Infinity LC with VWD	G1314-60100
Diode Array Detector/Multiple Wavelength Detector		
InfinityLab long-life HiS deuterium lamp (8pin), with RFID tag	For G4212A/B and G7117A/B/C	5190-0917
InfinityLab long-life deuterium lamp, with RFID tag	For G1315C/D, G1365C/D, G7115A, G7165A	2140-0820
Long-life deuterium lamp	For G1315A/B and G1365A/B	5182-1530
Tungsten lamp (for VIS) assembly	For G1315A/B/C/D and G1365A/B/C/D	G1103-60001

Connecting Capillaries for LC Modules



Classic Infinity

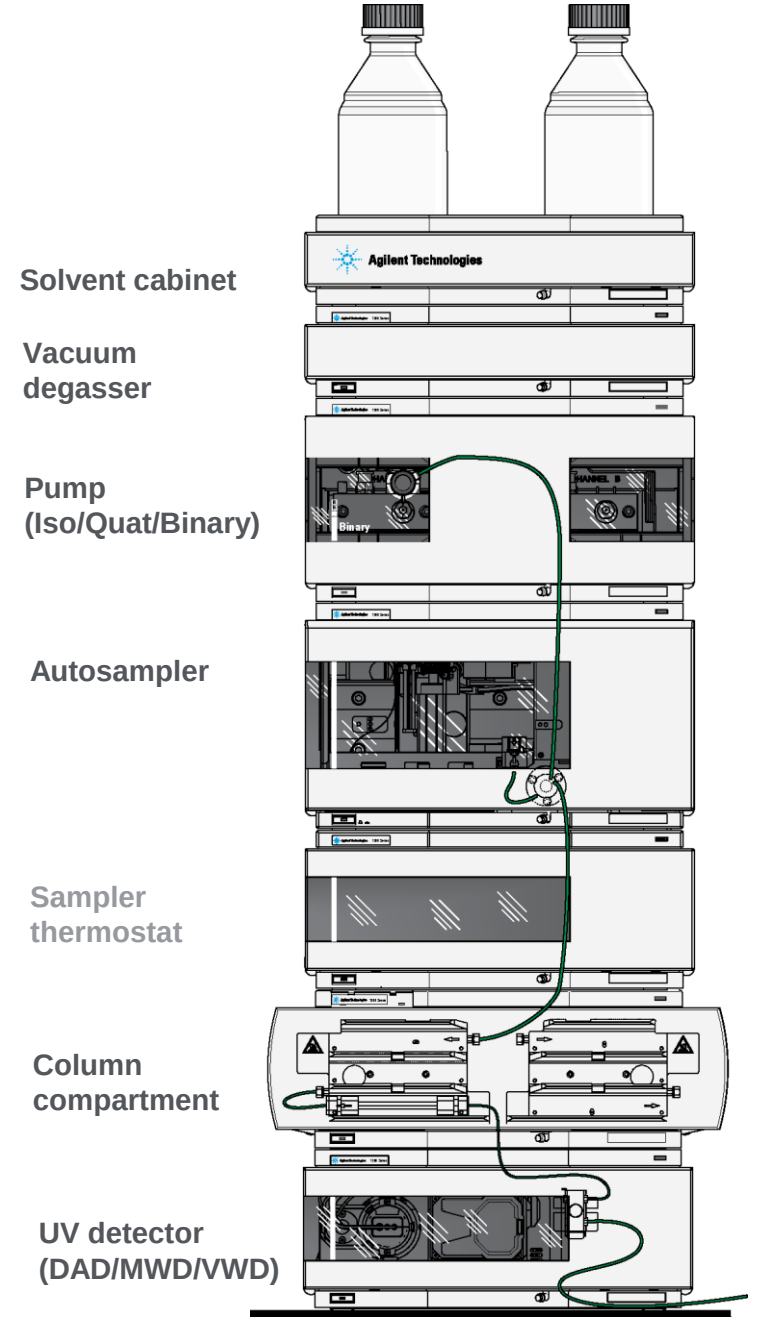


Infinity II

1100/1200/1260 Series System

Connection	P/N	Description
Solvent bottle to vacuum degasser	G1311-60003	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Degasser to pump	G1322-67300	Tubing kit degasser, 300 mm tubing, 4/pk
Pump to autosampler	G1312-87303	Capillary, 0.17 mm x 400 mm
Pump (purge valve) to waste	5062-2461	PTFE tube, 5000 mm
Autosampler to column compartment	G1313-87305 G1313-87304	Capillary, 0.17 mm x 180 mm Capillary, 0.12 mm x 180 mm
Thermostatted ALS to column compartment	01090-87309 01090-87610	Capillary, 0.17 mm x 380 mm Capillary, 0.12 mm x 280 mm
Column compartment to column	G1316-87300 01090-87611	Capillary, 0.17 mm x 90 mm Capillary, 0.12 mm x 105 mm
Column to VWD (std flow cell)	5062-8522	Inlet tubing assembly PEEK, 0.17 mm 600 mm (see 'Specials' slide for additional flow cells)
Column to DAD/MWD	G1315-87311 G1315-87312	Capillary, 0.17 mm x 380 mm (S/S, ps/ns) Capillary, 0.12mm x 150 mm
VWD to waste	5062-8535	Waste accessory kit
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m

0.17 mm id capillaries	Standard setup
0.12 mm id capillaries	Rapid resolution LC setup

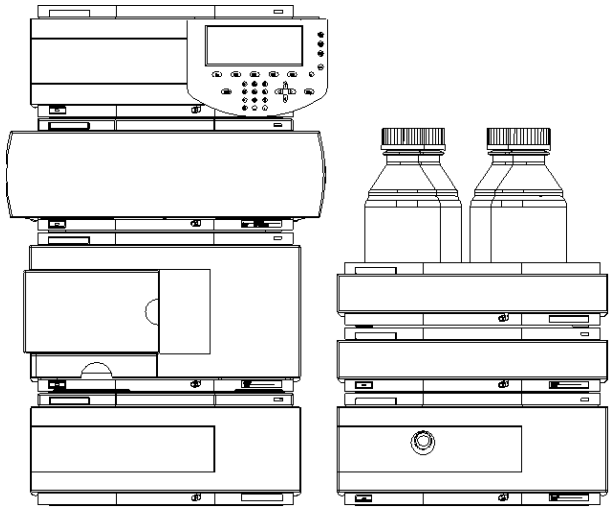


1100/1200/1260 Infinity Series System

Dual – Stack configuration with cooled ALS

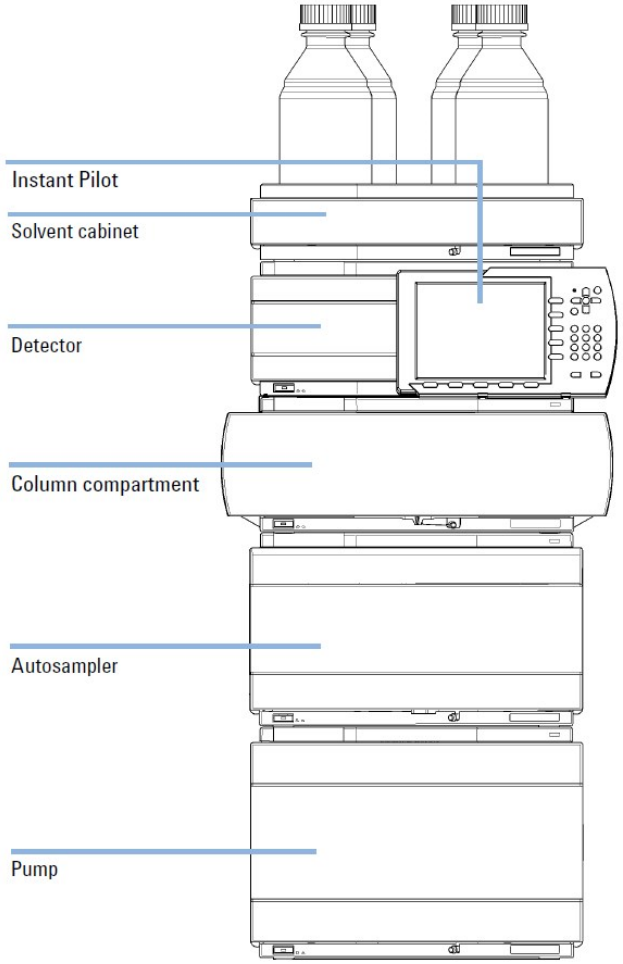
Connection	P/N	Description
Solvent bottle to vacuum degasser	G1311-60003	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Degasser to pump	G1322-67300	Tubing kit degasser, 300 mm tubing, 4/pk each
Pump to autosampler	G1312-87304	Capillary, 0.17 mm x 700 mm
Pump (purge valve) to waste	5062-2461	PTFE tube, 5000 mm
Thermostatted ALS to column compartment	01090-87309 01090-87610	Capillary, 0.17 mm x 380 mm Capillary, 0.12 mm x 280 mm
Column compartment to column	G1316-87300 01090-87611	Capillary, 0.17 mm x 90 mm Capillary, 0.12 mm x 105 mm
Column to VWD (std flow cell)	5062-8522	Inlet tubing assembly PEEK, 0.17 mm 600 mm (see 'Specials' slide for additional flow cells)
Column to DAD/MWD	G1315-87311 G1315-87312	Capillary, 0.17 mm x 380 mm Capillary, 0.12 mm x 150 mm
VWD to waste	5062-8535	Waste accessory kit
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m

0.17mm id capillaries	Standard setup
0.12mm id capillaries	Rapid resolution LC setup



1290 Infinity Series System

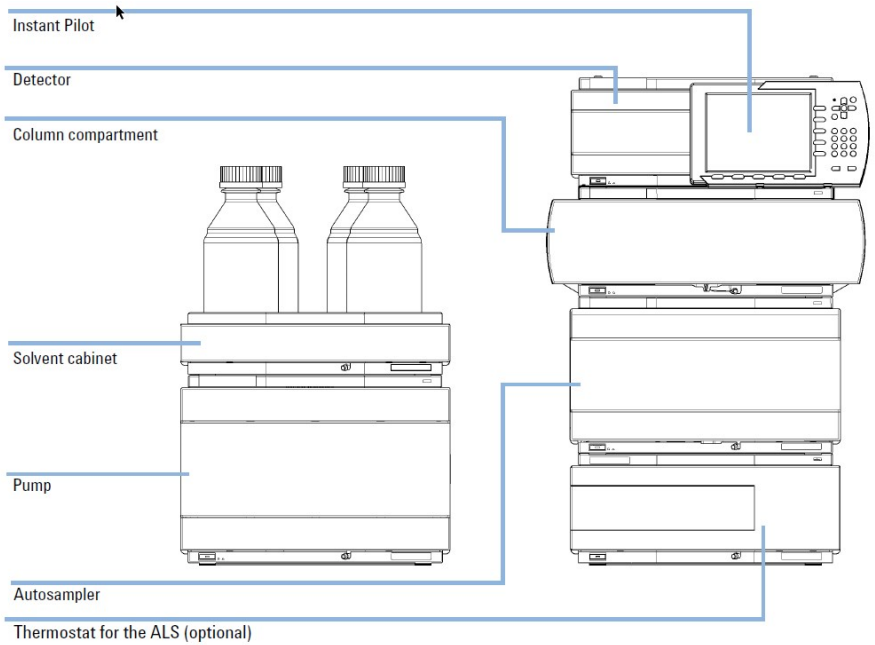
Connection	P/N	Description
Solvent bottle to pump	G7120-60007	Bottle head assembly for screw bottle (GL45), with glass filter 20µm, (5041-2168)
Pump to autosampler	5067-4657	Capillary, 0.17mm x 300mm
Autosampler to column compartment	5067-4659	Capillary, 0.12mm x 340mm
Column compartment to column	G1316-87321 G1316-87323	Capillary, 0.17mm x 105mm Capillary, 0.17mm x 170mm *See 'Specials' on Low Dispersion Heat Exchangers and InfinityLab Fittings for further info on 0.12mm ID column connections*
Column to DAD	5067-4660	Capillary, 0.12mm x 280mm
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5m



1290 Infinity Series System

Dual – Stack configuration with cooled ALS

Connection	P/N	Description
Solvent bottle to vacuum degasser	G7120-60007	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Pump to autosampler	5500-1217	Capillary, 0.17 mm x 900 mm
Autosampler to column compartment	5067-4659	Capillary, 0.12 mm x 340 mm
Column compartment to column (low dispersion heat exchanger double)	5500-1188	Capillary, 0.12 mm x 105 mm (capillary comes without fittings, use Quick Turn fittings or stainless steel fittings)
Column to DAD	5067-4660	Capillary, 0.12 mm x 280 mm
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m



See 'Specials' on Low Dispersion Heat Exchangers and InfinityLab Fittings for further details on column connection possibilities.

1260/1290 Infinity II Series System

S 

SI 

SL 

SX 

M4 

Single stack with multisampler and MCT

Connection	P/N	Description
Solvent bottle to pump	G7120-60007	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Pump to multisampler	5500-1246	Capillary, 0.17 mm x 500 mm (SI/SI, ps/ps)
Multisampler to MCT	5500-1157	Capillary, 0.12 mm x 500 mm, (SI/SI, ps/ns)
Heat exchanger to column	5067-5957	Quick Connect assembly 0.12 mm x 105 mm
	5500-1173	*Quick Connect capillary 0.12 mm x 105 mm*
	5067-5965	*Quick Connect fitting*
Column to DAD	5500-1191	Quick Turn capillary, 0.12 mm x 280 mm (comes without fitting)
	5067-5966	Quick Turn fitting
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m

Solvent cabinet

DAD

Multicolumn thermostat (MCT)

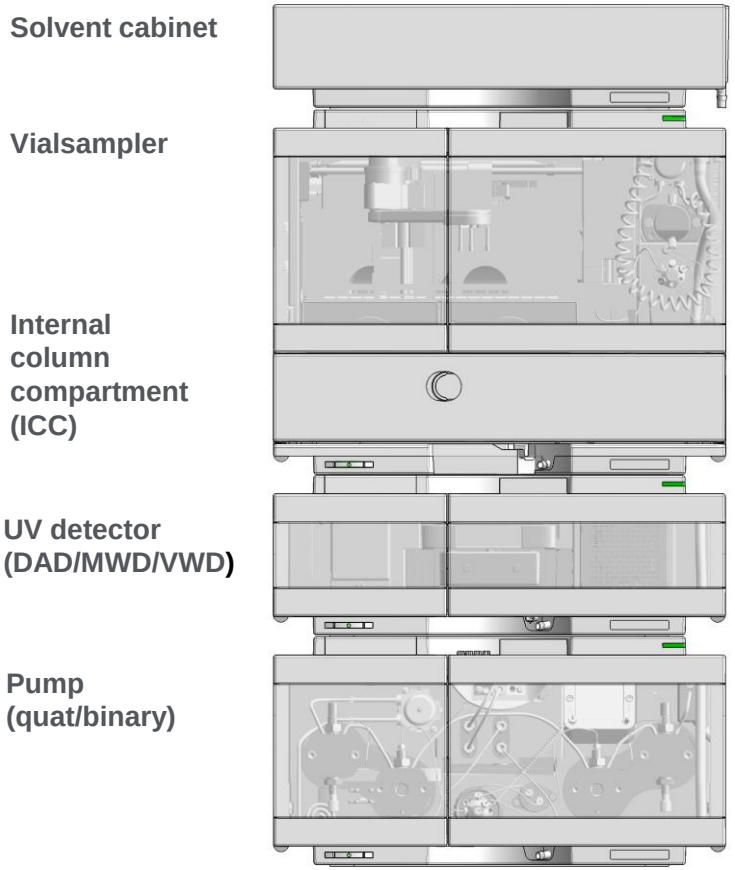
Multisampler

Pump (flex/high speed)

1260 Infinity II Series System

Single stack with vialsampler and internal column compartment

Connection	P/N	Description
Solvent bottle to pump	G7120-60007	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Pump to vialsampler	5500-1217	Capillary, 0.17 mm x 900 mm (SI/SX, ps/ps)
Sampler to 3 µL heat exchanger 6 µL heat exchanger	 5500-1249 5500-1250	 Capillary, 0.12 mm x 120 mm, (SL/SL, ps,ns) Capillary, 0.17 mm x 120 mm (SL/SL, ps,ns)
Heat exchanger to column 3 µL heat exchanger 6 µL heat exchanger	 5500-1238 5500-1240	 Capillary, 0.12 mm x 105 mm (SL/SL, ps,ps) Capillary, 0.17 mm x 105 mm (SL/SL, ps,ps)
Column to DAD	5500-1191	Quick Turn capillary, 0.12 mm x 280 mm (comes without fitting)
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m



1260/1290 Infinity II Series System

S 

SI 

SL 

SX 

M4 

Single stack with vialsampler and multicolumn thermostat

Connection	P/N	Description
Solvent bottle to pump	G7120-60007	Bottle head assembly for screw bottle (GL45), with glass filter 20 µm, (5041-2168)
Pump to vialsampler	5500-1245	Capillary, 0.17 mm x 400 mm (SI/SX, ps/ps)
Sampler to heat exchanger	5500-1157	Capillary, 0.12 mm x 500 mm, (SL/SL, ps,ns)
Heat exchanger to column	5067-5957 *5500-1173* *5067-5965*	Quick Connect assembly 0.12 mm x 105 mm *Quick Connect capillary 0.12 mm x 105 mm* *Quick Connect fitting*
Column to DAD	5500-1191 5067-5966	Quick Turn capillary, 0.12 mm x 280 mm (comes without fitting) InfinityLab Quick Turn fitting
DAD to waste	5062-2462	PTFE tubing 0.7 mm id, 1.6 mm od, 5 m

See 'Specials' on Low Dispersion Heat Exchangers and InfinityLab Fittings for further details on column connection possibilities.

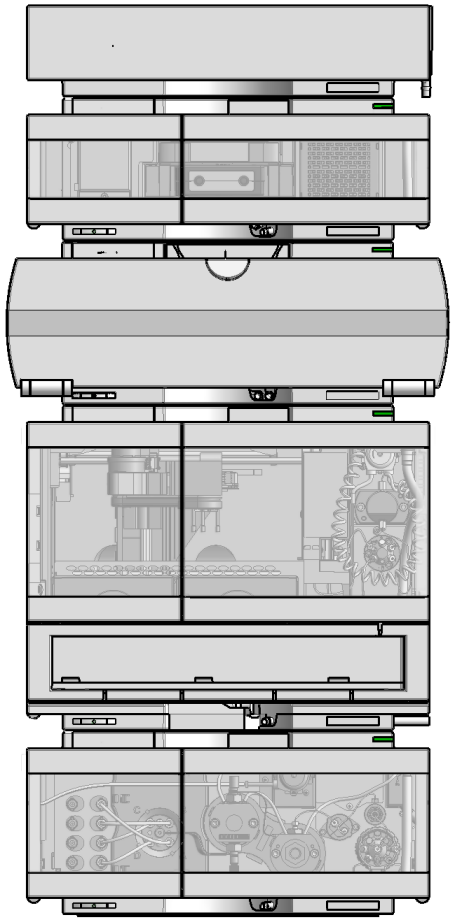
Solvent cabinet

UV detector (DAD/MWD/VWD)

Multicolumn compartment

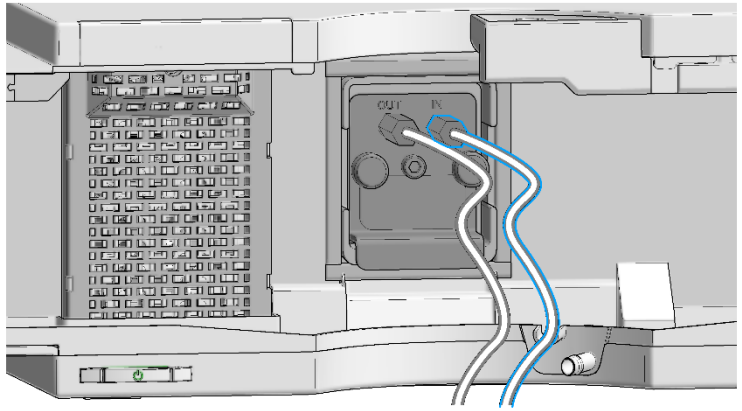
Vialsampler

Pump (flex/high speed)



Variable Wavelength Detector (VWD) Connections

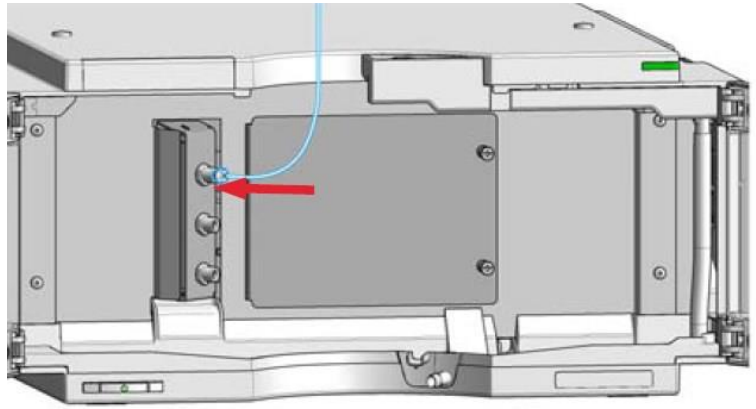
Connection	P/N	Description
Column to VWD **standard flow cell** (10 mm, 14 µL, 40 bar)	5062-8522	Inlet tubing assembly PEEK, 0.17 mm 600 mm
Column to VWD **micro flow cell**	5021-1823	Capillary, 0.12 mm x 400 mm (comes without fitting)
Column to VWD **semi micro flow cell**	5021-1823	Capillary, 0.12 mm x 400 mm (comes without fitting)
Column to VWD **high pressure flow cell**	G1315-87311	Capillary, 0.17 mm x 380 mm (S/S, ps/ns)
VWD to waste	5062-8535	Waste accessory kit



Refractive Index Detector (RID) Connections

Connection	P/N	Description
Inlet connection for **G1362A** and **G7162A** RID	G1362-87300	Interfacing capillary
Outlet connection for **G1362A** and **G7162A** RID	G1362-87301	Restriction capillary

Connection	P/N	Description
Inlet connection for **G7162B** RID	5067-4783	Capillary, SST, 0.075 mm x 340 mm
Connection **sampler** to **TCC/MCT** when **G7162B RID**	5067-4784	Capillary, SST, 0.075 mm x 220 mm



InfinityLab Quick Connect and Quick Turn Fittings

	Quick Connect Fitting	Quick Turn Fitting
Connects to	Columns (or inline filters)	Column, various receiving ports with 10-32 port geometry
Maximum pressure	1300 bar (finger-tight, by turning the lever)	300 to 400 bar (finger-tight, user dependent) 1300 bar (with mounting tool, 5043-0915)  Bio-inert mounting tool, 5043-0915
Features	• Spring-loaded function for dead volume-free connections (special capillaries) • Replaceable ferrule and capillary • Capillaries in various lengths and diameters available	• Spring-loaded function for dead volume-free connections • Replaceable ferrule and capillary • Capillaries in various lengths and diameters available
Wetted material	PEEK (ferrule)	PEEK (ferrule)

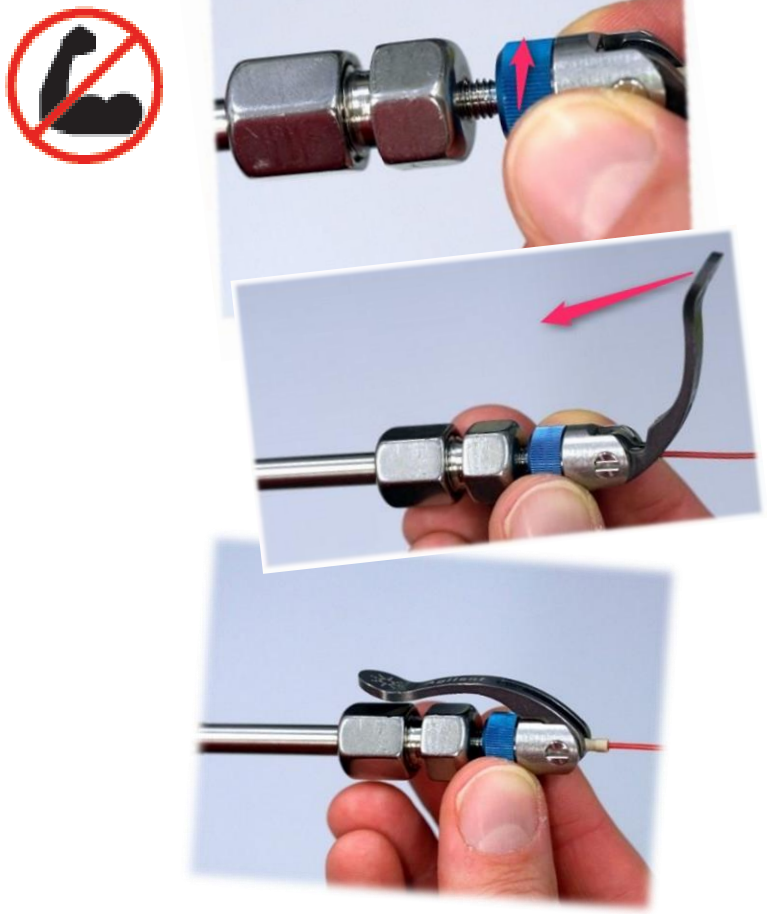
Quick Connect Fitting

How to use

1. Screw the fitting (blue wheel) with the lever in the ‘open‘ position onto the column.

2. Stop when you can feel the **first resistance** and then close the lever.

3. Finished – in seconds.



Removing the Capillary

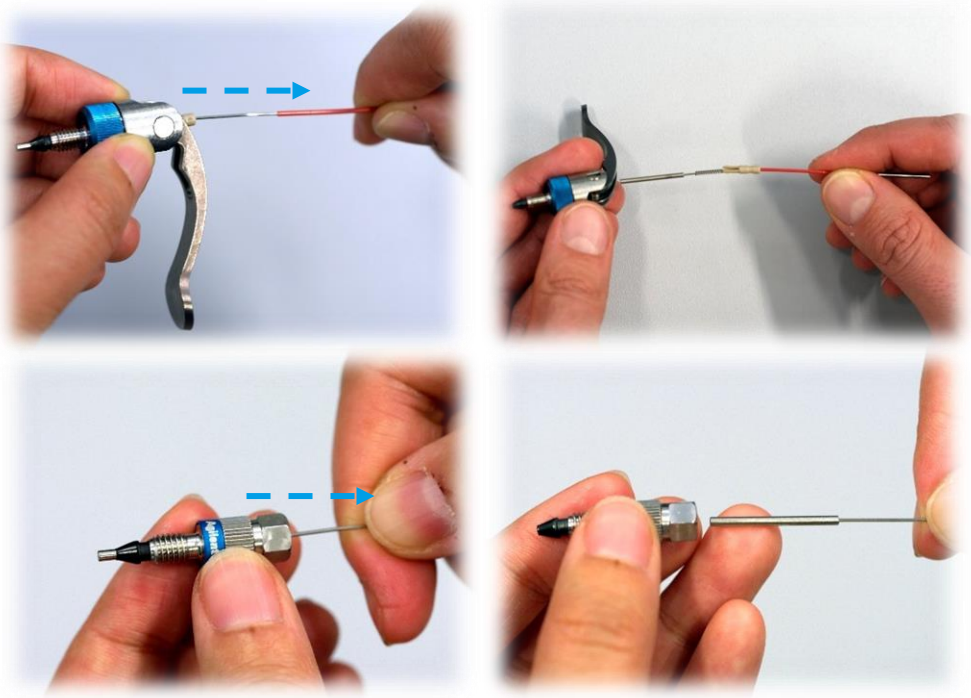
Quick Connect fitting:

1. Open the lever
2. Pull the capillary from the fitting

Quick Turn fitting:

1. Pull the capillary from the fitting

The only part fixing the capillary to the fitting is the brown PEEK adapter. It should be relatively easy to remove the capillary. However, if stronger force is required to remove the capillary and the spring-loaded function still works, the ferrule may potentially be deformed, adding additional friction. If the spring-loaded function is not working, it is likely that the fitting is defective.

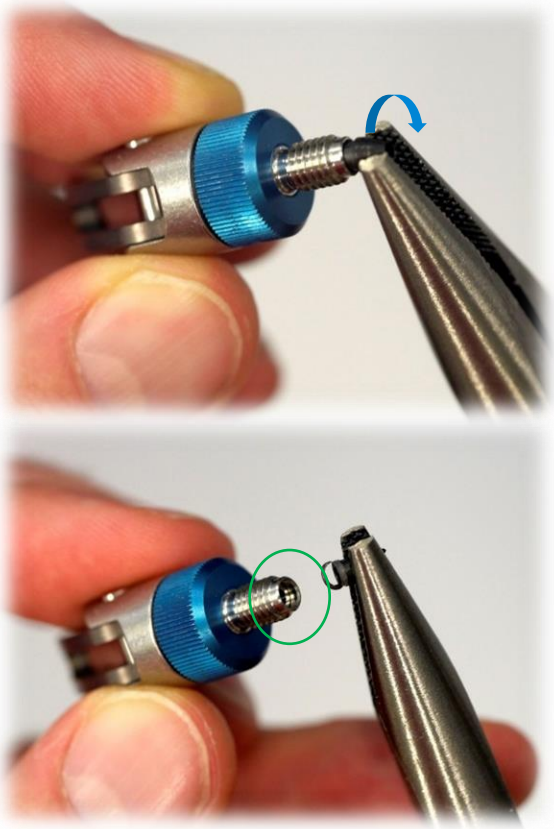


Removing the Ferrule

Removing the ferrule requires the same procedure for both Quick Connect and Quick Turn fittings.

1. Uninstall the capillary first and use pliers to twist off the ferrule.

2. Check the fitting for any remaining material, and remove it, if necessary, with tweezers before installing the new ferrule.



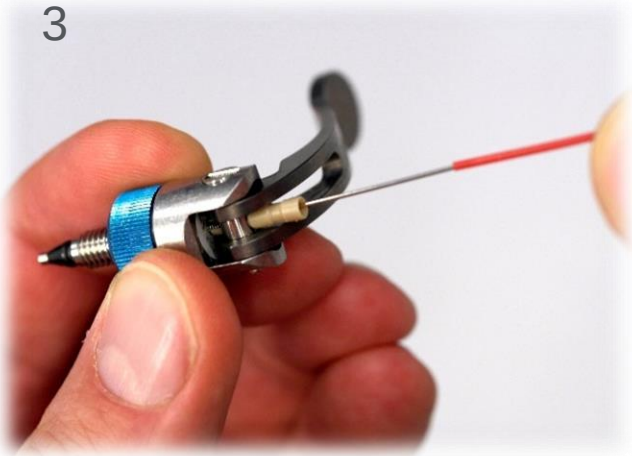
Installing the Capillary

Installing the capillary is quite similar for both fittings, but you should be aware of some special handling that is required for each fitting.

Quick Connect fitting

Insert the Quick Connect capillary into the rear of the Quick Connect fitting. The lever must be in the open position.

Push until the PEEK adapter engages into the bolt holding the lever.

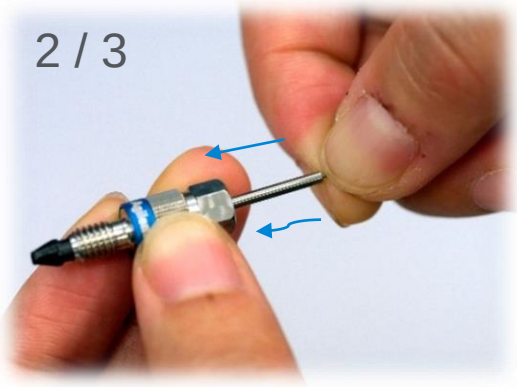


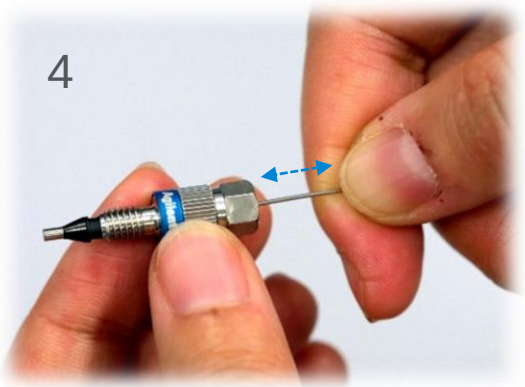
Carefully pull on the capillary to verify it is correctly installed. The PEEK adapter keeps the capillary attached to the fitting, and you can feel the spring-loaded function.

Installing the Capillary

Quick Turn fitting

1. Insert the capillary into the rear of the Quick Turn fitting.
2. During this procedure, the capillary needs to be pushed through the internal clamp ring, which can require a certain amount of force. Careful twisting of both parts against each other can also help to push the capillary through.
3. Continue to push the capillary until its front end is visible (approximately 1 cm without the ferrule, 3 mm with the ferrule.)
4. Carefully pull on the capillary to verify that the spring-loaded function is engaged.





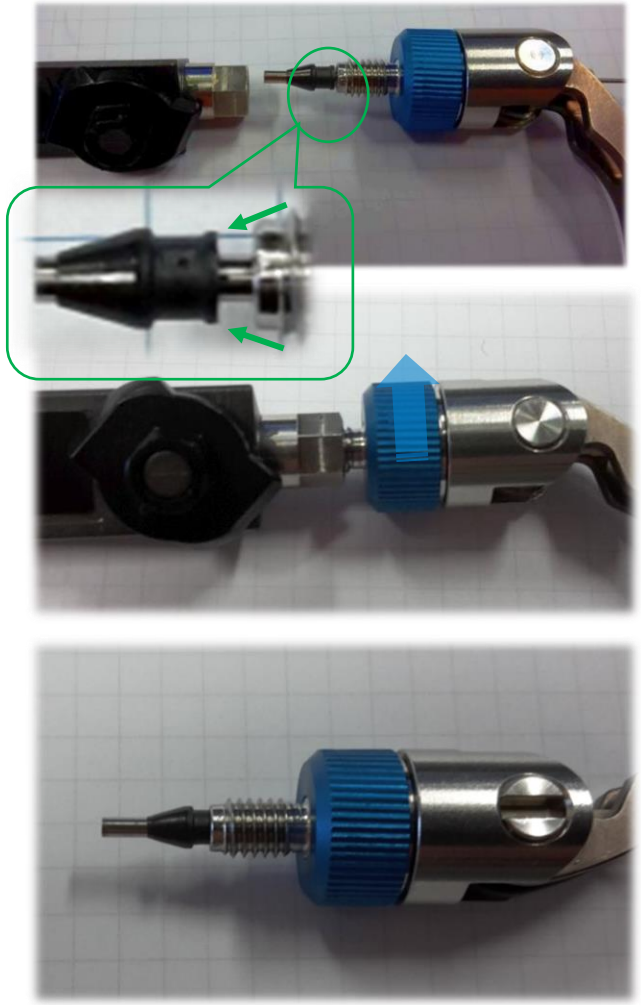
Both procedures for installing the capillary have been shown with the ferrule still installed. However, difficulties can occur during this procedure if the ferrule is squeezed. Check the ferrule for issues first, and replace if necessary.

Installing the Ferrule

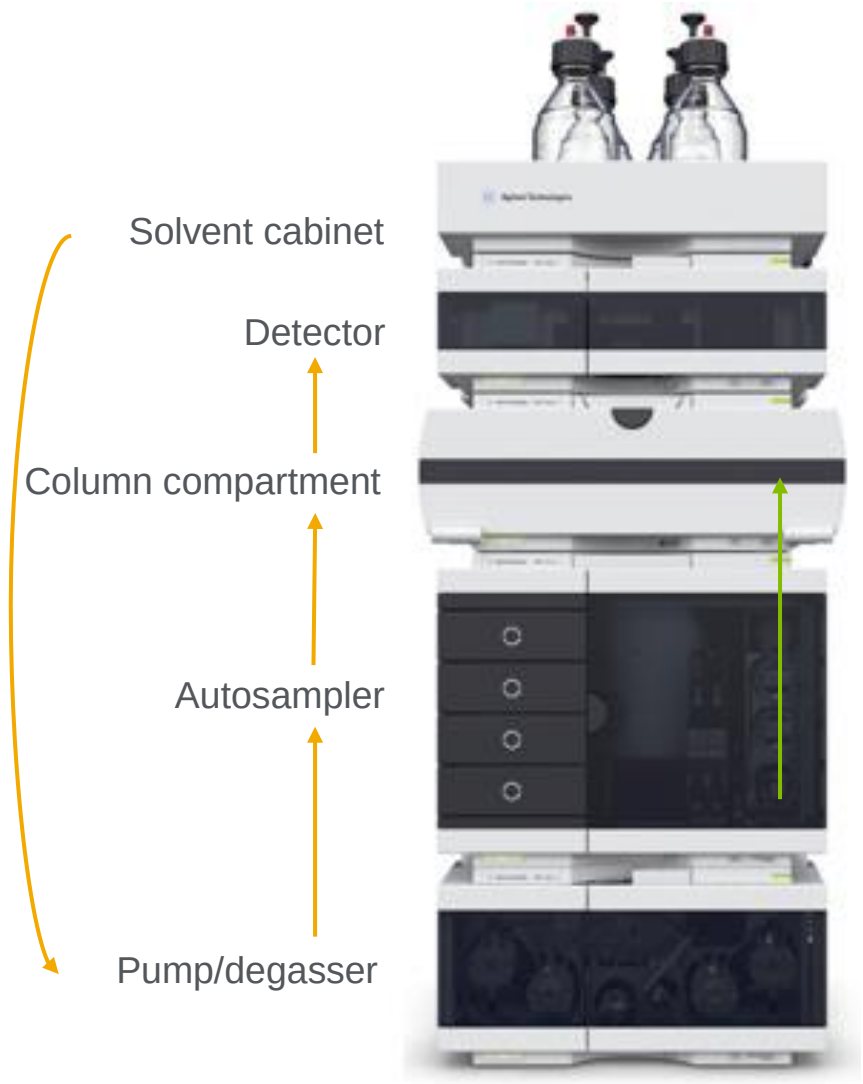
This procedure is applicable for both Quick Connect and Quick Turn fittings.

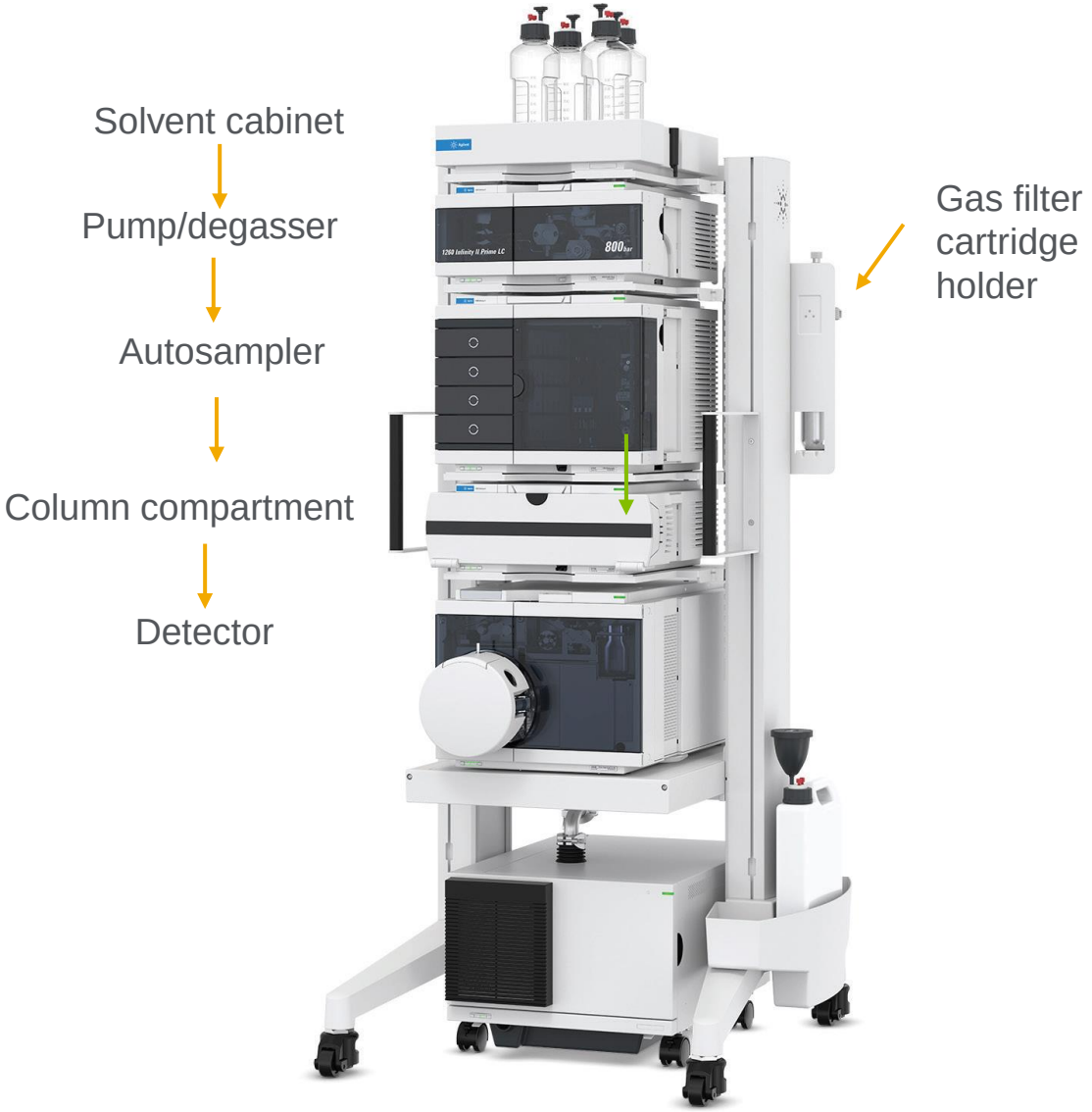
A capillary needs to be installed before installing the ferrule (p/n 5043-0924).

1. Slide the ferrule over the tip of the capillary
2. Screw the fitting into a suitable counterpart until it is just finger-tight

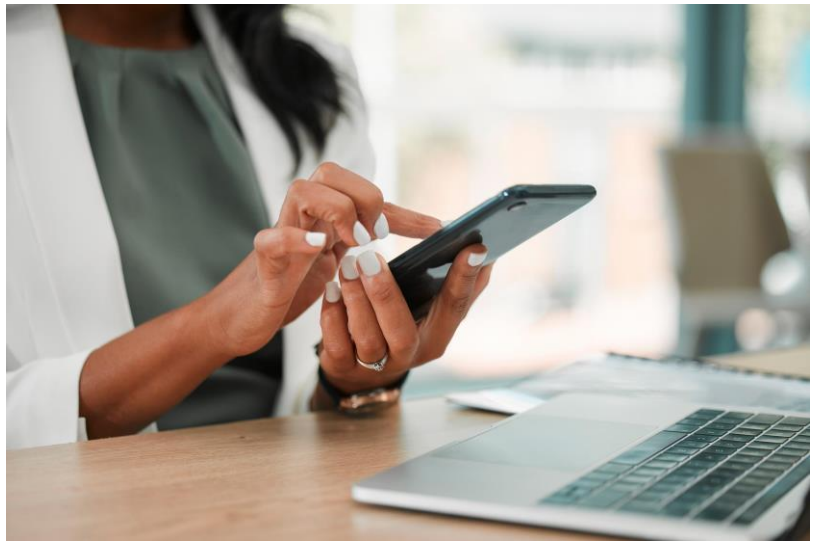


InfinityLab Flex Benches





Contact Agilent Chemistries and Supplies Technical Support



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