Operating Redi*Sep*® Flash Columns Using Pressurized Solvent Reservoir Systems

Chromatography Application Note AN07

Application Overview

With a minimum of supplies and a few modifications, it is possible to operate Redi*Sep* Flash columns on an air driven system intended for cartridge type columns.

Loading capacities are comparable for similar column sizes.

There are several advantages to using the Redi*Sep* columns rather than the cartridge type columns:

Linear velocity — The Redi*Sep* columns allow approximately four times the flow rate over that of cartridge systems. This means that more separations can be performed in the same amount of time.

Convenience — The Redi*Sep* columns are much easier to change than cartridges, which require disassembly and reassembly. Changing cartridges usually results in spilling of solvent. Redi*Sep* columns are not disassembled but merely disconnected, thereby reducing the chance for spillage.

Compatibility — Redi*Sep* columns are compatible with air driven cartridge systems, and more importantly, they are compatible with Teledyne Isco's Combi*Flash*® instruments. Instrumentation allows significant advantages in accuracy, automation, and timesavings over simple air driven systems.

Kit Contents (P/N 60-2204-015)

Enclosed in this kit you will find:

- *Inlet tube (P/N 60-2204-013)* – this tube has the red male luer fitting on one end and the union on the other.
- *Outlet tube* (P/N 60-2204-014) – this tube has the red female luer fitting on one end and a stainless fitting on the other.
- *Columns* – Install and run columns similar to what is shown in Figure 1.

Procedure

1. Cut the existing inlet tubing about mid-length. The union provided in the kit will allow reconnection of solvent inlet lines.
2. Attach the supplied union and fittings to the tubing.
3. Attach the luer lock fitting to the inlet of the Redi*Sep* column.
4. Remove the outlet line from the instrument.
5. Install the supplied outlet tubing line and attach the luer fitting to the outlet of the Redi*Sep* column.
6. Mount the Redi*Sep* column. It may be necessary to use a ring stand.
7. Adjust air pressure to 10 psi.

General Method

After the column has been connected, the apparatus can be operated much in the same manner that the cartridge column was.

The Redi*Sep* column will allow higher flow rates and therefore higher pressure is allowed. Do not exceed 45 psi.

Figure 1: Redi*Sep* column on pressurized solvent reservoir system

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Teledyne Isco, Inc.
P.O. Box 82531, Lincoln, Nebraska, 68501 USA
Toll-free: (800) 228-4373 • Phone: (402) 464-0231 • Fax: (402) 465-3091
E-mail: info@isco.com

TELEDYNE ISCO
A Teledyne Technologies Company