Vent-free GC/MS Adapter

A simple interface used with Py-GC/MS allowing easy switching of separation columns.

Vent-free GC/MS Adapter[1] is a simple and useful interface used for GC/MS analysis, and allows switching of a GC separation columns while the MS detector is in operation by connecting a highly deactivated capillary tube (id 0.15 mm, length 50 cm or 70 cm) between the separation column and the MS detector. Changing columns takes only a few minutes.

The Vent-free GC/MS Adapter is especially useful when a Py-GC/MS separation column and a capillary tube for evolved gas analysis (EGA) are switched between analysis using a Multi-Shot Pyrolyzer. The Vent-free GC/MS Adapter is engineered and manufactured by Frontier Laboratories.

1) C. Watanabe, et al., Anal. Sci., 2011, 27(11), 1087

Features

- It allows fast switching of a separation column and/or an EGA tube without venting the MS detector which saves time and increases productivity.

- When the Vent-free GC/MS Adapter is not in use, attach a plug at the end of the VF tube as shown in the figure on the right. This will greatly save the consumption of the carrier gas.

（He）
Carrier gas OFF
Column
VF tube   Plug
ECO

- The VF tube is rugged and inert and will not absorb polar species when in use.

- Vent-free GC/MS Adapter is easily installed by users.
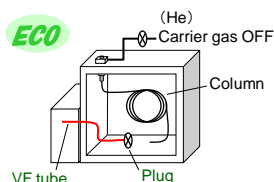
Specifications

- Supported GC/MS

  Part number: MS402280 (1 set)
  - Agilent (5977, 5975, 5973）
  - Shimadzu (QP2010)
  - JEOL (K9, etc.)
  - Thermo Fisher (DSQ, ISQ series): TRACE1300/1310 GC

  Part number: MS402290 (1 set)
  - Thermo Fisher (DSQ, ISQ series): TRACE Ultra, Focus GC
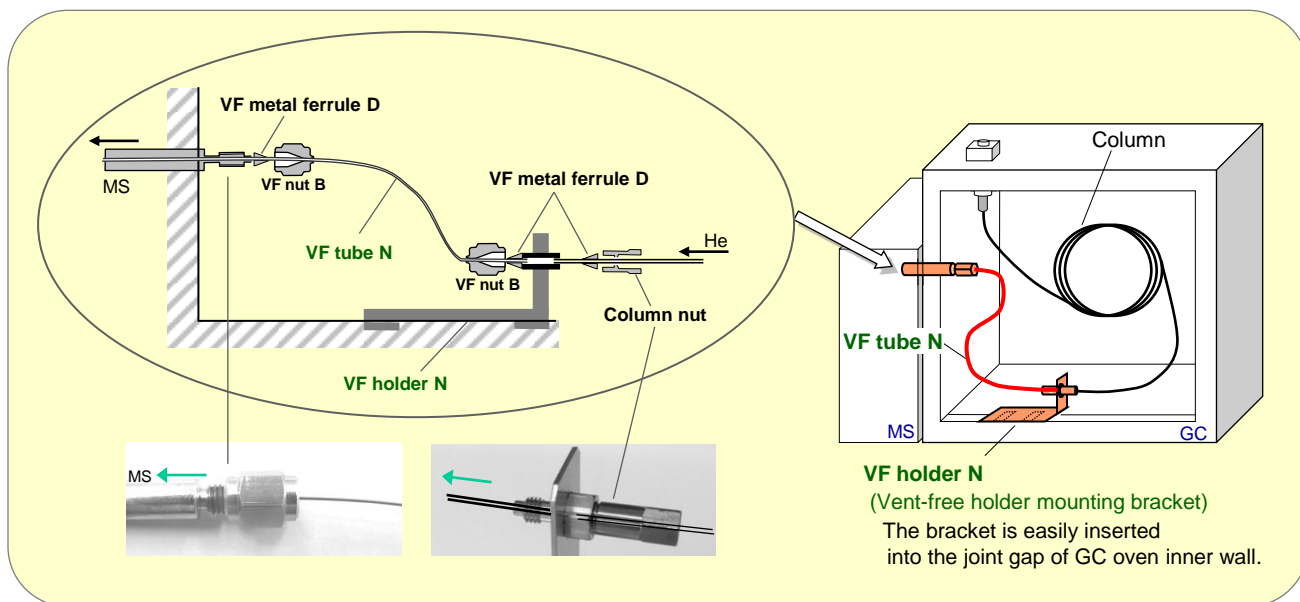
  Part number: MS402295 (1 set)
  - PerkinElmer (Clarus series)
  - Other Quadrupole GC/MS

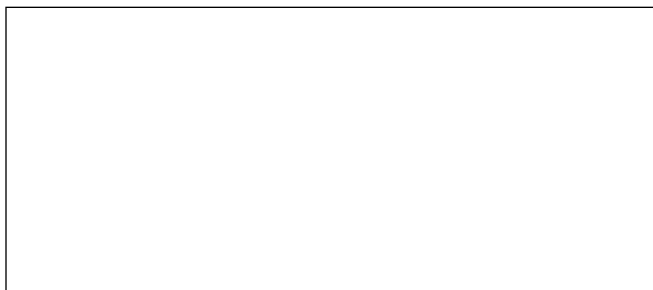- Maximum temperature: 400ºC (320ºC for MS402290)

- Column
  - Ultra ALLOY™ (0.15 / 0.25 mm i.d.）
  - Fused Silica (0.25 / 0.32 mm i.d.)

    * TM : Trademark of Frontier Laboratories Ltd.

Flow diagram of Vent-free GC/MS Adapter connected to a GC/MS