

optipak[®] trap columns

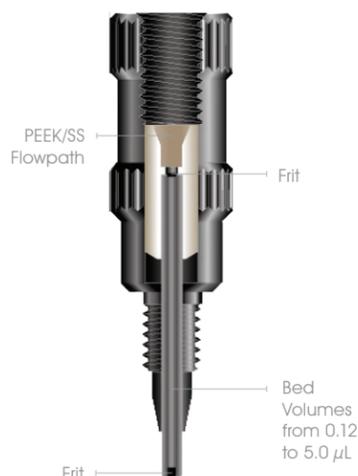
The Opti-Pak is specially designed for use in today's low volume applications. With bed volumes ranging from 0.12 μL to 5.0 μL , you can be sure to find the perfect balance between sample capacity and trap volume. A packed stem, enabled by a proprietary method of frit placement, places the packed bed directly into the flowpath, eliminating all excess swept volume. Less swept volume translates to an absolute minimum in sample dilution and dispersion.

The unique hardware design integrates a PEEK holder with an auto-adjusting stem that fluidly interfaces to any 10-32 standard or microinjector port, providing a zero-dead-volume connection no matter what the tube stop depth.

For larger volume packed-bed trapping columns, please see Opti-Lynx on Pg. 25

optipak trap columns with bed volumes as low as 0.12 μL can be installed into any 10-32 injection port. The stem auto-adjusts to provide a flawless ZDV connection every time.

Floating Stem Design For ZDV Connection into Any Port



Installing an Opti-Pak into the outlet of a switching valve will facilitate the trapping, desalting, and pre-concentration of an analyte mixture. With Opti-Pak's versatility a second trap can be added downstream in the loop of an injection valve and effectively perform a 2D separation.

The elegant, flexible design of Opti-Pak makes it amenable to virtually any trapping application. Opti-Pak can be installed directly into the fitting port of an injection valve. Two or more Opti-Paks can also be installed side by side in the same valve stator without interference.

For more information on Trapping Applications, please visit www.optimizetech.com/literature.



selecting your optipak trap

Use the trap cartridge code table below to find the five digits that match the bed volume you require. Then find the two letter packing code for the phase. Complete the trap cartridge part number by using these codes in the part number template located below the code table.

Example: a five pack of 0.5 μL trap cartridges with SCX phase would have part number 10-03317-TE.

Opti-Pak is available in a number of sorbents and chemistries to fit any application. Custom packing is also available - please contact us if you do not see the materials you require.

Opti-Pak trap columns for standard 10-32 injection valves. (Includes 5 holders and cartridges)

	Capacity	Load Rate	Bed Volume	Dimension Code	Bed Code	Phase Code
STANDARD 10-32	0.5 μg	1.25 - 5 $\mu\text{L}/\text{min}$	0.12 μL	0 3 3 2 8	T A	C18
	1 μg	2.5 - 10 $\mu\text{L}/\text{min}$	0.25 μL	0 3 3 2 4	T B	C18AQ
	2 μg	5.0 - 20 $\mu\text{L}/\text{min}$	0.5 μL	0 3 3 1 7	T C	C8
	4 μg	10 - 40 $\mu\text{L}/\text{min}$	1 μL	0 3 2 2 5	T D	C4
	8 μg	20 - 80 $\mu\text{L}/\text{min}$	2 μL	0 3 2 2 9	T E	SCX
	20 μg	50 - 200 $\mu\text{L}/\text{min}$	5 μL	0 3 2 3 3	T F	SAX
BIO-COMPATIBLE 10-32	12 μg	30 - 120 $\mu\text{L}/\text{min}$	3 μL	0 3 6 0 8	T G	DVB



Opti-Pak trap columns for micro injection valves (Includes 5 holders and cartridges)

RHEODYNE M4 STYLE	0.7 μg	1.75 - 7 $\mu\text{L}/\text{min}$	0.17 μL	0 3 7 1 8	E S	Custom
	2 μg	5.0 - 20 $\mu\text{L}/\text{min}$	0.5 μL	0 3 7 2 0		
VALCO 6-40	0.7 μg	1.75 - 7 $\mu\text{L}/\text{min}$	0.17 μL	0 3 7 2 4		
	2 μg	5.0 - 20 $\mu\text{L}/\text{min}$	0.5 μL	0 3 7 2 6		

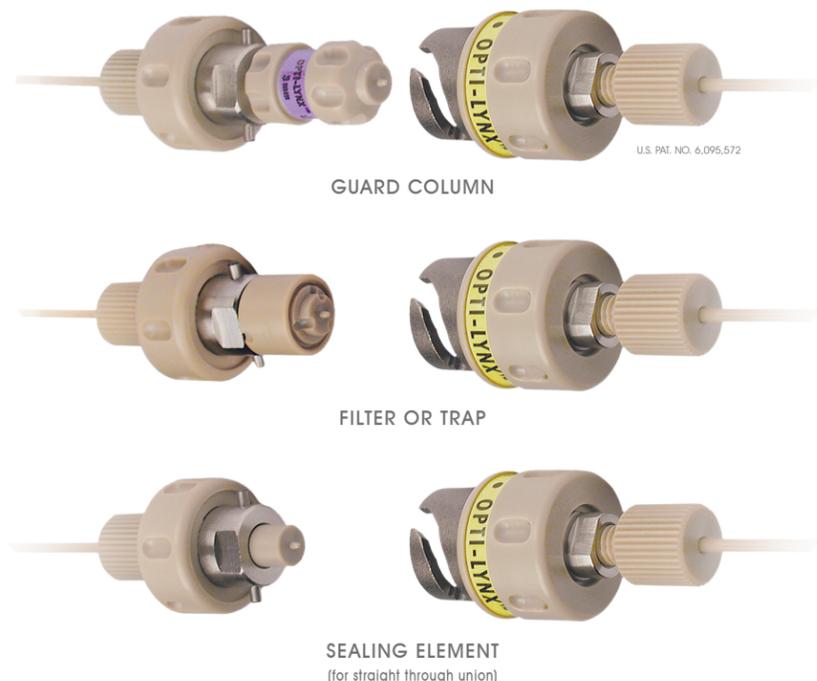


OPTI-PAK Method Development Kit

10-02-04134 Assorted 5 Pack



A **revolutionary**
quick connect system.



When Opti-Lynx was first introduced, it was a revolutionary idea in the HPLC industry, eliminating the use of wrenches for holders, stainless steel fittings, and the cranking down of finger tights to prevent leaks.

“Problems with consistency and column longevity have been virtually eliminated since we started using Opti-Lynx products.”

Partner: PFIZER

Opti-Lynx was the first to fulfill the promise of a low dispersion quick-connect system. From high-throughput labs with the need for replacing components with the utmost efficiency, to single instrument labs that enjoy the ease of use Opti-Lynx offers - many have realized the advantages of the Opti-Lynx quick-connect system.

Simple. Innovative. Easy to use.

- Quarter-turn connection rated to 6,000 psi
- Low volume/low dispersion interface for volume critical regions
- True zero-dead-volume connection
- Hardware connection is only made once
- NO TOOLS

Versatility

The Opti-Lynx modular design provides the maximum in versatility for your system. Opti-Lynx inserts can be virtually anything - a filter, guard column, trap cartridge, analytical column - and since the interacting surfaces are identical, the only thing you need to change is the holder tube. Install a guard column for one application and then switch to a pre-column filter for the next. Use an in-line filter with different porosities and diameters just by changing the insert. Switch out columns in an instant with the Velocity® system or retrofit current columns with the universal port adapter. We also offer columns with integrated Opti-Lynx end fittings. You can make and break flowpaths for multiple detectors, or anywhere else a break in flow is frequently made. Opti-Lynx allows all of this without ever having to change out the basic components.

Limitless Potential

The potential of Opti-Lynx goes beyond what is listed in this catalog. Opti-Lynx was designed without constraints in mind, and should be viewed as a hardware platform to make your applications easier, more efficient. At Optimize Technologies, we work hard to provide the ideal solution to our customers' applications. If you have a special requirement for your stationary phase, or need Opti-Lynx in a custom dimension or configuration, please contact us.

Our best ideas come from the needs of our customers.

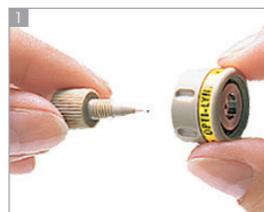
“The Quick-Connect design makes changing columns fast and easy, eliminating the need for any tools.”

Partner: Pfizer

optilynx™

how it works

With Opti-Lynx, you can make and break tubing connections instantly - all it takes is a quarter-turn. To make an Opti-Lynx connection, two components - a slotted side and a pinned side - come together around a polymeric insert. One reason the Opti-Lynx system is so useful and versatile is that the polymeric insert can contain a guard column, a filter, a trap cartridge, or even a whole analytical column. Practically any component found in the HPLC flow path can be made into an Opti-Lynx insert!



1 Connect your existing tubing to an Opti-Lynx Holder Cap using the included finger-tight fitting.



2 Tighten the slotted Holder Tube into the Holder cap.



3 Align the Holder Tube and Cap with the Column and Insert.



4 Bring the pins to the slot guide and twist closed.

optilynx™ | applications

Opti-Lynx may be used in any number of different applications. Below are just three ways Opti-Lynx quick-connect hardware can be used, but don't let this limit your thinking! We are constantly developing new ways of applying this system, from both our applications lab and our customers' imaginations.

column switching



Set up a simple column-switching rig without the need for expensive high-pressure valves. Install Opti-Lynx universal port adapters on your columns and switch between different columns quickly and easily. When columns are not in use, seal them with the Opti-Lynx quick plug.

guards to filters & back again



One method requires a filter, while another calls for a guard column - no problem. Simply choose the insert you want, couple it with the correct holder tube, and you're off and running. There is no need to disconnect any tubing, and the only tools you need are your fingers.

switching flow paths



If you need to reroute flowpaths with the utmost efficiency, the Opti-Lynx Direct-Connect In-Line Kit is your answer. Simply terminate one tube with a holder cap, and get extra bayonet connectors for each mating tube connection. With this setup, switching flowpaths becomes an easy task, not a huge production.

optilynx™ hardware components

All Opti-Lynx hardware can be purchased in holder kits or separately as needed for your application. Opti-Lynx hardware is precision machined, as are all of our manufactured products, to maintain the highest quality and strictest tolerances. Below are a few examples of our individual hardware components and some are shown on the facing page to demonstrate how Opti-Lynx works. If you have special requirements for your stationary phase or would like Opti-Lynx hardware in custom dimensions or configurations, please contact us.

INSERTS



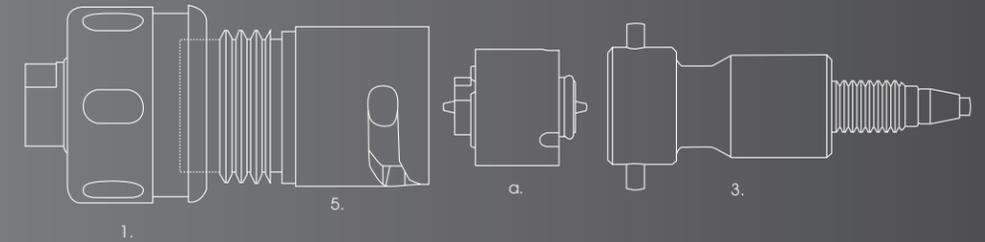
INDIVIDUAL HOLDER COMPONENTS



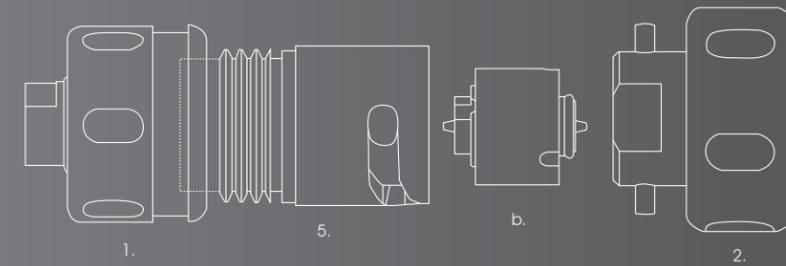
combinations

There are many ways to use Opti-Lynx, and there are many options for Opti-Lynx inserts. If you have special requirements for your stationary phase or would like Opti-Lynx hardware in custom dimensions or configurations, please contact us. Here are a few examples of how Opti-Lynx can be used:

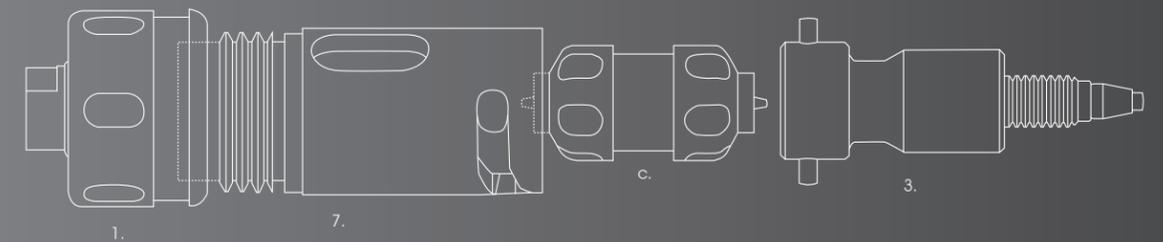
pre-column filter / direct-connect trap example



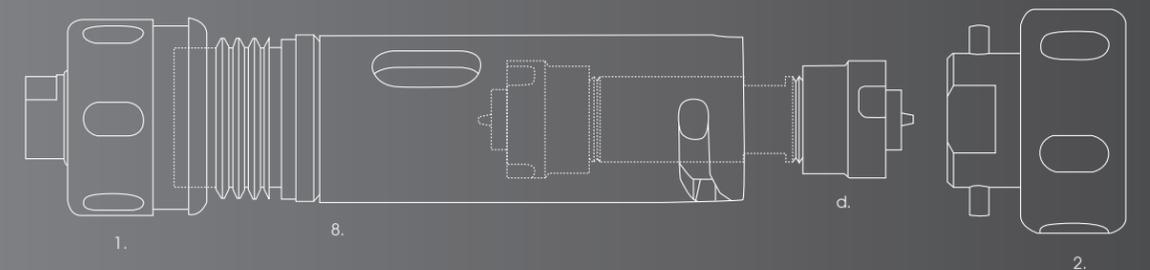
in-line filter / trap column example



guard column example



analytical column example



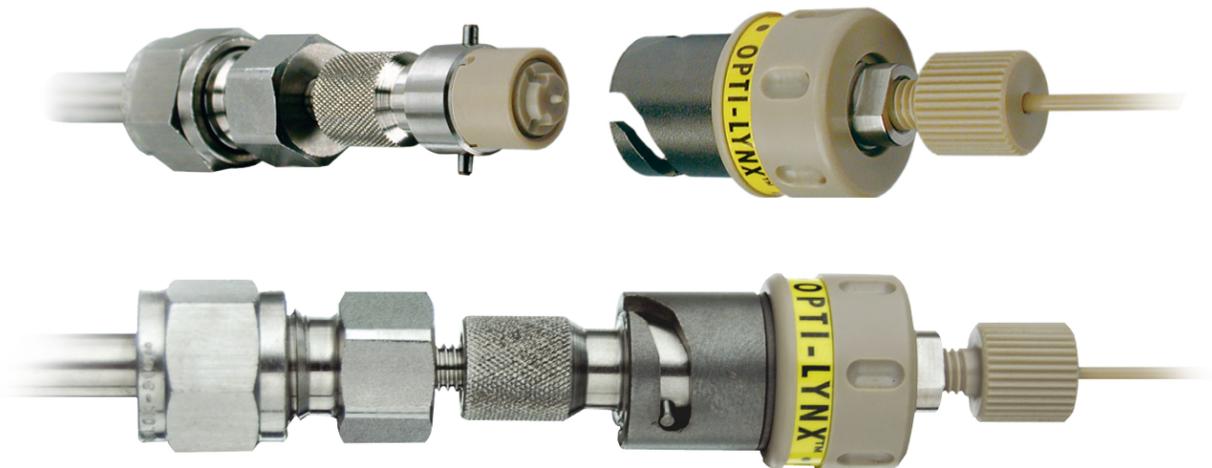
optilynx™ filtration

Need more room to change your in-line or pre-column filter? With HPLC systems getting smaller and more compact, the areas to work with are also decreasing in size. This often makes getting to the components that need frequent changing quite a task - especially if you need wrenches!

The Opti-Lynx In-Line Filter System features Optimize Technologies' proprietary Opti-Lynx hardware, allowing filter changes to be done in a quick quarter-turn. Opti-Lynx In-Line Filters offer unmatched versatility with a choice of nine different porosity/diameter combinations for every possible filtration need. Our revolutionary quick-connect design is ideal for high temperature GPC and position-emitting radionuclide filtration - not just HPLC.



U.S. PATENT NO. 5,525,303



To change an **optilynx™** pre-column filter, simply twist the holder - **no tools required.**

Pre-Column Filters can help extend the life of your analytical column by catching particulates that would otherwise clog the column inlet frit. The Opti-Lynx Pre-Column Filter System brings unparalleled versatility to pre-column protection, with the added convenience of quick-connect operation.

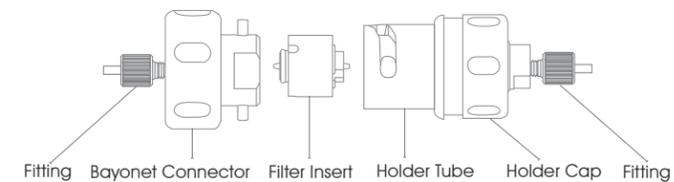
Each **optilynx™** filter insert shares the same external dimensions, allowing you to use different diameters and porosities with the same holder hardware.

OPTI-LYNX FILTER INSERT SELECTION GUIDE

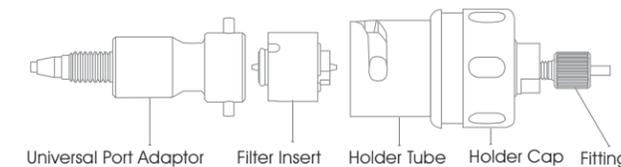
		Single	10 Pack	
Recommended for Pre-Column use		11-02595-CD	11-02797-CD	Low Volume Filter Insert, 0.5 μm/0.062" diameter
		11-02595-CE	11-02797-CE	Low Volume Filter Insert, 2.0 μm/0.062" diameter
Recommended for In-Line use		11-02595-CF	11-02797-CF	Medium Capacity Filter Insert, 0.5 μm/0.125" diameter
		11-02595-CG	11-02797-CG	Medium Capacity Filter Insert, 2.0 μm/0.125" diameter
Recommended for In-Line use		11-02595-CH	11-02797-CH	High Capacity Filter Insert, 0.5 μm/0.187" diameter
		11-02595-CI	11-02797-CI	High Capacity Filter Insert, 2.0 μm/0.187" diameter
Recommended for In-Line use		11-02595-CJ	11-02797-CJ	Semi-Prep Filter Insert, 2.0 μm/0.250" diameter*
		11-02595-CL	11-02797-CL	Semi-Prep Filter Insert, 10.0 μm/0.250" diameter*
Prep		11-03038-C4	11-03039-C4	Prep Filter Insert, 10 μm/0.250" diameter* (For use with OPTI-LYNX Prep Holder only.)

*Opti-Lynx Semi-Prep Filter Inserts are rated for use at pressures of up to 4,000 psi (other Opti-Lynx products are rated to 6,000 psi unless otherwise stated). Opti-Lynx Filter Inserts are rated at temperatures up to 175° C.

In-Line Filter / Prep Filter Holder



Pre-Column Filter



OPTI-LYNX Filter Holders

11-02225-AA	OPTI-LYNX In-Line Filter Holder Includes: Bayonet Connector, Holder Cap, Holder Tube, Fittings.
11-03200-AA	OPTI-LYNX In-Line Prep Filter Holder - For use with Prep Inserts only. Includes: Bayonet Connector, Holder Cap, Holder Tube, Fittings.
11-02226-AA	OPTI-LYNX Pre-Column Filter Holder Includes: Universal Port Adapter, Holder Cap, Holder Tube, Fitting.

OPTI-LYNX filter inserts are ordered separately. Please use the table above to find your part number.

optilynx™ trap columns

Opti-Lynx trap columns combine the convenience of our quick-connect holder with a versatile selection of packed-bed cartridges to offer chromatographers numerous options for on-line or off-line sample cleanup and preconcentration. Each cartridge shares the same external dimensions allowing you to use different diameters and porosities with the same holder hardware.

Opti-Lynx traps are available in packed-bed volumes of 4ul to 100ul with a wide range of standard and custom packings. Whether you want to separate a peptide digest from its matrix for further analyses, or prepare a dilute small molecule sample for LC injection without any sample loss – Opti-Lynx Traps are the ideal tool to optimize your technique. These columns can be loaded and regenerated repeatedly for maximum value. For smaller volume packed-bed trapping columns, please see Opti-Pak on Pg. 35. For more information on Trapping Applications, please visit www.optimizech.com/literature.



selecting your optilynx™ trap

Use the selection guide below to find the five digits that match the trap dimensions you require. Then find the two letter packing code for your phase. Complete your trap cartridge part number by using these codes in the part number template located directly below the table.

Example: a five pack of 20 µL trap cartridges with SCX phase would have part number 11-02870-TB.

OPTI-LYNX TRAP SELECTION GUIDE

Capacity	Load Rate	Bed Volume	Dimension	Dimension Code	Phase Code	Phase
5 PACKS	16 µg	40 - 160 µL/min	4 µL	1 x 5 mm	0 2 8 6 8	T A C18
	40 µg	100 - 500 µL/min	10 µL	1.5 x 5 mm	0 3 7 8 7	T B SCX
	80 µg	200 - 800 µL/min	20 µL	2.1 x 5 mm	0 2 8 7 0	T D C18AQ
	160 µg	0.4 - 1.6 mL/min	40 µL	3.0 x 5 mm	0 2 8 7 2	T E SAX
	400 µg	1 - 4 mL/min	100 µL	4.6 x 5 mm	0 2 8 7 4	T F C8
						T G C4
					T H DVB	
					D Q DVB/SCX	
					E S Custom	

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Part Number

OPTI-LYNX Trap Holders

- 11-02225-AA** OPTI-LYNX In-Line Trap Holder
Includes: Bayonet Connector, Holder Cap, Holder Tube, Fittings.
- 11-02226-AA** OPTI-LYNX Direct-Connect Trap Holder
Includes: Universal Port Adapter, Holder Cap, Holder Tube, Fitting.

OPTI-LYNX trap cartridges are ordered separately. Please use the table above to find your part number.

optilynx™ guard columns

The Opti-Lynx Guard Column is a high performance, cartridge-based guard system suitable for use with any analytical column. Some cartridge-based guard column products offer convenience with a price: higher internal volumes. At Optimize Technologies, we refuse to compromise performance for anything. Opti-Lynx utilizes low dispersion component interfaces to keep extra column volume to a minimum: connection paths have a total internal volume of less than 2 µL. You get quick-connect convenience and low dispersion, all in one package.



The Opti-Lynx Guard Column fits any analytical column with a 10-32 port. Start with our Opti-Lynx Guard Column Holder Kit, then select Opti-Lynx Guard Cartridges in the chemistries you require. They are available individually and in packs of five.

selecting your optilynx™ guard column cartridges

Use the selection guide below to find the five digits that match the dimension and quantity you require. Then find the two letter packing code for your sorbent/phase. Complete your guard column cartridge part number by using these codes in the part number template below the table.

Example: a five-pack of 3 mm C18 guard cartridges would have part number 11-02630-EA.

OPTI-LYNX GUARD SELECTION GUIDE

Quantity	Dimension Code	Phase Code	Phase
3.0 x 15 mm	Singles	0 2 2 5 5	E A C18, 5 µm
	5 Pack	0 2 6 3 0	E B C8, 5 µm
2.1 x 15 mm	Singles	0 2 6 4 0	E C Silica, 5 µm
	5 Pack	0 3 7 8 2	E D Phenyl, 5 µm
1.0 x 15 mm	Singles	0 2 3 0 8	E E Cyano/CN, 5 µm
	5 Pack	0 3 1 2 8	E F Amino/NH ₂
			E G Anion/SAX
			E H Cation/SCX
			J D DVB/SCX

11- [] [] [] [] [] - [] []
Part Number

OPTI-LYNX Guard Column Direct-Connect Holder

- 11-02232-AA** Holder for direct connection to analytical columns
Includes: Universal Port Adapter, Guard Holder Tube, Holder Cap, Fitting

OPTI-LYNX guard cartridges are ordered separately. Please use the table above to find your part number.

