



CHROMATOGRAPHIC SPECIALTIES INC.

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CHROMSPEC™ GLASS PACKED GC COLUMN INSTALLATION INSTRUCTIONS

To reduce the chance of column breakage and / or leaks, consult the information below:

**1. Reducing the risk of breaking a glass column starts with ordering the correct column.
To do that you will need to know the following:**

- A. The specific make and model of the instrument the column is being installed in.
- B. If your instrument accommodates more than one installed detector and injector, specify which injector and detector port are to be used. With 2 injector / 2 detector instruments, there are only two options: straight across (front-front, back-back) or diagonally (front-back, back-front)
- C. What your detector type is.
- D. If you are using a liner on the injector port.
- E. If column outside diameter is not 1/4" or 6mm, you must specify the OD.

2. Choose the correct fitting hardware for your application:

- A. Graphite/polyimide* or graphite single ferrules are essential to avoid breaking the column when tightening fittings. Graphite single ferrules can be more forgiving to over tightening. Graphite/polyimide single ferrules are recommended for more sensitive detectors i.e. Mass Spec or ECD.
- B. Follow the instructions on the next page to install your selected hardware.
- C. If you want to include the fittings to accommodate your glass column with your order, we recommend the following:
 - C50015 will include two 1/4" stainless steel nuts and two 1/4" graphite single ferrules.
 - C50020 will include two 1/4" brass nuts with two 1/4" graphite single ferrules.If ordered, the nuts and ferrules will arrive attached to the column box.

3. Handling a glass column without breaking it requires patience. Remember to:

- A. Support the column to reduce stress, do not hold the column by only one leg.
- B. Before installation confirm the compatibility of your column with your GC.
- C. Do not try to force the column.
- D. While conditioning, your column should be attached to the injector port only. Condition according to the supplied instructions inside the box.
- E. After conditioning and allowing the column to cool, insert the column with the remaining nut and ferrule into the detector end. Do this by loosening the nut on the injector port and gently sliding the column out until you have enough space to insert the column into the detector end properly.

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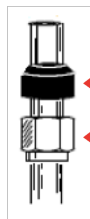
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Installing Packed Glass Columns After Conditioning

Recommended Products:

- Two 1/4" graphite single ferrules
- Two 1/4" nuts
- One 9/16" wrench



100% Graphite Single Ferrule

Nut

1. A glass column must be installed without flexing the arms.
2. Gently insert the detector end of the column until it cannot be inserted further, but DO NOT FORCE IT.
3. Gently pull the column down 1-2mm.
4. Finger tighten nut followed by a **soft 1/2 turn with the wrench**
5. Perform a leak check with a leak detector**, if no leaks are present, the task is complete.



For more sensitive detectors like an ECD or Mass Spec we recommend the use of Graphite / Polyimide ferrules. Install using the following instructions:

1. A glass column must be installed without flexing the arms.
2. Gently insert the detector end of the column until it cannot be inserted further, but DO NOT FORCE IT.
3. Gently pull the column down 1-2mm.
4. Finger tighten nut followed by a **soft 1/4 turn with the wrench**
5. Set flow and oven temperature to operating specs, allow oven to heat, then cool. (Cycle)
6. **When cooled**, tighten nuts an **additional 1/2 turn**
- Adjust as necessary to prevent leakage.
7. Perform a leak check with a leak detector**, if no leaks are present, the task is complete.



Notes:

- * Polyimide is often referred as Vespel®. Vespel® refers specifically to DuPont's proprietary brand of polyimide ferrules.
- ** For leak detection we recommend RK28500 – Restek's Electronic Leak Detector VI.

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