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## Guard Cartridge Hardware Improvement

Dear Chromatographer

Hichrom Limited are pleased to announce the acquisition of the Vydac®, Alltima®, Alltima® HP, Prevail™, Apollo™, Allsep™, Apex™ and Genesis™ analytical HPLC column ranges from Grace. Following a detailed technical review, a hardware improvement has now been implemented to the Alltech® All-Guard Cartridge System, which supports these column ranges.

The new improved hardware provides a higher pressure rating and lower internal swept volume, resulting in more robust, higher efficiency separations. Chromatographic selectivity will remain unaffected by this change. Pack size and pricing also remain unchanged, with the same extensive range of matched guard cartridges available to fully support the complete column range.

Guard cartridges and holders supplied in this new improved hardware are denoted by an "N" at the end of the previous part number (eg; for a 3 pack of Alltima 5µm C18 All-Guard Cartridges, old hardware p/n = 96080, new p/n = 96080/N). To assist identification, an image of the new improved hardware is also detailed overleaf.

Please note that the new guard cartridges and holders are **not** compatible with the old design guard cartridges and holders. **To assist with the transition, existing users may return their old format holder assembly and exchange this for a new holder assembly and the appropriate guard/column coupler at no charge.**

Part Number	Description
80101/N or 3112782/N	All-Guard Cartridge Holder (for 2.1 – 4.6 mm id columns)
HI-081	Column Coupler for All-Guard Cartridge Holder (standard column port)
HI-881	Column Coupler for All-Guard Cartridge Holder ("Waters" type column port only)
HI-226	Analytical Guard Holder Wrench Set – contains a pair of 9/16" stainless steel wrenches
HI-050X	Hichrom PEEK Fingertight Fittings (10/pack) – suitable for connection of HPLC columns and guard holders to all 1/16" tubing types, are compatible with both standard and Waters port designs, and are slip free to >5000 psi

For further information or assistance please contact the Technical Support Group at Hichrom by one of the following options;

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## All-Guard Cartridge Installation Instructions

- 1) Remove the plastic column endstops used for shipping and storing the HPLC column. Insert the Column Coupler for the All-Guard Cartridge Holder at the column inlet and finger tighten the coupler onto the column. For standard port columns, p/n HI-081 is required. For Waters port columns, p/n HI-881 is required. **If you are unsure of the port geometry of your column, please refer to the latest part number/price list at [www.hichrom.co.uk](http://www.hichrom.co.uk) or contact the Hichrom Technical Support Team via [technical@hichrom.co.uk](mailto:technical@hichrom.co.uk).**
- 2) Insert the guard cartridge into the All-Guard holder assembly. Hand tighten the holder lid onto the holder main body. Initially hand tighten, then using a pair of 9/16" wrenches (p/n HI-226) tighten a further ¼ turn to seal the holder lid onto the holder main body (the spanners should grip the holder lid and holder main body). It is recommended that this seal is not disturbed until the guard cartridge reaches the end of its useful life.
- 3) Attach the All-Guard holder to the coupler end that is protruding from the column inlet (previously installed in step 1), and finger tighten.
- 4) Connect the column and guard assembly to the HPLC system using PEEK fingertight fittings (p/n HI-050X). When not in use, insert column endstops (p/n HI-001) at the holder inlet and column outlet to prevent the column from drying out.
- 5) Replace the guard cartridge when pressure starts to increase and/or chromatography deteriorates.
- 6) To remove the guard cartridge, simply detach the holder from the column coupler (leaving the coupler connected to the column inlet), then use a pair of 9/16" wrenches (p/n HI-226) to loosen the holder lid from the holder main body (the wrenches should grip the holder lid and holder main body). Remove the used guard cartridge and dispose of as detailed within Step 7. Reinsert the new guard cartridge, then tighten the holder as detailed by Step 2, reattach the holder to the column as detailed by Step 3 and connect to the HPLC system as detailed by Step 4.
- 7) Used columns and guards should be disposed of in accordance with local regulations, typically similar to those applied to the samples which have been injected onto the column and guard. Further information is detailed on the reverse of the QC test chromatogram supplied with every column.

### Hichrom All-Guard System

