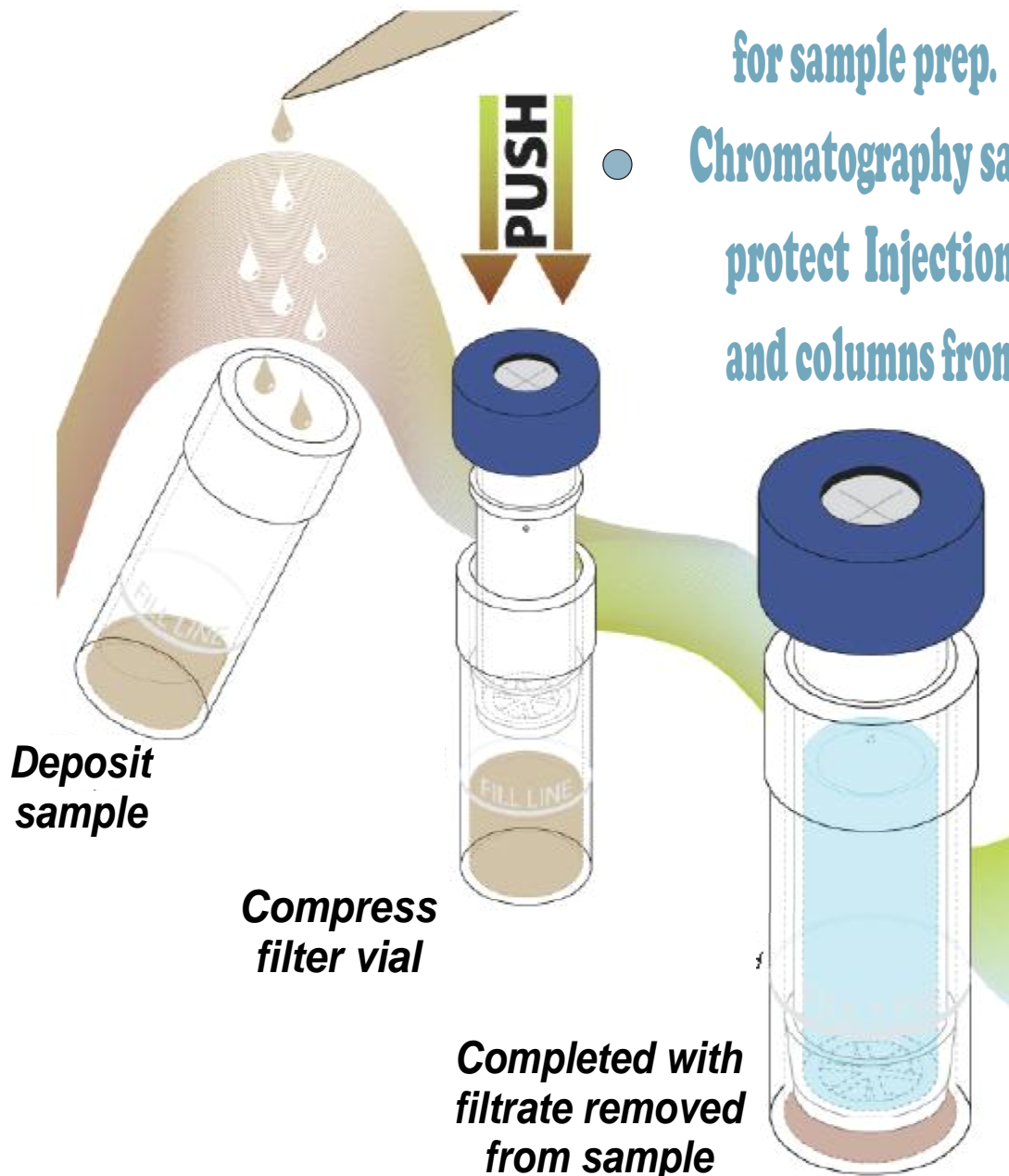


# Single-Step Filter Vials

- Simple Protection solution for sample prep.
- Chromatography sample clean up, protect Injection ports and columns from dirt.



- 0.2um and 0.45um filter
- Nylon, PTFE, PVDF, PES
- PP body 0.45ml
- 12x32mm format

**Agilent autosampler compatible**

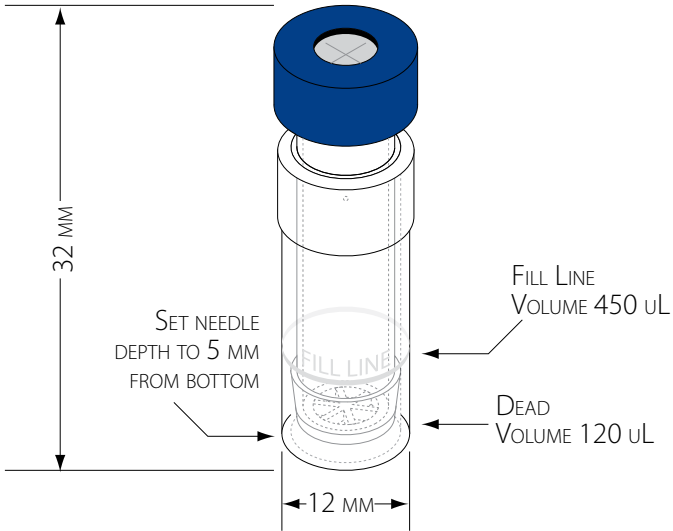
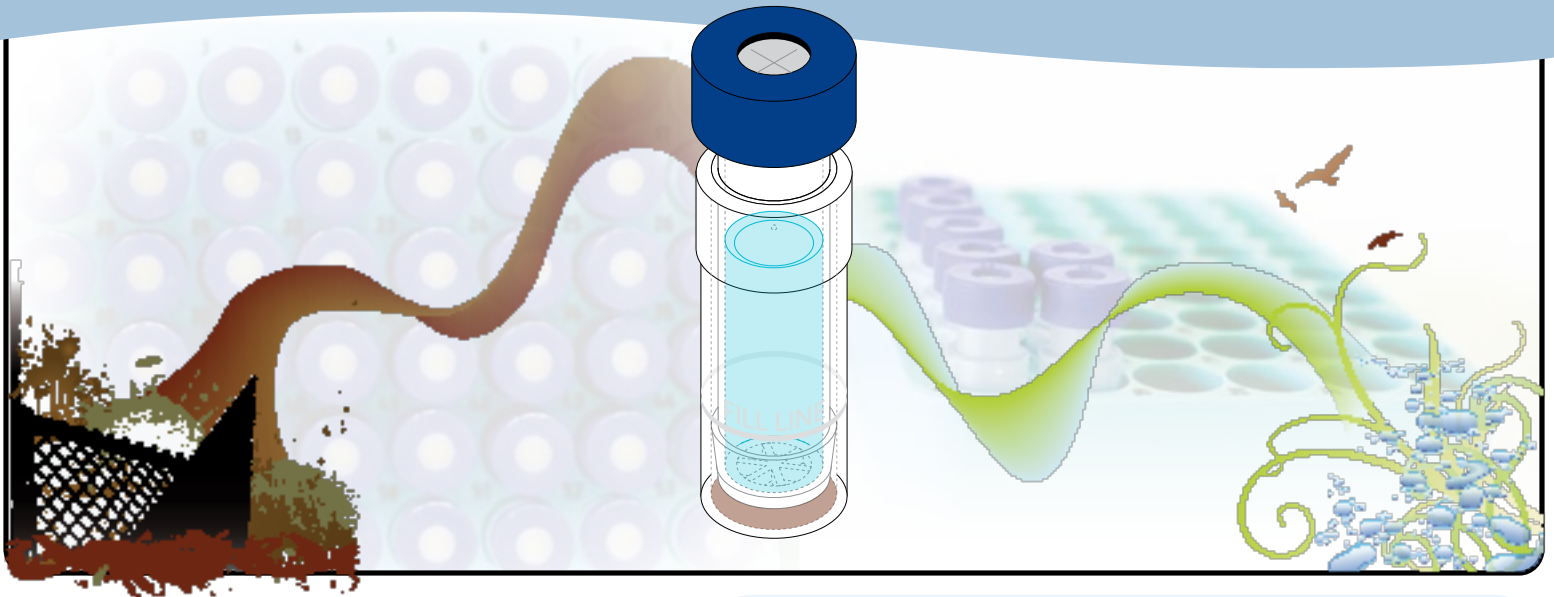
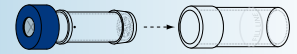
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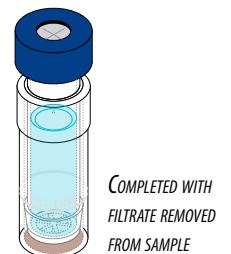
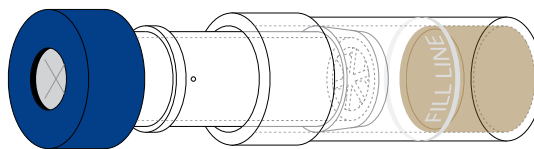
**11/12**

**SINGLE STEP Filter Vial** Patent Pending



**Protection is Simple**

- Eliminate Syringe Filter, Syringe, HPLC Vial, HPLC CAP.
- ECO Friendly
- Saves Costly Repairs & Service Issues
- Simple to Use
- Easy to Press Down
- Low Dead Volume
- Don't Risk Your UPLC, HPLC, GC, LCMS, or GCMS Systems



# SINGLE StEP Filter Vials

Patent Pending

AGILENT 1100 OR 1200®



WATERS ACQUITY®



FILTER VIALS IN TRAY

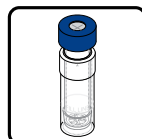


The SINGLE StEP Filter Vials (patent pending) are designed to speed up the sample prep and analysis. The plunger filter with 0.45µM Teflon membrane nestles into the vial while simultaneously filtering and readying the sample for any Autosampler. This is a SINGLE StEP process that minimizes any loss of sample. No multiple transfers needed. Pre-slit Caps ensure a no-hassle, clean aliquot withdraw. No more breakage of expensive needles, coring problems on the HPLC or Mass Spec. The Single StEP Filter Vials are compatible with most standard Autosamplers; such as Agilent and Waters. The ease of use will make the SINGLE StEP Filter Vials indispensable in all laboratories.

catalog #	material	porosity	color	units
23950	Nylon	0.2µm	black cap	200-pk.
23951	Nylon	0.2µm	black cap	500-pk.
23952	Nylon	0.45µm	pink cap	200-pk.
23953	Nylon	0.45µm	pink cap	500-pk.
23962	PES (polyethersulfone)	0.2µm	grey cap	200-pk.
23963	PES (polyethersulfone)	0.2µm	grey cap	500-pk.
23964	PES (polyethersulfone)	0.45µm	orange cap	200-pk.
23965	PES (polyethersulfone)	0.45µm	orange cap	500-pk.
23954	PTFE (polytetrafluoroethylene)	0.2µm	green cap	200-pk.
23955	PTFE (polytetrafluoroethylene)	0.2µm	green cap	500-pk.



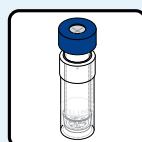
## SINGLE StEP Filter Vial



.45µM PTFE, w/ Pre-Slit Cap.

Case Qty: 200

## SINGLE StEP Filter Vial



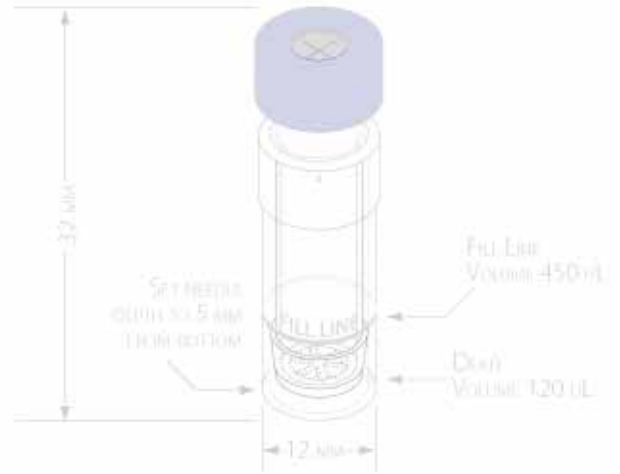
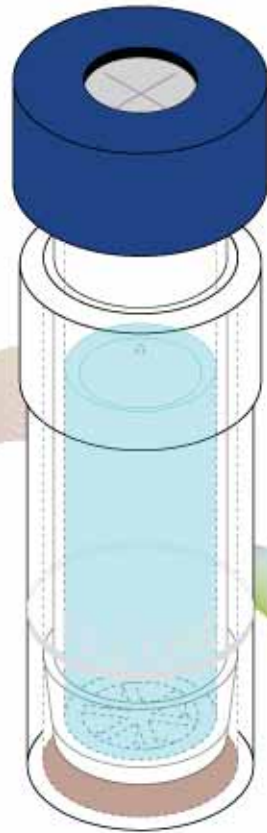
.45µM PTFE, w/ Pre-Slit Cap.  
Patent Pending

Case Qty: 500





**SIMPLE PROTECTION, FILTER VIALS A SINGLE STEP SOLUTION TO OPEN ACCESS PROBLEMS**



Thomson Instrument Company is not affiliated with Pfizer®, Takeda®, Waters® or its Aquity, Agilent® or Agilent 1100 or Agilent 1200.



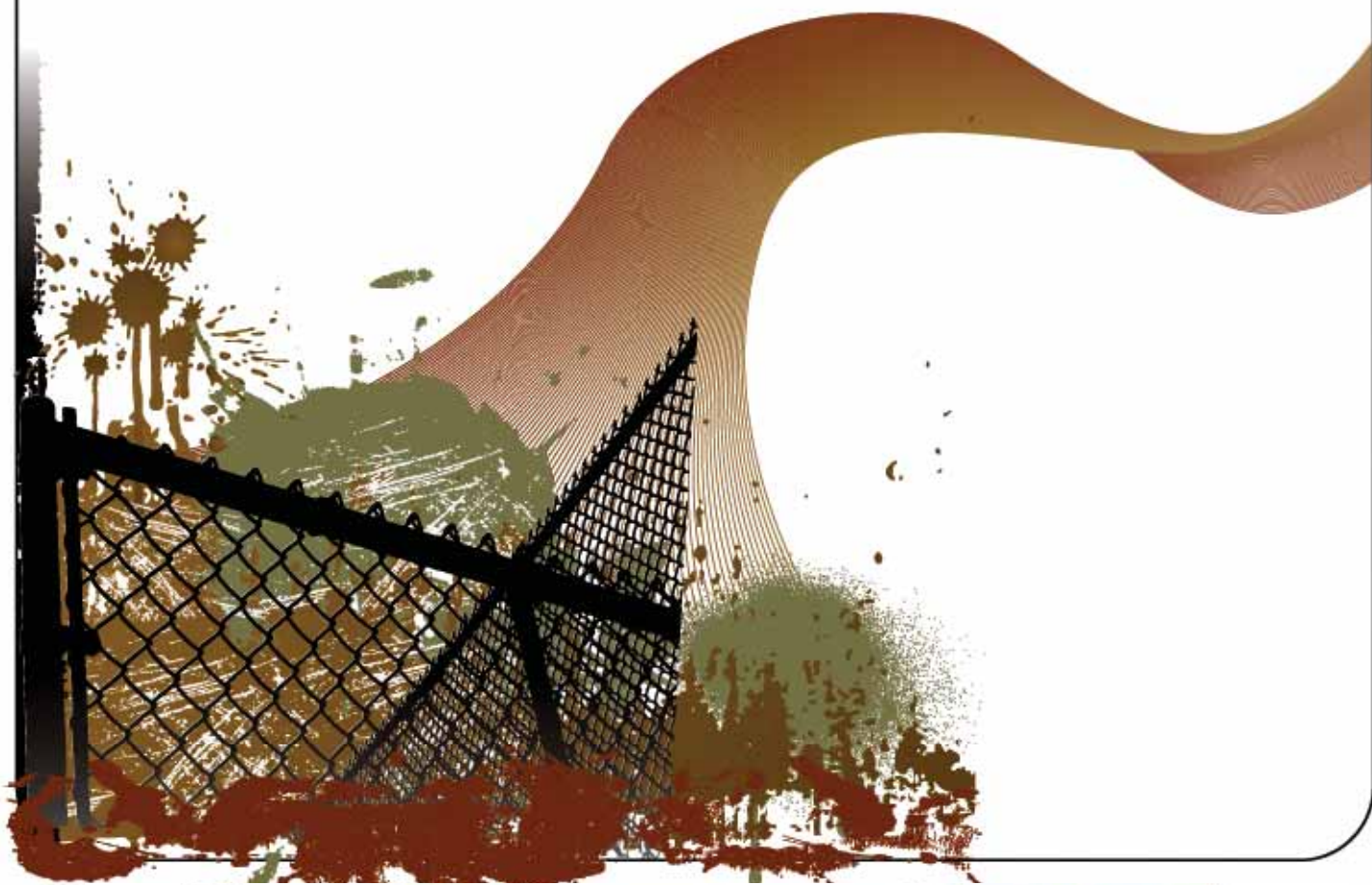
# Abstract

Open Access equipment from HPLC's, GC/MS, LC/MS, UPLC and other systems has revolutionized analytical chemistry by allowing biologists and chemists to do fast, cheap, and easy separations of complex mixtures. The real problem comes into play with the mixtures containing metals, biological matrices, and other debris blocking the equipment. Thomson Instrument Company in conjunction with testing from Takeda San Diego (UPLC), Exelixis (San Diego) GC/MS, HPLC, LC/MS, and Pfizer (St.Louis 20 Open Access systems) has developed a simple SINGLE StEP Filter Vial (patent pending). The Filter Vial has allowed for the filtration process to become a SINGLE StEP in the autosampler vial itself. The product eliminates the need for a syringe, syringe filter, HPLC vial, and HPLC Cap. The Filter Vial is a simple low cost upfront tool to saving time, expensive equipment, and maintenance headaches.

# Introduction

For analytical chemists and other scientists filtration has come as a chore not as a simple process. As catalysts are regularly used in chemical reactions their remnants regularly haunt the machines used to test the reactions happening. With over 20 different metals to choose from, and Palladium used for hydrogenations, metals are a common cause of machine clogging. Protein samples also need to be crashed out before placing them on the HPLC. Many people have traditionally done off line crash procedures. The Thomson Filter Vials can do this easily by mixing the Acetonitrile and Aqueous solution in the bottom chamber, and then allowing the filter to push down trapping the protein, and letting the clean sample come through for analysis.

Thomson SINGLE StEP Filter Vials (patent pending) are designed to speed up sample prep and analysis. The plunger filter with 0.45 $\mu$ m Teflon membrane nestles into the vial while simultaneously filtering and readying the sample for any Autosampler. This is a SINGLE StEP process that minimizes any loss of sample. No multiple step transfers needed. Pre-slit caps ensure a no-hassle, clean aliquot withdrawal. No more breakage of expensive needles, coring problems on the HPLC or Mass Spec. Thomson SINGLE StEP Filter Vials are compatible with most standard Autosamplers; such as Agilent® and Waters®. The ease of use will make the SINGLE StEP Filter Vials indispensable in all laboratories.



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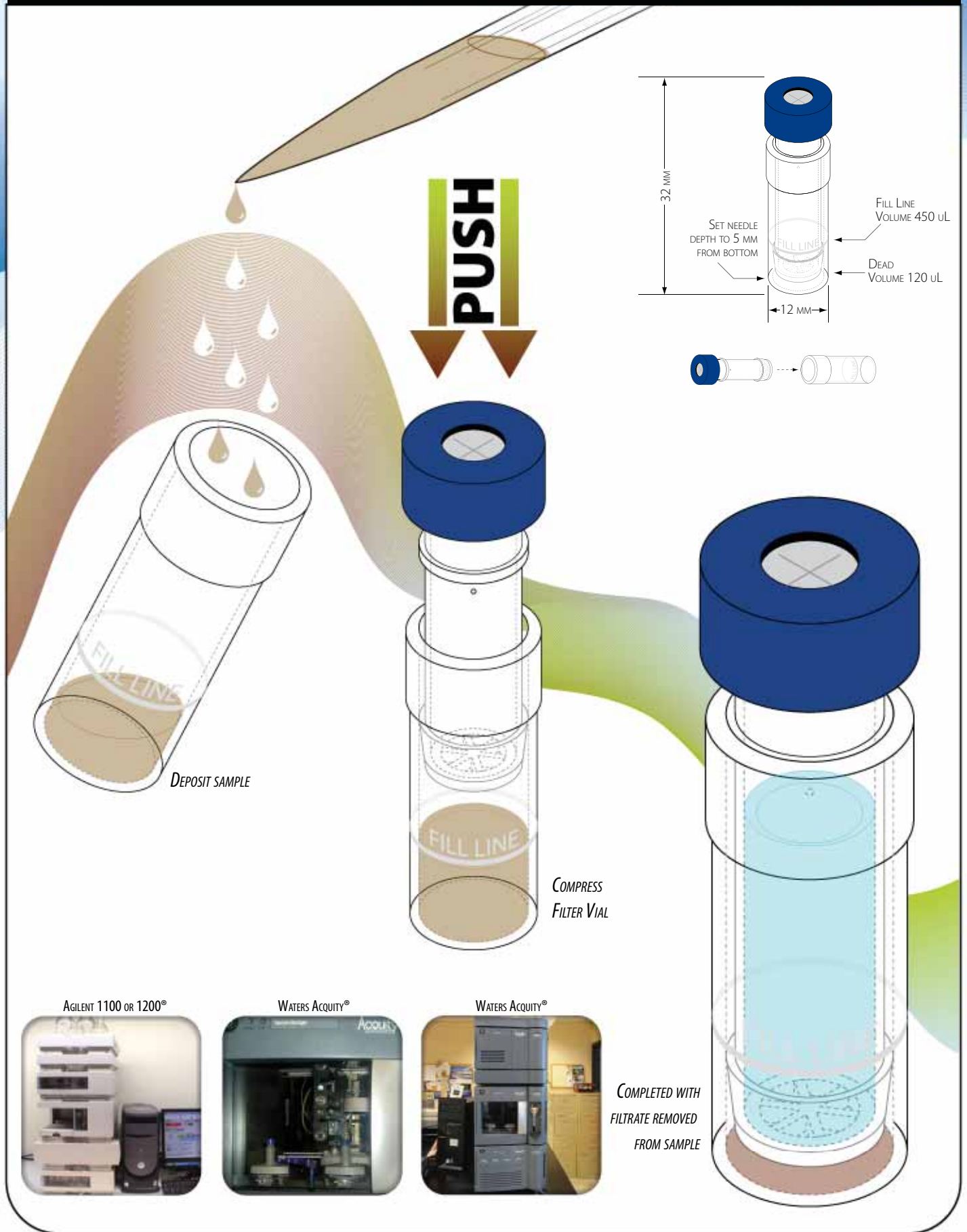
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# Results



# Conclusion

A real time solution to a dwindling number of resources available to Analytical groups throughout our Industry is the use of Thomson Filter Vials . Most people who take care of open access machinery have this as one of ten different projects they are assigned. Pfizer St. Louis showed data over 10 weeks. Prior to using the Filter vials they had 1-2 systems at minimum down per week. The incorporation of Filter Vials for 15 weeks has lessened their repairs to 0 systems and 100% working capacity. As a result no columns failing, no valves failing, no tubing needing to be changed, or other parts needing to be serviced. People don't realize that a service contract can run between \$15,000.00-\$30,000.00 per instrument, not including all parts. The most expensive part on an API Mass Spec can run up to \$25,000.00. Service contracts are based on the prior years amount of service calls. Systems not covered by service range in price of between \$200.00-\$350.00 per hour of service, and will not include parts and drive time depending on locations. The most expensive part on an API Mass Spec. can run up to \$25,000.00. Repairs and downtime of equipment are costly. A simple upfront and easy solution is the incorporation of Thomson Filter Vials.

# Materials and Methods

The Thomson SINGLE StEP Filter Vials 35540-200 (200 per pack) or 35540-500 (500 per case) (patent pending) are comprised of three parts: Pre-slit cap, plunger filter with 0.45 $\mu$ M Teflon membrane and the outside shell vial that holds 450uL.



0.

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