

FLOWTAINER™

CLOSURE SOLUTIONS

When a single drop of fluid can make the difference in someone's health, you need smart fluid handling solutions that get the job done safely. Manufacturers worldwide rely on connector products that improve yield, cut costs and reduce time to market.



FlowTainer™ closure solutions are ideal for critical fluid handling in upstream and downstream processing, such as transfer, sampling, freezing, thawing, storage, and transport. Closure assemblies can be uniquely customized to solve your process challenge. FlowTainer™ closure solutions are designed to maintain an aseptic seal and closed sterile system, eliminating the need for cleaning validation and ensuring product integrity.

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GL45 Caps and Assemblies for Glass Containers

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and animal component free

- Sterilizable by autoclave and gamma irradiation

- Assemblies come pre-packaged ready for autoclaving

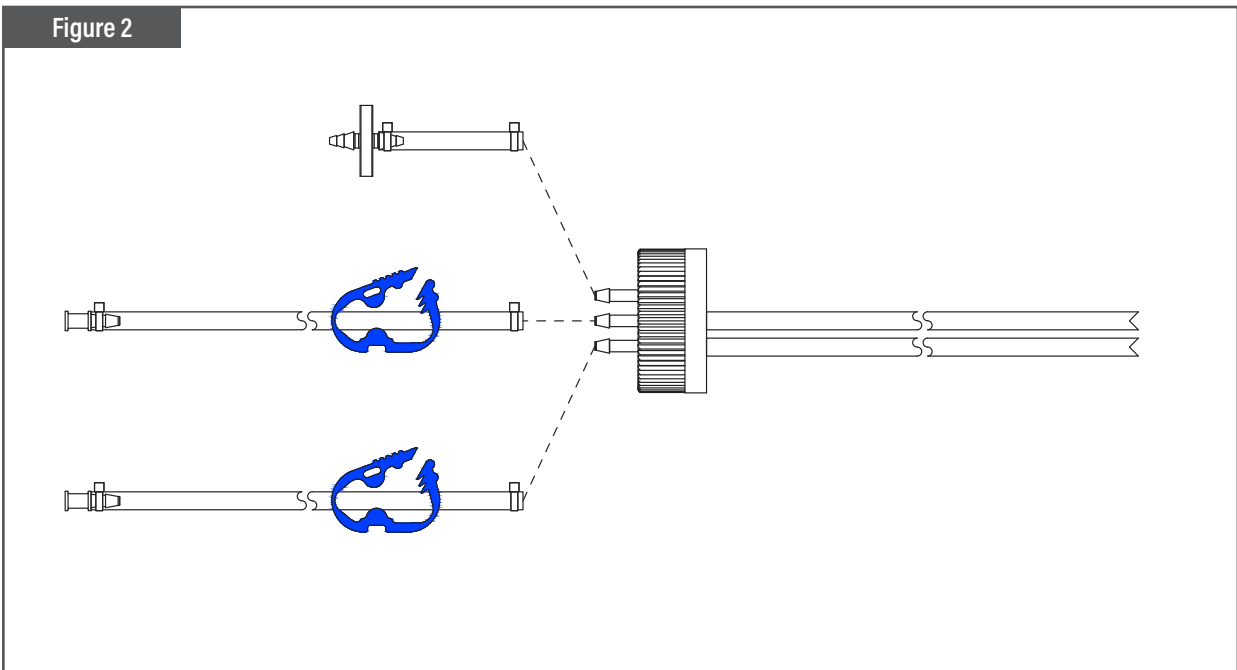
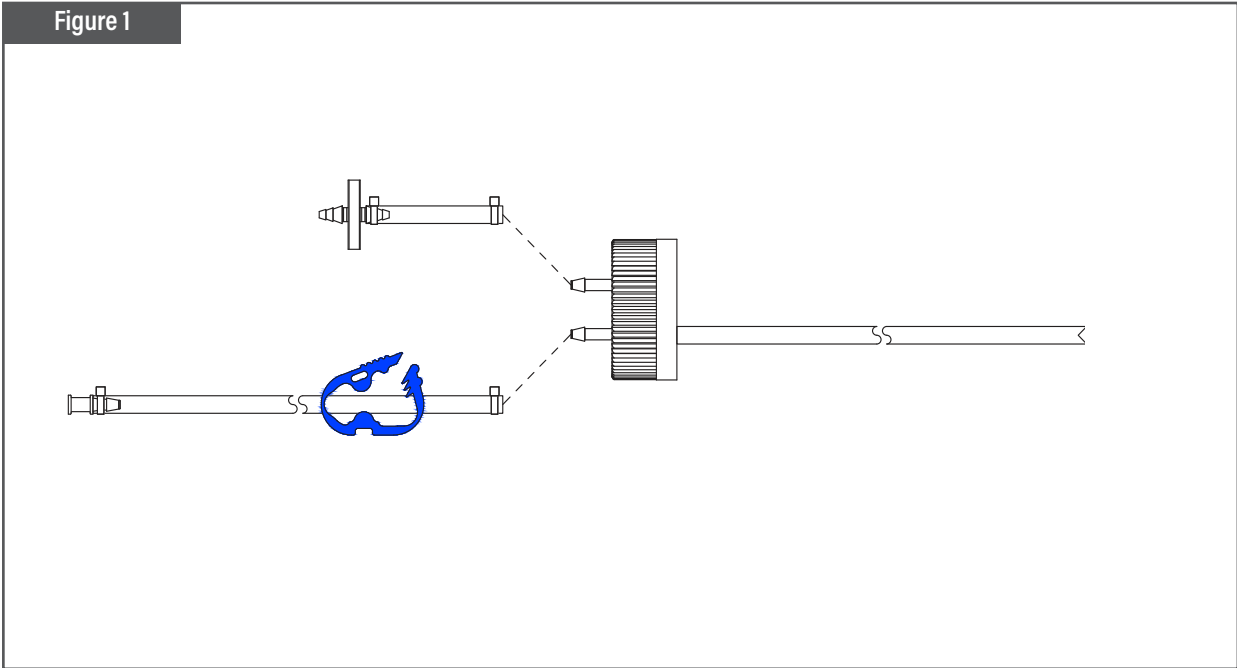


| PART NUMBER | DESCRIPTION | CAP MATERIAL | HOSE BARB ID | CLOSURE SIZE | PACK SIZE |
|-------------|------------------|--------------|--------------|--------------|-----------|
| F-BCC-45-1 | 2 port Cap, GL45 | PP | (2) - 1/8" | GL45 | 10 |
| F-BCC-45-2 | 2 port Cap, GL45 | PP | (2) - 1/4" | GL45 | 10 |
| F-BCC-45-3 | 3 port Cap, GL45 | PP | (3) - 1/8" | GL45 | 10 |

| PART NUMBER | DESCRIPTION | TUBING | CONFIGURATION | STERILITY CLAIM | FIGURE DETAILS | |
|-----------------|---------------------------|-------------------------|---|-----------------|----------------|----------|
| F-BCCA-45-2-PCS | 2 port Cap Assembly, GL45 | Platinum Cured Silicone | Line 1: 1/8" x 1/4"; 24" OAL w/ 12" dip tube Line 2: 1/8" x 1/4", 4" OAL | Each | Non-Sterile | Figure 1 |
| F-BCCA-45-2-TPE | 2 port Cap Assembly, GL45 | AdvantaFlex® TPE | | Each | Non-Sterile | Figure 1 |
| F-BCCA-45-2-PM | 2 port Cap Assembly, GL45 | PharMed® | | Each | Non-Sterile | Figure 1 |
| F-BCCA-45-3-PCS | 3 port Cap Assembly, GL45 | Platinum Cured Silicone | Line 1: 1/8" x 1/4"; 24" OAL w/ 12" dip tube Line 2: 1/8" x 1/4"; 24" OAL w/ 12" dip tube Line 3: 1/8" x 1/4", 4" OAL | Each | Non-Sterile | Figure 2 |
| F-BCCA-45-3-TPE | 3 port Cap Assembly, GL45 | AdvantaFlex® TPE | | Each | Non-Sterile | Figure 2 |
| F-BCCA-45-3-PM | 3 port Cap Assembly, GL45 | PharMed® | | Each | Non-Sterile | Figure 2 |

Please see Figure Details on the following page.

GL45 Caps and Assemblies for Glass Containers



83B Caps and Assemblies for Carboys (Nalgene® and Foxx LS)

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and animal component free

- Sterilizable by autoclave and gamma irradiation

- Available with sterility assurance level 10⁻⁶ per ISO 11137

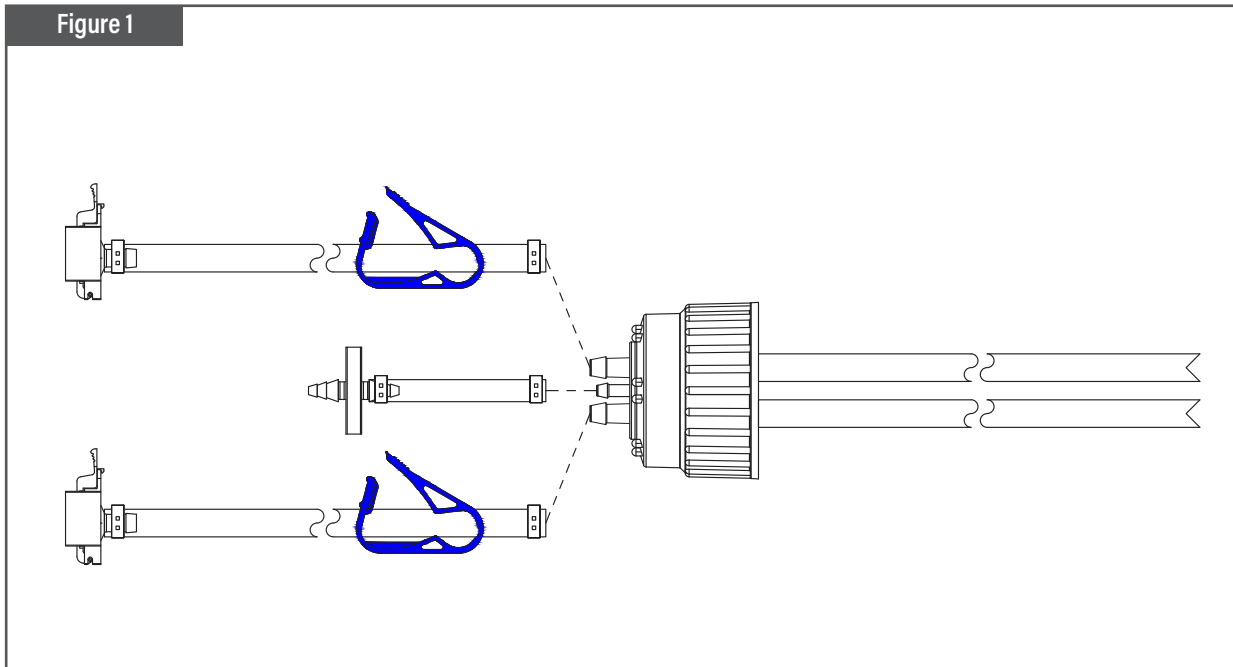


| PART NUMBER | DESCRIPTION | CAP MATERIAL | HOSE BARB ID | CLOSURE SIZE | PACK SIZE |
|-------------|-----------------|--------------|------------------------|--------------|-----------|
| F-BCC-83-1 | 3 port Cap, 83B | PP | (2) - 1/2", (1) - 1/4" | 83B | 10 |
| F-BCC-83-2 | 3 port Cap, 83B | PP | (2) - 3/8", (1) - 1/4" | 83B | 10 |
| F-BCC-83-3 | 3 port Cap, 83B | PP | (3) - 1/4" | 83B | 10 |

| PART NUMBER | DESCRIPTION | TUBING | CONFIGURATION | QUANTITY | STERILITY CLAIM | FIGURE DETAILS |
|-----------------|---|-------------------------|--|----------|-----------------|----------------|
| F-BCCA-83-2-PCS | 3 port Cap, 83B, for 5L Carboy, PCS | Platinum Cured Silicone | Line 1: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 2: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 3: 1/4 x 1/2", 4" OAL w/ .2µm vent filter | Each | Sterile | Figure 1 |
| F-BCCA-83-2-TPE | 3 port Cap, 83B, for 5L Carboy, TPE | AdvantaFlex® TPE | | Each | Sterile | Figure 1 |
| F-BCCA-83-2-PM | 3 port Cap, 83B, for 5L Carboy, PharMed® | PharMed® | | Each | Sterile | Figure 1 |
| F-BCCA-83-2-PCS | 3 port Cap, 83B, for 10L Carboy, PCS | Platinum Cured Silicone | Line 1: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 2: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 3: 1/4 x 1/2", 4" OAL w/ .2µm vent filter | Each | Sterile | Figure 1 |
| F-BCCA-83-2-TPE | 3 port Cap, 83B, for 10L Carboy, TPE | AdvantaFlex® TPE | | Each | Sterile | Figure 1 |
| F-BCCA-83-2-PM | 3 port Cap, 83B, for 10L Carboy, PharMed® | PharMed® | | Each | Sterile | Figure 1 |
| F-BCCA-83-2-PCS | 3 port Cap, 83B, for 20L Carboy, PCS | Platinum Cured Silicone | Line 1: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 2: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 3: 1/4 x 1/2", 4" OAL w/ .2µm vent filter | Each | Sterile | Figure 1 |
| F-BCCA-83-2-TPE | 3 port Cap, 83B, for 20L Carboy, TPE | AdvantaFlex® TPE | | Each | Sterile | Figure 1 |
| F-BCCA-83-2-PM | 3 port Cap, 83B, for 20L Carboy, PharMed® | PharMed® | | Each | Sterile | Figure 1 |

Please see Figure Details on the following page.

83B Caps and Assemblies for Carboys (Nalgene® and Foxx LS)



50mL and 15mL Caps and Assemblies for Centrifuge Tubes (Labcon®)

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and animal component free

- Sterilizable by gamma irradiation

- Aseptically connect using TPE tube welder

- Available with sterility assurance level 10-6 per ISO 11137

| PART NUMBER | DESCRIPTION | MATERIAL | HOSE BARB ID | CLOSURE SIZE | PACK SIZE |
|-------------|-----------------------------------|----------|--------------|--------------|-----------|
| F-CC-50ML | 50mL Tube Cap, 2 port | HDPE | (2) - 1/8" | 50mL | 50 |
| F-CC-15ML | 15mL Tube Cap, 2 port | HDPE | (2) - 1/8" | 15mL | 50 |
| 00113096 | 15 mL PerformR® Centrifuge Tube | PS | N/A | 15mL | 125 |
| 00113097 | 50 mL SuperClear® Centrifuge Tube | PP | N/A | 50mL | 50 |
| 00114530 | 15 mL SuperClear® Centrifuge Tube | PP | N/A | 15mL | 50 |

| PART NUMBER | SAMPLE VOLUME | CONTAINER MATERIAL | CONFIGURATION | QUANTITY/ PACK | STERILITY CLAIM | FIGURE DETAILS |
|----------------|---------------|--------------------|--|----------------|-----------------|----------------|
| F-CTA-PP-15D | 15mL | Polypropylene | Line 1: 1/8" x 1/4"; 12" OAL w/ dip tube Line 2: 1/8" x 1/4", 3" OAL w/ vent filter | 5 | Non-Sterile | Figure 1 |
| F-CTA-PS-15D | 15mL | Polystyrene | | 5 | Non-Sterile | Figure 1 |
| F-CTA-PP-15D-S | 15mL | Polypropylene | | 5 | Sterile | Figure 1 |
| F-CTA-PS-15D-S | 15mL | Polystyrene | | 5 | Sterile | Figure 1 |
| F-CTA-PP-15 | 15mL | Polypropylene | Line 1: 1/8" x 1/4"; 12" OAL Line 2: 1/8" x 1/4", 3" OAL w/ vent filter | 5 | Non-Sterile | Figure 2 |
| F-CTA-PS-15 | 15mL | Polystyrene | | 5 | Non-Sterile | Figure 2 |
| F-CTA-PP-15-S | 15mL | Polypropylene | | 5 | Sterile | Figure 2 |
| F-CTA-PS-15-S | 15mL | Polystyrene | | 5 | Sterile | Figure 2 |
| F-CTA-PP-50D | 50mL | Polypropylene | Line 1: 1/8" x 1/4"; 12" OAL w/ dip tube Line 2: 1/8" x 1/4", 3" OAL w/ vent filter | 5 | Non-Sterile | Figure 3 |
| F-CTA-PP-50D-S | 50mL | Polypropylene | | 5 | Sterile | Figure 3 |
| F-CTA-PP-50 | 50mL | Polypropylene | Line 1: 1/8" x 1/4"; 12" OAL Line 2: 1/8" x 1/4", 3" OAL w/ vent filter | 5 | Non-Sterile | Figure 4 |
| F-CTA-PP-50-S | 50mL | Polypropylene | | 5 | Sterile | Figure 4 |

Please see Figure Details on the following page.



50mL and 15mL Caps and Assemblies for Centrifuge Tubes (Labcon®)

Figure 1

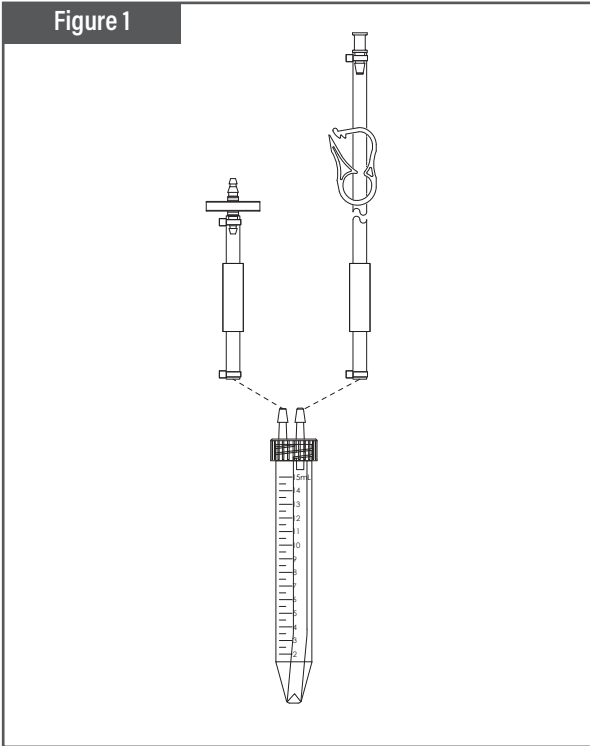


Figure 2

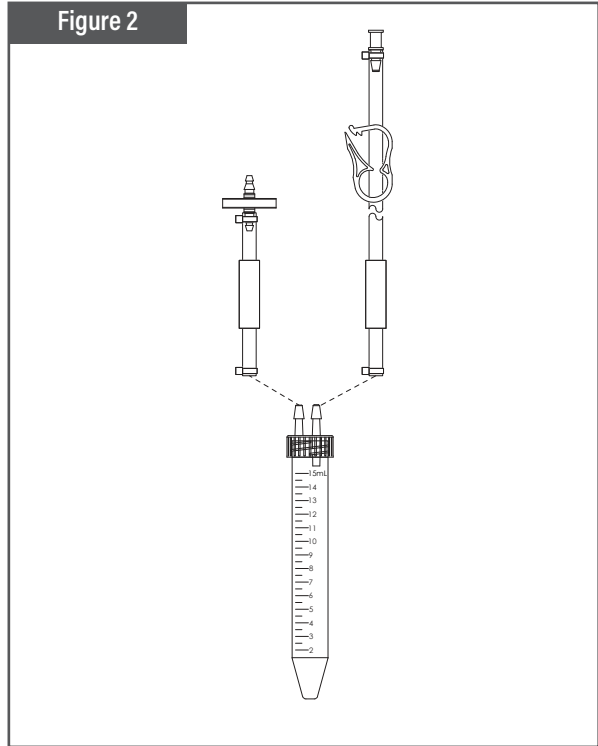


Figure 3

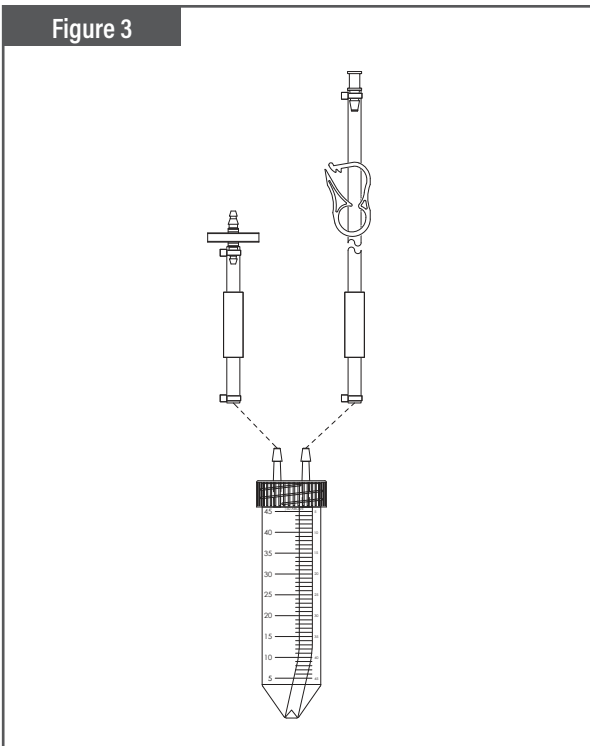
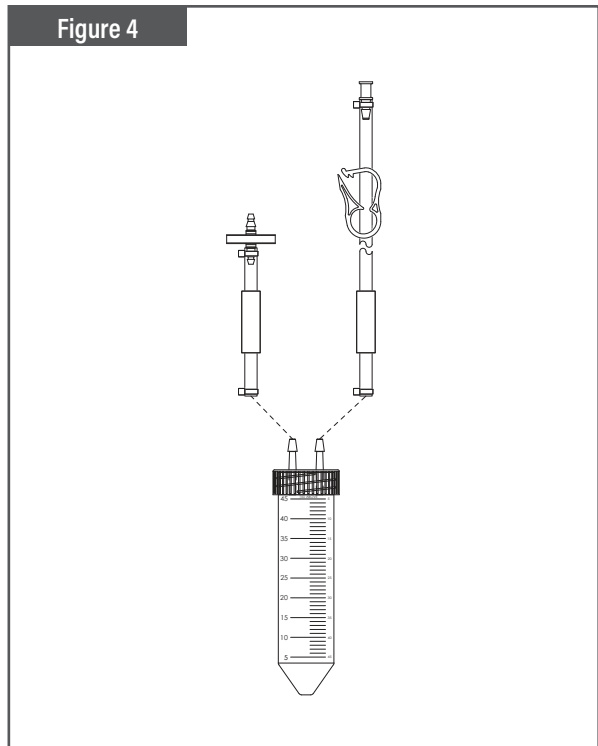


Figure 4



ULTRA CLEAN BOTTLES

DESCRIPTION:

FlowTainer™ ultra clean bottles are the optimal solution for critical fluid handling in upstream and downstream processing, such as filling, freezing, thawing, storage, and transport. The robust impact resistant bottles are made from USP Class VI and animal ingredient free polycarbonate. Manufactured in an ISO 7 cleanroom, ultra clean bottles undergo stringent testing to ensure the highest quality standards are met, such as USP <85> and USP <788>.

FlowTainer™ ultra clean bottles are available from 5 mL to 20 L with a variety of hose barb cap configurations for use with platinum cured silicone and TPE tubing. Choose from standard bottles and assemblies or customize to fit your unique process application.



SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom
- ISO 9001:2015 Certified Facility
- Easy to read graduations
- Ultra-low temperature storage and transport to -90°C
- USP Class VI and animal component free
- Sterilizable by gamma irradiation and autoclave
- Excellent for freezing and storage applications
- Validation package with extractables available
- Available with sterility assurance level 10^{-6} per ISO 11137



ULTRA-LOW TEMPERATURE STORAGE

ULTRA CLEAN BOTTLES

FLOWTAINER™ REGULATORY OVERVIEW:

Material of Construction

Polycarbonate (PC) Bottle and HDPE Cap

Biocompatibility

USP <85>, Bacterial Endotoxin

USP <87>, Biological Reactivity Tests, Cytotoxicity, In Vitro

USP <88>, Biological Reactivity Tests, Class VI, In Vivo

ISO 10993-4, Hemolysis

Physiochemical

USP <661>, Plastic Packaging Systems

FDA 21 CFR 177.1580, Polycarbonate Resins

FDA 21 CFR 177.1520, Olefin Polymers

Particulate

USP <788>, Particulate Matter in Injections

Extractables

Per guidelines of BPOG and USP <665>

Legislation

REACH

RoHS

Shelf Life

3 Years, Non-Sterile/Non-Irradiated



ULTRA CLEAN BOTTLES

PART NUMBERS:

| PART NUMBER | VOLUME | BOTTLE MATERIAL | CAP MATERIAL | CLOSURE SIZE | STERILITY CLAIM | QTY PER PACK/CASE |
|---------------|--------|-----------------|--------------|--------------|-----------------|-------------------|
| F-PCB-005ML | 5 mL | PC | HDPE | 24 mm | Non-Sterile | 25/500 |
| F-PCB-005ML-G | 5 mL | PC | HDPE | 24 mm | Sterile | 25/500 |
| F-PCB-020ML | 20 mL | PC | HDPE | 24 mm | Non-Sterile | 25/500 |
| F-PCB-020ML-G | 20 mL | PC | HDPE | 24 mm | Sterile | 25/500 |
| F-PCB-125ML | 125 mL | PC | HDPE | 48 mtm | Non-Sterile | 5/50 |
| F-PCB-125ML-G | 125 mL | PC | HDPE | 48 mm | Sterile | 5/50 |
| F-PCB-500ML | 500 mL | PC | HDPE | 48 mmt | Non-Sterile | 2/48 |
| F-PCB-500ML-G | 500 mL | PC | HDPE | 48 mm | Sterile | 2/48 |
| F-PCB-001L | 1 L | PC | HDPE | 48 mm | Non-Sterile | 2/28 |
| F-PCB-001L-G | 1 L | PC | HDPE | 48 mm | Sterile | 2/28 |
| F-PCB-002L | 2 L | PC | HDPE | 48 mm | Non-Sterile | 1/20 |
| F-PCB-002L-G | 2 L | PC | HDPE | 48 mm | Sterile | 1/20 |
| F-PCB-005L | 5 L | PC | HDPE | 70 mm | Non-Sterile | 1/6 |
| F-PCB-005L-G | 5 L | PC | HDPE | 70 mm | Sterile | 1/6 |
| F-PCB-010L | 10 L | PC | HDPE | 70 mm | Non-Sterile | 1/3 |
| F-PCB-010L-G | 10 L | PC | HDPE | 70 mm | Sterile | 1/3 |
| F-PCB-020L | 20 L | PC | HDPE | 70 mm | Non-Sterile | 1/3 |
| F-PCB-020L-G | 20 L | PC | HDPE | 70 mm | Sterile | 1/3 |

CLOSURES FOR FLOWTAINER™ ULTRA CLEAN BOTTLES

| PART NUMBER | DESCRIPTION | CAP MATERIAL | HOSE BARB ID | CLOSURE SIZE | STERILITY CLAIM |
|-------------|-------------------|--------------|------------------------|--------------|-----------------|
| F-BCC-48-1 | 2 Port Cap, 48 mm | HDPE | (1) - 1/8", (1) - 1/4" | 48 mm | Non-Sterile |
| F-BCC-48-2 | 2 Port Cap, 48 mm | HDPE | (2) - 1/4" | 48 mm | Non-Sterile |
| F-BCC-48-3 | 2 Port Cap, 48 mm | HDPE | (2) - 1/8" | 48 mm | Non-Sterile |
| F-BCC-48-4 | 3 Port Cap, 48 mm | HDPE | (3) - 1/4" | 48 mm | Non-Sterile |
| F-BCC-48-5 | 3 Port Cap, 48 mm | HDPE | (2) - 1/4", (1) - 1/8" | 48 mm | Non-Sterile |
| F-BCC-70-1 | 2 Port Cap, 70 mm | HDPE | (2) - 1/4" | 70 mm | Non-Sterile |
| F-BCC-70-2 | 3 Port Cap, 70 mm | HDPE | (3) - 1/4" | 70 mm | Non-Sterile |
| F-BCC-70-3 | 4 Port Cap, 70 mm | HDPE | (4) - 3/8" | 70 mm | Non-Sterile |
| F-BCC-70-4 | 4 Port Cap, 70 mm | HDPE | (4) - 1/4" | 70 mm | Non-Sterile |