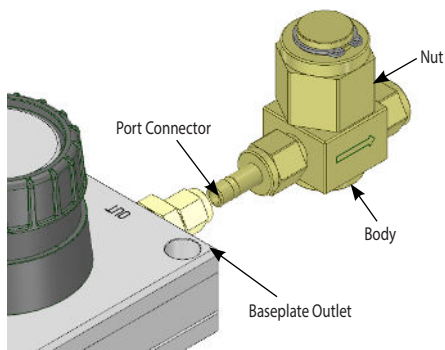


## 3. Particle Filter

- Special high-flow particle filter and other critical applications.
- Nominal pore size 0.5 micron (pore size range 0.5-2).
- Filter removes 95% of particles > nominal pore size.
- Housing: brass 1/4" connectors.
- Particle filter fits to SGT's high-flow baseplate gas outlet.



**We highly recommend using a particle filter in combination with a high-flow baseplate.**

### 3.1 Installing a Particle Filter

1. Ensure the nut of the particle filter is tight on the body.
2. The particle filter must connect to the gas outlet of the baseplate. The outlet of the baseplate is marked by the text "OUT".
3. Insert the particle filter with the port connector side into the outlet side of the baseplate.
4. Hand tighten the 1/4" nut of the baseplate connector. After it is hand tight, tighten the nut by tool for 1 and a 1/4 turn. Ensure the particle filter is fixed when tightening the nut.
5. After connecting the particle filter to the baseplate connector, check all connections for leak tightness.

### 3.2 Replacing a Particle Filter

1. Release the pressure on the system to 0.0 bar.
2. Remove the nut while holding the particle filter body with the tool.
3. Exchange the old particle filter with the new particle filter.
4. Ensure the aluminum ring is still inside the particle filter body.
5. Hand tighten the nut back onto the particle filter body. After it is hand tight, tighten the nut by tool. Ensure the particle filter body is fixed when tightening the nut.
6. After tightening the nut onto the body, check all connections for leak tightness.
7. Put pressure on the system.

## 4. Maintenance

### 4.1 Replacement of a Filter Cartridge

A filter cartridge needs to be replaced annually or when the visual indicators start changing color.

### 4.2 Baseplate Maintenance

Regularly check both the big and small O-rings on the baseplate for hair cracks. The slightest leak may allow moisture, oxygen, and hydrocarbons to enter the system and contaminate the gas.

Connectors at the baseplate may never be replaced by unauthorized personnel.

## 5. Overview

Super Clean® gas filter cartridges are suited for the purification of noncorrosive gases with low contamination concentrations to a better than 6.0 grade (99.99990%) purity.

Super Clean® gas filter cartridges are connected to an appropriate genuine baseplate, which is installed into the gas line.

## 6. Specifications

High-Flow Filter Type	H <sub>2</sub> O (g)	O <sub>2</sub> (ml)	THC (g)	Usable for (Gas Type)
Hydrocarbon	-	-	24	N <sub>2</sub>
Moisture	15	-	-	C, A, H <sub>2</sub>

C = Inert Carrier Gas; H<sub>2</sub> = Hydrogen; A = Air; N<sub>2</sub> = Nitrogen

All high-flow filter cartridges are packed under argon

Maximum pressure: 11 bar

Maximum flow: 20 L/min

Gas Quality at outlet: > 6.0 grade purity

## 7. Disposal



Saturated filter cartridges should not be placed in household waste bins. Please check local regulations for information about the disposal of chemical waste in your area.

Never recondition any filter cartridge: for recycling, please contact your local supplier.

## 8. Safety Information

- The maximum concentration of oxygen allowed in the gas is 0.5%. (Valid only for each filter packed with O<sub>2</sub>-adsorbent and O<sub>2</sub>-indicator.)
- Maximum gas-system pressure should never exceed 11 bar (160 psi).
- Do not install a filter kit near or in a hot area (i.e., the hot-air exhaust at the rear of the GC).

## 9. Ordering Information

### Super Clean® Gas Trapping System for LC/MS

- 22062** Super Clean® Gas Trapping System (Baseplate and 2 Hydrocarbon Filters)
- 22060** 2-Position Baseplate - 1/4" Brass
- 22061** Replacement Hydrocarbon Filters (2-pk.)



Patent pending: PCT/NL2012/050477

**Questions about this or any other Restek® product?**  
**Contact us or your local Restek® representative**  
**([www.restek.com/contact-us](http://www.restek.com/contact-us)).**

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**RESTEK®**  
Pure Chromatography

**RESTEK®**

## Super Clean® Gas Filter Kit

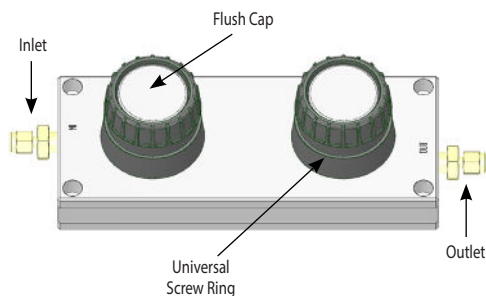
Instructions for LC Use



[www.restek.com](http://www.restek.com)

# 1. Installation of a Baseplate

A high-flow baseplate has two parallel positions. These instructions are valid for each individual position and fitting connection on the baseplate.



## 1.1 Important information before you start

- To avoid leakage, never install brass connectors on stainless steel tubing.
- Installation of the baseplate should always be performed by certified personnel.
- After installation, do not forget to perform a reliable leak test.

## 1.2 Installation Instructions

1. Switch off the incoming gas.
2. Cut the gas line using an appropriate metal tubing cutter.
3. Hand tighten the incoming gas line tubing to the rear end fitting marked "IN" at the baseplate; keep the connection loose!
4. Switch on the incoming gas and flush the gas line for 10 min with pure carrier gas; min. pressure: 8 psi.
5. Make sure that the flush cap and universal screw ring are well mounted on the baseplate.
6. Fixate the baseplate with screws using the mounting holes, or use an optional wall mounting bracket.
7. Install the particle filter (for instructions, flip page).
8. Now mount the outgoing carrier gas line to the rear end fitting marked "OUT" at the baseplate and your analytical system is ready to go.

## 1.3 After Baseplate Installation

After connection of a new baseplate to the inlet gas line of the analytical system, it is recommended to flush the total system for 1/2 hour at min. pressure 90 psi.

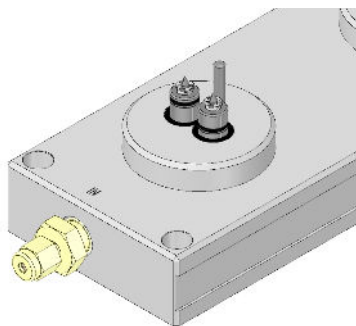
# 2. Installation of a Filter

## 2.1 Important information before you start

- The high-flow filter system requires special high-flow filter cartridges, mounting a standard filter cartridge to the high-flow baseplate is not possible.
- Install filter cartridge only under low pressure (1 bar).
- After installation, do not forget to perform a reliable leak test.
- The white, small, plastic mounting plugs on the outside housing should never be removed; if these plugs are missing, the cartridge should not be installed, and should be returned to the supplier.

## 2.2 Remove the Flush Cap and Universal Screw Ring

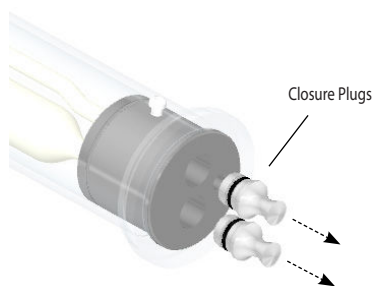
Before installing a filter, make sure the baseplate is properly connected to the gas line, and that the system has been flushed. Remove the universal screw ring and flush cap.



As long as there is no filter cartridge connected, the baseplate will automatically block the gas stream.

## 2.3 Remove the Closure Plugs

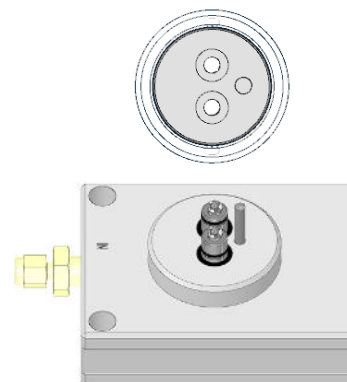
Remove the two metal diffusion-proof plugs from the filter cartridge inlet and outlet (positioned at the bottom of the filter cartridge).



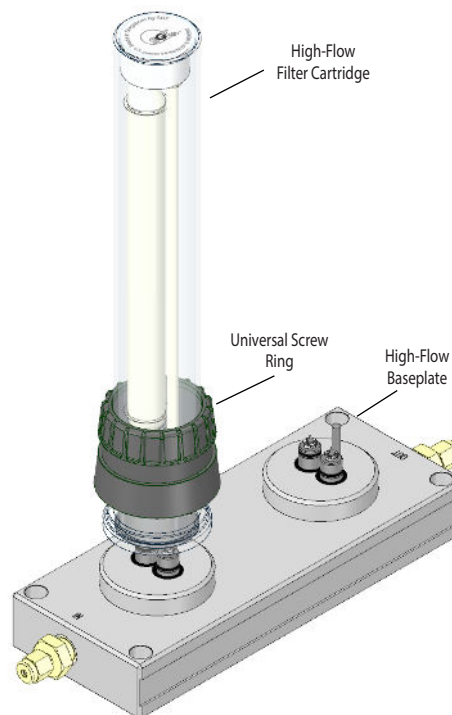
## 2.4 Align the Filter with the Baseplate

Use the universal screw ring from the baseplate and place it around the filter cartridge.

Align the filter cartridge with the baseplate, making sure all three holes align with the two valves and positioning pin.



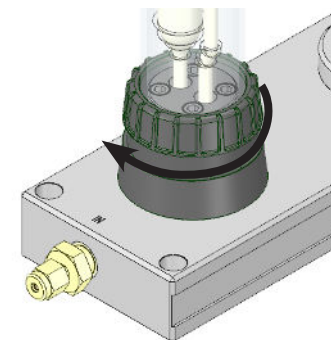
## 2.5 Position the Filter on the Baseplate



## 2.6 Install the Filter onto the Baseplate

While pushing the filter down on the baseplate, hand tighten the universal screw ring until the filter is firmly connected to the baseplate.

- During installation of a new cartridge, torsion on the plastic outer protection tube should be avoided at all times; put your hand on top of the filter housing during installation and keep the cartridge 90 degrees upright.
- Once the filter is positioned on the baseplate, the PTFE seals inside the filter foot will be punctured, and it is necessary to keep the filter in position by hand to prevent air entering the system.
- After installing the filter cartridge to the baseplate, highly pure gas will automatically stream from the filter into the analytical system.



## 2.7 After Filter Installation

Watch out for cracks in the inside glass tube after installation.

Flush the cartridge/whole system for 15 min with pure carrier gas; advised pressure: 90 psi.

Readjust the system pressure to the required pressure needed for your analytical application.