# Using Redi*Sep*<sup>®</sup> Columns on Biotage Systems



Chromatography Technical Note TN63

# How to use Redi*Sep* Columns on Biotage Systems

Teledyne ISCO's Redi*Sep* columns have a one-piece design with Luer end fittings. This allows users to experience the RediSep advantage with non-Teledyne ISCO instruments such as the Biotage Isolera One and Selekt.



#### Installation

Unlike the Teledyne ISCO's CombiFlash systems, the Biotage systems do not have a column shuttle to secure the column and use tubing to connect to both ends of the column. Fortunately, due to the design of the Redi*Sep* columns, no additional parts are needed to run a separation on either the Selekt or Isolera. Installation is simple:

- Hand tighten the female ending of the C1 or C2 (Selekt only) line to the top of the RediSep column.
- 2. Similarly, the bottom of the column can be pushed into the female ending of the return line.

**Figure 1.** Redi*Sep* Column connected to the inlet (C1 or C2) line and return line.

#### **Using Columns in the Software**

Before the separation begins, the Redi*Sep* column must first be added as a column type on the Biotage systems.

- 1. To add a column on a Biotage system select "Data Administration" from the main menu. Press "Column Administration" and select "New".
- 2. Once "New" is selected use the Redi*Sep*'s informative label to fill out the information regarding the column.
  - a. It is recommended to set the equilibration volume to 6 CV (column volumes) for columns less than 100 g. For columns over 100 g, 3 CV is sufficient for equilibration.
  - b. If using a reusable Redi*Sep* Gold C18, C18Aq, C8, or Amine, it is also advised to set the "Air Flush Length" to the lowest setting. This is to prevent the column from drying out and to reduce channeling.
- 3. Once all the information is entered, press "Save" or "OK". The Redi*Sep* column is now ready for use on the Biotage system.

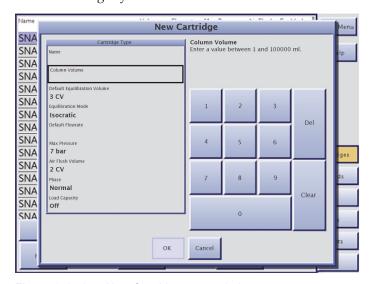


Figure 2. Isolera New Cartridge setup window.

<u>Technical Note 60</u> briefly explains how to use column volumes to program or scale up a method.

### **Liquid Injection**

After equilibration, the sample will need to be injected.

The female ending must be removed from the top of the column, and then a syringe can be used to inject the sample.

The female ending should then be hand tightened back to the top of the column.

"Start Run" can then be selected on the Selekt or "Play Gradient" on the Isolera to start the separation.

## **Solid Sample Loading**

#### ✓ Note

The solid load cartridge should be attached to the Biotage system after equilibration is complete.

Additional parts are needed to perform solid loading on a Biotage system with a Redi*Sep* solid load cartridge.

- 1. The female ending on the C1 line needs a female Luer to 5/16-24 male adapter (Idex PN P-661). This adapter can be hand tightened to the end of the C1 line.
- 2. Once in place the adapter can be hand tightened to the solid load cartridge cap.
- 3. The bottom of the solid load cartridge will attach to the top of the column. A 1/4 turn is sufficient to secure the cartridge to the column.



**Figure 3.** Redi*Sep* Solid Load Cartridge setup on a Biotage system.