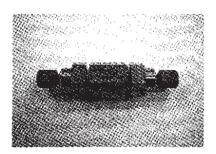
INSTRUCTION MANUAL

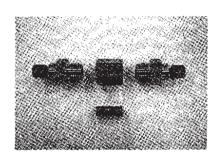
Guard Cartridge and Cartridge Holder for These Columns: CHIRALCEL® OJ-RH, OD-RH, OD-R, OJ-H, OD-H, OB-H CHIRALPAK® AD-RH, AS-RH, AD-H, AS-H, IA, IB, QD-AX, QN-AX

Introduction:

The Guard Cartridges for the CHIRALCEL® OJ-RH, OD-RH, OD-R, OJ-H, OD-H, and OB-H, and the CHIRALPAK® AD-RH, AS-RH, AD-H, AS-H, IA, IB, QD-AX, QN-AX have been designed fully to protect your each analytical columns. Installation of the cartridges between the injection system and the analytical column will prevent any contamination of the column from your sample and will increase its lifetime. The 10 x 4mm cartridges are packed with the same Chiral Stationary Phase as each analytical columns. The Cartridge Holders have been developed to maximize the overall system performance by reduction of dead volumes and to give leak-free use.

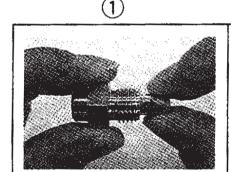
Description:





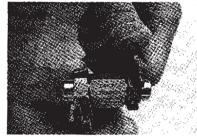
The device comprises two pieces, i.e. a guard cartridge and a holder.

Assembly:



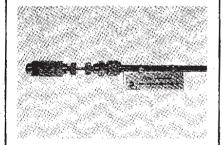
Place the cartridge in the holder end fitting marked "IN", ensuring that the arrow marking the flow direction on the cartridge points away from the fitting

2



Assemble the holder, tightening the end fittings snugly with appropriate wrenches to ensure a leak-free unit.

3



Connect the guard column unit to the analytical column with a short length of capillary tubing, taking care that the flow direction is correct.

Important:

- Ensure that the CSP in the Guard Cartridge matches that in the analytical column.
- Check that the flow direction as marked on the cartridge and holder is correct.
- Use as short length of connection tubing as possible in the installation; use tubing with diameter of 0.25mm or less.
- The cartridge lifetime is very dependent upon the operating conditions, but normally it should be replaced after around 100 hours of use.

