



# Single-Use Solution

## Selection Guide



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赋能生物技术

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Link to Enable Biotechnologies

## BioLink Single-Use Product R&D and Manufacturing Site — Innovative with Considerable Production Capacity

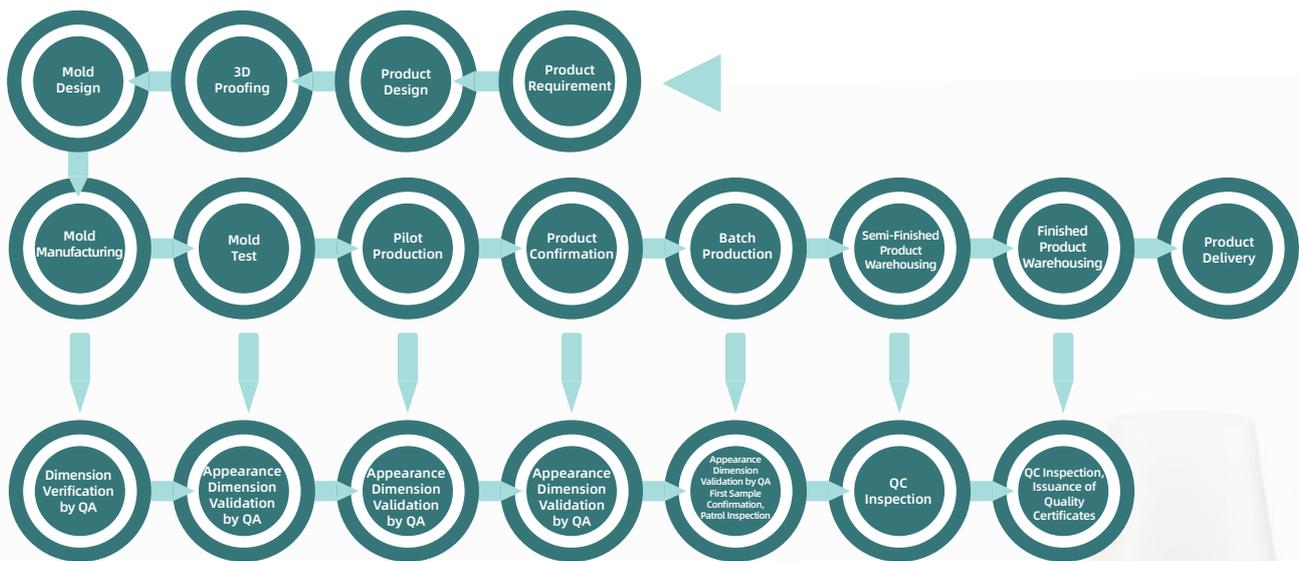
BioLink Single-Use Technology Platform supports hardware processing, assembly, and production, as well as consumables processing and production. The platform is also capable of **independent R&D and processing of molds, large-scale dust-free injection molding**, and **precise hardware processing and production**, so as to respond to the customized demands of the market and customers in a fast, efficient, and high-quality manner.

BioLink Single-Use Technology Platform has received the GB/T19001-2016 and ISO9001:2015 quality management system certificate. Within just 2 years, the platform has successfully produced 1067 molds and supported the R&D of more than 200 stainless steel products. The platform assisted many pharmaceutical enterprises in resolving their difficulties during the COVID-19 pandemic and successfully ensured their development and manufacturing of essential products. Innovation is the foundation of enterprise development. At BioLink, we focus on the innovation of the product origins and are committed to outreaching international biopharmaceutical equipment and consumables using Chinese intelligent technologies. At present, BioLink Single-Use Technology Platform owns more than 15 patents and more than 20 patents are pending.

Located in Nantong City, Jiangsu Province, BioLink Single-Use Technology Platform covers over 30,000 square meters and has received audits from more than 500 pharmaceutical companies. Our products are well recognized among domestic users and have been exported overseas.

## Injection Molding Department

The Injection Molding Department is equipped with an injection molding workshop of more than 2000 square meters and a Class 7 dust-free workshop of nearly 800 square meters. The department supports **efficient and stable whole-chain closed-loop production, covering product design & development, mold manufacturing, injection molding, and large-scale mass production of single-use bioprocessing consumables**. The annual output of the Injection Molding Department can reach **45 million** injection mold products based on its strong technical strength, high-precision mold manufacturing and processing capabilities, and excellent design and production capabilities of single-use bioprocessing consumables.



BioLink's injection molding process



## The Injection Molding Department consists of the Mold Development Section and Automatic Injection Molding Section

The **Mold Development Section** is equipped with nearly 20 sets of high-precision and high-stability machine tools, including turning machines, grinding machines, sawing machines, milling machines, engraving machines, electrical discharge machines, low-speed wire cutting machines, and CNC. The annual output is about 500 sets and the surface roughness of completed workpieces usually reaches  $Ra = 0.12 \mu\text{m}$  or above.



Photos of molds

The **Automatic Injection Molding Department** consists of a General Injection Molding Workshop and a Dust-free Injection Molding Workshop, which are equipped with a total of 14 high-end injection molding machines and silicon injection machines. The Dust-Free Injection Molding Workshop operates 24 hours uninterrupted to produce single-use consumables that are in direct contact with the feed liquid, such as mixing bags, filling bags, mixing impeller, units, and connectors, with an annual output of up to 20 million injection mold pieces. The General Injection Molding Workshop has an annual output of 25 million plastic parts.

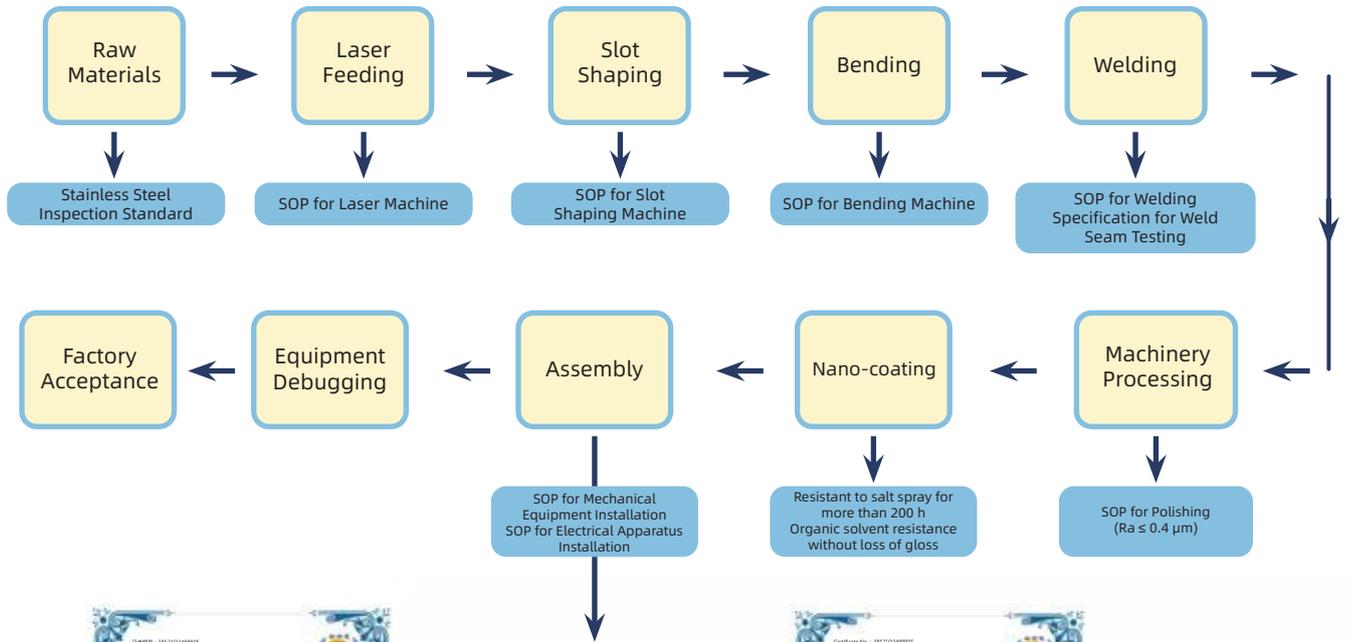


Photos of the Automatic Injection Molding Section

# Hardware Precision Processing Platform

BioLink Hardware Precision Processing Platform is equipped with a full set of laser cutting equipment, automatic vertical wire drawing machine, various molding equipment, automatic laser welding equipment, automatic sizing and CNC surface treatment equipment, environmentally friendly pickling passivation equipment, and various validation equipment. It has precise, reliable, and efficient hardware processing capabilities, with an annual output of more than 10,000 stainless steel products.

## Hardware Manufacturing Process



Total Quality Management



The automatic vertical wire drawing machine is imported from Germany. The machine is environmentally friendly with stable and efficient operation, and its design is a significant change in the traditional process of the industry. The equipment can complete the processing of five sides just with a single clamping of a flat product. The addition of the CNC roller system well considers the surface wire drawing of inner and outer circles. A capacitive metal induction chip is adopted for the indenter as the core of the equipment. This chip allows to adaptively adjust the distance between the indenter and the product surface according to the surface flatness or roundness, so as to ensure the uniformity and stability of wire drawing; the variation in multi-point measurements of wire drawing surface roughness is controlled within  $2\%/m^2$ .



Processing details of automatic vertical wire drawing machine



With the advanced inversion technology for stainless steel surface processing, the environmentally friendly pickling passivation machine can instantly remove oil stains on the product surface (with a surface oil stain residual rate of no greater than 80 mg/m<sup>2</sup>). In particular, only the oxide layer is removed to restore the original surface of the stainless steel. Also, the chromium-poor layer on the surface of workpieces can be actively eliminated to quickly form a passivated layer (resistant to salt spray for up to 1000 h). The equipment is easy to operate, environmentally friendly, safe and efficient, and the products produced using this equipment have significantly superior quality compared with traditional technology. The hardware precision machining equipment and process of BioLink comply with appropriate EU CE certification and US ASTM 380 and ASTM A 967 standards, leading in the industry field.



Processing by the pickling passivation machine - before (left) and after (right)

BioLink is committed to providing customers with high-quality, innovative products and solutions. We stick to high-quality products and services for the goal of localization across the full supply chain, and strive to build an efficient, safe, and competitive biopharmaceutical supply chain eco-system.





# Cell/Microbial Culture Solution



## CytoLinX® WB Single-Use Rocking Bioreactors

CytoLinX® WB Single-Use Rocking Bioreactors is available in a variety of models, including 10 L, 20 L, and 50 L for 0.3–25 L culture volumes, and 100 L and 200 L for 10–100 L culture volumes. During the culture process, introduce air/oxygen (filtered by a sterile filter) into the culture bag to obtain a certain space. Place the culture bag on the rocking platform to rock, and the medium will form a rocking movement in the culture bag. Such design enables good oxygen supply and cell mixing, as well as a mild cell culture microenvironment with low shear force and high dissolved oxygen. This improves the cell status by protecting them from damage due to the shear force and bubbling at the impeller ends in traditional mixing vessels. As a result, the undulating fluid level of the medium is constantly in contact with the oxygen introduced into the culture bag, providing sufficient dissolved oxygen for cell growth. Cell density and product yield can be increased by adjusting the shaking speed and angle, and by introducing a certain ratio of air/oxygen mixture into the bag. Featured by flexible culture volume range, easy operation, precise and reliable control, and easy process scale-up, the Rocking Bioreactors are suitable for various cell culture conditions, including scientific research, research and development, in-process seed culture, and new therapies, such as cell therapy.

The Rocking Bioreactors works with pre-irradiated sterile cell culture bags, eliminating the risk of contamination and avoiding bioreactor cleaning and validation, thus shortening process development and production cycles. The use of a sterile cell culture bag increases the success rate of cell culture, and the closed culture system avoids direct contact between the feed liquid and the operator so as to ensure biological safety.



**Figure 1.** CytoLinX® WB Single-Use Rocking Bioreactor

CytoLinX® WB is controlled by Siemens PLC. The advanced PID feedback control and the optical compensation of fiber optic electrodes further improve the stability and reliability of cell culture. With precise detection and feedback regulation, the cell culture process is monitored from all aspects together with data acquisition, data analysis, data comparison, and report printing are also available. The software is user-friendly, easy to operate, and compliant with 21 CFR Part 11.



Figure 2. CytoLinX® WB Single-Use Rocking Bioreactor user interface



## Features

- The software interface is easy to operate, stable to run, and supports audit trail
- Supports easy switching among 10 L, 20 L, and 50 L trays. The bags and the trays can be mounted easily and rapidly without removing screws
- Supports perfusion and automatic calibration of pump flow rate for accurate feeding and harvesting
- Ventilation, pH/DO, and perfusion modules are optional, depending on process requirements
- Supports DO-associated N<sub>2</sub> reverse regulation for a wide range of applications, which helps to control cell state more accurately for cell therapy customers
- With variable frequency speed regulation, the shaking mode is adjustable to further reduce the shear force and achieve a mild cell culture process
- Precise measurement of gases with mass flow controllers (MFC)
- The whole device is equipped with monitoring alarm and protection functions for automatic fault sensing, diagnosis, and alerts
- Several types of consumables are available, including the basic type, the pH & DO electrode type, and the perfusion type
- Rich application and operation support, and high-speed response speed
- Fast delivery and flexible customization

## Standard Configuration of CytoLinX® WB Rocking Bioreactor

Accessory	Unit	Range	Accuracy
Weighing	KG	0-30	±0.05
Rotation speed	RPM	2-40	±1
Angle	°	2-14	±0.5
pH	NA	4.5-8.5	±0.05
DO	%	0-200	±5.0
Temperature	°C	Room temperature -60	±0.2
Vessel Press	mbar	0-69	±1% FS
Exhaust Heating	°C	45-60	±5
Pump	RPM	0-300	±0.8% FS
Air MFC Air	SLPM	0.01%-100%	±0.5% FS
O <sub>2</sub> MFC O <sub>2</sub>	SLPM	0.01%-100%	±0.5% FS
CO <sub>2</sub> MFC CO <sub>2</sub>	SLPM	0.01%-100%	±0.5% FS

## Ordering Information

Cat. No.	Name	Configuration						Culture volume (L)
		Rocking base	Central control unit	Process control unit	Pump unit	Exhaust heating sleeve	Tray lid	
CWB050LA-001	CytoLinX®WB Rocking Bioreactor (pH&DO function) - 50 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*1	CWBEHU050L*1	CWBTLO50L*1	1-25 L
CWB020LA-001	CytoLinX®WB Rocking Bioreactor (pH&DO function) - 20 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*1	CWBEHU050L*1	CWBTLO20L*1	0.3-10 L
CWB010LA-001	CytoLinX®WB Rocking Bioreactor (pH&DO function) - 10 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*1	CWBEHU050L*1	CWBTLO10L*1	0.3-5 L
CWB050LB-001	CytoLinX®WB Rocking Bioreactor (pH&DO function & perfusion function) - 50 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*2	CWBEHU050L*1	CWBTLO50L*1	1-25 L
CWB020LB-001	CytoLinX®WB Rocking Bioreactor (pH&DO function & perfusion function) - 20 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*2	CWBEHU050L*1	CWBTLO20L*1	0.3-10 L
CWB010LB-001	CytoLinX®WB Rocking Bioreactor (pH&DO function & perfusion function) - 10 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	CWBPGU050L*2	CWBEHU050L*1	CWBTLO10L*1	0.3-5 L
CWB050LC-001	CytoLinX®WB Rocking Bioreactor (without pH&DO function) - 50 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	×	CWBEHU050L*1	CWBTLO50L*1	1-25 L
CWB020LC-001	CytoLinX®WB Rocking Bioreactor (without pH&DO function) - 20 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	×	CWBEHU050L*1	CWBTLO20L*1	0.3-10 L
CWB010LC-001	CytoLinX®WB Rocking Bioreactor (without pH&DO function) - 10 L tray	CWBRBU050LA*1	CWBCCU050LA*1	CWBPCU050LA-001*1	×	CWBEHU050L*1	CWBTLO10L*1	0.3-5 L
CWB050LD-001	CytoLinX®WB Rocking Bioreactor (one-way rocking and temperature) - 50 L tray	CWBRBU050LA*1	CWBCCU050LB*1	×	×	CWBEHU050L	CWBTLO50L*1	1-25 L
CWB020LD-001	CytoLinX®WB Rocking Bioreactor (one-way rocking and temperature) - 20 L tray	CWBRBU050LA*1	CWBCCU050LB*1	×	×	CWBEHU050L	CWBTLO20L*1	0.3-10 L
CWB010LD-001	CytoLinX®WB Rocking Bioreactor (one-way rocking and temperature) - 10 L tray	CWBRBU050LA*1	CWBCCU050LB*1	×	×	CWBEHU050L	CWBTLO10L*1	0.3-5 L

• Product sequence: 001 is for standard configuration; other numbers are for customized products.

## CytoLinX® WB Single-Use Cell Culture Bag

Single-use processes are widely used in the biopharmaceutical field. These processes are being accepted and used by more and more biopharmaceutical companies due to their advantages of small fixed investment, reduced production time, low contamination risk, and flexible operation. BioLink CytoLinX® WB Single-Use Cell Culture Bag is specially designed for common cell culture applications in biopharmaceutical development.

### Applications

Suitable for various cell culture conditions, including scientific research, research and development, in-process seed culture, and new therapies, such as cell therapy. Works with the rocking cell culture systems of BioLink or other major suppliers in the market.

### Features

- Easy use: This product is sterile for single use, providing a safe and suitable environment for cell growth, with the features of easy installation and operation
- Good stability: The bags are composed of co-extruded multi-layer films with excellent flexibility and low gas penetration rate, and are suitable for long-term cell culture
- High cell density: The perfusion function enables the high-density cell culture in a faster manner
- Good biosafety: The material-liquid contact layer is biologically inert and can guarantee process safety
- Flexible application conditions: The bags can be used at 10–60 °C and under operating pressures up to 0.1 bar; the bags are available in various sizes to support culture volumes from 300 mL to 100 L
- Wide selection of bag type: BioLink provides cell bags for standard operation, cell therapy, and complex use; optional selections include the basic configuration, for pH & DO, perfusion, and pH & DO & perfusion
- Flexible customization of tubings, connectors, and other units to meet the needs of customers
- Complete validation documents:
  - Sterility test
  - Bacterial endotoxin test
  - Integrity test
  - Extractable test
  - Chemical compatibility test
- The biocompatibility of gamma-irradiated bags meets the following specifications:
  - 1) ISO 10993-4: In vivo hemolysis test (extraction method)
  - 2) USP87: Cytotoxicity test (extraction method)
  - 3) USP <88> Class VI intramuscular implantation test
  - 4) USP88: Acute intracutaneous test
  - 5) USP88: Acute systemic toxicity test



## Technical Parameters

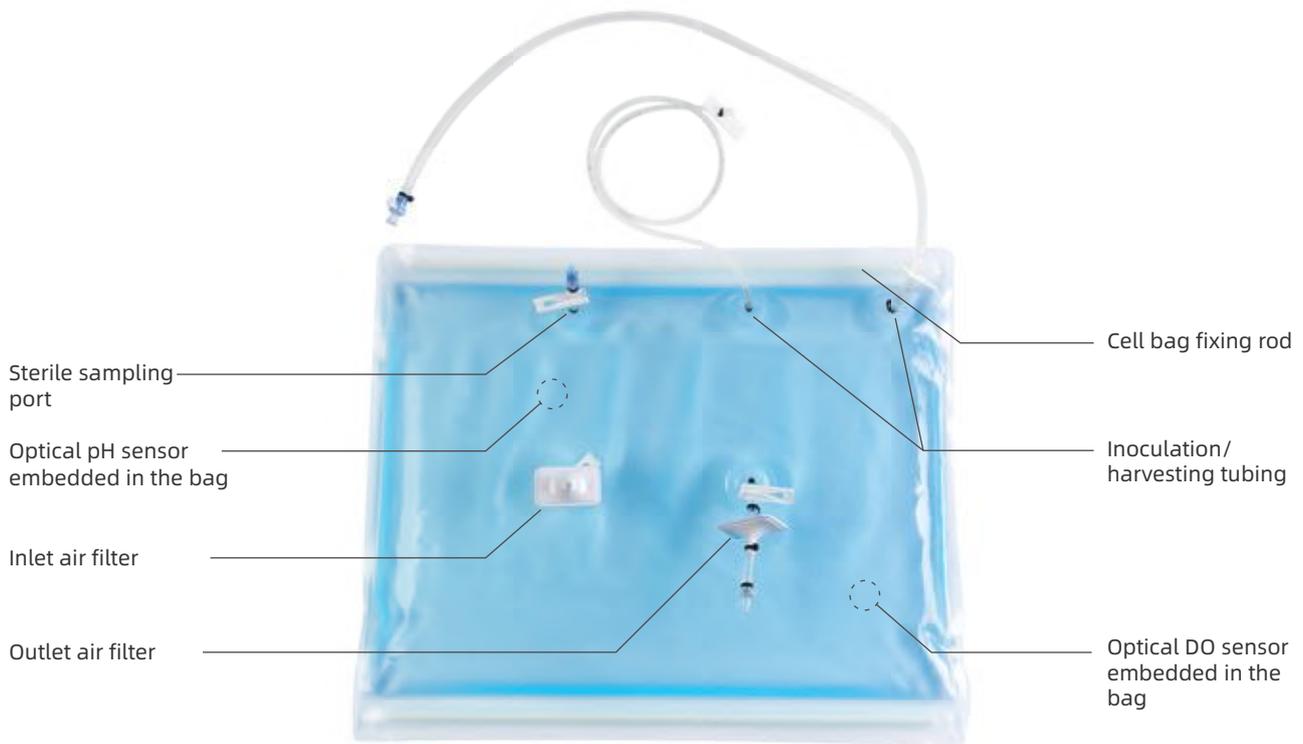
FL9101 multilayer co-extruded film, ULDPE liquid contact layer

Item	Test value (> 25 kGy after sterilization by gamma irradiation)	Reference	
Physical properties	Haze	7%	ASTM D-1003
	Transmittance	97%	ASTM D-1003
	Transmissivity	93%	ASTM D-1003
	Minimum tolerable temperature	-40 °C	ISO 8570
	Density	0.9 g/cm <sup>3</sup>	ASTM D-792
Mechanical properties	Tensile strength	13 MPa	ASTM D-882
	Elongation at break	300%	ASTM D-882
	Elastic modulus	350 MPa	ASTM D-882
	Right-angled tearing strength	29N	ASTM D1004-21
Barrier properties	Water vapor transmission rate	0.32 g (m <sup>2</sup> ·day)	ASTM F1249
	Oxygen permeability	< 0.05 cm <sup>3</sup> /(m <sup>2</sup> ·day·bar)	ASTM D3985
	Carbon dioxide permeability	< 0.2 cm <sup>3</sup> /(m <sup>2</sup> ·day·bar)	ASTM F2476
Pass USP <661> plastic packaing system test			
Comply with the Chinese Pharmacopoeia (2020 Edition) <0903> (same as USP <788>) "Test for Particulate Matter in Injections" , and the result meets the requirements for large-volume ( ≥ 100 mL) intravenous injection.			
Comply with the Chinese Pharmacopoeia (2020 Edition) <1143> (same as USP <85>) "Test for Bacterial Endotoxin" , and the result is ≤ 25 EU/mL, meeting the requirements for hydration products.			
No animal-derived ingredients in the components and during the production process			

**FL140C multilayer co-extruded film, EVA liquid contact layer**

Item	Test value (> 25 kGy after sterilization by gamma irradiation)	Reference	
Physical properties	Haze	89%	ASTM D1003
	Transmittance	31%	ASTM D1003
	Transmissivity	88%	ASTM D882
	Minimum tolerable temperature	Below -40 °C	ASTM D1790
	Density	0.96 g/cm <sup>3</sup>	ASTM D792
Mechanical properties	Tensile strength	17 MPa	ASTM D882
	Elongation at break	800%	ASTM D882
	Elastic modulus	94 MPa	ASTM D882
	Puncture resistance	42N	ASTM F1306-21
	Right-angled tearing strength	21N	ASTM D1004-21
	Rubbing resistance (23±2° C, 49% RH, rubbed 270 times)	0 hole	ASTM F392/F392M-2011
	Oxygen permeation after 270 rubs (23±2° C, 0% RH, rubbed 270 times)	3.24 cm <sup>3</sup> /(m <sup>2</sup> · day · 1bar)	GB/T1038-2000
Barrier properties	Water vapor transmission rate 1.58g	1.58 g/ (m <sup>2</sup> ·day) (23 °C ,100%RH)	ASTM F1249
	Oxygen permeability	3.40 cm <sup>3</sup> /(m <sup>2</sup> ·day·0.1MPa)	ASTM D3985
	Carbon dioxide permeability	8.25 cm <sup>3</sup> /(m <sup>2</sup> ·day·0.1MPa)	ASTM F2476
Pass USP<661> plastic packaging system test			
Comply with the Chinese Pharmacopoeia (2020 Edition) <0903> (same as USP <788>) "Test for Particulate Matter in Injections" , and the result meets the requirements for large-volume (≥ 100mL) intravenous injection.			
Comply with the Chinese Pharmacopoeia (2020 Edition) <1143> (same as USP <85>) "Test for Bacterial Endotoxin" , and the result is ≤ 0.25 EU/mL, meeting the requirements for hydration products.			
No animal-derived ingredients in the components and during the production process			

## A standard CytoLinX® WB Cell Culture Bag consists of the following units



**Figure 3.** Schematic diagram of standard cell bag

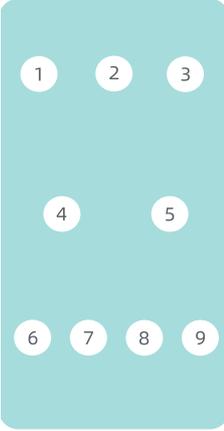
- Sterile sampling port: for convenient aseptic sampling, no biological safety cabinet needed;
- Inlet and outlet air filter: 0.2µm hydrophobic membrane used for aseptic gas inlet and outlet;
- pH & DO sensor: pH & DO sensor controlled with PID automation can better maintain a suitable cell growth environment;
- Cell bag fixing rod: secures the cell bag to the tray of the Rocking Bioreactors;
- Inoculation/harvesting tubing: allows medium and cells to go in and out of the cell bag.

### Operational Volume and Hardware Compatibility of Cell Culture Bag

Bag volume	Min. to max. culture volume	Compatible system	Corresponding tray
2 L	300 mL-1 L		Tray 10/20
10 L	500 mL-5 L		Tray 10/20
20 L	1 L-10 L	CytoLinX® WB 50	Tray 20
22 L	1 L-10 L		Tray 50
50 L	5 L-25 L		Tray 50
100 L	10 L-50 L		Tray 100/200
200 L	20 L-100 L	CytoLinX® WB 200	Tray 200

\* The minimum culture volume for 2 L pH & DO & perfusion cell bag is 400 mL



Volume	Version	Cat. No.	Configuration		
 <p>10L</p>	Basic cell bag	WBAP-010L-C104	1.2.3 NA 4.5 Air filter 6. C-Flex 1/4 id *7/16 od*100cm, female MPC 7. C-Flex 1/8 id *1/4 od*100 cm, female Luer	8. 9.	Silicone 3/16 id*3/8 od*5 cm, needleless sampling NA
	pH & DO cell bag	WBAP-010L-C207	1. C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug 2. NA 3. C-Flex 1/4 id *7/16 od*100 cm,plug 4.5 Air filter 6. Silicone 1/4 id *7/16 od*100 cm& C-Flex*60 cm, plug, extended tube inside the bag	7.8 9.	pH, DO sensor Silicone 1/4 id *7/16 od *5 cm, needleless sampling
	Perfusion cell bag	WBAP-010L-C306	1. NA 2. Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug 3. C-Flex 1/4 id*7/16 od*100 cm, plug 4.5 Air filter	6. 7. 8. 9.	Silicone 1/4 id*7/16 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag Silicone 1/4 id *7/16 od *5 cm, needleless sampling C-Flex 1/8 id*1/4 od*100 cm, female Luer Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, female Luer NA
	pH & DO & Perfusion cell bag	WBAP-010L-C407	1. NA 2. Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug 3. C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug Silicone 1/8 id*1/4 od*100cm & C-Flex *60 cm, female Luer and plug 4.5 Air filter	6. 7.8 9.	Silicone 1/4 id*7/16 od*100 cm & C-Flex*60 cm, plug pH, DO sensor Silicone 1/4 id *7/16 od *5 cm, needleless sampling

\* All connected by non-adjustable straight connectors

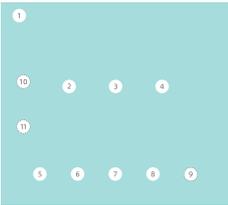
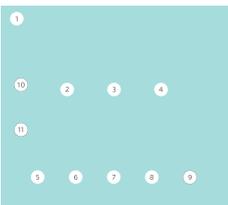
Volume	Version	Cat. No.	Configuration				
20L	Basic cell bag	WBAP-020L-C104	1.2	NA			
			3.4	Air filter			
			5.	C-Flex 3/8 id *5/8 od*100 cm, female MPC	7.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling	
				6.	C-Flex 1/8 id *1/4 od*100 cm, female Luer	8.9	NA
	pH & DO cell bag	WBAP-020L-C207	1.	NA	6.7	pH, DO sensor	
			2.	C-Flex 3/8 id *5/8 od*100 cm, plug	8.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling	
			3.4	Air filter	9.	C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug	
			5.	Silicone 3/8 id *5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag		C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug	
	Perfusion cell bag	WBAP-020L-C306	1.	Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug	5.	Silicone 3/8 id*5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag	
					6.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling	
					7.	C-Flex 1/8 id*1/4 od*100 cm, female Luer	
2.			C-Flex 3/8 id*5/8 od*100 cm, plug		Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, female Luer		
3.4			Air filter	8.9	NA		
pH & DO & Perfusion cell bag	WBAP-020L-C407	1.	Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug	5.	Silicone 3/8 id*5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag		
				6.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling		
				7.8	pH, DO sensor		
		2.	C-Flex 3/8 id*5/8 od*100 cm, plug	9.	C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug		
		3.4	Air filter		C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug		

Volume	Version	Cat. No.	Configuration				
22L	Basic cell bag	WBAP-022L-C104	1.2	NA			
			3.4	Air filter			
			5.	C-Flex 3/8 id *5/8 od*100 cm, female MPC	7.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling	
				6.	C-Flex 1/8 id *1/4 od*100 cm, female Luer	8.9	NA
	pH & DO cell bag	WBAP-022L-C207	1.	C-Flex 3/8 id *5/8 od*100 cm, plug	6.7	pH, DO sensor	
			2.	C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug	8.	Silicone 1/4 id*7/16 od*5 cm, needleless sampling	
			3.4	Air filter			
			5.	Silicone 3/8 id *5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag			

\* All connected by non-adjustable straight connectors

Volume	Version	Cat. No.	Configuration		
50L	Basic cell bag	WBAP-050L-C104	1.2 NA 3.4 Air filter 5. C-Flex 3/8 id *5/8 od*100 cm, female MPC and plug	7. Silicone 1/4 id*7/16 od*5 cm, needleless sampling 8. NA	
		WBAP-050L-S104	6. C-Flex 1/8 id *1/4 od*100 cm, female Luer and plug	9.10 NA	
		pH & DO cell bag	WBAP-050L-C207	1.10 C-Flex 3/8 id *5/8 od*100 cm, plug 2. NA 3.4 Air filter	8. Silicone 1/4 id*7/16 od*5 cm, needleless sampling 9. C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug
			WBAP-050L-S207	5. Silicone 3/8 id *5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag 6.7 pH, DO sensor	C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug
			Perfusion cell bag	WBAP-050L-C306	1. Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug
	WBAP-050L-S306	2. C-Flex 3/8 id*5/8 od*100 cm, plug 3.4 Air filter 5. Silicone 3/8 id*5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag		Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, female Luer and plug	
	pH & DO & Perfusion cell bag	WBAP-050L-C407	1. Y-connector (attached to perfusion filter) C-Flex 1/8 id*1/4 od*6 cm, needleless sampling Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, plug	6.7 pH, DO sensor 8. Silicone 1/4 id*7/16 od*5cm, needleless sampling 9. C-Flex 1/8 id*1/4 od*100 cm, female Luer and plug	
			2. C-Flex 3/8 id*5/8 od*100 cm, plug	Silicone 1/8 id*1/4 od*100 cm & C-Flex*60 cm, female Luer and plug	
		WBAP-050L-S407	3.4 Air filter 5. Silicone 3/8 id*5/8 od*100 cm & C-Flex*60 cm, plug, extended tube inside the bag	10. NA	

\* All connected by non-adjustable straight connectors

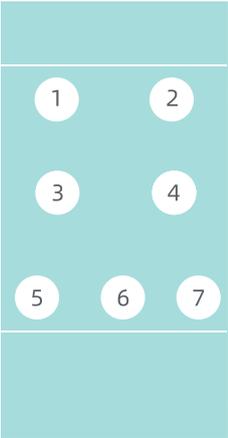
Volume	Version	Cat. No.	Configuration
100L 	Basic cell bag	WBAP-100L-C104	1. Silicone 3/8 id* 5/8 od* 150 cm & C-Flex *50 cm, plug
			2.3.4 Air filter
	pH & DO cell bag	WBAP-100L-C207	5. Silicone 3/8 id* 5/8 od* 150 cm, needless sampling & C-Flex *50 cm, plug, extendedtube inside the bag
			6. Silicone 1/8 id* 1/4 od* 150 cm & C-Flex *50 cm, female Luer and plug
			7. Silicone 1/4 id* 7/16 od* 5 cm, needless sampling
			8. C-Flex 1/4 id* 7/16 od* 200 cm, plug
			9. Silicone 1/8 id* 1/4 od* 150 cm &C-Flex *50 cm, plug
			10.11 NA
200L 	Basic cell bag	WBAP-200L-C104	1. Silicone 3/8 id* 5/8 od* 150 cm & C-Flex *50 cm, plug
			2.3.4 Air filter
	pH & DO cell bag	WBAP-200L-C207	5. Silicone 3/8 id* 5/8 od* 150 cm, needless sampling & C-Flex *50 cm, plug, extendedtube inside the bag
			6. Silicone 1/8 id* 1/4 od* 150 cm & C-Flex *50 cm, female Luer and plug
			7. Silicone 1/4 id* 7/16 od* 5 cm, needless sampling
			8. C-Flex 1/4 id* 7/16 od* 200 cm, plug
			9. Silicone 1/8 id* 1/4 od* 150 cm &C-Flex *50 cm, plug
			10.11 NA
			10.11 pH,DO sensor

## For novel therapies

FL140C multilayer co-extruded film, EVA liquid contact layer, soft membrane

Volume	Version	Cat. No.	Configuration
2L	Basic cell therapy bag	WBCT-002L-C102	1. NA
			2. Silicone 1/16 id*3/16 od*100cm & PVC 1/8 id*3/16 od*50 cm, female Luer and plug
			3.4 Air filter
			5. Silicone 1/8 id *1/4 od*100cm, & PVC 1/8 id *3/16 od *50cm, female Luer and plug, extended tube inside the bag
			6. NA 7. Silicone 1/8 id*1/4 od*5cm, needleless sampling, extended tube inside the bag
2L	pH & DO cell therapy bag	WBCT-002L-C205	1. Silicone 1/8 id *1/4 od*100ncm & PVC 1/8 id*3/16 od *50 cm, female Luer and plug
			2. Silicone 1/16 id*3/16 od*100 cm & PVC 1/8 id*3/16 od *50 cm, female Luer and plug
			3.4 Air filter
			5.6 pH, DO sensor
			7. Silicone 1/8 id *1/4 od*5cm, needleless sampling, extended tube inside the bag
2L	Perfusion cell therapy bag	WBCT-002L-C303	1. (Attached to 1.2 um perfusion filter inside the bag) Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag
			2. Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug
			3.4 Air filter
			5. Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od*60cm, female Luer and plug, extended tube inside the bag
			6. NA 7. Silicone 1/8 id*1/4 od*5cm, needleless sampling, extended tube inside the bag
2L	Perfusion cell therapy bag	WBCT-002L-C304	1. (Attached to 1.2 um perfusion filter inside the bag) Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag
			2. Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug
			3.4 Air filter
			5. Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od*60cm, female Luer and plug, extended tube inside the bag
			6. NA 7. Silicone 1/8 id*1/4 od*5cm, needleless sampling, extended tube inside the bag
2L	Perfusion cell therapy bag	WBCT-002L-C305	1. (Attached to 7 um perfusion filter inside the bag) Silicone 1/16 id*3/16 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag
			2. Silicone 1/16 id *3/16 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug
			3.4 Air filter
			5. Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od*60cm, female Luer and plug, extended tube inside the bag
			6. NA 7. Silicone 1/8 id*1/4 od*5cm, needleless sampling, extended tube inside the bag

\* All connected by non-adjustable straight connectors

Volume	Version	Cat. No.	Configuration
5L	Basic cell therapy bag	WBCT-005L-C102	1. NA
			2. Silicone 1/16 id*3/16 od*100cm & PVC 1/8 id*3/16 od*50 cm, female Luer and plug
	pH & DO cell therapy bag	WBCT-005L-C205	3.4 Air filter
			5. Silicone 1/8 id *1/4 od*100cm, & PVC 1/8 id *3/16 od *50cm, female Luer and plug, extended tube inside the bag
			6. NA
	Perfusion cell therapy bag	WBCT-005L-C303	7. Silicone 1/8 id *1/4 od*5cm, needleless sampling, extended tube inside the bag
			1. (Attached to 1.2 um perfusion filter inside the bag) Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag
	Perfusion cell therapy bag	WBCT-005L-C304	2. Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug
			3.4 Air filter
			5. Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od*60cm, female Luer and plug, extended tube inside the bag
Perfusion cell therapy bag	WBCT-005L-C305	6. NA	
		7. Silicone 1/8 id*1/4 od*5cm, needleless sampling, extended tube inside the bag	
		1. (Attached to 7 um perfusion filter inside the bag) Silicone 1/16 id*3/16 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag	
Perfusion cell therapy bag	WBCT-005L-C305	2. Silicone 1/16 id *3/16 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug	
		3.4 Air filter	

\* All connected by non-adjustable straight connectors

Volume	Version	Cat. No.	Configuration	
10L	Basic cell therapy bag	WBCT-010L-C102	1.	NA
			2.	Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *50cm, female Luer and plug
			3.4	Air filter
			5.	Silicone 1/8 id *1/4 od*100cm, & PVC 1/8 id *3/16 od *50cm, female Luer and plug,extended tube inside the bag
1	pH & DO cell therapy bag	WBCT-010L-C205	1.2	Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *50cm, female Luer and plug
			3.4	Air filter
			5.6	pH, DO sensor
3	Perfusion cell therapy bag	WBCT-010L-C303	1.	(Attached to 1.2 um perfusion filter inside the bag) Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, 10 L storage bag
			2.	Silicone 1/8 id *1/4 od*100cm & PVC 1/8 id *3/16 od *60cm, female Luer and plug
			3.4	Air filter
			5.	Silicone 1/8 id*1/4 od*100cm & PVC 1/8 id *3/16 od*60cm, female Luer and plug, extended tube inside the bag
5	Perfusion cell therapy bag	WBCT-010L-C305	6.	NA
			7.	Silicone 1/8 id*1/4 od*5cm, needleless sampling,extended tube inside the bag
			3.4	Air filter

\* All connected by non-adjustable straight connectors

## Mixing function

FL9101 multilayer co-extruded film, ULDPE liquid contact layer, heat resistance up to 65°C

Volume	Version	Cat. No.	Configuration
1 L	Mixing bag	WBMR-001L-C101	<ol style="list-style-type: none"> <li>1. C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>2. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>3. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> <li>4. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> </ol>
2 L	Mixing bag	WBMR-002L-C101	<ol style="list-style-type: none"> <li>1. C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>2. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>3. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> <li>4. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> </ol>
10 L	Mixing bag	WBMR-010L-C101	<ol style="list-style-type: none"> <li>1.2 C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>3. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> <li>4. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>5. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> </ol>

\* All connected by non-adjustable straight connectors

Volume	Version	Cat. No.	Configuration
20 L	Mixing bag	WBMR-020L-C101	<ol style="list-style-type: none"> <li>1.2 C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>3. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> <li>4. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>5. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> </ol>
22 L	Mixing bag	WBMR-022L-C101	<ol style="list-style-type: none"> <li>1.2 C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>3. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> <li>4. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>5. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> </ol>
50 L	Mixing bag	WBMR-050L-C101	<ol style="list-style-type: none"> <li>1.2 C-Flex 1/4 id*7/16 od*100 cm, female MPC</li> <li>3. C-Flex 1/4 id*7/16 od*100 cm, male MPC</li> <li>4. C-Flex 1/8 id*1/4 od*100 cm, female Luer</li> <li>5. Silicone 3/16 id*3/8 od*5 cm, needleless sampling</li> </ol>
		WBMR-050L-S101	

\* All connected by non-adjustable straight connectors

## CytoLinX® BR 50-2000 L Single-Use Bioreactors

CytoLinX® BR Single-Use Bioreactors come standard with working volumes of 50 L, 200 L, 500 L, 1000 L, and 2000 L. Including a vessel, a controller and a temperature control unit (TCU), they are used for culturing mammalian cells, insect cells, and other low shear-rate needed cells.



**Figure 4.** CytoLinX® BR 50-2000 L Single-Use Bioreactors

## CytoLinX® BR Controller — The Controller of Single-Use Bioreactors

CytoLinX® BR controller consists of control hardware and underlying hardware modules. CytoLinX® BR's controller is built with SIEMENS PCS 7 which meets the automation requirements from research to production, as well as from single system to enterprise-wide solution. The software fits ISA 88 control standard and 21 CFR Part 11.

Hardware control units are all built with international famous brands to ensure robust and reliable performance. Also, a choice of PAT tools can be configured flexibly to meet different customer needs and applications.

One CytoLinX® BR controller can control different types of BioLink single-use bioreactor vessels at the same time. We can also use CytoLinX® BR controller as an integrated control center to realize upstream centralized control by controlling several single-use bioreactors vessels simultaneously.

## CytoLinX® BR Vessel — The Vessel of Single-Use Bioreactors

CytoLinX® BR vessel operates with bottom-drive agitators. It has a patented sparge design that supports flexible combinations of micro, medium and macro sparge sizes, helping to optimize the culture process, enhance the cell density, and maintain cell viability.

For the operation of CytoLinX® BR, two types (air-cooled and water-cooled) of temperature control units (TCU) are available to meet customers' specific needs in different applications.

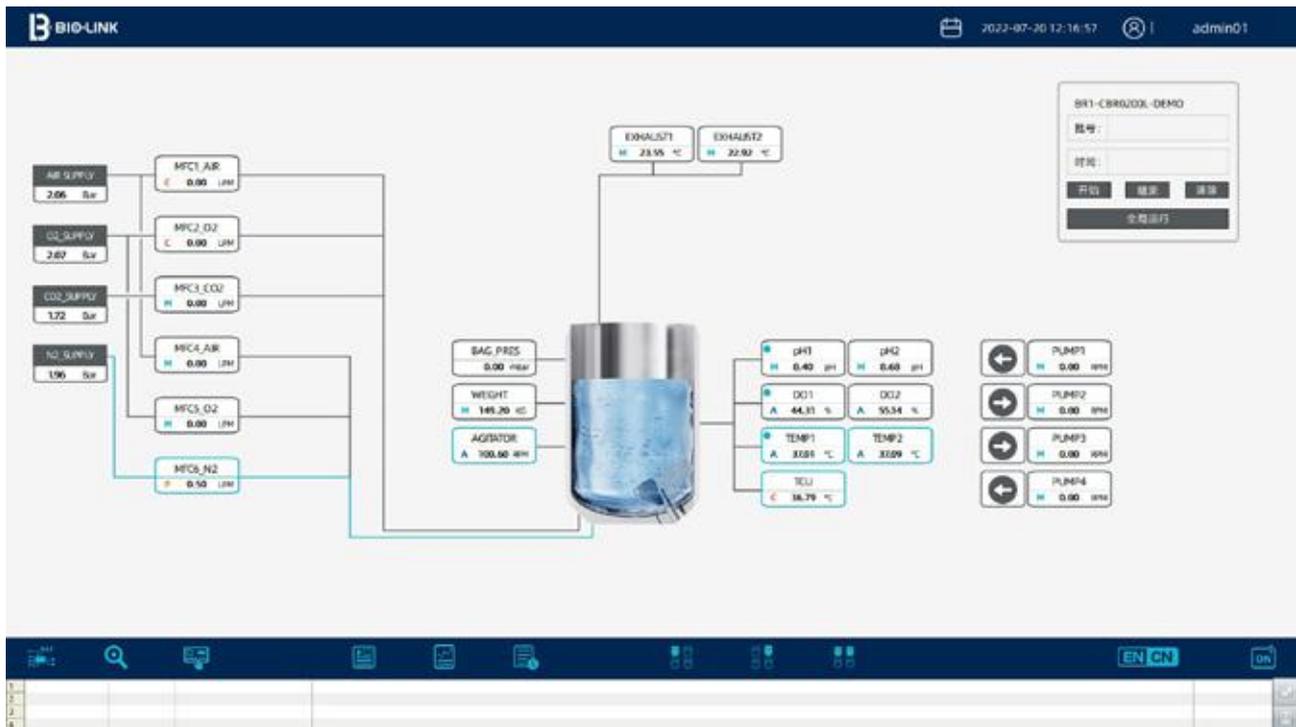


Figure 5. Main operating interface of CytoLinX® BR Controller

## Features of CytolinX® BR Single-Use Bioreactors

- A single controller supports the control of multiple vessels by plugging and unplugging, which contributes to significant cost reduction;
- Reliable PCS 7 system that meets ISA 88 standard, applicable for whole-plant control;
- The software is designed with user-friendly interface in compliance with 21 CFR Part 11;
- Flexible configurations, partly customizable upon customer requirements;
- The main parts are all high-end brands and passed the inspection before leaving the factory to ensure normal operation;
- The sparge provides micro, medium, and macro sparge size options to meet various processing needs;
- Complete FAT, SAT, and IQOQ documents/services are available;
- Rich application and operation support, and high-speed response speed.





## Standard Configuration of CytoLinX® BR Bioreactors

Volume	Options	CLX BR-50	CLX BR-200	CLX BR-500	CLX BR-1000	CLX BR-2000
<b>System parameters</b>						
Working volume (L)		20 - 50	40 - 200	100 - 500	200 - 1000	400 - 2000
Height to diameter ratio (H/D)		2.5:1 or 1.5:1	1.5:1	1.5:1	1.5:1	1.5:1
Bag lifting device and installation ladder					√	√
<b>Accessory parameters</b>						
pH traditional electrodes	Single-use/ Arc electrodes	1-3	2-3	2-3	2-3	2-3
DO optical traditional electrodes		1-3	2-3	2-3	2-3	2-3
PAT tools	pCO <sub>2</sub> , cell density, conductivity	0-2	0-2	0-2	0-2	0-2
Gas mass flow controller (MFC)	Optional gas and range	4-6	4-6	4-6	4-6	4-6
Integrated pump unit	Series 1, 3, and 5	2-4	2-4	2-4	2-4	2-4
Reserved port for external pump unit	Series 5, 6, and 7	0-4	0-4	0-4	0-4	0-4
Weighing module		1	1	1	1	1
Vent filter heating jacket	Optional size	2-4	2-4	2-4	2-4	2-4
Reserved port for external weighing						
Temperature control unit (TCU)	Air-cooled or water-cooled	5 KW	5 KW	5 KW	10 KW	10 KW
<b>Control unit</b>						
Hardware		SIEMENS PCS 7 (DCS, compliant with ISA 88)				
Display		19" touch screen display, mouse and keyboard conforming to appropriate protection class, and built-in UPS				
Compliance		Compliant with 21 CFR PART 11				
<b>Consumables</b>						
Sparger	Micro, medium, and macro sparge size options available	Micro +, macro, or medium + macro sparge size design in the standard product				
Tubing	Customizable tubing length	The tubing length in the standard product is sufficient for post-installation welding requirements				
Vent filter	Optional size	5 inch	7 inch	7 inch	10 inch	10 inch

## CytoLinX® BR 50 L Single-Use Microbial Bioreactors

CytoLinX® BR 50 L Microbial Bioreactor is a fermenter system specially designed for microbial culture. It consists of a vessel, a controller, and a temperature control unit (TCU). With disposable matching consumables, this Microbial Bioreactor is a cost-effective industrial tool with no risk of cross-contamination. It is easy to operate with minimal water consumption and short batch-to-batch turnover time. The Bioreactors can be used for both microbial culture and cell culture. The culture of CHO cells, Vero cells, and MDCK cells is supported.

### CytoLinX® BR Controller - The Controller of Single-Use Microbial Bioreactors

CytoLinX® BR controller consists of control hardware and underlying hardware modules. CytoLinX® BR's controller is built with the control hardware of SIEMENS PCS 7 which meets the automation requirements from research to production, as well as from single system to enterprise-wide solution. The software fits ISA 88 control standard and 21 CFR Part 11 requirements.

Hardware control units are all built with international famous brands to ensure robust and reliable performance. Also, a choice of PAT tools can be configured flexibly to meet different customer needs and applications.

### CytoLinX® BR Vessel - The Vessel of Single-Use Microbial Bioreactors

CytoLinX® BR vessel operates with bottom-driven agitators. It has a patented sparge design that supports flexible combinations of micro, medium and macro sparge sizes, helping to optimize the culture process and increase the yield.

The vessel is designed with 3 removable vortex plates, 1 degassing condenser, and 2 vent filter heating jackets. The vortex plates can enhance mixing for better mixing results. The degassing condenser returns the water that may be entrained in the vent gas due to the rapid gas flow.

### Features of CytoLinX® BR Single-Use Microbial Bioreactors:

- A single controller supports the control of multiple vessels by plugging and unplugging, which contributes to significant cost reduction
- Reliable PCS 7 system that meets ISA 88 standard, applicable for whole-plant control
- User-friendly interface in compliance with 21 CFR Part 11
- Powerful magnetic bottom-driven device for effective mixing to realize a uniform mixing result
- Two-stage impellers for high oxygen transfer speed
- Micro, medium, and macro sparge size options for various processing needs
- Dimple jackets for heat transfer to support efficient cooling and heating
- Flexible configurations, partly customizable upon customer requirements



## Standard Configuration of CytoLinX® MBR Single-Use Microbial Bioreactors

Item	Options	CLX MBR-50
<b>System parameters</b>		
Working volume (L)		15 - 50
Height to diameter ratio (H/D)		2.5:1
<b>Accessory parameters</b>		
pH traditional electrodes	Single-use / Arc electrodes	1-3
DO optical traditional electrodes		1-3
PAT toolsp	CO <sub>2</sub> , cell density, conductivity	0-2
Gas mass flow controller (MFC)	Optional gas and range	2-3
Integrated pump unit	Series 1, 3, and 5	2-4
Reserved port for external pump unit	Series 5, 6, and 7	0-4
Weighing module		1
Vent filter heating jacket	Optional size	2-4
Vortex plate		3
Degassing condenser		1
Temperature control unit (TCU)	Air-cooled or water-cooled	5 KW
<b>Control unit</b>		
Hardware	SIEMENS PCS 7 (DCS, compliant with ISA 88)	
Display	19" touch screen display, mouse and keyboard conforming to appropriate protection class, and built-in UPS	
Compliance	Compliant with 21 CFR PART 11	
<b>Consumables</b>		
Sparger	Medium, and macro sparge available	Medium sparge in the standard product
Tubing	Customizable tubing length	The tubing length in the standard product is sufficient for post-installation welding requirements
Vent filter	Optional	5inch, 7inch, 10inch

## Ordering Information

Cat. No.	Name	Configuration						Culture Volume (L)
		Tank	Controller	CPU	TCU	Ladder	Auxiliary packing device	
CBR0050LA-001	CytoLinX® BR 50 L Bioreactor	√	√	√	√			15-50 L
CBR0200LA-001	CytoLinX® BR 200 L Bioreactor	√	√	√	√			40-200 L
CBR0500LA-001	CytoLinX® BR 500 L Bioreactor	√	√	√	√			100-500 L
CBR1000LB-001	CytoLinX® BR 1000 L Bioreactor	√	√	√	√	√	√	200-1000 L
CBR2000LB-001	CytoLinX® BR 2000 L Bioreactor	√	√	√	√	√	√	400-2000 L
MBR0050LA-001	CytoLinX® MO 50 L Bioreactor	√	√	√	√			15-40 L
CBR0050LC-001	CytoLinX® BR 50 L Bioreactor	√	√	√				15-50 L
CBR0200LC-001	CytoLinX® BR 200 L Bioreactor	√	√	√				40-200 L
CBR0500LC-001	CytoLinX® BR 500 L Bioreactor	√	√	√				100-500 L
CBR1000LC-001	CytoLinX® BR 1000 L Bioreactor	√	√	√				200-1000 L
CBR2000LC-001	CytoLinX® BR 2000 L Bioreactor	√	√	√				400-2000 L
MBR0050LA-001	CytoLinX® MO 50 L Bioreactor	√	√	√				15-50 L

- Product sequence: 001 is the standard configuration, while other numbers are customized

## CytoLinX® BRCF Single-Use Bottom-Driven Microbial Bioreactor Bag

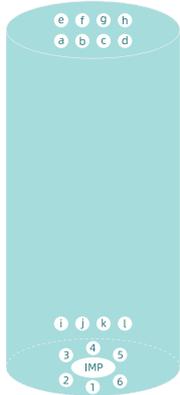
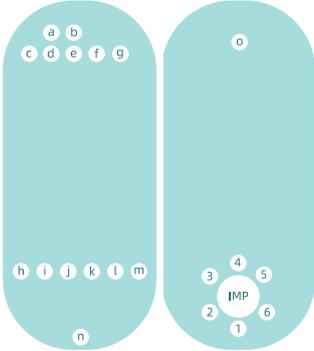
CytoLinX® BRCF Single-Use Bottom-Driven Mixing Bioreactor Bag is designed to match single-use bottom-driven magnetic coupling bioreactor used in biopharmaceuticals. The product can be used for scientific research, process development and commercial production of CHO, Vero, and MDCK cells.

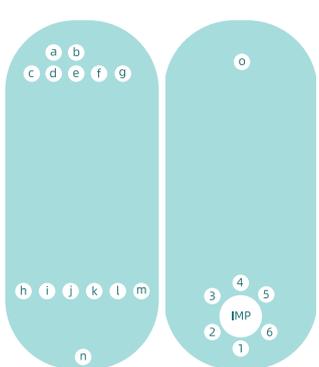
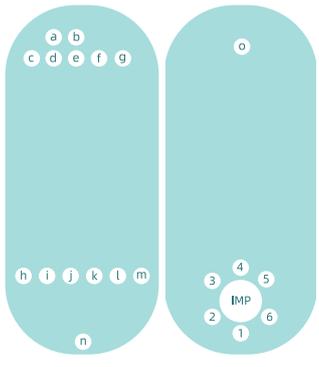
- With RENOLIT 9101 multi-layer co-extrusion films, the fluid contact layer is ultra-low density polyethylene (ULDPE), which has good biocompatibility and chemical compatibility and contributes to a low level of extractable
- The ventilation tray contains 6 ventilation dial components, and the ventilation aperture is available in 20 µm, 300 µm, 0.5 mm, and 1 mm, with good aperture uniformity. Free combinations of micro, medium, and macro spargers are supported to meet different process requirements
- The impeller of 2000 L Bioreactor bags are made of engineering-grade plastic Peek for high hardness. The M40E design has a lower shear force and a shorter mixing time
- Standard imported filters to ensure the integrity of bags
- Customized tubings
- Comprehensive validations with completed validation reports



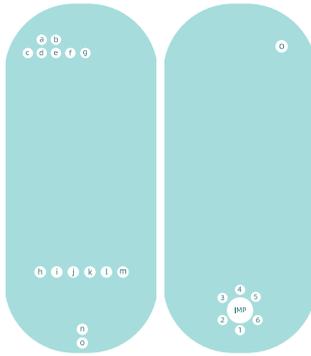
**Figure 6.** CytoLinX® BR Single-Use Bioreactors (2000 L) and Controller

## Standard Configuration of CytoLinX® BRCF Single-Use Bottom-Driven Bioreactor Bag

Volume	Version	Cat. No.	Configuration
50 L 	Medium + Macro sparge	BRCF-0050-P101	<ul style="list-style-type: none"> <li>Min. working volume: 15 L</li> <li>Max. working volume: 50 L</li> <li>Impeller: M40e, 3-blade, diameter: 216 mm, angle: 40°, bottom-driven centric mixing</li> <li>e, c (inlet): 205 cm 3/8" x 5/8" C-Flex™ 374, plug</li> <li>a, g (inlet): 60 cm 3/8" x 5/8" C-Flex™ 374, plug</li> </ul>
	Micro + Macro sparge	BRCF-0050-P201 BRCF-0050-P203	<ul style="list-style-type: none"> <li>h, d (small feed port): 205 cm 1/8" x 1/4" C-Flex™ 374, plug</li> <li>f (vent filter): CS2VTV0.2-002 (Meissner), T-connector tube 1: 60 cm 1/2" x 3/4" C-Flex™ 374, plug; tube 2: 28 cm 1/2" x 3/4" C-Flex™ 374</li> </ul>
	Macro sparge	BRCF-0050-P301 BRCF-0050-P303	<ul style="list-style-type: none"> <li>b (headspace gas): pressure sensor, CS2VTV0.2-002 (Meissner), 45 cm 1/2" x 3/4" C-Flex™ 374 + 16 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> <li>i (sampling port): 50 cm 1/8" x 1/4" C-Flex™ 374 (x 2), needleless sampling (x 2)</li> <li>j, k (sensor): female Kleenpak™ connector, 1/2" HB</li> <li>l (sensor): thermowell, ID 3.5 mm</li> </ul>
	Medium sparge	BRCF-0050-P401	<ul style="list-style-type: none"> <li>1, 3, 5 (harvest tubing): 128 cm 3/8" x 5/8" C-Flex™ 374, hose plug, OD 1/8"-1" pinch valve</li> <li>2, 4, 6 (bottom gas): CS2VTV0.2-002 (Meissner), 153 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing (only 1 filter is available for macro sparge and medium sparge)</li> </ul>
200 L 	Medium + Macro sparge	BRCF-0200-P101	<ul style="list-style-type: none"> <li>Min. working volume: 40 L</li> <li>Max. working volume: 200 L</li> <li>Impeller: M40e, 3-blade, diameter 216 mm, angle 40°, bottom-driven eccentric mixing</li> <li>a, b (small feed port): 305 cm 1/8" x 1/4" C-Flex™ 374, plug</li> <li>c, g (inlet): 305 cm 3/8" x 5/8" C-Flex™ 374, plug</li> </ul>
	Micro + Macro sparge	BRCF-0200-P201 BRCF-0200-P203	<ul style="list-style-type: none"> <li>d, f (inlet): 60 cm 3/8" x 5/8" C-Flex™ 374, plug</li> <li>e (headspace gas): pressure sensor, CF2VTV0.2-33B1 (Meissner), 75 cm 1/2" x 3/4" C-Flex™ 374 + 16 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>
	Macro sparge	BRCF-0200-P301 BRCF-0200-P303	<ul style="list-style-type: none"> <li>o (vent filter): CL2VTV0.2-002 (Meissner), T-connector tube 1: 25 cm 3/4" x 1" C-Flex™ 374, plug; tube 2: 60 cm 1/2" x 3/4" C-Flex™ 374</li> <li>h (sampling port): 50 cm 1/8" x 1/4" C-Flex™ 374 (x 2), needleless sampling (x 2)</li> <li>i, j, k, l (sensor): female Kleenpak™ connector, 1/2" HB</li> <li>m (sensor): thermowell, ID 3.5 mm</li> </ul>
	Medium sparge	BRCF-0200-P401	<ul style="list-style-type: none"> <li>n (harvest tubing): 90 cm 1/2" x 3/4" C-Flex™ 374, plug, OD 1/8"-1" pinch valve</li> <li>1, 2, 3, 4, 5, 6 (bottom gas): CF2VTV0.2-33B1 (Meissner), 233 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>

Volume	Version	Cat. No.	Configuration	
<p>500 L</p> 	Medium + Macro sparge	BRCF-0500-P101	<ul style="list-style-type: none"> <li>Min. working volume: 100 L</li> <li>Max. working volume: 500 L</li> <li>Impeller: M40e, 3-blade, diameter 266 mm, angle 40°, bottom-driven eccentric mixing</li> </ul>	
	Micro + macro sparge	BRCF-0500-P201 BRCF-0500-P203	<ul style="list-style-type: none"> <li>a, b (small feed port): 320 cm 1/8" x 1/4" C-Flex™ 374, plug</li> <li>c, g (inlet): 320 cm 3/8" x 5/8" C-Flex™ 374, plug</li> <li>d, f (inlet): 60 cm 3/8" x 5/8" C-Flex™ 374, plug</li> <li>e (headspace gas): pressure sensor, CF2VTV0.2-33B1 (Meissner), 85 cm 1/2" x 3/4" C-Flex™ 374 + 16 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> <li>o (vent filter): CL2VTV0.2-002 (Meissner), T-connector tube 1: 30 cm 3/4" x 1" C-Flex™ 374, plug; tube 2: 60 cm 1/2" x 3/4" C-Flex™ 374</li> </ul>	
	Macro sparge	BRCF-0500-P301 BRCF-0500-P303	<ul style="list-style-type: none"> <li>h (sampling port): 50 cm 1/8" x 1/4" C-Flex™ 374 (x 2), needleless sampling (x 2)</li> <li>i, j, k, l (sensor): female Kleenpak™ connector, 1/2" HB</li> <li>m (sensor): thermowell, ID 3.5 mm</li> </ul>	
	Medium sparge	BRCF-0500-P401	<ul style="list-style-type: none"> <li>n (harvest tubing): 90 cm 1/2" x 3/4" C-Flex™ 374, plug, OD 1/8"-1" pinch valve</li> <li>1, 2, 3, 4, 5, 6 (bottom gas): CF2VTV0.2-33B1 (Meissner), 263 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>	
	<p>1000 L</p> 	Medium + Macro sparge	BRCF-1000-P101	<ul style="list-style-type: none"> <li>Min. working volume: 200 L</li> <li>Max. working volume: 1000 L</li> <li>Impeller: M40e, 3-blade, diameter 317 mm, angle 40°, bottom-driven eccentric mixing</li> </ul>
		Micro + Macro sparge	BRCF-1000-P201 BRCF-1000-P203	<ul style="list-style-type: none"> <li>a, b (small feed port): 340 cm 1/8" x 1/4" C-Flex™ 374, plug</li> <li>c, d, f, g (inlet): 340 cm 1/2" x 3/4" C-Flex™ 374, plug</li> <li>e (headspace gas): pressure sensor, CF2VTV0.2-33B1 (Meissner), 75 cm 1/2" x 3/4" C-Flex™ 374 + 16 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> <li>o (vent filter): CU2VTV0.2-1N002 (Meissner), T-connector, tube 1: 30 cm 3/4" x 1" C-Flex™ 374, plug; tube 2: 60 cm 1/2" x 3/4" C-Flex™ 374</li> </ul>
		Macro sparge	BRCF-1000-P301 BRCF-1000-P303	<ul style="list-style-type: none"> <li>h (sampling port): 50 cm 1/8" x 1/4" C-Flex™ 374 (x 2), needleless sampling (x 2)</li> <li>i, j, k, l (sensor): female Kleenpak™ connector, 1/2" HB</li> <li>m (sensor): thermowell, ID 3.5 mm</li> </ul>
		Medium sparge	BRCF-1000-P401	<ul style="list-style-type: none"> <li>n (harvest tubing): 90 cm 1" x 1-3/8" C-Flex™ 374, plug, PureFit TCL stop clamp, OD 1-3/8", WALL3/16"</li> <li>1, 2, 3, 4, 5, 6 (bottom gas): CS2VTV0.2-002 (Meissner), 288 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>

Volume	Version	Cat. No.	Configuration
2000 L	Medium + Macro sparge	BRCF-2000-P101	<ul style="list-style-type: none"> <li>Min. working volume: 400 L</li> <li>Max. working volume: 2000 L</li> <li>Impeller: M40e, 4-blade, diameter 419 mm, angle 40°, bottom-driven eccentric mixing</li> </ul>
	Micro + Macro sparge	BRCF-2000-P201 BRCF-2000-P203	<ul style="list-style-type: none"> <li>a, b (small feed port): 380 cm 1/8" x 1/4" C-Flex™ 374, plug</li> <li>c, d, f, g (inlet): 380 cm 1/2" x 3/4" C-Flex™ 374, plug</li> <li>e (headspace gas): pressure sensor, CF2VTV0.2-33B1 (Meissner), 150 cm 1/2" x 3/4" C-Flex™ 374 + 20 cm 1/4" x 7/16" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>
	Macro sparge	BRCF-2000-P301 BRCF-2000-P303	<ul style="list-style-type: none"> <li>o (vent filter): CU2VTV0.2-1N002 (Meissner), Y-connector, tube 1: 35 cm 3/4" x 1" C-Flex™ 374, plug; tube 2: 60 cm 3/4" x 1" C-Flex™ 374</li> <li>h (sampling port): 50 cm 1/8" x 1/4" C-Flex™ 374 (x 2), needleless sampling (x 2)</li> </ul>
	Medium sparge	BRCF-2000-P401	<ul style="list-style-type: none"> <li>i, j, k, l (sensor): female Kleenpak™ connector, 1/2" HB</li> <li>m (sensor): thermowell, ID 3.5 mm</li> <li>n (harvest tubing): 90 cm 1" x 1-3/8" C-Flex™ 374, plug, PureFit TCL stop clamp, OD 1-3/8", WALL3/16"</li> <li>1, 2, 3, 4, 5, 6 (bottom gas): CS2VTV0.2-002 (Meissner), 318 cm 1/2" x 3/4" C-Flex™ 374, tc 25 + 6# quick plug for gas tubing</li> </ul>



## CytoLinX® BRCF Single-Use Top-Driven Bioreactor Bag

The core of the CytoLinX® BRCF 50 L microbial fermentation system is the single-use microbial bioreactor bag designed to meet the stringent requirements of microbial fermentation. It is used for cultivating various organisms, including E-coli, pseudomonas, and yeast. The single-use microbial bioreactor bag is based on the proven design and materials of the CytoLinX® BRCF Single-Use Bioreactor Bag for mammalian cell culture.

- RENOLIT 9101 multilayer co-extruded film, ULDPE liquid contact layer, offering excellent biocompatibility and chemical compatibility while ensuring low levels of extractable content
- The dual impeller design enables vigorous mixing of the culture, and the bottom magnetic coupling eliminates external shafts, minimizing the risk of leakage
- All single-use microbial bioreactor bags are equipped with pressure sensors to maintain bag integrity during demanding fermentation processes
- The vent filter is equipped with a condensation bag at the front end to integrate condensation, returning water vapor from the gas back into the bag, ensuring the ventfilter remains unclogged

## Standard Configuration of CytoLinX® BRCF Single-Use Bottom-Driven Microbial Bioreactor Bag

Volume	Version	Cat. No.	Configuration
50 L	Medium sparge	BRCF-0050-P404	<ul style="list-style-type: none"> <li>• Min. working volume: 15 L</li> <li>• Max. working volume: 50 L</li> <li>• Impeller: double-layer, 6 Rushton blades, pitch blade at the top, axial flow impeller, diameter: 195 mm, bottom-driven centric mixing</li> <li>• a, b, e (feeding port): 05 cm 1/8" x 1/4" C-Flex, hose plug</li> <li>• c (pressure monitoring): pressure sensor, 45 cm 1/2" x 3/4" C-Flex, hose plug</li> <li>• d (vent filter + condensation bag):: 37 cm 1" x 1-3/8" C-Flex, condensation bag, 20 cm 1" x 1-3/8" C-Flex, L10SSAPBBG1P, 35 cm 1" x 1-3/8" C-Flex, L05SSAPBBG1P</li> <li>• f (feeding port): 205 cm 1/8" x 1/4" C-Flex (x2) , hose plug (x2)</li> <li>• g (spare vent filter inlet) : 30 cm 1" x 1-3/8" C-Flex , AseptiQuik® L sterile connector;</li> <li>• h (intlet): 205 cm 3/8" x 5/8" C-Flex, hose plug</li> <li>• i (sampling port): 50 cm 1/8" x 1/4" C-Flex(x 2), sterile sampling valve (x 2)</li> <li>• j, k (sensor): Kleenpak™ sterile connector female adapter</li> <li>• l (sensor): thermowell, ID3.5 mm</li> <li>• 1, 3, 5 (harvest tubing): 128 cm 3/8" x 5/8" C-Flex, hose plug, OD1/8"-OD1" pinch valve</li> <li>• 2, 4, 6 (bottom gas): CL2VTV0.2-002 (Meissner), 168 cm 1/4" x 7/16" C-Flex, TC 25 + 6 # quick plug for gas tubing (Only one filter for pure medium sparge)</li> </ul>



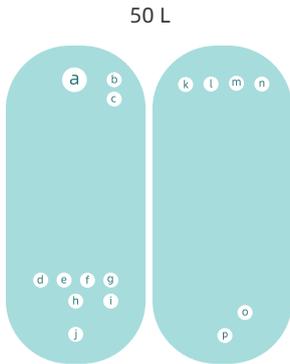
## CytoLinX® BRTF Single-Use Top-Driven Bioreactor Bag

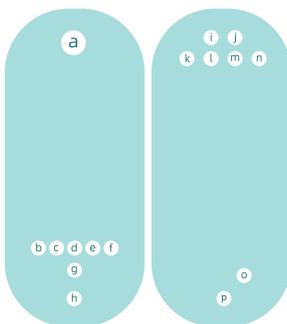
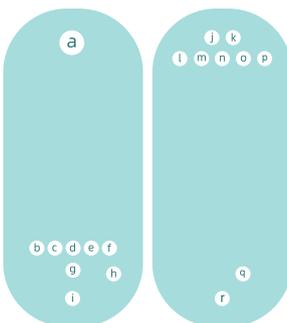
CytoLinX® BRTF Single-Use Top-Driven Bioreactor Bag is designed to match single-use top mechanical coupling bioreactor used in biopharmaceuticals. The product can be used for scientific research, process development and commercial production of CHO, Vero, and MDCK cells, etc.

- RENOLIT 9101 multilayer co-extruded film, ULDPE fluid contact layer, offering excellent biocompatibility and chemical compatibility while ensuring low levels of extractable content
- The porous-frit microsparge column is designed from ultra-high molecular weight polyethylene (UHMW-PE), with pore sizes ranging from 20-40 µm. The generated bubbles possess a high surface area ratio and good oxygen transfer. UHMW-PE exhibits outstanding impact resistance, wear resistance, chemical corrosion resistance, physiological inertness, adaptability, and hydrophobicity
- The macro-perforated microporous membrane is a dispersed aeration disc based on film. Laser-drilled to maintain uniform pore size, various specifications such as 0.178mm, 0.233mm, 0.368mm, 0.445mm, 0.582mm are available, tailored with specific apertures and quantities for each bag specification
- Equipped with imported filters to ensure bag integrity
- All pipelines can be flexibly customized
- Fully validated, complete validation reports can be provided

## Standard Configuration of CytoLinX® BRTF Single-Use Bottom-Driven Bioreactor Bag

Volume	Version	Cat. No.	Configuration
50 L	Micro + Macro sparge 5:1	BRTF- 0050-C201	<ul style="list-style-type: none"> <li>• a (top-driven mixing parts): 3-blade impeller, diameter: 111.1 mm, angle: 45°</li> <li>• b (headspace gas) : pressure sensor, CF2VTV0.2-33B1 (Meissner), 20 cm 1/2" x 3/4" C-Flex+ 16 cm 1/4" x 7/16" C-Flex, 6 # quick plug for gas tubing</li> <li>• c (inlet / feeding port) : 150 cm 1/4" x 7/16" C-Flex, 30 cm 1/8" x 1/4" C-Flex plug</li> <li>• k (inlet / feeding port) : 150 cm 3/8" x 5/8" C-Flex, Y connector, tubing 1: 40 cm 3/8" x 5/8" C-Flex, plug; tubing 2: 10 cm 3/8" x 5/8" C-Flex, 30 cm 1/4" x 7/16" C-Flex, plug</li> <li>• l (inlet) : 180 cm 3/8" x 5/8" C-Flex, plug</li> <li>• n (feeding port) : 15 cm 1/4" x 7/16" C-Flex, 150 cm 1/8" x 1/4" C-Flex, plug</li> <li>• m (vent filter) : CS2VTV0.2-002 (Meissner), Y connector, tubing 1: 25 cm 1/2" x 3/4" C-Flex; tubing 2: 15 cm 1/2" x 3/4" C-Flex, AseptiQuik® G sterile connector, 1/2" HB</li> <li>• d,e,f,g( sensor) : AseptiQuik® G sterile connector, 1/2" HB</li> <li>• h (sampling port) : 30 cm 1/8" x 1/4" C-Flex, needless sampling 50 cm 1/8" x 1/4" C-Flex, plug</li> <li>• i (sensor) : thermowell, ID3.5 mm</li> <li>• j (harvest port) : 100 cm 1/2" x 3/4" C-Flex, 30 cm 3/8" x 5/8" C-Flex, plug</li> <li>• o,p(bottom gas): CF2VTV0.2-33B1 (Meissner), 15 cm 1/4" x 7/16" C-Flex, one-way valve, 150 cm 1/4" x 7/16" C-Flex, 6 # quick plug for tubing</li> </ul>
	Micro + Macro sparge 2:1	BRTF- 0050-C202	<ul style="list-style-type: none"> <li>• h (sampling port) : 30 cm 1/8" x 1/4" C-Flex, needless sampling 50 cm 1/8" x 1/4" C-Flex, plug</li> <li>• i (sensor) : thermowell, ID3.5 mm</li> <li>• j (harvest port) : 100 cm 1/2" x 3/4" C-Flex, 30 cm 3/8" x 5/8" C-Flex, plug</li> <li>• o,p(bottom gas): CF2VTV0.2-33B1 (Meissner), 15 cm 1/4" x 7/16" C-Flex, one-way valve, 150 cm 1/4" x 7/16" C-Flex, 6 # quick plug for tubing</li> </ul>



Volume	Version	Cat. No.	Configuration
 <p>250 L</p>	Micro + Macro sparge 5:1	BRTF-0250-C201	<ul style="list-style-type: none"> <li>a (top-driven mixing parts): 3-blade impeller, diameter: 251 mm, angle: 45°</li> <li>i (headspace gas): pressure sensor, CS2VTV0.2-002 (Meissner), 20 cm 1/2" x 3/4" C-Flex + 16 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> <li>m (feeding port): 15 cm 1/4" x 7/16" C-Flex, 180 cm 1/8" x 1/4" C-Flex, plug</li> <li>k,l (inlet / feeding port): 150 cm 3/8" x 5/8" C-Flex, Y connector, tubing 1: 30 cm 3/8" x 5/8" C-Flex, plug; tubing 2: 20 cm 3/8" x 5/8" C-Flex, 40 cm 1/8" x 1/4" C-Flex, plug</li> <li>n (inlet / feeding port): 150 cm 1/4" x 7/16" C-Flex, 50 cm 1/8" x 1/4" C-Flex, plug</li> <li>j (vent filter): CL2VTV0.2-002 (Meissner), Y connector, tubing 1: 30 cm 1/2" x 3/4" C-Flex; tubing 2: 20 cm 1/2" x 3/4" C-Flex, AseptiQuik® G sterile connector, 1/2" HB</li> </ul>
	Micro + Macro sparge 2:1	BRTF-0250-C202	<ul style="list-style-type: none"> <li>b,c,d,e (sensor): AseptiQuik® G sterile connector, 1/2" HB</li> <li>g (sampling port): 30 cm 1/8" x 1/4" C-Flex, needless sampling; 50 cm 1/8" x 1/4" C-Flex, plug</li> <li>f (sensor): thermowell, ID3.5 mm</li> <li>h (harvest port): 150 cm 1/2" x 3/4" C-Flex, plug</li> <li>o,p (bottom gas): CF2VTV0.2-33B1 (Meissner), 15 cm 1/4" x 7/16" C-Flex, one-way valve, 150 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> </ul>
 <p>500 L</p>	Micro + Macro sparge 5:1	BRTF-0500-C201	<ul style="list-style-type: none"> <li>a (top-driven mixing parts): 3-blade impeller, diameter: 251 mm, angle: 45°</li> <li>k (headspace gas): pressure sensor, CS2VTV0.2-002 (Meissner), 25 cm 1/2" x 3/4" C-Flex + 16 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> <li>l (feeding port): 15 cm 1/4" x 7/16" C-Flex, 230 cm 1/8" x 1/4" C-Flex, plug</li> <li>m (inlet / feeding port): 250 cm 1/4" x 7/16" C-Flex, plug;</li> <li>n,o (inlet / feeding port): 180 cm 3/8" x 5/8" C-Flex, connector tubing 1: 30 cm 3/8" x 5/8" C-Flex, plug; tubing 2: 30 cm 3/8" x 5/8" C-Flex, 30 cm 1/8" x 1/4" C-Flex, plug</li> <li>p (inlet / feeding port): 250 cm 3/8" x 5/8" C-Flex, plug</li> <li>j (vent filter): CUVTV0.2-1N002 (Meissner), connector, tubing 1: 30 cm 3/4" x 1" C-Flex; tubing 2: 20 cm 3/4" x 1" C-Flex, AseptiQuik® G sterile connector, 1/2" HB</li> <li>b,c,d,e,f (sensor): AseptiQuik® G sterile connector, 1/2" HB</li> <li>g (sampling port): 30 cm 1/8" x 1/4" C-Flex, needless sampling; 80 cm 1/8" x 1/4" C-Flex, plug</li> <li>h (sensor): thermowell, ID3.5 mm</li> <li>i (harvest port): 150 cm 1/2" x 3/4" C-Flex, plug</li> <li>q, r (bottom gas): CS2VTV0.2-002 (Meissner), 16 cm 1/4" x 7/16" C-Flex, one-way valve, 185 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> </ul>

Volume	Version	Cat. No.	Configuration
1000 L	Micro + Macro sparge 5:1	BRTF- 1000-C201	<ul style="list-style-type: none"> <li>• a (top-driven mixing parts) : 3-blade impeller, diameter: 321 mm, angle :45°</li> <li>• k (headspace gas) : pressure sensor , CS2VTV0.2-002 (Meissner), 50 cm 1/2" x 3/4" C-Flex + 20 cm 1/4" x 7/16"C-Flex, 6# quick plug for gas tubing</li> <li>• l (feeding port) : 15 cm 1/4" x 7/16" C-Flex, 250 cm 1/8" x 1/4" C-Flex, plug</li> <li>• m (intlet / feeding port) : 250 cm 1/4" x 7/16" C-Flex, 30 cm 1/8" x 1/4" C-Flex, plug</li> <li>• n,o (intlet / feeding port) : 250 cm 3/8" x 5/8" C-Flex, connector, tubing 1: 30 cm 3/8" x 5/8" C-Flex, plug; tubing 2: 20 cm 3/8" x 5/8" C-Flex, 35 cm 1/8" x 1/4" C-Flex, plug</li> <li>• j (vent filter) : CUVTV0.2-1N002 (Meissner)×2, connector, tubing 1: 25 cm 3/4" x 1" C-Flex; tubing 2: 25 cm 3/4" x 1" C-Flex</li> <li>• b,c,d,e,f (sensor) : AseptiQuik® G sterile connector, 1/2"HB</li> <li>• g (sampling port) : 30 cm 1/8" x 1/4" C-Flex, needless sampling; 80 cm 1/8" x 1/4" C-Flex, plug</li> <li>• h (sensor) : thermowell, ID3.5 mm</li> <li>• i (harvest port) : 160 cm 1/2" x 3/4" C-Flex, 30 cm 3/8" x 5/8" C-Flex, connector tubing 1: 30 cm 3/8" x 5/8" C-Flex, plug; tubing 2: 20 cm 3/8" x 5/8" C-Flex, 35 cm 1/8" x 1/4" C-Flex, plug</li> <li>• p, q (bottom gas) : CS2VTV0.2-002 (Meissner), 16 cm 1/4" x 7/16"C-Flex, one-way valve, 185 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> </ul>
2000 L	Micro + Macro sparge 5:1	BRTF- 2000-C201	<ul style="list-style-type: none"> <li>• a (top-driven mixing parts) : 3-blade impeller, diameter: 397 mm, angle: 45°</li> <li>• c (headspace gas): pressure sensor , CS2VTV0.2-002 (Meissner), 50 cm 1/2" x 3/4" C-Flex + 30 cm 1/4" x 7/16"C-Flex, 6# quick plug for gas tubing</li> <li>• d,g (ifeeding port): 50 cm 1/4" x 7/16" C-Flex,220 cm 1/8" x 1/4" C-Flex, plug</li> <li>• e (intlet / feeding port): 220 cm 1/2" x 3/4" C-Flex,50 cm 3/8" x 5/8" C-Flex, plug</li> <li>• f (intlet / feeding port): 220 cm 1/4" x 7/16" C-Flex,50 cm 1/8" x 1/4" C-Flex, plug</li> <li>• h (intlet): 15 cm 1" x 1 - 3/8" C-Flex,connector (internal extended tube), tubing 1: 15 cm 3/4" x 1" C-Flex, 250 cm 1/2" x 3/4" C-Flex, plug; tubing 2: 15 cm 3/4" x 1" C-Flex, 250 cm 1/2" x 3/4" C-Flex, plug</li> <li>• b (vent filter) : CUVTV0.2-1N002 (Meissner)×2, Y connector, tubing 1: 30 cm 3/4" x 1" C-Flex; tubing 2: 30 cm 3/4" x 1" C-Flex</li> <li>• i,j,k,l,m (sensor) : AseptiQuik® G sterile connector, 1/2"HB</li> <li>• n (sampling port) : 30 cm 1/8" x 1/4" C-Flex, needless sampling; 80 cm 1/8" x 1/4" C-Flex, plug</li> <li>• o (sensor) : thermowell, ID3.5 mm</li> <li>• p (harvest port) : 200 cm 3/4" x 1" C-Flex, TC 50</li> <li>• q, r, s, t (bottom gas) : CS2VTV0.2-002 (Meissner), 8 cm 1/4" x7/16" C-Flex, one-way valve, 200 cm 1/4" x 7/16" C-Flex, 6# quick plug for gas tubing</li> </ul>

## CytoLinX® Electrode Sleeve

### Introduction

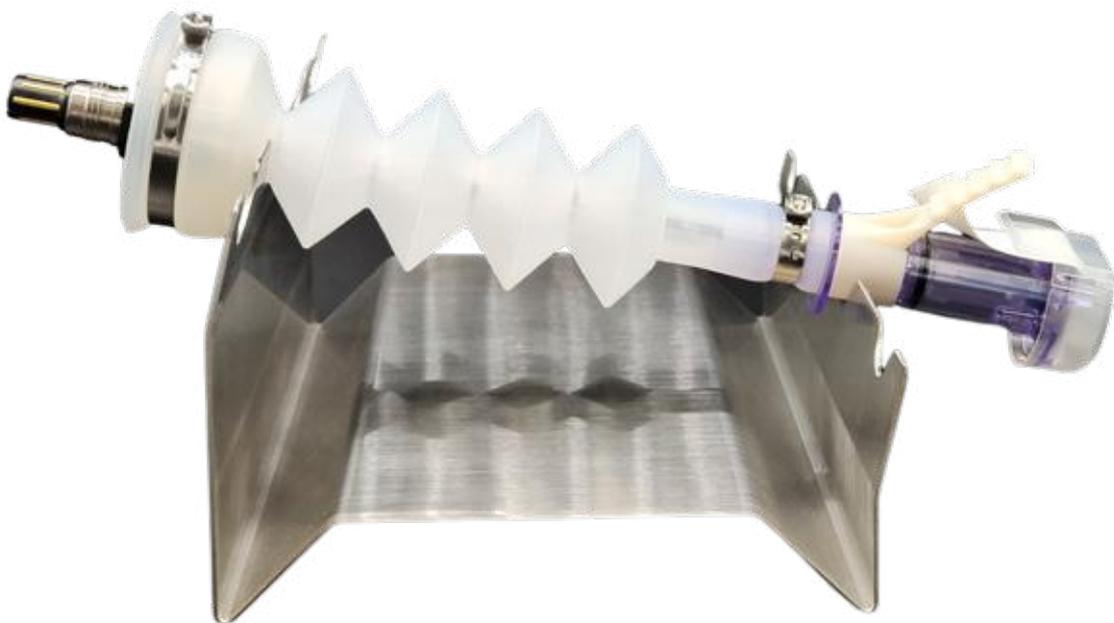
As one of the critical steps in different biopharmaceutical fields for antibody drugs, vaccines, and drugs for cell therapy and gene therapy, cell culture has direct effects on the yield and quality of drugs. The monitoring of pH and dissolved oxygen is very important during the cell culture process to ensure performance indicators, including viable cell density, cell viability, and cell unit yield. BioLink CytoLinX® Electrode Sleeve are specially designed for sterile monitoring of pH and dissolved oxygen.

### Applications

Sterile connection of pH/DO electrode probe with the single-use bioreactor bag during the cell culture process.

### Features

- Threaded fittings adapted to pH/DO electrodes to ensure air tightness
- The telescopic tubes of different specifications are suitable for electrodes and sterile connectors based on their lengths
- Electrode mounting clips and sterile brackets are also available
- Resistant to humid heat sterilization: temperature  $\leq 135^{\circ}\text{C}$ , 30 min
- Sufficient inventory of raw materials and relevant components to support the supply chain stably
- Fully compliant with biosafety requirements



**Figure 7.** KPC Electrode Sleeve with electrode bracket

## Technical Parameters

### CytoLinX® Electrode Sleeve

Component name	Main material
KPC/AQG connector	
Unit	Polycarbonate
Telescopic tubing	Silicone
Threaded fitting	PSU

## Ordering Information

Cat. No.	Product name	Description
BRCF-000L-P001	Electrode sleeve × 4	KPC series + telescopic tubing + threaded fitting + nylon snap ring, 4 pcs per group
BRCF-000L-P002	Electrode sleeve × 2	KPC series + telescopic tubing + threaded fitting + nylon snap ring, 2 pcs per group
BRTF-000L-C001	Electrode sleeve × 4	AQG series + telescopic tubing + threaded fitting + nylon snap ring, 4 pcs per group
CBR0001L361	Electrode mounting clip	Auxiliary fixed electrode clamp × 1
CBR0001L360	Electrode bracket	Sterile electrode bracket × 1



Figure 8. KPC Electrode Sleeve



Figure 9. AQG Electrode Sleeve



## CytoLinX® GB 1-20 L Benchtop Glass Bioreactors

The CytoLinX® GB benchtop glass bioreactors are available in 1 L, 3 L, 7 L, 15 L, and 20 L with a new design and high flexibility, allowing the use of existing brands of electrodes, tubes, gas distributors and stirring paddle. The bioreactor is composed of a glass vessel and a control cabinet; it is widely used in the upstream process development of biologics, suitable for exploration of high-throughput parameter conditions and optimization of the culture process, and applicable for the culture of various cells, including suspension cells, adherent cells, plant cells, and insect cells.



Figure 10. CytoLinX® GB 1-20 L Benchtop Glass Bioreactors

### CytoLinX® GB for ADC Conjugation Process Optimization

BioLink provides an automated platform for the optimization of the ADC conjugation process: Features such as **precise temperature control and programmable automatic dosing** ensure high repeatability and stability of the reaction system, and the kettle design is more feasible for manufacturing and linear scale-up. The synthesis platform has excellent scalability and can be equipped with online pH sensors to enhance process development monitoring and control. In addition, **the automatic program** is designed to significantly avoid errors caused by manual operations, thereby ensuring consistency between synthesis batches.

### CytoLinX® GB for mRNA Production

The development difficulty and the key technical points of mRNA technology lie in the synthetic modification and delivery systems. In Vitro Transcription (IVT) is the most efficient method for batch synthesis of mRNA. It is a relatively complex enzymatic process that requires the addition of enzymes, nucleotides, and other related reagents, in addition to the DNA template. BioLink provides a fully automated IVT synthesis platform that enables efficient linear scale-up from lab-scale development to scale-up production. With features such as **precise temperature control and programmable automatic dosing**, the CytoLinX® GB benchtop glass bioreactors ensure the high **repeatability and stability** of the synthesis system, and the **automatic program design** significantly avoids the errors caused by manual operations to ensure the consistency between synthesis batches.

## CytoLinX® GB Control Cabinet

The CLX-GB control cabinet includes control hardware and underlying hardware modules. The control hardware is built with Siemens win CC framework, which meets requirements from development to manufacturing and complies with 21 CFR Part 11.

The underlying hardware modules are all built with imported brands, featuring high stability. In addition, a variety of PAT tools can be flexibly configured to meet different customer needs and application scenarios.

A CLX-GB control cabinet can be interfacing with different models of glass vessels, achieving versatile use with a single unit.

The CLX-GB vessel adopts a top stirring mode and allows a flexible combination of microbubble and large bubble, promoting the optimization of the culture process, further improving cell density as well as maintaining cell viability.

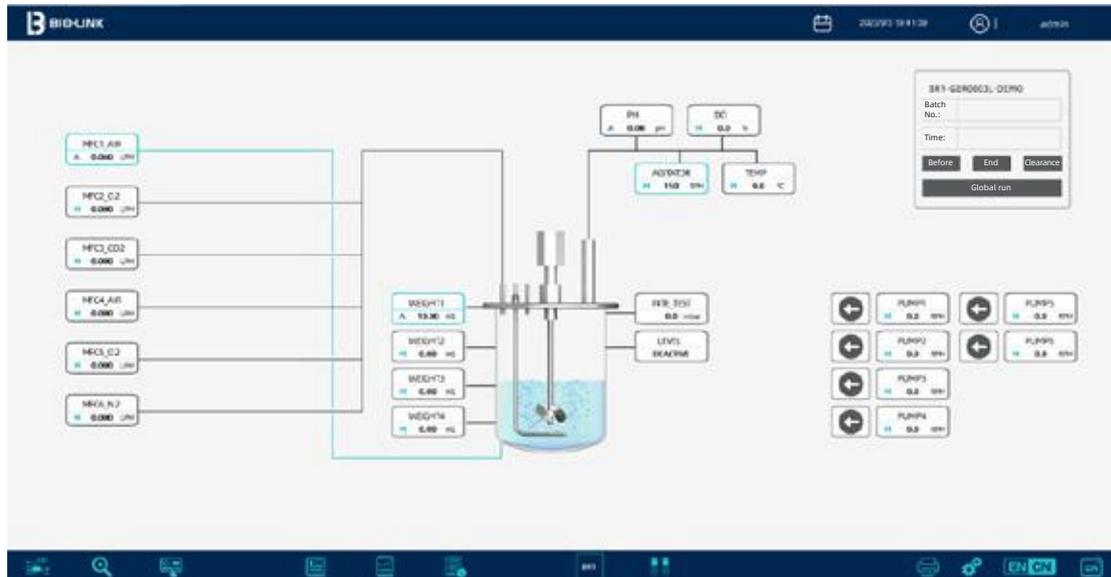


Figure 11. CytoLinX® GB main control interface

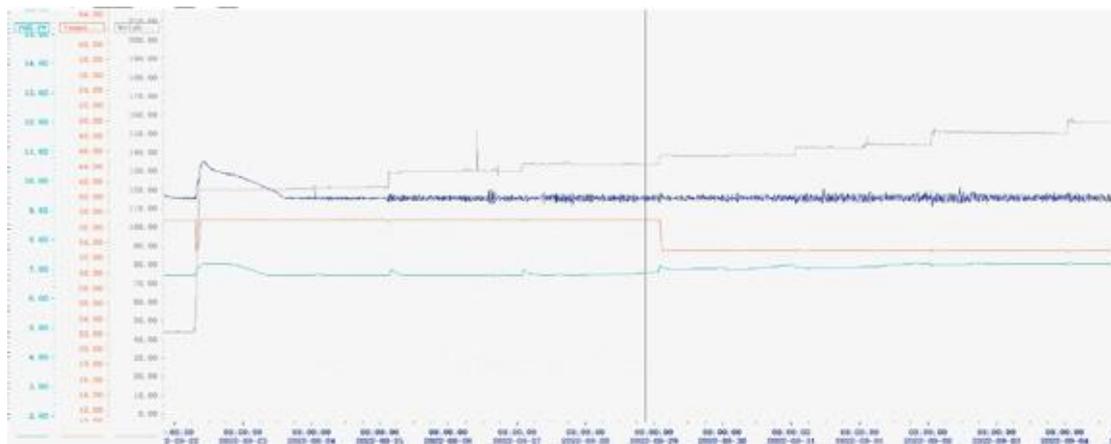


Figure 12. CytoLinX® GB culture results

## Features of CytoLinX® GB Benchtop Glass Bioreactors

### ► High configurability

High flexibility, high compatibility, and more options for process development and characterization

### ► Wide application

Customizable upon special process requirements of customers, applicable in ADC and mRNA fields

### ► High ruggedness

High borosilicate glass vessel, high-temperature resistant, corrosion resistant and easy to clean



### ► High stability

Excellent equipment control stability, temperature, pH and DO linkage effect

### ► High selectivity

Large bubble and microbubble available to meet various process requirements

## CytoLinX® GB Glass Vessel

The function and structure of the vessel are carefully designed to meet the actual requirements of users. Vessels are available in 1 L, 3 L, 7 L, 15 L, 20 L, and standard covers and connectors can meet the customized requirements of different experiments. All components in contact with liquid are made of high-quality 316L stainless steel, with the surface mirror-polished and electrochemically polished.

## CytoLinX® Integrity Tester

The culture process using bioreactors requires an absolutely sterile environment. Therefore, it is necessary to conduct an integrity test on the culture container to ensure the biosafety of the culture process. The integrity test can ensure the correct installation and integrity of the components in the culture container. The CytoLinX® integrity tester is easy to use, automated, accurate and reliable. It provides a simple and intuitive user experience, as well as flexible customization options, perfectly fitting your process requirements.



## CytoLinX® TCU

CytoLinX® TCU is a temperature control machine supporting CytoLinX® GB glass bioreactors and desktop stirring system, which can realize cooling and heating operations in the same machine. It features reasonable structure, easy operation and good stability, and can be widely used in pharmaceutical, scientific research, biology, laboratory and other industries.



## Standard Configuration of CytoLinX® GB

	Total volume	1 L	3 L	7 L	15 L	20 L
Vessel (single-wall)	Max. working volume	0.8 L	2.4 L	5.6 L	12 L	16 L
	Min. working volume	0.2 L	0.6 L	1.4 L	3 L	8 L
	Working diameter to height ratio (H/D)	1.5/1	1.5/1	1.8/1	1.45/1	1.5/1
	Material	High silicon borate				
Vessel (jacket)	Max. working volume	NA	2.4 L	5.6 L	12 L	NA
	Min. working volume	NA	0.6 L	1.4 L	3 L	NA
	Working diameter to height ratio (H/D)	NA	1.5/1	1.8/1	1.4/1	NA
	Jacket volume	NA	1.2 L	2.4 L	7.4 L	NA
	Material	High silicon borate				
Vessel cover	Port	M30*1 M18*1.5*3 10 mm*6 6 mm*3	M30*1 M18*1.5*6 12 mm*2 10 mm*9	M30*1 M18*1.5*6 12 mm*2 10 mm*10	69 mm*1 27 mm*6 12 mm*2 10 mm*10	69 mm*1 27 mm*6 12 mm*2 10 mm*10
	Material	SS316L				
Stirring system	Mode	Top servo brushless motor				
	Stirring speed	0-1500 rpm				
Sensor	pH	Hamilton smart pH electrode, VP8 joint				
	DO	Hamilton smart optical dissolved oxygen electrode, VP8 joint				
	Temperature	Pt 100, Grade A, 0-150° C				
	Level/antifoam	Resistance type, automatic level control for adding antifoam (optional)				
	Others	pCO <sub>2</sub> electrode (optional), cell density electrode (optional), conductance (optional), Raman electrode (optional), etc.				
Gas control	Ventilation mode	Surface ventilation/deep ventilation				
	Gas type	Air, O <sub>2</sub> , CO <sub>2</sub> , N <sub>2</sub>				
	Control method	0-6 channel mass flow meter (MFC) /0-4 channel rotameter				
	Gas distributor	L-shaped bubble/annular bubble/microbubble (5-200 um)				
	Tail gas	Stainless steel condensing reflow (optional)				
Peristaltic pump	Peristaltic pump	2-4 variable speed pumps				
	Speed	0.1-300 rpm				
	Reserve external pump port	0-2 variable speed pumps (optional)				
Temperature	Control method	Electric heating blanket (Single-wall vessel)/TCU heating (jacketed vessel)				
Weighing	Reserve external weight port	0-4 variable speed weights (optional)				
Control system	Controller	Industrial PLC				
	Interface	23" PC				
	Compliance	Conforming to 21 CFR PART 11				
Integrity test	Integrity tester	Detection range: 0-350 mbar (optional)				

## Ordering Information

### 1 L benchtop glass bioreactors

1 L benchtop glass bioreactors	Cat No.	Specification
<b>Glass reactor</b>		
1 L glass reactor, single-wall (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB01LGS-001	1 L
1 L glass reactor, jacket (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB01LGJ-001	1 L
1 L single-wall glass reactor	CGB01LVS-001	1 L
1 L jacketed glass reactor	CGB01LVJ-001	1 L
1 L single-wall, jacketed universal stainless steel roof	CGB01LSR-001	1 L
1 L single-wall stainless steel bracket	CGB01LSR-002	1 L
1 L jacketed stainless steel bracket	CGB01LSR-015	1 L
<b>Stir</b>		
1 L mixing assembly	CGB01LSR-003	OD: M30
1 L marine mixing paddle	CGB01LSR-004	OD: 38 mm
1 L flat blade turbine mixing paddle	CGB01LSR-005	OD: 38 mm
1 L baffle	CGB01LSR-006	OD: 6 mm
<b>Gas</b>		
1 L bottom intake tube (large bubble)	CGB01LSR-007	OD: 10 mm
1 L annular bottom intake tube (large bubble)	CGB01LSR-013	OD: 10 mm
1-20 L surface ventilation assembly	CGB01-20LSR-001	OD: 10 mm
<b>Sensors and related accessories</b>		
1 L Hamilton ARC pH sensor	CGB01LER-001	160 mm long
1 L Hamilton ARC DO sensor	CGB01LER-002	160 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
1 L liquid level/foam sensor	CGB01LER-006	OD: 10 mm
1 L stainless steel temperature casing	CGB01LSR-009	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
<b>Tail gas</b>		
1-7 L condensation reflux	CGB01-07LSR-001	OD: M18*1.5

1 L benchtop glass bioreactors	Cat No.	Specification
<b>Cooler</b>		
1 L heat exchange tube	CGB01LSR-014	OD: 10 mm
<b>Feed and sampling line</b>		
1-7 L three-inlet components	CGB01-07LSR-004	OD: M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
1 L harvest tube	CGB01LSR-010	OD: 10 mm
1 L sampling tube	CGB01LSR-011	OD: 10 mm
<b>Plug</b>		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1 L 6-mm plug	CGB01LSR-012	OD: 6 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
<b>Heated blanket</b>		
1 L heated blanket	CGB01LER-004	1 L: 360*100, 230V, 80W

### 3 L benchtop bioreactors

3 L benchtop bioreactors	Cat No.	Specification
<b>Glass reactor</b>		
3 L glass reactor, single-wall (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB03LGS-001	3 L
3 L glass reactor, jacket (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB03LGJ-001	3 L
3 L single-wall glass reactor	CGB03LV5-001	3 L
3 L jacketed glass reactor	CGB03LVJ-001	3 L
3 L single-wall, jacketed universal stainless steel roof	CGB03LSR-001	3 L
3 L single-wall stainless steel bracket	CGB03LSR-002	3 L
3 L jacketed stainless steel bracket	CGB03LSR-004	3 L
<b>Stir</b>		
3 L mixing assembly	CGB03LSR-005	OD: M30
3 L marine mixing paddle	CGB03LSR-006	OD: 45 mm
3 L flat blade turbine mixing paddle	CGB03LSR-007	OD: 45 mm
3 L baffle	CGB03LSR-008	OD: 10 mm
<b>Gas</b>		
3 L bottom intake tube (large bubble)	CGB03LSR-009	OD: 10 mm
3 L bottom intake tube (microbubble)	CGB03LSR-010	OD: 10 mm
3 L annular bottom intake tube (large bubble)	CGB03LSR-015	OD: 10 mm
1-20 L surface ventilation assembly	CGB01-20LSR-001	OD: 10 mm
1-7 L microbubble tip, 20 um	CGB01-07LSR-006	
1-7 L microbubble tip, other pore size	Customized	
<b>Sensors and related accessories</b>		
3 L Hamilton ARC pH sensor	CGB03LER-001	225 mm long
3 L Hamilton ARC DO sensor	CGB03LER-002	225 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
3 L liquid level/foam sensor	CGB03LER-005	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
3 L stainless steel temperature casing	CGB03LSR-011	OD: 10 mm

3 L benchtop bioreactors	Cat No.	Specification
<b>Tail gas</b>		
1-7 L condensation reflux	CGB01-07LSR-001	OD: M18*1.5
<b>Cooler</b>		
3 L heat exchange tube	CGB03LSR-012	OD: 10 mm
<b>Feed and sampling line</b>		
1-7 L three-inlet components	CGB01-07LSR-004	OD: M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
3 L harvest tube	CGB03LSR-013	OD: 10 mm
3 L sampling tube	CGB03LSR-014	OD: 10 mm
<b>Plug</b>		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
<b>Heated blanket</b>		
3 L heated blanket	CGB03LER-004	3 L: 485*180, 230V, 100W

## 7 L benchtop bioreactors

7 L benchtop bioreactors	Cat No.	Specification
<b>Glass reactor</b>		
7 L glass reactor, single-wall (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB07LGS-001	7 L
7 L glass reactor, jacket (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB07LGJ-001	7 L
7 L single-wall glass reactor	CGB07LV5-001	7 L
7 L jacketed glass reactor	CGB07LVJ-001	7 L
7 L single-wall, jacketed universal stainless steel roof	CGB07LSR-001	7 L
7 L single-wall stainless steel bracket	CGB07LSR-002	7 L
7 L jacketed stainless steel bracket	CGB07LSR-004	7 L
<b>Stir</b>		
7 L mixing assembly	CGB07LSR-005	OD: M30
7 L marine mixing paddle	CGB07LSR-006	OD: 60 mm
7 L flat blade turbine mixing paddle	CGB07LSR-007	OD: 60 mm
7 L baffle	CGB07LSR-008	OD: 10 mm
<b>Gas</b>		
7 L bottom intake tube (large bubble)	CGB07LSR-009	OD: 10 mm
7 L bottom intake tube (microbubble)	CGB07LSR-010	OD: 10 mm
7 L annular bottom intake tube (large bubble)	CGB07LSR-015	OD: 10 mm
1-20 L surface ventilation assembly	CGB01-20LSR-001	OD: 10 mm
1-7 L microbubble tip, 20 um	CGB01-07LSR-006	
1-7 L microbubble tip, other pore size	Customized	
<b>Sensors and related accessories</b>		
7 L Hamilton ARC pH sensor	CGB07LER-001	325 mm long
7 L Hamilton ARC DO sensor	CGB07LER-002	325 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
7 L liquid level/foam sensor	CGB07LER-005	OD: 10 mm
1-7 L electrode adapter	CGB01-07LSR-002	OD: M18*1.5
7 L stainless steel temperature casing	CGB07LSR-011	OD: 10 mm

7 L benchtop bioreactors	Cat No.	Specification
<b>Tail gas</b>		
1-7 L condensation reflux	CGB01-07LSR-001	OD:M18*1.5
<b>Cooler</b>		
7 L heat exchange tube	CGB07LSR-012	OD:10 mm
<b>Feed and sampling line</b>		
1-7 L three-inlet components	CGB01-07LSR-004	OD:M18*1.5
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD:10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD:12 mm
7 L harvest tube	CGB07LSR-013	OD:10 mm
7 L sampling tube	CGB07LSR-014	OD:10 mm
<b>Plug</b>		
1-7 L M18*1.5 plug	CGB01-07LSR-003	OD: M18*1.5
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
<b>Heated blanket</b>		
7 L heated blanket	CGB07LER-004	7 L: 575*165, 230V, 178W

## 15 L benchtop bioreactors

15 L benchtop bioreactors	Cat No.	Specification
<b>Glass reactor</b>		
15 L glass reactor, single-wall (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB15LGS-001	15 L
15 L glass reactor, jacket (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB15LGJ-001	15 L
15 L single-wall glass reactor	CGB15LVS-001	15 L
15 L jacketed glass reactor	CGB15LVJ-001	15 L
15 L&20 L single-wall, jacketed universal stainless steel roofs	CGB15&20LSR-008	15 L
15 L single-wall stainless steel bracket	CGB15LSR-002	15 L
15 L jacketed stainless steel bracket	CGB15LSR-004	15 L
<b>Stir</b>		
15 L mixing assembly	CGB15LSR-005	OD: 69 mm
15&20 L marine mixing paddles	CGB15&20LSR-004	OD: 74 mm
15&20 L flat blade turbine mixing paddle	CGB15&20LSR-005	OD: 75 mm
15 L baffle	CGB15LSR-006	OD: 10 mm
<b>Gas</b>		
15 L bottom intake tube (large bubble)	CGB15LSR-007	OD: 10 mm
15 L bottom intake tube (microbubble)	CGB15LSR-008	OD: 10 mm
15 L annular bottom intake tube (large bubble)	CGB15LSR-013	OD: 10 mm
1-20 L surface ventilation assembly	CGB01-20LSR-001	OD: 10 mm
15&20 L microbubble tips, 20 um	CGB15&20LSR-009	
15&20 L microbubble tips, other pore size	Customized	
<b>Sensors and related accessories</b>		
15&20 L Hamilton ARC pH sensors	CGB15&20LER-001	425 mm long
15&20 L Hamilton ARC DO sensors	CGB15&20LER-002	425 mm long
1-20LpT100 temperature sensor	CGB01-20LER-002	200 mm long
15&20 L liquid level/foam sensors	CGB15&20LER-004	OD: 10 mm
15&20 L electrode adapters	CGB15&20LSR-002	OD: 27 mm
15 L stainless steel temperature casing	CGB15LSR-009	OD: 10 mm

15 L benchtop bioreactors	Cat No.	Specification
<b>Tail gas</b>		
15&20 L condensation reflux	CGB15&20LSR-001	OD: 27 mm
<b>Cooler</b>		
15 L heat exchange tube	CGB15LSR-010	OD: 10 mm
<b>Feed and sampling line</b>		
15&20 L three-inlet components	CGB15&20LSR-003	OD: 27 mm
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
15 L harvest tube	CGB15LSR-011	OD: 10 mm
15 L sampling tube	CGB15LSR-012	OD: 10 mm
<b>Plug</b>		
15 L&20 L 27-mm plug	CGB15&20LSR-006	OD: 27 mm
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
<b>Heated blanket</b>		
15 L&20 L heated blankets	CGB015&20LER-004	15 L&20 L: 760*200, 230V, 383W

## 20 L benchtop bioreactors

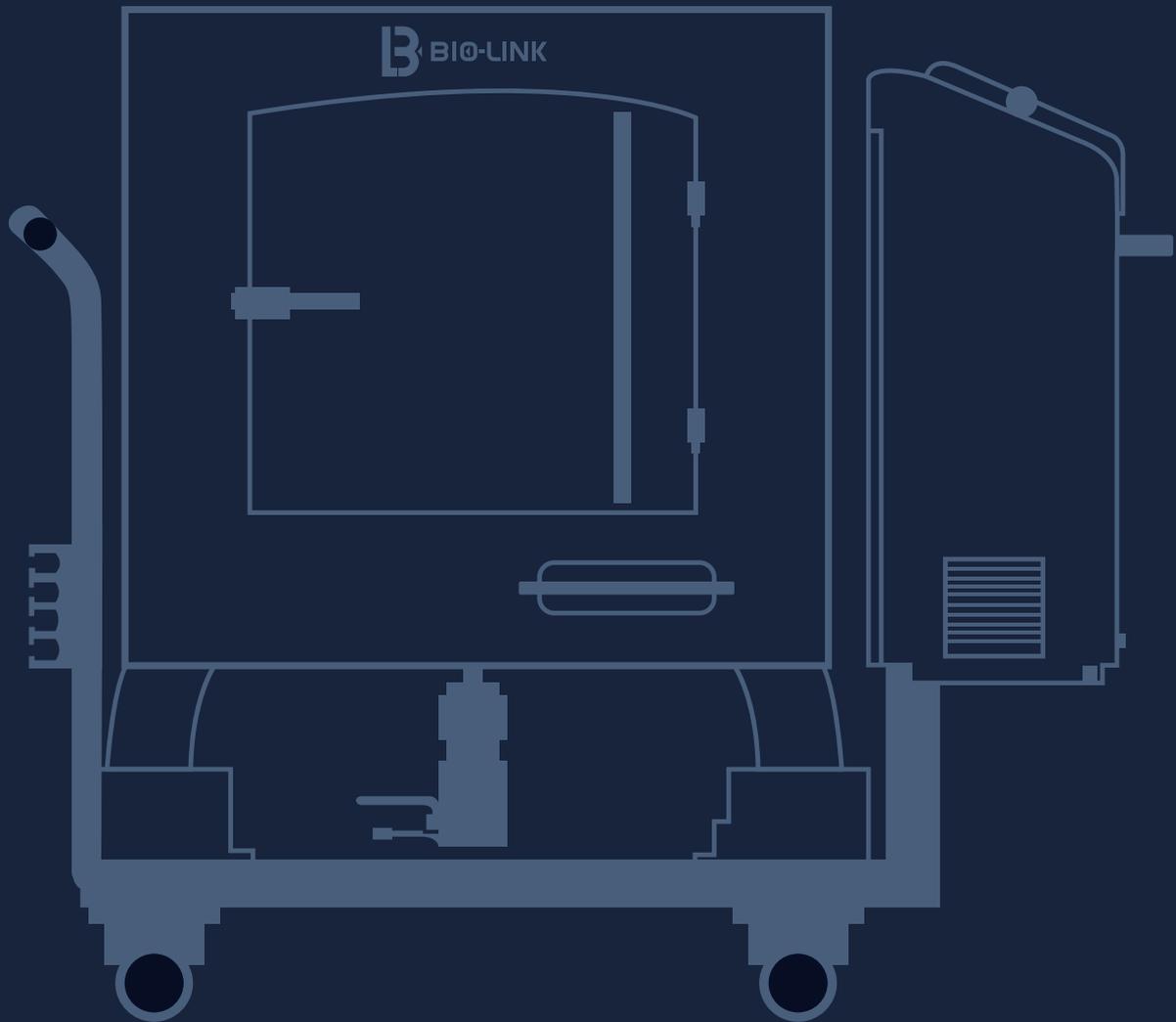
20 L benchtop bioreactors	Cat No.	Specification
<b>Glass reactor</b>		
20 L glass reactor, single-wall (bracket, glass reaction vessel, stainless steel roof and bracket)	CGB20LGS-001	20 L
20 L single-wall glass reactor	CGB20LVS-001	20 L
15 L&20 L single-wall, jacketed universal stainless steel roofs	CGB15&20LSR-008	20 L
20 L single-wall stainless steel bracket	CGB20LSR-002	20 L
<b>Stir</b>		
20 L mixing assembly	CGB20LSR-003	OD: 69 mm
15&20 L marine mixing paddles	CGB15&20LSR-004	OD: 74 mm
15&20 L flat blade turbine mixing paddle	CGB15&20LSR-005	OD: 75 mm
20 L baffle	CGB20LSR-004	OD: 10 mm
<b>Gas</b>		
20 L bottom intake tube (large bubble)	CGB20LSR-005	OD: 10 mm
20 L bottom intake tube (microbubble)	CGB20LSR-006	OD: 10 mm
20 L annular bottom intake tube (large bubble)	CGB20LSR-011	OD: 10 mm
1-20 L surface ventilation assembly	CGB01-20LSR-001	OD: 10 mm
15&20 L microbubble tips, 20 µm	CGB15&20LSR-009	
15&20 L microbubble tips, other pore size	Customized	
<b>Sensors and related accessories</b>		
15&20 L Hamilton ARC pH sensors	CGB15&20LER-001	425 mm long
15&20 L Hamilton ARC DO sensors	CGB15&20LER-002	425 mm long
1-20LPt100 temperature sensor	CGB01-20LER-002	200 mm long
15&20 L liquid level/foam sensors	CGB15&20LER-004	OD: 10 mm
15&20 L electrode adapters	CGB15&20LSR-002	OD: 27 mm
20 L stainless steel temperature casing	CGB20LSR-007	OD: 10 mm
<b>Tail gas</b>		
15&20 L condensation reflux	CGB15&20LSR-001	OD: 27 mm
<b>Cooler</b>		
20 L heat exchange tube	CGB20LSR-008	OD: 10 mm

20 L benchtop bioreactors	Cat No.	Specification
<b>Feed and sampling line</b>		
15&20 L three-inlet components	CGB15&20LSR-003	OD: 27 mm
1-20 L 10-mm feed tube	CGB01-20LSR-002	OD: 10 mm
1-20 L 12-mm feed tube	CGB01-20LSR-003	OD: 12 mm
20 L harvest tube	CGB20LSR-009	OD: 10 mm
20 L sampling tube	CGB20LSR-010	OD: 10 mm
<b>Plug</b>		
15&20 L 27-mm plug	CGB15&20LSR-006	OD: 27 mm
1-20 L 10-mm plug	CGB01-20LSR-004	OD: 10 mm
1-20 L 12-mm plug	CGB01-20LSR-005	OD: 12 mm
1-20 L electrode plug	CGB01-20LSR-006	Thread: PG13.5
<b>Heated blanket</b>		
15&20 L heated blankets	CGB015&20LER-004	15 L&20 L: 760*200, 230V, 383W

Supporting device	Cat No.	Specification
Integrity tester	CGB01-20LIT-001	Suitable for 1-20 L vessels
TCU	CGB01-20LTC-001	Suitable for 1-15 L jacketed vessel and benchtop mixing



# Mixing Solution



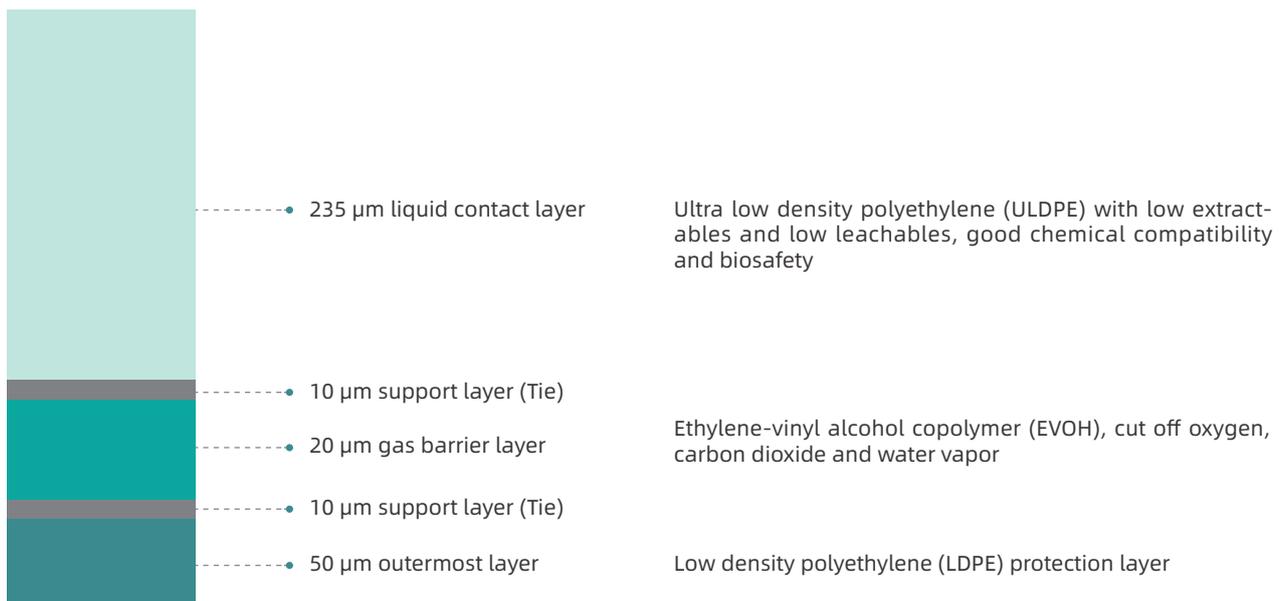
## BioHub® Fluid Management Solution

### Mixing Solution

In biopharmaceutical plants, a mixing container is required for buffer and medium preparation, intermediate product mixing, virus inactivation, semi-finished product preparation, and vaccine adjuvant mixing. Over the past decade, single-use mixing systems have gradually replaced traditional stainless steel containers.

As more and more drugs commercialized, full-volume single-use mixing systems are becoming increasingly important. BioLink DS Single-Use Desktop Mixing System, BM Single-Use Magnetic Mixing System, and UM Open Top-Driven Mixing System can solve all your problems in the liquid mixing process, with customized solutions for your unique needs to better serve your processes.

BioHub® mixing bags are made of films from the world's top film supplier, Renolit. The biopharmaceutical films are manufactured with advanced multi-layer co-extrusion technology, with perfect and comprehensive material certificates and validation documents. The physical and chemical strength, Gamma radiation resistance, standard extractable data, and biosafety data are compliant with the most stringent biopharmaceutical requirements.



**Figure 13.** Structural layer of Renolit 9101 bioprocessing film

## Physical Properties

Item	Test value (> 25 kGy after sterilization by gamma irradiation)	Reference standard
Haze	8.0%	ASTM D1003
Transmittance	91.7%	ASTM D1003
Tensile strength	15.2 (horizontal) and 16.0 (vertical), MPa	ASTM D882
Elongation at break	320% (horizontal) and 320% (vertical)	ASTM D882
Elastic modulus	337 (horizontal) and 320 (vertical), MPa	ASTM D882
Minimum tolerable temperature	Below -70 ° C	ASTM D1790
Density	0.923 g/cm <sup>3</sup>	ASTM D792
Water vapor transmission rate	0.331 g/(m <sup>2</sup> • day) (23 ° C, 100% RH)	ASTM F1249
Oxygen permeability	0.322 cm <sup>3</sup> /(m <sup>2</sup> • day • 0.1 MPa)	ASTM D1434
Carbon dioxide permeability	0.370 cm <sup>3</sup> /(m <sup>2</sup> • day • 0.1 MPa)	ASTM D1434
Subvisible particles	The elution buffer meets the requirements for particles for large-volume injections in the General Chapter 0903 "Test for Particulate Matter in Injections" in the Chinese Pharmacopoeia (2020 Edition) (same as USP <788>).	
Bacterial endotoxin	According to the General Chapter 1143 "Test for Bacterial Endotoxin - Photometric Method" in the Chinese Pharmacopoeia (2020 Edition) (same as USP <85>), the content of bacterial endotoxin in the elution buffer is ≤ 0.25 EU/mL.	
Hemolysis test	No potential hemolytic reaction as tested by direct contact with rabbit blood according to ISO 10993-4:2017.	
USP<87> Cytotoxicity, In Vitro	No potential cytotoxicity as tested by the MEM Elution Test in USP<87>.	
USP <88> Biological Reactivity Tests, In Vivo	Meets reaction test standards for Class VI plastic materials in current USP <88>.	
Animal-derived component-free	The product does not contain any animal-derived component, and is free of risk of transmissible spongiform encephalopathy (BSE/TSE).	
Quality assurance	The product is manufactured in factories that follow ISO <sup>9001</sup> :2015 quality management system.	

## Biocompatibility (not less than 45 kGy for radiation)

Test category	Test method	Result
Biological test - In Vivo	USP<88> Class VI	PASS
	ISO 10993-4 Hemolysis	
	ISO 10993-6 Implantation Test (Films)	
	ISO 10993-10 Sensitization Test (Films)	
	ISO 10993-11 Acute Systemic Toxicity (Films)	
Biological Tests - In Vitro	USP <87> Biocompatibility, In Vitro	PASS
	ISO 10993-5 Cytotoxicity (Films)	

## Chemical Compatibility

The chemical compatibility test results of the bag films used in BioHub® Single-Use Mixing Bags are summarized below.

<b>Chemical solvent</b>	
Water	Little or negligible interaction
pH = 2.5-11	Little or negligible interaction
Phosphate buffer pH 4-10	Little or negligible interaction
Acetic acid (acetic acid) 5%	Little or negligible interaction
Sodium chloride solution, 3M	Little or negligible interaction
<b>Polar solvent</b>	
Alcohols	Little or negligible interaction
Acetone	Presence of interactions
Esters	Little or negligible interaction
<b>Non-polar solvent</b>	
Hydrocarbons	Probable presence of interactions; appropriate test required before use
Aromatic liquid	Probable presence of interactions; appropriate test required before use
Chlorinated hydrocarbons	Probable presence of interactions; appropriate test required before use
<b>Acetic acid 5%</b>	Little or negligible interaction
<b>Aldehyde</b>	Little or negligible interaction
<b>Amine</b>	
Fatty amine	Little or negligible interaction
Aromatic amine	Little or negligible interaction
<b>Amino acid mixture</b>	Little or negligible interaction
<b>Aniline</b>	Presence of interactions
<b>Glycerol</b>	Little or negligible interaction
<b>Ethylene glycol</b>	Little or negligible interaction
<b>Benzalkonium chloride</b>	Possible presence of some interactions
<b>BME solution vitamins</b>	Little or negligible interaction
<b>Boric acid</b>	Possible presence of some interactions
<b>Calcium carbonate 10%</b>	Little or negligible interaction
<b>Citric acid 1%</b>	Little or negligible interaction
<b>Ether</b>	Little or negligible interaction
<b>Dimethylformamide</b>	Presence of interactions
<b>1,2-ethylene glycol</b>	Little or negligible interaction
<b>Ethanol 50%</b>	Probable presence of interactions; appropriate test required before use
<b>Ethanol 95%</b>	Presence of interactions
<b>Fetal bovine serum</b>	Little or negligible interaction
<b>Heptane</b>	Little or negligible interaction
<b>Hydrochloric acid 10%</b>	Little or negligible interaction
<b>Hydrogen peroxide 28%</b>	Possible presence of some interactions
<b>Hydrogen peroxide 3%</b>	Possible presence of some interactions
<b>Isooctane</b>	Little or negligible interaction
<b>Magnesium carbonate</b>	Probable presence of interactions; appropriate test required before use + good compatibility; possible presence of some interactions

<b>Methanol</b>	Probable presence of interactions; appropriate test required before use + good compatibility; possible presence of some interactions
<b>Mineral oil</b>	Little or negligible interaction
<b>Nitric acid 10%</b>	Little or negligible interaction
<b>Nitric acid 40%</b>	Little or negligible interaction
<b>Oils</b>	
Essential oil	Presence of interactions
Vegetable oil	Little or negligible interaction
<b>Oleic acid</b>	Probable presence of interactions
<b>Olive oil</b>	Little or negligible interaction
<b>Phenol</b>	Presence of interactions
<b>1,2-malonic acid</b>	Little or negligible interaction
<b>SSC buffer</b>	Little or negligible interaction
<b>Sodium carbonate 2%</b>	Little or negligible interaction
<b>Sodium carbonate 20%</b>	Little or negligible interaction
<b>Sodium chloride 10%</b>	Little or negligible interaction
<b>Sodium hydroxide 1%</b>	Little or negligible interaction
<b>Sodium hydroxide 10%</b>	Little or negligible interaction
<b>Sodium hydroxide 60%</b>	Possible presence of some interactions
<b>Sodium hypochlorite 4-6%</b>	Possible presence of some interactions
<b>Sulfuric acid 3%</b>	Little or negligible interaction
<b>Tween 80</b>	Little or negligible interaction
<b>Urea</b>	Little or negligible interaction

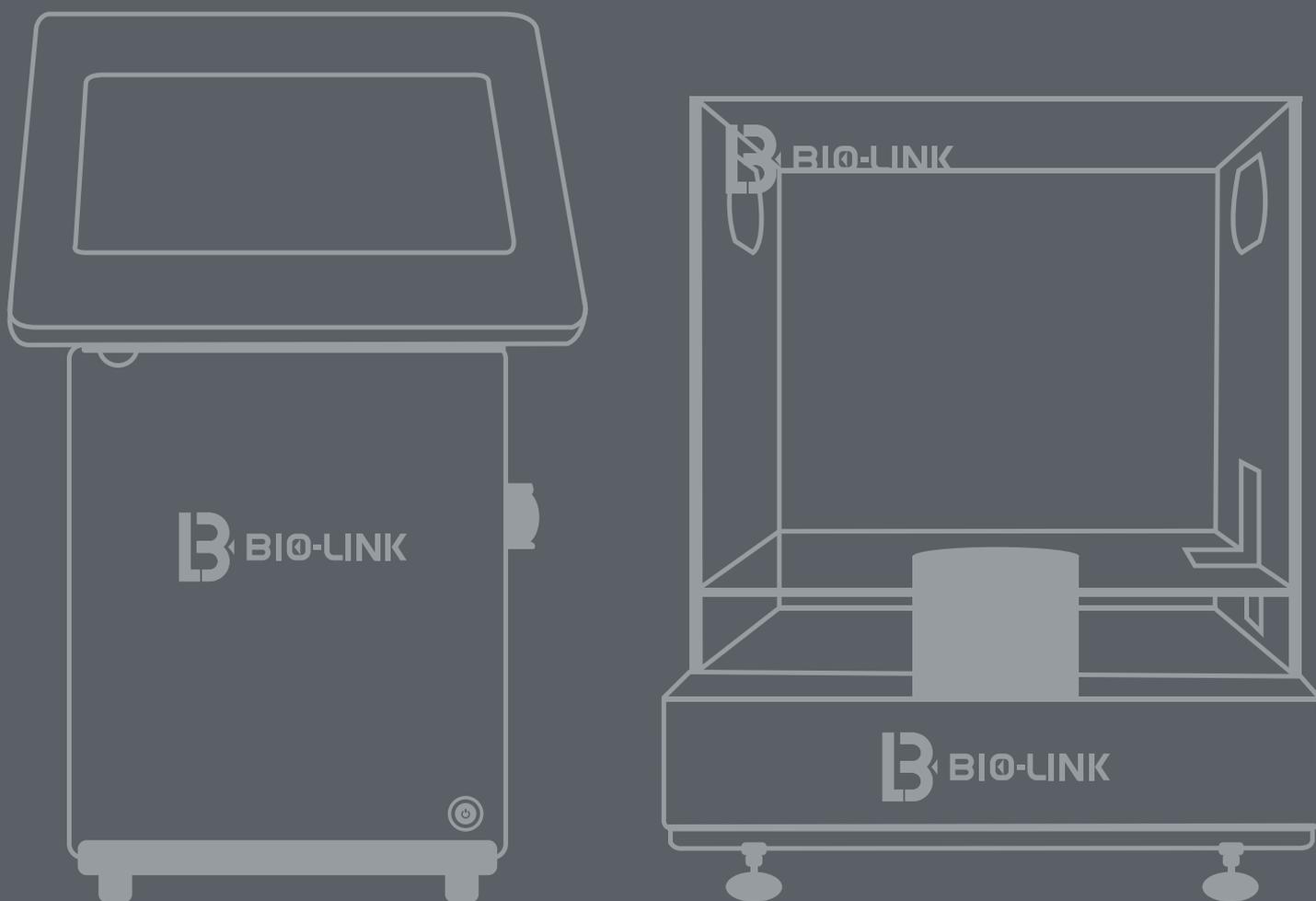
## Extractables/Leachables

Extractables test of USP <665> and BPOG: 50% ethanol, water, 0.1M phosphoric acid, 0.5N NaOH, pH3 buffer, pH10 buffer at 40° C.

**Conclusion:** The extractable levels obtained from BioLink Single-Use Storage Bags tested under extreme conditions were all within the permitted daily exposure (PDE) range of the compound, indicating good extractable levels.

## BioHub® DS Single-Use Desktop Mixing System

In biopharmaceutical process, small-volume mixing is required throughout the entire production process while large-volume equipment cannot realize such mixing. Therefore, BioLink launched a desktop mixing system for small-volume liquid mixing. The system with a nice and neat appearance is easy to clean and operate. It facilitates the small-volume mixing in lab research and process development. Applicable processes include plasmid mixing, intermediate product mixing, semi-finished product preparation, and drug product preparation.



## Features of Single-Use Split Desktop Mixing System:

- The split design allows multi-split control to reduce the production cost
- The mixing bins are available in 2 L, 5 L, 10 L, 20 L, so as to meet the mixing requirements of small-volume valuable feed liquids
- Stainless steel and acrylic options are available for the mixing bins
- Data integrity is compliant with 21CFR Part 11, satisfying the GMP requirements



**Figure 15.** Single-Use Split Desktop Mixing System

## Single-Use Split Desktop Mixing System:

Product name: Refer to table

Cat. No.: Refer to table

Drawing No.: Cat. No.-GAD

Product name	Cat. No.	Note
Desktop controller	CB-DS-001	Kunlun Tongtai HMI (10'')
Desktop controller	CB-DS-002	Siemens HMI (10'')
Desktop controller	CB-DS-003	Advantech IPC (10'')
Desktop drive base	MOT-DS-001	WIKA weighing + Micro Actuator motor
Desktop drive base	MOT-DS-002	WIKA weighing + Oriental Motor motor
Desktop drive base	MOT-DS-003	Mettler weighing + Oriental Motor motor

## Mixing tank

Product Name	Size (mm)	Acrylic	Single-layer stainless steel	Jacketed stainless steel
2L Mixing tank	176*176*184	BLKDS02P001	BLKDS02S001	BLKDS02S002
5L Mixing tank	222*222*224	BLKDS05P001	BLKDS05S001	BLKDS05S002
10L Mixing tank	262*262*274	BLKDS10P001	BLKDS10S001	BLKDS10S002
20L Mixing tank	317*317*322	BLKDS20P001	BLKDS20S001	BLKDS20S002

A split-type mixer consists

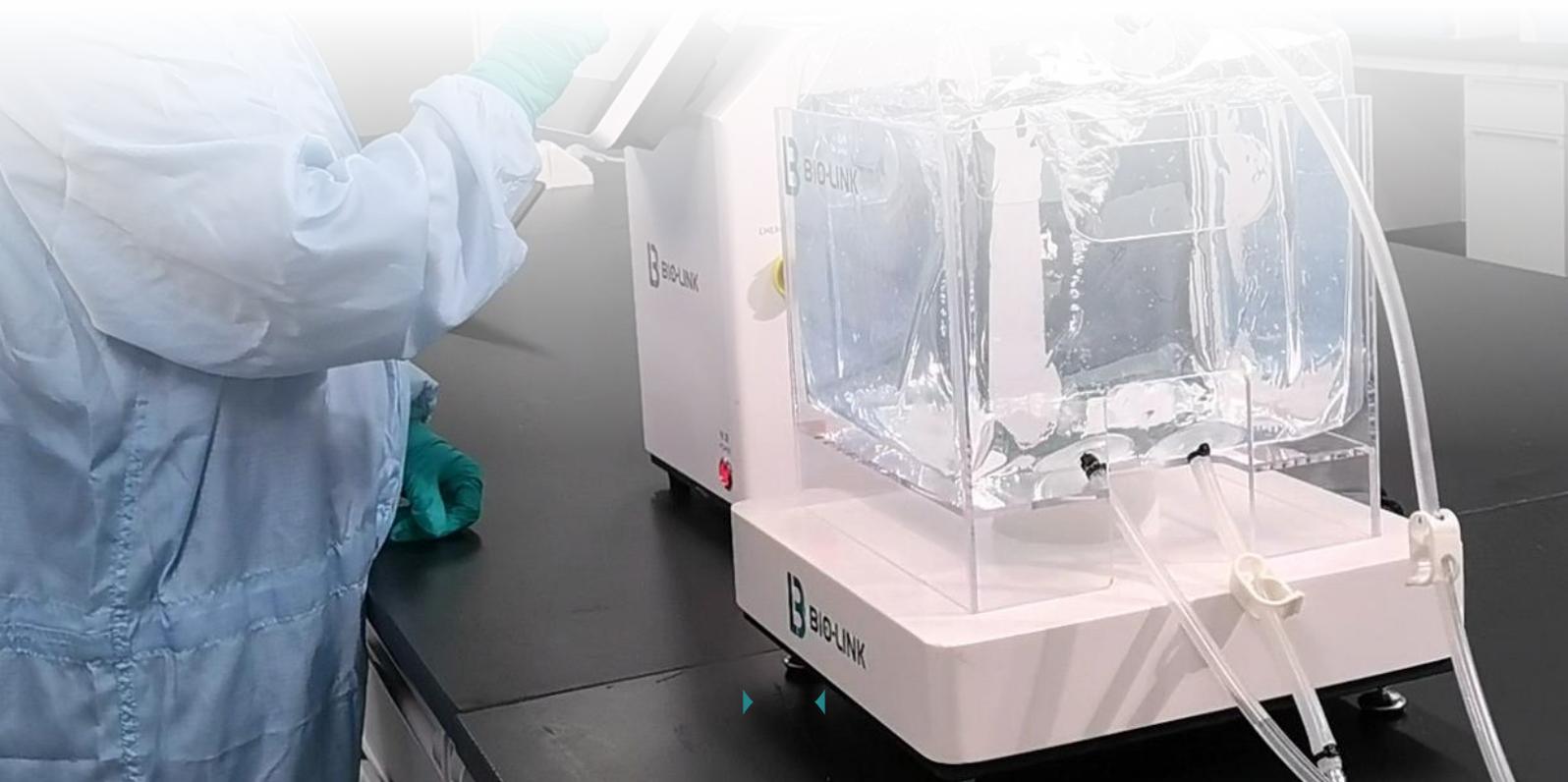
of three parts:

- 1.Controller
- 2.Drive base
- 3.Mixing tank

Note: The standard configuration of single-use split desktop mixing system includes mixing and weighing functions.

## Optional modules

pH module	BLK-DS-PH001
Cond module	BLK-DS-CD001
Temperature module	BLK-DS-TM001
Printer module	BLK-DS-PT001



**BioHub® Desktop Single-Use Mixing Bags** are made of multi-layer co-extrusion films, with very low gas permeability, excellent chemical compatibility, biocompatibility, and physical strength. This ensures their safety in the preparation and storage of feed liquids in various biopharmaceutical processes. The impellers are processed with high-strength magnet and secondary coating with the complete tightness guaranteed by the coating of the magnet. The combination with different impellers contributes to efficient mixing. With BioLink single-use tubing, the product can be applied in different processes for different liquids.

## Consumables Ordering Information

Single-use desktop mixing bag

### BioHub® Desktop Mixing System 20 L

Cat. No.	Matching type	Line 1	Line 2	Line 3	Feeding port	Film
MBLC-0002-S001	BioHub® desktop mixing system 2L	NA	NA	NA	NA	Self-developed
MBLC-0002-S002	BioHub® desktop mixing system 2L	30cm platinum cured silicone tubing+male MPC	NA	NA	NA	Self-developed
MBLC-0005-S001	BioHub® desktop mixing system 5L	NA	NA	NA	NA	Self-developed
MBLC-0005-S002	BioHub® desktop mixing system 5L	30cm platinum cured silicone tubing+male MPC	NA	NA	NA	Self-developed
MBLC-0010-S001	BioHub® desktop mixing system 10L	NA	NA	NA	NA	Self-developed
MBLC-0010-S002	BioHub® desktop mixing system 10L	30cm platinum cured silicone tubing+male MPC	NA	NA	NA	Self-developed
MBLC-0020-S001	BioHub® desktop mixing system 20L	NA	NA	NA	NA	Self-developed
MBLC-0020-S002	BioHub® desktop mixing system 20L	30cm platinum cured silicone tubing+male MPC	NA	NA	NA	Self-developed
MBSC-0002-S003	BioHub® desktop mixing system 2L	50cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	50cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cmID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0002-S005	BioHub® desktop mixing system 2L	50cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	50cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cmID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0002-S007	BioHub® desktop mixing system 2L	50cm ID1/4**OD7/16" thermoplastic tubing + plug	50cm ID1/4**OD7/16" thermoplastic tubing + plug	30cmID1/4**OD7/16"thermoplastic tubing+ needless sampling	2" feeding port	Self-developed
MBSC-0002-S008	BioHub® desktop mixing system 2L	50cm ID1/4**OD7/16" thermoplastic tubing + plug	50cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0005-S003	BioHub® desktop mixing system 5L	50cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	50cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cmID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0005-S005	BioHub® desktop mixing system 5L	50cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	50cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cmID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0005-S007	BioHub® desktop mixing system 5 L	50cm ID1/4**OD7/16" thermoplastic tubing + plug	50cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0005-S008	BioHub® desktop mixing system 5L	50cm ID1/4**OD7/16" thermoplastic tubing + plug	50cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0010-S003	BioHub® desktop mixing system 10L	100cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	100cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cm ID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0010-S005	BioHub® desktop mixing system 10L	100cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	100cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cm ID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0010-S007	BioHub® desktop mixing system 10L	100cm ID1/4**OD7/16" thermoplastic tubing + plug	100cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0010-S008	BioHub® desktop mixing system 10L	100cm ID1/4**OD7/16" thermoplastic tubing + plug	100cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0020-S003	BioHub® desktop mixing system 20L	100cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	100cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cm ID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0020-S005	BioHub® desktop mixing system 20L	100cm ID1/4**OD7/16" platinum cured silicone tubing + female MPC	100cm ID1/4**OD7/16" platinum cured silicone tubing + male MPC	30cm ID1/4**OD7/16"platinum cured silicone tubing + needless sampling	2" feeding port	Imported
MBSC-0020-S007	BioHub® desktop mixing system 20 L	100cm ID1/4**OD7/16" thermoplastic tubing + plug	100cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed
MBSC-0020-S008	BioHub® desktop mixing system 20L	100cm ID1/4**OD7/16" thermoplastic tubing + plug	100cm ID1/4**OD7/16" thermoplastic tubing + plug	30cm ID1/4**OD7/16"thermoplastic tubing + needless sampling	2" feeding port	Self-developed

# BioHub® BM Single-Use Magnetic Mixing System

BioHub® BM Single-Use Magnetic Mixing System has a nice and neat appearance and is easy to clean, handle and use. The system is specially designed for production mixing in biotechnology and pharmaceuticals to facilitate lab research, process development, and GMP production.

The system provides an ideal solution for efficient solid/liquid mixing applications. As a flexible mobile mixing platform, the system provides effective and sustainable single-use mixing solutions for different volumes and application types. The system has demonstrated excellent performance in buffer and medium preparation.

## Applications:

- Medium preparation
- Buffer preparation
- Downstream intermediate product processing
- Bulk purification
- Semi-finished product preparation



Figure 16. BMC Single-Use Integrated Desktop Mixing System



Figure 17. BMP Single-Use Integrated Desktop Mixing System

## Features

- **Wide volume range**

The single-use mixing system covers various volumes, including 50 L, 100 L, 200 L, 400 L, 500 L, 650 L, 1000 L, 1500 L, 2000 L, 2500 L, and 3000 L, so as to meet the requirements of scale-up from R&D to mass production; other volumes can be customized.

- **Wide working volume range**

The working volume is usually 20%-110% of the mixing system volume.

- **Low residual liquid**

With an inclined bottom at an angle of 2-5°, the liquid outlet is located at the lowest level of the whole equipment, ensuring a low residual liquid ( $\leq 20$  mL) and reducing the loss of feed liquid (dwell volume  $\leq 2.5$  L for 2500 L and  $\leq 3$  L for 3000 L).

- **Precise mixing**

The motor is from Oriental Motor. The rotation speed precision is  $\pm 2$  rpm. The motor is at a fixed time and fixed speed, can be instantly started and stopped, and no pre-heating or magnetizing is required.

- **Polished and wire-drawn**

The whole device is made of SS304L with anti-fingerprint polishing ( $Ra \leq 0.8 \mu\text{m}$ ), preventing injuries to soft bags.

- **Compact structure**

The equipment has a compact plug-and-run structure design and there is no need to install a driver or controller. The structural design is friendly to users. The shelf and handle can well protect the weight sensor.

- **No condensation**

Dimple jackets at four sides enables the temperature of the feed liquid to be controlled in a short time. Also, insulation layers are provided outside the jackets, which helps to avoid condensation when the temperature of the feed liquid is lower or higher than the ambient temperature, meeting the requirements of clean workshops.

- **Easy cleaning**

No obvious arrangement of wires can be observed on the surface of the equipment. All wiring is arranged inside the equipment (with waterproof connectors) for a neat appearance, making it easy to transfer the equipment inside a workshop and clean it after use.

- **Modular design**

Various modules are available for different customer demands, including mixing, weighing, temperature control, pH, cond, peristaltic pump, etc. All core components and parts are from high-end brands, ensuring the stable control of critical parameters.

- **Stable hardware design**

The design of window/manual control on the side of the mixing bin facilitates the installation of bags and allows the visual inspection of the mixing status.

The control interface and mixing bin height are reasonably designed for easier operation.

The rotatable electric-control mixing bin makes it easier to use and clean from multiple angles.

The liquid outlet line and safety valve are added to meet the needs of safety and convenience.

- **Reliable software control**

The standard configuration of the genuine Windows 10 Enterprise Edition, Advantech IPC, and Siemens PLC ensures smooth operations.

Permission management, audit trail, batch data export, data integrity, and related functions are available, meeting the data integrity requirements of 21CFR Part 11 and satisfying the requirements for GMP production.

Due to the flexible process formula function newly added, customers can manually add various standard formulas. Also, the standard formula recording function coming with the program can save the customer's repeated efforts, reducing the risk of use.

- **Independent control of production**

BioLink's manufacturing site covers an area of 10,000 m<sup>2</sup> and is equipped with independent sheet metal cutting equipment, bending equipment, polishing equipment, etc. From raw materials and steel materials to product delivery, the entire production process is independently controlled by BioLink to assure product quality and control the delivery time.



## Technical Parameters of BMC Integrated Mixer

	MX50	MX100	MX200	MX400	MX500	MX1000	MX1500	MX2000	MX2500	MX3000
Dimension	1087*679*1165	1187*779*1165	1318*914*1213	1451*1045*1313	1501*1099*1413	1718*1315*1648	2022*1408*1724	2697*1452*1568	2697*1452*1738	2697*1452*1918
Weight	Unjacketed: 190 kg Jacketed: 225 kg	Unjacketed: 215 kg Jacketed: 260 kg	Unjacketed: 250 kg Jacketed: 320 kg	Unjacketed: 310 kg Jacketed: 400 kg	Unjacketed: 335 kg Jacketed: 435 kg	Unjacketed: 455 kg Jacketed: 646 kg	Unjacketed: 626 kg Jacketed: 895 kg	Unjacketed: 985 kg Jacketed: 1295 kg	Unjacketed: 1075 kg Jacketed: 1420 kg	Unjacketed: 1165 kg Jacketed: 1545 kg
Material	SS304L									
Roughness	Ra ≤ 0.8 μm									
Jacket	Optional									
Heat exchange area (m <sup>2</sup> )	0.5	0.64	1.02	1.38	1.8	3.1	4.05	6.2	7	7.8
Volume in the jacket (L)	2.8	3.2	4.3	8.7	12.4	20.6	26.4	44.2	52.6	64.8
Maximum working pressure in the jacket	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar
Mixing unit	The system is equipped with Oriental Motor and magnetic coupling mixing, with a speed accuracy of ± 5 rpm									
Weighing unit	METTLER hygienic weighing module, with a weighing accuracy of 0.3%									
Online temperature module	WIKA									
Online conductivity module	Hamilton									
Online pH module	Hamilton									
Data integrity	Three-level permission, audit trail, batch record export, interface with a central console, etc.									

## Technical Parameters of BMP Integrated Mixer

	MX50	MX100	MX200	MX400	MX500	MX650	MX1000	MX2000
Dimension	1071*630*1165	1168*735*1165	1273*830*1165	1434*977*1325	1581*1130*1263	1581*1130*1423	1725*1270*1600	1770*1285*2830
Weight (same format as above: one row for unjacketed and one row for jacketed)	199 kg (jacketed: 227 kg)	215 kg (jacketed: 255 kg)	245 kg (jacketed: 300 kg)	297 kg (jacketed: 375 kg)	219 kg (jacketed: 405 kg)	365 kg (jacketed: 465 kg)	468 kg (jacketed: 652 kg)	1085 kg (jacketed: 1410 kg)
Material	SS304L							
Roughness	Ra ≤ 0.8 μm							
Jacket	Optional							
Heat exchange area (m <sup>2</sup> )	0.5	0.64	1.02	1.39	1.8	2.2	3.1	5.6
Volume in the jacket (L)	2.8	3.2	4.3	8.7	12.4	16.6	20.6	44.2
Maximum working pressure in the jacket	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar
Mixing unit	The system is equipped with Oriental Motor and magnetic coupling mixing, with a speed accuracy of ± 5 rpm							
Weighing unit	METTLER hygienic weighing module, with a weighing accuracy of 0.3%							
Online temperature module	Hamilton							
Online conductivity module	Hamilton							
Online pH module	Hamilton							
Data integrity	Three-level permission, audit trail, batch record export, interface with a central console, etc.							

## Ordering Information:

BM Integrated Mixer:

### Name Rules for BM Single-Use Integrated Mixing System

**Product name:** Volume + Integrated mixing system  
**Cat. No.:** A + B  
**Drawing No.:** A-GAD

A				B				
Initial letter	Series No.	Volume	Jacket	Screen	pH module	Cond module	Temperature module	Pinter
Z (Mettler sensor + Self-developed transmitter)	BMP	0050	Y	I: Advantech IPC	H: Hamilton	H: Hamilton	T: Surface mount	P: Yes
A (Mettler sensor + Mettler transmitter)	BMC	0100	N	S: Siemens HMI			C: Plug-in	N: No
K (Mettler module + Self-developed transmitter)	BMM (Magnetic coupling)	0200		T: Siemens 12" IPC	M: Mettler + M80	M: Mettler + M80	K: No	Brand is Brightek
R (Mettler module + Self-developed transmitter)	BMF (Magnetic levitation)	0300		K: Siemens 15" IPC				
N (No weighing)		0400		M: Kunlun Tongtai	P: No	C: No	C for standard (default WIKA)	
Z for standard		0500		I for standard	H for standard	H for standard		
		0650						
		1000						
		1500						
		2000						
		2500						
		3000						

**Note:**  
**BMM indicates compatibility with Merck Generation II, using magnetic coupling.**  
**BMF indicates compatibility with Merck Generation I magnetic levitation.**  
**There are two motor options: imported Lev and domestic Cheer. Catalog numbers are not differentiated; please specify clearly when ordering, with Cheer being the preferred choice.**



## BM Split Series

### Mixing bin

Name	Form	Cat. No.	Configuration	Description
Single-use mixing bin MX50	Cubic stainless steel tank	BMPMX50L001	Unjacketed	BMP split series
	Cubic stainless steel tank	BMPMX50L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX50L003	Jacketed	
	Cubic stainless steel tank	BMPMX50L004	Jacketed, with weighing	
Single-use mixing bin MX100	Cubic stainless steel tank	BMPMX100L001	Unjacketed	
	Cubic stainless steel tank	BMPMX100L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX100L003	Jacketed	
	Cubic stainless steel tank	BMPMX100L004	Jacketed, with weighing	
Single-use mixing bin MX200	Cubic stainless steel tank	BMPMX200L001	Unjacketed	
	Cubic stainless steel tank	BMPMX200L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX200L003	Jacketed	
	Cubic stainless steel tank	BMPMX200L004	Jacketed, with weighing	
Single-use mixing bin MX400	Cubic stainless steel tank	BMPMX400L001	Unjacketed	
	Cubic stainless steel tank	BMPMX400L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX400L003	Jacketed	
	Cubic stainless steel tank	BMPMX400L004	Jacketed, with weighing	
Single-use mixing bin MX500	Cubic stainless steel tank	BMPMX500L001	Unjacketed	
	Cubic stainless steel tank	BMPMX500L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX500L003	Jacketed	
	Cubic stainless steel tank	BMPMX500L004	Jacketed, with weighing	
Single-use mixing bin MX650	Cubic stainless steel tank	BMPMX650L001	Unjacketed	
	Cubic stainless steel tank	BMPMX650L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX650L003	Jacketed	
	Cubic stainless steel tank	BMPMX650L004	Jacketed, with weighing	
Single-use mixing bin MX1000	Cubic stainless steel tank	BMPMX1000L001	Unjacketed	
	Cubic stainless steel tank	BMPMX1000L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX1000L003	Jacketed	
	Cubic stainless steel tank	BMPMX1000L004	Jacketed, with weighing	
Single-use mixing bin MX1500	Cubic stainless steel tank	BMPMX1500L001	Unjacketed	
	Cubic stainless steel tank	BMPMX1500L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX1500L003	Jacketed	
	Cubic stainless steel tank	BMPMX1500L004	Jacketed, with weighing	
Single-use mixing bin MX2000	Cubic stainless steel tank	BMPMX2000L001	Unjacketed	
	Cubic stainless steel tank	BMPMX2000L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMPMX2000L003	Jacketed	
	Cubic stainless steel tank	BMPMX2000L004	Jacketed, with weighing	

Name	Form	Cat. No.	Configuration	Description
Single-use mixing bin MX50	Cubic stainless steel tank	BMCMX50L001	Unjacketed	BMC split series
	Cubic stainless steel tank	BMCMX50L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX50L003	Jacketed	
	Cubic stainless steel tank	BMCMX50L004	Jacketed, with weighing	
Single-use mixing bin MX100	Cubic stainless steel tank	BMCMX100L001	Unjacketed	
	Cubic stainless steel tank	BMCMX100L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX100L003	Jacketed	
	Cubic stainless steel tank	BMCMX100L004	Jacketed, with weighing	
Single-use mixing bin MX200	Cubic stainless steel tank	BMCMX200L001	Unjacketed	
	Cubic stainless steel tank	BMCMX200L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX200L003	Jacketed	
	Cubic stainless steel tank	BMCMX200L004	Jacketed, with weighing	
Single-use mixing bin MX500	Cubic stainless steel tank	BMCMX500L001	Unjacketed	
	Cubic stainless steel tank	BMCMX500L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX500L003	Jacketed	
	Cubic stainless steel tank	BMCMX500L004	Jacketed, with weighing	
Single-use mixing bin MX1000	Cubic stainless steel tank	BMCMX1000L001	Unjacketed	
	Cubic stainless steel tank	BMCMX1000L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX1000L003	Jacketed	
	Cubic stainless steel tank	BMCMX1000L004	Jacketed, with weighing	
Single-use mixing bin MX1500	Cubic stainless steel tank	BMCMX1500L001	Unjacketed	
	Cubic stainless steel tank	BMCMX1500L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX1500L003	Jacketed	
	Cubic stainless steel tank	BMCMX1500L004	Jacketed, with weighing	
Single-use mixing bin MX2000	Cubic stainless steel tank	BMCMX2000L001	Unjacketed	
	Cubic stainless steel tank	BMCMX2000L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX2000L003	Jacketed	
	Cubic stainless steel tank	BMCMX2000L004	Jacketed, with weighing	
Single-use mixing bin MX2500	Cubic stainless steel tank	BMCMX2500L001	Unjacketed	
	Cubic stainless steel tank	BMCMX2500L002	Unjacketed, with weighing	
	Cubic stainless steel tank	BMCMX2500L003	Jacketed	
	Cubic stainless steel tank	BMCMX2500L004	Jacketed, with weighing	

## Drive cart:

Product name	Cat. No.	Configuration
Drive cart	MOT-MG-001	Only motor drive
Basic control drive	CB-MG-001	Motor drive, speed control knob
Advanced control drive	CB-MG-002	Kunlun Tongtai 12" HMI display (displays control content according to configuration)
Advanced control drive	CB-MG-003	Advantech 12" IPC display (displays control content according to configuration)
Advanced control drive	CB-MG-004	Siemens 15" IPC display (displays control content according to configuration)
Advanced control drive	CB-MG-005	Advantech 12" IPC display (displays control content according to configuration)
Advanced control drive	CB-MG-006	Siemens 15" IPC display (displays control content according to configuration)
pH module	BLK-MX-PH001	Hamilton
cond module	BLK-MX-CD001	Hamilton
Temperature module	BLK-MX-TM001	WIKA
Printer module	BLK-MX-PT001	Brightek

**BioHub® MB Single-Use Mixing Bags** are made of multi-layer co-extrusion films. The sterile storage bags are guaranteed very low gas permeability, excellent chemical compatibility and biocompatibility, and good physical strength. This ensures their safety in the preparation and storage of feed liquids in various biopharmaceutical processes. The impellers are designed with high-strength magnet and secondary coating, and complete tightness is guaranteed due to the whole coating of the magnet. The combination of the bags with different impellers contributes to efficient mixing. The flexibly designed mixing bags can be integrated with various types of sensors for online monitoring of pH, conductivity, and temperature. Also, it can be flexibly equipped with 2", 3", 4", 6", and 8" feeding ports to meet solid feeding needs.

## Consumables Ordering Information

Single-use cubic mixing bag

Cat. No.	Matching type	Line 1	Line 2	Line 3	Feeding port	Film
MBSC-0050-S003	BioHub® cubic stainless steel mixing system 50 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Imported
MBSC-0050-S004	BioHub® cubic stainless steel mixing system 50 L	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	30cm ID1/4**OD7/16"C-Flex thermoplastic tubing+needless sampling	4" Feeding port	Imported
MBSC-0050-S005	BioHub® cubic stainless steel mixing system 50 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0050-S008	BioHub® cubic stainless steel mixing system 50 L	150cm ID3/8**OD5/8" thermoplastic tubing+plug	150cm ID3/8**OD5/8" thermoplastic tubing+plug	30cm ID1/4**OD7/16" thermoplastic tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0100-S003	BioHub® cubic stainless steel mixing system 100 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Imported
MBSC-0100-S004	BioHub® cubic stainless steel mixing system 100 L	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	30cm ID1/4**OD7/16"C-Flex thermoplastic tubing+needless sampling	4" Feeding port	Imported
MBSC-0100-S005	BioHub® cubic stainless steel mixing system 100 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0100-S008	BioHub® cubic stainless steel mixing system 100 L	150cm ID3/8**OD5/8" thermoplastic tubing+plug	150cm ID3/8**OD5/8" thermoplastic tubing+plug	30cm ID1/4**OD7/16" thermoplastic tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0200-S003	BioHub® cubic stainless steel mixing system 200 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Imported
MBSC-0200-S004	BioHub® cubic stainless steel mixing system 200 L	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	150cm ID3/8**OD5/8"C-Flex thermoplastic tubing+plug	30cm ID1/4**OD7/16"C-Flex thermoplastic tubing+needless sampling	4" Feeding port	Imported
MBSC-0200-S005	BioHub® cubic stainless steel mixing system 200 L	150cm ID3/8**OD5/8" platinum cured silicone tubing+female MPC	150cm ID3/8**OD5/8" platinum cured silicone tubing+male MPC	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0200-S008	BioHub® cubic stainless steel mixing system 200 L	150cm ID3/8**OD5/8" thermoplastic tubing+plug	150cm ID3/8**OD5/8" thermoplastic tubing+plug	30cm ID1/4**OD7/16" thermoplastic tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0400-S003	BioHub® cubic stainless steel mixing system 400 L	150cm ID1/2**OD3/4" platinum cured silicone tubing+female MPX	150cm ID1/2**OD3/4" platinum cured silicone tubing+male MPX	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Imported
MBSC-0400-S004	BioHub® cubic stainless steel mixing system 400 L	150cm ID1/2**OD3/4"C-Flex thermoplastic tubing+plug	150cm ID1/2**OD3/4"C-Flex thermoplastic tubing+plug	30cm ID1/4**OD7/16"C-Flex thermoplastic tubing+needless sampling	4" Feeding port	Imported
MBSC-0400-S005	BioHub® cubic stainless steel mixing system 400 L	150cm ID1/2**OD3/4" platinum cured silicone tubing+female MPX	150cm ID1/2**OD3/4" platinum cured silicone tubing+male MPX	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0400-S008	BioHub® cubic stainless steel mixing system 400 L	150cm ID1/2**OD3/4" thermoplastic tubing+plug	150cm ID1/2**OD3/4" thermoplastic tubing+plug	30cm ID1/4**OD7/16" thermoplastic tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0500-S003	BioHub® cubic stainless steel mixing system 500L	150cm ID1/2**OD3/4" platinum cured silicone tubing+female MPX	150cm ID1/2**OD3/4" platinum cured silicone tubing+male MPX	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Imported
MBSC-0500-S004	BioHub® cubic stainless steel mixing system 500L	150cm ID1/2**OD3/4"C-Flex thermoplastic tubing+plug	150cm ID1/2**OD3/4"C-Flex thermoplastic tubing+plug	30cm ID1/4**OD7/16"C-Flex thermoplastic tubing+needless sampling	4" Feeding port	Imported
MBSC-0500-S005	BioHub® cubic stainless steel mixing system 500L	150cm ID1/2**OD3/4" platinum cured silicone tubing+female MPX	150cm ID1/2**OD3/4" platinum cured silicone tubing+male MPX	30cm ID1/4**OD7/16" platinum cured silicone tubing+needless sampling	4" Feeding port	Self-developed
MBSC-0500-S008	BioHub® cubic stainless steel mixing system 500L	150cm ID1/2**OD3/4" thermoplastic tubing+plug	150cm ID1/2**OD3/4" thermoplastic tubing+plug	30cm ID1/4**OD7/16" thermoplastic tubing+needless sampling	4" Feeding port	Self-developed



















## BioHub® UM Open Top-Driven Mixing System

BioHub® UM Open Top-Driven Mixing System has a nice and neat appearance and is easy to clean and operate. This system is specially designed for common mixing applications in biotechnology and pharmaceuticals to facilitate lab research and process development. The main unit of the system is made of SS304 stainless steel, with a wire-drawn surface. The system is connected by the mechanical mixer and quick-release structure in the upper part to fit the push-type impeller. This single-use mixing system is safe, reliable, stable, efficient, and economical. BioHub® UM Open Top-Driven Mixing System mainly consists of a bin, a mixer, a control system, and compatible single-use open bags.

### Features

- The ergonomic design is easy to use
- The mixing motor supports free lifting to meet different liquid preparation needs (mixing volume range: 50-500 L)
- The impeller can rotate freely, and the inclined insert mixing contributes to irregular circular movement to improve the mixing efficiency
- The impellers made of SS316 can be mounted quickly through the clamp for efficient operation
- Stainless steel impellers with an open bag contribute to low-cost and high-quality liquid mixing



**Figure 18.** BioHub® UM Open Top-Driven Mixing System

## Technical Parameters

	MX50	MX100	MX200	MX300	MX500
<b>Bin</b>					
Material	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE
Shape	Circular	Circular	Circular	Circular	Circular
Dimension	36*71 cm	48*76 cm	56*91 cm	61*122 cm	81*124 cm
Weight	3.5 kg	5.0 kg	10.0 kg	20.0 kg	25.0 kg
Transfer tray	Made of SS304L, large polyurethane casters for floor protection				
<b>Controller</b>					
Mixer	Top-driven mixing, 0-350 rpm; the maximum rotation speed needs to be determined according to the actual volume and viscosity of the feed liquid in the process				
Impeller	Push-type impeller, SS316				
Mixing mode	Angle swivel, free lifting				
Function	Speed display and regulation, weight display, PID logic control, etc				
Voltage	220 V, 50 Hz				
IP grade	IP 55				



## Ordering Information

Product name	Cat. No.
Control System	CB-UMX-001
Mixing unit (shaft and impeller)	IPM-UMX512 (suitable for 50 L, 100 L, 200 L)
	IPM-UMX035 (suitable for 300 L, 500 L)
Circular plastic bin (no hole at the bottom)	DRUM050L002
	DRUM100L002
	DRUM200L002
	DRUM300L002
	DRUM500L002
Circular plastic bin (with hole at the bottom)	DRUM050L003
	DRUM100L003
	DRUM200L003
	DRUM300L003
	DRUM500L003
Transfer base	DCART050L001
	DCART100L001
	DCART200L001
	DCART300L001
	DCART500L001

**BioHub® Single-Use Open Bags** are made of multi-layer co-extrusion films (PP infusion film and FL194A). The sterile storage bags are guaranteed very low gas permeability, excellent chemical compatibility and biocompatibility. This ensures their safety in the preparation and storage of feed liquids in various biopharmaceutical processes.

## Features

- The open design facilitates the rapid feeding of a large volume of materials
- Flexible choice of film options and higher cost performance
- Flexibly customizable sizes, tubing, and connector
- Complete validation documents

## Consumables Ordering Information

Single-use open bag

Cat. No.	Matching type	Line 1	Film
BBLR-0050-S005		No outlet tubing	PP infusion film
BBLR-0050-S003	BioHub® plastic bin 50 L	No outlet tubing	FL194A
BBLR-0050-S004		50 cm ID3/8"OD5/8" platinum cured silicone tubing + male MPC	FL194A
BBLR-0100-S005		No outlet tubing	PP infusion film
BBLR-0100-S003	BioHub® plastic bin 100 L	No outlet tubing	FL194A
BBLR-0100-S004		50 cm ID3/8"OD5/8" platinum cured silicone tubing + male MPC	FL194A
BBLR-0200-S005		No outlet tubing	PP infusion film
BBLR-0200-S003	BioHub® plastic bin 200 L	No outlet tubing	FL194A
BBLR-0200-S004		50 cm ID3/8"OD5/8" platinum cured silicone tubing + male MPC	FL194A
BBLR-0300-S005		No outlet tubing	PP infusion film
BBLR-0300-S003	BioHub® plastic bin 300 L	No outlet tubing	FL194A
BBLR-0300-S004		50 cm ID1/2"OD3/4" platinum cured silicone tubing + male MPX	FL194A
BBLR-0500-S005		No outlet tubing	PP infusion film
BBLR-0500-S003	BioHub® plastic bin 500 L	No outlet tubing	FL194A
BBLR-0500-S004		50 cm ID1/2"OD3/4" platinum cured silicone tubing + male MPX	FL194A

Cat. No.	Matching type	Line 1	Film
BTLR-0019-S005		No outlet tubing	PP infusion film
BTLR-0019-S003	N series circular bin 19 L	No outlet tubing	FL194A
BTLR-0019-S004		50 cm ID1/4"OD7/16" platinum cured silicone tubing + male MPC	FL194A
BTLR-0028-S005		No outlet tubing	PP infusion film
BTLR-0028-S003	N series circular bin 28 L	No outlet tubing	FL194A
BTLR-0028-S004		50 cm ID1/4"OD7/16" platinum cured silicone tubing + male MPC	FL194A
BTLR-0038-S005		No outlet tubing	PP infusion film
BTLR-0038-S003	N series circular bin 38 L	No outlet tubing	FL194A
BTLR-0038-S004		50 cm ID1/4"OD7/16" platinum cured silicone tubing + male MPC	FL194A
BTLR-0057-S005		No outlet tubing	PP infusion film
BTLR-0057-S003	N series circular bin 57 L	No outlet tubing	FL194A
BTLR-0057-S004		50 cm ID3/8"OD5/8" platinum cured silicone tubing + male MPC	FL194A
BTLR-0113-S005		No outlet tubing	PP infusion film
BTLR-0113-S003	N series circular bin 113 L	No outlet tubing	FL194A
BTLR-0113-S004		50 cm ID3/8"OD5/8" platinum cured silicone tubing + male MPC	FL194A

Cat. No.	Matching type	Line 1	Film
BTLR-0208-S005		No outlet tubing	PP infusion film
BTLR-0208-S003	N series circular bin 208 L	No outlet tubing	FL194A
BTLR-0208-S004		50 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	FL194A
BTLR-0303-S005		No outlet tubing	PP infusion film
BTLR-0303-S003	N series circular bin 303 L	No outlet tubing	FL194A
BTLR-0303-S004		50 cm ID1/2"*OD3/4" platinum cured silicone tubing + male MPX	FL194A
BTLR-0378-S005		No outlet tubing	PP infusion film
BTLR-0378-S003	N series circular bin 378 L	No outlet tubing	FL194A
BTLR-0378-S004		50 cm ID1/2"*OD3/4" platinum cured silicone tubing + male MPX	FL194A
BTLR-0568-S005		No outlet tubing	PP infusion film
BTLR-0568-S003	N series circular bin 568 L	No outlet tubing	FL194A
BTLR-0568-S004		50 cm ID1/2"*OD3/4" platinum cured silicone tubing + male MPX	FL194A
BTLR-0050-S005		No outlet tubing	PP infusion film
BTLR-0050-S003	T series circular bin 50 L	No outlet tubing	FL194A
BTLR-0050-S004		50 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	FL194A
BTLR-0100-S005		No outlet tubing	PP infusion film
BTLR-0100-S003	T series circular bin 100 L	No outlet tubing	FL194A
BTLR-0100-S004		50 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	FL194A
BTLR-0200-S005		No outlet tubing	PP infusion film
BTLR-0200-S003	T series circular bin 200 L	No outlet tubing	FL194A
BTLR-0200-S004		50 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	FL194A

## BioHub® FD Feeding System

The feeding system is mainly for the preparation of biopharmaceutical culture medium and buffer solutions. It consists of a weighing bracket, feeding bracket, compatible weighing bags, and powder feeding bags, and can achieve a residue-free and dust-free feeding process. The standard feeding system is designed for high-tightness powder feeding applications. It is featured by high recovery and convenience of use, and is suitable for applications at different scales from process development to commercial production.

### Feeding Bracket



Figure 19. Feeding bracket

### Features

- Material: 304 L stainless steel (polished), resistant to 75% alcohol and quaternary ammonium salt
- Lifting mode: manual lifting, independent of utilities
- Lifting height: 1-2.6 m; a single system can support different specifications of mixing equipment (50-2500 L)
- Loading capacity:  $\leq 100$  kg
- Convenience: equipped with sliding casters for free movement

## Weighing Bracket



**Figure 20.** Weighing bracket

### Features

- Material: 304 L stainless steel (polished), resistant to 75% alcohol and quaternary ammonium salt
- Convenience: equipped with sliding casters for free movement
- Strong compatibility: suitable for feeding ports at different specifications
- Humanized design: reasonable structure, smaller occupation of site area

### Ordering Information

Product name	Cat. No.
Solid feeding bracket	BLKHSTBK01
Solid weighing bracket	BLKWTLBK01

## BioHub® Single-Use Powder-Feeding Bag

BioLink Single-Use Powder-Feeding Bags are easy to use with high recovery and do not require cleaning or sterilization. The bags are made of anti-static films; the feeding port and the bag are closely fit, effectively avoiding residues.

### Features

- Volume range: 3 L, 5 L, 15 L, 30 L, 50 L
- Feeding port sizes: 2", 3", 4", 6", 8"
- Optional washing function: maximize the recovery of residual powder
- Soft bag body and ergonomic rods for easy operation

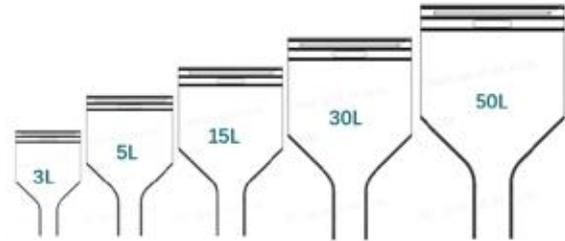


Figure 21. Powder-feeding bag

### Ordering Information

Cat. No.	Matching type	Feeding port	Film
BP-0003-S001	3 L	3" Feeding port	Anti-static film
BP-0003-S002	3 L	4" Feeding port	Anti-static film
BP-0003-S003	3 L	2" Feeding port	Anti-static film
BP-0005-S001	5 L	3" Feeding port	Anti-static film
BP-0005-S002	5 L	4" Feeding port	Anti-static film
BP-0005-S003	5 L	2" Feeding port	Anti-static film
BP-0015-S001	15 L	3" Feeding port	Anti-static film
BP-0015-S002	15 L	4" Feeding port	Anti-static film
BP-0015-S003	15 L	2" Feeding port	Anti-static film
BP-0030-S001	30 L	3" Feeding port	Anti-static film
BP-0030-S002	30 L	4" Feeding port	Anti-static film
BP-0030-S004	30 L	6" Feeding port	Anti-static film
BP-0050-S001	50 L	3" Feeding port	Anti-static film
BP-0050-S002	50 L	4" Feeding port	Anti-static film
BP-0050-S004	50 L	6" Feeding port	Anti-static film
BP-0050-S005	50 L	8" Feeding port	Anti-static film

Note: For powder-feeding bags of other sizes, please contact the local sales representative.

### Solid Ingredient Feeding Bracket

Specification	Cat. No.			
	4" feeding port (compatible with BMP)	8" feeding port (compatible with BMP)	4" feeding port (compatible with BMC)	8" feeding port (compatible with BMC)
50L	BLKSP0050TC4	BLKSP0050TC8	BLKSC0050TC4	BLKSC0050TC8
100L	BLKSP0100TC4	BLKSP0100TC8	BLKSC0100TC4	BLKSC0100TC8
200L	BLKSP0200TC4	BLKSP0200TC8	BLKSC0200TC4	BLKSC0200TC8
400L	BLKSP0400TC4	BLKSP0400TC8	BLKSC0400TC4	BLKSC0400TC8
650L	BLKSP0650TC4	BLKSP0650TC8	BLKSC0650TC4	BLKSC0650TC8
1000L	BLKSP1000TC4	BLKSP1000TC8	BLKSC1000TC4	BLKSC1000TC8

## BioHub® Single-Use Weighing Bag

BioLink weighing bags are made of PE films and the 3D design contributes to convenient weighing.

### Features

- Volume range: 1 L, 5 L, 10 L, 50 L
- Seal transfer can be achieved with a heat sealer, sealing clip, or cable tie
- The 3D design facilitates weighing

### Ordering Information

Cat. No.	Volume	Film
BW-0001-S002	1 L	PE film
BW-0005-S002	5 L	PE film
BW-0010-S002	10 L	PE film
BW-0050-S002	50 L	PE film
BW-X200-S003	200 mL	PE films for pharmaceutical packaging
BW-0003-S003	3 L	PE films for pharmaceutical packaging
BW-0005-S003	5 L	PE films for pharmaceutical packaging
BW-0006-S003	6 L	PE films for pharmaceutical packaging







## Features

- The bottle is made of PC material for its durability and transparency
- The cap is equipped with a silicone gasket to prevent leakage
- Volume range: 5 mL-20 L
- No additives, irradiated natural discoloration
- Fully validated to ensure safety
- Can be stored at  $-80^{\circ}\text{C}$
- Resistant to moist heat sterilization at  $121^{\circ}\text{C}$  for 30 min for 3 times
- Customization available

## Validation Documents

- USP <661>
- ISO10993-4 Hemolysis
- USP <88> Class VI
- USP <87> No cytotoxicity
- USP <85> No pyrogen
- USP <788> Particulate Matter in Injections
- FDA 21 CFR 177.1580
- FDA 21 CFR 177.1520
- USP <665> and BPOG



## Ordering Information

Bottle with regular cap

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Package	Cap
BTA5ML001	BTB5ML001	5 mL	36*36*60	200	
BTA20ML001	BTB20ML001	20 mL	36*36*80	200	20 mm regular cap
BTA50ML001	BTB50ML001	50 mL	45*45*85	120	
BTA125ML001	BTB125ML001	125 mL	54*54*120	60	
BTA250ML001	BTB250ML001	250 mL	68*68*140	40	38 mm regular cap
BTA500ML001	BTB500ML001	500 mL	74*74*190	20	
BTA1L001	BTB1L001	1 L	98*98*220	25	
BTA2L001	BTB2L001	2 L	114*114*286	16	48 mm regular cap
BTA5L001	BTB5L001	5 L	180*180*332	6	80 mm regular cap
BTA10L001	BTB10L001	10 L	225*225*337	4	
BTA20L001	BTB20L001	20 L	255*255*493	2	48 mm regular cap



## Storage bottle with 2-port cap (no tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Package	Cap
BTA5ML002	BTB5ML002	5 mL	36*36*60	200	
BTA20ML002	BTB20ML002	20 mL	36*36*80	200	20 mm 2-port cap, no tubing
BTA50ML002	BTB50ML002	50 mL	45*45*85	120	
BTA125ML002	BTB125ML002	125 mL	54*54*120	60	
BTA250ML002	BTB250ML002	250 mL	68*68*140	40	38 mm 2-port cap, no tubing
BTA500ML002	BTB500ML002	500 mL	74*74*190	20	
BTA1L002	BTB1L002	1 L	98*98*220	25	48 mm 2-port cap, no tubing
BTA2L002	BTB2L002	2 L	114*114*286	16	
BTA5L002	BTB5L002	5 L	180*180*332	6	80 mm 2-port cap, no tubing
BTA10L002	BTB10L002	10 L	225*225*337	4	
BTA20L002	BTB20L002	20 L	255*255*493	2	48 mm 2-port cap, no tubing



Storage bottle with 3-port cap (no tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Package	Cap
BTA5ML003	BTB5ML003	5 mL	36*36*60	200	
BTA20ML003	BTB20ML003	20 mL	36*36*80	200	20 mm 3-port cap, no tubing
BTA50ML003	BTB50ML003	50 mL	45*45*85	120	
BTA125ML003	BTB125ML003	125 mL	54*54*120	60	
BTA250ML003	BTB250ML003	250 mL	68*68*140	40	38 mm 3-port cap, no tubing
BTA500ML003	BTB500ML003	500 mL	74*74*190	20	
BTA1L003	BTB1L003	1 L	98*98*220	25	
BTA2L003	BTB2L003	2 L	114*114*286	16	48 mm 3-port cap, no tubing
BTA5L003	BTB5L003	5 L	180*180*332	6	80 mm 3-port cap, no tubing
BTA10L003	BTB10L003	10 L	225*225*337	4	
BTA20L003	BTB20L003	20 L	255*255*493	2	48 mm 3-port cap, no tubing



## Storage bottle with 2-port cap (with welded tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Cap	Line
BTA5ML008	BTB5ML008	5 mL	36*36*60	20 mm 2-port cap	Outer tubing 1: thermoplastic tubing, 1/8"*1/4", 30 cm, plug Outer tubing 2: silicone tubing, 1/8"*1/4", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA20ML008	BTB20ML008	20 mL	36*36*80		
BTA50ML008	BTB50ML008	50 mL	45*45*85		
BTA125ML008	BTB125ML008	125 mL	54*54*120	38 mm 2-port cap	Outer tubing 1: thermoplastic tubing, 1/4"*7/16", 30 cm, plug Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA250ML008	BTB250ML008	250 mL	68*68*140		
BTA500ML008	BTB500ML008	500 mL	74*74*190		
BTA1L008	BTB1L008	1 L	98*98*220	48 mm 2-port cap	Outer tubing 1: thermoplastic tubing, 1/4"*7/16", 30 cm, plug Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA2L008	BTB2L008	2 L	114*114*286		
BTA5L008	BTB5L008	5 L	180*180*332	80 mm 2-port cap	Outer tubing 1: thermoplastic tubing, 3/8"*5/8", 30 cm, plug Outer tubing 2: silicone tubing, 3/8"*5/8", 15 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA10L008	BTB10L008	10 L	225*225*337	48 mm 2-port cap	Outer tubing 1: thermoplastic tubing, 1/4" *7/16", 30cm, plug Outer tubing 2: silicone tubing, 1/4" * 7/16", 10cm, hydrophobic filter Inner tubing: silicone tubing, 1/4" * 7/16", bottoming
BTA20L008	BTB20L008	20 L	255*255*493		



Storage bottle with 2-port cap (with silicone tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Cap	Line
BTA5ML009	BTB5ML009	5 mL	36*36*60	20 mm 2-port cap	Outer tubing 1: silicone tubing with metal ring, 1/8"*1/4", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/8"*1/4", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA20ML009	BTB20ML009	20 mL	36*36*80		
BTA50ML009	BTB50ML009	50 mL	45*45*85		
BTA125ML009	BTB125ML009	125 mL	54*54*120	38 mm 2-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA250ML009	BTB250ML009	250 mL	68*68*140		
BTA500ML009	BTB500ML009	500 mL	74*74*190		
BTA1L009	BTB1L009	1 L	98*98*220	48 mm 2-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA2L009	BTB2L009	2 L	114*114*286		
BTA5L009	BTB5L009	5 L	180*180*332	80 mm 2-port cap	Outer tubing 1: silicone tubing with metal ring, 3/8*5/8", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 3/8*5/8", 15 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA10L009	BTB10L009	10 L	225*225*337	48 mm 2-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4" *7/16", 30cm, MPC-Female Outer tubing 2: silicone tubing, 1/4" * 7/16", 10cm, hydrophobic filter Inner tubing: silicone tubing, 1/4" * 7/16", bottoming
BTA20L009	BTB20L009	20 L	255*255*493		



## Storage bottle with 3-port cap (with welded tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Cap	Line
BTA5ML010	BTB5ML010	5 mL	36*36*60	20 mm 3-port cap	Outer tubings 1 & 2: thermoplastic tubing, 1/8"*1/4", 30 cm, plug Outer tubing 3: silicone tubing, 1/8"*1/4", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4, bottoming
BTA20ML010	BTB20ML010	20 mL	36*36*80		
BTA50ML010	BTB50ML010	50 mL	45*45*85		
BTA125ML010	BTB125ML010	125 mL	54*54*120	38 mm 3-port cap	Outer tubings 1 & 2: thermoplastic tubing, 1/4"*7/16", 30 cm, plug Outer tubing 3: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/8"*1/4, bottoming
BTA250ML010	BTB250ML010	250 mL	68*68*140		
BTA500ML010	BTB500ML010	500 mL	74*74*190		
BTA1L010	BTB1L010	1 L	98*98*220	48 mm 3-port cap	Outer tubings 1 & 2: thermoplastic tubing, 1/4"*7/16", 30 cm, plug Outer tubing 3: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA2L010	BTB2L010	2 L	114*114*286		
BTA5L010	BTB5L010	5 L	180*180*332	80 mm 3-port cap	Outer tubings 1 & 2: thermoplastic tubing, 3/8"*5/8", 30 cm, plug Outer tubing 3: silicone tubing, 3/8"*5/8", 15 cm, hydrophobic filter Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA10L010	BTB10L010	10 L	225*225*337	48 mm 3-port cap	Outer tubing 1 & 2: thermoplastic tubing, 1/4"*7/16", 30cm, plug Outer tubing 3: silicone tubing, 1/4" * 7/16", 10cm, hydrophobic filter Inner tubing: silicone tubing, 1/4" * 7/16", bottoming
BTA20L010	BTB20L010	20 L	255*255*493		



Storage bottle with 3-port cap (with silicone tubing)

Cat. No. - sterile	Cat. No. - non-sterile	Volume	Dimension L*W*H (mm)	Cap	Line
BTA5ML011	BTB5ML011	5 mL	36*36*60	20 mm 3-port cap	Outer tubing 1: silicone tubing with metal ring, 1/8"*1/4", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/8"*1/4", 10 cm, hydrophobic filter Outer tubing 3: silicone tubing with metal ring, 1/8"*1/4", 30 cm, MPC-Male Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA20ML011	BTB20ML011	20 mL	36*36*80		
BTA50ML011	BTB50ML011	50 mL	45*45*85		
BTA125ML011	BTB125ML011	125 mL	54*54*120	38 mm 3-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Outer tubing 3: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Male Inner tubing: silicone tubing, 1/8"*1/4", bottoming
BTA250ML011	BTB250ML011	250 mL	68*68*140		
BTA500ML011	BTB500ML011	500 mL	74*74*190		
BTA1L011	BTB1L011	1 L	98*98*220	48 mm 3-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 1/4"*7/16", 10 cm, hydrophobic filter Outer tubing 3: silicone tubing with metal ring, 1/4"*7/16", 30 cm, MPC-Male Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA2L011	BTB2L011	2 L	114*114*286		
BTA5L011	BTB5L011	5 L	180*180*332	80 mm 3-port cap	Outer tubing 1: silicone tubing with metal ring, 3/8"*5/8", 30 cm, MPC-Female Outer tubing 2: silicone tubing, 3/8"*5/8", 15 cm, hydrophobic filter Outer tubing 3: silicone tubing with metal ring, 3/8"*5/8", 30 cm, MPC-Male Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA10L011	BTB10L011	10 L	225*225*337	48 mm 3-port cap	Outer tubing 1: silicone tubing with metal ring, 1/4"*7/16", 30cm, MPC-Female Outer tubing 2: silicone tubing, 1/4"*7/16", 10cm, hydrophobic filter Outer tubing 3: silicone tubing with metal ring, 1/4"*7/16", 30cm, MPC-Male Inner tubing: silicone tubing, 1/4"*7/16", bottoming
BTA20L011	BTB20L011	20 L	255*255*493		





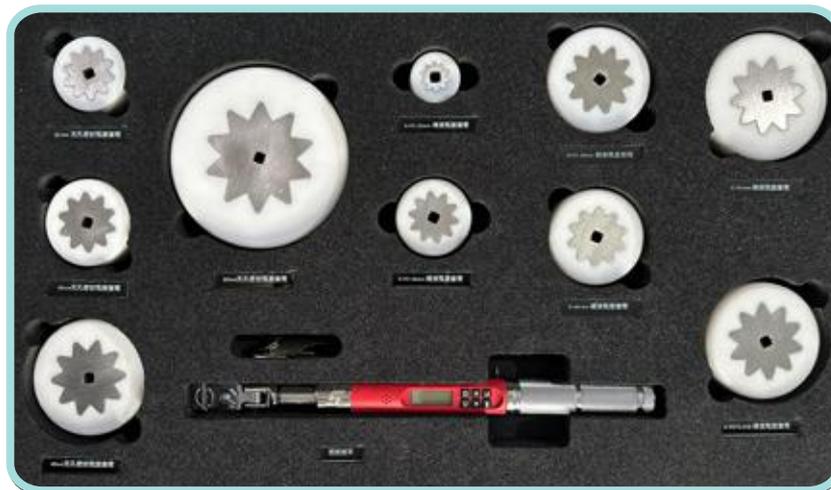
Cap - no tubing

Cat. No. - sterile	Product description	Line
CAP20-0-001	20 mm, regular	No port, no tubing
CAP38-0-001	38 mm, regular	
CAP48-0-001	48 mm, regular	
CAP80-0-001	80 mm, regular	
CAP20-2-001	20 mm, 2-port	2 ports, no tubing; 1/8" * 2, inner 1/8" * 2
CAP38-2-001	38 mm, 2-port	2 ports, no tubing; 1/4" x 2, inner 1/8" x 2
CAP48-2-001	48 mm, 2-port	2 ports, no tubing; 1/4"*2, inner 1/4"*2
CAP80-2-001	80 mm, 2-port	2 ports, no tubing; 1/4" * 2, inner 1/4" * 2
CAP20-3-001	20 mm, 3-port	3 ports, no tubing; 1/8"*3, inner 1/8"*2
CAP38-3-001	38 mm, 3-port	3 ports, no tubing; 1/4"*3, inner 1/8"*2
CAP48-3-001	48 mm, 3-port	3 ports, no tubing; 1/4"*3, inner 1/4"*2
CAP80-3-001	80 mm, 3-port	3 ports, no tubing; 1/4" * 3, inner 1/4" * 2

Cat. No. - non-sterile	Product Description	Line
CBP20-0-001	20 mm, regular	No port, no tubing
CBP38-0-001	38 mm, regular	
CBP48-0-001	48 mm, regular	
CBP80-0-001	80 mm, regular	
CBP20-2-001	20 mm, 2-port	2 ports, no tubing; 1/8" * 2, inner 1/8" * 2
CBP38-2-001	38 mm, 2-port	2 ports, no tubing; 1/4" x 2, inner 1/8" x 2
CBP48-2-001	48 mm, 2-port	2 ports, no tubing; 1/4"*2, inner 1/4"*2
CBP80-2-001	80 mm, 2-port	2 ports, no tubing; 1/4" * 2, inner 1/4" * 2
CBP20-3-001	20 mm, 3-port	3 ports, no tubing; 1/8"*3, inner 1/8"*2
CBP38-3-001	38 mm, 3-port	3 ports, no tubing; 1/4"*3, inner 1/8"*2
CBP48-3-001	48 mm, 3-port	3 ports, no tubing; 1/4"*3, inner 1/4"*2
CBP80-3-001	80 mm, 3-port	3 ports, no tubing; 1/4" * 3, inner 1/4" * 2

## BioHub® Storage Bottle Tool Kit

In biopharmaceutical process, the storage of process liquids, especially bulk drug substances, is crucial. To ensure the sealing integrity between the storage bottle and the cap, and to meet PDA No. 90 requirements, BioLink has launched BioHub® Storage Bottle Tool Kit (including a cap sleeve and a torque wrench). Using the tool kit, tighten the bottle cap to ensure the seal of the storage bottle, maintain the stability of the liquid properties, and avoid the risk of damaging the cap by using the appropriate validated torque.



### Validation:

- Seal Integrity Test: Tighten the cap with a preset torque, maintain under 25 kPa pressure for 5 minutes, no leakage produced
- Torque Test: Use torque twice the recommended value, no damage observed
- Durability Test: Repeat tightening and loosening 50 times, no visible foreign objects produced

### Technical Parameters Torque Wrench:

Model	BCTW12NM	BCTW34NM
Length (mm)		295
Range (in-lbs)	4-100	15-300
Range (N·m)	0.45-11.29	1.69-33.89
Accuracy (at 22°C)		2%
Graduation		0.1
Operating Temperature (°C)		-18-54
Drive Size		1/4"
Gear Structure		72 teeth

## Ordering Information: BioHub® Series

Cat. No.	Product Name	Drive Size	Note	Note
BCTWB01	Storage Bottle Tool kit	1/4"	NA	Including 4 sizes of BioHub® caps and BCTW34NM torque wrench
BCTWB02	Storage Bottle Tool kit	1/4"	NA	Including 4 sizes of BioHub® caps and BCTW12NM torque wrench
BCTW34NM	Torque Wrench	1/4"	NA	/
BCTW12NM	Torque Wrench	1/4"	NA	/
BCTWK20	20 mm Holeless Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK38	38 mm Holeless Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK48	48 mm Holeless Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK80	80 mm Holeless Cap Sleeve	1/4"	PTFE + Stainless steel	/

## Ordering Information: Other Series

Cat. No.	Product Name	Drive Size	Note	Note
BCTWK20NPC	N-PC-20 mm Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK38NPC	N-PC-38 mm Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK48NPC	N-PC-48 mm Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK53BPETG	N-PETG-53B Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK49C	C-49 mm Cap Sleeve	1/4"	PTFE + Stainless steel	/
BCTWK70C	C-70 mm Cap Sleeve	1/4"	PTFE + Stainless steel	/

## Recommended Parameters: BioHub® Storage Bottle Caps

Product Name	Suitable Cap	Suitable Storage Bottle	Recommended Torque
20 mm Holeless Cap Sleeve	5-50 mL Cap	5mL-50mL	2 N·m
38 mm Holeless Cap Sleeve	125-500 mL Cap	125mL-500mL	3.8 N·m
48 mm Holeless Cap Sleeve	1-2 L Cap	1L-2L	4.8 N·m
	10 L-20 L Cap	10L-20L	
80 mm Holeless Cap Sleeve	5 L Cap	5L	8 N·m

**Note:** The usage torque range for the bottle cap is 80%-120% of the recommended torque. For any other custom requirements, please contact local sales and technical support.

## BioHub® 2D Storage Solution

### 2D Storage Bag

BioHub® 2D Storage Bags are made of multi-layer co-extrusion films. The ship-typed integrated welded outlet helps to minimize residual liquid. The outlet is available in 1/8", 1/4" and 3/8" and can be connected to silicone and thermoplastic tubing. The combination of BioLink 2D storage bags with single-use tubings can meet the requirements of different processes and liquids.

### Features

- Volume range: 5 mL-50 L
- Wide applications: for collection of purified components, bulk solution storage, intermediate product storage, medium storage, etc.
- Highly customizable, and configurable with a variety of connectors, hoses, and functional units



Figure 22. 2D Storage Bags



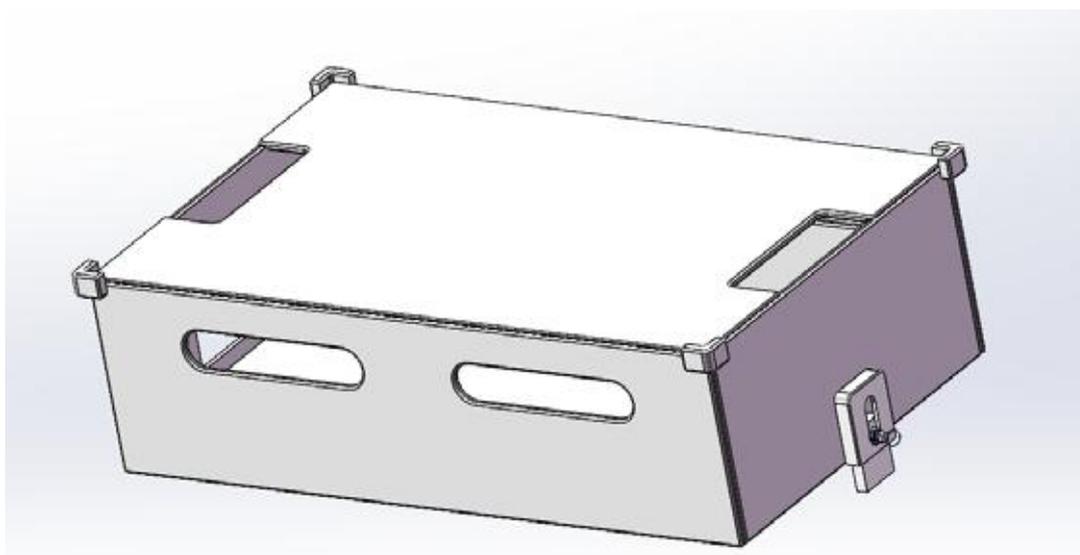




## Tray for Storage Bag

### Features

- The trays of the same type are stackable to save space
- Limit angle to maintain a stable stacking state
- User-friendly ergonomic handle
- Polypropylene or stainless steel trays are available, both have good chemical compatibility and stable performance in various inorganic solvents
- Clean and uniform materials with smooth inner walls, preventing damage to the soft bags



**Figure 23.** Tray for 2D storage bag: PP tray

## Transfer Cart for 2D Tray

### Features

- Material: SS304
- Wheel coat: polyurethane (PU)
- Specification: modular design and configurable number and height of layers for easy expansion
- Adjustable side suspension bracket to support storage bags ( $\leq 10$  L)
- The shelf with an inclination angle of 3-5° facilitates liquid emptying



## Ordering Information

Tray for 2D storage bag: PP Tray

Cat. No.	Product name	Material	Dimension (L x W x H)	Weight	Cap
TRAY0005L003	5 L PP tray	PP	495*370*180 mm	0.6 kg	Standard
TRAY0010L003	10 L PP tray	PP	605*440*185 mm	1.1 kg	Standard
TRAY0020L003	20 L PP tray	PP	775*490*230 mm	1.8 kg	Standard
TRAY0050L003	50 L PP tray	PP	945*650*270 mm	3 kg	Standard
TRAY0005L004	5 L PP tray	PP	565*360*140 mm	0.6 kg	Standard
TRAY0010L004	10 L PP tray	PP	695*440*175 mm	1.1 kg	Standard
TRAY0020L004	20 L PP tray	PP	865*540*180 mm	1.8 kg	Standard
TRAY0050L004	50 L PP tray	PP	1045*660*250 mm	3 kg	Standard

Transfer cart for 2D tray

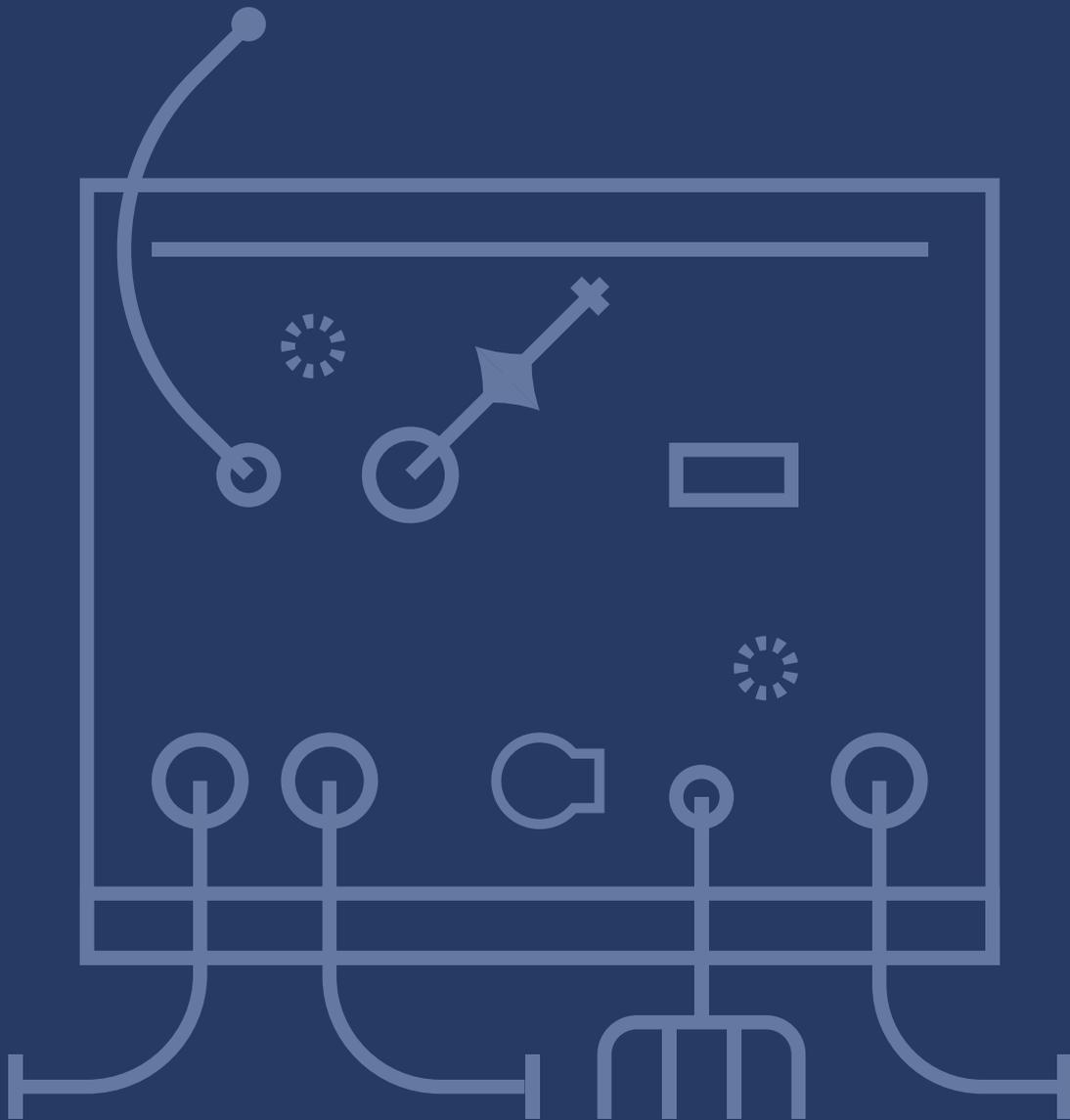
Product name	Cat. No.	Description
Transfer cart for 2D tray	2DCART002	2 layers
Transfer cart for 2D tray	2DCART003	3 layers
Transfer cart for 2D tray	2DCART004	4 layers
Transfer cart for 2D tray	2DCART005	5 layers

## Cryopreservation Case

Cryopreservation cases are used for short-term and long-term cryopreservation of intermediate products and bulk solutions during the R&D and production of biological products. In order to meet the needs of liquid cryopreservation using 2D bags and reduce the cost of use, BioLink has designed integrated cryopreservation cases compatible with flexible bags. This product consists of a strong stainless steel case and high-density flexible EVA foam, providing effective protection and support to avoid risks.

### Features

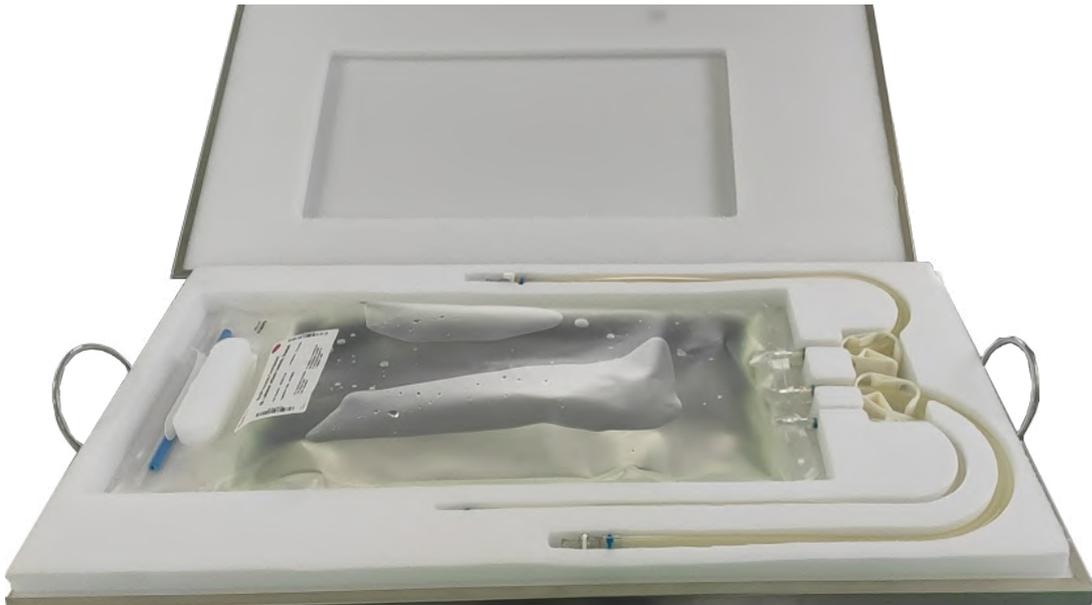
- Made of 304 stainless steel, easy to use, economical and durable
- Easy to clean and disinfect, reusable
- Resistant to  $-80^{\circ}\text{C}$  and supports flexible customization
- Ultra-thin, space-saving, and suitable for a variety of ultra-low temperature freezers and programmed freeze/thaw refrigerators
- The bag and tubing are pre-fixed at freeze-thaw conditions to ensure the consistency of both heat conduction area and process parameters



## Ordering Information

Cat. No.	Matching bag	Body dimensions (outer package included)	Weight
FTHD05D01	BioHub® standard 50 mL bag	290*185 mm	0.8 kg
FTHD010D01	BioHub® standard 100 mL bag	320*210 mm	1.2 kg
FTHD025D01	BioHub® standard 250 mL bag	370*235 mm	2.5 kg
FTHD050D01	BioHub® standard 500 mL bag	400*255 mm	3.8 kg
FTHD01L01	BioHub® standard 1 L bag	606*406*100 mm	2.5 kg
FTHD02L01	BioHub® standard 2 L bag	606*406*100 mm	3.0 kg
FTHD05L01	BioHub® standard 5 L bag	700*500*120 mm	3.5 kg
FTHD010L01	BioHub® standard 10 L bag	1000*600*120 mm	6 kg
FTHD020L01	BioHub® standard 20 L bag	1000*600*120 mm	7 kg

\* Cryopreservation cases for other types of bags are available. Contact BioLink experts in your location for details.



**Figure 24.** Cryopreservation case for 2D storage bag

## BioHub® 3D Storage Solution

BioHub® 3D Storage Bags are suitable for all types of BioLink plastic and stainless steel containers. We solved the problem of bag size inconsistency for the 3D-matched containers of different brands by standardizing the bag size to match the common 3D containers on the market, facilitating quick delivery. BioHub® 3D Storage Bags range from 50 L to 3000 L, and two types of silicone tubing and thermoplastic tubing are available to meet the requirements of all kinds of liquid transfer and storage.

## Circular Plastic Bin

### Features

- The 3D storage bags are made of High Density Polyethylene (HDPE) with good chemical stability and good resistance to acid, alkali, and various salts at room temperature
- The flared design is convenient for flanging and fixing liners
- Clean and uniform materials with smooth inner walls, preventing damage to the soft bags
- Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  (autoclave not allowed)



## Ordering Information

Circular plastic bin	50 L	100 L	200 L	300 L	500 L
Cat. No. (80 mm outlet hole at the bottom)	DRUM050L001	DRUM100L001	DRUM200L001	DRUM300L001	DRUM500L001
Cat. No. (no bottom outlet)	DRUM050L002	DRUM100L002	DRUM200L002	DRUM300L002	DRUM500L002
Cat. No. (80*120mm waist-shaped outlet hole at the bottom)	DRUM050L003	DRUM100L003	DRUM200L003	DRUM300L003	DRUM500L003
Outer dimension: bin diameter x height	36*71 cm	48*76 cm	56*91 cm	61*122 cm	81*124 cm
Weight	3.5 kg	5.0 kg	10.0 kg	20.0 kg	25.0 kg
Material	HDPE				
Operating temperature range	- 20 ° C to +60 ° C				
Transfer base	For 50 L bin	For 100 L bin	For 200 L bin	For 300 L bin	For 500 L bin
Cat. No.	DCART050L001	DCART100L001	DCART200L001	DCART300L001	DCART500L001
Outer dimension: cart diameter x height	40*12 cm	50*16 cm	60*16 cm	63*195 cm	83*23 cm
Weight	5.0 kg	7.5 kg	11.0 kg	12.0 kg	30.0 kg
Material	SS 304L and polyurethane				
Operating temperature range	- 20 ° C to +60 ° C				



**Figure 25.** Circular plastic bins for 3D storage bags (50 L, 100 L, 200 L, 300 L, and 500 L)

## Circular Storage Bag

Made of multi-layer co-extrusion films, the sterile circular storage bags are guaranteed very low gas and steam permeability, excellent chemical compatibility and biocompatibility, and good heat seal strength. This ensures their safety in the storage and transportation of feed liquids in various biopharmaceutical processes. The standard circular storage bags are available in various types and specifications (50–500 L). With BioLink single-use tubings, the product can meet the requirements of different processes and different liquids.

Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BBPR-0050-S003	BioHub® circular plastic bin 50 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPR-0050-S004	BioHub® circular plastic bin 50 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPR-0050-S005	BioHub® circular plastic bin 50 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Domestic
BBPR-0050-S006	BioHub® circular plastic bin 50 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPR-0100-S003	BioHub® circular plastic bin 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPR-0100-S004	BioHub® circular plastic bin 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPR-0100-S005	BioHub® circular plastic bin 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBPR-0100-S006	BioHub® circular plastic bin 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPR-0200-S003	BioHub® circular plastic bin 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPR-0200-S004	BioHub® circular plastic bin 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPR-0200-S005	BioHub® circular plastic bin 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBPR-0200-S006	BioHub® circular plastic bin 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPR-0300-S003	BioHub® circular plastic bin 300 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPR-0300-S004	BioHub® circular plastic bin 300 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPR-0300-S005	BioHub® circular plastic bin 300 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPR-0300-S006	BioHub® circular plastic bin 300 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBPR-0500-S003	BioHub® circular plastic bin 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPR-0500-S004	BioHub® circular plastic bin 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPR-0500-S005	BioHub® circular plastic bin 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPR-0500-S006	BioHub® circular plastic bin 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed

## Cubic Foldable Plastic Bin

### Features

- Made of polypropylene, with good chemical compatibility, resistance to strong acids, and stable performance in various inorganic solvents
- Good mechanical properties and foldable bin for stacking, reducing the occupation of clean plant space
- Volume: 250 L, 500 L, 1000 L
- Clean and uniform materials with smooth inner walls, preventing damage to the soft bags
- Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  (autoclave not allowed)



**Figure 26.** Cart for cubic foldable bin plastic bin

## Ordering Information

### Bin

	Cubic foldable bin 250 L	Cubic foldable bin 500 L	Cubic foldable bin 1000 L
Cat. No.	ARCABIN0250L001	ARCABIN0500L001	ARCABIN1000L001
Capacity	Loading capacity 264 L	Loading capacity 550 L	Loading capacity 1060 L
Outer dimension - unfolded, with cover	809*609*833 mm	1200*800*890 mm	1155*1155*1115 mm
Inner dimension	740*540*660 mm	1128*722*718 mm	1065*1045*940 mm
Footprint	0.5 m <sup>2</sup>	0.73 m <sup>2</sup>	1.33 m <sup>2</sup>
Weight	20 kg	58 kg	89 kg
Maximum dynamic binding capacity	700 kg (2 layers)	1400 kg (2 layers)	2977 kg (2 layers)
Maximum static binding capacity	1750 kg (5 layers)	3500 kg (5 layers)	7442 (5 layers)
Material	PP		
Operating temperature range	- 20 ° C to + 60 ° C		

### Cart for cubic foldable bin

Cat. No.	Transfer cart for cubic bin	Material	Configuration	Cart dimension (mm)	Cart weight
ACART0250L001	250 L	304L	Ordinary	600*800*200	28 kg
ACART0500L001	500 L			800*900*230	
ACART1000L001	1000 L			1061*1061*275	35 kg
ACART0250L002	250 L		With load cell, With 4-20 mA output	600*1100*340	35 kg
ACART0500L002	500 L			800*1200*400	
ACART1000L002	1000 L			1061*1360*425	45 kg



Figure 27. Cubic foldable bin plastic bin

## Cubic Storage Bag: Matching Cubic Plastic Bin

Made of multi-layer co-extrusion films, the sterile cubic storage bags are guaranteed very low gas and steam permeability, excellent chemical compatibility and biocompatibility, and good heat seal strength. This ensures their safety in the storage and transportation of feed liquids in various biopharmaceutical processes. The standard cubic storage bags are available in various types and specifications (50-1000 L). With BioLink single-use tubings, the product can meet the requirements of different processes and different liquids.

### Ordering Information

Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BBPC-0100-S003	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPC-0100-S004	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPC-0100-S005	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPC-0100-S006	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBPC-0250-S003	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPC-0250-S004	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBPC-0250-S005	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBPC-0250-S006	BioHub® cubic foldable bin plastic bin 250 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBPC-1000-S003	BioHub® cubic foldable bin plastic bin 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBPC-1000-S005	BioHub® cubic foldable bin plastic bin 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BCPC-0050-S003	C series cubic plastic tank 50 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BCPC-0050-S007	C series cubic plastic tank 50 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BCPC-0050-S005	C series cubic plastic tank 50 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BCPC-0050-S008	C series cubic plastic tank 50 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BCPC-0100-S003	C series cubic plastic tank 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BCPC-0100-S007	C series cubic plastic tank 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BCPC-0100-S005	C series cubic plastic tank 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BCPC-0100-S008	C series cubic plastic tank 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BCPC-0200-S003	C series cubic plastic tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BCPC-0200-S007	C series cubic plastic tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BCPC-0200-S005	C series cubic plastic tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BCPC-0200-S008	C series cubic plastic tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed



Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BSPC-0100-S003	S series cubic plastic tank 100 L	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BSPC-0100-S007	S series cubic plastic tank 100 L	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Imported
BSPC-0100-S005	S series cubic plastic tank 100 L	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BSPC-0100-S008	S series cubic plastic tank 100 L	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BSPC-0200-S003	S series cubic plastic tank 200 L	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BSPC-0200-S007	S series cubic plastic tank 200 L	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Imported
BSPC-0200-S005	S series cubic plastic tank 200 L	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8"*OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BSPC-0200-S008	S series cubic plastic tank 200 L	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	100 cm ID3/8"*OD5/8" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BSPC-0500-S003	S series cubic plastic tank 500 L	100 cm ID1/2"*OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2"*OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BSPC-0500-S007	S series cubic plastic tank 500 L	100 cm ID1/2"*OD3/4" thermoplastic tubing + plug	100 cm ID1/2"*OD3/4" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Imported
BSPC-0500-S005	S series cubic plastic tank 500 L	100 cm ID1/2"*OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2"*OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4"*OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BSPC-0500-S008	S series cubic plastic tank 500 L	100 cm ID1/2"*OD3/4" thermoplastic tubing + plug	100 cm ID1/2"*OD3/4" thermoplastic tubing + plug	30 cm ID1/4"*OD7/16" thermoplastic tubing + needleless sampling	Self-developed



## Stainless Steel Storage System

### Features

- Volume range: 50 L-2500 L
- The whole device is made of polished SS304L (Ra ≤ 0.8 μm), preventing damage to soft bags
- Inclined bottom to reduce residual liquids
- Modular design supports different functional combinations of pH, cond, temperature, weighing, and printer as required
- Strong compatibility with major consumables on the market

### Ordering Information

Cat. No.	Name	Form	Material	Jacket	Movability	"Bag lever - manual"	"Outer dimension L*W*H mm"	"Reference weight of bin (kg)"
SSBIN0050L001	Stainless steel tank 50 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	756*576*850	45
SSBIN0050L002	Stainless steel tank 50 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	876*510*1100	85
SSBIN0050L004	Stainless steel tank 50 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	910*510*1100	122
SSBIN0050L003	Stainless steel tank 50 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	850*510*950	75
SSBIN0100L001	Stainless steel tank 100 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	756*576*950	52
SSBIN0100L002	Stainless steel tank 100 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	876*648*1100	95
SSBIN0100L004	Stainless steel tank 100 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	910*734*1100	155
SSBIN0100L003	Stainless steel tank 100 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	850*662*950	108
SSBIN0200L001	Stainless steel tank 200 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	846*706*1100	85
SSBIN0200L002	Stainless steel tank 200 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1006*763*1100	130
SSBIN0200L004	Stainless steel tank 200 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1040*859*1100	209
SSBIN0200L003	Stainless steel tank 200 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	980*792*1100	165
SSBIN0500L001	Stainless steel tank 500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1088*908*1294	160
SSBIN0500L002	Stainless steel tank 500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1208*970*1294	220
SSBIN0500L004	Stainless steel tank 500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1240*1059*1294	327
SSBIN0500L003	Stainless steel tank 500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1180*992*1294	275
SSBIN1000L001	Stainless steel tank 1000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1290*1110*1595	327
SSBIN1000L002	Stainless steel tank 1000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1380*1142*1595	360
SSBIN1000L004	Stainless steel tank 1000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1440*1249*1595	573
SSBIN1000L003	Stainless steel tank 1000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1380*1192*1595	540
SSBIN1500L001	Stainless steel tank 1500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1590*1210*1708	418
SSBIN1500L002	Stainless steel tank 1500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	1680*1140*1708	450
SSBIN1500L004	Stainless steel tank 1500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1740*1349*1708	735
SSBIN1500L003	Stainless steel tank 1500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	1680*1292*1708	700
SSBIN2000L001	Stainless steel tank 2000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2332*1212*1560	586
SSBIN2000L002	Stainless steel tank 2000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2512*1243*1560	616
SSBIN2000L004	Stainless steel tank 2000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2600*1349*1560	1000
SSBIN2000L003	Stainless steel tank 2000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2420*1292*1560	930

Cat. No.	Name	Form	Material	Jacket	Movability	"Bag lever - manual"	"Outer dimension L*W*H mm"	"Reference weight of bin (kg)"
SSBIN2500L001	Stainless steel tank 2500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2332*1212*1720	635
SSBIN2500L002	Stainless steel tank 2500 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2512*1243*1720	666
SSBIN2500L004	Stainless steel tank 2500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2600*1349*1720	1093
SSBIN2500L003	Stainless steel tank 2500 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2420*1292*1720	1060
SSBIN3000L001	Stainless steel tank 3000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2336*1216*1900	880
SSBIN3000L002	Stainless steel tank 3000 L	Cubic	SUS304	Unjacketed	4 brake wheels	Available	2516*1245*1900	905
SSBIN3000L004	Stainless steel tank 3000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2600*1349*1900	1360
SSBIN3000L003	Stainless steel tank 3000 L	Cubic	SUS304	Jacketed	4 brake wheels	Available	2420*1292*1900	1328

\* Storage bins can be customized with different dimensions and functions upon request. Contact BioLink experts in your location for your needs.



**Figure 28.** Cubic stainless steel tank

## Cubic Storage Bag: Matching Cubic Stainless Steel Tank

Made of multi-layer co-extrusion films, the sterile cubic storage bags are guaranteed very low gas and steam permeability, excellent chemical compatibility and biocompatibility, and good heat seal strength. This ensures their safety in the storage and transportation of feed liquids in various biopharmaceutical processes. The standard cubic storage bags are available in various types and specifications (50-1000 L). With BioLink single-use tubings, the product can meet the requirements of different processes and different liquids.

### Ordering Information

Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BBSC-0100-S003	BioHub® cubic stainless steel tank 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-0100-S004	BioHub® cubic stainless steel tank 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBSC-0100-S005	BioHub® cubic stainless steel tank 100 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBSC-0100-S006	BioHub® cubic stainless steel tank 100 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBSC-0200-S003	BioHub® cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-0200-S004	BioHub® cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBSC-0200-S005	BioHub® cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBSC-0200-S006	BioHub® cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBSC-0500-S003	BioHub® cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-0500-S004	BioHub® cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BBSC-0500-S005	BioHub® cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBSC-0500-S006	BioHub® cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BBSC-1000-S003	BioHub® cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-1000-S005	BioHub® cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBSC-2000-S003	BioHub® cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-2000-S005	BioHub® cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BBSC-3000-S003	BioHub® cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BBSC-3000-S005	BioHub® cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed



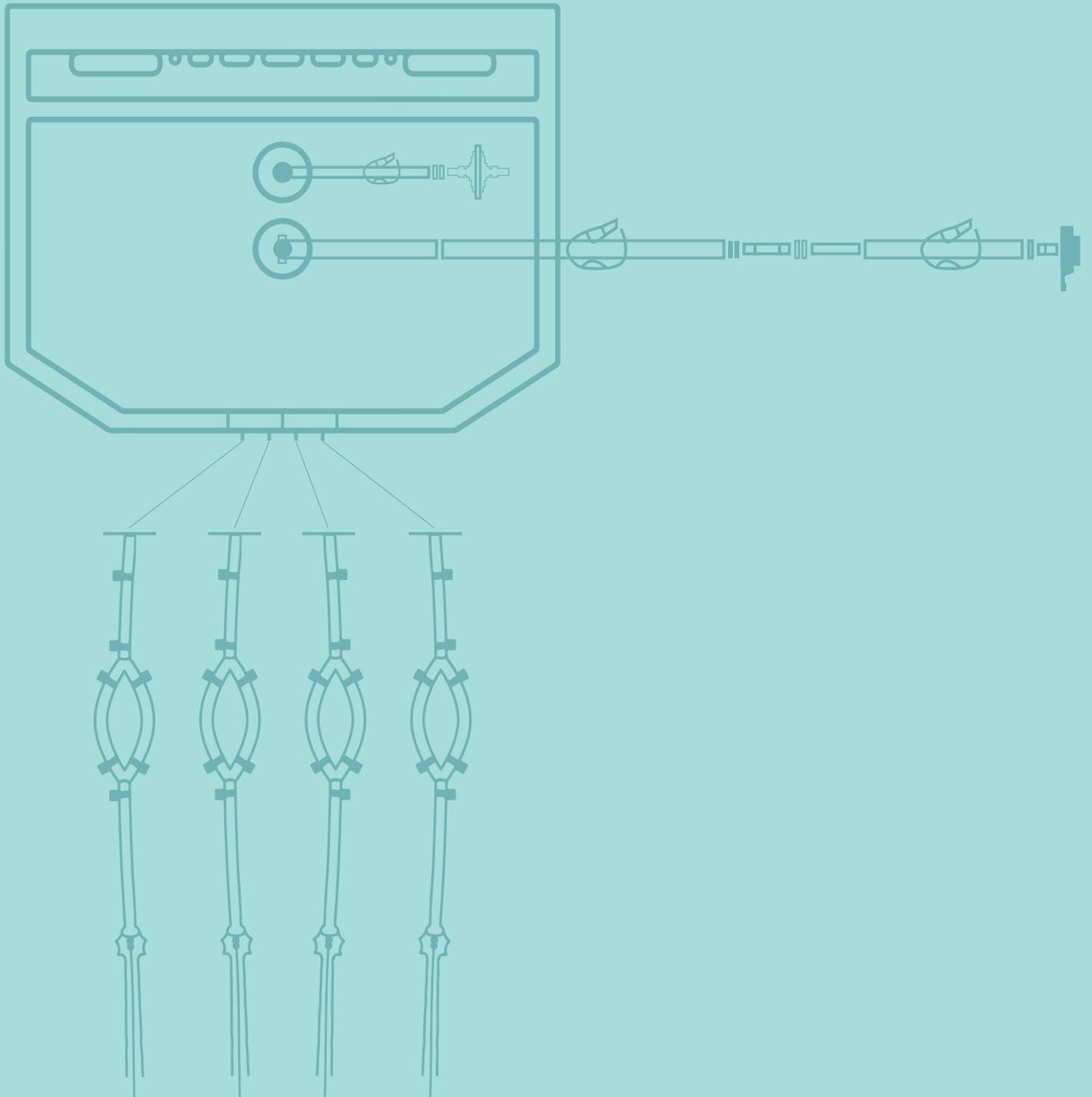
Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BPSC-0200-S003	P series cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-0200-S007	P series cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BPSC-0200-S005	P series cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" platinum cured silicone tubing + female MPC	100 cm ID3/8**OD5/8" platinum cured silicone tubing + male MPC	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BPSC-0200-S008	P series cubic stainless steel tank 200 L	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	100 cm ID3/8**OD5/8" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BPSC-0500-S003	P series cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-0500-S007	P series cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Imported
BPSC-0500-S005	P series cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" platinum cured silicone tubing + female MPX	100 cm ID1/2**OD3/4" platinum cured silicone tubing + male MPX	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BPSC-0500-S008	P series cubic stainless steel tank 500 L	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	100 cm ID1/2**OD3/4" thermoplastic tubing + plug	30 cm ID1/4**OD7/16" thermoplastic tubing + needleless sampling	Self-developed
BPSC-1000-S003	P series cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-1000-S005	P series cubic stainless steel tank 1000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BPSC-1500-S003	P series cubic stainless steel tank 1500 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-1500-S005	P series cubic stainless steel tank 1500 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BPSC-2000-S003	P series cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-2000-S005	P series cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed
BPSC-3000-S003	P series cubic stainless steel tank 3000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Imported
BPSC-3000-S005	P series cubic stainless steel tank 3000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing + needleless sampling	Self-developed



Cat. No.	Matching type	Line 1	Line 2	Line 3	Film
BSSC-2500-S003	S series cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing +	Imported needleless sampling
BSSC-2500-S005	S series cubic stainless steel tank 2000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing +	Self-developed needleless sampling
BSSC-3000-S003	S series cubic stainless steel tank 3000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing +	Imported needleless sampling
BSSC-3000-S005	S series cubic stainless steel tank 3000 L	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	100 cm ID3/4**OD1" platinum cured silicone tubing + TC50	30 cm ID1/4**OD7/16" platinum cured silicone tubing +	Self-developed needleless sampling



# BioHub® Single-Use Filling System

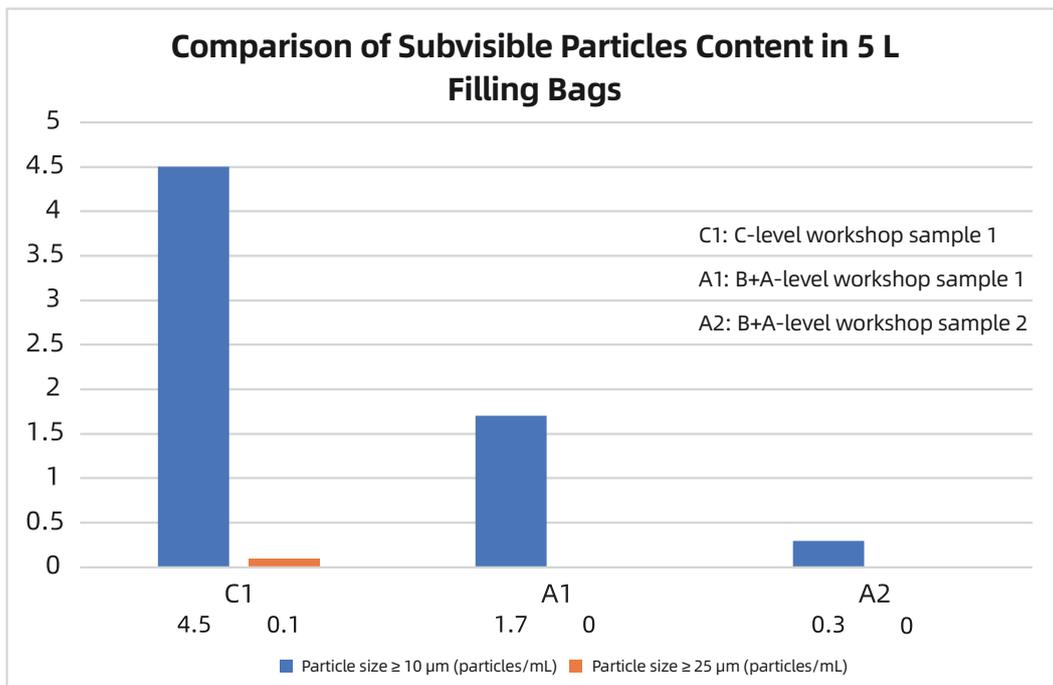


BioHub® Single-Use Filling System is a pre-sterilized, ready-to-use solution that consists of single-use mixing bag, sterile storage bag, filling bag, single-use capsule filter, filling tubing, single-use aseptic connector, disconnecter and single-use filling needle. BioLink is committed to minimizing customer risks by offering top quality consumables, services and support.

● **Subvisible Particles:**

Subvisible particles are tiny, water-insoluble particles with a typical size of 2 µm - 50 µm. Subvisible particles in pharmaceutical injections in quantities exceeding certain limits may pose risks to patients, potentially even life-threatening in severe cases. Therefore, it is necessary to strictly control the subvisible particles in single-use sterile filling bags that may come into contact with injections.

BioLink controls the level of subvisible particles in products from the source by establishing B+A-level workshop, ensuring a controlled production environment. Processes such as film cutting, welding, assembly are all conducted in B+A cleanrooms, reducing the impact of environment on product subvisible particles. The tubing, connectors and filling needles and other components are pre-flushed to ensure high cleanliness, eliminating visible foreign matter and reducing particle levels.



● **Sterility Assurance:**

To ensure product sterility, BioLink follows the guidelines of ISO 11137:2013 for single-use sterile filling bags, applying the VDmax<sup>25</sup> (radiation sterilization) method (i.e. possible SAL of 10<sup>-6</sup> in the case of product sterilization with the given minimum dose of 25 kGy). BioLink provides the field distribution verification (PQ) of radiation dose by combining the packaging and loading methods of the product and selecting the packing density limit with the help of an irradiator of the commissioned radiation processor. Verification results indicate that the product was successfully radiated at a required dose of 25 kGy ~ 40 kGy when placed on the radiation pallets. Moreover, BioLink provides the quarterly validation of effective radiation to ensure the stable radiation measurement.

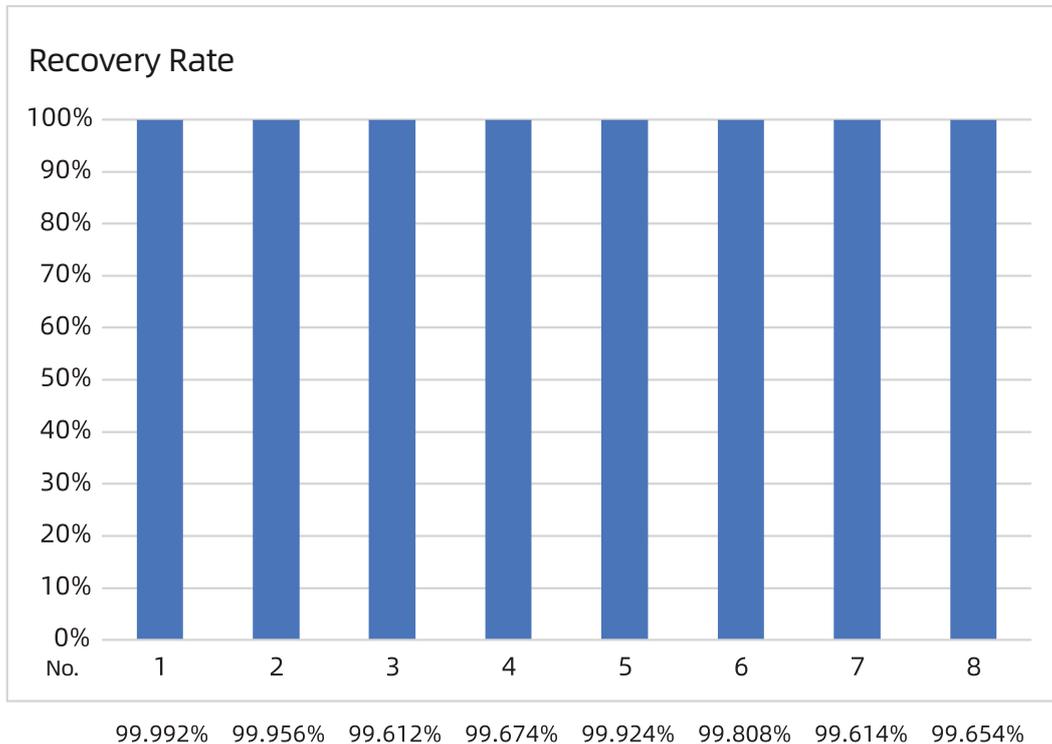
The regulatory agencies worldwide recommend performing pre-use integrity tests on filters and post-use integrity test on sterilizing-grade filters when applying aseptic process. Successful filter integrity tests with the combined inherent sterility and antibacterium of the system constitute a key link of filter verification, smooth processing and product quality.

● **Flexible Adaptability:**

BioHub® single-use filling bag is superior in flexibility to ensure its adaptation to different scenarios and use requirements. In addition, it secures the minimum costs of cleaning verification, the accelerated interbatch switch and the reduced risks of interbatch-based product cross-contamination.

- **High Recovery Rate:**

The design of BioHub® single-use filling bags with boat-shaped connectors prevents expensive drug product from remaining in the bag. We tested the recovery rate of eight different designs of filling bags (with 2-12 filling lines) by filling each bag with 5 liters of purified water and then measuring the weight of the residual liquid using gravity. Test results showed that the recovery rate was greater than 99.5% in all cases.



- **Quality Assurance:**

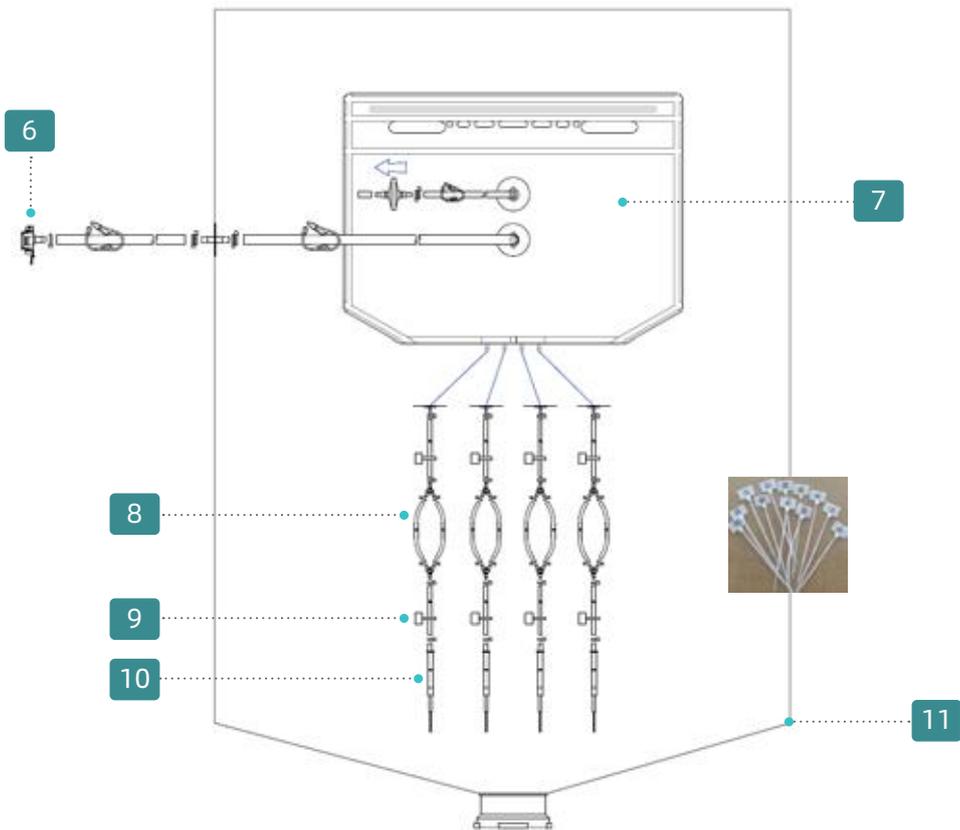
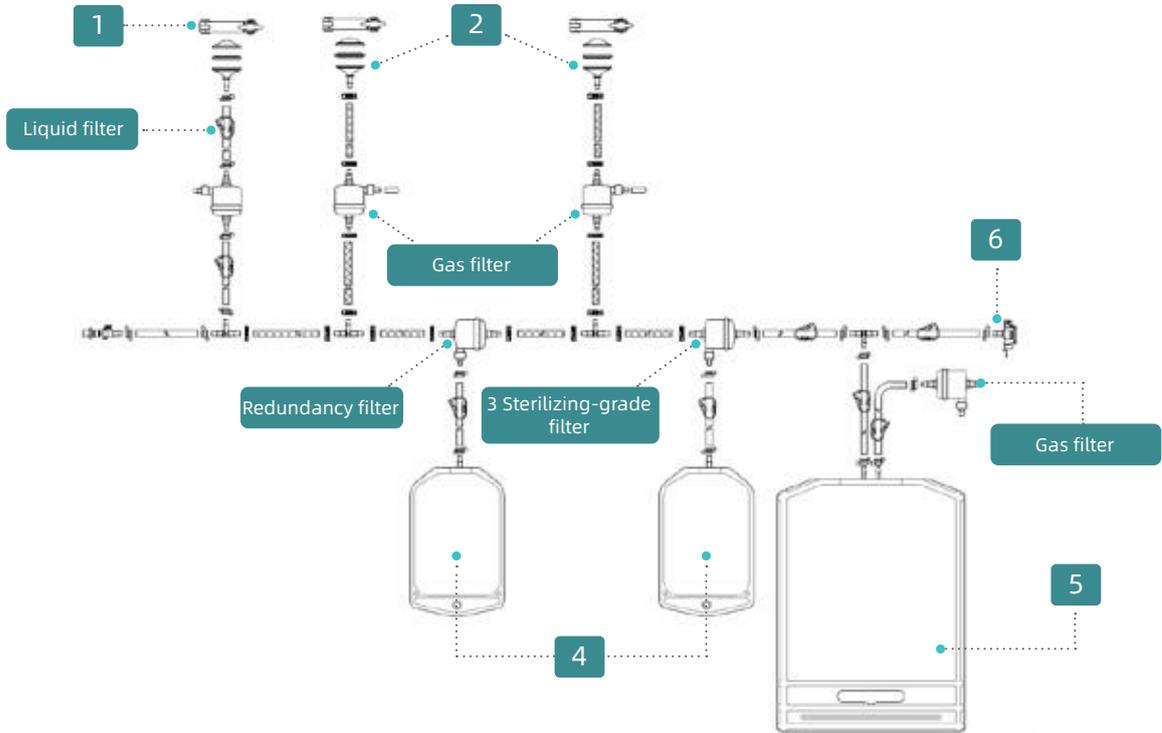
- BioLink quality system complies with both ISO 9001 and ISO 13485 standards
- Quarterly validation of sterility verification and dose effectiveness
- Subvisible particles (refer to the Chinese Pharmacopoeia <0903> (USP <788>))
- Endotoxins (refer to the Chinese Pharmacopoeia <1143> (USP <85>))
- USP <87> Cytotoxicity test
- USP <88> Class VI systemic acute toxicity test, intradermal irritation test and intramuscular implantation test
- ISO 10993-4 In-vitro hemolysis test

- **Features and Strengths:**

- Low residuals
- Rigorous control of subvisible particles during production
- Pre-sterilization and 100% integrity test (including  $\beta$  bags)
- Reliable filling accuracy
- Lower upfront capital investment and cross-contamination risks

### Single-Use Filling Solution

BioLink offers overall single-use filling solutions to meet multiple filling volumes and use scenarios from R&D to production phases.

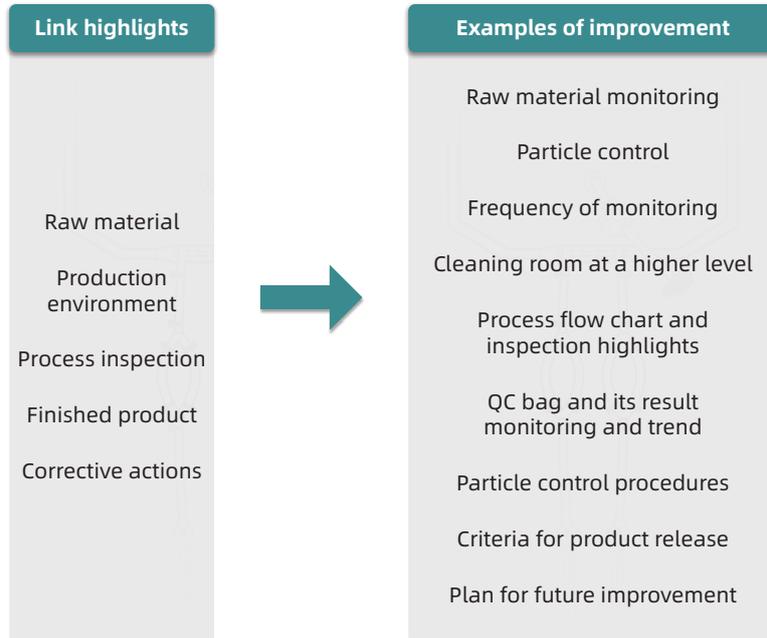




No.	Description
1	Wetting filter with water or buffer for pre-use integrity test.
2	Connected to integrity tester for pre-use integrity test.
3	Sterilizing-grade filter for filtration drug product.
4	Used for collecting gases in exhaust filter.
5	Used for collecting liquids and gases for pre-use integrity test.
6	Aseptic connector to ensure the sterile process of connection and injection delivery.
7	Buffer bags available in the volume from 250 mL to 20 L.
8	Filling pump tubes with different specifications offered by multiple suppliers to ensure the filling accuracy and effective matching with filling pump.
9	Possible design of multiple (up to 12) filling tubes depending on the use requirements. The tubes are marked with numbered zip ties for quick and convenient identification.
10	Multiple filling needles available in different forms.
11	Based on the specifications of the filling machine, the need for $\beta$ bags and their specifications can be selected accordingly.

## Quality Control

An overall approach is applied in quality control of filling bags for the single-use components. We are in a position to provide the phased risk assessment of raw material procurement and assembly manufacturing statement and its continuous monitoring, correction, control and improvement.



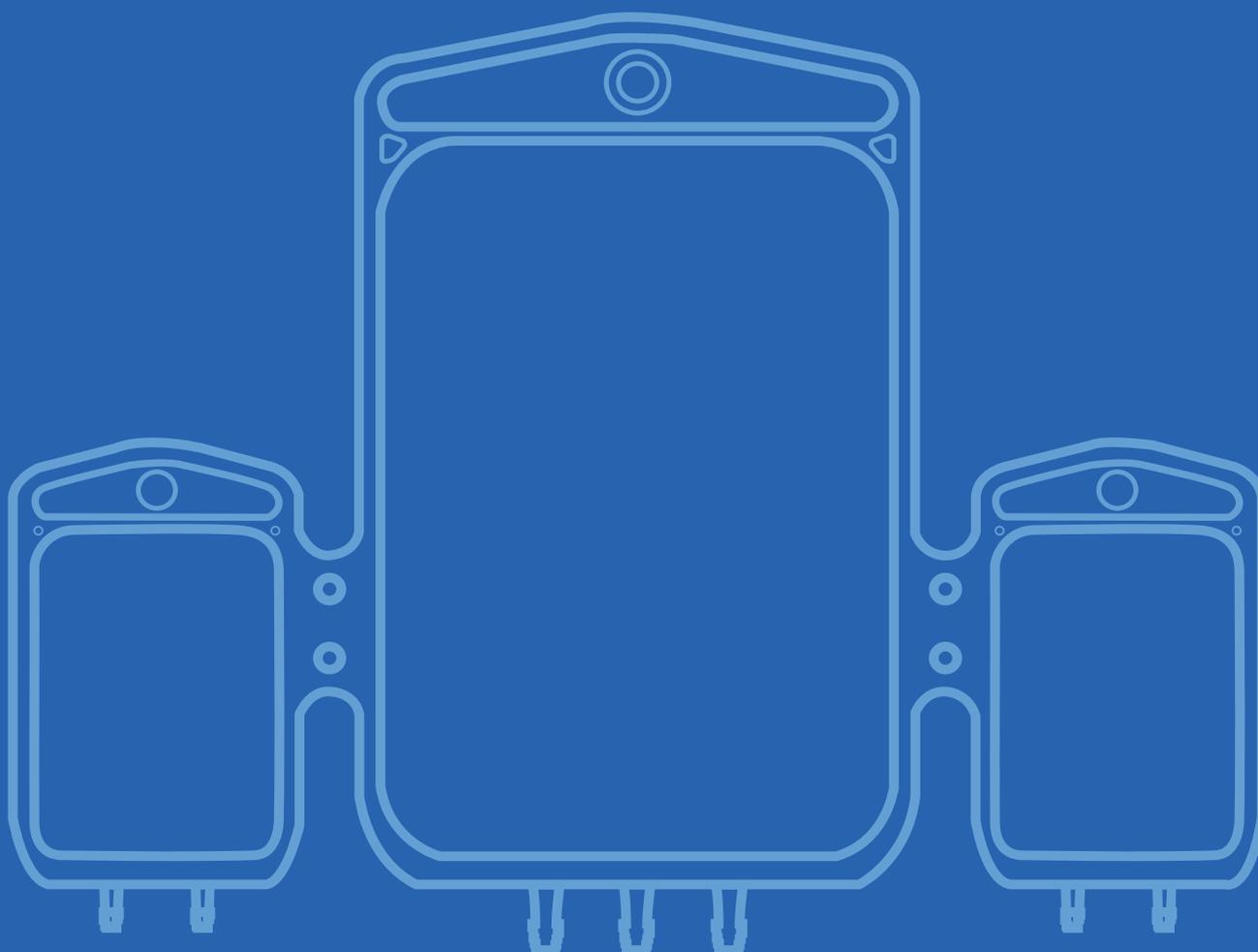
## Custom Services

According to the customer's effective use, BioLink provides the well-matched tailored services for each filling system including its consumables, hardware and verification. Please feel free to contact your local point of sales and the technical support center for any request.

## NovaLinX® Nuclease-free Single-Use Consumables

Deoxyribonuclease (DNase) and ribonuclease (RNase) are a class of hydrolase that can degrade DNA and RNA molecules by severing the phosphodiester bonds of polynucleotide chains. Nucleases are widely found in the environment, on the surface of materials and consumables. In the production process of biologics, there is also a large potential for residues and contamination of nucleases, including endogenous RNase contamination of biological samples, exogenous contamination of water, buffers, surface of consumables, as well as environmental microorganisms and human beings. Nucleases are often extremely reactive, and small amounts of DNase/RNase contamination can lead to significant DNA/RNA degradation, which can have a significant impact on experimental and manufacturing processes.

With the boom of the biopharmaceutical industry in recent years, more and more bioproducts are being used in disease prevention and treatment. Technologies such as mRNA, cellular and gene therapies, and vaccines based on viral vector modification are gradually gaining widespread use. While anticipating the remarkable effects of these new technologies, the market has also put forward higher requirements for the quality and safety of bioproducts. In order to ensure the safety of bioproducts and the control of impurity residues, numerous relevant regulations and policies have been launched. The "2020 edition of the Pharmacopoeia of the People's Republic of China" specifically mentions the need to control process-related impurities, including nuclease, in the R&D and production of these biologics in sections "General Instructions on Vaccine for Human Use", "General Instructions on Recombinant Monoclonal Antibody Products for Human Use", "General Instructions on Gene Therapy Products for Human Use", and "Technical Guidelines for the Research and Evaluation of Cellular Therapeutic Products".



NovalinX® single-use consumables mainly include storage bottles, satellite bags, and manifold bags. RNase/DNase testing is optional to prevent the potential introduction of RNase/DNase during drug production.

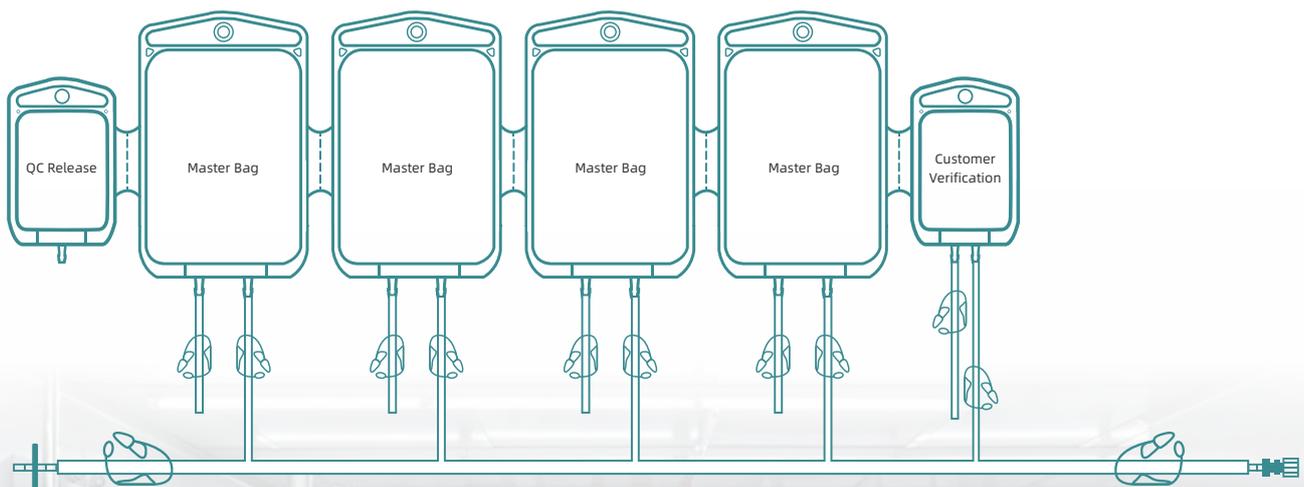
### Features of Satellite Bag

- Master bag + innovative design of double satellite bags (enabling 100% individual inspection of RNase/DNase-free bags)
- Identical material/production environment of the master bag and satellite bags, consistent gamma irradiation after packaging
- Irradiated satellite bag-1 (QC release): for Nuclease inspection prior to product release
- Irradiated satellite bag-2 (customer verification): for customer verification and review
- The extraction ratio of the satellite bag is at the worst case, which represents the Nuclease level of the master bag.
- Imported 9101 film.
- The production environment is usually an ISO Class 7 clean workshop for single-use bioprocessing consumables.
- Environmental monitoring bag (monthly monitoring of production environment Nuclease level.) - produced on the last day of the month on the production line (Worse Case)



## Features of Manifold Bag

- Master bag + innovative design of double satellite bags
- Pre-connection of tubing, with one end of the main tubing interface for liquid inlet and the other end with an air filter disc for exhaust and tubing emptying, simplifying operation and reducing contamination risks.
- Identical material/production environment of the master bag and satellite bags, consistent gamma irradiation after packaging
- Irradiated satellite bag-1 (QC release): for Nuclease inspection prior to product release
- Irradiated satellite bag-2 (customer verification): for customer verification and review
- The extraction ratio of satellite bag is at the worst case, which represents the Nuclease level of the master bag.
- Imported 9101 film and tubing fittings.
- Tubing connecting the bags can be disconnected by a sealer.
- The production environment is usually an ISO Class 7 clean workshop for single-use bioprocessing consumables.
- Environmental monitoring bag (monthly monitoring of production environment Nuclease level.) - produced on the last day of the month on the production line (Worse Case)



### Nuclease-free Single-Use Consumables

Single-use storage bottle	Batch inspection	
Single-use 2D satellite bag/ manifold bag	Individual/hybrid/batch inspection	
Single-use 3D storage bag	Individual/hybrid/batch inspection	
Single-use mixing bag	Individual/hybrid/batch inspection	DNase-free/ RNase-free/ Nuclease-free (DNase-free & RNase-free)
Single-use cell bag/mixing bag	Individual/hybrid/batch inspection	
Single-use bioreactor bag	Individual/hybrid/batch inspection	

## Ordering Information

DNase-free Cat. No.	RNase-free Cat. No.	Nuclease-free Cat. No.	Volume	Product name	Matching type	Package
BTA5ML001D	BTA5ML001R	BTA5ML001N	5 mL	NovaLinX® 5 mL single-use storage bottle		200
BTA20ML001D	BTA20ML001R	BTA20ML001N	20 mL	NovaLinX® 20 mL single-use storage bottle		200
BTA50ML001D	BTA50ML001R	BTA50ML001N	50 mL	NovaLinX® 50 mL single-use storage bottle		120
BTA125ML001D	BTA125ML001R	BTA125ML001N	125 mL	NovaLinX® 125 mL single-use storage bottle	Regular cap	60
BTA250ML001D	BTA250ML001R	BTA250ML001N	250 mL	NovaLinX® 250 mL single-use storage bottle		40
BTA500ML001D	BTA500ML001R	BTA500ML001N	500 mL	NovaLinX® 500 mL single-use storage bottle		20
BTA1L001D	BTA1L001R	BTA1L001N	1 L	NovaLinX® 1 L single-use storage bottle		25
BTA2L001D	BTA2L001R	BTA2L001N	2 L	NovaLinX® 2 L single-use storage bottle		16
BTA5ML002D	BTA5ML002R	BTA5ML002N	5 mL	NovaLinX® 5 mL single-use storage bottle		200
BTA20ML002D	BTA20ML002R	BTA20ML002N	20 mL	NovaLinX® 20 mL single-use storage bottle		200
BTA50ML002D	BTA50ML002R	BTA50ML002N	50 mL	NovaLinX® 50 mL single-use storage bottle		120
BTA125ML002D	BTA125ML002R	BTA125ML002N	125 mL	NovaLinX® 125 mL single-use storage bottle	2-port cap	60
BTA250ML002D	BTA250ML002R	BTA250ML002N	250 mL	NovaLinX® 250 mL single-use storage bottle		40
BTA500ML002D	BTA500ML002R	BTA500ML002N	500 mL	NovaLinX® 500 mL single-use storage bottle		20
BTA1L002D	BTA1L002R	BTA1L002N	1 L	NovaLinX® 1 L single-use storage bottle		25
BTA2L002D	BTA2L002R	BTA2L002N	2 L	NovaLinX® 2 L single-use storage bottle		16
BTA5ML003D	BTA5ML003R	BTA5ML003N	5 mL	NovaLinX® 5 mL single-use storage bottle		200
BTA20ML003D	BTA20ML003R	BTA20ML003N	20 mL	NovaLinX® 20 mL single-use storage bottle		200
BTA50ML003D	BTA50ML003R	BTA50ML003N	50 mL	NovaLinX® 50 mL single-use storage bottle		120
BTA125ML003D	BTA125ML003R	BTA125ML003N	125 mL	NovaLinX® 125 mL single-use storage bottle	3-port cap	60
BTA250ML003D	BTA250ML003R	BTA250ML003N	250 mL	NovaLinX® 250 mL single-use storage bottle		40
BTA500ML003D	BTA500ML003R	BTA500ML003N	500 mL	NovaLinX® 500 mL single-use storage bottle		20
BTA1L003D	BTA1L003R	BTA1L003N	1 L	NovaLinX® 1 L single-use storage bottle		25
BTA2L003D	BTA2L003R	BTA2L003N	2 L	NovaLinX® 2 L single-use storage bottle		16

## Ordering Information

DNase-free Cat. No.	RNase-free Cat. No.	Nuclease-free Cat. No.	Volume	Line
BD-X005-S001	BR-X005-S001	BN-X005-S001	5 mL	batch inspection, 5 mL satellite bag 20 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer 10 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer
BD-X010-S001	BR-X010-S001	BN-X010-S001	10 mL	10 mL satellite bag (only for 10mL storage bag) 50 mL satellite bag (only for 20mL storage bag) 20 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer 10 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer
BD-X020-S001	BR-X020-S001	BN-X020-S001	20 mL	10 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer 10 cm ID1/8"*OD1/4" platinum cured silicone tubing + needleless sampling
BD-X050-S001	BR-X050-S001	BN-X050-S001	50 mL	50mL satellite bag
BD-X100-S001	BR-X100-S001	BN-X100-S001	100 mL	20 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer 30 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer
BD-X250-S001	BR-X250-S001	BN-X250-S001	250 mL	30 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer 30 cm ID1/8"*OD1/4" platinum cured silicone tubing+ needleless sampling
BD-X500-S001	BR-X500-S001	BN-X500-S001	500 mL	
BD-0001-S002	BR-0001-S002	BN-0001-S002	1 L	50mL satellite bag 20 cm ID1/8"*OD1/4" C-Flex thermoplastic tubing + female Luer 30 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + plug
BD-0002-S002	BR-0002-S002	BN-0002-S002	2 L	30 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + plug 20 cm ID1/4"*OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0005-S002	BR-0005-S002	BN-0005-S002	5 L	
BD-0010-S002	BR-0010-S002	BN-0010-S002	10 L	50mL satellite bag 20 cm ID1/8"*OD1/4" C-Flex thermoplastic tubing + female Luer 30 cm ID3/8" * OD5/8" C-Flex thermoplastic tubing + plug
BD-0020-S002	BR-0020-S002	BN-0020-S002	20 L	30 cm ID3/8" * OD5/8" C-Flex thermoplastic tubing + plug 20 cm ID1/4"*OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0050-S002	BR-0050-S002	BN-0050-S002	50 L	

DNase-free Cat. No.	RNase-free Cat. No.	Nuclease-free Cat. No.	Volume	Line
BD-0001-S003	BR-0001-S003	BN-0001-S003	1 L	50 mL satellite bag 20 cm ID1/8" * OD1/4" platinum cured silicone tubing + female Luer
BD-0002-S003	BR-0002-S003	BN-0002-S003	2 L	30 cm ID1/4" * OD7/16" Platinum 50 platinum cured silicone tubing + AseptiQuik® G connector 30 cm ID1/4" * OD7/16" Platinum 50 platinum cured silicone tubing + AseptiQuik® G connector 20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0005-S003	BR-0005-S003	BN-0005-S003	5 L	
BD-0010-S003	BR-0010-S003	BN-0010-S003	10 L	50 mL satellite bag 20 cm ID1/8" * OD1/4" platinum cured silicone tubing + female Luer 30 cm ID3/8" * OD5/8" Platinum 50 platinum cured silicone tubing + AseptiQuik® G connector
BD-0020-S003	BR-0020-S003	BN-0020-S003	20 L	30 cm ID3/8" * OD5/8" Platinum 50 platinum cured silicone tubing + AseptiQuik® G connector 20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0050-S003	BR-0050-S003	BN-0050-S003	50 L	
BD-0001-S004	BR-0001-S004	BN-0001-S004	1 L	50 mL satellite bag 10 cm ID1/8" * OD1/4" platinum cured silicone tubing + 10 cm ID1/8" * OD1/4" C-Flex thermoplastic tubing + female Luer
BD-0002-S004	BR-0002-S004	BN-0002-S004	2 L	30 cm ID1/4" * OD7/16" Platinum 50 platinum cured silicone tubing + female MPC 30 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + male MPC 20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + plug
BD-0005-S004	BR-0005-S004	BN-0005-S004	5 L	
BD-0010-S004	BR-0010-S004	BN-0010-S004	10 L	50 mL satellite bag 10 cm ID1/8" * OD1/4" platinum cured silicone tubing + 10 cm ID1/8" * OD1/4" C-Flex thermoplastic tubing + female Luer
BD-0020-S004	BR-0020-S004	BN-0020-S004	20 L	30 cm ID3/8" * OD5/8" Platinum 50 platinum cured silicone tubing + female MPC 30 cm ID3/8" * OD5/8" C-Flex thermoplastic tubing + male MPC 20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + plug
BD-0050-S004	BR-0050-S004	BN-0050-S004	50 L	

DNase-free Cat. No.	RNase-free Cat. No.	Nuclease-free Cat. No.	Volume	Line
BD-0001-S005	BR-0001-S005	BN-0001-S005	1 L	50 mL satellite bag 10 cm ID1/8" * OD1/4" platinum cured silicone tubing + 10 cm ID1/8" * OD1/4" C-Flex thermoplastic tubing + female Luer
				30 cm ID1/4" * OD7/16" Platinum 50 platinum cured silicone tubing + TC25 quick connector 30 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + TC25 quick connector
BD-0002-S005	BR-0002-S005	BN-0002-S005	2 L	20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0005-S005	BR-0005-S005	BN-0005-S005	5 L	
BD-0010-S005	BR-0010-S005	BN-0010-S005	10 L	50 mL satellite bag 10 cm ID1/8" * OD1/4" platinum cured silicone tubing + 10 cm ID1/8" * OD1/4" C-Flex thermoplastic tubing + female Luer
				30 cm ID3/8" * OD5/8" Platinum 50 platinum cured silicone tubing + TC25 quick connector 30 cm ID3/8" * OD5/8" C-Flex thermoplastic tubing + TC25 quick connector
BD-0020-S005	BR-0020-S005	BN-0020-S005	20 L	20 cm ID1/4" * OD7/16" C-Flex thermoplastic tubing + needleless sampling
BD-0050-S005	BR-0050-S005	BN-0050-S005	50 L	

DNase-free Cat. No.	RNase-free Cat. No.	Nuclease-free Cat. No.	Volume	Line
BD-X050-S421	BR-X050-S421	BN-X050-S421	50 mL	
BD-X100-S421	BR-X100-S421	BN-X100-S421	100 mL	50 mL satellite bag*2 + master bag*4 ID1/8"*OD1/4" C-Flex thermoplastic tubing + 40 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer + air filter disc + plug*4
BD-X250-S421	BR-X250-S421	BN-X250-S421	250 mL	
BD-X500-S421	BR-X500-S421	BN-X500-S421	500 mL	
BD-0001-S422	BR-0001-S422	BN-0001-S422	1 L	50 mL satellite bag*2 + master bag*4 ID1/8"*OD1/4" C-Flex thermoplastic tubing + 40 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer
BD-0002-S422	BR-0002-S422	BN-0002-S422	2 L	ID1/4"*OD7/16" C-Flex thermoplastic tubing + female Luer + air filter disc + plug *4
BD-0005-S422	BR-0005-S422	BN-0005-S422	5 L	
BD-0010-S422	BR-0010-S422	BN-0010-S422	10 L	50mL satellite bag*2 + master bag*4 ID1/8"*OD1/4" C-Flex thermoplastic tubing + 40 cm ID1/8"*OD1/4" platinum cured silicone tubing + female Luer
BD-0020-S422	BR-0020-S422	BN-0020-S422	20 L	ID3/8"*OD5/8" C-Flex thermoplastic tubing + female Luer + air filter disc + plug*4
BD-0050-S422	BR-0050-S422	BN-0050-S422	50 L	

## HydroLinX® Hydration Products

HydroLinX® hydration products are bioprocessing water compliant with the ChP (2020 Edition) and USP requirements for water for injection, with quality inspection report provided.

Buffer solutions and process liquids are prepared by two steps: 1. Mix bioprocessing water of water for injection quality with standard-compliant chemicals (solid: solid-liquid mix, liquid: liquid-liquid mix) in a mixer to the desired concentration and pH. 2. Remove virus from the mixture by filtration.

Bioprocessing water, buffer solutions, and other process liquids are filled in ISO 14644 Class 7 compliant clean workshops with single-use irradiated storage bags and double packaging to ensure the sterile application in single-use bioprocess.

Different volumes from 100 mL to 1000 L are available, with products for RNase-free, DNase-free, and RNase-free & DNase-free versions provided.

Our inclined insert logistics box (match with products in 5 L-20 L 2D storage bags) and collapsible logistics box (match with products in 100 L-1000 L 3D storage bags) save space and we provide door-to-door recycling for collapsible logistics boxes to save customers' worries.

### Product Characteristics of Our Bioprocessing Water

- Consecutive tests and validations of water for injection at all points for 15 days
- Routine weekly testing
- Filling after sterilization and filtration
- Testing and release of the first and last samples
- Validity period validation
- Customized connection methods to support customer needs
- Free of animal-derived component
- US DMF filing
- Transport test



Bottles



2D Bags



3D Bags



Inclined Insert Logistics Box  
(stackable with open or closed lid)



Collapsible Logistics Box  
(empty boxes can be folded and stacked)

## Applications

BioLink™ HydroLinX® water for injection has established cooperation with many pharmaceutical companies in China and is widely applicable in upstream and downstream bioprocessing, including:

- Cleaning of equipment containers, piping (disposable, stainless steel), filters, etc.
- Preparation of buffer solutions and other process liquids
- Preparation of cleaning agents such as sterile disinfectants
- Preparation of culture media and other liquids
- Bio-Link packaged water for injection has established cooperation with many pharmaceutical companies in China

## Delivery Time

- Water for injection: 4 weeks (microbial limit test)
- Sterile water for injection: 6 weeks (sterility test)

## Product Specifications and Ordering Information

### Water for injection in bags

#### Comply with ChP 2020 requirements for water for injection

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® water for injection in bags	HB-WFI-0005-11	5	2
	HB-WFI-0010-11	10	2
	HB-WFI-0020-11	20	1
	HB-WFI-0100-11	100	1
	HB-WFI-0250-11	250	1
	HB-WFI-0500-11	500	1
	HB-WFI-1000-11	1000	1
Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags	HB-WFI-0005-1S	5	2
	HB-WFI-0010-1S	10	2
	HB-WFI-0020-1S	20	1
	HB-WFI-0100-1S	100	1
	HB-WFI-0250-1S	250	1
	HB-WFI-0500-1S	500	1
	HB-WFI-1000-1S	1000	1
Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags (RNase-free)	HB-WFI-0005-SR	5	2
	HB-WFI-0010-SR	10	2
	HB-WFI-0020-SR	20	1
	HB-WFI-0100-SR	100	1
	HB-WFI-0250-SR	250	1
	HB-WFI-0500-SR	500	1
	HB-WFI-1000-SR	1000	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags (DNase-free)	HB-WFI-0005-SD	5	2
	HB-WFI-0010-SD	10	2
	HB-WFI-0020-SD	20	1
	HB-WFI-0100-SD	100	1
	HB-WFI-0250-SD	250	1
	HB-WFI-0500-SD	500	1
	HB-WFI-1000-SD	1000	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags (RNase-free & DNase-free)	HB-WFI-0005-SX	5	2
	HB-WFI-0010-SX	10	2
	HB-WFI-0020-SX	20	1
	HB-WFI-0100-SX	100	1
	HB-WFI-0250-SX	250	1
	HB-WFI-0500-SX	500	1
	HB-WFI-1000-SX	1000	1

### Comply with USP requirements

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® water for injection in bags	HB-WFI-0005-P1	5	2
	HB-WFI-0010-P1	10	2
	HB-WFI-0020-P1	20	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags	HB-WFI-0005-PS	5	2
	HB-WFI-0010-PS	10	2
	HB-WFI-0020-PS	20	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags (RNase-free)	HB-WFI-0005-PR	5	2
	HB-WFI-0010-PR	10	2
	HB-WFI-0020-PR	20	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bags (DNase-free)	HB-WFI-0005-PD	5	2
	HB-WFI-0010-PD	10	2
	HB-WFI-0020-PD	20	1

Product Name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (RNase-free & DNase-free)	HB-WFI-0005-PX	5	2
	HB-WFI-0010-PX	10	2
	HB-WFI-0020-PX	20	1

## Water for injection in bottles



### PETG material

Product name	Cat. No.	Volume (L)	Package
HydroLinX® water for injection in bottles	HA-WFI-X050-P1	0.05	100
	HA-WFI-X100-P1	0.1	25
	HA-WFI-X500-P1	0.5	20
	HA-WFI-0001-P1	1	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles	HA-WFI-X050-PS	0.05	100
	HA-WFI-X100-PS	0.1	25
	HA-WFI-X500-PS	0.5	20
	HA-WFI-0001-PS	1	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (RNase-free)	HA-WFI-X050-PR	0.05	100
	HA-WFI-X100-PR	0.1	25
	HA-WFI-X500-PR	0.5	20
	HA-WFI-0001-PR	1	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (DNase-free)	HA-WFI-X050-PD	0.05	100
	HA-WFI-X100-PD	0.1	25
	HA-WFI-X500-PD	0.5	20
	HA-WFI-0001-PD	1	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (RNase-free & DNase-free)	HA-WFI-X050-PX	0.05	100
	HA-WFI-X100-PX	0.1	25
	HA-WFI-X500-PX	0.5	20
	HA-WFI-0001-PX	1	6

## PC material

Product name	Cat. No.	Volume (L)	Package
HydroLinX® water for injection in bottles	HA-WFI-X100-11	0.1	25
	HA-WFI-X500-11	0.5	20
	HA-WFI-0001-11	1	6
	HA-WFI-0002-11	2	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles	HA-WFI-X100-1S	0.1	25
	HA-WFI-X500-1S	0.5	20
	HA-WFI-0001-1S	1	6
	HA-WFI-0002-1S	2	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (RNase-free)	HA-WFI-X100-SR	0.1	25
	HA-WFI-X500-SR	0.5	20
	HA-WFI-0001-SR	1	6
	HA-WFI-0002-SR	2	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (DNase-free)	HA-WFI-X100-SD	0.1	25
	HA-WFI-X500-SD	0.5	20
	HA-WFI-0001-SD	1	6
	HA-WFI-0002-SD	2	6
Product name	Cat. No.	Volume (L)	Package
HydroLinX® sterile water for injection in bottles (RNase-free & DNase-free)	HA-WFI-X100-SX	0.1	25
	HA-WFI-X500-SX	0.5	20
	HA-WFI-0001-SX	1	6
	HA-WFI-0002-SX	2	6

## Buffer Solutions and Process Liquids

- Filling after sterilization and filtration
- Filling bags, chemicals, and testing items are customizable according to your needs
- Long-term supply agreement/VMI
- Can be used together with BioLink ChromaX® resins for optimization, providing one-stop total solution for chromatographic purification
- Complete validation tests (biocompatibility test, particulate matter test, bacterial endotoxin test, validity period validation, etc.)



## Product Specifications and Ordering Information

Cat. No.	Product name	Volume	Package
HB-ET20-0005-11	HydroLinX® 20% ethanol solution in bags	5 L	2
HB-ET20-0010-11	HydroLinX® 20% ethanol solution in bags	10 L	2
HB-ET20-0020-11	HydroLinX® 20% ethanol solution in bags	20 L	1
HB-ET20-0100-11	HydroLinX® 20% ethanol solution in bags	100 L	1
HB-ET20-0200-11	HydroLinX® 20% ethanol solution in bags	200 L	1
HB-SC1M-0005-11	HydroLinX® 1 M sodium chloride solution in bags	5 L	2
HB-SC1M-0010-11	HydroLinX® 1 M sodium chloride solution in bags	10 L	2
HB-SC1M-0020-11	HydroLinX® 1 M sodium chloride solution in bags	20 L	1
HB-SC1M-0100-11	HydroLinX® 1 M sodium chloride solution in bags	100 L	1
HB-SC1M-0200-11	HydroLinX® 1 M sodium chloride solution in bags	200 L	1
HB-SC2M-0005-11	HydroLinX® 2 M sodium chloride solution in bags	5 L	2
HB-SC2M-0010-11	HydroLinX® 2 M sodium chloride solution in bags	10 L	2
HB-SC2M-0020-11	HydroLinX® 2 M sodium chloride solution in bags	20 L	1
HB-SC2M-0100-11	HydroLinX® 2 M sodium chloride solution in bags	100 L	1
HB-SC2M-0200-11	HydroLinX® 2 M sodium chloride solution in bags	200 L	1
HA-TCD1-0001-11	HydroLinX® 10 mM sodium citrate solution in bottles	1 L	6
HA-TCD1-0002-11	HydroLinX® 10 mM sodium citrate solution in bottles	2 L	6
HA-TCD1-0001-1R	HydroLinX® 10 mM sodium citrate solution in bottles (RNase-free)	1 L	6
HA-TCD1-0002-1R	HydroLinX® 10 mM sodium citrate solution in bottles (RNase-free)	2 L	6
HA-CC5M-0001-11	HydroLinX® 5 M calcium chloride solution in bottles	1 L	6
HA-CC5M-0002-11	HydroLinX® 5 M calcium chloride solution in bottles	2 L	6
HA-CC5M-0001-1R	HydroLinX® 5 M calcium chloride solution in bottles (RNase-free)	1 L	6
HA-CC5M-0002-1R	HydroLinX® 5 M calcium chloride solution in bottles (RNase-free)	2 L	6
HA-TE10-0001-11	HydroLinX® 10× TE buffer solution in bottles, pH 7.5	1 L	6
HA-TE10-0002-11	HydroLinX® 10× TE buffer solution in bottles, pH 7.5	2 L	6
HA-TE10-0001-1R	HydroLinX® 10× TE buffer solution in bottles, pH 7.5 (RNase-free)	1 L	6
HA-TE10-0002-1R	HydroLinX® 10× TE buffer solution in bottles, pH 7.5 (RNase-free)	2 L	6

Cat. No.	Product name	Volume	Package
HA-TH1M-0001-11	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.3	1 L	6
HA-TH1M-0002-11	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.3	2 L	6
HB-TH1M-0005-11	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3	5 L	2
HB-TH1M-0010-11	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3	10 L	2
HB-TH1M-0020-11	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3	20 L	1
HB-TH1M-0100-11	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3	100 L	1
HB-TH1M-0200-11	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3	200 L	1
HA-TH1M-0001-1R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.3 (RNase-free)	1 L	6
HA-TH1M-0002-1R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.3 (RNase-free)	2 L	6
HB-TH1M-0005-1R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3 (RNase-free)	5 L	2
HB-TH1M-0010-1R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3 (RNase-free)	10 L	2
HB-TH1M-0020-1R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3 (RNase-free)	20 L	1
HB-TH1M-0100-1R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3 (RNase-free)	100 L	1
HB-TH1M-0200-1R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.3 (RNase-free)	200 L	1
HA-TH1M-0001-21	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 8.0	1 L	6
HA-TH1M-0002-21	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 8.0	2 L	6
HB-TH1M-0005-21	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0	5 L	2
HB-TH1M-0010-21	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0	10 L	2
HB-TH1M-0020-21	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0	20 L	1
HB-TH1M-0100-21	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0	100 L	1
HB-TH1M-0200-21	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0	200 L	1
HA-TH1M-0001-2R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 8.0 (RNase-free)	1 L	6
HA-TH1M-0002-2R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 8.0 (RNase-free)	2 L	6
HB-TH1M-0005-2R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0 (RNase-free)	5 L	2
HB-TH1M-0010-2R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0 (RNase-free)	10 L	2
HB-TH1M-0020-2R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0 (RNase-free)	20 L	1
HB-TH1M-0100-2R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0 (RNase-free)	100 L	1
HB-TH1M-0200-2R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 8.0 (RNase-free)	200 L	1

Cat. No.	Product name	Volume	Package
HA-TH1M-0001-31	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.5	1 L	6
HA-TH1M-0002-31	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.5	2 L	6
HB-TH1M-0005-31	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5	5 L	2
HB-TH1M-0010-31	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5	10 L	2
HB-TH1M-0020-31	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5	20 L	1
HB-TH1M-0100-31	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5	100 L	1
HB-TH1M-0200-31	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5	200 L	1
HA-TH1M-0001-3R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.5 (RNase-free)	1 L	6
HA-TH1M-0002-3R	HydroLinX® 1 M Tris-HCl buffer solution in bottles, pH 7.5 (RNase-free)	2 L	6
HB-TH1M-0005-3R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	5 L	2
HB-TH1M-0010-3R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	10 L	2
HB-TH1M-0020-3R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	20 L	1
HB-TH1M-0100-3R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	100 L	1
HB-TH1M-0200-3R	HydroLinX® 1 M Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	200 L	1

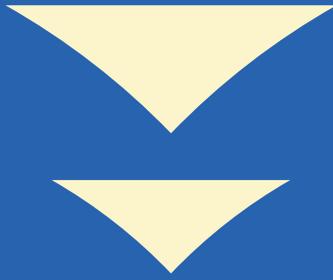
Cat. No.	Product name	Volume	Package
HA-TH1H-0001-11	HydroLinX® 100 mM Tris-HCl buffer solution in bottles, pH 7.5	1 L	6
HA-TH1H-0002-11	HydroLinX® 100 mM Tris-HCl buffer solution in bottles, pH 7.5	2 L	6
HB-TH1H-0005-11	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5	5 L	2
HB-TH1H-0010-11	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5	10 L	2
HB-TH1H-0020-11	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5	20 L	1
HB-TH1H-0100-11	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5	100 L	1
HB-TH1H-0200-11	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5	200 L	1
HA-TH1H-0001-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bottles, pH 7.5 (RNase-free)	1 L	6
HA-TH1H-0002-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bottles, pH 7.5 (RNase-free)	2 L	6
HB-TH1H-0005-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	5 L	2
HB-TH1H-0010-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	10 L	2
HB-TH1H-0020-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	20 L	1
HB-TH1H-0100-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	100 L	1
HB-TH1H-0200-1R	HydroLinX® 100 mM Tris-HCl buffer solution in bags, pH 7.5 (RNase-free)	200 L	1
HA-ED1T-0001-11	HydroLinX® 10 mM EDTA solution in bottles, pH 7.5	1 L	6
HA-ED1T-0002-11	HydroLinX® 10 mM EDTA solution in bottles, pH 7.5	2 L	6
HA-ED1T-0001-1R	HydroLinX® 10 mM EDTA solution in bottles, pH 7.5 (RNase-free)	1 L	6
HA-ED1T-0002-1R	HydroLinX® 10 mM EDTA solution in bottles, pH 7.5 (RNase-free)	2 L	6
HA-ED5H-0001-11	HydroLinX® 500 mM EDTA solution in bottles, pH 8.0	1 L	6
HA-ED5H-0002-11	HydroLinX® 500 mM EDTA solution in bottles, pH 8.0	2 L	6
HA-ED5H-0001-1R	HydroLinX® 500 mM EDTA solution in bottles, pH 8.0 (RNase-free)	1 L	6
HA-ED5H-0002-1R	HydroLinX® 500 mM EDTA solution in bottles, pH 8.0 (RNase-free)	2 L	6
HA-PC1M-0001-11	HydroLinX® 1 M potassium chloride solution in bottles	1 L	6
HA-PC1M-0002-11	HydroLinX® 1 M potassium chloride solution in bottles	2 L	6
HA-PC1M-0001-1R	HydroLinX® 1 M potassium chloride solution in bottles (RNase-free)	1 L	6
HA-PC1M-0002-1R	HydroLinX® 1 M potassium chloride solution in bottles (RNase-free)	2 L	6

Cat. No.	Product name	Volume	Package
HB-SH1M-0005-11	HydroLinX® 1 M sodium hydroxide solution in bags	5 L	2
HB-SH1M-0010-11	HydroLinX® 1 M sodium hydroxide solution in bags	10 L	2
HB-SH1M-0020-11	HydroLinX® 1 M sodium hydroxide solution in bags	20 L	1
HB-SH1M-0100-11	HydroLinX® 1 M sodium hydroxide solution in bags	100 L	1
HB-SH1M-0200-11	HydroLinX® 1 M sodium hydroxide solution in bags	200 L	1
HB-AS2M-0005-11	HydroLinX® 2 M ammonium sulfate solution in bags	5 L	2
HB-AS2M-0010-11	HydroLinX® 2 M ammonium sulfate solution in bags	10 L	2
HB-AS2M-0020-11	HydroLinX® 2 M ammonium sulfate solution in bags	20 L	1
HB-AS2M-0100-11	HydroLinX® 2 M ammonium sulfate solution in bags	100 L	1
HB-AS2M-0200-11	HydroLinX® 2 M ammonium sulfate solution in bags	200 L	1
HA-SA3M-0001-11	HydroLinX® 3 M sodium acetate solution in bottles	1 L	6
HA-SA3M-0002-11	HydroLinX® 3 M sodium acetate solution in bottles	2 L	6
HA-SA3M-0001-1R	HydroLinX® 3 M sodium acetate solution in bottles (RNase-free)	1 L	6
HA-SA3M-0002-1R	HydroLinX® 3 M sodium acetate solution in bottles (RNase-free)	2 L	6
HA-PA3M-0001-11	HydroLinX® 3 M potassium acetate solution in bottles	1 L	6
HA-PA3M-0002-11	HydroLinX® 3 M potassium acetate solution in bottles	2 L	6
HA-PA3M-0001-1R	HydroLinX® 3 M potassium acetate solution in bottles (RNase-free)	1 L	6
HA-PA3M-0002-1R	HydroLinX® 3 M potassium acetate solution in bottles (RNase-free)	2 L	6
HA-MC1M-0001-11	HydroLinX® 1 M magnesium chloride solution in bottles	1 L	6
HA-MC1M-0002-11	HydroLinX® 1 M magnesium chloride solution in bottles	2 L	6
HA-MC1M-0001-1R	HydroLinX® 1 M magnesium chloride solution in bottles (RNase-free)	1 L	6
HA-MC1M-0002-1R	HydroLinX® 1 M magnesium chloride solution in bottles (RNase-free)	2 L	6
HA-PBS1-0001-11	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.2	1 L	6
HA-PBS1-0002-11	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.2	2 L	6
HA-PBS1-0001-1R	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.2 (RNase-free)	1 L	6
HA-PBS1-0002-1R	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.2 (RNase-free)	2 L	6
HA-PBS1-0001-21	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.4	1 L	6
HA-PBS1-0002-21	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.4	2 L	6

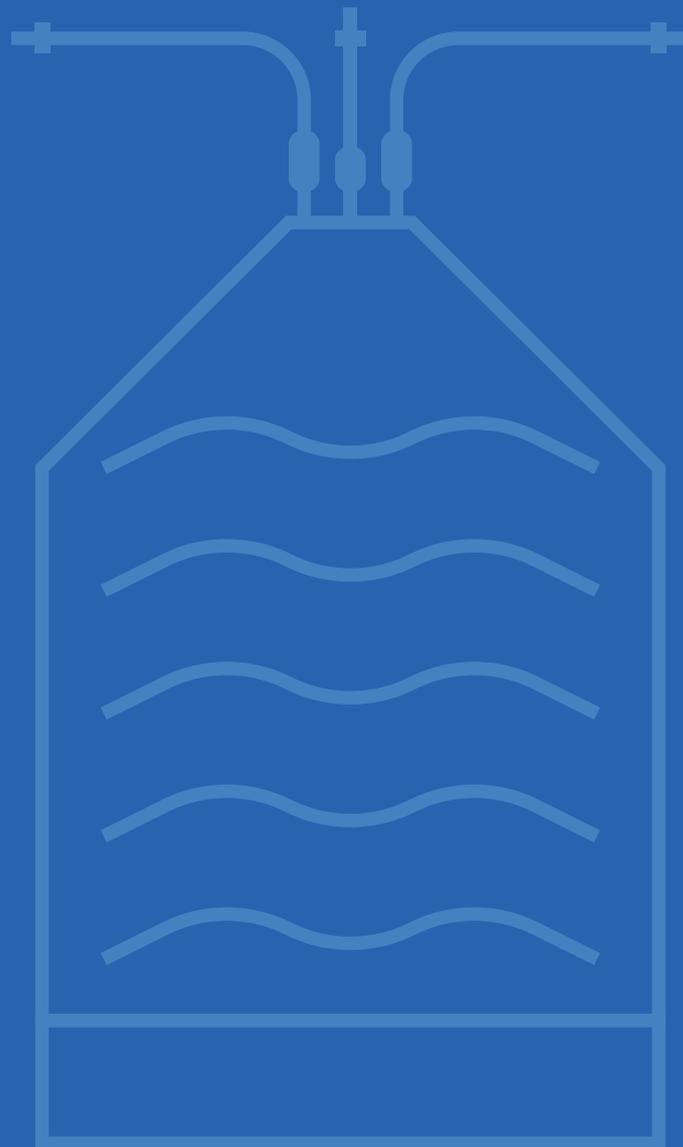
Cat. No.	Product name	Volume	Package
HA-PBS1-0001-2R	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.4 (RNase-free)	1 L	6
HA-PBS1-0002-2R	HydroLinX® 1× phosphate buffered saline solution in bottles, pH 7.4 (RNase-free)	2 L	6
HA-PBSX-0001-11	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.2	1 L	6
HA-PBSX-0002-11	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.2	2 L	6
HA-PBSX-0001-1R	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.2 (RNase-free)	1 L	6
HA-PBSX-0002-1R	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.2 (RNase-free)	2 L	6
HA-PBSX-0001-21	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.4	1 L	6
HA-PBSX-0002-21	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.4	2 L	6
HA-PBSX-0001-2R	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.4 (RNase-free)	1 L	6
HA-PBSX-0002-2R	HydroLinX® 10× phosphate buffered saline solution in bottles, pH 7.4 (RNase-free)	2 L	6
HA-SDSX-0001-11	HydroLinX® 10% sodium dodecyl sulfate solution in bottles	1 L	6
HA-SDSX-0002-11	HydroLinX® 10% sodium dodecyl sulfate solution in bottles	2 L	6
HA-PLSD-0001-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bottles, pH 7.5	1 L	6
HA-PLSD-0002-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bottles, pH 7.5	2 L	6
HB-PLSD-0005-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5	5 L	2
HB-PLSD-0010-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5	10 L	2
HB-PLSD-0020-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5	20 L	1
HB-PLSD-0100-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5 HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5	100 L	1
HB-PLSD-0200-11	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5 HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 2.1 M ammonium sulfate solution in bags, pH 7.5	200 L	1
HA-PLSD-0001-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bottles, pH 7.5	1 L	6
HA-PLSD-0002-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bottles, pH 7.5	2 L	6
HB-PLSD-0005-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bags, pH 7.5	5 L	2
HB-PLSD-0010-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bags, pH 7.5	10 L	2
HB-PLSD-0020-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bags, pH 7.5	20 L	1
HB-PLSD-0100-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bags, pH 7.5	100 L	1
HB-PLSD-0200-21	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.7 M ammonium sulfate & 0.3 M NaCl solution in bags, pH 7.5	200 L	1

Cat. No.	Product name	Volume	Package
HA-PLSD-0001-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bottles, pH 7.5	1 L	6
HA-PLSD-0002-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bottles, pH 7.5	2 L	6
HB-PLSD-0005-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bags, pH 7.5	5 L	2
HB-PLSD-0010-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bags, pH 7.5	10 L	2
HB-PLSD-0020-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bags, pH 7.5	20 L	1
HB-PLSD-0100-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bags, pH 7.5	100 L	1
HB-PLSD-0200-31	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 0.4 M NaCl solution in bags, pH 7.5	200 L	1
HA-PLSD-0001-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bottles, pH 7.5	1 L	6
HA-PLSD-0002-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bottles, pH 7.5	2 L	6
HB-PLSD-0005-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bags, pH 7.5	5 L	2
HB-PLSD-0010-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bags, pH 7.5	10 L	2
HB-PLSD-0020-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bags, pH 7.5	20 L	1
HB-PLSD-0100-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bags, pH 7.5	100 L	1
HB-PLSD-0200-41	HydroLinX® 100 mM Tris-HCl & 10 mM EDTA & 1.0 M NaCl solution in bags, pH 7.5	200 L	1
HA-PLSD-0001-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bottles	1 L	6
HA-PLSD-0002-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bottles	2 L	6
HB-PLSD-0005-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bags	5 L	2
HB-PLSD-0010-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bags	10 L	2
HB-PLSD-0020-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bags	20 L	1
HB-PLSD-0100-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bags	100 L	1
HB-PLSD-0200-51	HydroLinX® 0.2 M NaOH & 1.0% SDS solution in bags	200 L	1
HB-SC5M-0005-11	HydroLinX® 5 M sodium chloride solution in bags	5 L	2
HB-SC5M-0010-11	HydroLinX® 5 M sodium chloride solution in bags	10 L	2

Cat. No.	Product name	Volume	Package
HB-SC5M-0005-1R	HydroLinX® 5 M sodium chloride solution in bags (RNase-free)	5 L	2
HB-SC5M-0010-1R	HydroLinX® 5 M sodium chloride solution in bags (RNase-free)	10 L	2
HA-TE20-0001-11	HydroLinX® 20× TE buffer solution in bottles, pH 7.5	1 L	6
HA-TE20-0002-11	HydroLinX® 20× TE buffer solution in bottles, pH 7.5	2 L	6
HA-TE20-0001-1R	HydroLinX® 20× TE buffer solution in bottles, pH 7.5 (RNase-free)	1 L	6
HA-TE20-0002-1R	HydroLinX® 20× TE buffer solution in bottles, pH 7.5 (RNase-free)	2 L	6
HB-SH1M-0005-1R	HydroLinX® 1 M sodium hydroxide solution in bags (RNase-free)	5 L	2
HB-SH1M-0010-1R	HydroLinX® 1 M sodium hydroxide solution in bags (RNase-free)	10 L	2
HB-SH1M-0020-1R	HydroLinX® 1 M sodium hydroxide solution in bags (RNase-free)	20 L	1
HB-SH1M-0100-1R	HydroLinX® 1 M sodium hydroxide solution in bags (RNase-free)	100 L	1
HB-SH1M-0200-1R	HydroLinX® 1 M sodium hydroxide solution in bags (RNase-free)	200 L	1
HB-AS2M-0005-1R	HydroLinX® 2 M ammonium sulfate solution in bags (RNase-free)	5 L	2
HB-AS2M-0010-1R	HydroLinX® 2 M ammonium sulfate solution in bags (RNase-free)	10 L	2
HB-AS2M-0020-1R	HydroLinX® 2 M ammonium sulfate solution in bags (RNase-free)	20 L	1
HB-AS2M-0100-1R	HydroLinX® 2 M ammonium sulfate solution in bags (RNase-free)	100 L	1
HB-AS2M-0200-1R	HydroLinX® 2 M ammonium sulfate solution in bags (RNase-free)	200 L	1
HA-SDS1-0001-11	HydroLinX® 1% sodium dodecyl sulfate solution in bottles	1 L	6
HA-SDS1-0002-11	HydroLinX® 1% sodium dodecyl sulfate solution in bottles	2 L	6



# Fluid Management



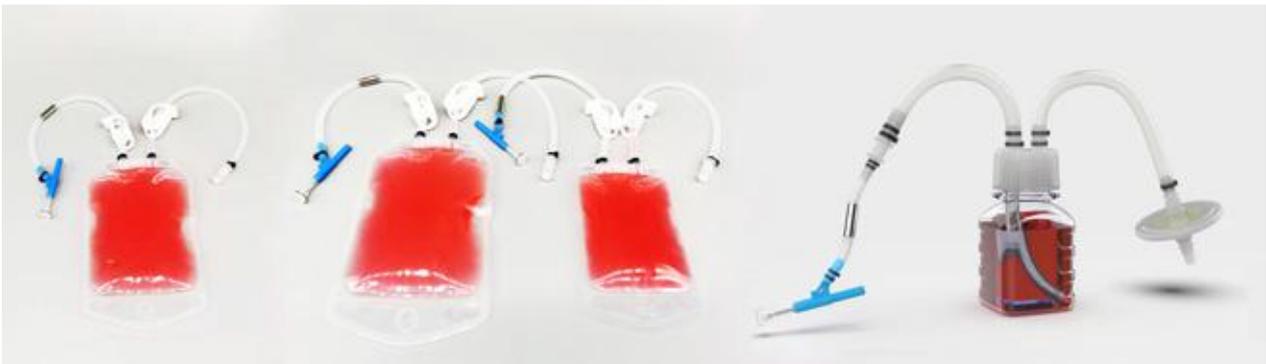


## Features

- Types of sampling container: bags and bottles
- Volume range: sampling bag 50 mL to 1 L, sampling bottle 20 mL to 250 mL
- 2 mm needle, covers a variety of liquid sampling needs in the entire bio-process
- The material of the liquid contact layer of both the sampling bags (ULDPE) and sampling bottles (PC) complies with biopharmaceutical requirements
- High transparency and excellent compatibility
- Overmolded needles and tubings for assurance of airtightness and sterility
- Adequate validation documents to ensure safety in use
- Operating temperature range: sampling bag – 80 °C to 60 °C, sampling bottle – 80 °C to 121 °C
- Maximum operating pressure: single-needle, single-bag products: 0.5 bar; single-needle, 5-bag products: 0.3 bar
- Customization available

## Validation Documents

- 100% integrity testing
- USP <665>, Extractable testing
- USP <88>, Class VI plastics
- USP <87>, Cytotoxicity
- USP <788>, Particulate Matter in Injections
- USP <85>, Bacterial Endotoxins
- ISO 11137, Sterility testing
- ISO 10993-4, Hemolysis testing



## Ordering Information

### Sampling bag

Cat. No.	Volume	Inlet tubing	Outlet tubing
BS-X050-S005	50 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with a metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with needleless sampling
BS-X100-S005	100 mL		
BS-X250-S005	250 mL		
BS-X500-S005	500 mL		
BS-0001-S005	1000 mL		
BS-X050-S006	2 × 50 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with a metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with needleless sampling
BS-X100-S006	2 × 100 mL		
BS-X250-S006	2 × 250 mL		
BS-X050-S007	3 × 50 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with a metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with needleless sampling
BS-X100-S007	3 × 100 mL		
BS-X250-S007	3 × 250 mL		
BS-X050-S008	5 × 50 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with a metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with needleless sampling
BS-X100-S008	5 × 100 mL		
BS-X250-S008	5 × 250 mL		

### Sampling bottle

Cat. No.	Volume	Inlet tubing	Outlet tubing
TSTG-ST037	20 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with vent filter
TSTG-ST038	50 mL		
TSTG-ST039	125 mL		
TSTG-ST040	250 mL		
TSTG-ST041	2 × 20 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with vent filter
TSTG-ST042	2 × 50 mL		
TSTG-ST043	2 × 125 mL		
TSTG-ST044	2 × 250 mL		
TSTG-ST045	3 × 20 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with vent filter
TSTG-ST046	3 × 50 mL		
TSTG-ST047	3 × 125 mL		
TSTG-ST048	3 × 250 mL		
TSTG-ST049	5 × 20 mL	2 mm needle, silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with metal ring for sterile disconnection	Silicone tubing, ID 3.2 mm*OD 6.4 mm, 25 cm in length, with vent filter
TSTG-ST050	5 × 50 mL		
TSTG-ST051	5 × 125 mL		
TSTG-ST052	5 × 250 mL		

### Sampling unit

Cat. No.	Volume	Inlet tubing	Outlet tubing
TSTG-ST053	NA	2 mm needle, silicone tubing, 3.2 mm (ID) × 6.4 mm (OD), 50 cm in length, with a metal ring for sterile disconnection and a male Luer and cap at the end	
TSTG-ST054	NA	2 mm needle, C-Flex tubing, 3.2 mm (ID) × 6.4 mm (OD), 50 cm in length, with a male Luer and cap at the end	
TSTG-ST055	NA	2 mm needle, PVC tubing, 3.2 mm (ID) × 6.4 mm (OD), 50 cm in length, with a male Luer and cap at the end	

## Sampling parts

Cat. No.	Description	Note
PLUG001GH	Silicone plug with handle	Non-sterile, needle-free
PLUG001SH	Silicone plug with handle	Sterile, needle-free
FPE7E00GH	Sampling needle component	Non-sterile, with needle
FPE7E00SH	Sampling needle component	Sterile, with needle

## Sampling Tray



Figure 29. Sampling tray

## Features

- Airtight sterile sampling
- Pre-assembled for immediate use
- Easy to use and ergonomic
- Can be integrated into autoclave-resistant process equipment for SIP

## Manual Sterile Cutter, Electric Sterile Cutter, Tubing Protection Sleeve



Figure 30. Manual sterile cutter

Figure 31. Electric sterile cutter

In the single-use fluid technology, the sterile disconnection of the tubing can be realized by multiple means. In which, BioHub® SC is a compact device that is intuitive, reliable, and easy to use and integrates the sterile disconnection and sealing functions all in one. In a matter of seconds, the single-use tubing can be firmly squeezed to be cut into two independent sterile fluid tubings. This disconnecting tool has manual or electric two types.

## Features

- **Secure a sterile fluid path**

In a non-sterile environment, use the sterile cutter to apply a simple "Press-Cut" act to the metal ring and the single-use tubing to complete sealing and disconnection respectively for the fluid tubing, so as to realize sterile disconnection of the tubing

- **Portable, convenient, and efficient**

The product is small and light, independent of utilities, easily movable to wherever you need it, with a disconnection time as short as 5 seconds, all of which enhance productivity

- **Wide application coverage and powerful flexibility**

There is no tubing material limit. Applicable for either TPE tubing or silicone tubing. Suitable for the sterile disconnection of tubings with diameter OD1/4"-OD3/4", also, for empty tubing, liquid-contained tubing, and pressurized tubing

- **Meticulous workmanship and after-sales guarantee**

Even coating, smooth surface, mechanical design, low fault rate, and when the cutter jaw reaches the upper limit times, its returnable maintenance is available

- **Rigorous quality control and validation**

Rigorous validation has been conducted on the single-use metal disconnection system to ensure the continuous stability of sterile disconnection and avoid unnecessary losses caused by cross-contamination of customer products

### Sampling tray

Parameters	Description
Sampling support	SS304
Surface roughness	Ra ≤ 0.5 a
Design temperature of the tray	-80 ° C-150 ° C
Design pressure of the tray	≤ 6 bar
Packaging form	All open ends are protected with plastic caps and the support is pre-assembled and packaged in a closed box.

### Manual cutter

Parameters	Description
Material	Aluminum alloy is adopted for the overall design, and the cutting jaw is made of the ZrN-coated steel produced from the chromium molybdenum vanadium gold powder metallurgy
Applicable tubing diameters	ID1/8"—OD1/4"
Weight	580 g

### Electric cutter

Parameters	Description
Material	Plastic integrated molding is adopted for the main body, and the disconnect jaw is made of the 3Cr13 stainless steel
Applicable tubing diameters	Cutting jaw for small diameter tubing 1/4" *7/16"
	Cutting jaw for large diameter tubing 3/8" *5/8" , 1/2" *3/4"
Voltage	12V(storage battery)
IP grade	IP43
Weight	3 kg

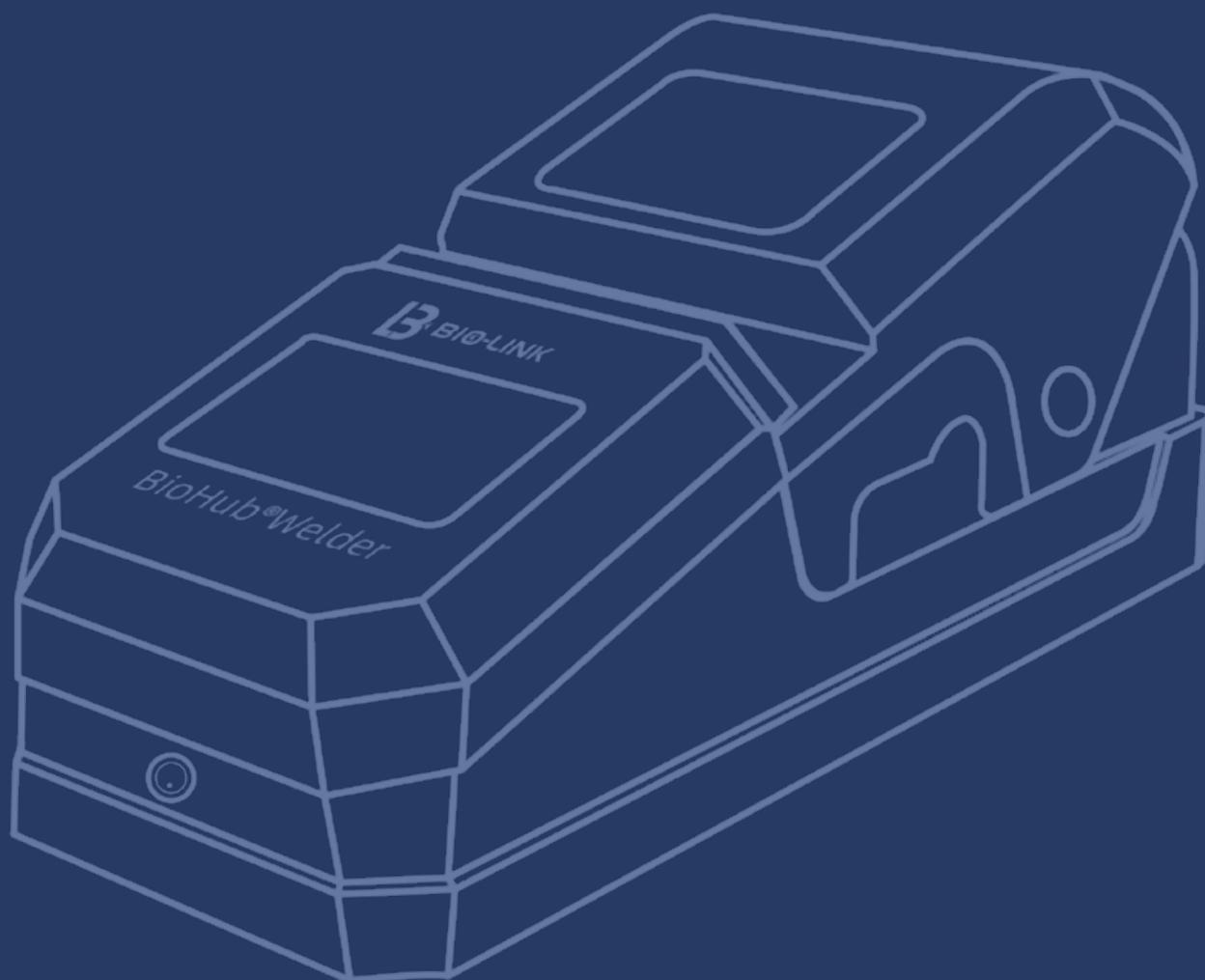
## Ordering Information

Product	Description	Package
SILCE0005MSP	5-pore sterile sampling tray	1/pk
BLKHCU01	Manual Sterile Cutter	1/pk
BLKECU02	Electric Sterile Cutter	1/pk
BLKACU01	Tubing protection sleeve	50pcs/pk fit OD1/4"
BLKACU02	Tubing protection sleeve	50pcs/pk fit OD7/16"
BLKACU03	Tubing protection sleeve	50pcs/pk fit OD1/2"
BLKACU04	Tubing protection sleeve	50pcs/pk fit OD5/8"
BLKACU05	Tubing protection sleeve	50pcs/pk fit OD3/4"

## Connection & Disconnection System

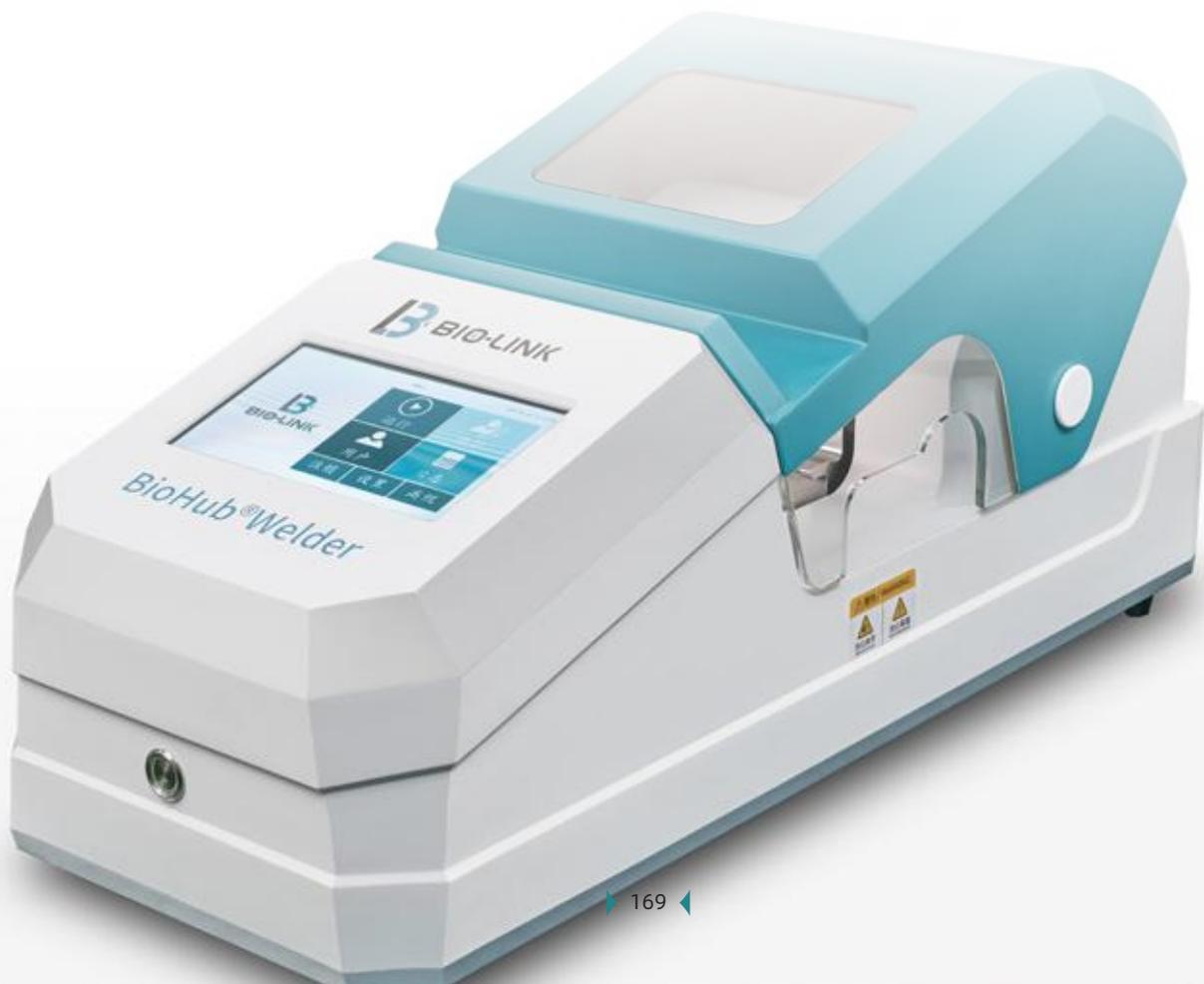
As single-use solutions are increasingly employed in bioprocessing production, reliable connection and disconnection are critical for the maintenance of closed systems and play a decisive role in process integrity and operation safety. Advanced bioprocessing production requires advanced tools. BioHub® Welder, BioHub® Sealer, and BioHub® Cutter provide a simple, flexible, and fast solution for sterile connection and disconnection in all biopharmaceutical manufacturing processes. Such products are applicable for single-use process bags, single-use tubing assemblies and units, and can achieve aseptic connection and disconnection of fluids even in non-sterile environments.

### BioHub® Welder



## Features

- **Automatic identification**  
Automatic tube welding and tube holder-based tubing identification
- **Easy operation**  
Step-by-step prompts are provided on the touch screen for accurate tube welding, facilitating the tracking and monitoring of each step
- **Wide applicable range**  
Compatible with OD 1/4"-1" tubings, applicable for tube welding with/without fluid
- **High flexibility**  
C-Flex® 374 and AdvantaFlex® tubings are available as standard configurations, and tubings of other brands are also supported
- **Fast and efficient**  
Automatic tube welding can be completed rapidly and reliably in less than 180 s, reducing the production time
- **Two-way welding**  
The unique patented rotation technology allows the production of two independent tubings by a single connection, increasing the practicability of the welder
- **Comfortable operation**  
The tubing can be operated at a length as short as 400 mm, facilitating the operation
- **Reliable data**  
The welder is assured of data integrity, with complete 3-tiered permissions, audit trail, data export, and other related functions
- **Stability and security**  
Welding parameters and tubings are subject to rigorous testing and validation for continuous, stable, and robust sterile connections

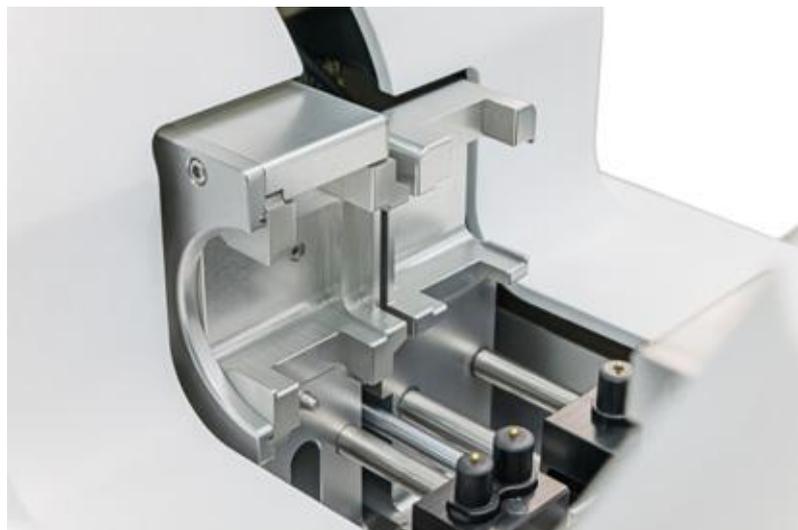
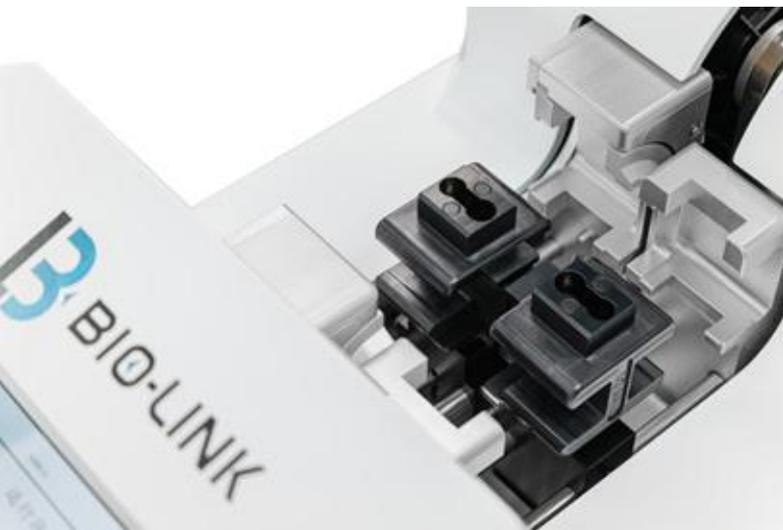
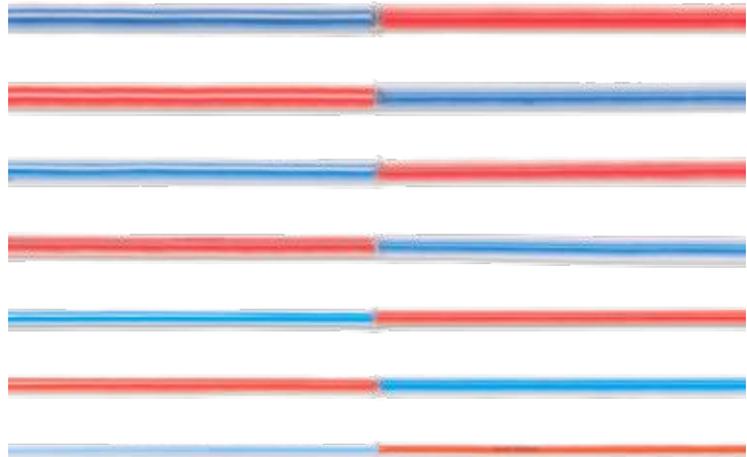
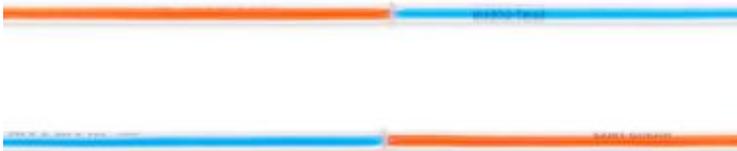


## Product Parameters

<b>Power supply</b>	220 V/50 Hz
<b>Power</b>	160 W
<b>Dimension</b>	590 mm × 251 mm × 297 mm
<b>Net weight</b>	19.4 kg
<b>Welding time</b>	≤ 3 min
<b>Heat-sealing conditions</b>	5-40 ° C, 50%-80% RH
<b>IP grade</b>	IP20

## Ordering Information

Name	Cat. No.
BioHub® Welder	BLKWELDER01
1/8 × 1/4 tube holder (2 pcs/BX)	BLKTBHL01
1/4 × 3/8 tube holder (2 pcs/BX)	BLKTBHL02
1/4 × 7/16 tube holder (2 pcs/BX)	BLKTBHL03
3/8 × 5/8 tube holder (2 pcs/BX)	BLKTBHL04
5/8 × 7/8 tube holder (2 pcs/BX)	BLKTBHL05
1/2 × 3/4 tube holder (2 pcs/BX)	BLKTBHL06
3/4 × 1 tube holder (2 pcs/BX)	BLKTBHL07
Single-use blade (50 pcs/PK)	SP-WELDER-01
IOQ validation service	IOQ-WELD-01



## BioHub® Sealer

### Features:

- **Wide applicable range:**

Applicable to tubing sizes from OD1/4" to OD1" , covering common-used tubing diameters in the biopharmaceutical industry.

- **High compatibility:**

Suitable for 2 major TPE tubings on the market: C-Flex® 374 and AdvantaFlex™, The sealing process for tubing from other brands is customizable.

- **Comfortable operation:**

The tubing can be operated at a length as short as 17 cm, facilitating the operation.

- **Fast and efficient:**

The sealing process can be completed within 3-4.5 min based on the tubing size and TPE material. Two cooling modes are available: high-speed and medium-speed.

- **Lightweight and portable:**

Lightweight design, with the entire machine weighing only 4kg.

- **Flexible:**

The device can be hung vertically or placed horizontally according to the actual use conditions; the screen can rotate and the display is excellent in either position.

- **Economical and practical:**

Sterile disconnection can be easily achieved with one device, no accessory needed when switching between different tubing diameters.

- **Easy-to-use:**

Operators are guided in tubing to be sealed and a step-by-step process displayed on the screen, and can easily track and monitor every step of the sealing process.

- **User-friendly HMI:**

5-inch touch screen, displaying sealing process in real-time.

- **Remarkable sealing effect:**

Sealing can be achieved for empty tubings, tubings with liquid, and tubings with liquid under pressurized conditions; the seal width is up to 20 mm, with a clear cutting guide line to ensure accurate disconnection.

- **Reliable data:**

Five-level permissions are available, with more detailed audit trail and function classification.

- **Highly stable:**

The device has built-in aging test program; each unit undergoes a 48-hour continuous sealing test before leaving the factory to ensure stable operation.



## Product Parameters

Power supply	220V/50Hz
Power	300W
Dimension	390*157*142mm
Net weight	4kg
Heat-sealing duration	3~4.5min
Cooling mode	Air cooling
Heat-sealing conditions	5~ 40° C, 50%~80%RH
IP grade	IP22

## Ordering Information

Name	Cat. No.
BioHub® Sealer	BLKSEALER02
IOQ validation service	IOQ-SEAL-01



## Wall-Crossing System

A stainless steel sleeve enables the transfer of single-channel or multi-channel liquid, providing a simple, safe, and reliable solution for transferring large amounts of liquid between different equipment in different rooms, which can avoid and reduce the risk of damage or leakage caused by the traditional physical liquid transfer.

### Features

- Supports transfer needs of large volumes across rooms
- No need for corresponding cleaning and validation
- Quick installation and removal
- Convenient, efficient, and at low risk
- Supports same-level transfer and cross-level transfer



### Ordering Information

Cat. No.	Sleeve size	Sleeve length	Same level / Cross level	Pressure reducing valve	Number of wall-crossing tubes	Diameter of wall-crossing tubing
BLK	3"—3	10cm—L10	Cross level — Y	Equipped — P	1	OD=1/4—A
	4"—4	15cm—L15	Same level — N	Not required — K	2	OD=7/16—B
	8"—8	20cm—L20			3	OD=5/8—C OD=3/4—D OD=1—E

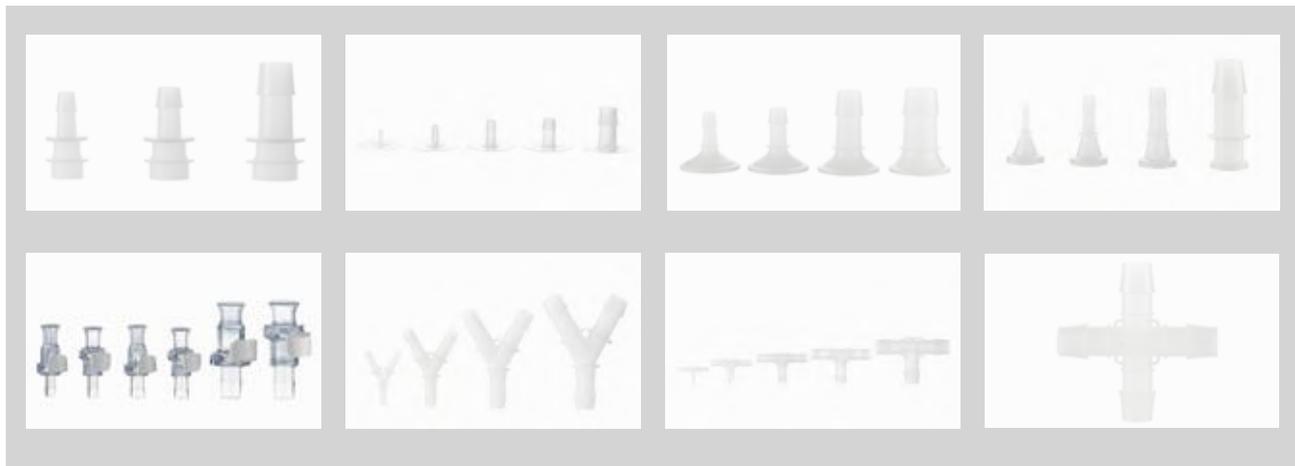
## Fluid Tubing Fittings

BioHub® Connectors are designed and manufactured for the biopharmaceutical industry. They are ideal for use in tubing connection and liquid transport applications. These high-quality and reliable connectors are developed in response to the fast changes in the drug development and pharmaceutical manufacturing markets. They offer quick and flexible connections for tubing assembly, filter assembly, vessel connection, liquid aliquoting, and many other applications. In addition to the optional materials of PVDF and PP, they are available with a variety of connectors, such as straight-thru connector, reducer connector, 3-way connector, cross connector, Y-connector, T-connector, end cap connector, clip connector, and clamp connector, and configurations suitable for the internal diameter of different hoses, which can meet different needs of customers at each step in a flexible and convenient manner.

### Features

- Made from PVDF and PP, a proven and reliable material widely used in the pharmaceutical industry
- Compliant with ISO 9001 and ISO 13485
- With molding capacity, available in various styles and sizes
- Tolerant to different use conditions: resistant to moist heat sterilization (121 °C, 30 min) and gamma irradiation
- Suitable for various biopharmaceutical applications due to excellent pressure resistance
- Complete validation documents

<p><b>01 Biocompatibility</b></p> <ul style="list-style-type: none"> <li>• USP &lt;87&gt;/USP &lt;88&gt;: Biological Reactivity Tests;</li> <li>• ISO10993-4 Hemolysis;</li> <li>• USP &lt;85&gt;: Bacterial Endotoxins (large infusion)</li> <li>• USP &lt;661&gt;: physicochemical properties (pharmaceutical packaging materials)</li> </ul>	<p><b>02 Physical properties</b></p> <ul style="list-style-type: none"> <li>• USP &lt;788&gt;: Particulate Matter in Injections</li> <li>• ASTM requirements (F392, D882, F88): mechanical performance;</li> <li>• O<sub>2</sub>/CO<sub>2</sub>/vapor transmission rate compliant with ASTM requirements;</li> <li>• Temperature stability at - 80 ° C to - 70 ° C</li> <li>• pH stability test (+ 0.2)</li> </ul>	<p><b>03 Chemical compatibility</b></p> <ul style="list-style-type: none"> <li>• Buffer, salt, lipid, organic solvent, amino acid, strong acid (2M HCl), strong alkali (3M NaOH), surfactant, disinfectant, etc.;</li> <li>• Appearance, integrity, mechanical properties, degradation and adsorption of contact solvents, etc.</li> </ul>	<p><b>04 Extractables</b></p> <ul style="list-style-type: none"> <li>• BPOG: extractable test</li> <li>• Strong acid (0.1M H<sub>3</sub>PO<sub>4</sub>), strong alkali (0.5N NaOH), organic solvent (50% CH<sub>2</sub>CH<sub>2</sub>OH), high-concentration salt (5M NaCl), surfactant (1% PS-80), water, and other solvents tested at different temperatures;</li> </ul>
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BioHub® connectors and fittings are designed and manufactured for the biopharmaceutical industry. They are ideal for use in tubing connection and liquid transport applications. These high-quality and reliable fittings and connectors are developed in response to the fast changes in the drug development and pharmaceutical manufacturing markets. They offer quick and flexible connections for tubing assembly, filter assembly, vessel connection, liquid dispensing, and many other applications. They are available with a variety of connectors, such as straight connector, reducer, tee, cross, Y-connector, T-connector, end cap, clamp, and clamp fittings, and configurations suitable for the internal diameter of different hoses, which can meet different needs of customers at each step in a flexible and convenient manner.

• Biosafety

Material	Liquid Contact	USP<88>	USP<87>	ISO 10993-4	TSB/BSE	USP<788>	USP<85>	Extractable
PP	√	√	√	√	√	√	√	√
PVDF	√	√	√	√	√	√	√	√
Silicone	√	√	√	√	√	√	√	√
PA	x	x	x	x	x	√	√	x

• Application Method

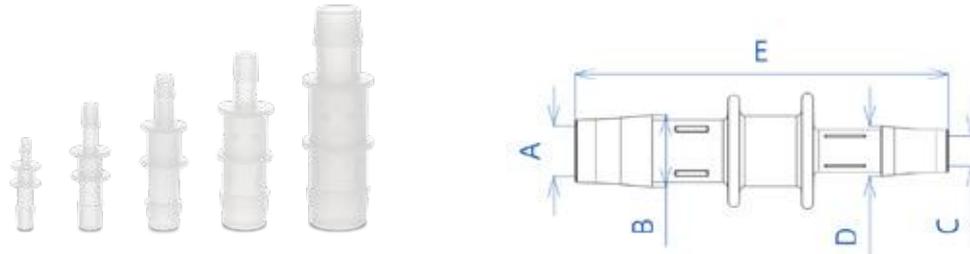
Material	Gamma Irradiation	High-temperature Sterilization	Transparency	Max. Service Temperature
PP	√	√	Semi-transparent	125°C
PVDF	√	√	Opaque	140°C
Silicone	√	√	Transparent	180°C
PA	√	√	Opaque	125°C



## Connectors

The BioHub® series offers a diverse range of accessories, including multi-barb connectors, equal straight connectors, straight reducers, equal T-connectors and Y-connectors, reducer T-connectors and Y-connectors, and equal cross connectors. They cover a wide size range, with barb specifications ranging from 1/16" to 1", aiming to meet various customer needs to the fullest extent possible.

### • Straight connector



Cat. No.	Product Name	Size (mm)					Material		Package
		A	B	C	D	E	PP	PVDF	
FPLEE00****#F	1/8"HB Equal Straight Connector	1.7	4.5	1.7	4.5	26.2	✓	✓	50 pcs/pack
FPLED00PP#F	3/32"HB Equal Straight Connector	1.8	3.6	1.8	3.6	22.1	✓		50 pcs/pack
FPLHH00****#F	1/4"HB Equal Straight Connector	4.4	7.6	4.4	7.6	50.0	✓	✓	50 pcs/pack
FPLKK00****#F	3/8"HB Equal Straight Connector	7.6	10.8	7.6	10.8	58.4	✓	✓	50 pcs/pack
FPLSS00****#F	1/2"HB Equal Straight Connector	11.0	14.4	11.0	14.4	67.3	✓	✓	50 pcs/pack
FPLXX00****#F	3/4"HB Equal Straight Connector	16.0	23.1	16.0	23.1	100.2	✓	✓	50 pcs/pack
FPLY00PP#F	1"HB Equal Straight Connector	20.3	27.9	20.3	27.9	101.6	✓		50 pcs/pack
FPLED00PP#F	1/8"HB-3/32"HB Straight Reducer	2.4	4.8	1.8	3.6	26.9	✓		50 pcs/pack
FPLHD00PP#F	1/4"HB-3/32"HB Straight Reducer	3.5	7.6	1.8	3.6	34.3	✓		50 pcs/pack
FPLHE00****#F	1/4"HB-1/8"HB Straight Reducer	4.4	7.6	1.7	4.5	41.0	✓	✓	50 pcs/pack
FPLHG00****#F	1/4"HB-3/16"HB Straight Reducer	4.4	7.6	3.2	6.3	43.6	✓	✓	50 pcs/pack
FPLRH00PP#F	5/16"HB-1/4"HB Straight Reducer	4.8	9.3	3.6	7.6	52.9	✓		50 pcs/pack
FPLKE00****#F	3/8"HB-1/8"HB Straight Reducer	7.6	10.8	1.7	4.5	45.3	✓	✓	50 pcs/pack
FPLKH00****#F	3/8"HB-1/4"HB Straight Reducer	7.6	10.8	4.4	7.6	56.1	✓	✓	50 pcs/pack
FPLSH00****#F	1/2"HB-1/4"HB Straight Reducer	11.0	14.4	4.4	7.6	62.3	✓	✓	50 pcs/pack
FPLSK00****#F	1/2"HB-3/8"HB Straight Reducer	11.0	14.4	7.6	10.8	64.9	✓	✓	50 pcs/pack
FPLXK00PP#F	3/4"HB-3/8"HB Straight Reducer	14.4	21.7	6.5	10.9	76.7	✓		50 pcs/pack
FPLXS00****#F	3/4"HB-1/2"HB Straight Reducer	16.0	21.7	11.0	14.4	79.5	✓	✓	50 pcs/pack
FPLYS00PP#F	1"HB-1/2"HB Straight Reducer	19.9	27.9	9.3	14.5	91.4	✓		50 pcs/pack
FPLYX00PP#F	1"HB-3/4"HB Straight Reducer	19.9	27.9	12.2	18.1	94.0	✓		50 pcs/pack

#### Note:

For non-sterile products, use G to replace # in the catalog number; for sterile products, use S to replace # in the catalog number; For PP material, use PP to replace \*\*\*\* in the catalog number; for PVDF material, use PVDF to replace \*\*\*\* in the catalog number.

• T-connector

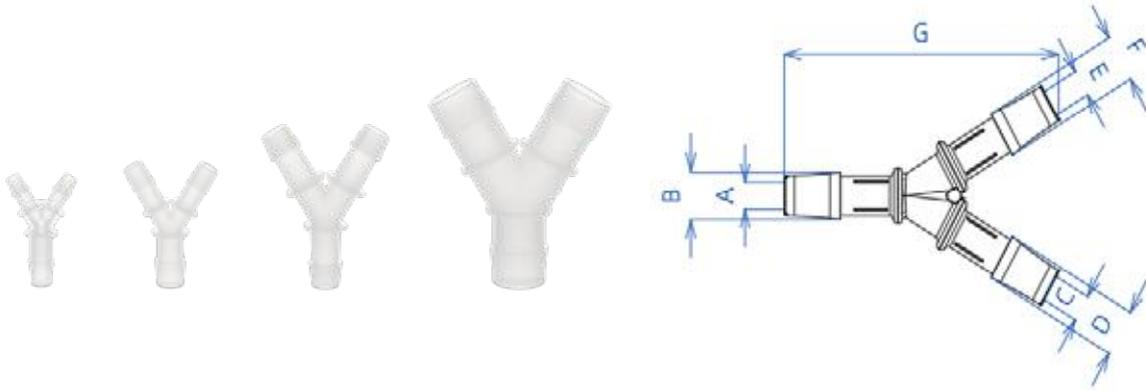


Cat. No.	Product Name	Size (mm)							Material		Package
		A	B	C	D	E	F	G	PP	PVDF	
FPTDDDOPP#F	3/32"HB Equal T-connector	1.8	3.6	1.8	3.6	1.8	3.6	22.1	✓		50 pcs/pack
FPTEEE0****#F	1/8"HB Equal T-connector	1.7	4.5	1.7	4.5	1.7	4.5	28.6	✓	✓	50 pcs/pack
FPTHHO****#F	1/4"HB Equal T-connector	4.4	7.6	4.4	7.6	4.4	7.6	49.6	✓	✓	50 pcs/pack
FPTKKK0****#F	3/8"HB Equal T-connector	7.6	10.8	7.6	10.8	7.6	10.8	54.5	✓	✓	50 pcs/pack
FPTSSS0****#F	1/2"HB Equal T-connector	11.0	14.4	11.0	14.4	11.0	14.4	67.0	✓	✓	50 pcs/pack
FPTXX0****#F	3/4"HB Equal T-connector	16.0	23.1	16.0	23.1	16.0	23.1	100.2	✓	✓	50 pcs/pack
FPTYYYOPP#F	1"HB Equal T-connector	20.3	27.9	20.3	27.9	20.3	27.9	101.6	✓		50 pcs/pack
FPTHHEOPP#F	1/4"HB-1/8"HB Reducer T-connector	2.4	4.8	4.0	7.6	4.0	7.6	50.3	✓		50 pcs/pack
FPTKKNOPP#F	3/8"HB-5/32"HB Reducer T-connector	2.4	5.3	6.4	10.9	6.4	10.9	58.5	✓		50 pcs/pack
FPTKKH0****#F	3/8"HB-1/4"HB Reducer T-connector	4.4	7.6	7.6	10.8	7.6	10.8	58.5	✓	✓	50 pcs/pack
FPTKKS0****#F	3/8"HB-1/2"HB Reducer T-connector	11	14.4	7.6	10.8	7.6	10.8	65.0	✓	✓	50 pcs/pack
FPTSSHOPP#F	1/2"HB-1/4"HB Reducer T-connector	3.6	7.6	9.1	14.5	9.1	14.5	67.1	✓		50 pcs/pack
FPTSSK0****#F	1/2"HB-3/8"HB Reducer T-connector	7.6	10.8	11	14.4	11	14.4	67.1	✓	✓	50 pcs/pack
FPTXSOPP#F	3/4"HB-1/2"HB Reducer T-connector	9.2	14.5	13.0	21.7	13.0	21.7	84.3	✓		50 pcs/pack
FPTYYSOPP#F	1"HB-1/2"HB Reducer T-connector	9.2	14.5	20.2	27.9	20.2	27.9	101.7	✓		50 pcs/pack
FPTYX0PP#F	1"HB-3/4"HB Reducer T-connector	21.7	13.0	20.2	27.9	20.2	27.9	101.7	✓		50 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number; for sterile products, use S to replace # in the catalog number; For PP material, use PP to replace \*\*\*\* in the catalog number; for PVDF material, use PVDF to replace \*\*\*\* in the catalog number.

- Y-connector

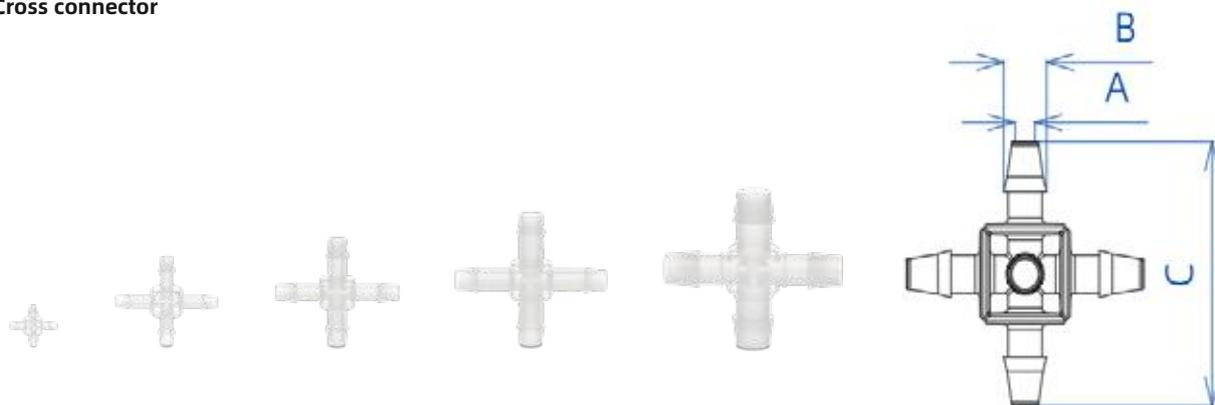


Cat. No.	Product Name	Size (mm)							Material		Package
		A	B	C	D	E	F	G	PP	PVDF	
FPYBBB0PP#F	1/16"HB Equal Y-connector	1.0	2.3	1.0	2.3	1.0	2.3	12.7	√		50 pcs/pack
FPYEEE0****#F	1/8"HB Equal Y-connector	1.7	4.1	1.7	4.1	1.7	4.1	23.3	√	√	50 pcs/pack
FPYGGG0****#F	3/16"HB Equal Y-connector	3.0	6.2	3.0	6.2	3.0	6.2	32.4	√	√	50 pcs/pack
FPYHHH0****#F	1/4"HB Equal Y-connector	4.3	7.6	4.3	7.6	4.3	7.6	49.1	√	√	50 pcs/pack
FPYKKK0****#F	3/8"HB Equal Y-connector	7.5	10.8	7.5	10.8	7.5	10.8	59.7	√	√	50 pcs/pack
FPYSSS0****#F	1/2"HB Equal Y-connector	10.9	14.4	10.9	14.4	10.9	14.4	62.0	√	√	50 pcs/pack
FPYXX0PP#F	3/4"HB Equal Y-connector	15.0	21.7	15.0	21.7	15.0	21.7	83.9	√		50 pcs/pack
FPYYY0PP#F	1"HB Equal Y-connector	20.8	27.9	20.8	27.9	20.8	27.9	100.6	√		50 pcs/pack
FPYHEE0PP#F	1/8"HB-1/4"HB Reducer Y-connector	5.0	9.0	2.2	4.8	2.2	4.8	36.4	√		50 pcs/pack
FPYKHH0****#F	1/4"HB-3/8"HB Reducer Y-connector	7.5	12.4	5.0	9.0	5.0	9.0	54.5	√	√	50 pcs/pack
FPYSKK0****#F	3/8"HB-1/2"HB Reducer Y-connector	10.6	15.6	7.6	12.4	7.6	12.4	65.4	√	√	50 pcs/pack
FPYYXX0PP#F	1"HB-3/4"HB Reducer Y-connector	20.2	27.9	15.4	21.7	15.4	21.7	89.3	√		50 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number; for sterile products, use S to replace # in the catalog number;  
 For PP material, use PP to replace \*\*\*\* in the catalog number; for PVDF material, use PVDF to replace \*\*\*\* in the catalog number.

• Cross connector



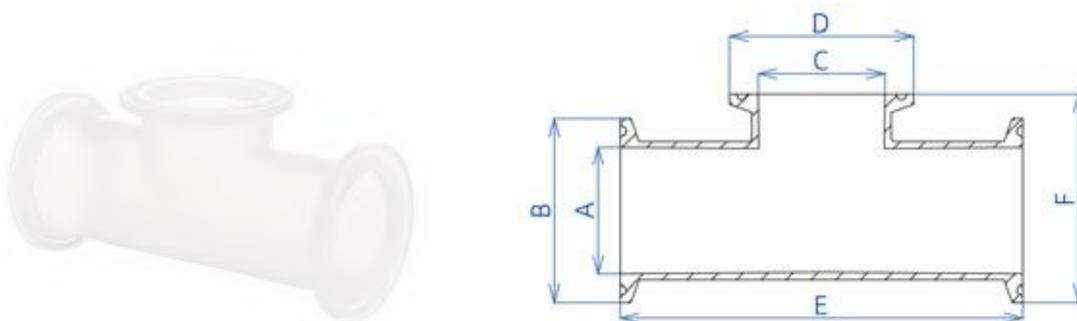
Cat. No.	Product Name	Size (mm)			Material		Package
		A	B	C	PP	PVDF	
FPXEEEEPP#F	1/8"HB Equal Cross Connector	2.2	4.8	26.6	√		50 pcs/pack
FPXHHHPP#F	1/4"HB Equal Cross Connector	5.0	9	56.8	√		50 pcs/pack
FPXKKKPP#F	3/8"HB Equal Cross Connector	7.2	12.4	69	√		50 pcs/pack
FPXSSSP#F	1/2"HB Equal Cross Connector	10.3	15.6	84.0	√		50 pcs/pack
FPXXXX**#F	3/4"HB Equal Cross Connector	16.0	23	100.2	√	√	50 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number; for sterile products, use S to replace # in the catalog number; For PP material, use PP to replace \*\* in the catalog number; for PVDF material, use PVDF to replace \*\* in the catalog number.

• Instrument tee

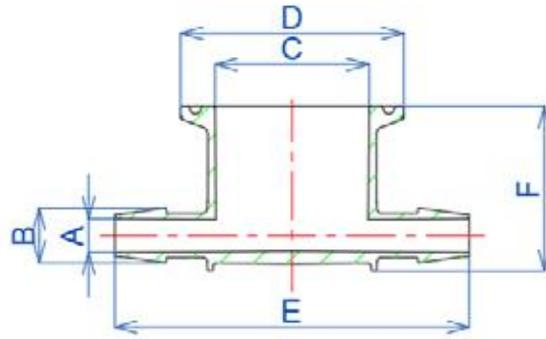
To meet customers' demands for real-time pressure monitoring during production, BioLink has also introduced pressure gauge tee connectors and diaphragm gaskets. These can be used with various pressure gauges to achieve real-time monitoring.



Cat. No.	Product Name	Size (mm)						Material	Package
		A	B	C	D	E	F		
FPTCC0PP#X	TC25 Instrument Tee	15.7	25	15.7	25	80	40.5	PP	10 pcs/pack
FPTCCT0PP#X	TC50-TC25 Instrument Tee	15.7	25	34.8	50.5	80	41.7	PP	10 pcs/pack
FPTTT0PP#5	TC50 Instrument Tee	34.8	50.5	34.8	50.5	110	57.2	PP	5 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number; For sterile products, use S to replace # in the catalog number.

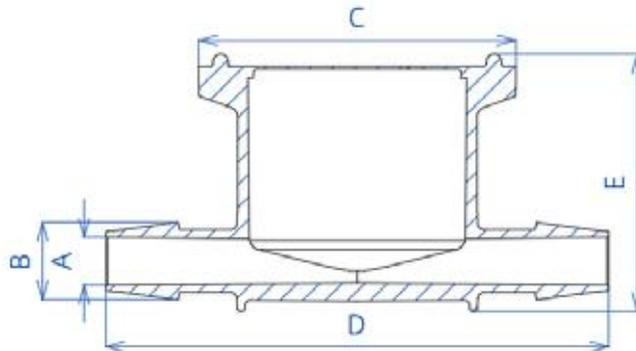


Cat. No.	Product Name	Size (mm)						Material	Package
		A	B	C	D	E	F		
FPTKKT0PP#X	TC50-3/8"HB Instrument Tee	7.6	12.4	34.8	50.5	80	37.2	PP	10 pcs/pack
FPGTSS0PP#X	TC50-1/2"HB Instrument Tee	11	15.6	34.8	50.5	81	42.3	PP	10 pcs/pack
FPTYT0PP#X	TC50-1"HB Instrument Tee	22	28.6	34.8	50.5	120	58	PP	10 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.

- **Integrated Instrument Tee**



Cat. No.	Product Name	Size (mm)					Material	Package
		A	B	C	D	E		
FPGTKKDS#X	TC25 Instrument Tee	7.6	12.4	50.5	41	80	PP+Silicone	10 pcs/pack
FPGTSSDS#X	TC50-TC25 Instrument Tee	11	15.6	50.5	46.1	81	PP+Silicone	10 pcs/pack
FPGTYYDS#X	TC50 Instrument Tee	22	28.6	50.5	61.8	120	PP+Silicone	10 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.

## Sanitary Clamp Fittings

The four-piece set of clamp fittings, clamps, gaskets, and blind flanges are widely used in upstream and downstream processes, enabling customers to achieve quick and efficient connections. BioLink conducts rigorous physical functional testing, including sealing tests, pressure resistance tests ( $\geq 0.6\text{MPa}$ ), torque tests, burst tests, highpressure steam sterilization tests, flow pressure drop tests, and tubing connection strength tests, to fully confirm that product performance meets various application conditions.

- Tri-clamp fitting



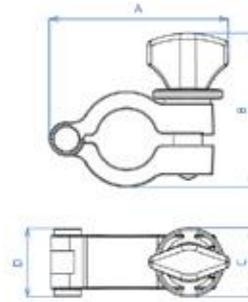
Cat. No.	Product Name	Size (mm)				Material		Package
		A	B	C	D	PP	PVDF	
FPLCE00****#X	TC25-1/8"HB Adapter	2.2	4.7	34.0	25.0	√	√	10 pcs/pack
FPLCH00****#X	TC25-1/4"HB Adapter	4.4	7.6	40.5	25.0	√	√	10 pcs/pack
FPLCK00****#X	TC25-3/8"HB Adapter	7.6	10.8	45.5	25.0	√	√	10 pcs/pack
FPLCS00****#X	TC25-1/2"HB Adapter	11.0	14.1	48.5	25.0	√	√	10 pcs/pack
FPLCX00****#X	TC25-3/4"HB Adapter	15.0	21.7	63.1	25.0	√	√	10 pcs/pack
FPLTH00****#X	TC50-1/4"HB Adapter	4.6	7.6	40.5	50.5	√	√	10 pcs/pack
FPLTK00****#X	TC50-3/8"HB Adapter	7.6	10.8	45.5	50.5	√	√	10 pcs/pack
FPLTS00****#X	TC50-1/2"HB Adapter	11.0	14.4	48.5	50.5	√	√	10 pcs/pack
FPLTX00****#X	TC50-3/4"HB Adapter	16.4	21.7	63.1	50.5	√	√	10 pcs/pack
FPLTY00****#X	TC50-1"HB Adapter	22.8	28.0	64.5	50.5	√	√	10 pcs/pack
FPLTC00PP#X	TC25-TC50 Adapter	25.0	15.8	50.0	50.5	√		10 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number; for sterile products, use S to replace # in the catalog number; For PP material, use PP to replace \*\*\*\* in the catalog number; for PVDF material, use PVDF to replace \*\*\*\* in the catalog number.

## Others

### • Clamp

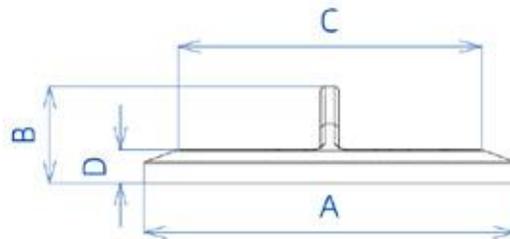


Cat. No.	Product Name	Size (mm)				Material	Package
		A	B	C	D		
XTCCNC#X	TC25 Quick Clamp	62.0	53.5	24.1	23.9	PA	10 pcs/pack
XTCCNT#X	TC50 Quick Clamp	105.2	89.5	26.2	18.6	PA	10 pcs/pack
XTCCN2#X	2" Quick Clamp	123.8	94.9	26.2	23.4	PA	10 pcs/pack
XTCCN3#X	3" Quick Clamp	147.1	109.7	26.2	23.4	PA	10 pcs/pack
XTCCN4#X	4" Quick Clamp	178.5	122.9	26.2	23.4	PA	10 pcs/pack
XTCCN6#X	6" Quick Clamp	246.4	151.0	26.2	26.2	PA	10 pcs/pack
XTCCN8#X	8" Quick Clamp	302.4	176.2	26.2	26.2	PA	10 pcs/pack

#### Note:

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.

### • End cap



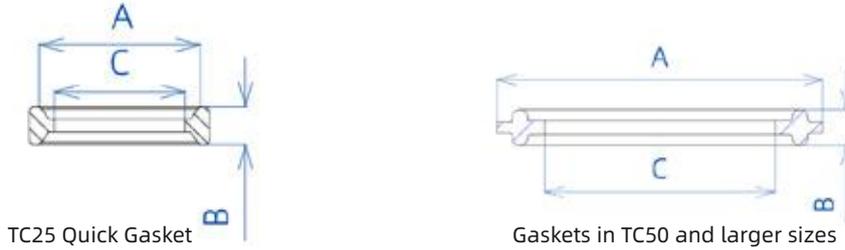
Cat. No.	Product Name	Size (mm)				Material	Package
		A	B	C	D		
FPCC000PP#X	TC25 Quick End Cap	25.0	12.8	19.8	4.6	PP	10 pcs/pack
FPCT000PP#X	TC50 Quick End Cap	50.5	13.1	41.2	4.5	PP	10 pcs/pack
FPC2000PP#X	2" Quick End Cap	63.9	13.0	56.0	4.5	PP	10 pcs/pack
FPC3000PP#X	3" Quick End Cap	91.0	18.0	73.8	6.0	PP	10 pcs/pack
FPC4000PP#X	4" Quick End Cap	119.0	24.4	103.1	5.8	PP	10 pcs/pack
FPC6000PP#X	6" Quick End Cap	166.8	17.6	154.8	8.0	PP	10 pcs/pack
FPC8000PP#X	8" Quick End Cap	218.0	24.4	193.6	7.9	PP	10 pcs/pack

#### Note:

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.



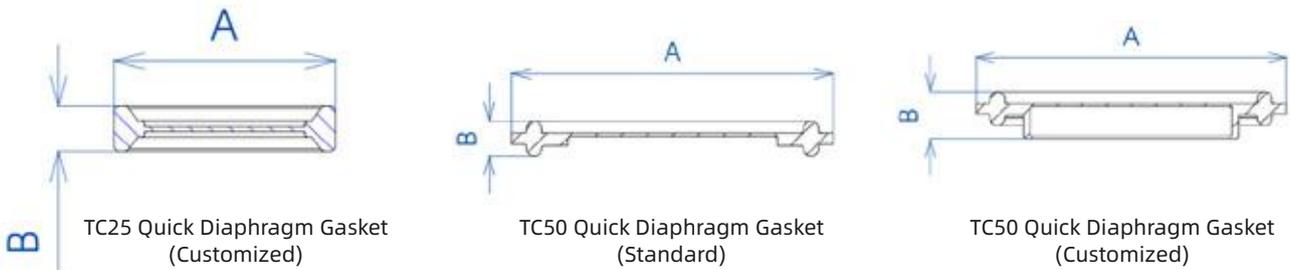
• Quick gasket



Cat. No.	Product Name	Size (mm)			Material	Package
		A	B	C		
XTCGSC#X	TC25 Quick Gasket	22.0	4.6	16.0	Silicone	10 pcs/pack
XTCGST#X	TC50 Quick Gasket	50.5	5.5	35.8	Silicone	10 pcs/pack
XTCGS2#X	2" Quick Gasket	63.9	5.5	48.6	Silicone	10 pcs/pack
XTCGS3#X	3" Quick Gasket	91.6	5	82.5	Silicone	10 pcs/pack
XTCGS4#X	4" Quick Gasket	119.0	5.5	97.8	Silicone	10 pcs/pack
XTCGS6#X	6" Quick Gasket	166.9	5.5	145.7	Silicone	10 pcs/pack
XTCGS8#X	8" Quick Gasket	217.7	5.5	197.5	Silicone	10 pcs/pack

**Note:**  
 For non-sterile products, use G to replace # in the catalog number;  
 For sterile products, use S to replace # in the catalog number.

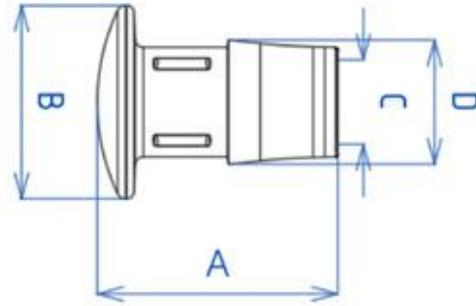
• Diaphragm gasket



Cat. No.	Product Name	Size (mm)		Material	Package
		A	B		
XTCDSC#X	TC25 Quick Diaphragm Gasket (Customized)	22.0	4.6	Silicone	10 pcs/pack
XTCDSTS#X	TC50 Quick Diaphragm Gasket (Standard)	50.5	5.5	Silicone	10 pcs/pack
XTC DST#X	TC50 Quick Diaphragm Gasket (Customized)	50.5	7.8	Silicone	10 pcs/pack

**Note:**  
 For non-sterile products, use G to replace # in the catalog number;  
 For sterile products, use S to replace # in the catalog number.

- Hose plug

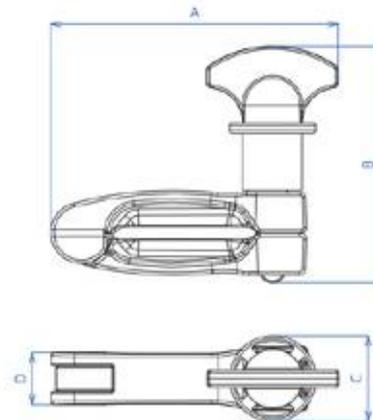


Cat. No.	Product Name	Size (mm)				Material	Package
		A	B	C	D		
FPPE000PP#F	1/8"HB Hose Plug	15.6	8.6	1.5	4.5	PP	50 pcs/pack
FPPH000PP#F	1/4"HB Hose Plug	24.4	15.0	3.94	7.6	PP	50 pcs/pack
FPPK000PP#F	3/8"HB Hose Plug	26.3	19.6	6.7	10.8	PP	50 pcs/pack
FPPS000PP#F	1/2"HB Hose Plug	28.2	22.4	9.8	14.4	PP	50 pcs/pack
FPPX000PP#F	3/4"HB Hose Plug	38.4	30	16.0	21.7	PP	50 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.

- Tubing pinch



Cat. No.	Product Name	Size (mm)				Material	Package
		A	B	C	D		
XTBCC38#X	Pinch Valve OD1/2"-OD1-1/2"	133.5	74.8	26.2	22.0	PA	10 pcs/pack
XTBCCEX#X	Pinch Valve OD1/4"-OD1"	87.5	72.5	26.2	16.0	PA	10 pcs/pack

**Note:**

For non-sterile products, use G to replace # in the catalog number;  
For sterile products, use S to replace # in the catalog number.

## Ordering Information

### Straight-through tubing

Product description	Additional description
Luer PVC thermoplastic tubing Luer	PVC thermoplastic tubing, Luer - Luer
Plug C-Flex thermoplastic tubing Plug	C-Flex thermoplastic tubing, plug - plug
AQG C-Flex thermoplastic tubing AQG	C-Flex thermoplastic tubing, AQG - AQG
TC25 C-Flex thermoplastic tubing TC25	C-Flex thermoplastic tubing, TC25 - TC25
TC50 C-Flex thermoplastic tubing TC50	C-Flex thermoplastic tubing, TC50 - TC50
MPC C-Flex thermoplastic tubing MPC	C-Flex thermoplastic tubing, F-MPC - M-MPC
AQG platinum cured silicone tubing AQG	Platinum cured silicone tubing, AQG - AQG
TC25 platinum cured silicone tubing TC25	Platinum cured silicone tubing, TC25 - TC25
TC50 platinum cured silicone tubing TC50	Platinum cured silicone tubing, TC50 - TC50
MPC platinum cured silicone tubing MPC	Platinum cured silicone tubing, F-MPC - M-MPC
AQG platinum cured braided reinforced silicone tubing AQG	Platinum cured braided reinforced silicone tubing, AQG - AQG
TC25 platinum cured braided reinforced silicone tubing TC25	Platinum cured braided reinforced silicone tubing, TC25 - TC25
TC50 platinum cured braided reinforced silicone tubing TC50	Platinum cured braided reinforced silicone tubing, TC50 - TC50
MPC platinum cured braided reinforced silicone tubing MPC	Platinum cured braided reinforced silicone tubing, F-MPC - M-MPC
AQG pump tubing AQG	Pump tubing, AQG - AQG
TC25 pump tubing TC25	Pump tubing, TC25 - TC25
TC50 pump tubing TC50	Pump tubing, TC50 - TC50
MPC pump tubing MPC	Pump tubing, F-MPC - M-MPC
Tubing length and diameter can be customized upon request.	

## Straight reducer

Product description	Additional description
Plug C-Flex thermoplastic tubing - silicone tubing TC50	C-Flex thermoplastic tubing - silicone tubing, plug - TC50
Plug C-Flex thermoplastic tubing - silicone tubing AQG	C-Flex thermoplastic tubing - silicone tubing, plug - AQG
Plug C-Flex thermoplastic tubing - silicone tubing TC25	C-Flex thermoplastic tubing - silicone tubing, plug - TC25
Plug C-Flex thermoplastic tubing - silicone tubing TC50	C-Flex thermoplastic tubing - silicone tubing, plug - TC50
Plug C-Flex thermoplastic tubing - silicone tubing MPC	C-Flex thermoplastic tubing - silicone tubing, plug - M-MPC
Plug C-Flex thermoplastic tubing - platinum cured silicone tubing TC50	C-Flex thermoplastic tubing - platinum cured silicone tubing, plug - AQG
Plug C-Flex thermoplastic tubing - platinum cured silicone tubing AQG	C-Flex thermoplastic tubing - platinum cured silicone tubing, plug - AQG
Plug C-Flex thermoplastic tubing - platinum cured silicone tubing TC25	C-Flex thermoplastic tubing - platinum cured silicone tubing, plug - TC25
Plug C-Flex thermoplastic tubing - platinum cured silicone tubing TC50	C-Flex thermoplastic tubing - platinum cured silicone tubing, plug - TC50
Plug C-Flex thermoplastic tubing - platinum cured silicone tubing MPC	C-Flex thermoplastic tubing - platinum cured silicone tubing, plug - M-MPC
Plug C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing TC50	C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing, plug - AQG
Plug C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing AQG	C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing, plug - AQG
Plug C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing TC25	C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing, plug - TC25
Plug C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing TC50	C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing, plug - TC50
Plug C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing MPC	C-Flex thermoplastic tubing - platinum cured braided reinforced silicone tubing, plug - M-MPC
Plug C-Flex thermoplastic tubing - Pump tubing TC50	C-Flex thermoplastic tubing - Pump tubing, plug - AQG
Plug C-Flex thermoplastic tubing - Pump tubing AQG	C-Flex thermoplastic tubing - Pump tubing, plug - AQG
Plug C-Flex thermoplastic tubing - Pump tubing TC25	C-Flex thermoplastic tubing - Pump tubing, plug - TC25
Plug C-Flex thermoplastic tubing - Pump tubing TC50	C-Flex thermoplastic tubing - Pump tubing, plug - TC50
Plug C-Flex thermoplastic tubing - Pump tubing MPC	C-Flex thermoplastic tubing - pump tubing, plug - M-MPC

Tubing length and diameter can be customized upon request.

## T-shaped tubing

Product description	Additional description
C-Flex thermoplastic tubing T 3 Plug	3-way T-connector, C-Flex thermoplastic tubing, plug
C-Flex thermoplastic tubing T 3 AQG	3-way T-connector, C-Flex thermoplastic tubing, AQG
Silicone tubing T 3 TC25	3-way T-connector, silicone tubing, TC25
Silicone tubing T 3 TC50	3-way T-connector, silicone tubing, TC50
Pump tubing T 3 TC25	3-way T-connector, pump tubing, TC25
Pump tubing T 3 TC50	3-way T-connector, pump tubing, TC50
Platinum cured silicone tubing T 3 TC25	3-way T-connector, platinum cured silicone tubing, TC25
Platinum cured silicone tubing T 3 TC50	3-way T-connector, platinum cured silicone tubing, TC50
Platinum cured braided reinforced silicone tubing T 3 TC25	3-way T-connector, platinum cured braided reinforced silicone tubing, TC25
Platinum cured braided reinforced silicone tubing T 3 TC50	3-way T-connector, platinum cured braided reinforced silicone tubing, TC50
C-Flex thermoplastic tubing T 6 Plug	6-way T-connector, C-Flex thermoplastic tubing, plug
C-Flex thermoplastic tubing T 6 AQG	6-way T-connector, C-Flex thermoplastic tubing, AQG
Silicone tubing T 6 TC25	6-way T-connector, silicone tubing, TC25
Silicone tubing T 6 TC50	6-way T-connector, silicone tubing, TC50
Pump tubing T 6 TC25	6-way T-connector, pump tubing, TC25
Pump tubing T 6 TC50	6-way T-connector, pump tubing, TC50
Platinum cured silicone tubing T 6 TC25	6-way T-connector, platinum cured silicone tubing, TC25
Platinum cured silicone tubing T 6 TC50	6-way T-connector, platinum cured silicone tubing, TC50
Platinum cured braided reinforced silicone tubing T 6 TC25	6-way T-connector, platinum cured braided reinforced silicone tubing, TC25
Platinum cured braided reinforced silicone tubing T 6 TC50	6-way T-connector, platinum cured braided reinforced silicone tubing, TC50

Tubing length and diameter can be customized upon request.

## Y-shaped tubing

Product description	Additional description
C-Flex thermoplastic tubing Y 3 Plug	3-way Y-connector, C-Flex thermoplastic tubing, plug
C-Flex thermoplastic tubing Y 3 AQG	3-way Y-connector, C-Flex thermoplastic tubing, AQG
Silicone tubing Y 3 TC25	3-way Y-connector, silicone tubing, TC25
Silicone tubing Y 3 TC50	3-way Y-connector, silicone tubing, TC50
Pump tubing Y 3 TC25	3-way Y-connector, pump tubing, TC25
Pump tubing Y 3 TC50	3-way Y-connector, pump tubing, TC50
Platinum cured silicone tubing Y 3 TC25	3-way Y-connector, platinum cured silicone tubing, TC25
Platinum cured silicone tubing Y 3 TC50	3-way Y-connector, platinum cured silicone tubing, TC50
Platinum cured braided reinforced silicone tubing Y 3 TC25	3-way Y-connector, platinum cured braided reinforced silicone tubing, TC25
Platinum cured braided reinforced silicone tubing Y 3 TC50	3-way Y-connector, platinum cured braided reinforced silicone tubing, TC50

Tubing length and diameter can be customized upon request.

## Sensor tubing

Product description	Additional description
C-Flex thermoplastic tubing - Pendotech pressure sensor - C-Flex thermoplastic tubing, plug	Pendotech pressure sensor, C-Flex thermoplastic tubing, plug
Silicone tubing - Pendotech pressure sensor - silicone tubing, TC25	Pendotech pressure sensor, silicone tubing, TC25
Silicone tubing - Pendotech pressure sensor - silicone tubing, TC50	Pendotech pressure sensor, silicone tubing, TC50

Pressure 6 PSI, 60 PSI, tubing length and diameter can be customized upon request.

**SynaLinX<sup>®</sup>**

**TST Platinum Cured Silicone Tubing**

**RST Braided Platinum Cured Silicone Tubing**



## SynaLinX® TST Platinum Cured Silicone Tubing

Pharmaceutical-grade platinum cured silicone tubing and braided platinum cured silicone tubing are the optimal choices for fluid delivery pipelines in medical, healthcare, and biopharmaceutical applications. Strict safety and quality control of the raw materials and additives in the manufacturing of the tubing is essential for minimizing contamination risks and ensuring the safety and efficacy of final biopharmaceutical products. BioLink offers SynaLinX® TST Platinum Cured Silicone Tubing and SynaLinX® RST Braided Platinum Cured Silicone Tubing with imported selective medical-grade raw materials and a unique manufacturing process. The tubing is cost-effective and features low leachable, low toxicity, and low adsorption in terms of biocompatibility. Both have passed tests for physical, chemical, and biological properties, are compliant with the requirements of USP Class VI, ISO 10993, and other standards, and have been certified by SGS testing.



Test item	Reference standard	Test result
Bacterial endotoxin	USP <85>	< 0.25EU/mL
Particulate matter	USP<788>	Particle size ≥ 10µm, < 25 Grain/mL Particle size ≥ 25µm, < 3 Grain/mL
	USP<87>	Pass
	USP <88>CLASS VI	Pass
	ISO 10993-4	Pass
	ISO 10993-5	Pass
	ISO 10993-6	Pass
	ISO 10993-10	Pass
Biocompatibility	ISO 10993-11	Pass
	USP <151>	Pass
	Testing of plastic packaging system	Pass
Extractable Study	BPOG & USP <665>	Pass

### Features

- Colorless and transparent, facilitating the observation of the solution
- Resistant to sterilization by high temperature and pressure, ethylene oxide, and gamma irradiation
- Applicable at – 50 to 200 ° C
- Excellent tensile strength and elongation at break
- Manufactured in workshops of ISO Class 7 cleanliness
- Free of animal-derived component
- Good biocompatibility

### Applications

- Filtration assembly
- Fluid transfer
- pH control and media in cell culture
- Tubing assembly

Cat. No.	ID*OD*WT (mm)	ID*OD*WT (inch)	Packaging specification (meter/roll)
TST-0063-0188-15	1.6*4.8*1.6	1/16*3/16*1/16	15
TST-0094-0219-15	2.4*5.6*1.6	3/32*7/32*1/16	15
TST-0125-0250-15	3.2*6.4*1.6	1/8*1/4*1/16	15
TST-0125-0313-15	3.2*8.0*2.4	1/8*5/16*3/32	15
TST-0125-0375-15	3.2*9.6*3.2	1/8*3/8*1/8	15
TST-0156-0281-15	4.0*7.2*1.6	5/32*9/32*1/16	15
TST-0156-0406-15	4.0*10.4*3.2	5/32*13/32*1/8	15
TST-0188-0313-15	4.8*8.0*1.6	3/16*5/16*1/16	15
TST-0188-0375-15	4.8*9.6*2.4	3/16*3/8*3/32	15
TST-0250-0313-15	6.4*8.0*0.8	1/4*5/16*1/32	15
TST-0250-0375-15	6.4*9.6*1.6	1/4*3/8*1/16	15
TST-0250-0438-15	6.4*11.2*2.4	1/4*7/16*3/32	15
TST-0250-0500-15	6.4*12.7*3.2	1/4*1/2*1/8	15
TST-0313-0438-15	8.0*11.2*1.6	5/16*7/16*1/16	15
TST-0313-0500-15	8.0*12.7*2.4	5/16*1/2*3/32	15
TST-0375-0500-15	9.6*12.7*1.6	3/8*1/2*1/16	15
TST-0375-0563-15	9.6*14.4*2.4	3/8*9/16*3/32	15
TST-0375-0625-15	9.6*15.9*3.2	3/8*5/8*1/8	15
TST-0500-0688-15	12.7*17.5*2.4	1/2*11/16*3/32	15
TST-0500-0750-15	12.7*19.1*3.2	1/2*3/4*1/8	15
TST-0625-0875-15	15.9*22.3*3.2	5/8*7/8*1/8	15
TST-0750-1000-15	19.1*25.4*3.2	3/4*1*1/8	15
TST-0750-1125-15	19.1*28.7*4.8	3/4*9/8*3/16	15
TST-0750-1250-15	19.1*31.9*6.4	3/4*5/4*1/4	15
TST-1000-1375-15	25.4*34.9*4.8	1*11/8*3/16	15
TST-1000-1500-15	25.4*38.1*6.4	1*3/2*1/4	15

## SynaLinX® RST Braided Platinum Cured Silicone Tubing



### Features:

- Resistant to sterilization by high temperature and pressure, ethylene oxide, and gamma irradiation
- Applicable at – 40 to 180 ° C
- Excellent mechanical performance
- Zoo-reee

### Applications:

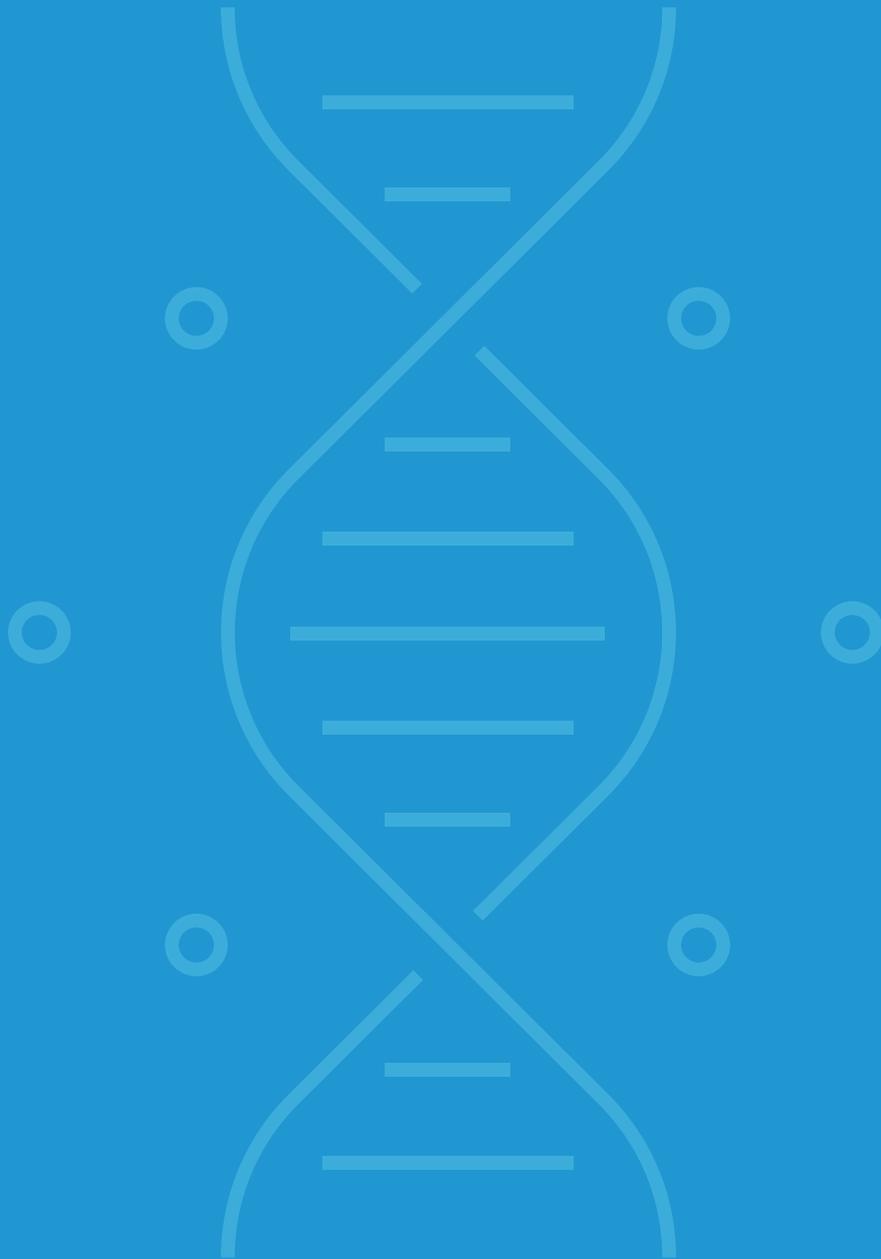
- CIP/SIP
- Ultrafiltration tubing assembly
- Tubing for the stainless steel mixing system
- Disposable pressure-resistant tubing assembly

## Ordering Information

Cat. No.	ID*OD*WT (mm)	Packaging specification (meter/roll)
RST-0062-0272	1.6*9.6*2.7	15
RST-0125-0355	3.2*9.0*2.9	15
RST-0187-0447	4.8*11.4*3.3	15
RST-0250-0500	6.4*12.7*3.2	15
RST-0375-0625	9.6*15.9*3.2	15
RST-0500-0875	12.7*22.2*4.8	15
RST-0625-1000	15.9*25.4*4.8	15
RST-0750-1125	19.1*28.6*4.8	15
RST-0875-1250	22.2*31.8*4.8	15
RST-1000-1375	25.4*35.0*4.8	15



# Validation Service



## Validation Service

In Feb. 2022, BioLink established a validation and analysis center in Nantong, Jiangsu Province. This center covers an area of 1,400 square meters. It is equipped with all kinds of large precision instruments, including an inductively coupled plasma mass spectrometer, liquid mass spectrometer, gas mass spectrometer, TOC detector, automatic microplate reader, infrared detector, etc.

The center supports the analysis and detection of extractables and leachables, with a detection precision of up to the PPT level. The platform is operated and managed in accordance with CMA and CNAS systems.



### Extractables/leachables study (E&L)

- Extractables study with BPOG & USP standard methods
- Leachable study of customers' product
- Risk assessment
- 1500+ E&L-related databases

### Microbiology test (BSL2)

- Bacterial viability test
- Bacterial challenge test of virus removal filter
- Microbial limit test
- Sterility test

### Filter validation

- Chemical compatibility study
- Product-wet integrity test
- Adsorption study
- Integrity test





[www.biolink.com](http://www.biolink.com)



## About BioLink

BioLink is a group of technology-driven businesses that provide process solutions in the life sciences industry. The company focuses on the development and production of the key processing equipment and consumables used in the manufacturing process of recombinant protein drugs, vaccines, antibodies, cell therapies, gene therapies, and other biological products. BioLink's portfolio of offerings covers the entire upstream and downstream bioprocess such as cell culture, single-use mixing and storage, chromatography, filtration (ultrafiltration/diafiltration, clarification, and virus removal), and hydration products, as well as process development services. BioLink is committed to providing customers with high-quality, innovative products and solutions and strives to build an efficient, safe and competitive biopharmaceutical supply chain eco-system.

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