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Find the *Biotage Horizon* at our website: *Click HERE*

Biotage UK Limited

FLASH 75 CARTRIDGES

KP-Sil (32-63μm 60Å Silica)

Cartridge	Weight grams	Pack Size	Catalogue No.	Price
FLASH 75S	200	2	FK0-1107-19165	**£198**
FLASH 75M	400	2	FK0-1107-19045	**£279**
FLASH 75L	800	2	FK0-1107-19075	**£351**
FLASH 75S	200	10	FK0-1107-19163	**£946**
FLASH 75M	400	10	FK0-1107-19043	**£1,319**
FLASH 75L	800	10	FK0-1107-19073	**£1,660**

KP-C18-HS (35-70μm 60Å C18)

Cartridge	Weight grams	Pack Size	Catalogue No.	Price
FLASH 75S	300	1	FL0-1118-19160	**£580**
FLASH 75M	600	1	FL0-1118-19040	**£1,040**
FLASH 75L	1200	1	FL0-1118-19070	**£1,961**

Diaion HP-20 (250-600μm 300-600Å SDVB)

Cartridge	Volume ml	Pack Size	Catalogue No.	Price
FLASH 75S	400	2	FT6-2030-19165	**£292**
FLASH 75M	750	2	FT6-2030-19045	**£369**
FLASH 75L	1500	2	FT6-2030-19075	**£518**
FLASH 75S	400	10	FT6-2030-19163	**£1,367**
FLASH 75M	750	10	FT6-2030-19043	**£1,670**
FLASH 75L	1500	10	FT6-2030-19073	**£2,596**

Diaion HP-20SS (75-150μm 300-600Å SDVB)

Cartridge	Volume ml	Pack Size	Catalogue No.	Price
FLASH 75S	400	1	FT6-2530-19160	**£338**
FLASH 75M	750	1	FT6-2530-19040	**£586**
FLASH 75L	1500	1	FT6-2530-19070	**£1,089**

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KP-Alumina

Cartridge	Weight grams	Pack Size	Catalogue No.	Price
FLASH 75S	400	10	F2K0-6101-19163	**£990**
FLASH 75M	800	10	F2K0-6101-19043	**£1,319**
FLASH 75L	1600	10	F2K0-6101-19073	**£1,740**

JS/06-03-01

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Biotage, Inc.
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Toll free: 800 446 4752
Fax: 434 979 4743
www.Biotage.com

An ISO9002 Certified Company

CERTIFICATE OF COMPLIANCE
FOR
FLASH COLUMNS AND CARTRIDGES

LOT NUMBER:	75M2741-1
COLUMN/CARTRIDGE PART NUMBER:	FK0-1107-19045
PACKING MATERIAL MANUFACTURER:	BIOTAGE
PACKING MATERIAL TYPE:	KP-SIL, 60Å
PARTICLE SIZE:	32-63µM
MEDIA LOT NUMBER:	0001K/080101F

This is to certify that this column/cartridge has been manufactured using the packing material specified above.

David Worley
Quality Manager

Date 10-01-01

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Biotage, Inc.
A Dyax Corp. Company

1500 Avon Street, Charlottesville, Virginia, 22902, USA

CERTIFICATE OF CONFORMANCE

BOTAGE PART NO:	1107MED0001K	**DESCRIPTION**	KP-Sil, Silica, 32-63µm, 60Å, irregular
CAS NUMBER:	63231-67-4	**Biotage Lot No.**	000IK/080101F

Test Name	Test Method	Requirement	Result	Sign	Date
Appearance	Visual Inspection	White free flowing powder	OK		9-4
Shipping container integrity	Visual Inspection	Each container must be sealed All silica must be inside bag.	VERIFIED		9-4
pH	Vendor certificate of analysis	6.5 minumum 7.5 maximum	6.7		9-4
Water content	Vendor certificate of analysis	4.0% minimum 8.0% maximum	5.2		9-4
Surface area	Vendor certificate of analysis	470m²/g minimum 570m²/g maximum	490		9-4
Pore Volume	Vendor certificate of analysis	0.70 mL/gram mininum 0.90 mL/gram maximum	0.77		9-4
Particle size	Biotage WI-QA-005 (Coulter) Mean, based on volume percent.	32µm minimum 63µm maximum	48.31		9-4

I hereby certify that this material meets the required specification.

David Worley 9-4-01

David Worley - Quality Assurance Manager

KP0001K080101F

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Biotage, Inc.
A Dyax Corp Company

1500 Avon Street Extended
Charlottesville, VA 22902
Tel: (804) 800-446-4752 Fax: (804) 979-4743

Cartridge Limited Warranty

Biotage, Inc. warrants that all cartridges will be of good quality and workmanship, and will meet the product specification for each cartridge. This warranty applies only to the initial test performed at the purchaser's facility upon the initial start-up of the cartridge and expires at the time the purchaser's applies an actual sample to the cartridge. If the cartridge is packed with media provided by the purchaser, the Biotage, Inc. warranty applies only to the plastic tube, frits, and labor required to pack and test the cartridge. Biotage will not be liable for any damage to media provided by the purchaser that may be caused when packed in accordance with our Standard Operating Procedures. Biotage, Inc. makes no warranties with respect to the use of the purchaser's media in the BIOFLASH cartridge. EXCEPT AS SET FORTH ABOVE, ALL OTHER WARRANTIES OR REPRESENTATIONS, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED.

If the purchaser can demonstrate the cartridge fails the limited warranty above, as demonstrated by testing the cartridge in strict compliance with the Biotage, Inc. Standard Operating Procedures, Biotage, Inc. will provide, at its sole option, either a replacement cartridge, packed with the original media or a cartridge packed with new media, at no cost to the purchaser. If such failed cartridge is packed with media provided by the purchaser, Biotage, Inc. will make a reasonable effort to re-pack the original media, or pack a replacement cartridge with new media provided by the purchaser.

IN NO EVENT SHALL BIOTAGE, INC., OR ITS AFFILIATES, BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES. The maximum liability which can be assumed by Biotage, Inc. shall be limited to the invoice price of the cartridge.

Returns

Returns of any product must be authorized in advance. Please contact Biotage, Inc. for a Return Authorization (RA) number and shipping instructions. All claims must be made within thirty (30) days of shipment from Biotage, Inc., or after the initial test at the Purchaser's facility, whichever is first.

Extracted from WI-SA-002 Revision -. Dated 11/23/99

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Charlottesville VA 22902
phone 804 979 2319
toll free 800 446 4752
fax. 804 979 4743

Biotage
A Division of Dyax Corp

Dyax

CERTIFICATE OF COMPLIANCE
FOR
FLASH COLUMNS AND CARTRIDGES

LOT NUMBER:	75S1141-2
COLUMN/CARTRIDGE PART NUMBER:	FK0-1107-19165
PACKING MATERIAL MANUFACTURER:	BIOTAGE
PACKING MATERIAL TYPE:	KP-SIL, 60Å
PARTICLE SIZE:	32-63µM
MEDIA LOT NUMBER:	0001K/030801G

This is to certify that this column/cartridge has been manufactured using the packing material specified above.

David Worley
Quality Manager

Date 4-24-01

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Biotage, Inc.
A Dyax Corp. Company

1500 Avon Street, Charlottesville, Virginia, 22902, USA

CERTIFICATE OF CONFORMANCE

BOTAGE PART NO:	1107MED0001K	**DESCRIPTION**	KP-Sil, Silica, 32-63µm, 60Å, irregular
CAS NUMBER:	63231-67-4	**Biotage Lot No.**	0001K/030801G

Test Name	Test Method	Requirement	Result	Sign	Date
Appearance	Visual Inspection	White free flowing powder	OK		3-23-01
Shipping container integrity	Visual Inspection	Each container must be sealed All silica must be inside bag.	VERIFIED		3-23-01
pH	Vendor certificate of analysis	6.5 minumum 7.5 maximum	6.7		3-23-01
Water content	Vendor certificate of analysis	4.0% minimum 8.0% maximum	4.9		3-23-01
Surface area	Vendor certificate of analysis	470m²/g minimum 570m²/g maximum	502		3-23-01
Pore Volume	Vendor certificate of analysis	0.70 mL/gram minimum 0.90 mL/gram maximum	0.71		3-23-01
Particle size	Biotage WI-QA-005 (Coulter) Mean, based on volume percent.	32µm minimum 63µm maximum	46.19		3-23-01

I hereby certify that this material meets the required specification.

David Worley - Quality Assurance Manager

KP0001030801G

Biotage, Inc.
A Dyax Corp Company

1500 Avon Street Extended
Charlottesville, VA 22902
Tel: (804) 800-446-4752 Fax: (804) 979-4743

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If the purchaser can demonstrate the cartridge fails the limited warranty above, as demonstrated by testing the cartridge in strict compliance with the Biotage, Inc. Standard Operating Procedures, Biotage, Inc. will provide, at its sole option, either a replacement cartridge, packed with the original media or a cartridge packed with new media, at no cost to the purchaser. If such failed cartridge is packed with media provided by the purchaser, Biotage, Inc. will make a reasonable effort to re-pack the original media, or pack a replacement cartridge with new media provided by the purchaser.

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F-SA-001 Revision A, Dated 01/25/01

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Biotage, Inc.
A Dyax Corp. Company

Biotage Customer Update

June 2001
Number 3

Lightning Delivery

High-Performance Same-Day Shipment Service Helps You Meet Your Deadlines

As a valued Biotage cartridge customer, you now receive high-performance **same-day shipment service of cartridge orders!** We all want to work smarter and better. This fast, efficient turnaround helps you meet your deadlines, lowers your stock levels, and gives you the service that you deserve and we want to provide.

Biotage is committed to building long-lasting customer relationships and providing high-performance customer service and delivery. Listening to you and understanding your needs is all part of the Biotage customized approach. We know that having same-day shipment service is important and we are pleased to offer you this service as of June 2001. Looking to the future, our mission is to continue to exceed your delivery and service expectations.

How It Works

- Same-day shipment service of cartridge orders is available for cartridge orders received by 3 p.m. Eastern Standard Time
- All silica and KP-C18-HS™ up to the FLASH 400™ cartridges are shipped the same day when received during designated times
- There is no limit on cartridge quantities that may be ordered
- Service is available for customers or distributors shipping directly to customers
- There is no extra charge for this service
- Overnight delivery charges are the customer's responsibility when requested
- Orders containing equipment/hardware will be scheduled via standard lead times and shipped accordingly unless partial shipments are accepted

Purification by Design™

United States
Biotage, Inc.
PO Box 8006
Charlottesville, VA 22906-8006
Tel: 434-979-2319, Fax: 434-979-4743
Toll-Free: 1-800-446-4752

United Kingdom and Europe
Biotage UK, Ltd., 15 Harforde Court,
Foxholes Business Park, John Tate Rd.
Hertford, England SG13 7NW
Tel: + 44 1992 501535
Fax: + 44 1992 501547

Japan
Biotage Japan, Ltd., K.S. BLDG. 7F
1-31-11, Kichijojihon-cho,
Musashino-shi, Tokyo, Japan 180-0004
Tel: 81 422 281233
Fax: 81 422 281236

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6 01FBulletin 3

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HORIZON™

FLASH Bulletin

Biotage New Product Update

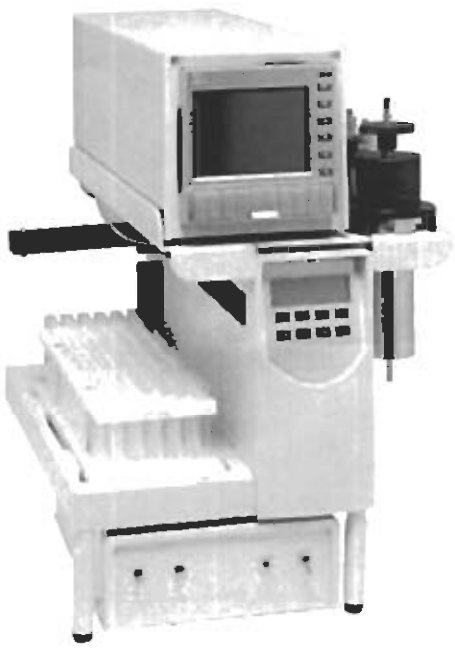
August 2001
Number 4

The New Horizon FLASH System

Performance and Flexibility for your future? Look to the Horizon

The new Horizon FLASH system eliminates your purification worries. The modular system expands with your needs to produce more compounds in ever higher states of purity–often in larger quantities. It delivers a technically innovative modular design, so you buy what you need and expand the system as your needs grow.

The Horizon FLASH system from Biotage is the top of our HPFC line. It combines choice and performance in one flexible, future-proof platform. This easy-to-use, modular, high-performance purification system simplifies and accelerates the purification of milligram to multigram quantities of organic compounds.



The Horizon system includes*

- Automated Horizon FLASH Collector™
- Horizon HPFC Pump™
- Horizon UV Detector/Recorder Module™ with communication/data storage
- Horizon cartridge module platform for 12, 25, and 40 mm cartridges and ZIF-SIM™s
- Options:- gradient valve and software
  - UV collect valve and software

**Not all components are necessary for operation.*

Individual, freestanding modules may be ordered separately and include**

- Horizon HPFC Pump
- FLASH UV Monitor™
- FLASH Gradient Module™
- Horizon FLASH Collector
- FLASH+ cartridge modules

***Not all freestanding modules can be controlled by the Horizon FLASH Collector software.*

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A Message from Our President ...

On behalf of all the dedicated employees at Biotage, Inc., we would like to take this opportunity to thank you for your business. Our phenomenal growth is due primarily to your continued patronage. The fact that you have entrusted us with the purification of your most valued assets, new therapeutic and diagnostic lead compounds, is taken very seriously at Biotage by every single employee.

For the versatile, powerful, highly upgradeable purification platform you've been waiting for, turn to the new Horizon. Please contact us for more information on the Horizon FLASH system by using this convenient Fax-Back Form.

David B. Patteson
President
Biotage, Inc., A Dyax Corp. Company

HORIZON™

Fax-Back Form

If you would like more information on the new Horizon FLASH System, please fill out the form below and fax it back to 1-434-979-4743.

Name _____

Company _____

Address _____

City _____ **State** _____ **Zip** _____

Phone _____ **Fax** _____ **E-mail** _____

I would like ...

- ❑ **More information on this product**
- ❑ **Customer on-site demonstration**
- ❑ **A Biotage technical representative to contact me**
- ❑ **To be on your mailing list**
- ❑ ***A Biotage Purification Products* catalog sent to me**

Fax to 1-434-979-4743

www.biotage.com *Purification by Design™*

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Biotage, Inc.
PO Box 8006
Charlottesville, VA 22906-8006
Tel: 434-979-2319, Fax: 434-979-4743
Toll-Free: 1-800-446-4752

United Kingdom and Europe
Biotage UK, Ltd., 15 Harforde Court,
Foxholes Business Park, John Tate Rd.
Hertford, England SG13 7NW
Tel: + 44 1992 501535
Fax: + 44 1992 501547

Japan
Biotage Japan, Ltd., K.S. BLDG. 7F
1-31-11, Kichijojihon-cho,
Musashino-shi, Tokyo, Japan 180-0004
Tel: 81 422 281233
Fax: 81 422 281236

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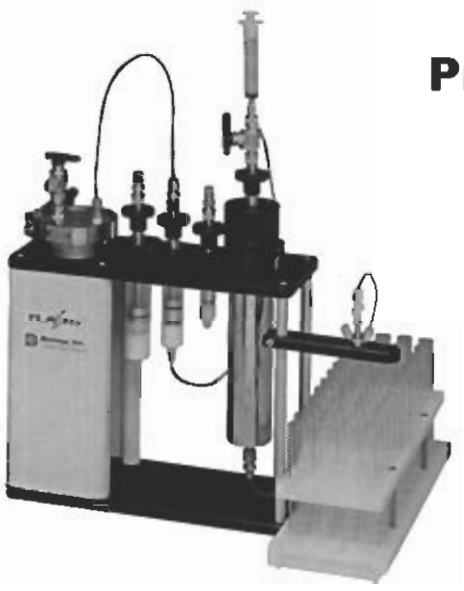
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FLASH12+ FLASH40+

FLASH Bulletin

Biotage New Product Update

June 2001
Number 2



FLASH 40+ system with new Samplet compatible quick-release design

New Samplet™ Compatible Quick-Release Design

Advantages

- Available as a stand-alone compression module
- Uses Samplet technology
- Purifies up to 5 grams of sample
- Ideal for complex mixtures in 100mg to 2 grams range
- Uses new FLASH+ stand with multi-position collection arm

Utilizing Biotage Cartridge Technology

The new FLASH 12+ and FLASH 40+ compression modules bring Samplet technology to FLASH 12- and 40-scale purifications and improves the compression module with a quick-release design. Samplets eliminate the need to use loose silica for sample preparations, thus reducing exposure to silica gel. When compared to glass columns or other 40-style cartridges, the FLASH 40+ offers easier use, reduced solvent consumption, higher compound purity and reduced sample handling.

Convenient Samplet Technology

Patented Samplet technology is now available with FLASH 12+ and FLASH 40+, providing the ability to pre-absorb up to 1 mL for the FLASH 12+, and up to 15 mLs for the FLASH 40+ of reaction mixture in one step. Samplets enhance performance for all separations, but are particularly useful for difficult separations and low-solubility samples. For reaction mixture volumes within the relevant Samplet capacity, there is no need to concentrate to dryness and redissolve, simply pour the reaction mixture onto the Samplet and allow the solvent to evaporate. For solid samples, dissolve in the relevant Samplet volume and apply to the Samplet.

ZIF-SIM Technology

For larger-volume mixtures where Samplets are not suitable or the more traditional approach is preferred, Biotage's patented ZIF-SIM capability (zero insertion force - sample injection module) accepts both Samplets and loose silica. The ZIF-SIM35™ accepts up to 10 grams of silica.

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A Message from Our President ...

On behalf of all the dedicated employees at Biotage, Inc., we would like to take this opportunity to thank you for your business. Our phenomenal growth is due primarily to your continued patronage. The fact that you have entrusted us with the purification of your most valued assets, new therapeutic and diagnostic lead compounds, is taken very seriously at Biotage by every single employee.

Please take a moment and review our new FLASH 12+ and FLASH 40+ products. I encourage you to contact us for more product information by using this convenient fax-back form.

David B. Patteson
President
Biotage, Inc., A Dyax Corp. Company

FLASH+™ Fax-Back Form

If you would like more information on the new FLASH12+ and FLASH 40+, please fill out the form below and fax back to 1-434-979-4743.

Name _____

Company _____

Address _____

City _____ **State** _____ **Zip** _____

Phone _____ **Fax** _____ **E-mail** _____

I would like ...

- ❑ **More information on this product**
- ❑ **Customer on-site demonstration**
- ❑ **A Biotage technical representative to contact me**
- ❑ **To be on your mailing list**
- ❑ ***A Biotage Purification Products* catalog sent to me**

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1-31-11, Kichijojihon-cho,
Musashino-shi, Tokyo, Japan 180-0004
Tel: 81 422 281233
Fax: 81 422 281236

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Biotage, Inc.
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P.O. Box 8006
Charlottesville, VA
22906-8006
Phone: (800) 446-4752

Gasket Applications

This kit includes three types of gaskets; Viton, EPDM, and polyethylene. Your application will determine which one you choose. Table I summarizes some typical solvent compatibilities.

VITON and EPDM gaskets are very compressible and will seal reliably up to 100 psig, even with the clamp finger-tight. EPDM, which has a green color dot on the outside edge, is resistant to polar solvents but will swell in many common aliphatic and aromatic solvents. VITON, which has yellow and white color dots on the edge, is resistant to the non-polar solvents, but will swell in the typical polar modifiers. When using the EPDM or VITON gaskets, please check solvent compatibility first by soaking for 1 hour in your mobile phase. If the gaskets swell in use, please let the gasket dry-out overnight in the hood before reusing. Biotage recommends replacing these gaskets if any rips or tears appear, or if they leak solvent at your typical operating pressure.

The transparent polyethylene gasket works for most applications, and is resistant to most normal phase solvents and mixtures. However, the moderately rigid polyethylene gasket may require more effort to seal.

Table I – SIM Gasket Solvent Compatibility

Solvent	Polyethylene	Viton	EPDM
Hexane	FAIR	GOOD	POOR
Toluene	GOOD	GOOD	NOT RECOMMENDED
Ethyl Acetate	GOOD	NOT RECOMMENDED	GOOD
Methylene Chloride	FAIR	GOOD	FAIR
Methanol	GOOD	POOR	GOOD

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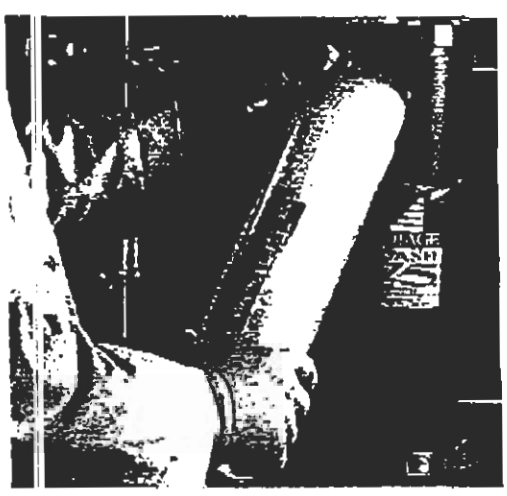
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4.0 How to Use the FLASH 75i™

From setting-up to beginning your first separation, the FLASH 75i radial compression module and prepacked cartridge system has been designed for ease-of-use. The following pages describe the steps to take once you have confirmed that you have received all of the necessary components, have set-up the module in your laboratory hood (see Section 3.0) and are ready to begin your separations.

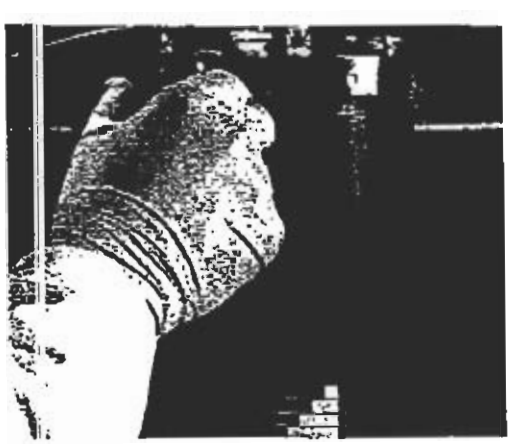
4.1 Inserting a FLASH Cartridge

Once the Radial Compression Module is mounted in your hood, you are ready to load a cartridge into it. Remove the plastic wrapping from the cartridge (you may wish to keep label information for your records). Remove the end caps from the cartridge and save. Unscrew the upper clamp and remove the stainless-steel head assembly. Drop the cartridge into the module and confirm that it is level with the top of the barrel.



If the cartridge does not drop all the way into the module, the bottom head assembly is probably out of alignment.

Place the head assembly back into position and hand-tighten the clamp to secure the lid. Tightening the clamp will engage the knife-edge seal into the cartridge and engage the O-ring to seal air pressure within the barrel.



Confirm that the V-band clamp is tight before compressing the module

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4.2 Check Air and Solvent Lines

Check again to ensure that all the lines are properly connected and that there is solvent in the solvent reservoir. Check the air manifold: make sure that all the switches are set to **VENT**. Figure 10 shows the various paths.

YELLOW Tubing..... House air
GREEN Tubing..... Radial compression air
RED Tubing..... Solvent pressure air
BLUE Tubing..... Sample Injection Module air
CLEAR Tubing..... Solvent Supply and Fraction collection

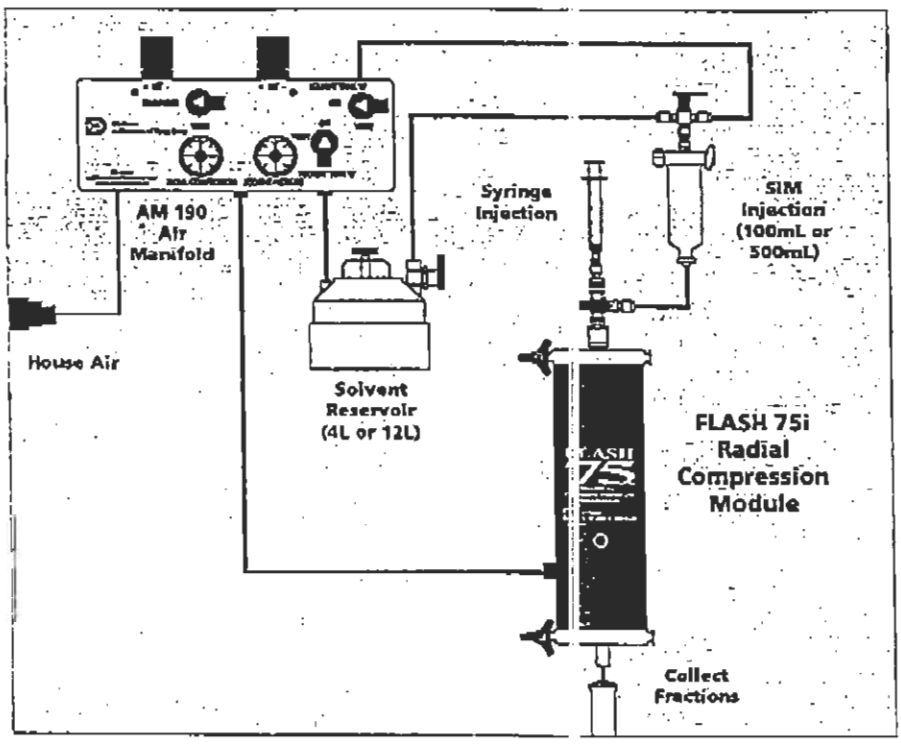


Figure 10: Schematic of the FLASH 75i air and solvent tubing connections.

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4.2.1 Turn on the house air to supply pressurized air into the manifold for controlled distribution to the radial compression module and the solvent tank. **Confirm that the air pressure range is between 90 and 110 psi.**

4.2.2 Open the valve over the **RADIAL COMPRESSION** gauge on the air manifold from **VENT** to **COMPRESS** to pressurize the radial compression module (Figure 11). Adjust the regulator to achieve 100 psi of radial compression pressure.

4.2.3 Confirm that the cartridge is compressed by making sure that the **indicator** on the front of the **FLASH module** displays a **RED** color.

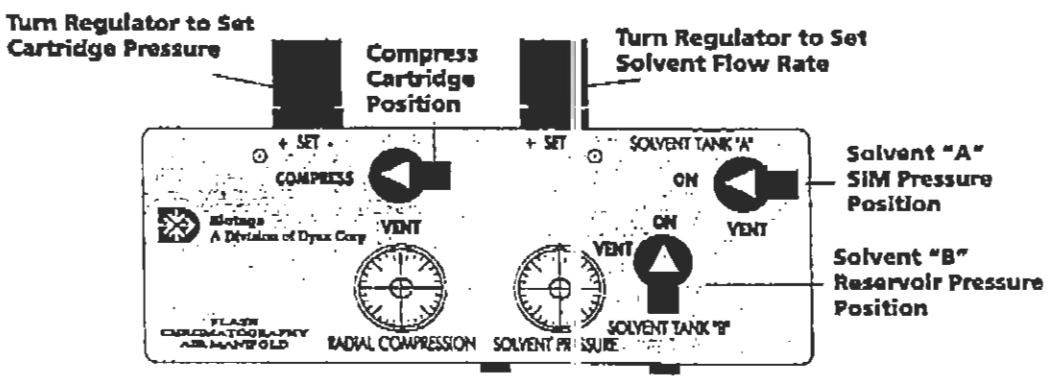


Figure 11: Radial compression and solvent pressure/flow settings for the AM-190 Air Manifold

4.2.4 Pressurize the Solvent Reservoir by turning the **SOLVENT TANK "B"** valve from **VENT** to **ON** (Figure 11). Set the solvent flow rate by adjusting the **SOLVENT PRESSURE** regulator as follows

- FLASH 75iS 9.0cm long cartridges 20 psi
- FLASH 75iM 15.0cm long cartridges 40 psi
- FLASH 75iL 30.0cm long cartridges 60 psi

These pressure settings are approximate guidelines. Your particular mobile phase, depending on its viscosity, may require a higher or lower pressure. Biotage recommends a flow rate of between 100 and 250 mL/min for FLASH cartridges packed with KP-Sil silica.

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4.3 Choosing a Sample Introduction Technique

Depending on your particular application, Biotage FLASH systems offer the following sample injection techniques using the Sample Injection Module (SIM):

4.3.1 Direct Injection Onto a Dry Cartridge

Figure 12 illustrates an injection technique that is commonly used for samples that are easily dissolved in the elution solvent, are of low viscosity and will not be affected by the surface activity of the silica. To inject your sample:

1. Remove the clamp from the top of the SIM and pour the sample directly into the SIM. Replace the top assembly and tighten the clamp.

2. Turn the **SOLVENT "A"** valve from **VENT** to **ON**.

3. Use air to drive the sample onto the cartridge by turning the **three-way** valve so that it **points** to the **BLUE** air tubing on the top of the SIM. Note: The air pressure to the SIM and the solvent reservoir are equal.

4. Make sure that the **three-way valve** on the top of the FLASH module is **open** to the SIM tube by turning the **valve knob to point towards the Teflon tubing from the SIM.**

5. Your sample has been completely loaded onto the cartridge when the 1/4" Teflon tubing between SIM and FLASH module is dry.

6. Turn the **SOLVENT "A" valve to VENT** to release the air pressure. To elute fractions, see Section 4.4.

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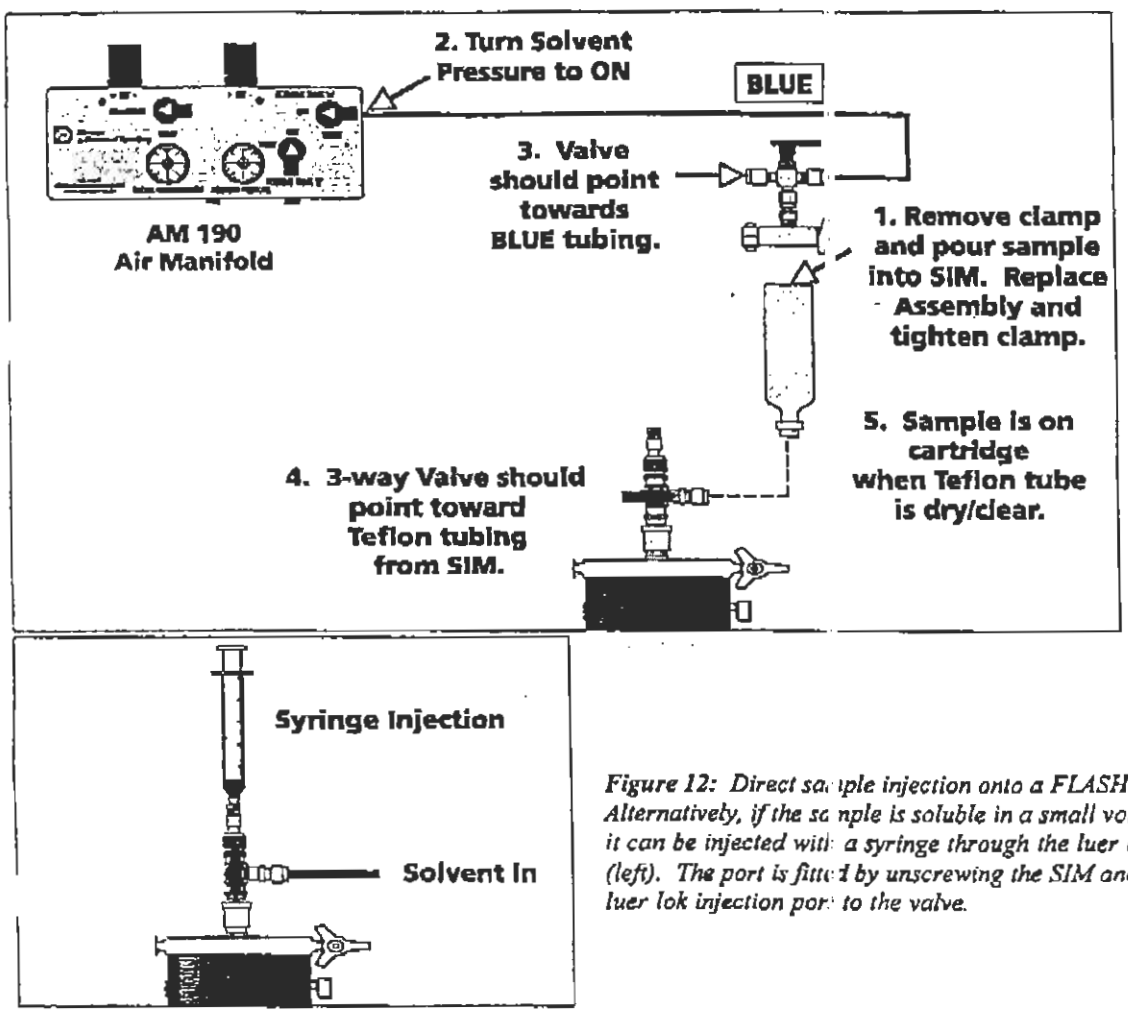


Figure 12: Direct sample injection onto a FLASH cartridge. Alternatively, if the sample is soluble in a small volume of solvent, it can be injected with a syringe through the luer lok injection port (left). The port is fitted by unscrewing the SIM and screwing on the luer lok injection port to the valve.

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4.3.2 Liquid Injection Onto a Pre-equilibrated Cartridge

Figure 13 illustrates how to inject a liquid sample using the SIM.

1. After pressurizing the solvent reservoir, and ensuring that the cartridge is radially compressed, turn the valve on the head of the compression module towards the solvent line. Eluent will then flow through the cartridge. After some time, solvent will exit from the fraction collect tube.

2. Stop the solvent flow by shutting off the two way valve on the solvent reservoir.

3. Remove the clamp and head assembly from the SIM and **pour your sample into the SIM** (Figure 13B).

When working with oils, dilute the sample with elution solvent until it will flow freely down a glass rod.

4. **Replace and tighten the SIM head** and **turn the three-way valve toward the BLUE tubing.** Turn the **SOLVENT "A" valve back to ON** to drive your sample onto the cartridge (Figure 13 B).

5. The sample will be in when the Teflon tubing is dry (Figure 13 B).

6. Turn the **SOLVENT "A" valve to VENT** to release the air pressure. To elute fractions, see Section 4.4.

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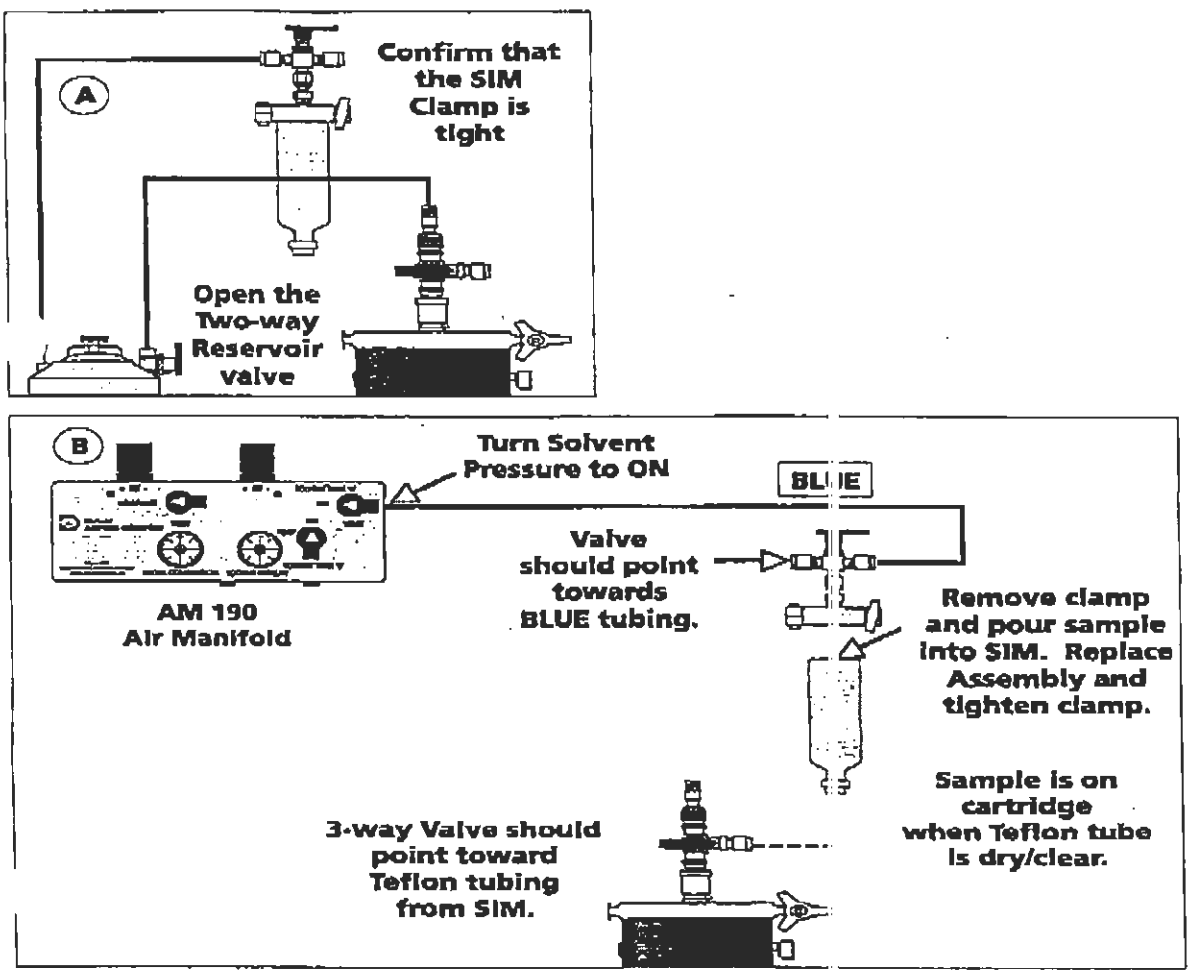


Figure 13: Liquid injection onto a FLASH 75 cartridge using a Sample Injection Module (above).

Alternatively, if the sample is soluble in a small volume of solvent, it can be injected with a syringe through the luer lok injection port (left). The port is fitted by unscrewing the SIM and screwing on the luer lok injection port to the valve.

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4.3.3 Solid Injections Onto a Cartridge

Figure 14 illustrates how to inject a solid sample onto a cartridge.

1. Loosen the clamp on the top of the SIM and remove the head assembly. Drop in a top frit and push down with a frit insertion tool. **Pack your silica into the SIM** and **tap it down** with the **FRIT Tool.**

2. Place a top frit into the SIM and push it down using the Frit Tool.

The top frit must be installed or the separation efficiency will be low.

3. Replace the SIM head assembly and tighten the clamp. Turn the **three-way valve** toward the **Teflon tubing** to flow solvent through the SIM and into the cartridge. To elute fractions, see Section 4.4.

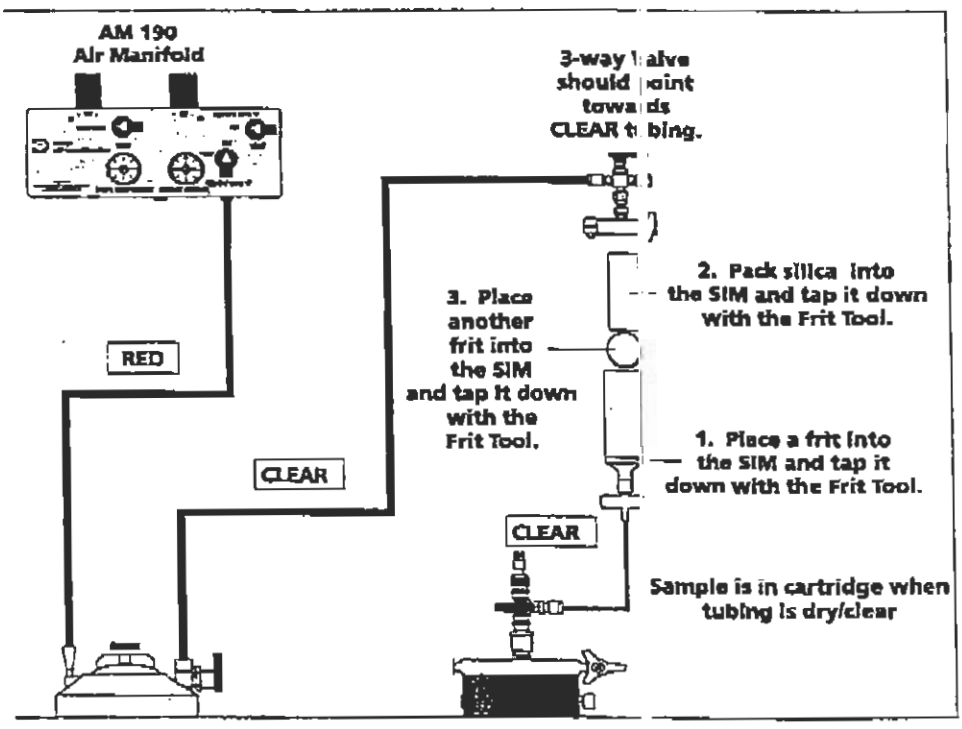
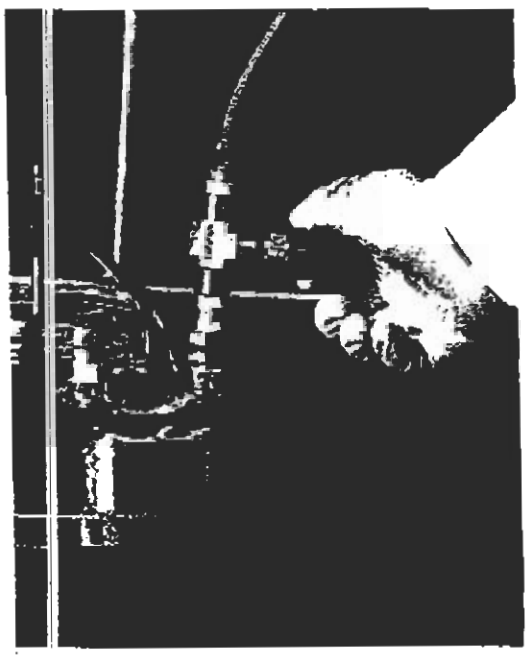


Figure 14: Solid sample injection onto a FLASH cartridge.

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4.4 Collecting Fractions



After loading liquid samples, turn the 3-way valve at the head of the compression module towards the solvent line.

For solid sample load turn the three-way valve on the top of the SIM so that it points toward the 1/4" Teflon tubing.

Ensure that the solvent reservoir is pressurized and the two-way valve is open allowing solvent to flow.

Solvent will then flow through the cartridge and out of the collection line.

Confirm that the SOLVENT TANK "B" valve is turned to ON.

Collect your fractions in flasks. The following are guidelines for vessel types by cartridge volume:

- 75mm x 9.0cm (200g) - 50 mL tubes
- 75mm x 15cm (400g) - 125 mL flasks
- 75mm x 30cm (800g) -250 mL flasks

Since your compound will not elute in less than one column volume (CV), you may wish to collect the first 250mL, 500mL or 1.0 liter, respectively, in a larger flask. As you approach the point where your compound will elute, use the smaller fraction collection vessels to maximize your yield and purity.

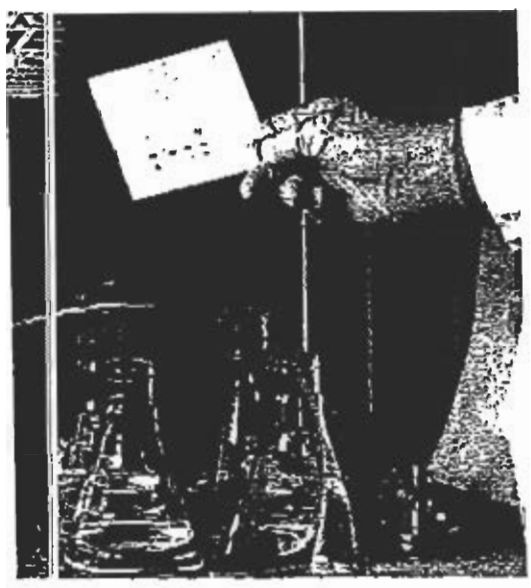
Based on the predicted retention volume (CV) of the first compound, the initial solvent volume could be collected in one large flask to minimize glassware usage.

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4.5 Analyzing Fractions

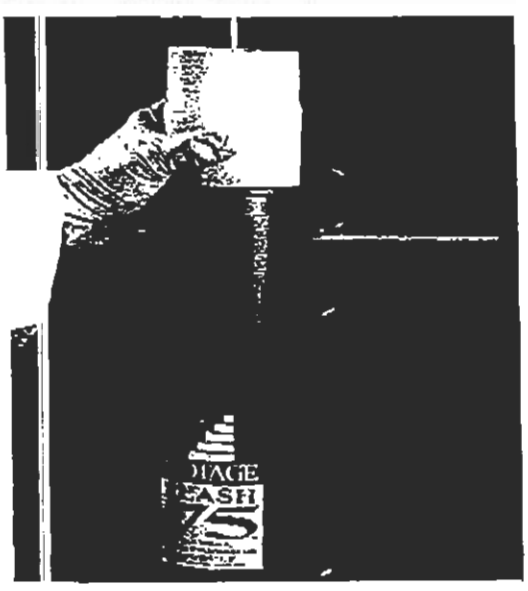
After fraction collection, analyze your separation using either a Biotage 5 x 20cm or 20 x 20cm non-indicator TLC plate or a 20 x 20cm fluorescent indicator plate.



4.6 Removing Used Cartridges

Once your separation is finished, shut off the supply of solvent, followed by the flow of pressurized air to the solvent reservoir. Switch the three-way valve on the SIM to point to the BLUE tubing to drive out any remaining solvent.

When the last of the solvent drains out of the module, shut off the flow of pressurized air to the module and turn the switch on the air manifold to **VENT**, depressurizing the radial compression module.





Confirm that the indicator s NOT RED. NEVER loosen the head assembly clamps whe the module is under pressure

Remove the upper clamp and the head assemb y, and simply remove and discard the cartridgeusing your cartridge e traction tool.

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