Using RediSep[®] Columns on Büchi Systems



Chromatography Technical Note TN64

Using Redi*Sep* Columns on Büchi Systems

Teledyne ISCO's Redi*Sep* columns have a one-piece design with Luer-end fittings. This allows users to experience the Redi*Sep* advantage with non-Teledyne ISCO instruments such as the Büchi flash chromatography systems.



Figure 1. Redi*Sep* Column connected to a column shuttle on a Büchi C-815 system.

Installation

Büchi chromatography systems are like Teledyne ISCO's CombiFlash systems as both sets of systems come equipped with column shuttles to connect and secure the column. This similarity makes the use of Redi*Sep* columns on Büchi systems quite simple:

- 1. Lift the clamping plate and pull the upper part of the column holder up. This will create space to add the column.
- 2. Insert the bottom of the Redi*Sep* column into the base of the column holder.
- 3. Lower the upper part of the column holder down into the top of the column.

Using the Column Via the Software

Once the Redi*Sep* column is installed to the system, the column parameters need to be set up in the system. The Büchi system does not allow for new columns to be added but "Generic Silica" and "Generic C18" can be selected for columns:

- 1. Press "Select column" in the upper left-hand corner.
- 2. A drop-down menu will appear. Select "Generic." From there, choose the silica or C18 size that most closely resembles the Redi*Sep* column.

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Detection Se	ensitivity: () ()	Low OH Low OH	igh igh	Th	reshold UV ELSE	Generic Generic Generic Generic	Silica 2 Silica 4 Silica 8 Silica 1 Silica 2	4g 0g 0g 20g 20g	UV	Scan Start / Start /	A: 254 A: 400
Solvents: A: n-Heptane B: Toluene	2	1 0 2 0	V		Tab 10	Generic Generic Generic	Silica 3 Silica 7 Silica 1	30g 50g 500g	Collec	t	

Figure 2. Selecting generic columns on a Büchi system.

- a. The system will then use a default flowrate, equilibration length, run length, and air purge length for the column selected. However, it is recommended to use the ideal Redi*Sep* parameters. The ideal flowrate is labeled on the Redi*Sep* column. The equilibration volume is 6 CV (column volumes) for columns less than 100 g and 3 CV for columns over 100 g.
- b. If using Redi*Sep* Gold C18, C18Aq, C8, or Amine columns, it is also advised to set the "Air Purge Time" to 0 to prevent channeling. All these parameters can be adjusted by pressing the black outlined boxes and entering the correct value.

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

Liquid Injection

If using liquid injection, the sample can be added through the injection port. Leave the syringe in the injection port until the separation is complete.

Solid Sample Loading

✓ Note

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

Additional parts are needed to run a RediSep solid load cartridge on a system.

- To the inlet line, a female Luer to 5/16-24 male adapter (Idex[™] PN P-661) and a male Luer to 1/4-28 female adapter (Idex PN P-655) are needed.
- 2. The adapters can be hand tightened to each other.
- 3. The top of the P-655 adapter can then be hand tightened to the inlet line.
- 4. A female Luer to 1/4-28 male adapter (Idex PN P-604) is also needed at the bottom of the solid load cartridge.
- 5. The bottom of the P-604 adapter will be hand tightened to the top of the column holder.



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

specifications, replacement parts, schematics, and instructions without notice.

Teledyne ISCO is continually improving its products and reserves the right to change product

