

IMPORTANT

1. Use only PEEK ferrules.
WARNING: FRIT ASSEMBLY WILL BE DAMAGED IF METAL FERRULES ARE USED FOR CONNECTIONS.
2. PEEKsil or stainless steel 1/16" OD tubing(1) may be used to connect the column to injector and detector. For best results use short pieces of 1/16" OD capillary tubing 0.10" (0.25mm) ID or smaller.

With high performance systems significant efficiency will be lost if long length of large ID tubing are employed or if tubing ends are not correctly sealed into the frit assembly.

For a ferrous free HPLC system it is suggested 1/16" PEEKsil be used.

If stainless steel tubing is employed, it must be burr free before inserting into the connector.

UNITED STATES OF AMERICA

SGE, Incorporated
Telephone : +1-512-837 7190
Toll Free : (800) 945 6154
Fax : +1-512-836 9159
E-mail : usa@sge.com

AUSTRALIA AND PACIFIC REGION

SGE Analytical Science Pty Ltd
Phone: +61-3-9837 4200
Fax: +61-3-9874 5672
E-mail: support@sge.com

UNITED KINGDOM

SGE Europe Ltd
Phone: +44-1908-568 844
Fax: +44-1908-566 790
E-mail: uk@sge.com

FRANCE

SGE Europe Ltd. (France)
Phone: +33-1-69 29 80 90
Fax: +33-1-69 29 09 25
E-mail: france@sge.com

GERMANY

SGE GmbH
Phone: +49-6151-860 486
Fax: +49-6151-860 489
E-mail: germany@sge.com

JAPAN

SGE Japan Inc
Phone: +81-45-222 2885
Fax: +81-45-222 2887
E-mail: japan@sge.com

INDIA

SGE Laboratory Accessories Pvt Ltd
Phone: +91-22-24715896
Fax: +91-22-24716592
E-mail: sgeindia@vsnl.com

CHINA

SGE China Service Centre
Phone: +86-10-6588 8666
Fax: +86-10-6588 6577
E-mail: sales@jindustries.com.cn

MIDDLE EAST

SGE Gulf
Phone: 00 971 - 6 - 557 3341
Fax: 00 971 - 6 - 557 3541
email: gulfsupport@sge.com

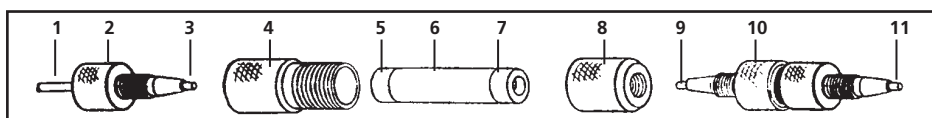


GUARD CARTRIDGE INSTALLATION PROCEDURE



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Exploded diagram of a guard cartridge.

1. If the LC system has not been operated for some time or if new capillary tubing has been installed, **FLUSH THE LINES FREE OF PARTICLES BEFORE ATTACHING THE GUARD CARTRIDGE OR COLUMN.**
2. Remove the Guard Cartridge(6) from the storage container.
3. Insert the Guard Cartridge(6) into the Metal Housing(4) of the Guard Cartridge Holder, locate and finger tighten the knurled Holder Endfitting(8) until leak tight.
4. Insert 1/16" OD tubing(1) into the Male Fitting(2) supplied and allow the tubing to protrude 5mm beyond the fitting(3).
5. Insert and finger tighten the connector(2), from the pump, into the Guard Cartridge holder end fitting(4) ensuring the tubing remains bottomed against the Cartridge Frit Assembly(5) during the tightening procedure.
6. Insert the pre-cut PEEKsil™(9) into SGE's Guard Cartridge-Column Coupler(10) (available from your SGE supplier), allowing one end of the PEEKsil to protrude 5mm beyond the end of the fitting(9).
7. Connect the Coupler to the Guard Cartridge(8) ensuring the tubing remains bottomed against the Cartridge Frit Assembly(7) during tightening procedure.
*If a Coupler is not available, use a short length of 1/16" capillary tubing to connect the Guard Cartridge to Column.
8. Allow approximately 15mL of mobile phase to flush through the Guard Cartridge before connecting the Cartridge to the column.
9. Allow the other end of the Coupler PEEKsil to protrude 5mm beyond the end of the Coupler, connect the Coupler to the column ensuring the tubing remains bottomed against the Column Frit Assembly during tightening procedure.
NOTE: The SGE column coupler allows for easy connection to other brand columns as well. Just ensure that the guard cartridge phase matches that of the column.

10. After connecting the Guard Cartridge and Column to the LC system, begin to pump the appropriate mobile phase at low flow rate to equilibrate the column. Gradually increase the flow to the operation level and check for leaks. If leaking does occur after persistent hand tightening, replace the leaking fitting or ferrule.

REPLACEMENT OF GUARD COLUMNS

The **efficiency** of the Guard Cartridge will affect the overall efficiency of your chromatographic system. A decrease in system efficiency may indicate deterioration of the Guard Cartridge. A reduction in system efficiency will be indicated by an observed change in:

1. Retention of a particular compound
2. Resolution between two compounds
3. Peak shape
4. Excess back pressure across the Guard Cartridge

If a decrease in system efficiency is observed your Guard Cartridge may need to be replaced. (visit www.sge.com for ordering information)

STORAGE OF GUARD CARTRIDGES

Before storing the Guard Cartridge for extended periods, it should be washed as set out under the specific 'Washing Regeneration Procedure', listed in the 'Column Instructions' for the Guard Cartridge type. **Note the Guard Cartridge and columns should be washed separately to avoid column contamination.**

After following the washing regeneration procedure, the Guard Cartridge may be stored using one of the following procedures:

1. Fill the Guard Cartridge with the appropriate solvent (see SGE's Column Instruction), and plug the end of the Guard Cartridge Holder with Polyplug Male plugs (supplied).
2. Remove the Guard Cartridge from the Cartridge Holder and store the Cartridge in its original packaging.