



Your chromatography analysis does not end with the selection of the GC column. The combination of components selected for your instrument also make an important contribution to successful separations. Trajan's SiITite® portfolio has been designed to improve your chromatography, reducing instrument downtime and ensuring connections remain leak free, delivering improved laboratory efficiencies.



## Connectors and ferrules

Ferrules are used to seal the connection of the column or liner to the GC system.

Considerations in ferrule selection include:

- Leak free seal
- Accommodate various column ODs
- Seal with minimum torque
- Non-stick to column or fittings
- Withstand temperature cycling

Minimizing problems associated with ferrules:

- Do not over tighten
- Ensure clean prior to use
- Bake out prior to use
- Change ferrule when installing new column
- Use correct ferrule for column size

Material	Uses	Advantages	Limitations
100% Graphite	FID, NPD, high temperature	<ul style="list-style-type: none"> <li>• Easy-to-use stable seal</li> <li>• Higher temperature limit</li> <li>• Easily removed</li> <li>• Reusable</li> </ul>	<ul style="list-style-type: none"> <li>• Not for MS or oxygen-sensitive detectors</li> <li>• Soft, easily deformed or destroyed</li> <li>• Possible system contamination</li> </ul>
15% Graphite/85% Vespel®	MS and oxygen-sensitive detectors	<ul style="list-style-type: none"> <li>• Long lifetime</li> <li>• High temperature limit</li> <li>• MS compatible</li> </ul>	<ul style="list-style-type: none"> <li>• Cannot be re-used</li> <li>• Must be re-tightened after initial temperature cycles</li> </ul>
SiITite® metal	MS and oxygen-sensitive detectors	<ul style="list-style-type: none"> <li>• Long lifetime</li> <li>• High temperature limit</li> <li>• MS compatible</li> </ul>	<ul style="list-style-type: none"> <li>• Cannot be re-used</li> </ul>

## SiITite metal ferrules

Are you looking for a solution to enable the connection of fused silica GC columns and tubing to mass spectrometer interfaces and injectors?

SiITite metal ferrules provide a continuous leak free connection without the need to re-tighten the nut after a few temperature cycles. SiITite ferrules are a high performing alternative to Graphite/Vespel ferrules in a GCMS system. Their performance and cost effectiveness also makes them ideal for connecting GC columns to injectors and atmospheric detectors.

## SiITite GC connectors

Does your column connection in GC suffer from unreliability, leaks, excessive dead volumes and lack of inertness, leading to poor chromatography results and instrument downtime?

SiITite GC connectors are designed to minimize installation time and provide ongoing, robust connections throughout the life of the GC column.



## SiITite FingerTite ferrules

Do you want to simplify your GC column installation?

- Typical kit contains:
  - 5 x female nuts
  - 10 x ferrules
  - 1 x measuring tool
- A ferrule system for GC systems delivering an easy, leak free installation for capillary columns without the use of any tools.
- SiITite FingerTite will simplify your column installation process, giving you less hassle and more time for chromatography.

# Simplifying your GC connections

## SiITite μ-Union

Are you looking to improve your column connection without the complications of conventional connectors?

- Tubing connections without leakage concern from temperature cycling or fear of getting pieces of ferrule stuck inside the tubing.
- Low thermal mass: 9 mm in length and mass <0.5 g.
- Available in kits to connect a range of columns from 0.1 mm ID through to 0.53 mm ID.
- Each kit contains:
  - 5 x ferrules
  - 2 x male μ-connector end fittings
  - 2 x female μ-connector end fittings
  - Installation tooling



With a strong team of design chemists and production engineers, and an extensive network of application based industry opinion leaders, our portfolio of GC consumables continues to develop within Trajan.

This means you, as a user in the laboratory, are assured of your sample integrity through collection, injection, separation and detection, optimizing your analysis.

Easy to install | Leak free | Stable