

Flash Cartridge Selection Guide

Reveleris® Flash Chromatography System

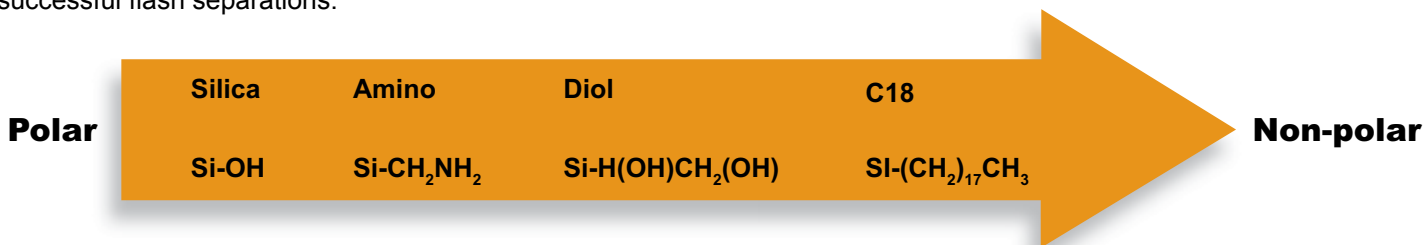
Flash Separation

Flash chromatography is a simple, often automated, low to medium pressure liquid purification technique used to rapidly isolate desired compounds or reaction intermediates from simple or complex mixtures. Purifying these important components at sufficient quantity and purity can be challenging when performing a flash separation using bare silica. Selecting an appropriately bonded stationary phase with suitable alternate mobile phases may be necessary since:

- Mixtures vary in complexity, including the number of components, compound class, polarity, and molecular weight, etc
- Bare silica may not be the optimal stationary phase for the compounds due to lack of retention, solubility, poor peak shape, and compound stability, etc

Selecting the Optimum Stationary Phase

Media phases differ in polarity according to the chart below and changing stationary phases is a powerful tool to achieving successful flash separations.



Media Selection Guide

Phase Selection Guide				
Compound Class	Si	C18	Amino	Diol
Alkaloids	X	X	X	
Amino acids		X		
Aromatics	X	X	X	X
Carbohydrate		X	X	
Drug Intermediates	X		X	
Basic Drug Products		X	X	X
Flavonoids		X		
Glycosides		X	X	X
Isomers		X		X
Lipids		X		X
Lignans	X	X		
Polyphenols		X		X
Saponins	X	X		
Steroids		X		
Tannins		X		
Terpenes	X	X		X
Vitamins	X	X	X	X
Xanthenes		X	X	X
Peptides <5000mw	x	X		
Oligonucleotides <5000mw		X		
Nucleosides/tides		X		
Pegylated		X		X
Secondary metabolites		X		

Guidelines:

- For compounds classes for which multiple media options are indicated, phase preference is further determined by extent of sample component acidic/basic nature and overall polarity
- For maximum resolution, reversed phase C18 using aqueous mobile phase is often selected as the primary option, especially for polar samples having a strong affinity for silica
- For difficult purifications of closely-related compounds, smaller particle media packings or higher pressure techniques may need to be employed to achieve separation
- Larger, sensitive or charged molecules may require lower flow and pressures common for ion exchange, size exclusion or affinity chromatographic techniques (Vaccines, DNA, intact proteins, and peptides >5KDa)



Cartridge Ordering Information

Reveleris® SRC Cartridges (up to 200psig)		
Description	Qty	Part No.
Silica 4g	20	5146130
Silica 12g	20	5146131
Silica 40g	15	5146132
Silica 80g	12	5146133
Silica 120g	10	5146134
Silica 330g	4	5146135

Reveleris® Bonded Flash Cartridges (up to 200psig)				
Size	Qty	Amino Part No.*	Diol Part No.	C18 Part No.
4g	Each	5157330	5157335	5152990
12g	Each	5157331	5157336	5152103
40g	Each	5157332	5157337	5152104
80g	Each	5157333	5157338	5152105
120g	Each	5157334	5157339	5152991

*Also available in packages of 10.

Consumable and Accessory Ordering Information

For your convenience, additional consumables and accessories may expand the use of the Reveleris® flash system and include the following.

Reveleris® HPLC Columns and TLC Plates		
Description	Qty	Part No.
LC Column C18 4.6x50mm	3	5156381
LC Column C18 4.6x150mm	3	5156382
LC Column C18 4.6x250mm	3	5156383
Silica TLC Plates 20x20cm	25	8621250
Silica Aluminum-backed TLC Plates 20x20cm (no UV)	25	8628492
Silica Aluminum-backed TLC Plates 20x20cm (UV254nm)	25	8628490

Solid Loaders		
Description	Qty	Part No.
Empty 3g	100	5142050
Empty 15g	100	5142051
Empty 40g	50	5147808
Silica 3g	20	5152371
Silica 15g	16	5142034
Silica 40g	12	5147772
Adjustable 3g plunger	1	5148510
Adjustable 15g plunger	1	5148511
Adjustable 40g plunger	1	5148512

Cartridge Kits and Adaptors			
Description	Contains	Qty	Part No.
Reveleris® Silica Cartridge Select Pack	4g, 12g, 40g Si (2)	1	5158903
Radiochem Flash Kit	4g Si, C18, Diol Cartridges (3), 3g loaders (10)	1	5157384
Impurity Isolation Flash Kit	12g C18, Diol Cartridges (2); 4g C18 (1); 120g C18 (1)	1	5157386
Natural Product Flash Kit	12g C18, Si Cartridges (3), 3g loaders (3)	1	5157388
Carbohydrate Flash Kit	12g C18, Amino Cartridges (3)	1	5157385
Lipid Flash Kit	12g Si, C18, Diol Cartridges (3)	1	5157387
Reveleris® System Verification Kit	High Concentration Flash Test Mix (10)	1	5157882
Reveleris® iES System Verification Kit	Low Concentration Flash Test Mix (10)	1	5157883
Flash Cartridge Adaptor Kit (4g-330g to non Luer)	Fittings plus Luer adaptors to 1/4-28	1	5156387
Reveleris® Flow-Diverting Column Bypass	Bypass connector with inlet ports	1	8627100
750g Flash Cartridge Adaptor Kit	Maxi Luer connector and bridge for 750g	1	5157890
1500g Flash Cartridge Adaptor Kit	Maxi Luer connector and bridge for 1500g	1	5156862

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