

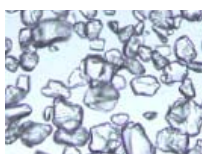


# VersaPak® I-Style and A/B-Style Flash Cartridges

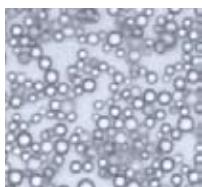
Spherical silica flash cartridges for use in Isco, Biotage and Analogix flash systems to improve performance of existing flash systems.

The new VersaPak I-style and A/B-style cartridges are packed with smaller (20-45 µm) spherical silica which significantly increases the efficiency and sample loading capacity of the cartridges compared to common flash cartridges with irregular silica. These new cartridges are directly compatible with Isco, Biotage and Analogix flash systems and allow users to expand the capabilities of these systems.

## Expand the Capabilities of Existing Flash Systems



Irregular Silica



Spherical Silica

VersaPak cartridges allow users to expand the capabilities of existing flash hardware without additional capital investment. Spherical silica shows higher efficiency than irregular silica, plus the smaller particle size of the spherical packing also extends the efficiency. This unique combination of smaller spherical silica increases the efficiency that standard flash cartridges can provide by 2-3 times.

## What this means is:

- **Better resolution** of difficult to separate compounds
- Approximately **double the sample loading capacity**
- **Samples can be run at higher flow rates** and achieve equivalent or superior separation while saving time and solvent.
- **Use of smaller cartridges** for the same sample size (reduce solvent use, fraction collection volumes and rotovap time)
- **Lower cartridge pressure drop** due to more unified packing bed allows faster flow rates
- **Double the maximum sample loading capacity for Isco Companion® flash systems.** The largest Isco cartridge compatible with this system is 330 g. Due to the higher efficiency, the VersaPak cartridges have approximately double the sample capacity. With the use of a reusable adapter (97767-U) one can install a 80 mm VersaPak cartridge with 400 g of silica leading to an approximate equivalent efficiency of a 800 g cartridge with irregular silica.

Figure 1. Comparison of Separation Efficiency

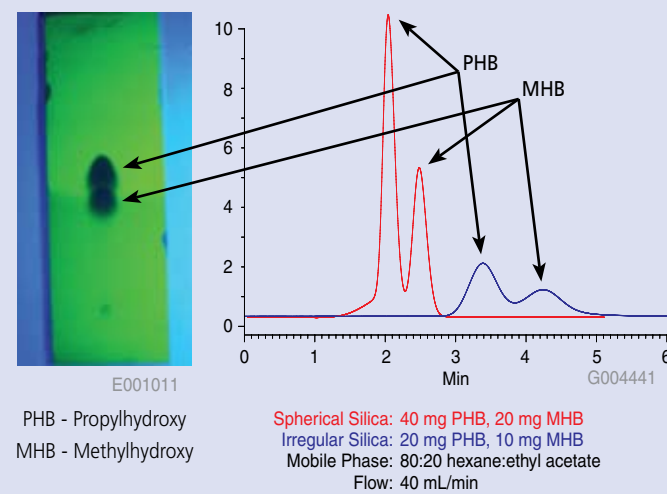


Figure 1 shows the separation of p-hydroxybenzoate and methyl-hydroxybenzoate, which as the TLC plate shows, is a difficult separation. We loaded twice as much sample on the 23 g VersaPak cartridge compared to the 40 g competitive cartridge and were still able to get an equivalent separation in a shorter run time. The end result is reduced cartridge cost, less than half the time to separate the sample, less than half the solvent use and smaller fraction size all translating to significant overall savings as shown in Table 1.

Table 1. Total Cost Comparison of VersaPak Spherical Silica vs. Competitor Irregular Silica Cartridges

	VersaPak Cartridge	Competitor Cartridge
Cartridge Size (g)	23	40
Silica Type	Spherical	Irregular
Sample Load (PHB/MHB)	40 mg/20 mg	20 mg/10 mg
Cartridge List Price (\$)	14.5	20.13
Run Time / Labor (min.)	3	8.5
Labor rate (\$/Hr):	\$100.00	\$100.00
Labor Cost (\$):	\$5.00	\$14.17
<b>Total Cost* (\$):</b>	<b>\$19.50</b>	<b>\$34.30</b>
Flow Rate (mL/min.)	40	40
Solvent Used (mL)	120	200
Solvent Vol. reduction:	-40%	0
Fraction Sizes (PHB/MHB) (mL)	10/10	30/30

\* This does not include the additional cost savings related to lower solvent use and solvent disposal cost



VersaPak I-style Cartridges in an Isco Flash System E001013



VersaPak I-style Cartridges E001012

### VersaPak I-style Cartridges for Isco Companion Flash Systems

The VersaPak I-style cartridges are directly compatible with Isco flash systems, which means they can be used directly in the system without the use of adapters. The cartridge inlet has a female luer lock fitting so it attaches securely to the Isco system. The outlet of the cartridge has a male slip luer fitting so it attaches in the same way as the Isco RediSep™ cartridges.

### VersaPak A/B-style Cartridges for Analogix and Biotage Flash Systems

The VersaPak A/B-style cartridges are directly compatible with Analogix flash systems, which means they have the exact same inlet and outlet fittings as the Analogix cartridges and therefore fit directly into these systems without the need for adapters. The A/B-style cartridges can also be used in Biotage flash systems by removing the compression barrel and attaching finger-tight luer lock fittings on the inlet and outlet tubing that then connect directly to the cartridges. This allows Biotage customers to use different sizes and brands of cartridges without the need to purchase additional expensive compression barrels.

**Trademarks:**

VersaFlash, VersaPak – Sigma-Aldrich Biotechnology LP  
Companion, RediSep – Teledyne

### Ordering Information

Description	Qty.	Cat. No.
<b>VersaPak I-Style (for Isco Systems), 20 - 45 µm spherical silica</b>		
23 x 53 mm, 11 g	20	97787-U
23 x 110 mm, 23 g	20	97788-U
40 x 75 mm, 50 g	12	97789-U
40 x 150 mm, 100 g	6	97790-U
<b>VersaPak A/B-Style (for Analogix &amp; Biotage Systems)</b>		
20 - 45 µm spherical silica		
23 x 53 mm, 11 g	20	97791-U
23 x 110 mm, 23 g	20	97792-U
40 x 75 mm, 50 g	12	97793-U
40 x 150 mm, 100 g	6	97794-U
<b>Other Isco Compatible Cartridges</b>		
80 x 150 mm, standard, 400 g	2	97763-U
80 x 300 mm, I-Style XL, 800 g (for use in Isco Companion XL systems)	1	97795-U
PEEK Adapters for use w/80 mm cartridges in Isco systems	1	97767-U

The VersaFlash stand can accommodate cartridges from 11 g to 1,300 g.

For more information on VersaPak cartridges and the VersaFlash system, or to order the VersaFlash CD, please visit [sigma-aldrich.com/versaflash](http://sigma-aldrich.com/versaflash)

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