

Uniliner Inlet Liner

Installation and Operation

1. Prior to installation, cool the inlet down and shut off the carrier gas flow.
2. Install the Uniliner liner in the inlet with the tapered press-tight end facing down (Figure 1).
3. Place a nut on the inlet end of the column, followed by a graphite ferrule. Using a ceramic wafer, trim a few centimeters off the column above the ferrule to ensure a square cut. A square column end is essential for making a leak-tight seal with the liner (Figure 2).
4. Wipe the end of the column with methanol to ensure cleanliness.
5. Gently feed the column up into the inlet until it contacts the liner; then, pull it back down a few millimeters. While holding the column in place, begin to thread the column nut and tighten until the column can no longer be moved up-and-down freely. Do not overtighten (Figure 3).
6. Slightly loosen the column nut until the column is free to move up-and-down with light resistance. Push the column up until it stops and hold it in place for a few seconds, gently applying pressure (Figure 4). Ensure that the column is sealed to the liner by giving it a *light* downward pull. The column should not move if a seal is achieved.
7. Retighten the column nut as you would when typically installing a column (finger-tight plus $\sim\frac{1}{8}$ th of a turn).
8. Pressurize the inlet and leak check with Restek's Electronic Leak Detector (cat.# 22655). Heat to operating temperature and repeat the leak check.*
9. Run a test injection to observe analyte response and peak shape. If responses are unexpectedly low or peaks are tailing or deformed, installation may need to be repeated.
10. Uniliner inlet liners should only be used in splitless injection mode.

Figure 1



Figure 2 A square column end is essential for a leak-tight seal.



Figure 3



Figure 4



*For a quick overview of some best practices for leak checking and maintenance, visit:

www.restek.com/LDhowto

www.restek.com/LDmaint

Alternate Method for Installation and Operation

1. Prior to installation, cool the inlet down and shut off the carrier gas flow.
2. Place a nut on the inlet end of the column, followed by a graphite ferrule. Using a ceramic wafer, trim a few centimeters off the column, above the ferrule to ensure a square cut. A square column end is essential for making a leak-tight seal with the liner (Figure 1).
3. Wipe the end of the column with methanol to ensure cleanliness.
4. Without a liner installed in the inlet and the top inlet weldment open, begin to feed the column up through the inlet.
5. Thread and tighten the column nut only until it gently grabs the column. Do not overtighten. Loosen the nut until column is free to move again with some resistance. Push column up until it comes out of the top of the inlet (Figure 2).
6. Use one hand to hold the Uniliner liner with the tapered press-tight end facing down and the other hand to grasp the column above the inlet (Figure 3). Push the column into the tapered end of the liner to form a seal. Holding the column in place for a few seconds while applying light pressure will help to achieve a seal with the liner. Ensure that the column is sealed to the liner by giving it a *light* downward pull. The column should not move if a seal is achieved (Figure 4).
7. Place an O-ring on the liner. Gently lower the liner back into the inlet, taking care not to put any stress on the column (Figure 5). It may be helpful to gently pull the column down from inside of the oven, while pushing the liner down into the inlet, ensuring you do not pull the column out of the liner. Close top inlet weldment.
8. Retighten the column nut as you would when typically installing a column (finger-tight plus $\sim\frac{1}{8}$ th of a turn).
9. Pressurize the inlet and leak check with Restek's Electronic Leak Detector (cat.# 22655). Heat to operating temperature and repeat the leak check.*
10. Run a test injection to observe analyte response and peak shape. If responses are unexpectedly low or peaks are tailing or deformed, installation may need to be repeated.
11. Uniliner inlet liners should only be used in splitless injection mode.

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Figure 1 A square column end is essential for a leak-tight seal. A brown ring indicates a proper seal.



Figure 2



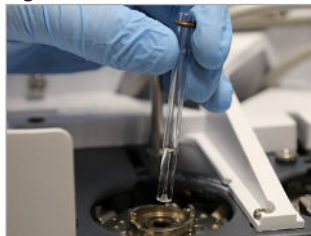
Figure 3



Figure 4



Figure 5



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