

FLOWLINX



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Smart Fluid Handling Solutions That Get the Job Done Safely

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DESCRIPTION:

FlowLinX® Sanitary Clamps are designed for quick and efficient installation. The innovative clamp design retains the sanitary fittings in the clamp body for effortless one-handed operation. The audible click of the clamp ensures the connection is secure without over compression of the gasket. FlowLinX® Sanitary Clamps are available in 1/2" to 3/4" (Mini) flange and 1" to 1-1/2" (Maxi) flange sizes and are ASME-BPE compliant.





SPECIFICATIONS:


- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

-  Zip Tie Compatible for Process ID and Tamper Evident

-  Tested to 94 PSI (6.5 bar) for Leak Resistance

-  Sterilizable by Gamma Irradiation or Autoclave

-  Made from Polyketone

- USP Class VI & ISO 10993-5

-  5-Year Shelf Life



PART NUMBER	DESCRIPTION	PACK SIZE
F-CL-0750	F-CL-0750 - Mini TC Clamp	25
F-CL-1500	F-CL-1500 - Maxi TC Clamp	25

Sanitary Fittings

DESCRIPTION:

FlowLinX® Sanitary Fittings are designed for single use fluid transfer applications where sanitary processing is critical. They are available in 3/4" and 1-1/2" flange sizes and can be easily assembled with silicone and TPE tubing. FlowLinX® Sanitary Fittings are available in polypropylene material and are compatible with other TC flanges made to ASME-BPE specifications. End caps are also available.

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- Tested to 94 PSI (6.5 bar) for Leak Resistance

- Smooth Inner Surface for Superior Flow

- Sterilizable by Gamma Irradiation, ETO or Autoclave

- USP Class VI & Animal Free

- Lot Traceability on each Fitting

- Validation Package with BPOG Extractables Testing Available

*5-year shelf life from date of manufacture

BARB SIZE (in.)	FLANGE SIZE in. (mm)	BORE I.D. (in.)	FLANGE DIAMETER (in.)	OVERALL LENGTH (in.)
1/4" (0.250)	3/4" (19.0 mm)	0.185	0.984	1.500
1/4" (0.250)	1-1/2" (38.1 mm)	0.185	1.984	1.650
3/8" (0.375)	3/4" (19.0 mm)	0.300	0.984	1.640
3/8" (0.375)	1-1/2" (38.1 mm)	0.300	1.984	1.640
1/2" (0.500)	3/4" (19.0 mm)	0.400	0.984	1.870
1/2" (0.500)	1-1/2" (38.1 mm)	0.400	1.984	1.870
1/2" (0.500)	1" Ladish	0.400	1.984	1.760
3/4" (0.750)	3/4" (19.0 mm)	0.593	0.984	1.870
3/4" (0.750)	1-1/2" (38.1 mm)	0.615	1.984	2.207



PART NUMBER	DESCRIPTION	PACK QTY.
F-TC-0250M	3/4" (Mini) Sanitary Flange x 1/4" Barb	25
F-TC-0250X	1-1/2" (Maxi) Sanitary Flange x 1/4" Barb	25
F-TC-0375M	3/4" (Mini) Sanitary Flange x 3/8" Barb	25
F-TC-0375X	1-1/2" (Maxi) Sanitary Flange x 3/8" Barb	25
F-TC-0500M	3/4" (Mini) Sanitary Flange x 1/2" Barb	25
F-TC-0500X	1-1/2" (Maxi) Sanitary Flange x 1/2" Barb	25
F-TC-0750M	3/4" (Mini) Sanitary Flange x 3/4" Barb	25
F-TC-0750X	1-1/2" (Maxi) Sanitary Flange x 3/4" Barb	25
F-TC-1000X	1-1/2" (Maxi) Sanitary Flange x 1" Barb	25
F-TC-0500L-PF	1" (Ladish) Sanitary Flange x 1/2" Barb	5

PART NUMBER	DESCRIPTION	PACK QTY.
F-EC-1500	1-1/2" (Maxi) TC End Cap	50
F-EC-0750	3/4" (Mini) TC End Cap	50



Sanitary Elbows

SPECIFICATIONS:

- ☑ Manufactured in an ISO 8 Cleanroom

- ☑ ISO 9001:2015 Certified Facility

- ♥ Meets USP Class VI and Animal Free

- ⊗ Tested to 94 PSI (6.5 bar) for Leak Resistance

- ↻ Smooth Inner Surface for Superior Flow

- 🛡 Meets FDA 177.2600

- 🛡 Meets ISO 10993-4, -5

- 🌸 Sterilize by Gamma Irradiation, ETO or Autoclave



PART NUMBER	DESCRIPTION	PACK SIZE
F-TCE-0750-PF	FlowLinX® 0.750" Sanitary Elbow, 5/PK	5
F-TCE-1000-PF	FlowLinX® 1.000" (Ladish) Sanitary Elbow, 5/PK	5
F-TCE-1500-PF	FlowLinX® 1.500" Sanitary Elbow, 5/PK	5

Sanitary Tees

DESCRIPTION:

FlowLinX[®] Sanitary Tees are designed for single use fluid transfer applications and are available in polypropylene material. Sanitary Tees are compatible with other TC flanges made to ASME-BPE specifications and can be combined with FlowLinX[®] clamps and gaskets for a complete system.



SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- Meets USP Class VI and Animal Free

- Tested to 94 PSI (6.5 bar) for Leak Resistance

- Smooth Inner Surface for Superior Flow

- Meets FDA 1772600

- Meets ISO 10993-4, -5

- Sterilize by Gamma Irradiation, ETO or Autoclave



PART NUMBER	DESCRIPTION	PACK SIZE
F-TCT-0750-PF	FlowLinX [®] 0.75" TC Sanitary Tee, 5/PK	5
F-TCT-1500-PF	FlowLinX [®] 1.500" Sanitary Tee, 5/PK	5

Sanitary Reducers

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

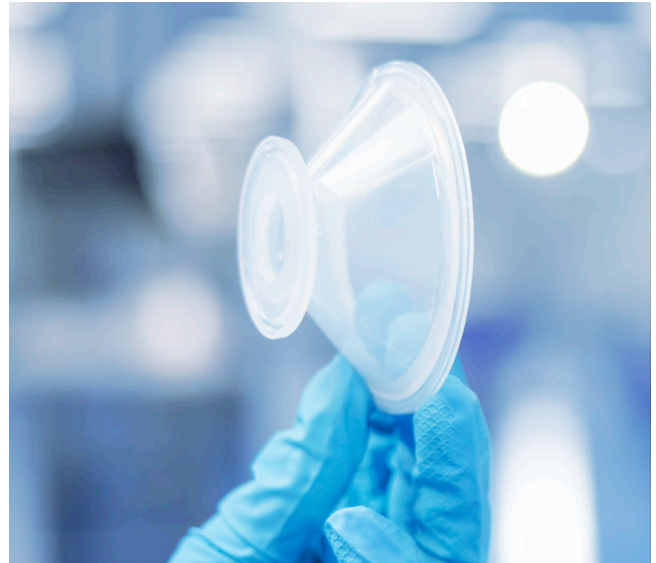
- USP Class VI and Animal Free

- Smooth Inner Surface for Superior Flow

- Meets FDA 177.2600

- Meets ISO 10993-4, -5

- Sterilize by Gamma Irradiation, ETO or Autoclave



PART NUMBER	DESCRIPTION	PACK SIZE
F-TC-315X-PF	FlowLinX® 3" to 1.5" Sanitary Reducer	1
F-TC-15075-PF	FlowLinX® 1.5" to 0.75" Sanitary Reducer	5

DESCRIPTION:

The FlowLinX[®] Instrument Tee (IT) is ideal for pharmaceutical and biotechnology applications where pressure monitoring and accuracy are important. The instrument tee is made of polypropylene material that is gamma compatible and animal component free. Hose barb connections are available from 3/8" to 1" for use with silicone and TPE tubing. Each FlowLinX[®] IT features a 1½" sanitary flange for connecting a pressure transducer and can be integrated into a fluid path assembly with a FlowLinX[®] gasket, sanitary clamp and end cap.



SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom

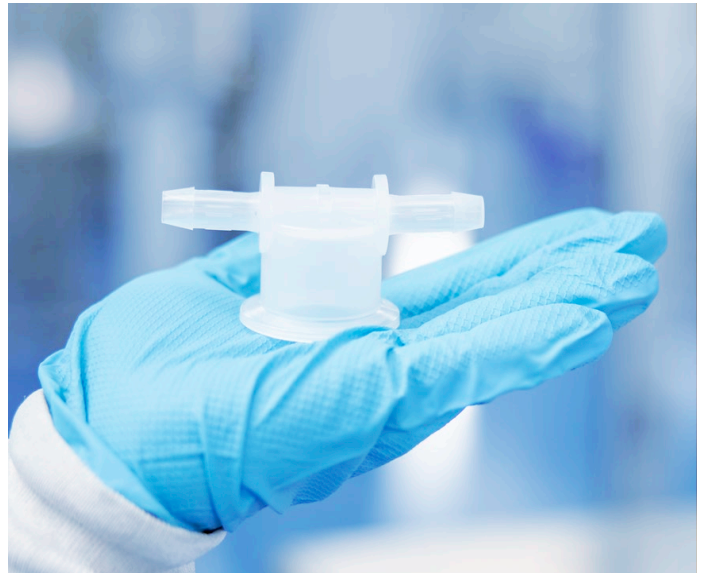
- ISO 9001:2015 Certified Facility

- Animal Component Free

- Meets FDA 177.2600

- Meets USP <88>, ISO 10993-4, -5

- 3 Year Shelf Life



PART NUMBER	DESCRIPTION
F-IT-0375-PF	FlowLinX [®] Instrument Tee, 1.5" Sanitary x 3/8" Barb
F-IT-0500-PF	FlowLinX [®] Instrument Tee, 1.5" Sanitary x 1/2" Barb
F-IT-0750-PF	FlowLinX [®] Instrument Tee, 1.5" Sanitary x 3/4" Barb
F-IT-1000-PF	FlowLinX [®] Instrument Tee, 1.5" Sanitary x 1" Barb

DESCRIPTION:

The Sidewinder® is a unique ratcheting multi-use pinch clamp for precise fluid flow regulation. The innovative design allows for quick and easy installation on any tubing assembly, while eliminating the need to install on tubing prior to adding fittings and end connectors. The integral holes in the clamp are zip tie compatible for process identification (ID) and tamper evident. The Sidewinder® is compatible with multiple tubing types and is available in two sizes for tubing up to 0.375" OD and 0.750" OD.



SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

-  ISO 9001:2015 Certified Facility

-  Multi-Position Ratchet for Precise Flow Regulation

-  Zip Tie Compatible for Process ID and Tamper Evident

-  Multi-Use: Quick and Easy Installation

-  For Unreinforced Tubing up to 65 Durometer

-  Sterilizable by Gamma Irradiation

-  Made from Polyketone

-  USP Class VI & ISO 10993-5

-  5-Year Shelf Life



PART NUMBERS:

PART NUMBER	DESCRIPTION	PACK SIZE
F-PV-0375	FlowLinX® Pinch Valve, up to 0.375" OD	25
F-PV-0750	FlowlinX® Pinch Valve, up to 0.750" OD	25

PINCH VALVE

DESCRIPTION:

The FlowLinX® Pinch Valve is a guillotine style pinch clamp ideal for precise flow regulation, especially on higher durometer and braided tubing where clamping can be difficult. The clamp can be easily and efficiently secured at any length along complex tubing assemblies. It is autoclavable and gamma stable made from glass reinforced nylon making it a reliable and reusable option for your fluid handling needs.

SPECIFICATIONS:

- ✓ Manufactured in an ISO 8 Cleanroom

- ✓ ISO 9001:2015 Certified Facility

- ✂ Tested to 100 PSI (6.9 bar) for tubing up to 80 durometer or single braid

- ⚙ Multi-Use Clamp

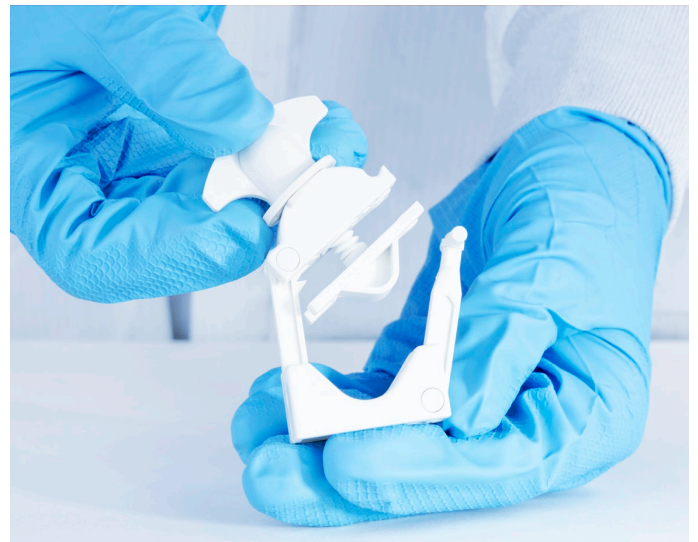
- ⚙ Sterilizable by Gamma Irradiation or Autoclave

- ✂ Made from Glass Reinforced Nylon

- ✓ USP <88> & ISO 10993-5

PART NUMBERS:

PART NUMBER	DESCRIPTION	PACK SIZE
F-PVG-0500	FlowLinX® Pinch Valve, up to 0.500" OD	10
F-PVG-1375	FlowLinX® Pinch Valve, up to 1.375" OD	10



SET, CLAMP, ROLL.

The FlowLinX® RollerClamp is a versatile and reliable tool designed for the unique demands of fluid recovery applications. Combining clamp and roller technology, the RollerClamp ensures optimal fluid evacuation from your process tubing line, minimizing waste and ensuring that you capture every precious milliliter. Simply set, clamp and roll. Whether you are dealing with expensive reagents, valuable cell cultures, or critical drug product, the FlowLinX® RollerClamp helps protect your investment and enhance process efficiency. When every drop matters, the RollerClamp delivers.



SPECIFICATIONS:

- ☑ Configurations: Color coded based on tubing wall thickness

- ⬆️ Operating Range: 0 to 30 PSI

- 🧪 Material of Construction: Sustainable Alternative

- 📦 Packaged 5 per Box

- 🧬 Sterilizable by Gamma Irradiation and Autoclave

- 🛡️ Manufactured in an ISO 8 Cleanroom



PART NUMBER	CONFIGURATION	QTY (PER BOX)
F-RC-0063	FlowLinX® Roller Clamp, 0.063" WT, White	5
F-RC-0094	FlowLinX® Roller Clamp, 0.094" WT, Black	5
F-RC-0125	FlowLinX® Roller Clamp, 0.125" WT, Grey	5
F-RC-0188	FlowLinX® Roller Clamp, 0.188" WT, Green	5

THE SMARTER, SUSTAINABLE CHOICE

The FlowLinX® Gator Clamp is a ratcheting, multi-use clamp engineered to provide precise flow control while reducing environmental impact. Unlike traditional clamps made from nylon, the FlowLinX® Gator Clamp is constructed from polyketone, a durable and fully recyclable material that reduces CO₂ emissions by 5.1 kg CO₂ eq per clamp.

Designed for ease of use and process security, the integral holes allow for zip tie attachment, supporting process identification and tamper evidence. Its multi-position ratchet mechanism enables precise flow regulation, ensuring control across a variety of applications. Make the smarter, greener choice with FlowLinX® Gator Clamps – engineered for precision, security, and sustainability.

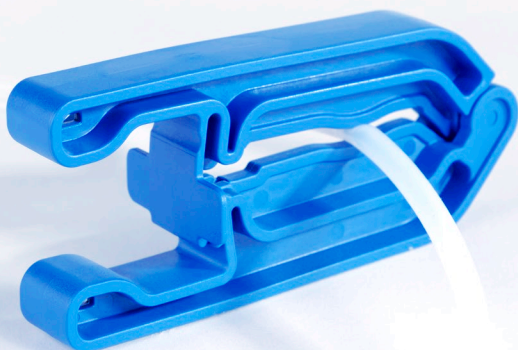


TUBING COMPATIBILITY:

CLAMP MODEL	MINIMUM TUBING ID	MAXIMUM TUBING ID	MINIMUM TUBING OD	MAXIMUM TUBING OD	WALL THICKNESS
FlowLinX® Mini Gator Clamp	1/16" (1.59mm)	5/16" (7.94mm)	3/16" (4.76mm)	1/2" (12.7mm)	1/16" - 3/32" (1.59mm - 2.38 mm)

PART NUMBERS:

PART NUMBER	DESCRIPTION	PACK SIZE
F-GC-0500M	FlowLinX® Mini Gator Clamp, up to 0.500" OD	50



SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom
- ISO 19001:2015 Certified Facility
-  Multi-Position Ratchet for Precise Flow Regulation
-  Zip Tie Compatible for Process ID and Tamper Evidence
-  Quick and Easy Installation
-  Sterilizable by Gamma Irradiation and Autoclave
-  Made from Polyketone
- USP Class VI & ISO 10993-5
-  5-Year Shelf Life

FlowLinX® Silicone Tubing Solutions

Unlock processing excellence at every stage of your production with FlowLinX® silicone tubing solutions. Engineered for exceptional flexibility and durability, FlowLinX® silicone tubing solutions meet the strictest biocompatibility and regulatory requirements, have broad chemical resistance and are manufactured in ISO Class 7 cleanrooms.

APPLICATIONS:

- Cell Culture and Fermentation
- Media and Buffer Transfer
- Harvesting and Filtration
- Sterile Fluid Transfer
- Final Filling

Simplify Your Validation Process: One Resin for All

FlowLinX® silicone tubing solutions are manufactured using the same product contact resin for all products. Each tubing product is supported by a comprehensive validation package ensuring ease of implementation and use in your process. Request your package: <https://carolinaflow.com/contact/#request-quote>



Purity You Can Count On

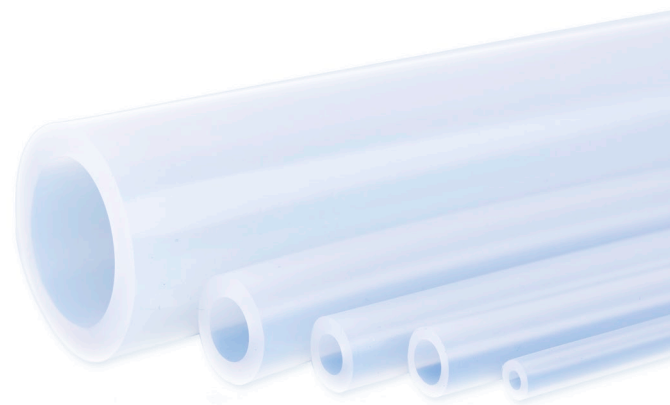
With unrivaled quality, FlowLinX® silicone tubing solutions are animal component free, meet USP <85> and USP <788> and have low leachables.



Silicone Tubing Solutions

PRODUCT OVERVIEW	CCST	CCPG	CCSB
Manufacturing Specifications			
ISO Class 7	X	X	X
Laser Etching/Labeling	X	X	X
Full Production Lot Traceability	X	X	X
Post-cured		X	
Material of Construction			
Platinum Cured Silicone, F-HCR-22520	X	X	X
Biocompatibility			
USP <85>, Bacterial Endotoxin	X	X	X
USP <88>, Biological Reactivity Tests, Class VI, In Vivo	X	X	X
ISO 10993-4, Hemolysis	X	X	X
ISO 10993-5, Cytotoxicity	X	X	X
ISO 10993-10, Irritation and Sensitization	X	X	X
ISO 10993-11, Systemic Toxicity	X	X	X
Physiochemical			
USP <661>, Plastic Packaging Systems	X	X	X
EP 3.1.9, Plastic Packaging Systems and Materials of Construction	X	X	X
FDA 21 CFR 177.2600, Rubber Articles Intended for Repeated Use	X	X	X
Broad Chemical Resistance	X	X	X
Particulate			
USP <788>, Particulate Matter in Injections	X	X	X
Extractables			
USP <665>	X	X	X
Legislation			
REACH	X	X	X
RoHS	X	X	X
Conflict Mineral	X	X	X
Shelf Life			
10 Years, Non-Sterile/Non-Irradiated	X	X	X
Other			
BSE/TSE Free	X	X	X
Latex Free	X	X	X
Phthalate Free	X	X	X
BPA Free	X	X	X
Melamine Free	X	X	X
Nitrosamine Free	X	X	X
High Pressure Performance (+ 100 psi)			X
Excellent Pumpability		X	
Sterilization Methods			
Gamma Irradiation	X	X	X
X-Ray	X	X	X
Autoclave	X	X	X

ATTRIBUTE	ASTM METHOD	VALUE
Durometer, Shore A	D2240	65
Specific Gravity	D412	1.16
Elongation at Break	D792	350%
Operating Temperature		-70C to 190C
UV Resistance		Excellent
Color/Transparency		Translucent



CCST Transfer Tubing

CCST Transfer Tubing

CCST unreinforced platinum silicone is ideal for transfer and short run pumping applications as an end-to-end process tubing.



ID (INCH)	ID (MM)	OD (INCH)	OD (MM)	WALL (INCH)	WALL (MM)	BURST PRESSURE (PSI)	BURST PRESSURE (BAR)	COIL SIZE		
								50 FT (15 M)	100 FT (30 M)	SPOOL
1/16"	1.6	1/8"	3.2	1/32"	0.8	126	8.7	CCST-0063-0125	CCST-0063-0125-C100	CCST-0063-0125-S2500
1/16"	1.6	3/16"	4.8	1/16"	1.6	132	9.1	CCST-0063-0188	CCST-0063-0188-C100	CCST-0063-0188-S2000
1/8"	3.2	1/4"	6.4	1/16"	1.6	110	7.6	CCST-0125-0250	CCST-0125-0250-C100	CCST-0125-0250-S1200
1/8"	3.2	5/16"	8.0	3/32"	2.4	134	9.2	CCST-0125-0313	CCST-0125-0313-C100	CCST-0125-0313-S750
1/8"	3.2	3/8"	9.6	1/8"	3.2	160	11	CCST-0125-0375	CCST-0125-0375-C100	CCST-0125-0375-S500
3/16"	4.8	5/16"	8.0	1/16"	1.6	82	5.7	CCST-0188-0313	CCST-0188-0313-C100	CCST-0188-0313-S750
3/16"	4.8	3/8"	9.6	3/32"	2.4	102	7.0	CCST-0188-0375	CCST-0188-0375-C100	CCST-0188-0375-S500
3/16"	4.8	7/16"	11.1	1/8"	3.2	105	7.2	CCST-0188-0438	CCST-0188-0438-C100	CCST-0188-0438-S400
1/4"	6.4	3/8"	9.6	1/16"	1.6	62	4.3	CCST-0250-0375	CCST-0250-0375-C100	CCST-0250-0375-S500
1/4"	6.4	7/16"	11.1	3/32"	2.4	88	6.1	CCST-0250-0438	CCST-0250-0438-C100	CCST-0250-0438-S400
1/4"	6.4	1/2"	12.7	1/8"	3.2	92	6.3	CCST-0250-0500	CCST-0250-0500-C100	CCST-0250-0500-S300
5/16"	8.0	1/2"	12.7	3/32"	2.4	76	5.2	CCST-0313-0500	CCST-0313-0500-C100	CCST-0313-0500-S300
5/16"	8.0	9/16"	14.3	1/8"	3.2	94	6.5	CCST-0313-0563	CCST-0313-0563-C100	CCST-0313-0563-S250
3/8"	9.6	1/2"	12.7	1/16"	1.6	45	3.1	CCST-0375-0500	CCST-0375-0500-C100	CCST-0375-0500-S300
3/8"	9.6	9/16"	14.3	3/32"	2.4	59	4.1	CCST-0375-0563	CCST-0375-0563-C100	CCST-0375-0563-S250
3/8"	9.6	5/8"	15.9	1/8"	3.2	76	5.2	CCST-0375-0625	CCST-0375-0625-C100	CCST-0375-0625-S200
1/2"	12.7	3/4"	19.0	1/8"	3.2	60	4.1	CCST-0500-0750	CCST-0500-0750-C100	CCST-0500-0750-S150
5/8"	15.9	7/8"	22.2	1/8"	3.2	49	3.4	CCST-0625-0875	CCST-0625-0875-C100	--
3/4"	19.0	1"	25.4	1/8"	3.2	46	3.2	CCST-0750-1000	CCST-0750-1000-C100	--
3/4"	19.0	1.125"	28.6	3/16"	4.8	53	3.7	CCST-0750-1125	CCST-0750-1125-C100	--
1"	25.4	1.375"	34.9	3/16"	4.8	50	3.4	CCST-1000-1375	CCST-1000-1375-C100	--

The CCPG Advantage

CCPG is designed for the most critical applications where long pump life and high accuracy are required. Manufactured from platinum cured silicone, CCPG is post-cured to remove siloxanes and minimize potential leachables impact to your product process.



Engineered for Excellence

Resistance to Fatigue: CCPG's molecular structure minimizes the development of micro-cracks and tears over time, maintaining consistent performance in your process.

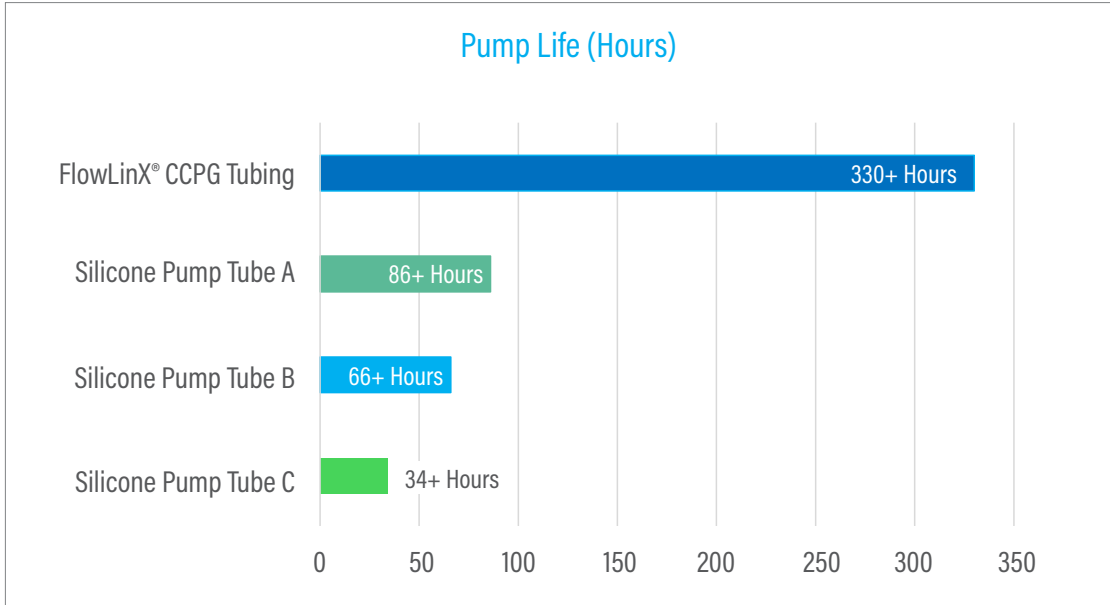
Durability and Flexibility: CCPG maintains structural integrity and elasticity over extended use, particularly in peristaltic pump applications where tubing undergoes repeated compression and release.

Chemical Inertness: CCPG is post-cured, chemical inert and resistant to a wide range of chemicals. Its chemical resistance ensures the tubing does not degrade or chemically leach materials into your process, maintaining purity of the fluid path.

High Quality Manufacturing: CCPG is manufactured using high-precision techniques ensuring uniform wall thickness and material properties throughout. This consistency is critical for high performance and longevity in continuous pump applications.

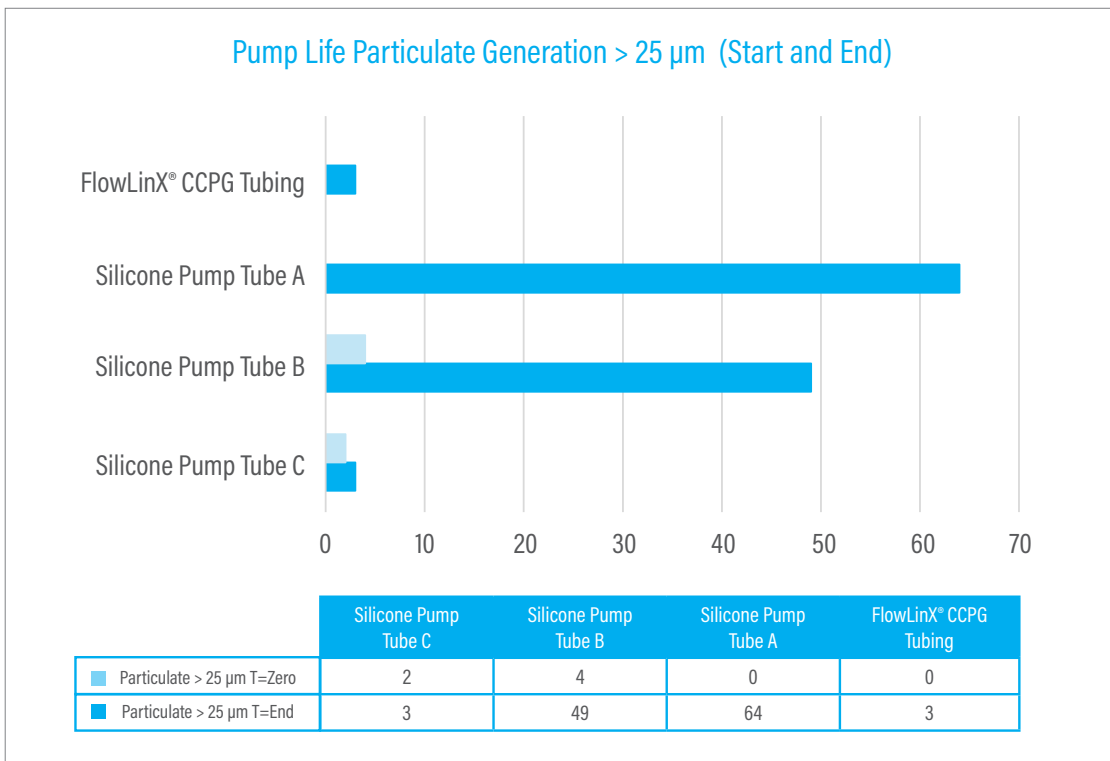


Figure 1: Peristaltic Pump Tubing Life



Pump tubing life in hours for continuous service using MasterFlex L/S variable speed peristaltic pump and head. The pump operated at 400 rpm at 0 psi back pressure with room temperature (18 - 22C) and relative humidity between 32 to 45%.

Figure 2: Pump Life Particulate Generation



Each tubing type was tested for particulate > 25 µm prior to pumping. Post pumping, particulate > 25µm was analyzed from the fluid reservoir.

CCPG Pump Tubing

ID (INCH)	ID (MM)	OD (INCH)	OD (MM)	WALL (INCH)	WALL (MM)	TUBING SIZE NUMBER	COIL SIZE	
							25 FT (7.5 M)	50 FT (15 M)
1/32"	0.8	5/32"	4	1/16"	1.6	13	CCPG-0032-0157-C25	CCPG-0032-0157
3/64"	1.2	11/64"	4.4	1/16"	1.6		CCPG-0047-0173-C25	CCPG-0047-0173
1/16"	1.6	3/16"	4.8	1/16"	1.6	14	CCPG-0063-0188-C25	CCPG-0063-0188
3/32"	2.4	7/32"	5.6	1/16"	1.6		CCPG-0094-0219-C25	CCPG-0094-0219
1/8"	3.2	1/4"	6.4	1/16"	1.6	16	CCPG-0125-0250-C25	CCPG-0125-0250
3/16"	4.8	5/16"	8	1/16"	1.6	25	CCPG-0188-0313-C25	CCPG-0188-0313
1/4"	6.4	3/8"	9.6	1/16"	1.6	17	CCPG-0250-0375-C25	CCPG-0250-0375
5/16"	8	7/16"	11.2	1/16"	1.6		CCPG-0313-0438-C25	CCPG-0313-0438
1/32"	0.8	7/32"	5.6	3/32"	2.4		CCPG-0032-0219-C25	CCPG-0032-0219
1/16"	1.6	1/4"	6.4	3/32"	2.4		CCPG-0063-0250-C25	CCPG-0063-0250
1/8"	3.2	5/16"	8	3/32"	2.4		CCPG-0125-0313-C25	CCPG-0125-0313
3/16"	4.8	3/8"	9.6	3/32"	2.4	15	CCPG-0188-0375-C25	CCPG-0188-0375
1/4"	6.4	7/16"	11.2	3/32"	2.4	24	CCPG-0250-0438-C25	CCPG-0250-0438
5/16"	8	1/2"	12.8	3/32"	2.4	35	CCPG-0313-0500-C25	CCPG-0313-0500
3/8"	9.6	9/16"	14.3	3/32"	2.4	36	CCPG-0375-0563-C25	CCPG-0375-0563
3/32"	2.4	11/32"	8.8	1/8"	3.2		CCPG-0094-0346-C25	CCPG-0094-0346
3/16"	4.8	7/16"	11.2	1/8"	3.2		CCPG-0188-0438-C25	CCPG-0188-0438
1/4"	6.4	1/2"	12.8	1/8"	3.2	26	CCPG-0250-0500-C25	CCPG-0250-0500
3/8"	9.6	5/8"	15.9	1/8"	3.2	73	CCPG-0375-0625-C25	CCPG-0375-0625
1/2"	12.8	3/4"	19	1/8"	3.2	82	CCPG-0500-0750-C25	CCPG-0500-0750
3/4"	19	1"	25.4	1/8"	3.2	90	CCPG-0750-1000-C25	CCPG-0750-1000
5/8"	15.9	7/8"	22.3	1/8"	3.2		CCPG-0625-0875-C25	CCPG-0625-0875
3/8"	9.6	3/4"	19	3/16"	4.8	70	CCPG-0375-0750-C25	CCPG-0375-0750
1/2"	12.8	7/8"	22.3	3/16"	4.8	88	CCPG-0500-0875-C25	CCPG-0500-0875
5/8"	15.9	1"	25.4	3/16"	4.8	89	CCPG-0625-1000-C25	CCPG-0625-1000
3/4"	19	1.125"	28.6	3/16"	4.8		CCPG-0750-1125-C25	CCPG-0750-1125
1"	25.4	1.375"	34.9	3/16"	4.8		CCPG-1000-1375-C25	CCPG-1000-1375

CCSB Braided Silicone Hose

CCSB single braided reinforced silicone hose have great overall performance and excellent resistance to temperature, ozone and steam. Manufactured in an ISO 7 cleanroom, it's biocompatibility and low volatiles ensure suitability for biopharmaceutical, pharma and food applications. Made with polyester yarn inside the wall, CCSB provides elevated pressure ratings and are available in various coil lengths.



CCSB BRAIDED SILICONE HOSE:

ID (INCH)	ID (MM)	OD (INCH)	OD (MM)	WALL (INCH)	WALL (MM)	BURST PRESSURE PSI	BURST PRESSURE BAR	COIL SIZE		
								25 FT (7.5 M)	50 FT (15 M)	100 FT (30 M)
1/8"	3.2	3/8"	9.6	1/8"	3.2	670	46.2	CCSBS-0125-C25	CCSBS-0125	CCSBS-0125-C100
3/16"	4.8	7/16"	11.1	1/8"	3.2	700	48.3	CCSBS-0188-C25	CCSBS-0188	CCSBS-0188-C100
1/4"	6.4	1/2"	12.7	1/8"	3.2	500	34.5	CCSBS-0250-C25	CCSBS-0250	CCSBS-0250-C100
3/8"	9.6	5/8"	15.9	1/8"	3.2	500	34.5	CCSBS-0375-C25	CCSBS-0375	CCSBS-0375-C100
1/2"	12.7	7/8"	22.2	3/16"	4.8	450	31	CCSBS-0500-C25	CCSBS-0500	CCSBS-0500-C100
5/8"	15.9	1"	25.4	3/16"	4.8	450	31	CCSBS-0625-C25	CCSBS-0625	CCSBS-0625-C100
3/4"	19.0	1.125"	28.6	3/16"	4.8	330	22.8	CCSBS-0750-C25	CCSBS-0750	--
1"	25.4	1.405"	35.7	13/64"	5.1	250	17.2	CCSBS-1000-C25	CCSBS-1000	--

DESCRIPTION:

FlowLinX® manifold luer lock clips are the most effective solution for ensuring your male luer to female luer fitting connection remains integral while in transit or in use. Luer lock clips are designed to be used with industry standard stopcock sampling manifolds and luer lock fittings. Ensure luer lock clips are integrated into your FlowLinX® sampling manifold assembly, and sample worry free.

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom
- ISO 9001:2015 Certified Facility
- Meets USP <88> Class VI and Animal Free
- Meets FDA 177.2600
- Meets ISO 10993-4, -5
- Fits with Qosina Stopcock manifolds, PN 99876
- Fits with Eldon James and Nordson Male Luer Locks
- Sterilizable by Gamma Irradiation, ETO and Autoclave



PART NUMBER	DESCRIPTION	PACK SIZE
F-MLL-PF	FlowLinX® Manifold Luer Lock Clip	100

DESCRIPTION:

FlowLinX® sampling assemblies are ideal for aseptic fluid sampling applications used in cell culture, fermentation, chromatography, sterile bulk and transfer. The closed system design allows for easy implementation to monitor critical process parameters. Made from USP <88> Class VI materials, the sampling assemblies are available in individual or multi-sampling units with 1mm or 2mm sampling needles.



Choose from standard configurations or customize to your requirements.



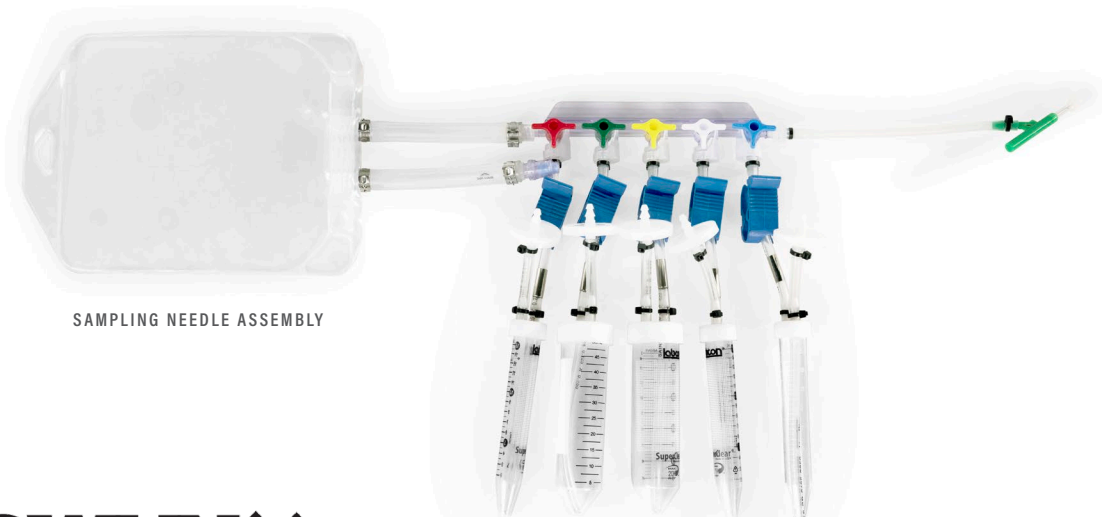
9-PORT SAMPLING NEEDLE HOLDER, 1MM SAMPLING NEEDLES

PART NUMBER	DESCRIPTION	NEEDLE SIZE (MM)	QUANTITY/PACK
F-SN-2.0	FlowLinX® Sampling Needle	1.0	5
F-SN-1.0	FlowLinX® Sampling Needle	2.0	5
F-SNB-2.0	FlowLinX® Port Plug	1.0	5
F-SNB-1.0	FlowLinX® Port Plug	2.0	5

PART NUMBER	DESCRIPTION	PORT	QUANTITY/PACK
F-SNH-1.0	FlowLinX® Sampling Needle Holder, 1.0MM	5	1
F-SNH-2.0	FlowLinX® Sampling Needle Holder, 2.0MM	5	1
F-SNH9-1.0	FlowLinX® Sampling Needle Holder, 9 ports, 1.0mm, 2" TC	9	1
F-SNH9-2.0	FlowLinX® Sampling Needle Holder, 9 ports, 2.0mm, 2" TC	9	1



5-PORT SAMPLING NEEDLE HOLDER
1MM AND 2MM SAMPLING NEEDLES



SAMPLING NEEDLE ASSEMBLY



SAMPLING NEEDLE ASSEMBLIES


PART NUMBER	CONTAINER	CONTAINER MATERIAL	SAMPLING VOLUME (ML)	NEEDLE SIZE (MM)	QUANTITY/PACK	FIGURE
F-SNA-1.0-50ML	2D Bag	ULDPE	50mL	1	50	1
F-SNA-1.0-100ML	2D Bag	ULDPE	100mL	1	50	1
F-SNA-1.0-250ML	2D Bag	ULDPE	250mL	1	50	1
F-SNA-1.0-1000ML	2D Bag	ULDPE	1000mL	1	50	1
F-SNM-1.0-50ML	2D Bag	ULDPE	5 x 50mL	1	10	2
F-SNM-1.0-100ML	2D Bag	ULDPE	5 x 100mL	1	10	2
F-SNM-1.0-250ML	2D Bag	ULDPE	5 x 250mL	1	10	2
F-SNA-2.0-50ML	2D Bag	ULDPE	50mL	2	50	1
F-SNA-2.0-100ML	2D Bag	ULDPE	100mL	2	50	1
F-SNA-2.0-250ML	2D Bag	ULDPE	250mL	2	50	1
F-SNA-2.0-1000ML	2D Bag	ULDPE	1000mL	2	50	1
F-SNM-2.0-50ML	2D Bag	ULDPE	5 x 50mL	2	10	2
F-SNM-2.0-100ML	2D Bag	ULDPE	5 x 100mL	2	10	2
F-SNM-2.0-250ML	2D Bag	ULDPE	5 x 250mL	2	10	2
F-SNM-2.0-1000ML	2D Bag	ULDPE	5 x 1000mL	2	10	2
F-SNBA-1.0-60ML	Bottle	PETG	60mL	1	50	3
F-SNBA-1.0-125ML	Bottle	PETG	125ML	1	50	3
F-SNBA-1.0-250ML	Bottle	PETG	250ML	1	50	3
F-SNBA-1.0-500ML	Bottle	PETG	500ML	1	50	3
F-SNBM-1.0-60ML	Bottle	PETG	5 x 60mL	1	10	4
F-SNBM-1.0-125ML	Bottle	PETG	5 x 125ML	1	10	4
F-SNBM-1.0-250ML	Bottle	PETG	5 x 250ML	1	10	4
F-SNBA-2.0-60ML	Bottle	PETG	60mL	2	50	3
F-SNBA-2.0-125ML	Bottle	PETG	125ML	2	50	3
F-SNBA-2.0-250ML	Bottle	PETG	250ML	2	50	3
F-SNBA-2.0-500ML	Bottle	PETG	500ML	2	50	3
F-SNBM-2.0-60ML	Bottle	PETG	5 x 60mL	2	10	4
F-SNBM-2.0-125ML	Bottle	PETG	5 x 125ML	2	10	4
F-SNBM-2.0-250ML	Bottle	PETG	5 x 250ML	2	10	4
F-SNCA-1.0-15ML	Centrifuge Tube	PP	15mL	1	50	5
F-SNCA-2.0-15ML	Centrifuge Tube	PP	15mL	2	50	5
F-SNCM-1.0-15ML	Centrifuge Tube	PP	5 x 15mL	1	50	6
F-SNCM-2.0-15ML	Centrifuge Tube	PP	5 x 15mL	2	50	6


SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI

-  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.

Figure 1

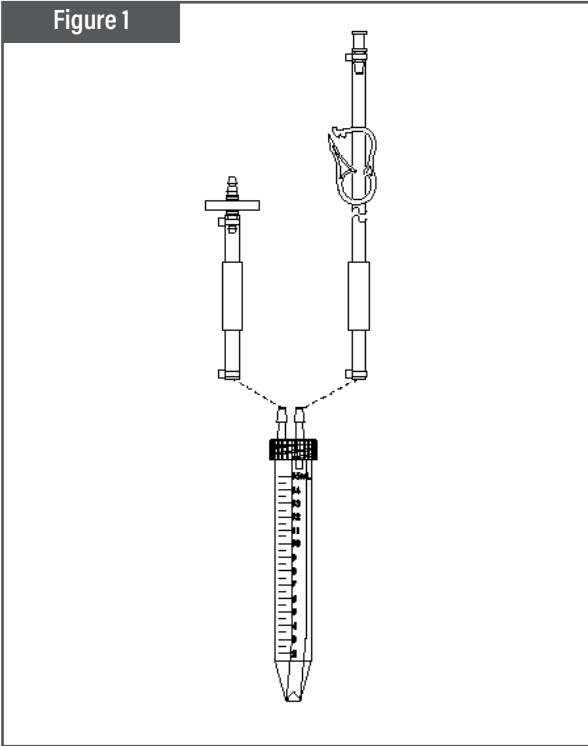


Figure 2

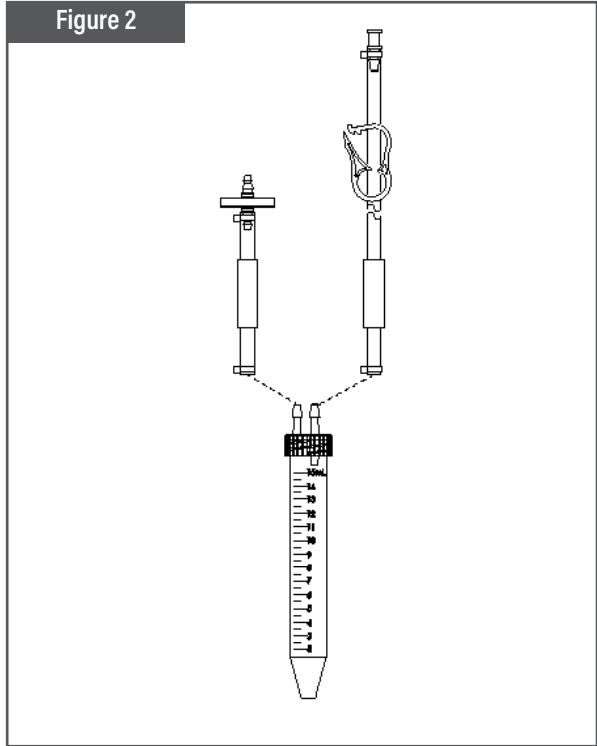


Figure 3

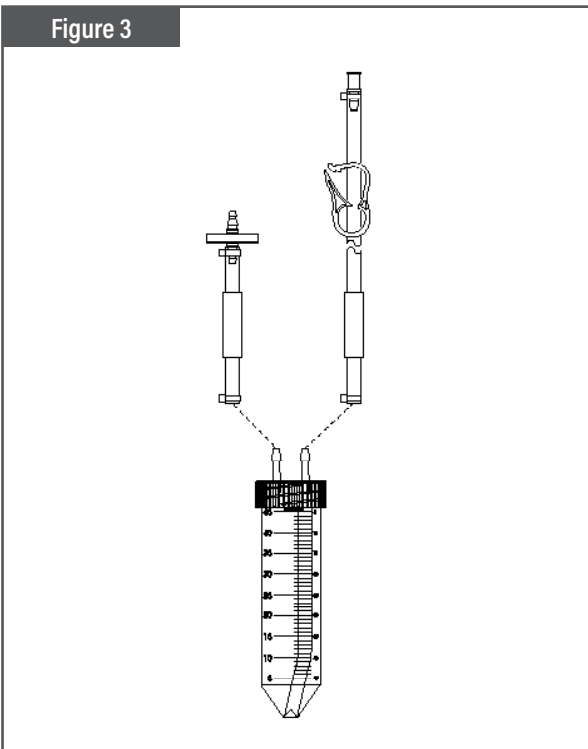
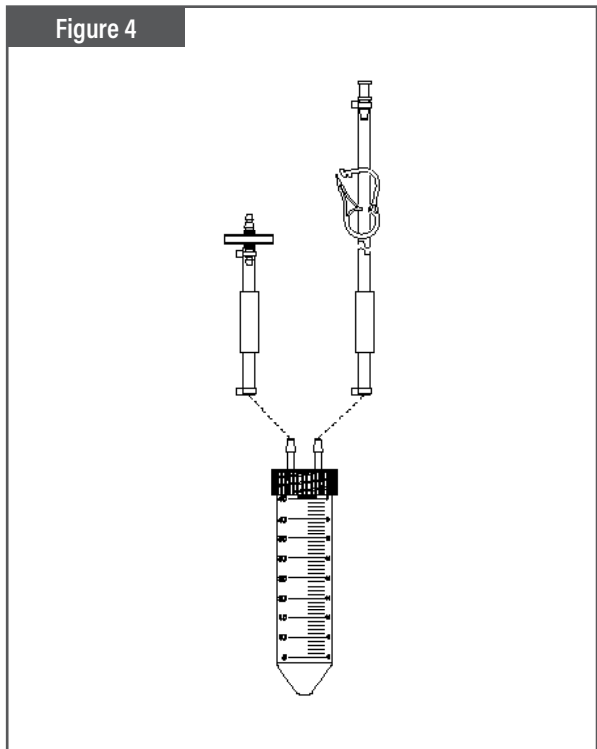


Figure 4



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 11



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

PART NUMBER	DESCRIPTION	COMPATIBLE CLOSURE
F-TW-36	F-TW-36 Torque Wrench set to 36 in-lbs (48mm & GL45)	F-BCC-45-1
		F-BCC-45-2
		F-BCC-45-3
F-TWA-45	F-TWA-45 Torque Wrench Adapter GL45	F-BCC-45-1
		F-BCC-45-2
		F-BCC-45-3

GL45 Caps and Assemblies for Glass Containers

Figure 1

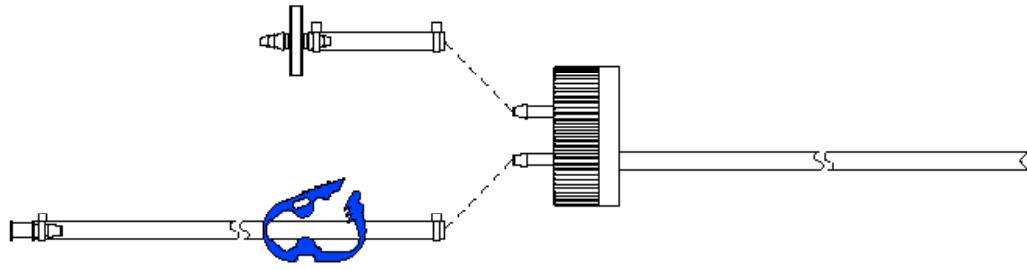
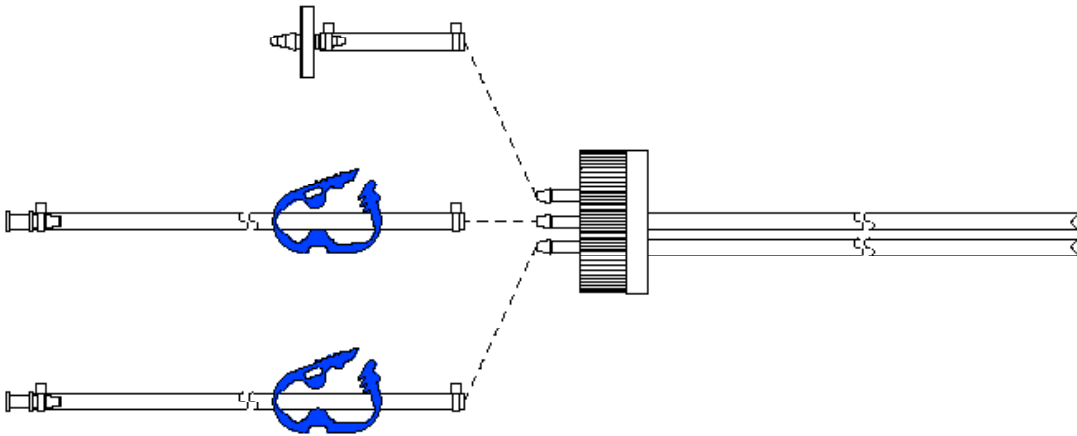


Figure 2



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

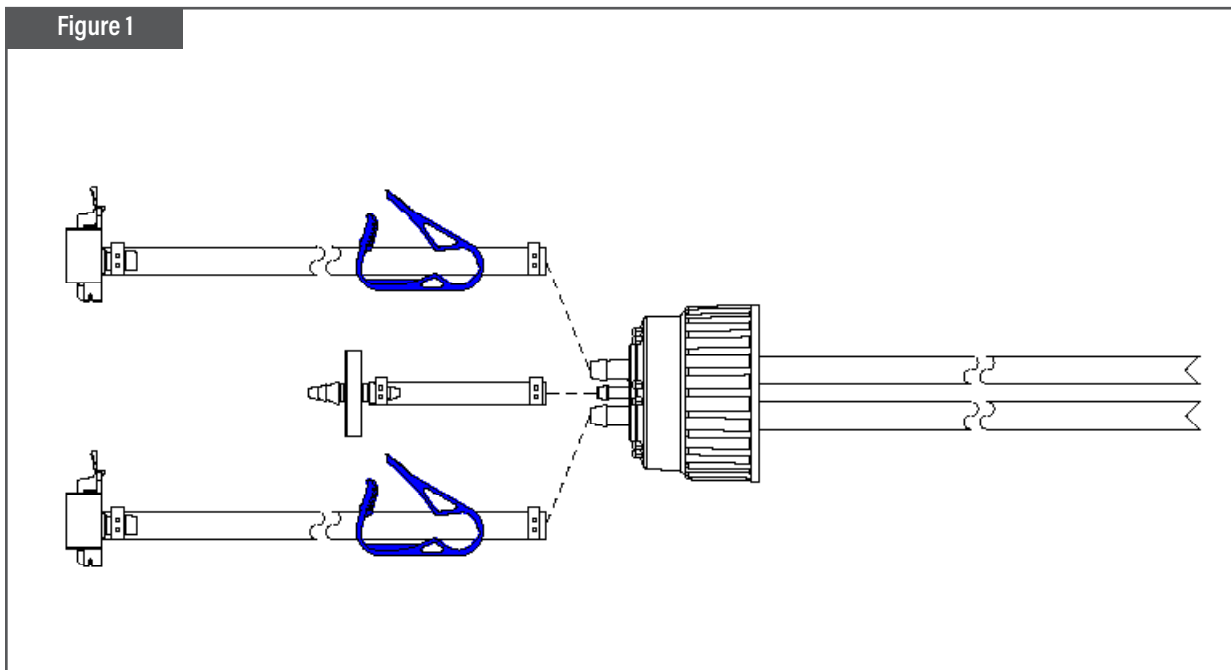
PART NUMBER	DESCRIPTION	TUBING	CONFIGURATION	QUANTITY	STERILITY CLAIM	FIGURE DETAILS
F-BCCA-83-2-PCS	3 port Cap, 83B, for 5L Carboy, PCS	Platinum Cured Silicone	Line 1: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 2: 3/8" x 5/8"; 24" OAL w/AseptiQuik® G, 12" dip tube Line 3: 1/4 x 1/2", 4" 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.

TORQUE TOOLS:

PART NUMBER	DESCRIPTION	COMPATIBLE CLOSURE
F-TW-73	F-TW-73 Torque Wrench set to 73 in-lbs (83B)	F-BCC-83-1
		F-BCC-83-2
		F-BCC-83-3
F-TWA-83	F-TWA-83 Torque Wrench Adapter 83B	F-BCC-83-1
		F-BCC-83-2
		F-BCC-83-3

Figure 1



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.



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 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

5 Years, Non-Sterile/Non-Irradiated



FLOWTAINER® ULTRA CLEAN BOTTLES

BOTTLE PART NUMBERS:

PART NUMBER	VOLUME	BOTTLE MATERIAL	CAP MATERIAL	CLOSURE SIZE	STERILITY CLAIM	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 mm	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 mm	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

FLOWTAINER® ULTRA CLEAN BOTTLES

TORQUE TOOLS:

PART NUMBER	DESCRIPTION	COMPATIBLE CLOSURE
F-TW-36	F-TW-36 Torque Wrench set to 36 in-lbs (48mm)	F-BCC-48-1
		F-BCC-48-2
		F-BCC-48-3
		F-BCC-48-4
		F-BCC-48-5
F-TW-59	F-TW-59 Torque Wrench set to 59 in-lbs (70mm & GL45)	F-BCC-70-1
		F-BCC-70-2
		F-BCC-70-3
		F-BCC-70-4
F-TWA-48FT	F-TWA-48FT Torque Wrench Adapter 48mm FlowTaine®	F-BCC-48-1
		F-BCC-48-2
		F-BCC-48-3
		F-BCC-48-4
		F-BCC-48-5
F-TWA-70FT	F-TWA-70FT Torque Wrench Adapter 70mm FlowTainer®	F-BCC-70-1
		F-BCC-70-2
		F-BCC-70-3
		F-BCC-70-4



PETG BOTTLE SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and Animal Component Free

- Non-Pyrogenic and DNase/RNase Free

- Sterilizable by Gamma Irradiation

- Available with Sterility Assurance Level 10^{-6} per ISO 11137

PET BOTTLE SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and Animal Component Free

- Non-Pyrogenic and DNase/RNase Free

- Sterilizable by Gamma Irradiation

- Available with Sterility Assurance level 10^{-6} per ISO 11137

PETG/PET BOTTLE REGULATORY OVERVIEW

Material of Construction

PETG or PET

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

ISO 10993-5, Cytotoxicity

ISO 10993-6, Implantation

ISO 10993-10, Irritation and Sensitization

ISO 10993-11, Systemic Toxicity

Physiochemical

USP <661>, Plastic Packaging Systems

Particulate

USP <788>, Particulate Matter in Injections

Legislation

REACH

RoHS

Shelf Life

5 Years, Non-Sterile/Non-Irradiated

MEDIA BOTTLES, ASSEMBLIES AND CAPS

MEDIA BOTTLES:

PART NUMBER	VOLUME	BOTTLE MATERIAL	QTY PER PACK/CASE	STERILITY CLAIM
F-PGB-060ML-G	60mL	PETG	24/192	Sterile
F-PGB-060ML			24/192	Non-Sterile
F-PGB-125ML-G	125 mL	PETG	24/96	Sterile
F-PTB-125ML-G		PET		
F-PGB-125ML	125 mL	PETG	24/96	Non-Sterile
F-PTB-125ML		PET		
F-PGB-250ML-G	250 mL	PETG	30/60	Sterile
F-PTB-250ML-G		PET	56/224	
F-PGB-250ML	250 mL	PETG	30/60	Non-Sterile
F-PTB-250ML		PET	56/224	
F-PGB-500ML-G	500 mL	PETG	24/48	Sterile
F-PTB-500ML-G		PET	40/120	
F-PGB-500ML	500 mL	PETG	24/48	Non-Sterile
F-PTB-500ML		PET	40/120	
F-PGB-001L-G	1 L	PETG	12/24	Sterile
F-PTB-001L-G		PET	20/40	
F-PGB-001L	1 L	PETG	12/24	Non-Sterile
F-PTB-001L		PET	20/40	
F-PGB-002L-G	2 L	PETG	12/12	Sterile
F-PGB-002L		PETG	12/12	



MEDIA BOTTLE CAPS:

PART NUMBER	DESCRIPTION	CAP MATERIAL	HOSE BARB ID	CLOSURE SIZE	PACK SIZE
F-MBC-2B	2 Port Cap	Polypropylene	(2) -1/8"	125mL/250mL/500mL/1L/2L Media Bottle	12
F-MBC-3B	3 Port Cap	Polypropylene	(3) -1/8"	125mL/250mL/500mL/1L/2L Media Bottle	12
F-MBC-2C	2 Port Cap	Polypropylene	(2) -1/8"	60mL Media Bottle	12

MEDIA BOTTLES, ASSEMBLIES AND CAPS

MEDIA BOTTLE ASSEMBLY WITH 2 PORT CAP:

PART NUMBER	VOLUME	BOTTLE MATERIAL	CONFIGURATION	QTY PER PACK/CASE	STERILITY CLAIM	FIGURE DETAILS
F-PGBA-125ML-2	125mL	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter	1/6	Sterile	Figure 1
F-PTBA-125ML-2		PET				
F-PGBA-250ML-2	250ml	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter	1/6	Sterile	Figure 2
F-PTBA-250ML-2		PET				
F-PGBA-500ML-2	500mL	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter	1/6	Sterile	Figure 3
F-PTBA-500ML-2		PET				

MEDIA BOTTLE ASSEMBLY WITH 3 PORT CAP:

PART NUMBER	VOLUME	BOTTLE MATERIAL	CONFIGURATION	QTY PER PACK/CASE	STERILITY CLAIM	FIGURE DETAILS
F-PGBA-125ML-3	125mL	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC ; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube	1/6	Sterile	Figure 1
F-PTBA-125ML-3		PET				
F-PGBA-250ML-3	250ml	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC ; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube	1/6	Sterile	Figure 2
F-PTBA-250ML-3		PET				
F-PGBA-500ML-3	500mL	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC ; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube	1/6	Sterile	Figure 3
F-PTBA-500ML-3		PET				
F-PGBA-001L-3	1L	PETG	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC ; Diptube Line 2: 1/8" x 1/4", 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube	1/6	Sterile	Figure 4
F-PTBA-001L-3		PET				



PC FLASK SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom
- ISO 9001:2015 Certified Facility
- USP Class VI and Animal Component Free
- Non-Pyrogenic and DNase/RNase Free
- Sterilizable by Gamma Irradiation and Autoclave
- Available with Sterility Assurance level 10^{-6} per ISO 11137

PETG FLASK SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom
- ISO 9001:2015 Certified Facility
- USP Class VI and Animal Component Free
- Non-Pyrogenic and DNase/RNase Free
- Sterilizable by Gamma Irradiation
- Available with Sterility Assurance level 10^{-6} per ISO 11137

PC/PETG FLASK REGULATORY OVERVIEW

Material of Construction

PC or PETG

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

ISO 10993-5, Cytotoxicity

ISO 10993-6, Implantation

ISO 10993-10, Irritation and Sensitization

ISO 10993-11, Systemic Toxicity

Physicochemical

USP <661>, Plastic Packaging Systems

Particulate

USP <788>, Particulate Matter in Injections

Legislation

REACH

RoHS

Shelf Life

5 Years, Non-Sterile/Non-Irradiated

ERLENMEYER FLASKS:

PART NUMBER	VOLUME	FLASK BOTTOM	FLASK MATERIAL	STERILITY CLAIM	QTY PER PACK/CASE
F-PCF-125ML-G	125mL	Baffled	Polycarbonate	Sterile	1/24
F-PGFP-125ML-G		Plain	PETG		
F-PCFP-125ML-G		Plain	Polycarbonate		
F-PCF-125ML	125mL	Baffled	Polycarbonate	Non-Sterile	1/24
F-PGFP-125ML		Plain	PETG		
F-PCFP-125ML		Plain	Polycarbonate		
F-PCF-250ML-G	250mL	Baffled	Polycarbonate	Sterile	1/12
F-PGFP-250ML-G		Plain	PETG		
F-PCFP-250ML-G		Plain	Polycarbonate		
F-PCF-250ML	250mL	Baffled	Polycarbonate	Non-Sterile	1/12
F-PGFP-250ML		Plain	PETG		
F-PCFP-250ML		Plain	Polycarbonate		
F-PCF-500ML-G	500mL	Baffled	Polycarbonate	Sterile	1/12
F-PGFP-500ML-G		Plain	PETG		
F-PCFP-500ML-G		Plain	Polycarbonate		
F-PCF-500ML	500mL	Baffled	Polycarbonate	Non-Sterile	1/12
F-PGFP-500ML		Plain	PETG		
F-PCFP-500ML		Plain	Polycarbonate		
F-PCF-001L-G	1L	Baffled	Polycarbonate	Sterile	1/12
F-PGFP-001L-G		Plain	PETG		
F-PCFP-001L-G		Plain	Polycarbonate		
F-PCF-001L	1L	Baffled	Polycarbonate	Non-Sterile	1/12
F-PGFP-001L		Plain	PETG		
F-PCFP-001L		Plain	Polycarbonate		
F-PCFP-003L-G	3L	Plain	Polycarbonate	Sterile	1/12
F-PCFP-005L-G	5L	Plain	Polycarbonate		1/6
F-PCFP-003L	3L	Plain	Polycarbonate	Non-Sterile	1/12
F-PCFP-005L	5L	Plain	Polycarbonate		1/6

FLASK CAPS:

PART NUMBER	DESCRIPTION	CAP MATERIAL	HOSE BARB ID	CLOSURE SIZE	PACK SIZE	STERILITY CLAIM
F-FCC-2BS	2 Port Cap	Polypropylene	(2) - 1/8"	125mL Erlenmeyer Flask	12	Non-Sterile
F-FCC-3BS	3 Port Cap	Polypropylene	(3) - 1/8"	125mL Erlenmeyer Flask	12	Non-Sterile
F-FCC-2B	2 Port Cap	Polypropylene	(2) - 1/8"	250mL/500mL/1L Erlenmeyer Flask	12	Non-Sterile
F-FCC-3B	3 Port Cap	Polypropylene	(3) - 1/8"	250mL/500mL/1L Erlenmeyer Flask	12	Non-Sterile
F-FCC-2BL	2 Port Cap	Polypropylene	(2) - 1/4"	3L/5L Erlenmeyer Flask	12	Non-Sterile
F-FCC-3BL	3 Port Cap	Polypropylene	(3) - 1/4"	3L/5L Erlenmeyer Flask	12	Non-Sterile
F-FCC-1	Solid Flat Cap	Polypropylene	N/A	125mL Erlenmeyer Flask	12	Non-Sterile
F-FCC-2	Solid Flat Cap	Polypropylene	N/A	250mL/500mL/1L Erlenmeyer Flask	12	Non-Sterile
F-FCC-3	Solid Flat Cap	Polypropylene	N/A	3L/5L Erlenmeyer Flask	12	Non-Sterile

ERLENMEYER FLASK ASEPTIC TRANSFER CAP:

PART NUMBER	FLASK VOLUME	CONFIGURATION	QUANTITY PER PACK/CASE	STERILITY CLAIM	FIGURE DETAILS
F-FCA-250ML-2	250ml	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter	1/4	Sterile	Figure 1
F-FCA-500ML-2	500mL	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter			
F-FCA-001L-2	1L	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter			
F-FCA-003L-2	3L	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter	1/2		
F-FCA-005L-2	5L				

FLASK ASSEMBLIES: 2 PORT CAP

PART NUMBER	VOLUME	FLASK BOTTOM	FLASK MATERIAL	CONFIGURATION	QUANTITY PER PACK/CASE	STERILITY CLAIM	FIGURE DETAILS
F-PCFA-250ML-2	250mL	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter	1/4	Sterile	Figure 2
F-PGFPA-250ML-2		Plain	PETG				
F-PCFPA-250ML-2		Plain	Polycarbonate				
F-PCFA-500ML-2	500mL	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter			
F-PGFPA-500ML-2		Plain	PETG				
F-PCFPA-500ML-2		Plain	Polycarbonate				
F-PCFA-001L-2	1L	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter			
F-PGFPA-001L-2		Plain	PETG				
F-PCFPA-001L-2		Plain	Polycarbonate				
F-PCFA-003L-2	3L	Plan	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock ; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter	1/2	Figure 3	
F-PCFA-005L-2	5L	Plain	Polycarbonate			Figure 4	

FLASK ASSEMBLIES: 3 PORT CAP

PART NUMBER	VOLUME	FLASK BOTTOM	FLASK MATERIAL	CONFIGURATION	QUANTITY PER PACK/CASE	STERILITY CLAIM	FIGURE DETAILS
F-PCFA-250ML-3	250ml	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube	1/4	Sterile	Figure 5
F-PGFPA-250ML-3		Plain	PETG				
F-PCFPA-250ML-3		Plain	Polycarbonate				
F-PCFA-500ML-3	500mL	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube			
F-PGFPA-500ML-3		Plain	PETG				
F-PCFPA-500ML-3		Plain	Polycarbonate				
F-PCFA-001L-3	1L	Baffled	Polycarbonate	Line 1: 1/8" x 1/4" TPE Tubing; 24" OAL w/ Male Luer Lock; Diptube Line 2: 1/8" x 1/4" , 4" OAL w/ vent filter Line 3: 1/8" x 1/4" TPE Tubing; 24" OAL w/ MPC; Diptube			
F-PGFPA-001L-3		Plain	PETG				
F-PCFPA-001L-3		Plain	Polycarbonate				



SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom

- ISO 9001:2015 Certified Facility

- USP Class VI and Animal Component Free

- Available with pH and DO Optical Sensors

- Available in 1L, 2L, 10L, 20L and 50L sizes

- All Hose Barb Ports are ¼" ID

- Optimized for cell lines that have Irgafos™ antioxidant sensitivity

- Sterility Assurance Level 10⁻⁶ per ISO 11137

BAG FILM REGULATORY OVERVIEW

Material of Construction

ULDPE Fluid Contact Layer

Biocompatibility

USP <85>, Bacterial Endotoxin

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

USP <87>, Biological Reactivity Tests, In Vitro

ISO 10993-4, Hemolysis

ISO 10993-5, Cytotoxicity

ISO 10993-6, Implantation

ISO 10993-10, Irritation and Sensitization

ISO 10993-11, Systemic Toxicity

Physiochemical

USP <661>, Plastic Packaging Systems

EP 3.2.2.1, Plastic Containers for Aqueous Solutions for Infusion

Extractables

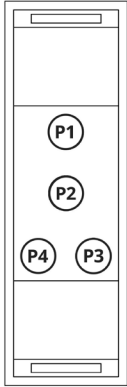
Per BPOG Protocol



BLANK CHAMBERS

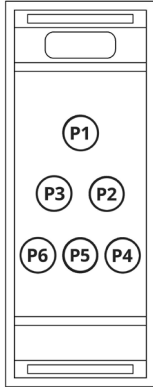
PART NUMBER	CAPACITY	VERSION	FIGURE
F-RBC-001L	1L	Basic	1
F-RBC-002L	2L	Basic	2
F-RBC-002L-S	2L	pH/DO Sensors	3
F-RBC-010L	10L	Basic	4
F-RBC-010L-S	10L	pH/DO Sensors	5
F-RBC-020L	20L	Basic	6
F-RBC-020L-S	20L	pH/DO Sensors	7
F-RBC-050L	50L	Basic	8
F-RBC-050L-S	50L	pH/DO Sensors	9

Figure 1



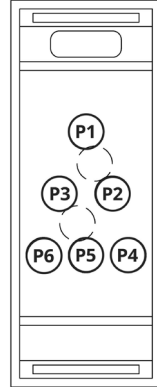
F-RBW-001L

Figure 2



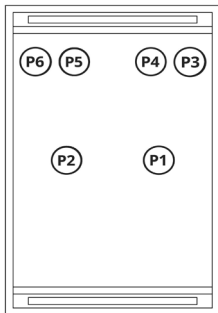
F-RBW-002L

Figure 3



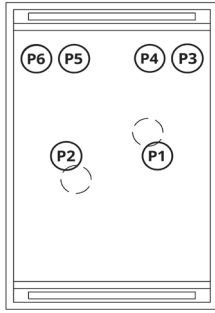
F-RBW-002L-S

Figure 4



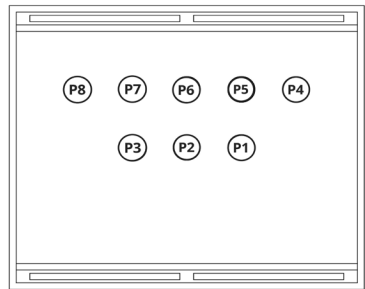
F-RBW-010L

Figure 5



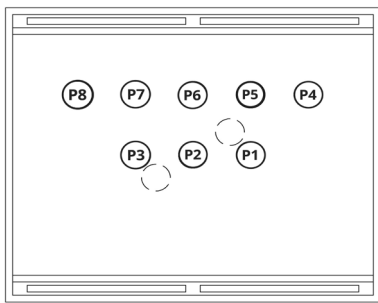
F-RBW-010L-S

Figure 6



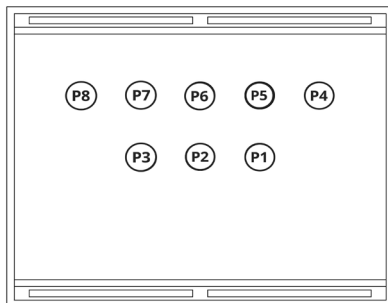
F-RBW-020L

Figure 7



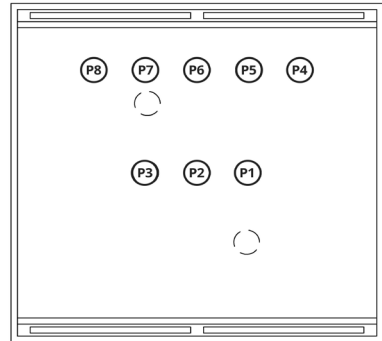
F-RBW-020L-S

Figure 8



F-RBW-050L

Figure 9



F-RBW-050L-S

2D BIO BAG CHAMBERS

DESCRIPTION:

FlowLinX® 2D bio bag chambers are designed for aseptic fluid handling in upstream and downstream processing, such as sampling, buffer and media storage, and chromatography. The bag chamber design allows for easy product recovery with minimal product hold up. Made from USP Class VI components, FlowLinX® 2D bio bag chambers are available from 50mL to 50L in 3 port and 4 port configurations.

SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom

- ISO 9001:2015 Certified Facility

- USP <88> Class VI & Animal Component Free

- Aseptically connect using AseptiQuik® or TPE tube welder

- Aseptically disconnect using TPE tube sealer

- Double bagged and ready to use

- Sterility assurance level 10^{-6} per ISO 11137



2D BIO BAG CHAMBERS

2D BAG ORDERING INFORMATION:

PART NUMBER	DESCRIPTION	VOL	PORT CONFIGURATION
F-2DB-050ML	FlowLinX® 2D Bag, 3 x 1/8" HB, 50mL	50mL	1/8"×3
F-2DB-050ML-SEAL-1	FlowLinX® 2D Bag, 1 x 1/8" HB, 50mL		1/8"×3 (2 Blocked)
F-2DB-050ML-SEAL-2	FlowLinX® 2D Bag, 2 x 1/8" HB, 50mL		1/8"×3 (1 Blocked)
F-2DB-100ML	FlowLinX® 2D Bag, 3 x 1/8" HB, 100mL	100mL	1/8"×3
F-2DB-100ML-SEAL-1	FlowLinX® 2D Bag, 1 x 1/8" HB, 100mL		1/8"×3 (2 Blocked)
F-2DB-100ML-SEAL-2	FlowLinX® 2D Bag, 2 x 1/8" HB, 100mL		1/8"×3 (1 Blocked)
F-2DB-250ML	FlowLinX® 2D Bag, 3 x 1/8" HB , 250mL	250mL	1/8"×3
F-2DB-250ML-SEAL-1	FlowLinX® 2D Bag, 1 x 1/8" HB , 250mL		1/8"×3 (2 Blocked)
F-2DB-250ML-SEAL-2	FlowLinX® 2D Bag, 2 x 1/8" HB , 250mL		1/8"×3 (1 Blocked)
F-2DB-500ML	FlowLinXr® 2D Bag, 3 x 1/4" HB , 500mL	500mL	1/4"×3
F-2DB-500ML-SEAL-1	FlowLinXr® 2D Bag, 1 x 1/4" HB , 500mL		1/4"×3 (2 Blocked)
F-2DB-500ML-SEAL-2	FlowLinX® 2D Bag, 2 x 1/4" HB , 500mL		1/4"×3 (1 Blocked)
F-2DB-001L	FlowLinX® 2D Bag, 3 x 1/4" HB, 1L	1L	1/4"×3
F-2DB-001L-SEAL-1	FlowLinX® 2D Bag, 1 x 1/4" HB, 1L		1/4"×3 (2 Blocked)
F-2DB-001L-SEAL-2	FlowLinX® 2D Bag, 2 x 1/4" HB, 1L		1/4"×3 (1 Blocked)
F-2DB-002L	FlowLinX® 2D Bag, 3 x 1/4" HB, 2L	2L	1/4"×3
F-2DB-002L-SEAL-1	FlowLinX® 2D Bag, 1 x 1/4" HB, 2L		1/4"×3 (2 Blocked)
F-2DB-002L-SEAL-2	FlowLinX® 2D Bag, 2 x 1/4" HB, 2L		1/4"×3 (1 Blocked)
F-2DB-003L	FlowLinX® 2D Bag, 3 x 1/4" HB, 3L	3L	1/4"×3
F-2DB-003L-SEAL-1	FlowLinX® 2D Bag, 1 x 1/4" HB, 3L		1/4"×3 (2 Blocked)
F-2DB-003L-SEAL-2	FlowLinX® 2D Bag, 2 x 1/4" HB, 3L		1/4"×3 (1 Blocked)
F-2DB-005L	FlowLinX® 2D Bag, 3 x 3/8" HB, 1 x 1/4" HB, 5L	5L	3/8"×3, 1/4"×1
F-2DB-005L-SEAL-1	FlowLinX® 2D Bag, 1 x 3/8" HB, 5L		3/8"×3 (2 Blocked), 1/4"×1 (1)
F-2DB-005L-SEAL-2	FlowLinX® 2D Bag, 2 x 3/8" HB, 5L		3/8"×3 (1 Blocked), 1/4"×1 (1 Blocked)
F-2DB-005L-SEAL-3	FlowLinX® 2D Bag, 3 x 3/8" HB, 5L		3/8"×3, 1/4"×1 (1 Blocked)
F-2DB-005L-SEAL-4	FlowLinX® 2D Bag, 1 x 3/8" HB, 1 x 1/4" HB, 5L		3/8"×3 (2 Blocked), 1/4"×1
F-2DB-005L-SEAL-5	FlowLinX® 2D Bag, 2 x 3/8" HB, 1 x 1/4" HB, 5L		3/8"×3 (1 Blocked), 1/4"×1

Continued on next page...

2D BIO BAG CHAMBERS

2D BAG ORDERING INFORMATION (CONTINUED):

PART NUMBER	DESCRIPTION	VOL	PORT CONFIGURATION
F-2DB-010L	FlowLinX® 2D Bag, 3 x 3/8" HB, 1 x 1/4" HB, 10L	10L	3/8"³, 1/4"¹
F-2DB-010L-SEAL-1	FlowLinX® 2D Bag, 1 x 3/8" HB, 10L		3/8"³ (2 Blocked), 1/4"¹ (1 Blocked)
F-2DB-010L-SEAL-2	FlowLinX® 2D Bag, 2 x 3/8" HB, 10L		3/8"³ (1 Blocked), 1/4"¹ (1 Blocked)
F-2DB-010L-SEAL-3	FlowLinX® 2D Bag, 3 x 3/8" HB, 10L		3/8"³, 1/4"¹ (1 Blocked)
F-2DB-010L-SEAL-4	FlowLinX® 2D Bag, 1 x 3/8" HB, 1 x 1/4" HB, 10L		3/8"³ (2 Blocked), 1/4"¹
F-2DB-010L-SEAL-5	FlowLinX® 2D Bag, 2 x 3/8" HB, 1 x 1/4" HB, 10L		3/8"³ (1 Blocked), 1/4"¹
F-2DB-020L	FlowLinX® 2D Bag, 3 x 3/8" HB, 1 x 1/4" HB, 20L	20L	3/8"³, 1/4"¹
F-2DB-020L-SEAL-1	FlowLinX® 2D Bag, 1 x 3/8" HB, 20L		3/8"³ (2 Blocked), 1/4"¹ (1 Blocked)
F-2DB-020L-SEAL-2	FlowLinX® 2D Bag, 2 x 3/8" HB, 20L		3/8"³ (1 Blocked), 1/4"¹ (1 Blocked)
F-2DB-020L-SEAL-3	FlowLinX® 2D Bag, 3 x 3/8" HB, 20L		3/8"³, 1/4"¹ (1 Blocked)
F-2DB-020L-SEAL-4	FlowLinX® 2D Bag, 1 x 3/8" HB, 1 x 1/4" HB, 20L		3/8"³ (2 Blocked), 1/4"¹
F-2DB-020L-SEAL-5	FlowLinX® 2D Bag, 2 x 3/8" HB, 1 x 1/4" HB, 20L		3/8"³ (1 Blocked), 1/4"¹
F-2DB-030L	FlowLinX® 2D Bag, 3 x 3/8" HB, 1 x 1/4" HB, 30L	30L	3/8"³, 1/4"¹
F-2DB-030L-SEAL-1	FlowLinX® 2D Bag, 1 x 3/8" HB, 30L		3/8"³ (2 Blocked), 1/4"¹ (1 Blocked)
F-2DB-030L-SEAL-2	FlowLinX® 2D Bag, 2 x 3/8" HB, 30L		3/8"³ (1 Blocked), 1/4"¹ (1 Blocked)
F-2DB-030L-SEAL-3	FlowLinX® 2D Bag, 3 x 3/8" HB, 30L		3/8"³, 1/4"¹ (1 Blocked)
F-2DB-030L-SEAL-4	FlowLinX® 2D Bag, 1 x 3/8" HB, 1 x 1/4" HB, 30L		3/8"³ (2 Blocked), 1/4"¹
F-2DB-030L-SEAL-5	FlowLinX® 2D Bag, 2 x 3/8" HB, 1 x 1/4" HB, 30L		3/8"³ (1 Blocked), 1/4"¹
F-2DB-050L	FlowLinX® 2D Bag, 3 x 3/8" HB, 1 x 1/4" HB, 50L	50L	3/8"³, 1/4"¹
F-2DB-050L-SEAL-1	FlowLinX® 2D Bag, 1 x 3/8" HB, 50L		3/8"³ (2 Blocked), 1/4"¹ (1 Blocked)
F-2DB-050L-SEAL-2	FlowLinX® 2D Bag, 2 x 3/8" HB, 50L		3/8"³ (1 Blocked), 1/4"¹ (1 Blocked)
F-2DB-050L-SEAL-3	FlowLinX® 2D Bag, 3 x 3/8" HB, 50L		3/8"³, 1/4"¹ (1 Blocked)
F-2DB-050L-SEAL-4	FlowLinX® 2D Bag, 1 x 3/8" HB, 1 x 1/4" HB, 50L		3/8"³ (2 Blocked), 1/4"¹
F-2DB-050L-SEAL-5	FlowLinX® 2D Bag, 2 x 3/8" HB, 1 x 1/4" HB, 50L		3/8"³ (1 Blocked), 1/4"¹

DESCRIPTION:

FlowLinX® powder bags and stands are designed for powder filling, containment and discharge for the manufacturing of liquid media, buffers and other chemicals. The bag chamber design allows for maximum powder recovery and is available with a wash line for post-discharge rinsing. Made from USP Class VI components and ULDPE film, FlowLinX® powder bags are available from 5kg to 50kg with either a 3" or 4" sanitary tri-clamp flange. Choose from standard sterile or non-sterile configurations or customize the bag to your requirements.

SPECIFICATIONS:

- Manufactured in an ISO 7 Cleanroom
- ISO 9001:2015 Certified Facility
- USP <88> Class VI & Animal Component Free
- Sterile or Non-Sterile Configurations
- 3" or 4" Sanitary Flange
- Sterility Assurance Level 10^{-6} per ISO 11137

APPLICATIONS:

- Bulk/Dry Powder Media
- Buffer Media
- Intermediates
- API
- Excipients



BAG FILM REGULATORY OVERVIEW:

Material of Construction

ULDPE Fluid Contact Layer

Biocompatibility

USP <85>, Bacterial Endotoxin

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

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

ISO 10993-4, Hemolysis

ISO 10993-5, Cytotoxicity

ISO 10993-6, Implantation

ISO 10993-10, Irritation and Sensitization

ISO 10993-11, Systemic Toxicity

Physiochemical

USP <661>, Plastic Packaging Systems

EP 3.2.2.1, Plastic Containers for Aqueous Solutions for Infusion

Extractables

Per BPOG Protocol

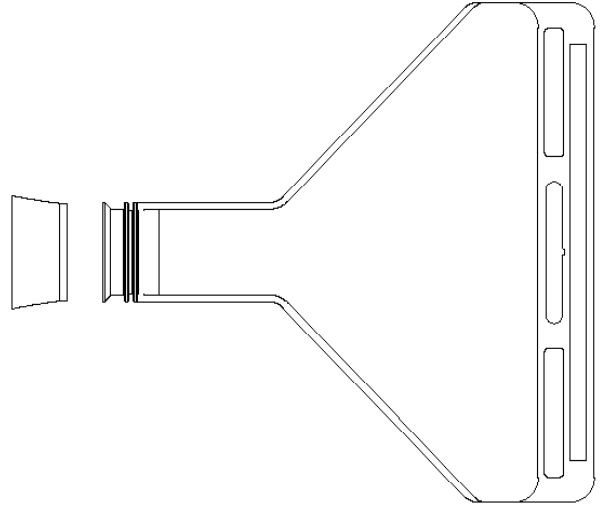


FIGURE 1 - SANITARY SEAL W/ DUST COVER

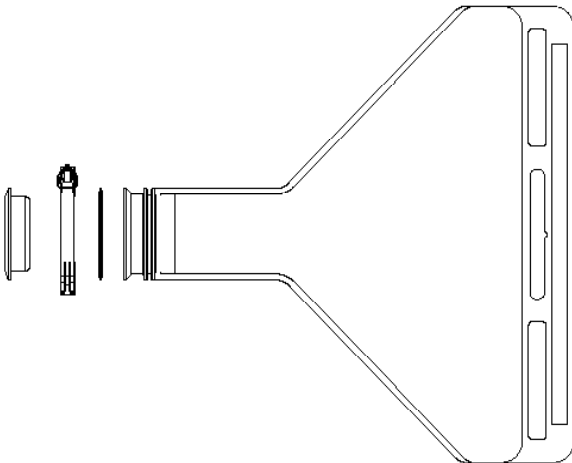


FIGURE 2 - SANITARY SEAL W/ END CAP

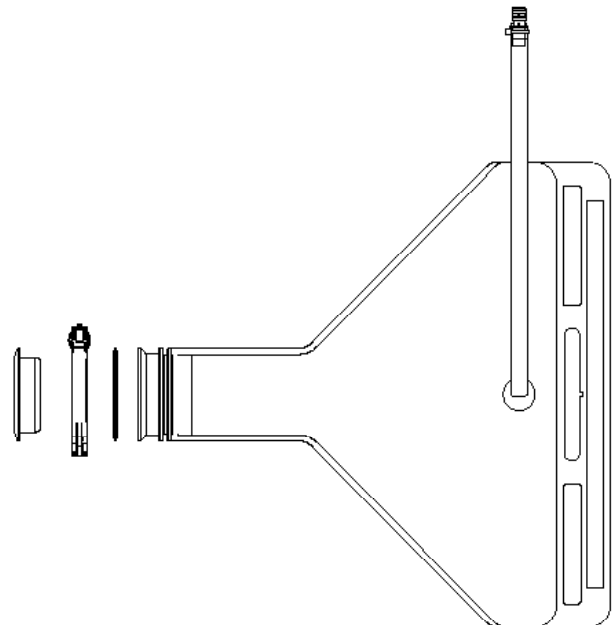


FIGURE 3 - SANITARY SEAL W/ WASH LINE

POWDER BAGS AND STANDS

ORDERING INFORMATION:

PART NUMBER	VOLUME	CONFIGURATION	STERILITY CLAIM	QTY	FIGURE
F-PB-05-3TC	5L	3" Sanitary Seal w/ Dust Cover	Non-Sterile	Each	1
F-PB-10-3TC	10L			Each	
F-PB-15-3TC	15L			Each	
F-PB-25-3TC	25L			Each	
F-PB-50-3TC	50L			Each	
F-PB-05-4TC	5L	4" Sanitary Seal w/ Dust Cover		Each	
F-PB-10-4TC	10L			Each	
F-PB-15-4TC	15L			Each	
F-PB-25-4TC	25L			Each	
F-PB-50-4TC	50L			Each	
F-PBC-05-3TC-S	5L	3" Sanitary Seal w/ End Cap	Sterile	Each	2
F-PBC-10-3TC-S	10L			Each	
F-PBC-15-3TC-S	15L			Each	
F-PBC-25-3TC-S	25L			Each	
F-PBC-50-3TC-S	50L			Each	
F-PBC-05-4TC-S	5L	4" Sanitary Seal w/ End Cap		Each	
F-PBC-10-4TC-S	10L			Each	
F-PBC-15-4TC-S	15L			Each	
F-PBC-25-4TC-S	25L			Each	
F-PBC-50-4TC-S	50L			Each	
F-PBCW-05-3TC-S	5L	3" Sanitary Seal w/ End Cap Line 1: Wash Line, 3/8" x 5/8" PCS w/ MPC	Each	3	
F-PBCW-10-3TC-S	10L		Each		
F-PBCW-15-3TC-S	15L		Each		
F-PBCW-25-3TC-S	25L		Each		
F-PBCW-50-3TC-S	50L		Each		
F-PBCW-05-4TC-S	5L	4" Sanitary Seal w/ End Cap Line 1: Wash Line, 3/8" x 5/8" PCS w/ MPC	Each		
F-PBCW-10-4TC-S	10L		Each		
F-PBCW-15-4TC-S	15L		Each		
F-PBCW-25-4TC-S	25L		Each		
F-PBCW-50-4TC-S	50L		Each		

PART NUMBER	CONFIGURATION	QTY
PBS-3TC	3" Sanitary Bag Stand	Each
PBS-4TC	4" Sanitary Bag Stand	Each



FlowLinX[®] molded sanitary assemblies are the optimal choice for aseptic fluid transfer, sampling, sterile filling, and other critical bioprocess applications. Made from platinum cured silicone, molded sanitary assemblies are available in mini (0.75"), maxi (1.5") and 2" sanitary versions with a variety of tubing sizes and lengths. The one-piece leak proof design features a gasket molded into the face of the sanitary which ensures proper connection alignment, reduces operator contact with the fluid path and eliminates entrapment.



Choose from standard configurations or customize to your requirements.



SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom
- ISO 9001:2015 Certified Facility
- Animal Component Free
- Mini (0.75"), maxi (1-1/2"), and 2" sanitary sizes
- Polysulfone or stainless-steel backup cups
- Sterility assurance level 10⁻⁶ per ISO 11137

SILICONE REGULATORY OVERVIEW:

<p>Material of Construction</p> <p>Platinum Cured Silicone</p>	<p>Physiochemical</p> <p>USP <661>, Plastic Packaging Systems</p> <p>EP 3.1.9, Plastic Packaging Systems and Materials of Construction</p> <p>FDA 21 CFR 177.2600, Rubber Articles Intended for Repeated Use</p>
<p>Biocompatibility</p> <p>USP <85>, Bacterial Endotoxin</p> <p>USP <88>, Biological Reactivity Tests, Class VI, In Vivo</p> <p>ISO 10993-3, Mutagenicity</p> <p>ISO 10993-4, Hemolysis</p> <p>ISO 10993-5, Cytotoxicity</p> <p>ISO 10993-10, Irritation and Sensitization</p> <p>ISO 10993-11, Systemic Toxicity</p>	<p>Extractables</p> <p>Per BPOG Protocol</p> <p>Legislation</p> <p>REACH</p> <p>RoHS</p> <p>Conflict Mineral</p>

TUBING SELECTOR

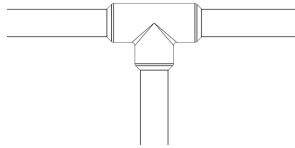
EXAMPLE PRODUCT ID:

FA S 188375 X X P 6 U

Assembly	Tubing Type	Tubing Size	First End Type	Second End Type	Backup Cup	Length	Treatment Type
FA: Flowlinx Assembly	S: Silicone Unreinforced	<p>Unreinforced:</p> <p>188375: 0.188" x 0.375"</p> <p>188438: 0.188" x 0.438"</p> <p>250375: 0.250" x 0.375"</p> <p>250438: 0.250" x 0.438"</p> <p>250500: 0.250" x 0.500"</p> <p>313438: 0.313" x 0.438"</p> <p>313563: 0.313" x 0.563"</p> <p>375500: 0.375" x 0.500"</p> <p>375563: 0.375" x 0.563"</p> <p>375625: 0.375" x 0.625"</p> <p>500750: 0.500" x 0.750"</p> <p>625875: 0.625" x 0.875"</p> <p>7501000: 0.750" x 1.000"</p> <p>10001375: 1.000" x 1.375"</p>	<p>X: Maxi Sanitary</p> <p>M: Mini Sanitary</p> <p>2: 2" Sanitary</p>	<p>X: Maxi Sanitary</p> <p>M: Mini Sanitary</p> <p>2: 2" Sanitary</p> <p>O: Open End</p>	<p>P: Polysulfone</p> <p>S: Stainless</p>	<p>6: 6"</p> <p>12: 12"</p> <p>24: 24"</p> <p>36: 36"</p> <p>48: 48"</p> <p>60: 60"</p> <p>72: 72"</p> <p>84: 84"</p> <p>96: 96"</p> <p>120: 120"</p>	<p>U: non-sterile</p> <p>S: sterile</p>
	B: Silicone Reinforced						
			<p>Braid Reinforced:</p> <p>250: 0.250" ID</p> <p>375: 0.375" ID</p> <p>500: 0.500" ID</p> <p>625: 0.625" ID</p> <p>1000: 1.000" ID</p>				

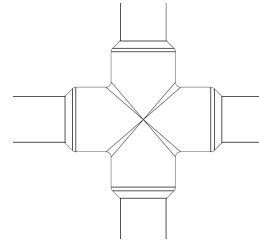


TEES, WYES AND CROSSES



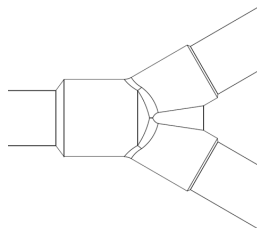
TEES

TUBING ID	TUBING OD
1/8" (3.2 mm)	1/4" (6.4 mm)
1/4" (6.4 mm)	7/16" (11.1 mm)
1/4" (6.4 mm)	1/2" (12.7 mm)
3/8" (9.5 MM)	5/8" (15.9 mm)
1/2" (12.7 MM)	3/4" (19.1 mm)
1/2" (12.7 MM)	7/8" (22.2 mm)
3/4" (19.1 MM)	1" (25.4 mm)
1" (25.4 MM)	1-3/8" (34.9 mm)



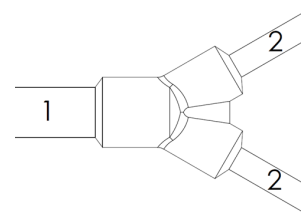
CROSSES

TUBING ID	TUBING OD
1/8" (3.2 mm)	1/4" (6.4 mm)
1/4" (6.4 mm)	7/16" (11.1 mm)
1/4" (6.4 mm)	1/2" (12.7 mm)
3/8" (9.5 MM)	5/8" (15.9 mm)
1/2" (12.7 MM)	3/4" (19.1 mm)
1/2" (12.7 MM)	7/8" (22.2 mm)
3/4" (19.1 MM)	1" (25.4 mm)
1" (25.4 MM)	1-3/8" (34.9 mm)



WYES

TUBING ID	TUBING OD
1/32" (0.8 mm)	5/32" (4.0 mm)
3/64" (1.2 mm)	11/64" (4.4 mm)
1/16" (1.6 mm)	3/16" (4.8 mm)
3/32" (2.4 MM)	7/32" (5.6 mm)
1/8" (3.2 MM)	1/4" (6.4 mm)
1/8" (3.2 MM)	5/16" (7.9 mm)
3/16" (4.8 MM)	5/16" (7.9 mm)
1/4" (6.4 MM)	7/16" (11.1 mm)
3/8" (9.5 MM)	5/8" (15.9 mm)
1/2" (12.7 MM)	3/4" (19.1 mm)
3/4" (19.1 MM)	1" (25.4 mm)
1" (25.4 MM)	1-3/8" (34.9 mm)



REDUCING WYES

TUBING ID 1	TUBING OD 1	Tubing ID 2	Tubing OD 2
1/16" (1.6 mm)	3/16" (4.8 mm)	3/64" (1.2 mm)	11/64" (4.4 mm)
3/32" (2.4 mm)	7/32" (5.6 mm)	1/16" (1.6 mm)	3/16" (4.8 mm)
1/8" (3.2 mm)	1/4" (6.4 mm)	3/64" (1.2 mm)	11/64" (4.4 mm)
1/8" (3.2 MM)	1/4" (6.4 mm)	1/16" (1.6 mm)	3/16" (4.8 mm)
1/8" (3.2 MM)	1/4" (6.4 mm)	3/32" ((2.4 mm)	7/32" (5.6 mm)
3/16" (4.8 MM)	3/8" (9.5 mm)	1/16" (1.6 mm)	3/16" (4.8 mm)
3/16" (4.8 MM)	3/8" (9.5 mm)	1/8" (3.2 mm)	1/4" (6.4 mm)
1/4" (6.4 MM)	3/8" (9.5 mm)	1/8" (3.2 mm)	1/4" (6.4 mm)
1/4" (6.4 MM)	3/8" (9.5 mm)	3/16" (4.8 mm)	3/8" (9.5 mm)
1/4" (6.4 MM)	1/2" (12.7 mm)	3/16" (4.8 mm)	3/8" (9.5 mm)
3/8" (9.5 MM)	5/8" (15.9 mm)	1/4" (6.4 mm)	7/16" (11.1 mm)
1/2" (12.7 MM)	3/4" (19.1 mm)	3/8" (9.5 mm)	5/8" (15.9 mm)

*Additional sizes available upon request customerservice@carolinaflow.com





PART NUMBER	TYPE	CLOSURE SIZE	FLOWTAINER® BOTTLE SIZE	CONFIGURATION (TOP)	CONFIGURATION (DIP TUBE)	QTY PER PACK/ CASE	FIGURE
F-TPC-24-1	TPE	24mm	60 mL PETG/PET	Line 1: 1/8" x 1/4", 12" OAL Line 2: 1/8" x 1/4", 12" OAL	Line 1: 1/8" x 1/4", 3.5" OAL	1/6	1
F-TPC-38-1	TPE	38-430	125mL to 2L PETG/PET	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	2
F-TPC-38-2	TPE	38-430	125mL to 2L PETG/PET	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL Line 3: 1/8" x 1/4", 4" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	3
F-TPC-53-1	TPE	53B	N/A	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	4
F-TPC-RB-1	TPE	Roller Bottle	PS Roller Bottle	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL	Line 1: 1/8" x 1/4", 24" OAL	1/6	5
F-SIC-24-1	PCS	24mm	60 mL PETG/PET	Line 1: 1/8" x 1/4", 12" OAL Line 2: 1/8" x 1/4", 12" OAL	Line 1: 1/8" x 1/4", 3.5" OAL	1/6	1
F-SIC-38-1	PCS	38-430	125mL to 2L PETG/PET	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	2
F-SIC-38-2	PCS	38-430	125mL to 2L PETG/PET	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL Line 3: 1/8" x 1/4", 4" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	3
F-SIC-53-1	PCS	53B	N/A	Line 1: 1/8" x 1/4", 24" OAL Line 2: 1/8" x 1/4", 24" OAL	Line 1: 1/8" x 1/4", 12" OAL	1/6	4

*Additional sizes available upon request customerservice@carolinaflow.com



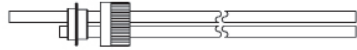


Figure 1

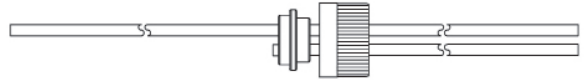


Figure 2

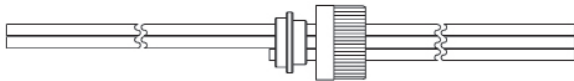


Figure 3

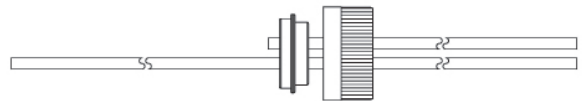


Figure 4

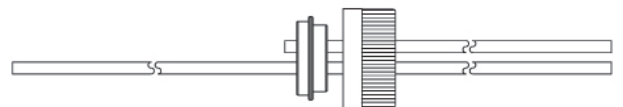


Figure 5



The FlowMixer™ is a high-performance benchtop mixing solution optimized for single-use applications in bioprocessing. Engineered for precision and efficiency, FlowMixer™ supports a range of critical processes, including media and buffer formulation, intermediate processing, drug substance purification, and drug product formulation.

Utilizing advanced magnetic mixing technology, FlowMixer™ delivers exceptional performance in blending powders and viscous products with reliability and reproducibility. Each unit can control up to three independent mixing bases, providing unparalleled flexibility in laboratory and cGMP production environments.

Measurement options include temperature and pH monitoring for enhanced process control. Additional features such as load cells for weighing and stainless-steel jackets for heat exchange can be integrated upon request, ensuring adaptability to diverse processing needs.

MODEL AVAILABLE (CAPACITY):
Benchtop Mixer (500 mL - 30 L)



SCALABILITY AND EASE OF USE FOR ALL MIXING APPLICATIONS

CCG’s high-performance mixing technology is available from 500 mL to 30 L allowing for flexibility and scalability for every mixing process step. Each mixer features an integrated drive unit with 13” touchscreen for ease of use. Load cells for weighing are standard along with the integrated drive unit. Optional features include temperature, pH, and jacketed tote.

A benchtop mixer for liquid-liquid and liquid-solid mixing from 500 mL to 30 L for cGMP manufacturing:

- ◆ Standard automation modules for mixing and weighing
- ◆ Optional modules for pH monitoring and temperature are available
- ◆ HMI touchscreen and user-friendly software for automated control of modules, user permissions, password management, trends, alarm and calibration, audit trail
- ◆ Install bag and start processing in minutes



FLOWMIXER™ WITH HMI TOUCHSCREEN

DESCRIPTION	SPECIFICATION
Table Contents	Material of Construction
Mixer Drive Base	ABS
Mixer Tank Holder	Polypropylene and Polycarbonate
Mixing Volumes	2 L 5 L 10 L 20 L 30 L
Impeller Range	0 to 500 RPM
Footprint (L x W)	Controller: 405 x 280mm, Base: 400 x 400mm
Height	22 in. (550 mm)
Weight	35 lbs
Voltage	110-220 VAC
Current	4 Amp
Power	480 Watts
Operating Temperature	0°C to 60°C
Data Panel Interface Connection	USB



WEIGHING MEASUREMENT & CONTROL VIA LOADCELL

BENCHTOP MIXER AND SENSORS:

PART NUMBER	DESCRIPTION
CCGSUM-BCU-V1	FlowMixer™ Controller, 2-30L
CCGSUM-BMB-V1	FlowMixer™ Drive Base, 2-30L
CCGSUM-BTA-C-CB	Cable, Controller to Drive Base
CCGSUM-BTA-C-PCUS	FlowMixer™ Power Cable, US
CCGSUM-BTA-C-PCEU	FlowMixer™ Power Cable, EU
CCGSUM-BTA-C-PCUK	FlowMixer™ Power Cable, UK
CCGSUM-BTA-S-MTPH	Mettler Toledo pH Sensor
CCGSUM-BTA-T-MTPH	Mettler Toledo pH Sensor Transmitter
CCGSUM-BTA-C-MTPH	pH Sensor Cable
CCGSUM-BTA-S-TP	Temperature Probe
CCGSUM-BTA-C-TP	Temperature Probe Cable

TEMPERATURE CONTROL UNIT:

PART NUMBER	DESCRIPTION
00130988	LAUDA Pro RP 240 E TCU Cooling Heating Circulator 208-220 V; 60 Hz
00132036	LRZ 932 Profinet Module Advanced

BAG TOTE:

PART NUMBER	DESCRIPTION
CCGSUM-BTA-2LT-PP	2L PP Bag Tote
CCGSUM-BTA-5LT-PP	5L PP Bag Tote
CCGSUM-BTA-10LT-PP	10L PP Bag Tote
CCGSUM-BTA-20LT-PP	20L PP Bag Tote
CCGSUM-BTA-30LT-PP	30L PP Bag Tote
CCGSUM-BTA-2LT-SS	2L SS Jacketed Tote
CCGSUM-BTA-5LT-SS	5L SS Jacketed Tote
CCGSUM-BTA-10LT-SS	10L SS Jacketed Tote
CCGSUM-BTA-20LT-SS	20L SS Jacketed Tote
CCGSUM-BTA-30LT-SS	30L SS Jacketed Tote

FlowLinX® filling needles are engineered with precision and purity ensuring operational safety and accurate dosing. Compatible with different brand filling machines, FlowLinX® filling needles are made from high grade materials and are validated to meet stringent regulatory requirements. Choose from standard designs or customize to your dosing equipment. Implement confidently and boost productivity without compromising on quality.

NEEDLE BRANDS:

- Bosch

 - Groninger

 - IMA

 - OPTIMA Inova

 - Cytiva
-



Ensuring packaging integrity is crucial when it comes to filling needles, as it directly impacts product safety and quality. The standard FlowLinX® filling needles come with a durable High-Density Polyethylene (HDPE) sleeve, providing robust protection during handling and transit.

As an alternative packaging solution, FlowLinX® offers filling needles with a Thermoplastic Polyurethane (TPU) needle tip protector and a TPU pouch. This secondary option provides comprehensive needle coverage, adding an extra layer of security against potential damage and contamination. Both packaging configurations are designed to maintain the integrity of the filling needles throughout the supply chain, ensuring they reach the end-user in optimal condition. TPU needle tip protector and pouch are available upon request.



REGULATORY OVERVIEW:

Material of Construction

316L Stainless Steel and Polycarbonate

Biocompatibility

USP <85>, Bacterial Endotoxin

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

USP <87>, Biological Reactivity Tests, Class VI, In Vitro

Physicochemical

USP <661>, Plastic Packaging Systems

Particulate

USP <788>, Particulate Matter in Injections

Legislation

REACH

RoHS

Conflict Mineral

Shelf Life

5 Years, Non-Sterile/Non-Irradiated

Other

Animal Product Free

Nitrosamine Free

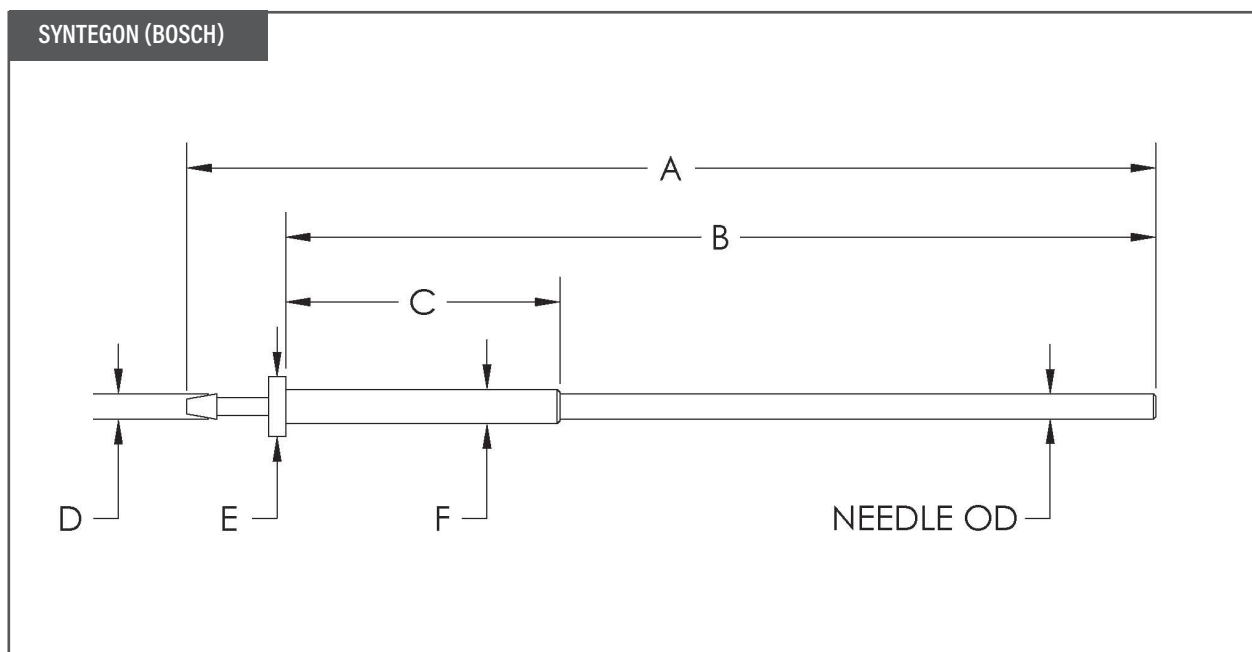
Latex Free

Phthalate Free

BPA and Melamine Free

SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom
- ISO 9001:2015 Certified Facility
- Available Non-sterile or Sterile
- Packaged 10 per Box
- Sterilizable by Gamma Irradiation and Autoclave

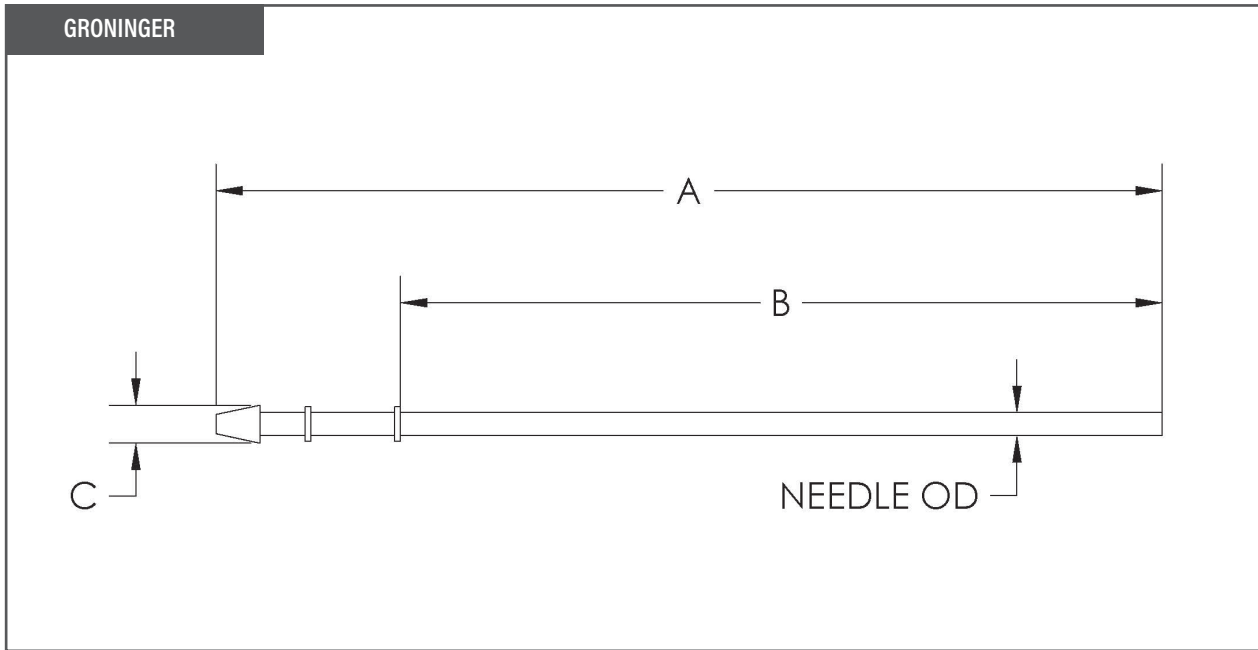


SYNTEGON (BOSCH) NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D	E	F
						MM [IN.]		
F-FN-BSM-1.6-094	1.6 [0.063 ± 0.002]"	2.1 [0.083 ± 0.001]"				H.B. FOR 3/32 I.D.	9.52 [0.3750]"	
F-FN-BSM-2.1-125	2.1 [0.085 ± 0.002]"	2.8 [0.109 ± 0.001]"				H.B. FOR 1/8 I.D.	9.52 [0.3750]"	
F-FN-BSM-3.0-125	3.0 [0.118 ± 0.003]"	3.8 [0.148 ± 0.001]"	181.6 [7.150]"	161.3 [6.34]"	50.8 [2.00]"	H.B. FOR 1/8 I.D.	9.52 [0.3750]"	6.35 [0.25]"
F-FN-BSM-3.2-188	3.2 [0.128 ± 0.002]"	3.8 [0.148 ± 0.001]"				H.B. FOR 3/16 I.D.	9.52 [0.3750]"	
F-FN-BSM-4.0-188	4.0 [0.160 ± 0.002]"	4.6 [0.180 ± 0.001]"				H.B. FOR 3/16 I.D.	11.00 [0.4370]"	

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

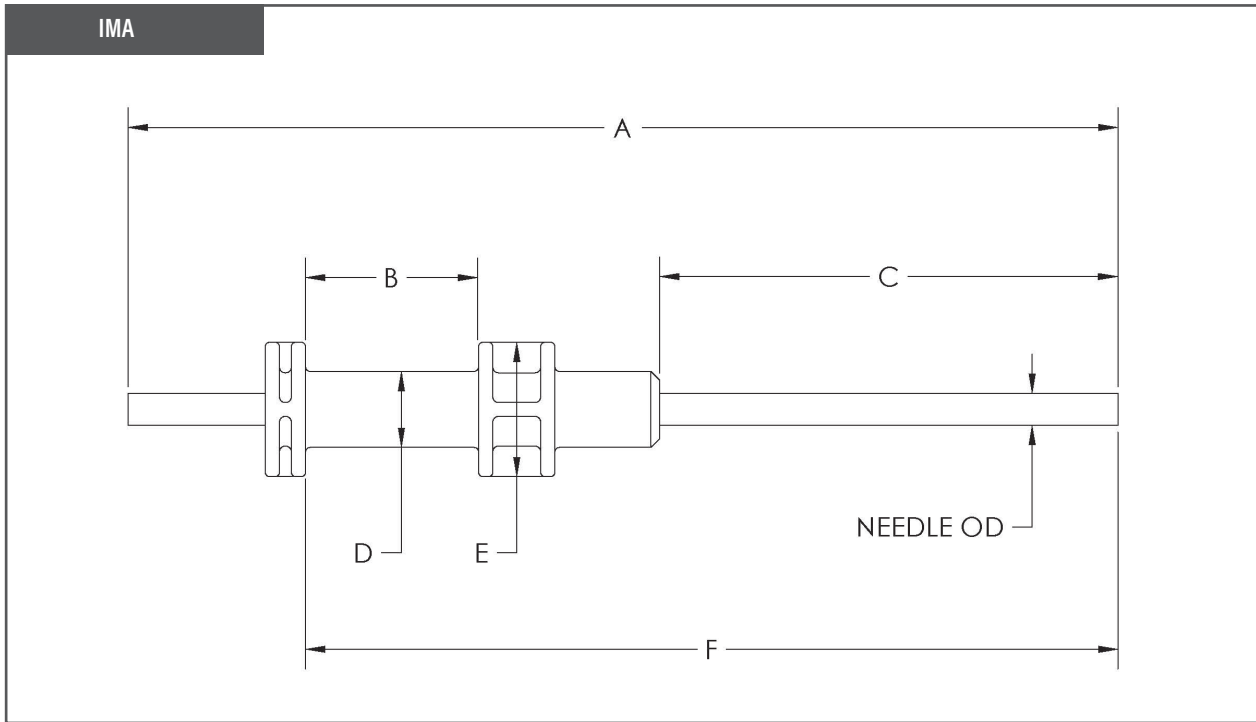


GRONINGER NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B MM [IN.]	C
F-FN-GRO-1.6-094	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]	165.0 [6.496]	133.0 [5.230]	H.B. FOR 3/32 I.D.
F-FN-GRO-2.1-125	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]			H.B. FOR 1/8 I.D.
F-FN-GRO-3.0-156	3.0 [0.118 ± 0.003]	3.7 [0.148 ± 0.001]			H.B. FOR 5/32 I.D.
F-FN-GRO-3.2-156	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]			H.B. FOR 5/32 I.D.
F-FN-GRO-4.0-250	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]			H.B. FOR 1/4 I.D.
F-FN-GRO-5.0-250	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]			H.B. FOR 1/4 I.D.

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

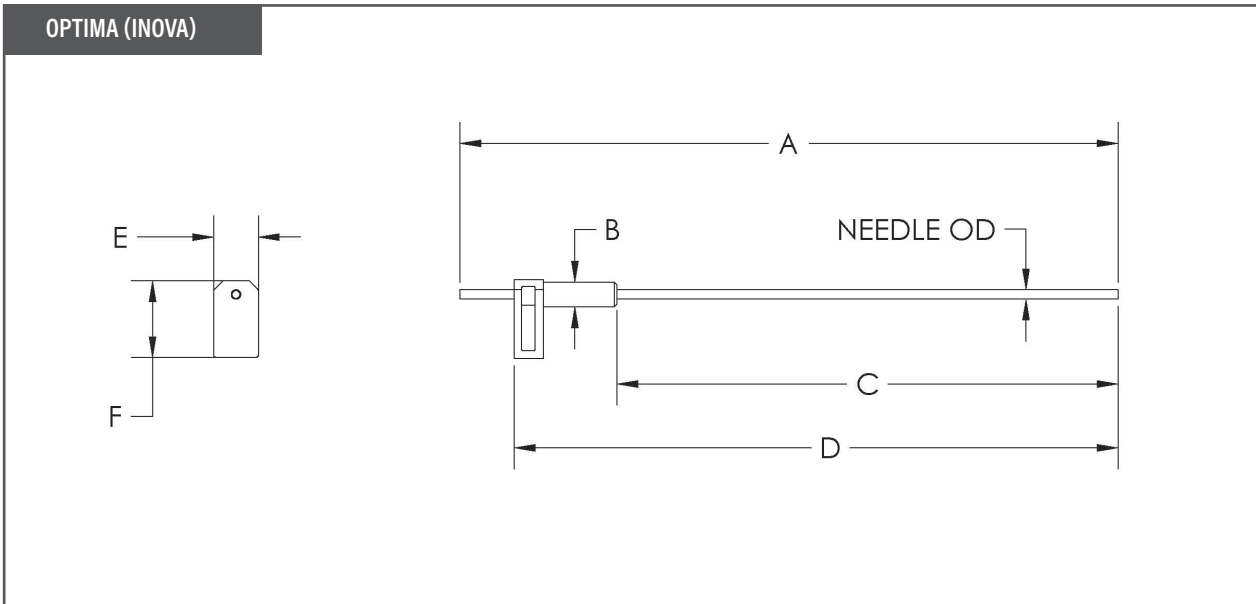


IMA NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D	E	F
						MM [IN.]		
F-FN-IMA-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]						
F-FN-IMA-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]	115.8 [4.56]	20.3 [0.800]	53.6 [2.11]	8.9 [0.351]	15.7 [0.62]	95.0 [3.74]
F-FN-IMA-2.1-2.8	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]						
F-FN-IMA-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]						

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

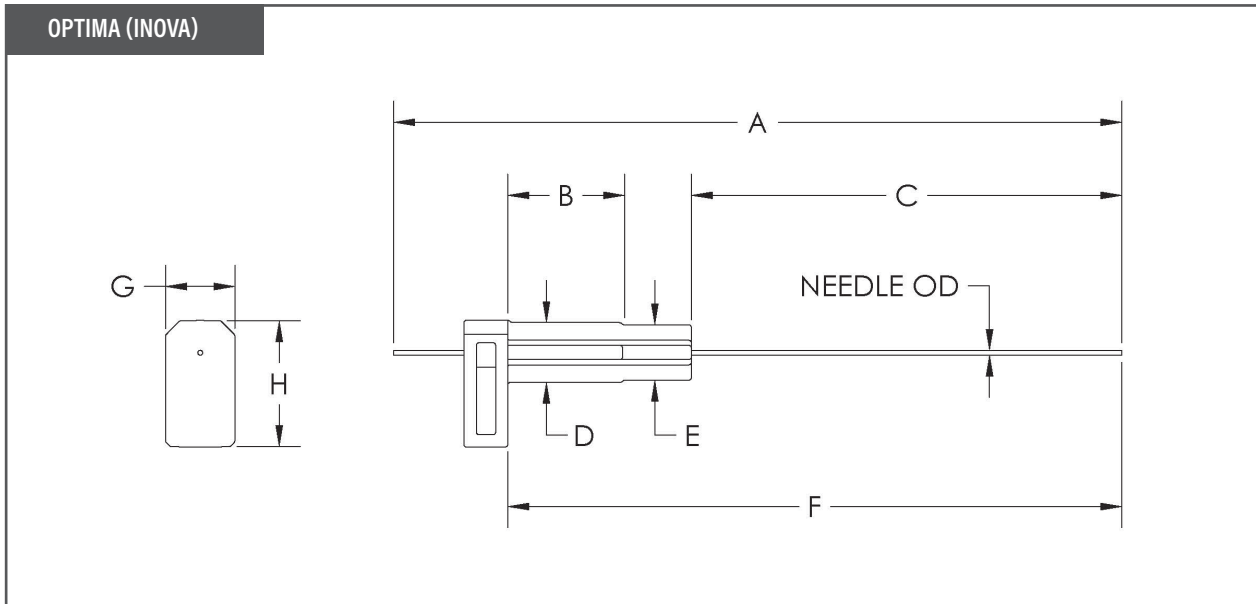


OPTIMA (INOVA) NEEDLE (SMALL HUB) DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D	E	F
F-FN-OPS-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]						
F-FN-OPS-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]	139.2 [5.480]	8.0 [0.314]	879 [3.460]	121.4 [4.780]	15.1 [0.595]	20.1 [0.793]
F-FN-OPS-2.1-2.8	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]						

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

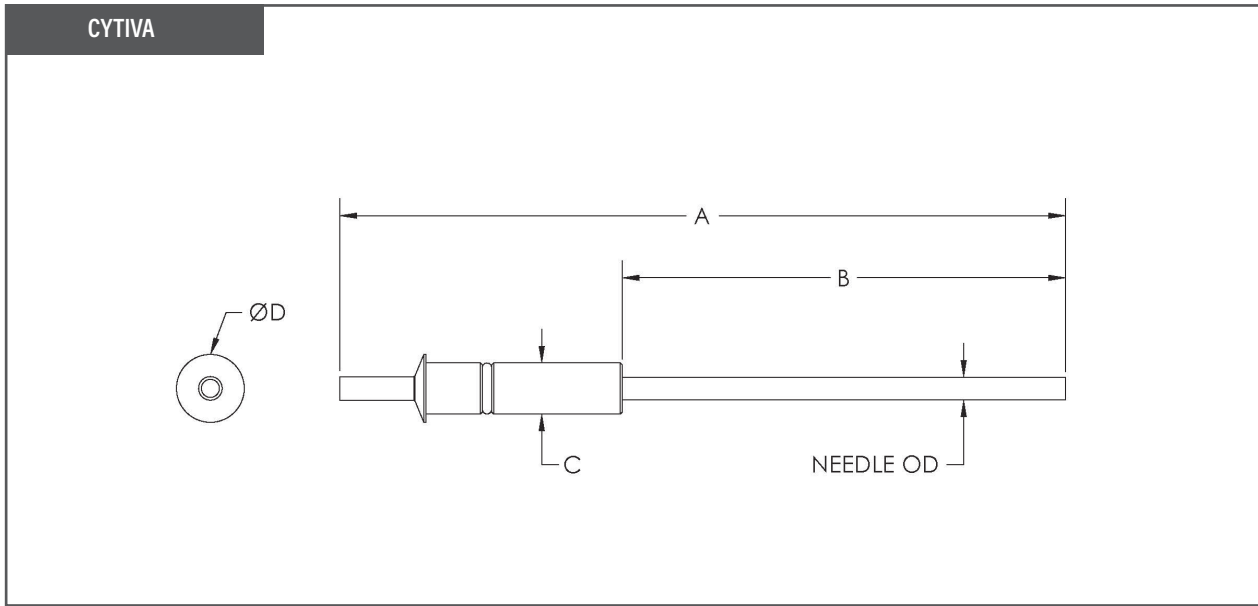


OPTIMA (INOVA) NEEDLE (LARGE HUB) DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	MM [IN.]				
						D	E	F	G	H
F-FN-OPL-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]	154.7 [6.089]"	25.0 [0.984]"	90.2 [3.551]"	13.0 [0.511]	12.0 [0.472]	130.0 [5.118]	15.0 [0.590]	27.5 [1.082]
F-FN-OPL-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]								
F-FN-OPL-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]								
F-FN-OPL-4.0-4.6	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]								
F-FN-OPL-5.0-6.0	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]								

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"



CYTIVA NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D
			MM [IN.]			
F-FN-PAL-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]	120.0 [4.720]	75 [2.952]	8.6 [0.340]	12 [0.472]
F-FN-PAL-1.2-1.5	1.2 [0.047 ± 0.001]	1.5 [0.058 ± 0.0005]				
F-FN-PAL-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]				
F-FN-PAL-2.4-3.1	2.4 [0.094 ± 0.002]	3.1 [0.120 ± 0.001]			10.9 [0.430]	14 [0.55]
F-FN-PAL-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]				
F-FN-PAL-4.0-4.6	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]				
F-FN-PAL-5.0-6.0	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]				

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

DESCRIPTION:

Custom ported and optimized beta bag design for consistent product flow and high recovery. Choose from a range of hose barb and sanitary ports from 1/8" to 3". Whether you are using a DPTE® Alpha port, Biosafe® port or another port, we can provide you with a custom ready-to-use beta bag configuration that can be easily integrated into a flow path assembly for isolator transfer.



CATALOG NUMBER	INTERNAL PART NUMBER	DESCRIPTION	PACK QTY
FL-GBB-0188	00122902	GETINGE 190mm BAG w/ 3/16" ID OPPOSING BARB	1
FL-GBB-0250	00122903	GETINGE 190mm BAG w/ 1/4" ID OPPOSING BARB	1
FL-GBB-0375	00122904	GETINGE 190mm BAG w/ 3/8" ID OPPOSING BARB	1
FL-GBB-0500	00122905	GETINGE 190mm BAG w/ 1/2" ID OPPOSING BARB	1
FL-GBB-MAXITC	00122906	GETINGE 190mm BAG w/ 1.5" TC PORT	1
FL-GBB-3TC	00122907	GETINGE 190mm BAG w/ 3" TC PORT	1
FL-SBB-0188	00122910	SARTORIUS BIOSAFE BAG w/ 3/16" ID OPPOSING BARB	1
FL-SBB-0250	00122911	SARTORIUS BIOSAFE BAG w/ 1/4" ID OPPOSING BARB	1
FL-SBB-0375	00122912	SARTORIUS BIOSAFE BAG w/ 3/8" ID OPPOSING BARB	1
FL-SBB-0500	00122913	SARTORIUS BIOSAFE BAG w/ 1/2" ID OPPOSING BARB	1
FL-SBB-MAXITC	00122914	SARTORIUS BIOSAFE BAG w/ 1.5" TC PORT	1
FL-SBB-3TC	00122915	SARTORIUS BIOSAFE BAG w/ 3" TC PORT	1
FL-CBB-0188	00122916	CRL 190mm BAG w/ 3/16" ID OPPOSING BARB	1
FL-CBB-0250	00122917	CRL 190mm BAG w/ 1/4" ID OPPOSING BARB	1
FL-CBB-0375	00122918	CRL 190mm BAG w/ 3/8" ID OPPOSING BARB	1
FL-CBB-0500	00122920	CRL 190mm BAG w/ 1/2" ID OPPOSING BARB	1
FL-CBB-MAXITC	00122921	CRL 190mm BAG w/ 1.5" TC PORT	1
FL-CBB-3TC	00122922	CRL 190mm BAG w/ 3" TC PORT	1

RELIABLE. PRECISE. INTEGRATIVE.

The FlowPress™ single-use pressure sensor is designed for high-precision monitoring in a variety of bioprocess applications.

Engineered to provide accurate pressure measurement up to 100 psi, this state-of-the-art sensor seamlessly integrates with your existing monitoring systems, ensuring compatibility, optimal performance and ease of use. Sensors are available with NIST certificates and are 100% tested for quality during production. Choose FlowPress™ for your pressure sensing needs and experience the difference in performance and convenience.



APPLICATIONS:



FILTRATION

Accurately monitor pressure during filtration to maintain process efficiency and product integrity.



CHROMATOGRAPHY

Achieve superior separation and purification with precise pressure control in chromatography applications.



RESEARCH AND DEVELOPMENT

Perfect for laboratory settings where reliable data is essential.



CELL CULTURE & FERMENTATION

Ensure precise control and monitoring of pressure to optimize yield and quality for growth and product formation.

HIGH PRESSURE DURABILITY

Every FlowPress™ sensor is tested for quality and is capable of accurately measuring pressures up to 100 psi, making it ideal for demanding applications.

SEAMLESS INTEGRATION:

Fully compatible with a range of process monitoring systems, including PendoTECH® PressureMAT®, allowing for straightforward integration into your existing setups.

PRECISION AND ACCURACY

Provides reliable and accurate pressure readings with accuracy within ±2 %, ensuring the highest level of data integrity and reliability. NIST certificates are available as an option.

SINGLE-USE CONVENIENCE

Designed for one-time use, this sensor eliminates the risk of cross-contamination, ensuring the highest levels of sterility and safety in your bioprocess workflows.

USER-FRIENDLY DESIGN

Easy to install and operate, reducing setup time and increasing operational efficiency.

COMPLIANCE AND QUALITY

Our sensor meets industry standards and regulatory requirements, giving you peace of mind.

SPECIFICATIONS	
Configurations	1/8" and 3/8" hose barb; 3/4" and 1.5" TC flange
Operating Range	0 to 100 PSI
Material of Construction	Polysulfone
Sterilization	Gamma Irradiation/X-Ray up to 50 kGy
Manufacturing Environment	ISO Class 7 Cleanroom
Operating Temp	5°C to 40°C
Storage Temp	-35°C to 60°C
Shelf Life	5 Years
NIST Certificate Available	Yes
Broad Chemical Resistance	Yes, including caustic
Excitation Voltage	2 to 10 Volts (VDC)
Sensor Material	Polycarbonate; no Dielectric Gel
Sensor Output (Sensitivity)	0.195 mV/Volt/psi
ACCURACY	
From 0 to 30 PSI	+/- 2% of reading
From 31 to 80 PSI	+/- 4% of reading
From 81 to 100 PSI	+/- 5% of reading
From -10 to 0 PSI	+/- 4% of reading
REGULATORY COMPLIANCE	
USP <88>, Biological Reactivity	Meets
USP <788>, Particulate Matter in Injections	Meets
USP <85>, Bacterial Endotoxin	Meets
USP <661>, Plastic Packaging	Meets
ISO 10993-5, Cytotoxicity	Meets
Extractables	to USP 665
BSE/TSE Free	Meets
REACH	Meets
RoHS	Meets

SENSOR PART NUMBERS:

PART NUMBER	DESCRIPTION
F-FP-0125HB-15	FlowPress™, 1/8" HB, 15" Cable
F-FP-0375HB-15	FlowPress™, 3/8" HB, 15" Cable
F-FP-0750TC-15	FlowPress™, 3/4" TC, 15" Cable
F-FP-1500TC-15	FlowPress™, 1-1/2" TC, 15" Cable
F-FP-0125HB-15-N10	FlowPress™, 1/8" HB, 15" Cable, NIST Calibrated 0-10 psi
F-FP-0375HB-15-N10	FlowPress™, 3/8" HB, 15" Cable, NIST Calibrated 0-10 psi
F-FP-0750TC-15-N10	FlowPress™, 3/4" TC, 15" Cable, NIST Calibrated 0-10 psi
F-FP-1500TC-15-N10	FlowPress™, 1-1/2" TC, 15" Cable, NIST Calibrated 0-10 psi
F-FP-0125HB-15-N30	FlowPress™, 1/8" HB, 15" Cable, NIST Calibrated 0-30 psi
F-FP-0375HB-15-N30	FlowPress™, 3/8" HB, 15" Cable, NIST Calibrated 0-30 psi
F-FP-0750TC-15-N30	FlowPress™, 3/4" TC, 15" Cable, NIST Calibrated 0-30 psi
F-FP-1500TC-15-N30	FlowPress™, 1-1/2" TC, 15" Cable, NIST Calibrated 0-30 psi
F-FP-0125HB-15-N80	FlowPress™, 1/8" HB, 15" Cable, NIST Calibrated 0-80 psi
F-FP-0375HB-15-N80	FlowPress™, 3/8" HB, 15" Cable, NIST Calibrated 0-80 psi
F-FP-0750TC-15-N80	FlowPress™, 3/4" TC, 15" Cable, NIST Calibrated 0-80 psi
F-FP-1500TC-15-N80	FlowPress™, 1-1/2" TC, 15" Cable, NIST Calibrated 0-80 psi

NIST CALIBRATED PRODUCTS AVAILABLE:

"-N10" covers low pressure applications. NIST Certified 0-10 psi in 1 psi increments.

"-N30" covers medium pressure applications. NIST Certified 0-30 psi in 5 psi increments.

"-N80" covers high pressure applications. NIST Certified 0-80 psi in 10 psi increments.

CABLES AND ADAPTERS (REUSABLE):

PART NUMBER	DESCRIPTION
F-SC-RJ11M-PU	Sensor Cable, RJ11 Male to Pendotech/Utah, 200cm OAL
F-SC-RJ11M-DB15	Sensor Cable, RJ11 Male to DB15, 200cm OAL

COMPENSATION CIRCUITS:

PART NUMBER	DESCRIPTION
F-CC-PMAT	Compensation Circuit for PMAT