

Restek® Super Clean® Gas Filter Kits and Replacements

- High-purity output ensures 99.9999% pure gas (at max. flow of 2 L/min).
- Designed for easy, hassle-free cartridge changes.
- Glass inside to prevent diffusion; polycarbonate housing outside for safety.
- All traps measure 10⁵/₈" x 1³/₄" (27 x 4.4 cm).
- Each base plate unit measures 4" x 4" x 1⁷/₈" (10.2 x 10.2 x 4.8 cm).

Table I: Each Super Clean® gas filter provides high-purity outlet gas.

Type of Filter	Outlet Gas Quality (%)	Maximum Pressure/ Maximum Flow Rates	Use for:	Indicator Color Change	Capacity			Estimated Lifetime (Years)
					H ₂ O (g)	O ₂ (mL)	Hydrocarbons (g) (n-Butane)	
Moisture cat.# 22028	>99.9999	11 bar 159 psi/ 7 L/min	Inert carrier gas Air Hydrogen	Yellow/orange to clear	7.2	—	—	>2
Oxygen cat.# 22029	>99.9999	11 bar 159 psi/ 7 L/min	Inert carrier gas	Green to grey	—	1,000	—	>2
Hydrocarbons cat.# 22030	>99.9999	11 bar 159 psi/ 7 L/min	Inert carrier gas Air Hydrogen	No indicator	—	—	12	>2
Fuel Gas ¹ cat.# 22022	>99.9999	11 bar 159 psi/ 7 L/min	Inert carrier gas Air Hydrogen	Yellow/orange to clear	3.5	—	6	>1.5
Triple ² cat.# 22020	>99.9999	11 bar 159 psi/ 7 L/min	Inert carrier gas	Yellow/orange to clear Green to grey	1.8	500	4	>1
Helium Specific ² cat.# 21982	>99.9999	11 bar 159 psi/ 7 L/min	Helium	Yellow/orange to clear Green to grey	1.8	500	4	>1

¹Removes hydrocarbons and moisture.²Removes hydrocarbons, moisture, and oxygen.**did you know?**

All Super Clean® gas filter cartridges (except the hydrocarbon filter cat.# 22030) feature easy-to-read indicators. The indicator code is shown on every trap, so there is no confusion about when to replace it.



22020



22022



base plate

Description

Description	qty.	cat.#
Carrier Gas Cleaning Kit Includes: mounting base plate, 1/8" inlet/outlet fittings, and oxygen/moisture/hydrocarbon triple gas filter	kit	22019
Fuel Gas Purification Kit Includes: mounting base plate, 1/8" inlet/outlet fittings, and hydrocarbon/moisture fuel gas filter	kit	22021
Ultra-High Capacity Hydrocarbon Filter	ea.	22030
Ultra-High Capacity Moisture Filter	ea.	22028
Ultra-High Capacity Oxygen Filter	ea.	22029
Replacement Triple Gas Filter (removes oxygen, moisture, and hydrocarbons)	ea.	22020
Replacement Fuel Gas Filter (removes moisture and hydrocarbons)	ea.	22022
Helium-Specific Carrier Gas Cleaning Kit Includes: mounting base plate, 1/8" inlet/outlet fittings, and oxygen/moisture/hydrocarbon helium-specific filter	kit	21983
Replacement Helium-Specific Gas Filter (removes oxygen, moisture, and hydrocarbons)	ea.	21982
Gas Filter Bundle Kit Includes: one triple gas filter (cat.# 22020) and two fuel gas filters (cat.# 22022)	kit	22031

i tech tip**Oxygen and Moisture Traps**

Restek highly recommends oxygen and moisture traps for make-up gas when operating sensitive detectors such as electron capture detectors (ECD). The hydrogen reaction gas for sensitive electrolytic conductivity detectors (ELCD) also requires a hydrocarbon trap to remove trace impurities.

Super Clean® Gas Filters



Restek® Filter Base Plates

- End fittings available in brass or stainless steel.
- Base plates fit all stand alone Super Clean® gas filters offered.

Each single-position base plate unit measures:

4" x 4" x 1 7/8" (10.2 x 10.2 x 4.8 cm)

Each 2-position base plate unit measures:

8" x 4" x 1 7/8" (20.3 x 10.2 x 4.8 cm)

Each 3-position base plate unit measures:

12" x 4" x 1 7/8" (30.5 x 10.2 x 4.8 cm)

Standard base plate inlet/outlet fittings accept 1/8" tubing. To adapt to 1/4" tubing, order 1/8" to 1/4" tube end reducers.

Description	Brass		Stainless Steel	
	qty.	cat.#	qty.	cat.#
Filter Base Plate, Single-Position	ea.	22025	ea.	22344
Filter Base Plate, 2-Position	ea.	22026	ea.	22345
Filter Base Plate, 3-Position	ea.	22027	ea.	22346

Wall Mounting Bracket

Base plates can be mounted by using screws and the mounting holes on the base plate, or by using this optional wall mounting bracket.



Description	qty.	cat.#
Wall Mounting Bracket for Super Clean Base Plates	ea.	21984

Replacement O-Rings for Cartridge Base Plates

Pack includes 10 large O-rings and 10 small O-rings.



Description	qty.	cat.#
Replacement O-Rings for Cartridge Base Plates	20-pk.	22023

1/8-Inch to 1/4-Inch Tube End Reducer

To adapt 1/8" Super Clean® base plate fittings to 1/4" tubing, use 1/8" to 1/4" tube end reducers.



Description	Brass		Stainless Steel	
	qty.	cat.#	qty.	cat.#
Tube End Reducer, 1/8" to 1/4"	5-pk.	21833	2-pk.	21933

Restek® Super Clean® Gas Trapping System for LC-MS

A Super Clean® quick-change cartridge system efficiently removes hydrocarbons from nitrogen!

- Designed for easy, hassle-free cartridge changes.
- Up to 20 L of hydrocarbon-free nitrogen per minute.
- Filters connected in parallel to handle high flows for LC-MS.

Super Clean® gas filters provide high-purity outlet gas

Type of filter:	Hydrocarbon (charcoal)
Max. Flow:	20 L/min
Outlet Gas Quality %:	99.9999%
Maximum Pressure:	11 bar/159 psi
Estimated Lifetime:	3 to 6 months

All traps measure:

10 5/8" x 1 3/4" (27 x 4.4 cm)

Each 2-position base plate unit measures:

8" x 4" x 1 7/8" (20.3 x 10.2 x 4.8 cm)

Standard base plate inlet/outlet fittings accept 1/4" tubing. To adapt to 1/8" tubing, order 1/4" to 1/8" tube end reducers.



20 L of purified nitrogen per minute!

The Super Clean® gas trapping system purifies nitrogen and is ideal for use in LC-MS systems. The two-position base plate (installed in the gas line; standard base plate inlet/outlet fittings accept 1/4" tubing) allows cartridges to be exchanged without introducing impurities into the system. Spring-loaded check valves seal when a cartridge is removed and open only when a new cartridge has been locked in place. There is no need for loosening and tightening fittings every time you change cartridges, and your system cannot become contaminated during the changing process.

To meet the high flow needs of the LC-MS system, the activated charcoal-filled cartridges are positioned and connected in parallel. The incoming gas stream is split equally between the cartridges, and the two streams are rejoined after purification but before the gas exits the base plate. This approach allows longer contact between the nitrogen and the adsorbent, ensuring higher gas purity and eliminating a potential source of contaminants to your analyses.

A handy date wheel, included with the system, indicates the cartridge installation date and the recommended replacement date.

Description	qty.	cat.#
Super Clean Gas-Trapping System (2-position base plate, 2 charcoal filters)	ea.	22062
Replacement Hydrocarbon (Charcoal) Filters	2-pk.	22061
Particle Drop-In Filter, 0.5 µm	2-pk.	22367

also available

Looking for a nitrogen generator for your LC-MS?

Restek offers a full line of Parker LC-MS generators.

See page 299.



Restek® Click-On Inline Super Clean® Purification Gas Traps

- High-purity output ensures 99.9999% pure gas.
- Click-On fittings for easy, leak-tight cartridge changes; brass or stainless steel, 1/4" or 1/8".
- Helium-specific triple gas trap is ideal for GC-MS—it contains oxygen, moisture, and hydrocarbon scrubbers in one cartridge.
- Triple gas trap is ideal for purifying carrier gas—it contains oxygen, moisture, and hydrocarbon scrubbers in one cartridge.
- Fuel gas trap is ideal for purifying flame ionization detector (FID) fuel gases, removing both moisture and hydrocarbons.

Click-On adaptor connectors allow cartridges to be exchanged without introducing oxygen, moisture, and hydrocarbons. Spring-loaded check valves seal when a filter is removed and open only when a new filter has been locked in place.

Filter Type	Gas Quality at Outlet	Maximum Pressure	Maximum Flow (L/min)	Use For	H ₂ O (g)	Capacity O ₂ (mL)	Hydrocarbons (g) (n-Butane)	Estimated Lifetime (Years)
Moisture cat.# 22467	>99.9999	11 bar 160 psi	25	Inert carrier gas, helium, air, H ₂	15	NA	NA	>3
Oxygen cat.# 22468	>99.9999	11 bar 160 psi	25	Inert carrier gas	NA	2,000	NA	>3
Hydrocarbon cat.# 22466	>99.9999	11 bar 160 psi	25	Inert carrier gas, helium, air, H ₂	NA	NA	24	>3
Fuel Gas ¹ cat.# 22465	>99.9999	11 bar 160 psi	25	Inert carrier gas, helium, air, H ₂	7	NA	12	>2
Triple ² cat.# 22464	>99.9999	11 bar 160 psi	25	Inert carrier gas	4	1,000	8	>2
Helium-Specific Triple ² cat.# 22473	>99.9999	11 bar 160 psi	25	Helium	4	1,000	8	>2

¹Removes hydrocarbons, moisture.

²Removes hydrocarbons, moisture, oxygen.

NOTE: Super Clean® gas filters are recommended for purifying noncorrosive gases with low concentrations of contaminants. The maximum concentration of oxygen in the incoming gas stream for oxygen purifiers is 0.5%.

Restek Click-On In-Line Super Clean® Gas Traps and Connector Kits

Description	qty.	cat.#
Carrier Gas Purification Kit		
Includes: (2) 1/8" SS connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22456
Includes: (2) 1/8" brass connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22457
Includes: (2) 1/4" SS connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22458
Includes: (2) 1/4" brass connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22459
Fuel Gas Purification Kit		
Includes: (4) 1/8" SS connectors and (2) hydrocarbon/moisture traps	kit	22460
Includes: (4) 1/8" brass connectors and (2) hydrocarbon/moisture traps	kit	22461
Includes: (4) 1/4" SS connectors and (2) hydrocarbon/moisture traps	kit	22462
Includes: (4) 1/4" brass connectors and (2) hydrocarbon/moisture traps	kit	22463

See next page for more Click-On in-line Super Clean® products.

Click-On traps measure:
8 1/2" x 1 1/4" (21.6 x 3.2 cm)

**did you know?**

Trap replacement depends on the quality of the incoming gas. Use the double connector and install an indicating cartridge after a trap to indicate when the trap should be replaced.

**i tech tip**

To prevent settling of desiccant, mount vertically, not horizontally.



22474

Click-On traps measure:
8 1/2" x 1 1/4" (21.6 x 3.2 cm)

Click-On In-Line Super Clean® Indicator

- Oxygen: green to grey
- Moisture: beige to clear

Install an indicator after the Click-On in-line gas filter so there is no confusion about when to replace the traps.

Description	qty.	cat.#
Click-On In-line Super Clean Indicator (oxygen, moisture)	ea.	22474

Note: Fittings sold separately.



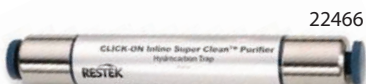
22464

Click-On traps measure:
8 1/2" x 1 1/4" (21.6 x 3.2 cm)

Click-On In-Line Super Clean® Replacement Gas Traps

Description	qty.	cat.#
Triple Trap (removes oxygen, moisture and hydrocarbons)	ea.	22464
Fuel Gas Trap (removes moisture and hydrocarbons)	ea.	22465

Note: Replacement trap only—fittings sold separately.



22466

Click-On traps measure:
8 1/2" x 1 1/4" (21.6 x 3.2 cm)

Click-On In-Line Super Clean® Ultra-High Capacity Gas Traps

Description	qty.	cat.#
Ultra-High Capacity Hydrocarbon Trap	ea.	22466
Ultra-High Capacity Moisture Trap	ea.	22467
Ultra-High Capacity Oxygen Trap	ea.	22468

Click-On In-Line Super Clean® Connectors

Click-On connectors allow you to change traps quickly, without introducing oxygen into your system.



22477

Attach Click-On connectors to the gas lines once—avoid damaging the lines.

Each connector is 2 3/8" (6 cm) in length.

Description	Fittings	qty.	cat.#
Click-On In-line Super Clean Connectors	1/8" Brass	2-pk.	22475
Click-On In-line Super Clean Connectors	1/8" Stainless Steel	2-pk.	22476
Click-On In-line Super Clean Connectors	1/4" Brass	2-pk.	22477
Click-On In-line Super Clean Connectors	1/4" Stainless Steel	2-pk.	22478

Click-On In-Line Super Clean® Double Connector

Connects any Click-On trap to a Click-On indicator.



22479

Each double connector is 3" (8 cm) in length.

Description	qty.	cat.#
Click-On In-line Super Clean Double Connector, Stainless Steel	ea.	22479



22480



22481

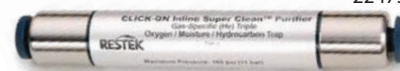
Accessories for In-Line Super Clean® Gas Traps and Connectors

Description	qty.	cat.#
Wall-Mounting Clamps for Click-On In-line Super Clean Gas Traps	4-pk.	22480
Replacement O-Rings for Click-On In-line Super Clean Connectors (includes 10 large and 10 small)	20-pk.	22481

Helium-Specific Click-On In-Line Super Clean® Gas Trap and Connector Kits

Helium-specific Click-On in-line Super Clean® gas trap and kits are designed specifically for purification of helium in GC-MS systems.

Description	qty.	cat.#
Helium-Specific Carrier Gas Cleaning Kits		
Includes: (2) 1/8" SS connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22469
Includes: (2) 1/8" brass connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22470
Includes: (2) 1/4" SS connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22471
Includes: (2) 1/4" brass connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22472
Replacement Trap		
Helium-Specific Replacement Triple Trap (removes oxygen, moisture and hydrocarbons)	ea.	22473



22473

Click-On traps measure:
8 1/2" x 1 1/4" (21.6 x 3.2 cm)

Click-On In-Line Super Clean® Big Trap Filter Kits

- Largest-capacity traps available—run longer without replacing.
- “Quick connect” fittings with spring-loaded check valves allow filter replacement in seconds without tools or contamination.
- Stainless steel construction withstands pressures up to 1,000 psig.
- High-purity output ensures 99.9999% pure gas (maximum flow of 8 L/min).
- Triple gas trap is ideal for purifying carrier gas.
- Helium-specific triple gas trap is made for GC-MS—ready to use within 15 minutes of installation.
- Hydrocarbon trap removes hydrocarbon contamination from carrier gas to help eliminate ghost peaks.

Click-On In-Line Super Clean® Big Traps measure:

22" x 2 1/2" (55.9 x 6.4 cm)

Capacity:

Triple Gas Traps: 2.0 L oxygen; 30 g total hydrocarbons; 70 g water

Hydrocarbon Trap: 90 g total hydrocarbons



27201

Description	qty.	cat.#
Triple Helium Kit, 1/4" Includes: (2) 1/4" SS connectors, (1) oxygen/moisture/hydrocarbon helium-specific trap, and (2) wall-mounting clamps	kit	27201
Triple Helium Kit, 1/8" Includes: (2) 1/8" SS connectors, (1) oxygen/moisture/hydrocarbon helium-specific trap, and (2) wall-mounting clamps	kit	27202
Hydrocarbon Kit, 1/4" Includes: (2) 1/4" SS connectors, (1) oxygen/moisture/hydrocarbon trap, and (2) wall-mounting clamps	kit	27203

Click-On In-Line Super Clean® Big Trap Replacement Filters**Capacity:**

Triple Gas Traps: 2.0 L oxygen; 30 g total hydrocarbons; 70 g water

Hydrocarbon Trap: 90 g total hydrocarbons



27205

Description	qty.	cat.#
Triple Helium Trap	ea.	27204
Triple Standard Trap	ea.	27205
Hydrocarbon Trap	ea.	27206

Note: Replacement filter only—fittings sold separately. See Click-On in-line Super Clean® Big Trap filter kits for more information.

Click-On In-Line Super Clean® Big Trap Wall-Mounting Clamp Set

Description	qty.	cat.#
Click-On In-Line Super Clean Big Trap Wall-Mounting Clamp Set	2-pk.	27207



27207