

Filtration Solutions

Entegris is a global leader in advanced materials and process solutions. We support critical applications such as single-use bioprocessing, sterile filtration, and high purity chemical handling. Leveraging our extensive expertise in demanding purity applications, Entegris provides an exceptional integrated solution by combining our advanced fluid handling products with our optimized single-use filters for life sciences.

2D Motion/Rocker Bag – Flex Motion Wave Bag

Fermentation plays an important role in the upstream part of the process, especially during seed train and scale-up. Entegris offers a standard single-use motion/rocker bag design which can be tailored for your specific needs.

AVAILABLE SIZES

5 L, 10 L, 20 L, 23 L, 50 L

APPLICATIONS

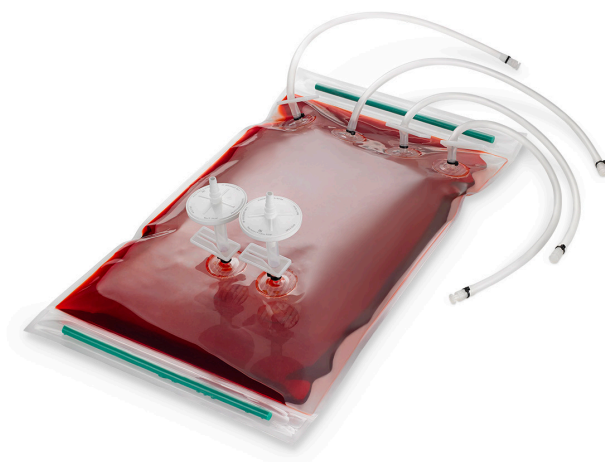
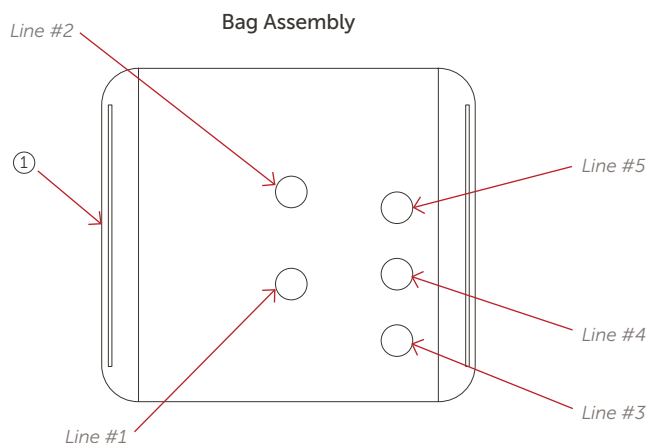
- Upstream cell grow and fermentation
- Fermentation development
- Process scale up
- Mammalian and plant culture cell lines with extended mixing times

BENEFITS

- Low shear stress for cells
- Closed and controlled system
- Vent filter, high flow, and enhanced hydrophobicity

ENTEGRIS RECOMMENDED FILTER SELECTION

Pharmsteri™ II GSV, 0,2 µm UPE
(e.g. PSTSUED022SH00-10, vent filter)



Media, Buffer Preparation, and Final Formulation

The Entegris single-use mixer improves efficiency in biopharmaceutical processes with its small footprint and comparatively low investment cost. Enhance your process reliability with reduced cleaning time, cross-contamination risks, and downtime. This innovative product is also customizable, providing a ready-to-use consumable for your convenience.

AVAILABLE SIZES

50 L (optional temperature controlled)

100 L (optional temperature controlled)

200 L

Fluid path fully customizable (e.g. length)

200 L bag with filter and recirculation loop shown in the picture



APPLICATIONS

- Liquid to liquid mixing
- Liquid to solid mixing
- buffer preparation
- Viscosity up to 400 cp/
400 mPas

BENEFITS

- Low-cost investment
- Easy to implement
- Great mixing performance
- High throughput
filtration post mixing

ENTEGRIS RECOMMENDED FILTER SELECTION

Pharmsteri II GHF, 0.2 μ m PES
(e.g. PSTSUSA022HS05-1, high flow buffer filtration)

Pharmsteri II GHC, 0.2 μ m PES
(e.g. PSTSUSD042TS05-1, high capacity media filtration)

Buffer Management Applications

Effective fluid management and storage capabilities are mandatory for each biopharmaceutical process. Entegris bags offer durable, scalable, and high-purity solutions. Choose specific components from our extensive library to enable ultimate customization, plus fast design and delivery for cell culture applications.

AVAILABLE SIZES

50 L up to 1000 L

APPLICATIONS

- Buffer preparation
- Storage of intermediates

BENEFITS

- Low-cost investment
- Robust bag design
- Easy to implement
- High flow filtration

ENTEGRIS RECOMMENDED FILTER SELECTION

Pharmsteri II GSV, 0,2 µm UPE
(e.g. PSTSUED022SH00-10, vent filter)

Pharmsteri II GHF, 0.22 µm PES
(e.g. PSTSUSA022HS03-2, filter for wetting liquid)



Pre-Use Post Sterilization Integrity Testing (PUPSIT) Assemblies

A market trend in terms of assembly design complexity is PUPSIT assembly. For the final fill filtration step, this assembly design is getting more and more attention in the biopharma industry. It ensures sterility verification before and after filtration, preventing contamination risks. A PUPSIT assembly enhances process reliability, regulatory compliance, and product safety, minimizing batch loss and ensuring consistent, high quality biopharmaceutical production. We can help you to create a fully customized design tailored to your environment.

AVAILABLE SIZES

Full design is available upon request

Customizable design/design flexibility

APPLICATIONS

- Final fill
- Critical application with high product value

BENEFITS

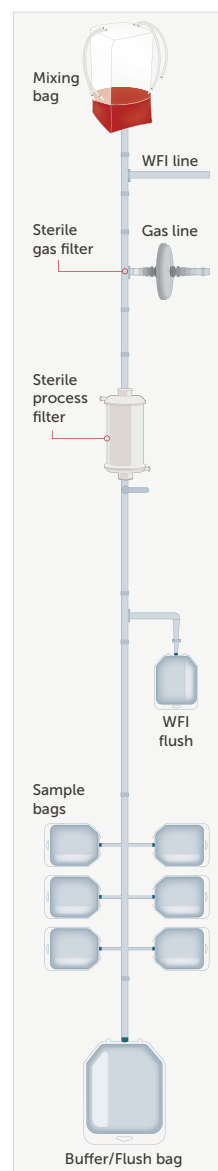
- Independent filter testing
- Enhanced filter throughput and flow performance
- Increased process security
- Design withstands test pressures during integrity testing

ENTEGRIS RECOMMENDED FILTER SELECTION

Pharmsteri II GHC, 0.2 μ m PES
3" capsule – (e.g. PSTSUSD042HS03-2) up to
10" capsule – (e.g. PSTSUSD042HS10-1) could be used

Pharmsteri II GSV, 0.2 μ m UPE
(e.g. PSTSUED022SH00-10, vent filter)

Pharmsteri II GHF, 0.22 μ m PES
(e.g. PSTSUSA022HS03-2, filter for wetting liquid)



Life Sciences Filtration

All assemblies can be equipped with Entegris filters which provide high-performance filtration for biopharmaceutical processes. Enjoy high flow rates, low protein binding, and maximum product yield when removing particles, microorganisms, and contaminants.

PHARMSTERI™ II GHF

High flow PES liquid filter designed for the sterile filtration of low fouling feed streams such as buffer, small molecule solutions, and more. Help your process efficiency improvement by providing 2x flowrate.

PHARMSTERI™ II GHC

High capacity PES liquid filter designed for the sterile filtration of fouling feed streams such as media, intermediate, protein formulation, and more. Improve your process economics and product recovery with higher throughput and lower product residual.

PHARMSTERI™ II GSV

High airflow UPE vent filter designed for sterile venting, gassing or process air filtration, providing safe sterile barrier with lower differential pressure and risk of blockage under moisture conditions.



Final Fill Assemblies

Final fill assemblies ensure sterile, precise, and efficient drug filling. This reduces contamination risks, product loss, and manual handling, especially for isolators used for only one drug substance. Final fill assemblies also increase usability by replacing the multi-use fluid path with a single-use assembly. This significantly decreases the need for cleaning, validation, and machine preparation.



Filter Tube Sets

Filter tube sets deliver unmatched flexibility and scalability in a compact, single-use format. This solution optimizes facility utilization, reduces contamination risk, and improves process economics.



| Part number | Description |
|-------------|------------------------------|
| FSH05858.01 | Standard 10" filter tube set |
| FSH05858.02 | Standard 5" filter tube set |
| FSH05858.03 | Standard 3" filter tube set |
| FSH05858.04 | Standard 3" filter tube set |

Pharmster II Gamma Capsules Portfolio

| APPLICATIONS | MEMBRANE | PART NUMBERS | SCALABILITY FROM LAB TO PRODUCTION | | | | | | | |
|---|---------------|--|------------------------------------|------|----|----|----|-----|-----|-----|
| | | | Disc | Mini | 1" | 3" | 5" | 10" | 20" | 30" |
| Sterile liquid filtration, high flow for non-fouling feed streams such as buffer, chemical solutions, etc. | PES 0.22 µm | PSTSUSA022xxxx-x (non-sterile) | x | | | x | x | x | • | • |
| | | PSTGSSA022xxxx-x (gamma sterilized) | | | | | | | | |
| Sterile liquid filtration, high capacity for fouling feed streams such as media, intermediates, protein solutions, etc. | PES 0.45/0.22 | PSTSUSD042xxxx-x (non-sterile) | x | • | • | x | x | x | • | • |
| | | PSTGSSD042xxxx-x (gamma sterilized) | | | | | | | | |
| | PES 0.65/0.22 | PSTSUSD062xxxx-x (non-sterile) | x | • | • | x | x | x | • | • |
| | | PSTGSSD062xxxx-x (gamma sterilized) | | | | | | | | |
| Sterile air, gas or venting filtration | UPE 0.22 | PSTSUED022xxxx-x (non-sterile) | x | | • | x | x | x | | |
| | | PSTGSED022xxxx-x (gamma sterilized) | | | | | | | | |

x available now

• coming soon



Air disc

Liquid disc

Mini

1"

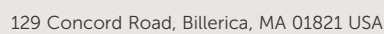
3"

5"

10"

PST

No other company has both the expertise and experience to provide transformative new solutions for your processes. For more information, please contact [customer service](#).



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