Universal Fused Silica Press-Tight® Connectors

(Fits fused silica column ODs from 0.33 to 0.74 mm)

Press-Tight® connectors are used to connect guard columns to analytical columns, to connect two columns together, or to repair a broken column. They use concentric compressive forces to form a leak-tight seal under normal pressures used in capillary gas chromatography (GC). The seal is further strengthened as the column's exterior polyimide coating bonds to the Press-Tight® connector after thermal cycling. If desired, polyimide resin (cat.# 20445) may be used to help ensure a durable connection.

Installation Instructions

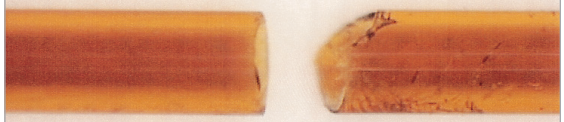
1. Holding the column end upright, lightly score the column tubing with a ceramic scoring wafer (cat.# 20116), but do not break it.
2. Point the column end downward, then lightly tap the column (it should break easily) to remove the end portion. Use a pocket magnifier (cat.# 20124) to closely inspect the ends. If the tubing does not break, or the cut is not square or uniform (Figure 1), repeat steps 1–2.
3. Gently wipe the end of the column with a solvent like methanol or acetonitrile.
4. Gently insert the column end into the Press-Tight® connector until it is firmly gripped in the radial restriction. Be careful not to press too hard or the column end will crush. A continuous brown ring where the column end compresses inside the connector indicates a proper connection (Figure 2).
5. Follow steps 1–4 for inserting the other column end into the connector.
6. Polyimide resin (cat.# 20445) may be used to help ensure a durable connection. For both connections, apply a very small amount of polyimide resin halfway around the column tubing near the opening of the Press-Tight® connector (Figure 3). Allow 30 min to air dry.

   Note: Do *not* use excess polyimide resin or apply it all the way around the column tubing. This may cause the seal to rupture during the curing process.
7. Install the column. See Restek's online Capillary Column Installation Guide (www.restek.com/capguide) for instructions and helpful hints.
8. With carrier gas flowing, leak check the connections using Restek's electronic leak detector (cat.# 22655) before the column is heated. Do NOT use liquid leak detectors because they may damage the column or contaminate your GC system.
9. Inject an unretained compound and carefully inspect the peak shape. A symmetrical peak indicates a proper connection. For an additional test when using liquid phase coated columns (Rtx® and Rxi® columns), inject 1.0 µL of solvent in split mode (split 1:100) at 40 °C isothermal and examine the peak shape (Figure 4). A tailing solvent peak is a good indicator of a poor connection. If either peak is tailing more than before the Press-Tight® connector was installed, remove the connector and repeat steps 1–9.

   Note: Connectors cannot be reused once they are heated because the polyimide residue cured inside the connector will prevent sealing.
10. If using polyimide resin, once a leak-free connection has been established, cure the resin by heating the column in the GC oven programmed from 40 °C to 150 °C at 4 °C/min (hold 30 min) to 220 °C at 1 °C/min (hold 30 min).
11. Periodically leak check the connections to confirm seal integrity.

    Note: Heating polyimide-coated tubing above 350 °C for extended periods may cause the polyimide to dry out, resulting in a poor seal.

Figure 1: Make a clean, square cut for optimum connector performance.



The cut on the right will produce a poor seal.

Figure 2: A brown ring indicates a proper seal.

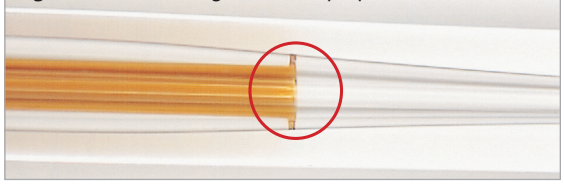
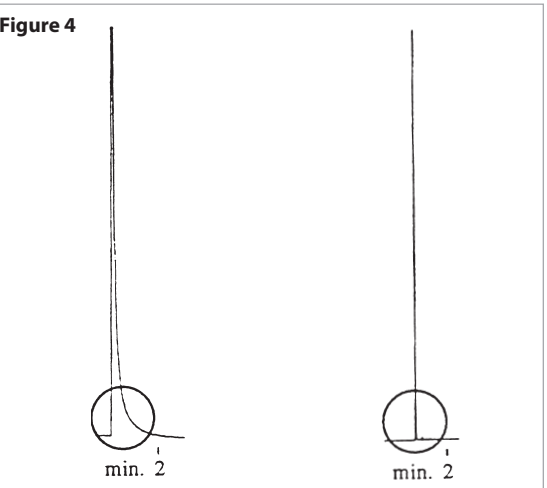


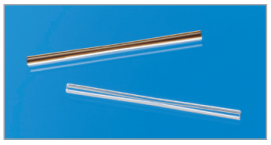
Figure 3

Figure 4



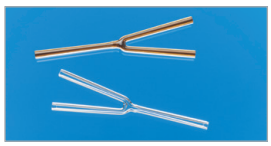
Tailing peak indicates improper installation

Symetrical peak indicates proper installation



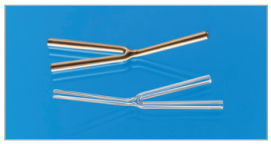
Press-Tight® Connectors

Description	5-pk.	25-pk.	100-pk.
Universal Press-Tight Connectors	20400	20401	20402
Universal Press-Tight Connectors, Deactivated	20429	20430	
Universal Press-Tight Connectors, Siltek Deactivated	20480	20449	



"Y" Press-Tight® Connectors

Description	ea.	3-pk.
Universal "Y" Press-Tight Connector	20405	20406
Universal "Y" Press-Tight Connector, Deactivated	20405-261	20406-261
Universal "Y" Press-Tight Connector, Siltek Deactivated	20485	20486



Angled "Y" Press-Tight® Connectors

Description	ea.	3-pk.
Universal Angled "Y" Press-Tight Connector	20403	20404
Universal Angled "Y" Press-Tight Connector, Deactivated	20403-261	20404-261
Universal Angled "Y" Press-Tight Connector, Siltek Deactivated	20487	20469

Polyimide Resin

Securely connects a Press-Tight® connector to a fused silica column.

Description	Max. Temp.	qty.	cat.#
Polyimide Resin	350°C	5 grams	20445

Ceramic Scoring Wafer

- Four straight scoring edges for cutting fused silica tubing and four serrated edges for cutting MXT® metal capillary columns.

Description	qty.	cat.#
Ceramic Scoring Wafers	5-pk.	20116

Pocket Magnifier

- Small and easy to handle.
- 10x magnification makes it easy to see the column end to verify a square cut.

Description	qty.	cat.#
Pocket Magnifier	ea.	20124

23026

Shortix® Capillary GC Column Cutter

- Consistently make precise, clean, square cuts with a diamond blade.
- Built-in magnifier to verify square cut.
- Use with 0.25 mm ID to 0.53 mm ID tubing (0.78 mm OD maximum).

23027

Description	qty.	cat.#
Shortix Capillary GC Column Cutter	ea.	23026
Maintenance Kit for Shortix Capillary GC Column Cutter (Includes: diamond cutting wheel, O-rings, and a tool to open the column cutter)	kit	23027

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

www.restek.com

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RESTEK® Pure Chromatography