

# ULTRA CLEAN GAS FILTERS



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## Safeguard Your System Performance

Even if high purity gases are used there is still a risk of contamination, which can affect the overall performance of your system and lead to unplanned downtime. What is the contamination risk? Impurities in gases such as hydrocarbons, moisture and oxygen, can contaminate the gas line and the instrument; causing ghost peaks and column degradation which ultimately affects the accuracy and validity of your results.

Installing the super clean gas filters solves that problem, quickly and easily.



## Continual Supply of Ultra-High Purity Gas

Carrier gas should contain less than 1 ppm of oxygen, moisture, or other trace contaminants, to prevent column degradation, increase column lifetime, and decrease stationary phase bleed.

With the ultra-high capacity of the super clean filters and fitted glass covers to prevent diffusion, you can be assured of continual and constant purity of pure gas; 99.9999%; (the plastic coating outside is added to ensure safety). Purity of supply is maintained even though filter cartridge change as a result of the base plate system with leak tight “quick connect” fittings. There is no risk of introducing oxygen into the system. The easy to read indicators clearly mark when it is time to swap for a new filter.

Fitting the super clean gas purifiers removes these contaminants from all the gas sources, thereby improving overall system performance. Take advantage now to protect your GC, GC/MS, LC/MS, ICP-OES and ICP/MS systems.

## Ultra Clean Gas Filter Kits for GC and GC/MS

Available with different sized fittings, (1/8" or 1/4") in brass or stainless steel, these complete filter kits contain everything you need to quickly and easy install into your analytical system; instantly assuring you of a continual high purity gas supply. A full listing of individual replacement cartridges is listed on page 6.

The triple combination filter kit is ideal for purifying GC/MS carrier gases. It contains oxygen, moisture and hydrocarbon scrubbers in one easy to change economical cartridge. There is of a range of brass and stainless steel base plate fittings and options for hydrocarbon trap to be helium or hydrogen specific, in addition to the general carrier gas.

Part No.	Description	Quantity
N9306828	PerkinElmer Triple (Oxygen/Moisture/Hydrocarbon) Filter Kit - 1/4" Brass Kit: <i>Includes (1) 1 position base plate with 1/4" Brass inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap</i>	Kit
N9306829	PerkinElmer Triple (Oxygen/Moisture/Hydrocarbon) Filter Kit - 1/8" Brass kit: <i>Includes (1) 1 position base plate with 1/8" Brass inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap</i>	Kit
N9306830	PerkinElmer Triple (Oxygen/Moisture/Hydrocarbon) Filter Kit - 1/4" SS kit: <i>Includes (1) 1 position base plate with 1/4" SS inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap</i>	Kit
N9306831	PerkinElmer Triple (Oxygen/Moisture/Hydrocarbon) Filter Kit - 1/8" SS kit: <i>Includes (1) 1 position base plate with 1/8" SS inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap</i>	Kit
N9306819	PerkinElmer Triple filter (Oxygen/Moisture/Hydrocarbon)	1 Filter
N9306820	Perkin Elmer Triple filter (Oxygen/Moisture/Hydrocarbon): <i>Helium specific filter</i>	1 Filter
N9306822	PerkinElmer Triple filter (Oxygen/Moisture/Hydrocarbon): <i>Hydrogen specific filter</i>	1 Filter

Triple Filter Kit for MS/ECD/NPD	
Configuration	Benefit
GC/MS	Higher data accuracy and less maintenance
GC/ECD	Greater sensitivity
GC/TCD	Greater sensitivity and less maintenance

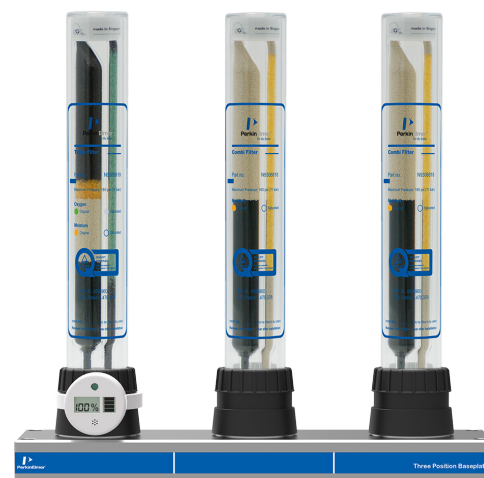


## Complete Triple Filter Bundle Kit for FID

This complete filter kit is the perfect all-in-one solution for purifying Flame Ionization Detector (FID) fuel gases together with the carrier gas. The triple filter simultaneously hydrocarbons, moisture and oxygen are removed from the carrier gas and combi filter removes both moisture and hydrocarbons from the hydrogen and air fuel gases. The kit consists of one triple filter and two combi filters (hydrogen and air) together with one three position base plate. There are a range of base plate fittings options available.

Part No.	Description	Quantity
N9306842	PerkinElmer 3 Filters Kit - 1/4" Brass: <i>Includes (1) 3 position base plate with 1/4" Brass inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap and (2) Hydrocarbon/Moisture Traps</i>	Kit
N9306843	PerkinElmer 3 Filters Kit - 1/8" Brass: <i>Includes (1) 3 position base plate with 1/8" Brass inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap and (2) Hydrocarbon/Moisture Traps</i>	Kit
N9306844	PerkinElmer 3 Filters Kit - 1/4" stainless steel: <i>Includes (1) 3 position base plate with 1/4" stainless steel inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap and (2) Hydrocarbon/Moisture Traps</i>	Kit
N9306845	PerkinElmer 3 Filters Kit - 1/8" stainless steel: <i>Includes (1) 3 position base plate with 1/8" stainless steel inlet/outlet fittings and (1) Oxygen/Moisture/Hydrocarbon Trap and (2) Hydrocarbon/Moisture Traps</i>	Kit
N9306819	PerkinElmer triple filter - (Oxygen/Moisture/Hydrocarbon)	1 Filter
N9306818	PerkinElmer Combi (Hydrocarbon/Moisture) Filter	1 Filter
N9306826	PerkinElmer Filter Bundles: <i>Includes (1) Oxygen/Moisture/Hydrocarbon Trap and (2) Hydrocarbon/Moisture Traps</i>	3 Filters

Complete Triple Filter Bundle Kit for FID	
Configuration	Benefit
GC/FID	Improved reproducibility and sensitivity



## Ultra Clean Gas Filters for GC and GC/MS

The easy to use leak-tight cartridge system enables rapid change of exhausted cartridges without interrupting supply or system operation. A wide range of individual cartridges or combination cartridges are available to suit a variety of applications.

### Ultra-High Capacity Moisture Filter

<b>Catalog No.</b>	<b>N9306814</b>
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar, Air
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



Moisture in carrier gas lines will prematurely degrade oxygen and hydrocarbon traps and increase detector noise. As a precaution, we highly recommend installing a moisture trap before the hydrocarbon and oxygen traps on all carrier gas lines.

Capacity	
H <sub>2</sub> O	7.2 g

### Ultra-High Capacity Oxygen Filter

<b>Catalog No.</b>	<b>N9306815</b>
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



Oxygen is a column killer – it is present even in UHP gases. Because oxygen can enter a gas line at any fitting or during gas bottle exchange, the oxygen trap should be the last connection before the gas line enters the chromatograph.

Capacity	
O <sub>2</sub>	150 mL

### Ultra-High Capacity Hydrocarbon Filter

<b>Catalog No.</b>	<b>N9306816</b>
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar, Air
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



Use a hydrocarbon trap if your gas has a potential source of hydrocarbon contaminants or if you suspect you are observing carrier gas ghost peaks. Install the hydrocarbon trap after the moisture trap, to prevent moisture from degrading the hydrocarbon-trapping ability of the activated carbon in the hydrocarbon trap.

Capacity	
HC	12 g (as <i>n</i> -butane)

## High Capacity Combi Filter

Catalog No.	N9306818
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar, Air
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



This filter is perfect for purifying Flame Ionization Detector (FID) fuel gases, removing both **moisture** and **hydrocarbons**. Using this filter for FID hydrogen and air will produce a stable baseline, improving overall reproducibility and sensitivity. Ideal for use in combination with a zero air generator.

Capacity	
H <sub>2</sub> O	3.5 g
HC	6 g (as <i>n</i> -butane)

## High Capacity Triple Filter

Catalog No.	N9306819
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



The triple trap is ideal for purifying carrier gas. It contains oxygen, moisture and hydrocarbon scrubbers in one easy to change economical cartridge.

Capacity	
H <sub>2</sub> O	1.8 g
O <sub>2</sub>	75 mL
HC	4 g (as <i>n</i> -butane)

## High Capacity Triple Filter Helium Specific

Catalog No.	N9306820
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	He
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



The helium-specific triple trap is ideal for purifying helium in GC/MS systems. This trap is packed and purged under helium and contains oxygen, moisture and hydrocarbon scrubbers in one cartridge.

Capacity	
H <sub>2</sub> O	1.8 g
O <sub>2</sub>	75 mL
HC	4 g (as <i>n</i> -butane)

## High Capacity Triple Filter Hydrogen Specific

Catalog No.	N9306822
<b>Specifications</b>	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	7 L/min.
Usable For	H <sub>2</sub>
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg



The hydrogen-specific triple trap is ideal for purifying hydrogen in GC/MS systems. This trap is packed and purged under hydrogen and contains oxygen, moisture and hydrocarbon scrubbers in one cartridge.

Capacity	
H <sub>2</sub> O	1.8 g
O <sub>2</sub>	75 mL
HC	4 g (as <i>n</i> -butane)

## Ultra Clean Replacement Individual Cartridge Filters for GC and GC/MS

Part No.	Description	Quantity
N9306814	Ultra Clean Moisture Filter	Each
N9306815	Ultra Clean Oxygen Filter	Each
N9306816	Ultra Clean Hydrocarbon Filter	Each
N9306818	Ultra Clean Combi (Hydrocarbon/Moisture) Filter	Each
N9306819	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Filter	Each
N9306820	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Helium-specific Filter	Each
N9306822	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Hydrogen-specific Filter	Each



## Accessories

### Ultra Clean Base Plate Flush Cap Replacement Set for GC/MS

Part No.	Description	Quantity
N9306852	Ultra Clean Flush Cap Replacement Set	2-Pack



### Wall Mounting Bracket for All Cartridge Base Plates

Part No.	Description	Quantity
N9306855	Ultra Clean Wall-mounting Bracket Set	Each



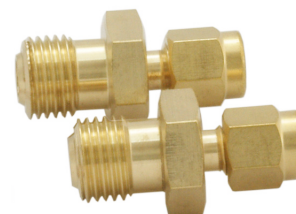
### Replacement O-Rings for All Cartridge Base Plates

Part No.	Description	Quantity
N9306854	Ultra Clean Base plate O-ring Replacement Set	20-Pack



### Super Clean™ Base Plate Fittings for GC/MS

Part No.	Description	Quantity
N9306846	Ultra Clean Connector Set - 1/4" Brass	6-Pack
N9306847	Ultra Clean Connector Set - 1/8" Brass	6-Pack
N9306848	Ultra Clean Connector Set - 1/4" Stainless Steel	6-Pack
N9306849	Ultra Clean Connector Set - 1/8" Stainless Steel	6-Pack



## Ultra Clean Gas Filters and Kits for LC/MS

To meet the high flow needs of the LC/MS system, the hydrocarbon or moisture filled cartridges are positioned and placed in parallel. The incoming gas stream is split equally between the cartridges and the two streams are re-joined after purification but before the gas exits the base plate. Get up and running with speed and benefit from increased sensitivity by removing unwanted moisture and hydrocarbons.

### Ultra-High Capacity Hydrocarbon Filter Bundle

Catalog No.	N9306823
Specifications	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	20 L/min.
Usable For	Nitrogen
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg
Estimated Lifetime	3 to 6 months



Up to 20 L/min. of hydrocarbon-free nitrogen per minute.

Capacity	
HC	24 g (as <i>n</i> -butane)

### Ultra-High Capacity Moisture Filter Bundle

Catalog No.	N9306824
Specifications	
Outlet Gas Quality (%)	> 99.9999
Maximum Pressure	11 bar (160 psi)
Maximum Flow	20 L/min.
Usable For	Inert carrier gas, He, H <sub>2</sub> , N <sub>2</sub> , Ar, Air
Dimensions	24 cm x Ø 4.4 cm
Weight	0.26 Kg
Estimated Lifetime	3 to 6 months



High Flow moisture filters are ideal for central purifying solutions. Moisture in carrier gas lines will prematurely degrade oxygen and hydrocarbon traps and increase detector noise. As a precaution, we highly recommend installing a moisture trap before the hydrocarbon and oxygen traps on all carrier gas lines.

Capacity	
H <sub>2</sub> O	14.4 g

### Ultra Clean Filter Base Plates for GC/MS

Part No.	Description	Quantity
N9306800	Ultra Clean Base plate 1 Position - 1/4" Brass	Each
N9306801	Ultra Clean Base plate 1 Position - 1/8" Brass	Each
N9306802	Ultra Clean Base plate 1 Position - 1/4" SS	Each
N9306803	Ultra Clean Base plate 1 Position - 1/8" SS	Each
N9306804	Ultra Clean Base plate 2 Position - 1/4" Brass	Each
N9306805	Ultra Clean Base plate 2 Position - 1/8" Brass	Each
N9306806	Ultra Clean Base plate 2 Position - 1/4" SS	Each
N9306807	Ultra Clean Base plate 2 Position - 1/8" SS	Each
N9306810	Ultra Clean Base plate 3 Position - 1/4" Brass	Each
N9306811	Ultra Clean Base plate 3 Position - 1/8" Brass	Each
N9306812	Ultra Clean Base plate 3 Position - 1/4" SS	Each
N9306813	Ultra Clean Base plate 3 Position - 1/8" SS	Each



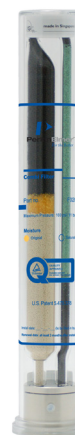
## Ultra Clean Filter Kits for LC/MS

Part No.	Description	Quantity
N9306840	Ultra Clean 2 High Flow Hydrocarbon Filter Kit - 1/4" Brass: Includes (1) 2 position high flow base plate with 1/4" Brass inlet/outlet fittings, (2) High Flow Hydrocarbon Traps, and a 1/4" Brass Particle Filter	Kit
N9306841	Ultra Clean 2 High Flow Hydrocarbon Filter Kit - 1/4" SS: Includes (1) 2 position high flow base plate with 1/4" SS inlet/outlet fittings, (2) High Flow Hydrocarbon Traps, and a 1/4" Brass Particle Filter	Kit



## Replacement Filter Bundles for LC/MS

Part No.	Description	Quantity
N9306823	Ultra Clean High Flow Hydrocarbon Filter Bundle: Includes (2) High Flow Hydrocarbon Filters	1 Bundle of 2 Cartridges
N9306824	Ultra Clean High Flow Moisture Filter Bundle: Includes (2) High Flow Moisture Filters	1 Bundle of 2 Cartridges



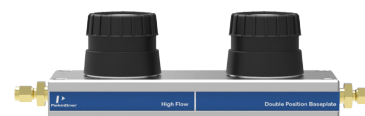
## Ultra Clean Replacement Individual Cartridge Filters for GC and GC/MS

Part No.	Description	Quantity
N9306814	Ultra Clean Moisture Filter	Each
N9306815	Ultra Clean Oxygen Filter	Each
N9306816	Ultra Clean Hydrocarbon Filter	Each
N9306818	Ultra Clean Combi (Hydrocarbon/Moisture) Filter	Each
N9306819	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Filter	Each
N9306820	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Helium-specific Filter	Each
N9306822	Ultra Clean Triple (Oxygen/Moisture/Hydrocarbon) Hydrogen-specific Filter	Each

## Base Plates

### Ultra Clean High Flow Base Plates for LC/MS

Part No.	Description	Quantity
N9306808	Ultra Clean High Flow base plate 2 position - 1/4" Brass: Includes 1/4" SS particle filter	Each
N9306809	Ultra Clean High Flow base plate 2 position - 1/4" SS: Includes 1/4" SS particle filter	Each





## Accessories

### Particle Filter for LC/MS

Part No.	Description	Quantity
N9306856	Ultra Clean 0.5 Micron Particle Filter (1/4" Brass)	Each
N9306857	Ultra Clean 0.5 Micron Particle Filter Cup Replacement Pack	12-Pack



### Ultra Clean Base Plate Fittings for LC/MS

Part No.	Description	Quantity
N9306850	Ultra Clean High Flow Connector Set - 1/4" Brass	6-Pack
N9306851	Ultra Clean High Flow Connector Set - 1/4" Stainless steel	6-Pack



### Ultra Clean Base Plate Flush Cap Replacement Set for LC/MS

Part No.	Description	Quantity
N9306853	Ultra Clean High Flow Flush Cap Replacement Set	2-Pack



### Wall Mounting Bracket for All Cartridge Base Plates

Part No.	Description	Quantity
N9306855	Ultra Clean Wall-mounting Bracket Set	Each



### Replacement O-Rings for All Cartridge Base Plates

Part No.	Description	Quantity
N9306854	Ultra Clean Base plate O-ring Replacement Set	20-Pack

