



GC Ferrules

Designed to Simplify Your GC Connections

AFP offers a wide variety of standard and special ferrules used in gas chromatographs and other instruments. Our wide range of ferrules are made from Vespel®, Vespel/graphite, graphite and PTFE. The standard ferrule product line is used to seal tubing and capillaries to standard compression fittings in a variety of sizes.

Graphite GC Ferrules

Graphite GC ferrules are made from high purity exfoliated graphite. They seal with minimal torque and are reusable if they are not over tightened. Graphite GC ferrules do not shrink in use but are very soft and must be packed and handled with care.

Graphite ferrules are commonly used in GC systems on the inlet and detector ends because they don't stick to the column, and can be removed and reinserted easily. They should not be used with GC/MS instruments because of permeability to air.

You should always trim a short piece of the column after replacing the ferrule to be sure that not graphite particles have plugged the column.

Upper temperature limit of 450 °C.



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PTFE GC Ferrules

PTFE GC ferrules are made from 100% PTFE. They are soft, completely inert, and have very low friction. PTFE GC ferrules are hydrophobic and commonly used in liquid applications.

Upper temperature limit of 250 °C.

Vespel GC Ferrules

Vespel GC ferrules are made from 100% high-temperature polyimide, a hard polymeric material that tends to seal permanently to capillary columns when in use. A firm torque is required to compress and seal. They are not reusable and tend to shrink through repeated heating and cooling cycles.

Vespel GC ferrules are excellent for creating seals on metal or glass and have long lifetimes. 100% Vespel is essentially non-porous to oxygen so it is ideal for GC/MS interface use, where air permeation can raise the background signal and contribute to phase degradation. They also work best in connections that are isothermal or insulated from oven temperature changes.

Upper temperature limit of 350°C.



Vespel/graphite GC Ferrules

Vespel/graphite GC ferrules are made from quality polyimide/graphite blend. They seal with minimal torque and can be reused and repositioned along capillary columns if not over compressed in the fitting. Due to slight shrinking at high temperatures, they must be retightened after initial temperature cycles to avoid leaks.

Two types of Vespel/graphite are commonly used, one with 40% graphite and one with 15% graphite. They are ideal for GC/MS interface applications because they are non-porous to oxygen. The inclusion of graphite increases high-temperature tolerance and reduces sticking and shrinkage.

We offer both Vespel/graphite blends, a 60/40 mix and an 85/15 mix. The 85/15 maintains a high level of hardness and long lifetime. The 60/40 blend is softer, with improved wear resistance and lower friction. These ferrules will require less force to compress and form a seal.

Both blends have an upper temperature limit of 400 C.

GC Ferrules	
Connections Graphite Ferrules	
Description	Part No.
1/16" GC Ferrule 0.5 mm ID Agilent Style Graphite, Pkg. 10	CC-100000
1/16" GC Ferrule 0.8 mm ID Agilent Style Graphite, Pkg. 10	CC-100001
1/16" GC Ferrule 0.4 mm ID (Long) Graphite, Pkg. 10	CC-100017
1/16" GC Ferrule 0.5 mm ID (Long) Graphite, Pkg. 10	CC-100018
1/16" GC Ferrule 0.25 mm ID/0.35 mm OD Columns, Pkg. 10	CC-100071
1/16" GC Ferrule 0.32 mm ID/0.45 mm OD Columns, Pkg. 10	CC-100072
1/16" GC Ferrule 0.53 mm ID/0.65 mm OD Columns, Pkg. 10	CC-100073
1/8" GC Ferrule 1/8" ID Graphite, Pkg. 10	CC-100002
1/8" GC Ferrule 0.8 mm ID Graphite, Pkg. 10	CC-100003
1/4" GC Ferrule 1/4" ID Graphite, Pkg. 10	CC-100004
1/4" GC Ferrule 6.0 mm ID Graphite, Pkg. 10	CC-100005
Graphite Short-Style Ferrules for Agilent, 0.25 mm ID/0.35 mm OD Columns, Pkg. 10	CC-100077
Graphite Short-Style Ferrules for Agilent, 0.32 mm ID/0.45 mm OD Columns, Pkg. 10	CC-100078
Graphite Short-Style Ferrules for Agilent, 0.53 mm ID/0.65 mm OD Columns, Pkg. 10	CC-100079
Graphite Reducing Ferrules for 1/8" Fittings, 0.53 mm ID/0.8 mm OD Columns, Pkg. 10	CC-100074
Graphite Short Reducing Ferrule with 1 mm Hole for 1/16" Fittings, Pkg. 10	CC-100006
Graphite Short Reducing Ferrule with 0.5 mm Hole for 1/16" Fittings, Pkg. 10	CC-100007
Graphite Reducing Ferrule with 6 mm Hole for 1/4" Fittings, Pkg. 10	CC-100008

GC Ferrules

Connections | Graphite Ferrules

Description	Part No.
Graphite Ferrule with 1/16" Hole for 1/16" Fittings, Pkg. 10	CC-100009
Graphite Ferrules with 0.5 mm Hole for use with 1/8" nuts on PE Detector/Injectors, Pkg. 10	CC-100010
Graphite Ferrule with 0.8 mm Hole for 1/16" Fittings, Pkg. 10	CC-100011
Graphite Ferrule with 0.5 mm Hole for 1/16" Fittings, Pkg. 10	CC-100012
Graphite Ferrules with 1.0 mm Hole for use with 1/8" Nuts on PE Detector/Injectors, Pkg. 10	CC-100013
Graphite Short Reducing Ferrule with 0.5 mm Hole for Detector/Injectors, Pkg. 10	CC-100014
Graphite Short Reducing Ferrule with 0.8 mm Hole for Detector/Injectors, Pkg. 10	CC-100015

Connections | Vespel/Graphite Ferrules

Description	Part No.
1/16" GC Ferrule 0.4 mm ID (Long) 60% Vespel / 40% Graphite, Pkg. 10	CC-100019
1/16" GC Ferrule 0.5 mm ID (Long) 60% Vespel / 40% Graphite, Pkg. 10	CC-100020
1/16" GC Ferrule 0.8 mm ID (Long) 60% Vespel / 40% Graphite, Pkg. 10	CC-100021
1/16" GC Ferrule 0.4 mm ID Agilent Style 60% Vespel / 40% Graphite, Pkg. 10	CC-100022
1/16" GC Ferrule 0.5 mm ID Agilent Style 60% Vespel / 40% Graphite, Pkg. 10	CC-100023
1/16" GC Ferrule 0.8 mm ID Agilent Style 60% Vespel / 40% Graphite, Pkg. 10	CC-100024
1/4" GC Ferrule 1/4" ID 60% Vespel/ 40% Graphite, Pkg. 10	CC-100025
1/16" GC Ferrule 0.4 mm ID (Long) 85% Vespel / 15% Graphite, Pkg. 10	CC-100026
1/16" GC Ferrule 0.5 mm ID (Long) 85% Vespel / 15% Graphite, Pkg. 10	CC-100027
1/16" GC Ferrule 0.8 mm ID (Long) 85% Vespel / 15% Graphite, Pkg. 10	CC-100028
1/16" GC Ferrule 0.9 mm ID (Long) 85% Vespel / 15% Graphite, Pkg. 10	CC-100029
1/16" GC Ferrule 0.5 mm ID (Long) Two-hole 85% Vespel / 15% Graphite, Pkg. 10	CC-100030
1/16" GC Ferrule 0.3 mm ID (Long) Two-hole 85% Vespel / 15% Graphite, Pkg. 10	CC-100031
1/16" GC Ferrule 0.4 mm ID Agilent Style 85% Vespel / 15% Graphite, Pkg. 10	CC-100032
1/16" GC Ferrule 0.5 mm ID Agilent Style 85% Vespel / 15% Graphite, Pkg. 10	CC-100033
1/16" GC Ferrule 0.8 mm ID Agilent Style 85% Vespel / 15% Graphite, Pkg. 10	CC-100034
1/4" GC Ferrule 1/4" ID 85% Vespel / 15% Graphite, Pkg. 10	CC-100035

Connections | Vespel/Graphite Ferrules

Description	Part No.
15% Graphite/85% Vespel Mini Union Ferrule with 0.5 mm Hole, Pkg. 10	CC-100037
15% Graphite/85% Vespel Mini Union Ferrule with 0.8 mm Hole, Pkg. 10	CC-100038
1/16" GC Ferrule 0.4 mm ID (Long) Vespel, Pkg. 10	CC-100069
1/16" GC Ferrule 0.8 mm ID (Long) Vespel, Pkg. 10	CC-100070
Graphite Vespel Ferrules for 0.32 mm ID/0.45 mm OD Columns, Pkg. 10	CC-100075
Graphite Vespel Ferrules for 0.53 mm ID/0.65 mm OD Columns, Pkg. 10	CC-100076

Connections | PTFE Ferrules

Description	Part No.
1/16" GC Ferrule 1/16" ID PTFE, Pkg. 10	CC-100039
1/16" GC Ferrule 0.4 mm ID (Long) PTFE, Pkg. 10	CC-100040
1/16" GC Ferrule 0.5 mm ID (Long) PTFE, Pkg. 10	CC-100041
1/16" GC Ferrule 0.8 mm ID (Long) PTFE, Pkg. 10	CC-100042
1/16" GC Ferrule 1.0 mm ID (Long) PTFE, Pkg. 10	CC-100043
1/8" GC Ferrule 1/8" ID PTFE, Pkg. 10	CC-100044
1/8" GC Ferrule 0.5 mm ID PTFE, Pkg. 10	CC-100045
1/4" GC Ferrule 1/4" ID PTFE, Pkg. 10	CC-100046
1/4" GC Ferrule 1/8" ID PTFE, Pkg. 10	CC-100047
1/4" GC Ferrule 3/16" ID PTFE, Pkg. 10	CC-100048

GC Ferrules

Connections SilTite Ferrules and Unions	
Description	Part No.
SilTite Kit 10/32" 0.25 Column, Pkg. 1	CC-100049
SilTite Ferrule 1/32 Column, Pkg. 10	CC-100050
SilTite Ferrule 0.25 Column, Pkg. 10	CC-100051
SilTite Ferrule 0.32 Column, Pkg. 10	CC-100052
SilTite Ferrule 0.53 Column, Pkg. 10	CC-100053
SilTite Ferrule Shimadzu 0.10-0.25 mm ID Columns 0.25, Pkg. 10	CC-100055
SilTite Mini Union Ferrule 0.25 Columns, Pkg. 10	CC-100057
SilTite Mini Union Ferrule 0.32 Columns, Pkg. 10	CC-100058
SilTite Mini Union Ferrule 0.53 Columns, Pkg. 10	CC-100059
SilTite Micro Union 0.35 to 0.35, Pkg. 1	CC-100060
SilTite Micro Union 0.4 to 0.4, Pkg. 1	CC-100061
SilTite Micro Union 0.4 to 0.8, Pkg. 1	CC-100062
SilTite Micro Union Ferrule 0.4-0.4, Pkg. 10	CC-100063
SilTite Micro Union Ferrule 0.4-0.8, Pkg. 10	CC-100064
SilTite Micro Union Ferrule 0.5-0.8, Pkg. 10	CC-100065
SilTite Micro Union Re-order 0.4-0.5 / 0.4-0.5, Pkg. 5	CC-100066
SilTite Micro Union Re-order 0.4-0.5 / 0.8, Pkg. 5	CC-100067
SilTite Fingertite Ferrule 0.4 mm, Pkg. 10	CC-100068



Ferrules for AFP Gas Chromatography Valves

Description	1/16"	1/8"
	Part No.	Part No.
Brass Ferrules	FFH-0202-VL0	FFH-0404-VL0
Gold Plated Ferrules	FFH-0202-VB1	FFH-0404-WB1
Hastelloy C-22 Ferrules	FFH-0202-VD0	FFH-0404-WD0
Stainless Steel Ferrules	FFH-0202-VB0	FFH-0404-WB0