



High-Pressure Inline Filter Installation Instructions

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Thermo
S C I E N T I F I C

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High-Pressure Inline Filter Installation Instructions

The Dionex High-Pressure Inline Filter (P/N 044105) provides pre-column filtering to remove particulates down to 0.45 micron from samples or eluent.

Two filter disks (5-micron and 35-micron) are installed in the inline filter at the factory. If the inline filter will be used for sample filtration, a 0.45-micron filter disk must be installed at the customer site.

The inline filter is shipped with all of the parts required for final assembly and installation:

Part Number	Item	Quantity
032319	<i>High-Pressure Inline Filter Installation Instructions</i>	1
036521	35-micron filter disk kit (includes 10 disks)	1
036522	5-micron filter disk kit (includes 10 disks)	1
038930	Port face extractor tool	1
046801	High-pressure inline filter holder assembly	1
067260	0.45-micron filter disk kit (includes 10 disks)	1

NOTE The 5-micron and 35-micron filter disks are identical in appearance. Keep the disks in separate, clearly marked bags.

For initial installation instructions, refer to the appropriate section of this manual:

- If the purpose of the inline filter is eluent filtration, see [Section 1](#).
- If the purpose of the inline filter is sample filtration, see [Section 2](#).

For instructions on how to replace used filter disks, see [Section 3](#).

1. Installation of the Inline Filter for Eluent Filtration

1. Connect the pump outlet line to the inlet port of the inline filter (see [Figure 1](#)).

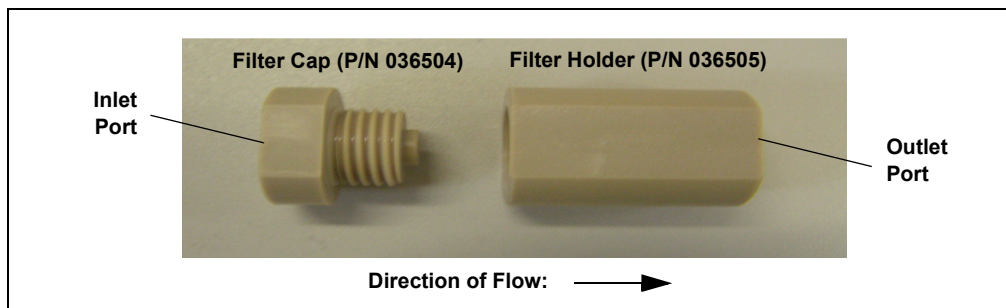


Figure 1. High-Pressure Inline Filter

2. Connect the eluent line in port of the injection valve to the outlet port of the inlet filter (see [Figure 1](#)).
3. This completes the inline filter installation procedure.

NOTE During operation, periodically check the filter disks for discoloration. If one of the filter disks becomes discolored, both of them must be replaced. For instructions, see [Section 3](#).

2. Installation of the Inline Filter for Sample Filtration

The instructions in this section explain how to:

- Remove the O-ring and two filter disks (5-micron and 35-micron) currently installed in the inline filter.
- Install a 0.45-micron filter disk in the inline filter.
- Reinstall the O-ring and the 5-micron and 35-micron filter disks.
- Plumb the inline filter into the IC system.

Begin the installation procedure:

1. Unscrew the filter cap from the filter holder (see [Figure 2](#)).

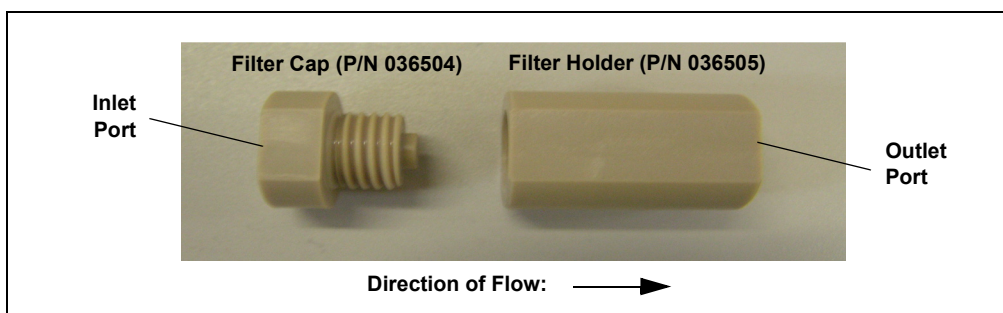


Figure 2. High-Pressure Inline Filter

2. Insert the blunt end of the port face extractor tool into the filter holder. Carefully slide the end of the tool under the O-ring, lift the O-ring out of the filter holder, and place it on a clean surface. **Do not scratch the O-ring.**

IMPORTANT

Do not use a sharp tool (such as tweezers) to remove the O-ring. This will scratch the O-ring, and these scratches will prevent a proper seal and cause leakage.

3. Insert the pointed end of the port face extractor tool into the topmost filter disk in the filter holder. Hold the filter holder firmly in place, screw the extractor tool into the filter disk, and pull the disk out of the filter holder. **Discard the filter disk; it cannot be reused.**
4. Repeat [Step 3](#) to remove the remaining filter disk.
5. To prevent contamination of the new filter disks, put on clean room gloves before proceeding.

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6. Install the new filter disks in the filter holder:
 - a. Drop the 0.45-micron filter disk into the filter holder. Using the blunt end of the port face extractor tool, gently press on the disk to seat it in the filter holder.
 - b. Repeat [Step a](#) to install the 5-micron filter.
 - c. Repeat [Step a](#) to install the 35-micron filter.

NOTE Always install the 0.45-micron filter disk first. This order of assembly optimizes sample filtration.

NOTE Never install the 0.45-micron filter disk by itself. Unless two other disks are installed, the 0.45-micron filter disk will not be adequately supported inside the filter holder.

7. Drop the O-ring into the filter holder.
8. Screw the filter cap into the filter holder and tighten the cap fingertight. Tighten further **only** if leaks appear during operation.
9. Connect the autosampler outlet line to the inlet port of the inline filter (see [Figure 2](#)).
10. Connect the sample in port of the injection valve to the outlet port of the inline filter (see [Figure 2](#)).
11. This completes the inline filter installation procedure.

NOTE During operation, periodically check the filter disks for discoloration. If one of the filter disks becomes discolored, all of them must be replaced. For instructions, see [Section 3](#).

3. Replacement of Filter Disks

When to replace filter disks

- If any of the filter disks in the inline filter is discolored. (When new, the filter disks are white. Periodically check disks for discoloration.)

NOTE Always replace all filter disks, even if only one disk is discolored.

- If the pressure through the inline filter increases by 0.21 MPa (30 psi) or more.

How to obtain new filter disks

The inline filter is shipped with 10 filter disks of each size. If you need more filter disks, please order a Filter Replacement Kit (P/N 035332).

How to install new filter disks

1. Turn off the pump flow.
2. Disconnect all tubing connections to the inline filter.
3. Unscrew the filter cap from the filter holder.
4. Insert the blunt end of the port face extractor tool into the filter holder. Carefully slide the end of the tool under the O-ring, lift the O-ring out of the filter holder, and place it on a clean surface. **Do not scratch the O-ring.**

IMPORTANT

Do not use a sharp tool (such as tweezers) to remove the O-ring. This will scratch the O-ring, and these scratches will prevent a proper seal and cause leakage.

5. Insert the pointed end of the port face extractor tool into the topmost filter disk in the filter holder. Hold the filter holder firmly in place, screw the extractor tool into the filter disk, and pull the disk out of the filter holder. **Discard the filter disk; it cannot be reused.**
6. Repeat [Step 5](#) to remove the remaining filter disk(s).
7. To prevent contamination of the new filter disks, put on clean room gloves before proceeding.

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8. Install the filter disks in this order:
 - a. 0.45-micron disk (for sample filtration only)
 - b. 5-micron disk
 - c. 35-micron disk

NOTE Always install the 0.45-micron filter disk first. This order of assembly optimizes sample filtration.

NOTE Never install the 0.45-micron filter disk by itself. If you no longer have both 5-micron and 35-micron filter disks on hand, you may install either two 5-micron or two 35-micron disks. Installing two extra disks ensures that the 0.45-micron filter disk is adequately supported inside the filter holder.

9. Replace the O-ring and filter cap.
10. Reconnect all tubing connections to the inline filter and resume operation.