

3D Bioprocess Assemblies

Quality assembly solutions that provide ultimate customization, quick-turn design, and fast delivery

Bringing the benefits of ultimate customization, fast design, and delivery to fluid handling, Entegris offers customizable 3D multilayer bioprocess assemblies with a broad range of capabilities that can be integrated into a variety of medium to large single-use biopharmaceutical processes. Applying decades of experience and materials expertise, we provide complete solutions for upstream and downstream applications.

Whether you need a small volume, large volume, or manifold configuration, we can customize sterilized assemblies to meet your needs in:

- Storage
- Mixing
- Purification
- Chemical processing
- Large-volume processing
- Inter- and intra-facility transport

Standard Features

- 3D bioprocess assemblies and associated components are sterilized using gamma irradiation between 25 – 40 kGy
- Comprehensive validation guide available
- Extractables and leachables (E&L) data available upon request
- Full traceability for all materials
- Certificates of analysis provided for each lot
- Include Flex 100/150, a multilayer film designed to provide strength and low gas permeability for a wide variety of applications
- Manufactured under a quality system designed to be compliant to 21 CFR Part 820: Quality System Regulation



3D Bioprocess Assemblies

All 3D assemblies are custom tailored to your application, designed with tubing and accessories that meet your specific processing needs, and provide a complete large-volume solution. With multi-ply strength in a single ply thickness, our 3D assembly solutions eliminate 70% of common seams adding robust security to your system.

Outer Containment Solutions

[Rigid bioprocess support containers](#) are available for mixing, processing, storing, and transporting large volumes of solutions.

Made of high quality, durable materials, our vessels are an efficient and more economical option than stainless-steel tanks, and when combined with liners, require virtually no cycle time between batches.

We also offer alternative outer containment options for a variety of applications and volumes to interface with your current technology. Please contact Entegris for additional information.

APPLICATIONS

- Secure handling and storage of bioprocess liquids
- Bulk sterile shipping
- Media and buffer storage
- Drug substance and excipients
- Fluid management solutions for purification
- Bioreactor harvest
- Waste collection
- Solution transfers

FEATURES & BENEFITS

| | |
|--|--|
| Process driven design and engineering | Allows personalized, timely, and knowledgeable attention throughout the collection, design, and ordering process |
| Customized system design | Provides design flexibility and allows the system to fit the process rather than the process adapt to the system |
| Standard design library | Enables quick access to standard products, providing consistently fast development and delivery while minimizing the risk of production delays |

SPECIFICATIONS

Product Specifications

| | |
|----------------------------------|---|
| Configurations | 1 to 4 ports* |
| Sizes | 50 L, 100 L, 200 L, 500 L, 1000 L, 2500 L |
| Ports | Male and female Luer locks, quick connect inserts and couplers, bottom drain |
| Tubing | 1/8" to 3/4" inside diameter 36" to 48" standard length |
| Dip tubes | Available for multiple mixing applications. Contact Entegris with your requirements. |
| Materials of construction | Flex 100/150** This design provides strength and low gas permeability. The two-layer, multi-ply design helps reduce stress, preventing container leak through under harsh conditions. <ul style="list-style-type: none">• Total 8 mil thickness• Inner product contact barrier: Flex 100 LDPE (low density polyethylene)• Outer barrier: Flex 150 (PE/nylon/EVOH/nylon/PE) |

*Entegris has high capability of design configuration. Please contact your sales representative for additional ports or customizations.

**An additional layer can be added to create a Flex 100/100/150 film.

Standard Products

| Part number | Volume | Chamber geometry | Dispense port options | Tubing length* | Connectors | | |
|-------------|--------|-----------------------|-----------------------|---------------------------|------------------------------|---------------------|---------------------|
| | | | | | MPC | MPX | |
| FSB04564.01 | 50 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line | 1 male, 1 female | 1 male, 1 female |
| FSB04564.02 | 100 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line | 1 male, 1 female | 1 male, 1 female |
| FSB04564.03 | 200 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line | 1 male, 1 female | 1 male, 1 female |
| FSB04565.01 | 500 L | 44" L x 44" W x 32" H | Top | 4x 1/2" ports | 30" per line | – | 2 male, 2 female |
| FSB04565.02 | 1000 L | 44" L x 44" W x 32" H | Top | 4x 1/2" ports | 30" per line | 1 male, 1 female | 1 male, 1 female |
| FSB04566.01 | 50 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line on top ports | 1 male, 1 female | 1 male, 1 female |
| | | | Bottom | 3/4" port | 48" on bottom port | – | 1 female |
| FSB04566.02 | 100 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line on top ports | 1 male, 1 female | 1 male, 1 female |
| | | | Bottom | 3/4" port | 48" on bottom port | – | 1 female |
| FSB04566.03 | 200 L | 22.9" Ø, 18" H | Top | 2x 3/8", 2x 1/2" ports | 30" per line on top ports | 1 male, 1 female | 1 male, 1 female |
| | | | Bottom | 3/4" port | 48" on bottom port | – | 1 female |
| FSB04567.01 | 500 L | 44" L x 44" W x 32" H | Top | 4x 1/2" ports | 30" per line on top ports | – | 2 male, 2 female |
| | | | Bottom | 1" port | 48" on bottom port | – | 1 female |
| FSB04567.02 | 1000 L | 44" L x 44" W x 32" H | Top | 4x 1/2" ports | 30" per line on top ports | 1 male, 1 female | 1 male, 1 female |
| | | | Bottom | 1" port | 48" on bottom port | – | 1 female |

*TPE tubing is standard. For custom tubing options, additional ports, filters, dip tubes, or other customizations specific for your process please contact Entegris.

ORDERING INFORMATION

| Part number | Volume | Bottom dispense |
|-------------|--------|-----------------|
| FSB04564.01 | 50 L | No |
| FSB04564.02 | 100 L | No |
| FSB04564.03 | 200 L | No |
| FSB04565.01 | 500 L | No |
| FSB04565.02 | 1000 L | No |
| FSB04566.01 | 50 L | Yes, 3/4" port |
| FSB04566.02 | 100 L | Yes, 3/4" port |
| FSB04566.03 | 200 L | Yes, 3/4" port |
| FSB04567.01 | 500 L | Yes, 1" port |
| FSB04567.02 | 1000 L | Yes, 1" port |

FOR MORE INFORMATION

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

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