

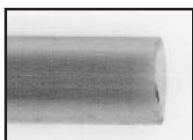
# Universal Fused Silica Press-Tight® Connectors

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

Press-Tight® connectors are used to connect guard columns to analytical columns, connect two columns together, or 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 sealing resin (cat.# 20445) may be used to create a permanent connection, preventing the possibility of premature separation.

## Installation Instructions

1. Cut both column ends using a ceramic scoring wafer (cat.# 20116). Pointed scoring devices should not be used or leakage will occur. Use a pocket magnifier (cat.# 20124) to closely inspect the ends. It is imperative to have a square cut on the column end to obtain a good seal.

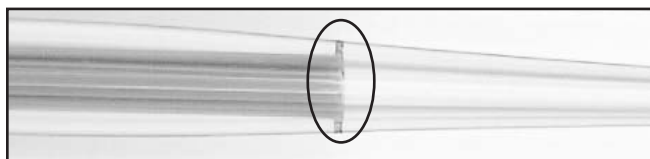


A good column cut.



A bad column cut.

2. Once a square cut is obtained, remove finger oils and lubricate the column ends by wiping them with a laboratory wipe wetted with methanol or acetone. This allows the tubing to slide further into the connector and creates a better seal.
3. Gently press the column end into the Press-Tight® connector until the column is held firmly in the radial restriction. Follow the same procedure and insert the other column end into the connector. *Be careful not to press too hard or the column end will crush inside the connector.* A continuous brown ring around the column end where it compresses inside the connector indicates a proper connection.



A continuous brown ring around the column end indicates a proper connection.

4. Polyimide sealing resin (cat.# 20445) may be used to strengthen the connection. Lightly score the tubing approximately 1/2-inch from the column end, but do not break it. Apply a thin layer of sealing resin onto the last 2cm of the column end using a laboratory wipe that has been dipped into polyimide resin. Holding the column end in an upright position, lightly tap the column (it should break easily) to

remove the end portion. Inspect the cut. If it is not square, repeat the process. Insert the column into the Press-Tight® connector following the procedure described in step 3. Use a heat gun to partially cure the resin by heating the connector until the resin no longer bubbles inside the connector. Repeat the process on the other column end.

5. Install the column. See Restek's online Capillary Column Installation Guide ([www.restek.com/guide\\_cap.asp](http://www.restek.com/guide_cap.asp)) for instructions and helpful hints.
6. Once the column's head pressure has been set, leak-check the connection using Restek's Leak Detector (cat.# 22839). Do NOT use liquid leak detectors because they may damage the column or contaminate your GC system.
7. Inject methane (or another appropriate gas for determining dead volume time) and carefully inspect the peak shape and detector response. A symmetrical methane peak and good detector response indicate a proper connection. Next, inject 1.0µL of solvent and examine the peak shape. A tailing solvent peak is a good indicator of a poor connection. If the solvent or methane peak is tailing more than before the Press-Tight® connector was installed, remove the connector and reinstall it. **Note:** *Connectors cannot be reused once they are heated because the polyimide residue inside the connector will prevent sealing.*



Tailing peak indicates improper installation



Symmetrical peak indicates proper installation

8. Once a proper connection has been established, briefly condition the column at temperatures above 150°C to permanently cure the polyimide resin. Leak-check the connection after the first thermal cycle using Restek's Leak Detector (cat.# 22839).

**WARNING:** Heating polyimide-coated tubing above 325°C for extended periods may cause degradation of the polyimide, resulting in connection failure.

## A Note on Siltek®-Deactivated Press-Tight® Connectors

Siltek® Press-Tight® connectors have a characteristic reflective dark golden coating. This coating is a result of the unique deactivation layer. Small spots and variances in coating color and reflectivity on the Siltek® deactivation surface are acceptable and do not affect the performance of the Press-Tight® connector. Each lot of Siltek® Press-Tight® connectors is QA batch-tested to meet minimum standards of endrin and DDT (both at 50ppb) breakdown limits.

Although the Siltek® surface shows excellent resistivity to samples containing acids and bases, prolonged exposure to highly caustic solutions should be avoided (for example: KOH, NaOH, HF, or HCl). Siltek® Press-Tight® connectors can be cleaned by rinsing and/or sonicating (tested to 10 minutes in a typical ultrasonic cleaning bath) with standard solvents such as methylene chloride, methanol, hexane, acetone, or water.

For more information about Siltek® deactivation, call our technical service group at 800-356-1688 or 814-353-1300, ext. 4.

### Universal Press-Tight® Connectors

Description	5-pk.	25-pk.	100-pk.
Universal Press-Tight Connectors	20400	20401	20402
Deactivated, Universal Press-Tight Connectors	20429	20430	20431
Siltek Treated Universal Press-Tight Connectors	20480	20449	20481



### Universal Angled Press-Tight® Connectors

Description	5-pk.	25-pk.	100-pk.
Universal Angled Press-Tight Connectors	20446	20447	20448
Deactivated Universal Angled Press-Tight Connectors	20446-261	20447-261	20448-261
Siltek Treated Universal Angled Press-Tight Connectors	20482	20483	20484



### Universal "Y" Press-Tight® Connectors

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



### Universal Angled "Y" Press-Tight® Connectors

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



### Universal "X" Press-Tight® Connectors

Description	ea.	3-pk.
Universal "X" Press-Tight Connector	20407	20408
Deactivated Universal "X" Press-Tight Connector	20407-261	20408-261
Siltek Treated Universal "X" Press-Tight Connector	20407-266	20408-266



### Polyimide Resin

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

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

Restek trademarks: Press-Tight, Restek logo, Siltek



**Call Technical Service at 800-356-1688 or 814-353-1300, ext. 4 (or your Restek representative) if you have any questions about this product or any other Restek product.**



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**Restek U.S.** • 110 Benner Circle • Bellefonte, PA 16823

phone: 814-353-1300 or 800-356-1688 • fax: 814-353-1309 • [www.restek.com](http://www.restek.com)

**Restek France** • phone: 33 (0)1 60 78 32 10 • fax: 33 (0)1 60 78 70 90 • e-mail: [restek@restekfrance.fr](mailto:restek@restekfrance.fr)

**Restek Ireland** • phone: 44 2890 814576 • fax: 44 2890 814576 • e-mail: [restekeurope@aol.com](mailto:restekeurope@aol.com)

**Thames Restek U.K. LTD** • phone: 44 1494 563377 • fax: 44 1494 564990 • e-mail: [sales@thamesrestek.co.uk](mailto:sales@thamesrestek.co.uk)

**Restek GmbH** • phone: +49 (0) 6172 2797 0 • fax: +49 (0) 6172 2797 77 • e-mail: [info@restekgmbh.de](mailto:info@restekgmbh.de)