

TCD Column Ferrule Sealing System

Installation Sheet

Agilent Gas Chromatographs

The TC Detector now has a new method of sealing the column into the base of the detector. The new fitting, which reduces noise slightly, forms a better seal without air leaks. It may still require retightening after wide temperature programming ranges.

This new ferrule system is very beneficial when analyzing samples that may react with oxygen and will improve the analytical results.

The system consists of a brass back ferrule, a graphite/Vespel® front ferrule, (which is available in three different hole sizes and a no hole version) and a brass nut. The same size brass back ferrule is used for all column sizes and is re-usable many times.

The column is placed through the nut first and then the back ferrule. The front ferrule is placed next and must have the tapered end towards the detector (just like a standard ferrule). The protrusion in the front ferrule must enter into a matching recess in the back ferrule. Tighten the fitting until it holds the column enough to resist a pull on the column to remove it.

Because the front ferrule is a graphitized/Vespel® material, it adheres to hot metal surfaces and can be difficult to remove under operating conditions. Our experiences indicate that in order to remove the new fitting system from a TCD, it is best to cool the detector to below 50°C. Then remove the 1/8-inch Swagelok nut and back ferrule. Then, simply grasp the extended tail of the front ferrule and use a gentle side-to-side motion to loosen it.



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Table 1 lists of the new part numbers, which will allow you to use the new system with all of your columns. See also Figure 1.

Table 1 Column ferrule sealing system parts

Column diameter (outside)	Back ferrule (package of 10)	Front ferrule (package of 10)
0.8 mm	5182-3477	5182-9673
0.53 mm	5182-3477	5182-9676
0.45 mm	5182-3477	5182-9677
No hole	5182-3477	5182-9679

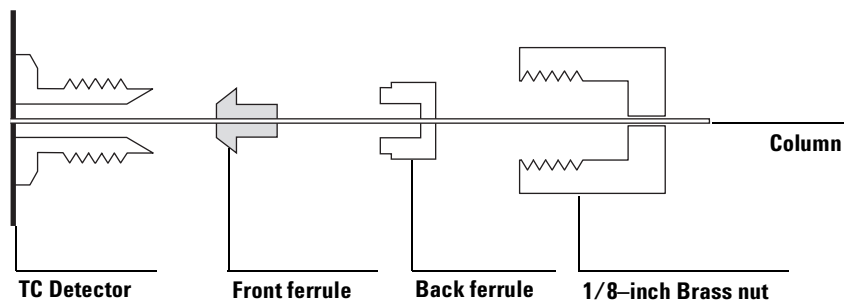


Figure 1 TCD column ferrule sealing system

It is still possible to use the older system of sealing, which will require the purchase of the adapter fitting G1532-80540, now requiring two sealing ferrules.



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