

FLASH 400™

Large-scale Purification System



Cost-Effective Production Scale Chromatography

Biotage FLASH 400™ Production-Scale System

The FLASH 400 is a complete skid-mounted system designed for large-scale flash chromatography and adsorption purification. The FLASH 400 uses prepacked cartridges and radial compression for performance and reliability. Built with industrial-grade components that are appropriate for operations under FDA regulations and cGMP standards, the FLASH 400 is rapidly becoming the first choice of pharmaceutical and contract manufacturing companies around the world for critical purification applications.

Built and Documented for cGMP Production

All systems come complete with an ASME "UM" stamp and CE certification and are certified for usage in North America, Europe and Japan. A full engineering documentation package, a certificate of performance and a certificate of compliance for validation filing accompany each system. In addition, Biotage Service personnel train users on proper operation and are available for yearly or project based training sessions.

Prepackaged Cartridges are Faster, Safer, and Easier to Use than Traditional Filters or Columns

Designed to optimize and provide operating pressures up to 100psi, Biotage production-scale FLASH cartridges can be run at flow rates up to 7.0 liters per minute, allowing operators to save hours, even days, of separation time. The media in each cartridge is self-contained, eliminating any exposure to dust, contaminants and potentially toxic or high potency drugs or impurities.

Scalable results

Some technologies such as crystallization and absorption can be difficult and time consuming to scale-up to kg quantities and beyond. With Biotage's range of cartridges, reliable results are verifiable and easy to achieve with most any separation. Often a separation is done with a Biotage Snap10g column to purify small quantities and those conditions can be used again on larger columns all the way up to 40 kg Flash 400L size, a 4000 fold increase in scale!

Robust production-scale platform

When considering larger, production scale equipment, robustness and safety are key factors for any device. The Flash 400 needs minimal maintenance and its design has proven to be extremely reliable over many years of service and hundreds of runs.

Cartridges available in a variety of media

With the increased utilization of flash chromatography, more difficult separations are now routinely performed with a variety of media. Silica, C-18, Activated Carbon, Mitsubishi Diaion™ HP20SS resins, Ion exchange resin and custom packed, customer supplied material are all available to address your specific application.

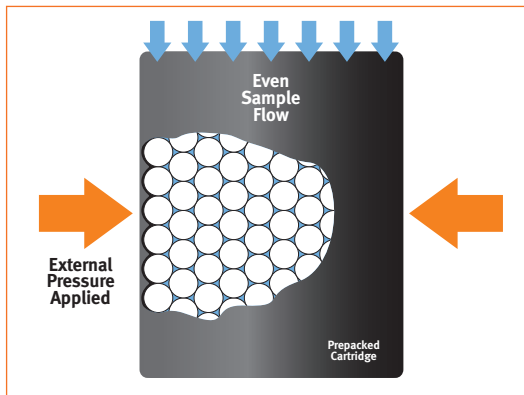
Safety is always paramount

Safety is a main design criteria on all Biotage systems.

Designed for use in the presence of large quantities of solvents, the Flash 400 can operate in an explosion proof, no sparking, rated area. Air driven pump and hoists, proper grounding and pressure relief devices are some of the vital components included with every system. All systems comply with NEC Class 1, Division 1 and 2, Group C and D standards.

Patented Radial Compression Technology - The Performance Advantage

Biotage's proprietary packing technique ensures that each FLASH cartridge is shipped with a tightly packed bed. The application of our proven, patented radial compression technology maintains the bed's stability during use for cleaner, purer fractions in less time and higher overall product yield. Extra force from radial compression ensures near zero "wall effects" and channeling inside each column.



1-Point Support™

Biotage's 1-Point Support team is a world-class field service organization that serves customers on-site ensuring minimal downtime and the highest quality personalized support.

System Specifications

Hoist	Working load rating is 257 lbs (126 kg)
Nitrogen inlet, Radial Compression	100 psig (689 KPa)
Compressed air inlet (solvent pump)	100 psig (689 KPa)
Compressed air inlet (hoist)	100 psig (689 KPa) maximum
Compressed gas supply lines	200 psig (1379 KPa) minimum working rating
Grounding	3/8" grounding stud
System	1000 lbs (455 kg) typical
Installation floor load requirement	250 lbs/sq. ft. (1,220 kg/sq. meter)
Head weight	149 lbs. (68 kg) each head
Head clamp weight	25 lbs. (11.4 kg) each clamp half
Radial compression pressure	80 to 100 psig. (552-689 KPa)
Solvent Pump	100 psig (689 KPa) maximum
Dimensions (LxWxH)	45" x 30" x 69" (Hoist retracted) or 95" (Hoist extended) 115 cm x 78 cm x 175/241 cm

Ordering Information

Please contact your local Biotage representative for more information.

Copyright © 2008. All rights reserved. All brand and product names are trademarks or registered trademarks of their respective companies. The information contained in this document is subject to change without notice.

www.biotage.com

Please contact your local Biotage representative or visit www.biotage.com for more information.

North America

Main Office: +1 434 979 2319
Toll Free: +1 800 446 4752
Fax: +1 434 979 4743
Order Tel: +1 434 220 2687
Order Fax: +1 434 296 8217
ordermailbox@biotage.com

Europe

Main Office: +46 18 56 59 00
Fax: +46 18 59 19 22
Order Tel: +46 18 56 57 10
Order Fax: +46 18 56 57 05
order@eu.biotage.com

Japan

Tel: +81 422 28 1233
Fax: +81 422 28 1236
order@biotage.co.jp