

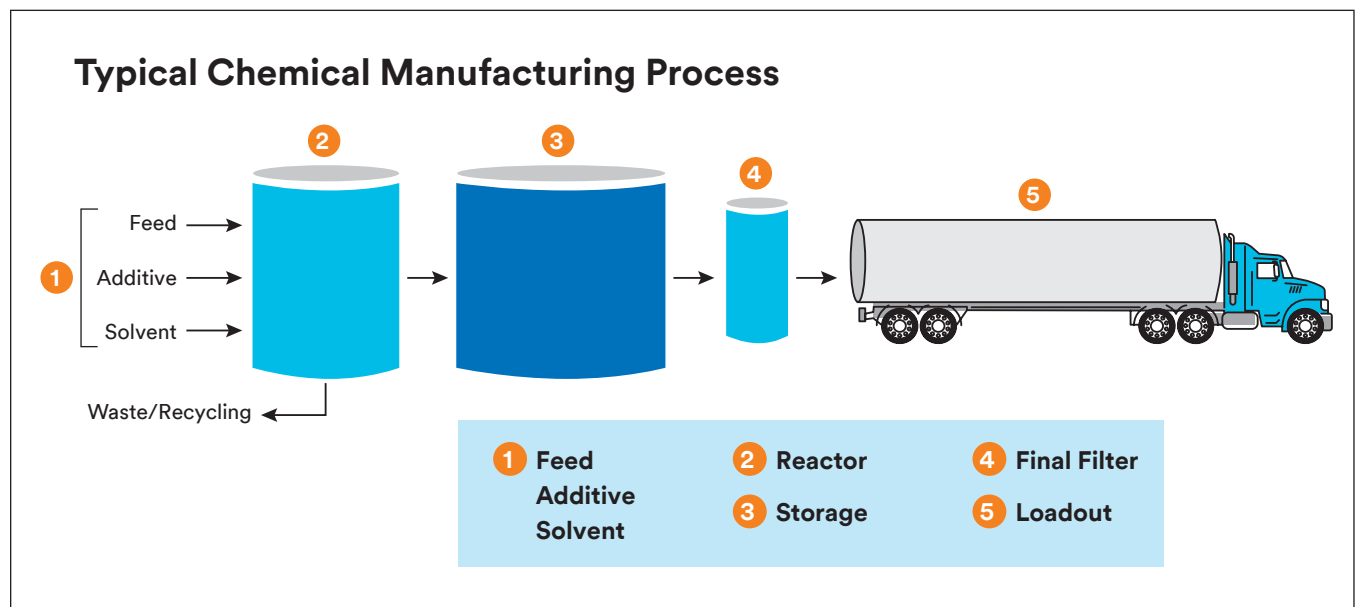
# The takeaways on High Flow in chemical loadout filtration.

Loadout filtration is a critical step in the process to ensure that product quality meets the specifications your customers demand. As final product is transferred from storage to tankers, rail cars or pipelines, flow rates are typically very high to move inventory quickly.

Contamination in the final product, such as rust and scale from the storage tank or downstream piping, can foul distribution equipment. Pumps, valves, nozzles and meters are all susceptible to fouling—reducing or completely stopping

loadout flow rates. Equipment fouling can result in maintenance or replacement costs, downtime and lost or delayed revenue.

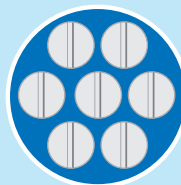
Contamination can also result in off-spec product, possibly leading to product rejection and reprocessing. Off-spec products can result in maintenance costs, reduced productivity, lost revenue and negative customer experiences.



# 3M™ High Flow Filter System vs. Conventional 2.5" Nominal Depth Cartridge System

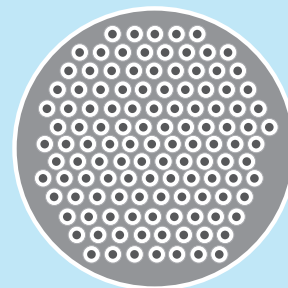
2,000 gpm (7,571 LPM) Flow Requirement

3M™ High Flow Filter System



7 cartridges in a 24" diameter housing

Competitive Nominal Depth Cartridges



120 cartridges in a 36" diameter housing

## Fewer change-outs save time with High Flow filtration.

3M™ High Flow filter systems provide effective filtration at the high flow rates typical in chemical loadout. These systems utilize large diameter (6.5" O.D.) compound radial pleated cartridges in a compact housing design. The high-efficiency polypropylene microfiber media features compatibility with a wide variety of chemicals resulting in consistent, predictable particle retention efficiencies.

**Compared to nominally rated 2.5" depth filter cartridges or bag filters, these filter systems offer the following advantages:**

- **Higher Particle Retention Efficiencies (99.9%):** Provides consistent and reliable filtration of particulates that can cause off-spec product.
- **High Flow Capability:** Flow rates up to 500 gpm in a single cartridge.
- **Compact Housing Design:** Reduces up-front capital expenditure requirements and footprint.
- **Ease of Use:** Fewer cartridges means filter change-outs are quicker and easier.
- **Twist-to-Lock Cartridge:** Provides a positive indication of proper sealing, reducing the possibility of bypass.

### Product Selection and Use:

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

### Warranty, Limited Remedy, and Disclaimer:

Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

### Limitation of Liability

Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.



3M Purification Inc.  
3M Separation and Purification Sciences Division  
400 Research Parkway  
Meriden, CT 06450 USA

Phone 1-800-243-6894  
WW 1-203-237-5541  
Web 3MPurification.com

Get to know High Flow at [3MPurification.com](http://3MPurification.com).

3M is a trademark of 3M Company.  
Please recycle. Printed in USA.  
© 3M 2019. All rights reserved.  
70-0202-3788-2 REV 0519