

Microcarrier and Cell Separation System

A completely sterile, single-use mesh filtration system

The Entegris microcarrier and cell separation system is designed to overcome the user-interface complexity and economic process challenges of single-use systems while maximizing simplicity, ease of use, and affordability. This system facilitates a separation process through the use of a streamlined, single-use filter/mesh bag system and peristaltic pump; no other equipment is required. Simply pump the unfiltered fluid to the inlet port, through the filtration mesh, and out the second port.

By customizing the bag size, mesh size, and pump settings the mesh bag can be used for a wide array of applications such as retaining aggregate cells or microcarrier beads, cell washing, and harvest, all while achieving the same or better performance as alternative separation methods.

Standard Features

- Microcarrier separation systems are sterilized using gamma irradiation between 25 – 40 kGy
- Entegris offers standard microcarrier and cell separation systems in 20, 40, 70, and 200 micron options. Standard geometries are available in the following configurations:
 - 6" x 6" (500 mL nominal)
 - 11" x 11" (2 L nominal)
 - 20" x 20" (10 L nominal)
- Full traceability for all materials
- Can be configured with a wide array of inlet/outlet connector and tubing options to help facilitate simple integration within your process
- Certificates of Analysis provided for each lot
- Manufactured under a quality system that is compliant with 21 CFR Part 820: Quality System Regulation



Maximizes simplicity, ease of use, and affordability.

APPLICATIONS

- Separation of microcarrier beads
- Harvest
- Final product filtration
- Cell washing/separation
- Purification

FEATURES & BENEFITS

Simple user- and process-friendly operation	<p>Peristaltic pump operation minimizes capital costs</p> <p>Streamlined single-use consumables require less operator training and minimizes risk of mishandling</p> <p>Can be used for continuous biomanufacturing; for example, simply connect it directly to a bioreactor and harvest cells continuously</p>
Chemically inert PET mesh	<p>Results in high chemical compatibility</p>
Customizable system design (volume, micron, number of ports, port sizes, port locations, connectors, etc.)	<p>Adaptable to fit seamlessly in existing customer processes</p> <p>Functional with a vast majority of commercially available bead sizes</p> <p>Hanging and tabletop configurations provide process versatility</p> <p>1/4" standard port size, with customizable options available upon request</p> <p>TPE, silicone, and other tubing options available upon request</p>
Quick-turn customer service	<p>Consistently fast development and delivery minimize the risk of production delays</p> <p>Personalized, timely, and useful attention ensures a unique custom solution</p>

SPECIFICATIONS

Tubing type	TPE (silicone and other options available upon request)
Mesh	Polyethylene terephthalate (PET)
Connectors	Male and female Luers

MATERIALS OF CONSTRUCTION

Flex 100/150 Film*

This design provides flexible containment in upstream applications, and the unique two-layer design provides additional robustness and redundant containment.

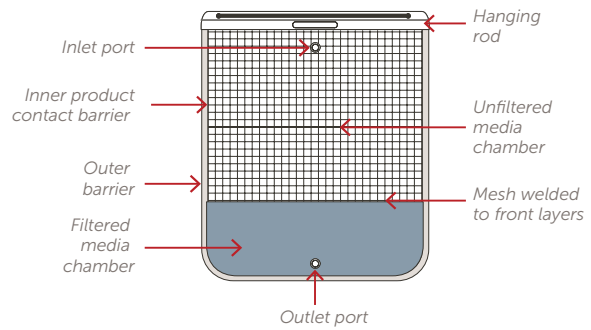
- Total 9 mil thickness
- Inner product contact barrier: Flex 100 low density polyethylene (LDPE)
- Outer barrier: Flex 150 low density polyethylene/ethylene vinyl alcohol/nylon/polyethylene

*Flex 100/150 film has a single inner LDPE barrier and an outer barrier of LDPE/EVOH/nylon/LDPE, with the inner barrier placed inside the outer to create a 2-ply chamber.



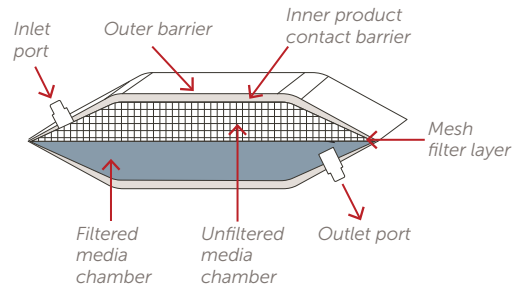
The streamlined, single-use filter/mesh bag system facilitates the separation process.

FILTER/MESH BAG (HANGING) DIAGRAM



FILTER/MESH BAG (TABLETOP) DIAGRAM

Cross Section



MESH DISC

Entegris Mesh Disc utilizes a closed system design and is available in two different diameters with several mesh size options.



ORDERING INFORMATION

Part number	Chamber geometry	Nominal mesh size
FSC04573.01	6" x 6"	20 micron
FSC04570.01	6" x 6"	40 micron
FSC04570.02	11" x 11"	40 micron
FSC04570.03	20" x 20"	40 micron
FSC04571.01	6" x 6"	70 micron
FSC04571.02	11" x 11"	70 micron
FSC04571.03	20" x 20"	70 micron
FSC04572.01	6" x 6"	200 micron
FSC04572.02	11" x 11"	200 micron
FSC04572.03	20" x 20"	200 micron
FCC05471.01 Mesh Disc, 2.75"		20 micron
FCC05471.02 Mesh Disc, 2.75"		40 micron
FCC05471.03 Mesh Disc, 2.75"		64 micron

ORDERING INFORMATION (CONTINUED)

Part number	Chamber geometry	Nominal mesh size
FCC05471.04 Mesh Disc, 2.75"		100 micron
FCC05471.05 Mesh Disc, 2.75"		150 micron
FCC05471.06 Mesh Disc, 2.75"		200 micron
FCC05471.07 Mesh Disc, 2.75"		224 micron
FCC05471.08 Mesh Disc, 2.75"		300 micron
FCC05472.01 Mesh Disc, 5.75"		20 micron
FCC05472.02 Mesh Disc, 5.75"		40 micron
FCC05472.03 Mesh Disc, 5.75"		64 micron
FCC05472.04 Mesh Disc, 5.75"		100 micron
FCC05472.05 Mesh Disc, 5.75"		150 micron
FCC05472.06 Mesh Disc, 5.75"		200 micron
FCC05472.07 Mesh Disc, 5.75"		224 micron
FCC05472.08 Mesh Disc, 5.75"		300 micron

We have high capability of design configuration; contact Entegris for additional ports or customization, as well as more information on lead times.

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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