



# Cobetter Topene™ RB Film Single-use System



# Lifecube™ Single-use System

Single-use System (SUS) is a process equipment solution that offers advantages such as lower upfront costs, no cleaning requirements, and accelerated research and production progress compared to traditional stainless steel systems. It has been widely adopted in the biopharmaceutical field for various processes ranging from cell culture to drug formulation, including vaccines, antibodies, gene therapies, and cell therapies.

Cobetter Lifecube single-use product series is exclusively designed by Hangzhou Cobetter Filtration Equipment Co., Ltd. The products are manufactured following ISO 9001:2015 quality management system and adhere to GMP requirements. With 11 ISO 7 & ISO 8 production lines and one fully ISO 4.8 classified line, Cobetter can offer convenient and efficient single-use solutions that meet regulatory standards for biopharmaceutical and other industries.

## **Single Use System (SUS) Assembled From Various Components**

Storage Products: 2D&3D Storage Bags (Standard and customized options)

Mixing Products: 3D Mixing Bags (Standard and customized options)

Filling Product: Filling Bags (Customized options)

Single-use Accessories: hose barb fittings, easy connectors, sterile connectors, tubings, sampling system, filling needles, single-use pressure sensors. (Various specifications and models available.)

Cobetter single-use system consumables are suitable for various application scenarios in pharmaceutical manufacturing operations, providing customers with greater flexibility and convenience in adopting single-use technologies. Cobetter Lifecube products simplifies processes, enhances production efficiency, streamlines validation, and ensures product safety.

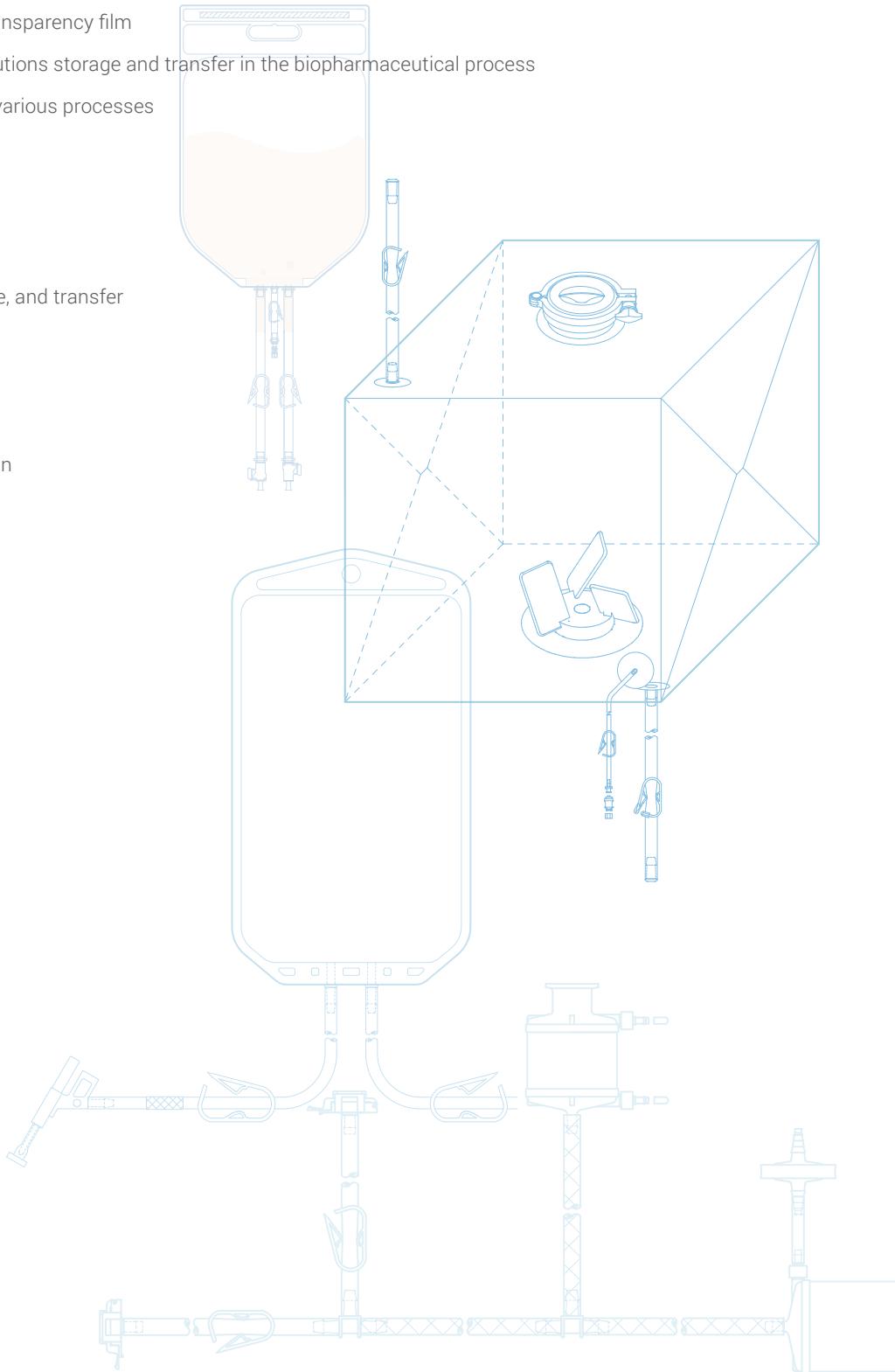


## Features

- The film materials exhibit low extractables, low leachables, good physical strength, chemical compatibility, and biocompatibility
- Easy to process judgment for high transparency film
- Meet the requirements of various solutions storage and transfer in the biopharmaceutical process
- Flexible custom size and tubings for various processes

## Applications

- Buffer and media preparation, storage, and transfer
- Preparation of bioreactor feeds
- Purified components collection
- Storage for purified intermediates
- Storage and transfer for stock solution
- Drug formulation final filling

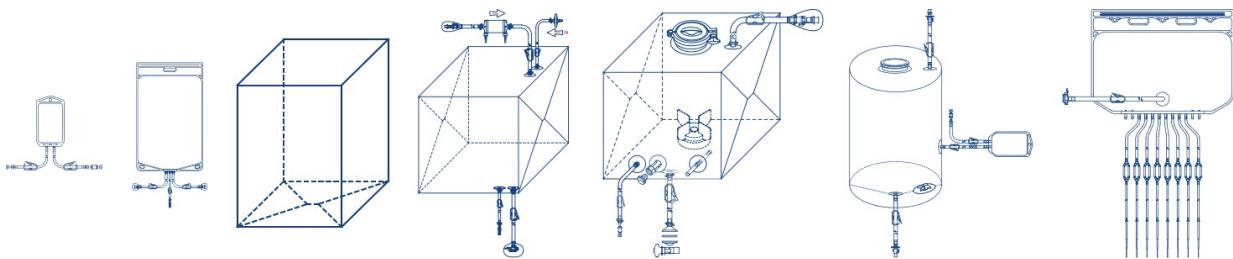


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# Customized Solutions

Cobetter Lifecube single-use system offers a wide range of highly customizable films, tubings, connectors, filters, and other components to meet diverse customer needs.



## Film

Topene RB film;

## Bags

2D storage bags, in addition to standard volumes, can be customized to fit different containers in a 2.5D format, such as 60 L, 208 L, etc.

3D storage and mixing bags can be customized to cover volumes ranging from 10 L to 3000 L, fitting various container sizes.

## Mixing Impeller

Compatible with Cobetter mixing systems and leading market brands, various magnetic suction and magnetic suspension mixing stirrers available;

## Tubing

Ranging from 1/16" to 1" inner diameter, the quantities and specifications of tubing can be customized;

## Connectors

Multiple types and sizes of connectors are available;

## Sampling

Needlefree swabable valve, sampling plug, male and female Luer Lock;

## Vent Filters

Cobetter Bricap V50 / V50A / V50D / V42 available;

## Capsule Filters

Cobetter Bricap C / L / T series.

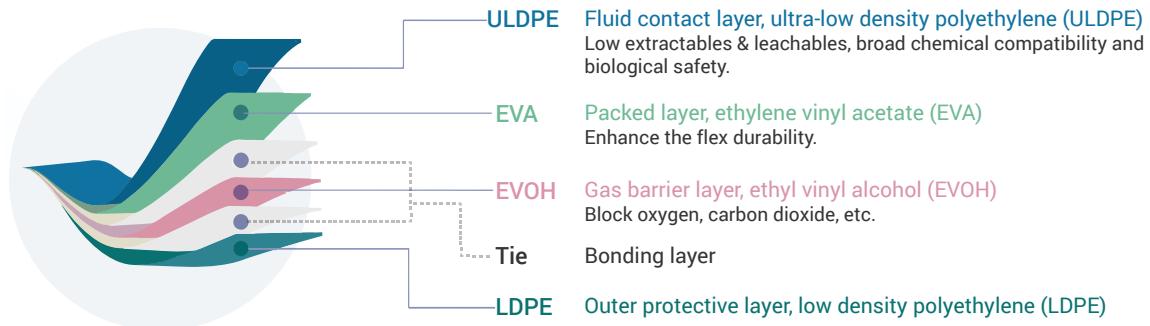
# Cobetter Topene™ Film

## Film Structure

Cobetter Topene RB blown film designed for biological processes is composed of ULDPE (ultra-low density polyethylene), EVA (ethylene vinyl acetate), EVOH (ethyl vinyl alcohol) and LDPE (low density polyethylene).

The ULDPE layer with low extractability, low precipitation, good chemical compatibility and biological safety is used as the liquid contact layer. The EVA layer has good resistance to flexural cracking and the EVOH layer minimizes gas diffusion of the film. The outer LDPE layer provides strong puncture resistance, strength and excellent thermal stability.

The Topene RB film has a ultra clean inner surface, good environmental stress resistance, tear resistance, rubbing resistance, tensile resistance, chemical stability and biological safety.



Note: RB film is 11-layer co-extruded film, and only the functional layers are shown in the schematic.

## Film Process

Film Process	Film Cooling	Production Environment	Characteristic	Co-extrusion Film Blown Equipment
Blown film	Vacuum water ring	The inner layer of the film is over ISO class 5.  The outer layer of the film is ISO class 7.	1. The film is extremely clean because the inner layer is not in contact with the workshop environment.  2. The physical strength of the film is excellent because it is stretched horizontally and vertically during the processing.	

## Benefits

- Ultra cleanliness inner surface
- Excellent gas barrier property
- Extreme durability for superior strength
- Good chemical stability
- Good cell compatibility

## Applications

Cobetter Topene RB film has performed a comprehensive validation, which has low extractable and precipitate levels and good cell compatibility, and there is no potential risk of introducing impurities into the biological process. Topene RB film can be applied to the whole biopharmaceutical process such as upstream cell culture, configuration and storage of buffer and medium, and preparation filling.

## Technical Parameters

### Appearance Parameters

Item	Value (After gamma sterilization, > 25 kGy)	Procedure
Thickness	0.326 mm	GB/T 6672
Haze	6.0 %	ASTM D1003
Specular Gloss	96.1 GU	ASTM D2457
Color	SCI: L 93.72, a -0.12, b 2.34 SCE: L 90.09, a -0.12, b 2.16	ASTM D6290
Light Transmittance	90.7 %	ASTM D1003
Luminous Transmittance	75.06 %	GB/T 2680
Diffuse Reflectance	3.78 %	GB/T 2680
Transmittance	77.6 %	ASTM D1746

### Physical Properties

Item	Value (After gamma sterilization, > 25 kGy)	Procedure
Density	0.936 g/cm <sup>2</sup>	ASTM D792
Hardness	A/93/1	ASTM D2240
Tensile-Strength	Transverse 159 Longitudinal 136, bar	ISO 527-3
Modulus of Elasticity	Transverse 2260 Longitudinal 2300, bar	ASTM D882
2% Secant Modulus	Transverse 2000 Longitudinal 2010, bar	ASTM D882
Tear Strength	Transverse 22.6 Lengthways 22.4, N	ASTM D1004
Puncture Resistance	Inner face 36.0 Outer face 39.0, N	ASTM F1306
Dart Impact	>975 g	ASTM D1709 Method B
Glass Transition temperature	-18 °C	ASTM D3418

## Barrier Performance

Item	Value (After gamma sterilization, > 25 kGy)	Procedure
Water Vapor Transmission Rate	0.489 g/(m <sup>2</sup> ·day)(23 °C, 100% RH)	ASTM F1249
Oxygen Permeability	0.296 cm <sup>3</sup> /(m <sup>2</sup> ·day·bar)	ASTM D1434
Carbon Dioxide Permeability	0.318 cm <sup>3</sup> /(m <sup>2</sup> ·day·bar)	ASTM D1434

## Regulatory Compliance

Item	Value (After gamma sterilization, > 25 kGy)	Procedure
Particulate Matter	Particulate matter in the product eluent meets the requirements in USP <788> for large volume parenterals.	USP <788>
Bacterial Endotoxin	Aqueous extraction contains < 0.25 EU/mL as determined by Amebocyte Lysate, USP <85>.	USP <85>
ISO10993-4 Hemolytic	The product will not cause hemolysis or erythrocyte coagulation.	ISO 10993-4
USP <87> Cytotoxicity	Meet the requirement of USP <87> In Vitro Biological Reactivity Test.	USP <87>
USP <88> Biological Reactivity	Meet the criteria of the USP <88> Biological Reactivity Test for Class VI plastics.	USP <88>
Indirect Food Additive	The fluid contact component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177–182.	21 CFR 177–182
Animal Derivative Content	Products do not contain animal derived components and are free from TSE risk.	FDA 21 CFR 189.5 EMA/410/01 rev.3
Quality Assurance	These products are manufactured in a facility which adheres to ISO 9001:2015 Practices.	ISO 9001:2015

## Integrity Test

Item	Value (After gamma sterilization, > 25 kGy)	Procedure
Burst Test	The pressure resistance of 1L bag is ≥ 0.1 bar.	Internal Standard
Pressure Maintaining Test	100% passed.	Internal Standard
Heat Sealing Strength	≥ 40 N	YBB00122003-2015

# Lifecube™ AS Sampling Bags



## Quality Assurance

- ISO 9001:2015 quality management system
- ISO Class 4.8 / ISO 7/ ISO 8 cleanroom production
- 100% leak testing
- ADCF raw materials, complies with FDA 21 CFR Part 177-182 (Indirect food additives)
- Meet the requirement of current USP <87> Class VI, Biological Reactivity Test, In Vitro
- Meet the criteria of current USP <88> Class VI, Biological Reactivity Test, In Vivo
- Aqueous extraction contains < 0.25 EU/mL as determined by Limulus Amebocyte Lysate (LAL), USP <85>
- Particulate matter in the product eluent meets the requirements in USP <788> for large volume parenterals
- Verified gamma irradiation dose according to ISO 11137

## Features

- Good physical strength and great biological safety
- Integrated bag body and less residual liquid
- Double-layer sterile packaging sterilized by 25-45 kGy gamma irradiation
- Various choices for sampling application
- Flexible customized solutions

## Applications

- Sampling with single-use bags
- Secondary sampling from sampling bags
- Store samples

## Configurable Options

### Bag Port

Tubing Bag Port



### Connectors 1

Male luer lock with plug



### Tubing 1

Lifemeta STT Platinum-Cured Silicone

Pharma-50 Platinum-Cured Silicone

Lifemeta STF TPE Tubing

C-Flex 374 TPE Tubing

### Tubing 2

Lifemeta STT Platinum-Cured Silicone

Pharma-50 Platinum-Cured Silicone

Lifemeta STF TPE Tubing

C-Flex 374 TPE Tubing

### Connectors 2

Male luer lock with plug

Female luer lock with plug

Needlefree swabable valve

Sampling plug

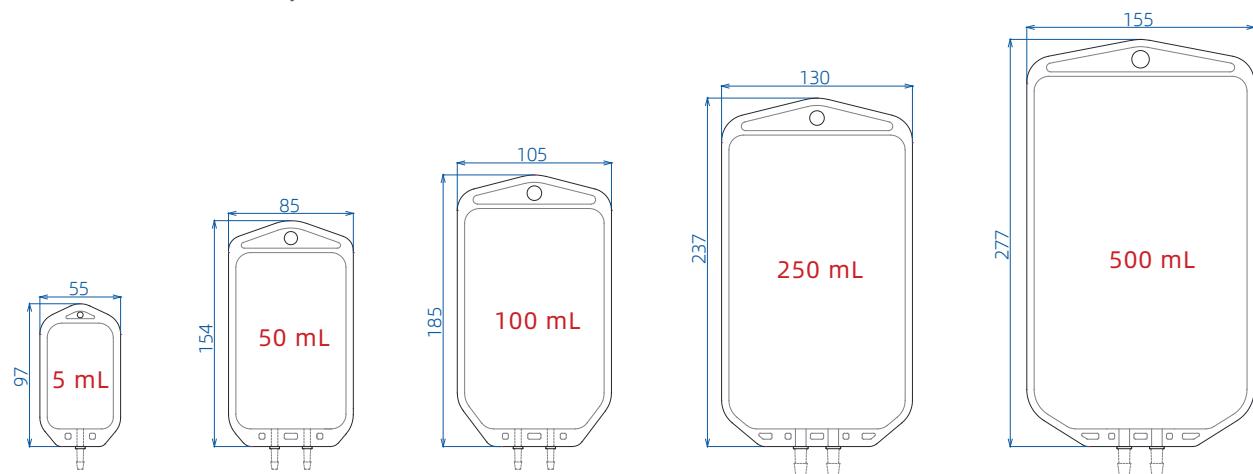
Sampling Plug,  $\varphi 20\text{mm}$

Sampling needle



## Bag Dimensions

Unit: mm, for reference only



## Bag Port Selections

Bag Ports	Bag Volume				
	5 mL	50 mL	100 mL	250 mL	500 mL
1/8" HB*1	●	●	●		
1/4" HB*1	●	●	●		
1/8"-1/8" HB		●	●	●	●
1/8"-1/4" HB		●	●	●	●
1/4"-1/4" HB		●	●	●	●
1/8"-1/8"-1/8" HB		●	●	●	●
1/4"-1/8"-1/4" HB		●	●	●	●

## AS Sampling Bags -- Standard Options

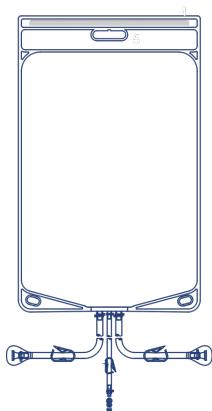
### Option 1. Lifemeta STT Pt-cured Silicone Tubing

#	Volume	Line 1 – 20 cm	Line 2 – 20 cm	Cat. No.
1	5 mL	1/8" * 1/4" STT Pt-cured Silicone Tubing + Male Lure Lock	None	BAS5ML1TLN
2			1/8" * 1/4" STT Pt-cured Silicone Tubing + Needlefree Swabable Valve	BAS0051TLF
3	50 mL	1/8" * 1/4" STT Pt-cured Silicone Tubing + Male Lure Lock	1/8" * 1/4" STT Pt-cured Silicone Tubing + Sampling Plug	BAS0051TLV
4			1/8" * 1/4" STT Pt-cured Silicone Tubing + Needlefree Swabable Valve	BAS0101TLF
5	100 mL		1/8" * 1/4" STT Pt-cured Silicone Tubing + Sampling Plug	BAS0101TLV
6			1/4" * 7/16" STT Pt-cured Silicone Tubing + Needlefree Swabable Valve	BAS0251TLF
7	250 mL	1/4" * 7/16" STT Pt-cured Silicone Tubing + Male Lure Lock	1/4" * 7/16" STT Pt-cured Silicone Tubing + Sampling Plug	BAS0251TLV
8			1/4" * 7/16" STT Pt-cured Silicone Tubing + Needlefree Swabable Valve	BAS0501TLF
9	500 mL		1/4" * 7/16" STT Pt-cured Silicone Tubing + Sampling Plug	BAS0501TLV

### Option 2. Lifemeta STF TPE Tubing

#	Volume	Line 1 – 40 cm	Line 2 – 40 cm	Cat. No.
1	5 mL	1/8" * 1/4" STF TPE Tubing + Male Lure Lock	None	BAS5ML1FLN
2			1/8" * 1/4" STF TPE Tubing + Needlefree Swabable Valve	BAS0051FLF
3	50 mL	1/8" * 1/4" STF TPE Tubing + Male Lure Lock	1/8" * 1/4" STF TPE Tubing + Sampling Plug	BAS0051FLV
4			1/8" * 1/4" STF TPE Tubing + Needlefree Swabable Valve	BAS0101FLF
5	100 mL		1/8" * 1/4" STF TPE Tubing + Sampling Plug	BAS0101FLV
6			1/4" * 7/16" STF TPE Tubing + Needlefree Swabable Valve	BAS0251FLF
7	250 mL	1/4" * 7/16" STF TPE Tubing + Male Lure Lock	1/4" * 7/16" STF TPE Tubing + Sampling Plug	BAS0251FLV
8			1/4" * 7/16" STF TPE Tubing + Needlefree Swabable Valve	BAS0501FLF
9	500 mL		1/4" * 7/16" STF TPE Tubing + Sampling Plug	BAS0501FLV

# Lifecube™ 2D/3D Single-use Bags



## Quality Assurance

- ISO 9001:2015 quality management system
- ISO Class 4.8 / ISO 7/ ISO 8 cleanroom production
- 100% leak testing
- ADCF raw materials, complies with FDA 21 CFR Part 177-182 (Indirect food additives)
- Meet the requirement of current USP <87> Class VI, Biological Reactivity Test, In Vitro
- Meet the criteria of current USP <88> Class VI, Biological Reactivity Test, In Vivo
- Aqueous extraction contains < 0.25 EU/mL as determined by Limulus Amebocyte Lysate (LAL), USP <85>
- Particulate matter in the product eluent meets the requirements in USP <788> for large volume parenterals
- Verified gamma irradiation dose according to ISO 11137

## Features

- Good physical strength and excellent biological safety
- Integrated bag body designed for Lifecube 2D Single-use bag and less residual liquid
- Double-layer sterile packaging sterilized by 25-45 kGy gamma irradiation
- Flexible customized solutions
- Various specifications and scalable

## Applications

- Buffer and media storage and transfer after filtration
- Intermediates storage
- Stock solution storage

# Lifecube™ 2D Single-use Bags

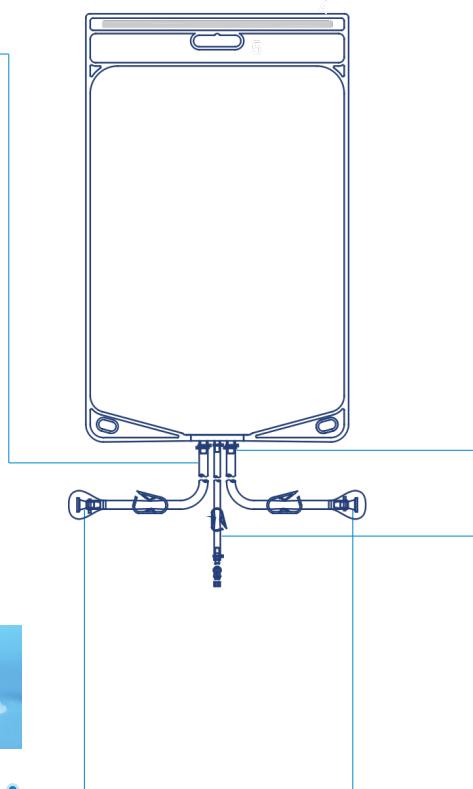
## Configurable Options

### Inlet/Outlet Tubing

Lifemeta STT Platinum-Cured Silicone  
Pharma-50 Platinum-Cured Silicone  
Lifemeta STF TPE Tubing  
C-Flex 374 TPE Tubing

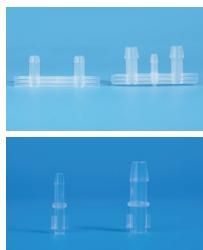
### Inlet/Outlet Connectors

Lifemeta EC easy connector  
3/4" Tri-clamp (TC25)  
1-1/2" Tri-clamp (TC50)  
CPC AseptiQuik connectors



### Bag Port

Boat Port  
Tubing Bag Port



### Sampling Tubing

Lifemeta STT Platinum-Cured Silicone  
Pharma-50 Platinum-Cured Silicone  
Lifemeta STF TPE Tubing  
C-Flex 374 TPE Tubing

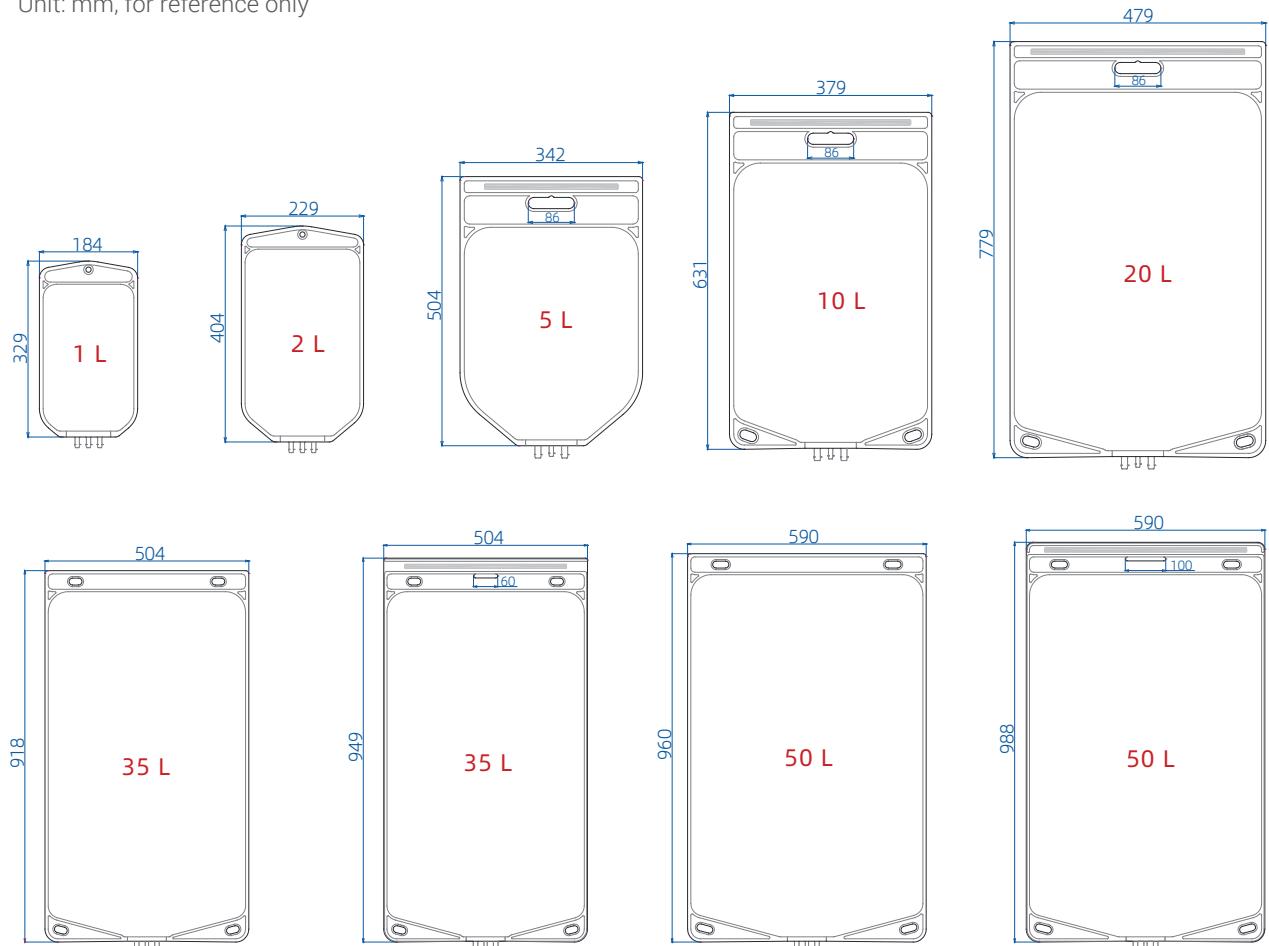
### Sampling Connectors

None  
Needlefree swabable valve  
Sampling plug



## Bag Dimensions

Unit: mm, for reference only



2D bags of 1 L - 50 L can be added with 1/8" HB, 1/4" HB, 3/8" HB and 1/2" HB bag ports as required. Please contact Cobetter sales or technicians for the specific design.

## Bag Port Selections

Bag Ports	Bag Volume								
	250 mL	500 mL	1 L	2 L	5 L	10 L	20 L	35 L	50 L
1/8"-1/8" HB	●	●							
1/8"-1/4" HB	●	●							
1/4"-1/4" HB	●	●	●	●	●	●	●	●	●
3/8"-3/8" HB					●	●	●	●	●
1/2"-1/2" HB					●	●	●	●	●
1/8"-1/8"-1/8" HB	●	●							
1/4"-1/8"-1/4" HB	●	●	●	●	●	●	●	●	●
1/4"-1/4"-1/4" HB			●	●	●	●	●	●	●
3/8"-1/8"-3/8" HB					●	●	●	●	●
3/8"-1/4"-3/8" HB					●	●	●	●	●
1/2"-1/4"-1/2" HB					●	●	●	●	●

## 2D Single-use Bags -- Standard Options

Option 1. Lifemeta STT Pt-cured Silicone Tubing + EC Easy Connector				
#	Volume	Inlet/Outlet Lines*	Sampling**	Cat. No.
1			None	B2D025T2NK
2	2D 250 mL		Needlefree Swabable Valve	B2D025T21K
3			Sampling Plug	B2D025T2VK
4			None	B2D050T2NK
5	2D 500 mL	<b>Line 1:</b> 50 cm $\frac{1}{4}'' \times \frac{7}{16}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug	Needlefree Swabable Valve	B2D050T21K
6		<b>Line 2:</b> 50 cm $\frac{1}{4}'' \times \frac{7}{16}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug	Sampling Plug	B2D050T2VK
7			None	B2D01LT2NK
8	2D 1 L		Needlefree Swabable Valve	B2D01LT21K
9			Sampling Plug	B2D01LT2VK
10			None	B2D02LT2NK
11	2D 2 L		Needlefree Swabable Valve	B2D02LT21K
12			Sampling Plug	B2D02LT2VK
13			None	B2D05LT2NK
14	2D 5 L		Needlefree Swabable Valve	B2D05LT21K
15			Sampling Plug	B2D05LT2VK
16			None	B2D10LT2NK
17	2D 10 L	<b>Line 1:</b> 50 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug	Needlefree Swabable Valve	B2D10LT21K
18		<b>Line 2:</b> 50 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug	Sampling Plug	B2D10LT2VK
19			None	B2D20LT2NK
20	2D 20 L		Needlefree Swabable Valve	B2D20LT21K
21			Sampling Plug	B2D20LT2VK
22			None	B2D35LT2NK
23	2D 35 L		Needlefree Swabable Valve	B2D35LT21K
24			Sampling Plug	B2D35LT2VK
25			None	B2D50LT2NK
26	2D 50 L		Needlefree Swabable Valve	B2D50LT21K
27			Sampling Plug	B2D50LT2VK

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling lines of 250 mL and 500 mL bags: 10 cm  $1/8'' \times 1/4''$  Cobetter Lifemeta STT Pt-cured Silincone tubings;

Sampling lines of 1 L and above bags: 10 cm  $1/4'' \times 3/8''$  Cobetter Lifemeta STT Pt-cured Silincone tubings;

## Option 2. Lifemeta STT Pt-cured Silicone Tubing + AseptiQuik G Sterile Connector

#	Volume	Inlet/Outlet Lines *	Sampling **	Cat. No.
1			None	B2D025T2NA
2	2D 250 mL		Needlefree Swabable Valve	B2D025T21A
3			Sampling Plug	B2D025T2VA
4			None	B2D050T2NA
5	2D 500 mL	<b>Line 1:</b> 50 cm $\frac{1}{4}'' \times \frac{7}{16}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Sterile Connector	Needlefree Swabable Valve	B2D050T21A
6		<b>Line 2:</b> 50 cm $\frac{1}{4}'' \times \frac{7}{16}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Sterile Connector	Sampling Plug	B2D050T2VA
7			None	B2D01LT2NA
8	2D 1 L	Tubing + AseptiQuik G Sterile Connector	Needlefree Swabable Valve	B2D01LT21A
9			Sampling Plug	B2D01LT2VA
10			None	B2D02LT2NA
11	2D 2 L		Needlefree Swabable Valve	B2D02LT21A
12			Sampling Plug	B2D02LT2VA
13			None	B2D05LT2NA
14	2D 5 L		Needlefree Swabable Valve	B2D05LT21A
15			Sampling Plug	B2D05LT2VA
16			None	B2D10LT2NA
17	2D 10 L	<b>Line 1:</b> 50 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Sterile Connector	Needlefree Swabable Valve	B2D10LT21A
18		<b>Line 2:</b> 50 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Sterile Connector	Sampling Plug	B2D10LT2VA
19			None	B2D20LT2NA
20	2D 20 L		Needlefree Swabable Valve	B2D20LT21A
21			Sampling Plug	B2D20LT2VA
22			None	B2D35LT2NA
23	2D 35 L		Needlefree Swabable Valve	B2D35LT21A
24			Sampling Plug	B2D35LT2VA
25			None	B2D50LT2NA
26	2D 50 L		Needlefree Swabable Valve	B2D50LT21A
27			Sampling Plug	B2D50LT2VA

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling lines of 250 mL and 500 mL bags: 10 cm  $1/8'' \times 1/4''$  Cobetter Lifemeta STT Pt-cured Silicone tubings;

Sampling lines of 1 L and above bags: 10 cm  $1/4'' \times 3/8''$  Cobetter Lifemeta STT Pt-cured Silicone tubings;

### Option 3. Lifemeta STF TPE Tubing + Tubing Plug

#	Volume	Inlet/Outlet Lines*	Sampling **	Cat. No.
1			None	B2D025F2NP
2	2D 250 mL		Needlefree Swabable Valve	B2D025F21P
3			Sampling Plug	B2D025F2VP
4			None	B2D050F2NP
5	2D 500 mL	Line 1: 50 cm 1/4" * 7/16" STF TPE Tubing + Tubing Plug	Needlefree Swabable Valve	B2D050F21P
6		Line 2: 50 cm 1/4" * 7/16" STF TPE Tubing + Tubing Plug	Sampling Plug	B2D050F2VP
7			None	B2D01LF2NP
8	2D 1 L		Needlefree Swabable Valve	B2D01LF21P
9			Sampling Plug	B2D01LF2VP
10			None	B2D02LF2NP
11	2D 2 L		Needlefree Swabable Valve	B2D02LF21P
12			Sampling Plug	B2D02LF2VP
13			None	B2D05LF2NP
14	2D 5 L		Needlefree Swabable Valve	B2D05LF21P
15			Sampling Plug	B2D05LF2VP
16			None	B2D10LF2NP
17	2D 10 L		Needlefree Swabable Valve	B2D10LF21P
18			Sampling Plug	B2D10LF2VP
19		Line 1: 50 cm 1/4" * 7/16" STF TPE Tubing + Tubing Plug	None	B2D20LF2NP
20	2D 20 L	Line 2: 50 cm 1/4" * 7/16" STF TPE Tubing + Tubing Plug	Needlefree Swabable Valve	B2D20LF21P
21			Sampling Plug	B2D20LF2VP
22			None	B2D35LF2NP
23	2D 35 L		Needlefree Swabable Valve	B2D35LF21P
24			Sampling Plug	B2D35LF2VP
25			None	B2D50LF2NP
26	2D 50 L		Needlefree Swabable Valve	B2D50LF21P
27			Sampling Plug	B2D50LF2VP

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling lines of 250 mL and 500 mL bags: 10 cm 1/8" \* 1/4" Cobetter Lifemeta STF TPE tubings;

Sampling lines of 1 L and above bags: 10 cm 1/4" \* 7/16" Cobetter Lifemeta STF TPE tubings;

#### Option 4. Lifemeta STF TPE Tubing + EC Easy Connector

#	Volume	Inlet/Outlet Lines *	Sampling **	Cat. No.
1			None	B2D025F2NK
2	2D 250 mL		Needlefree Swabable Valve	B2D025F21K
3			Sampling Plug	B2D025F2VK
4			None	B2D050F2NK
5	2D 500 mL	<b>Line 1:</b> 50 cm $\frac{1}{4}''$ * $\frac{7}{16}''$ STF TPE Tubing + ECS Female Connector + ECS Male Plug	Needlefree Swabable Valve	B2D050F21K
6		<b>Line 2:</b> 50 cm $\frac{1}{4}''$ * $\frac{7}{16}''$ STF TPE Tubing + ECS Male Connector + ECS Female Plug	Sampling Plug	B2D050F2VK
7			None	B2D01LF2NK
8	2D 1 L		Needlefree Swabable Valve	B2D01LF21K
9			Sampling Plug	B2D01LF2VK
10			None	B2D02LF2NK
11	2D 2 L		Needlefree Swabable Valve	B2D02LF21K
12			Sampling Plug	B2D02LF2VK
13			None	B2D05LF2NK
14	2D 5 L		Needlefree Swabable Valve	B2D05LF21K
15			Sampling Plug	B2D05LF2VK
16			None	B2D10LF2NK
17	2D 10 L	<b>Line 1:</b> 50 cm $\frac{3}{8}''$ * $\frac{5}{8}''$ STF TPE Tubing + ECS Female Connector + ECS Male Plug	Needlefree Swabable Valve	B2D10LF21K
18		<b>Line 2:</b> 50 cm $\frac{3}{8}''$ * $\frac{5}{8}''$ STF TPE Tubing + ECS Male Connector + ECS Female Plug	Sampling Plug	B2D10LF2VK
19			None	B2D20LF2NK
20	2D 20 L		Needlefree Swabable Valve	B2D20LF21K
21			Sampling Plug	B2D20LF2VK
22			None	B2D35LF2NK
23	2D 35 L		Needlefree Swabable Valve	B2D35LF21K
24			Sampling Plug	B2D35LF2VK
25			None	B2D50LF2NK
26	2D 50 L		Needlefree Swabable Valve	B2D50LF21K
27			Sampling Plug	B2D50LF2VK

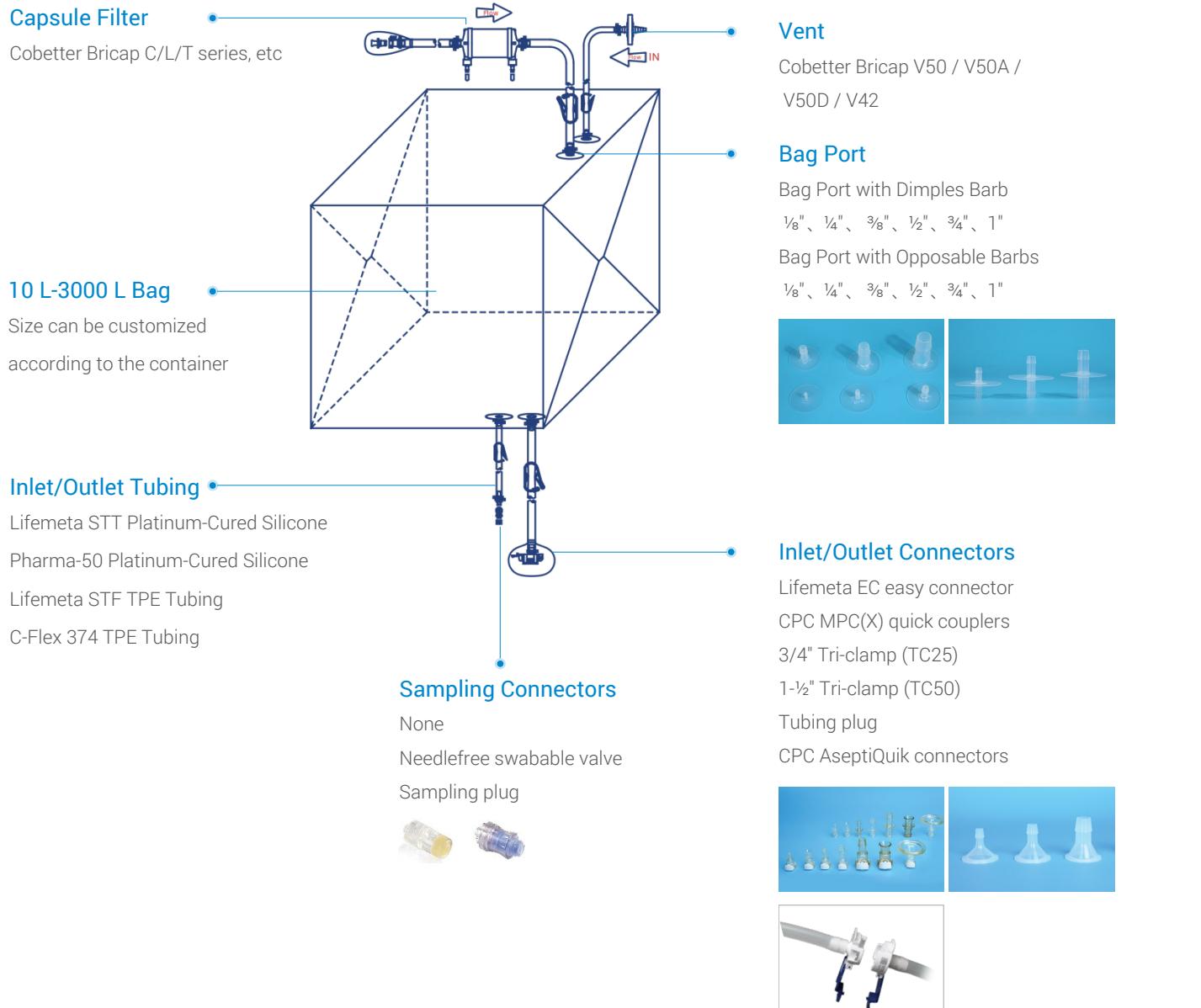
\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling lines of 250 mL and 500 mL bags: 10 cm  $1/8''$ \* $1/4''$  Cobetter Lifemeta STF TPE tubings;

Sampling lines of 1 L and above bags: 10 cm  $1/4''$ \* $7/16''$  Cobetter Lifemeta STF TPE tubings;

# Lifecube™ 3D Single-use Bags

## Configurable Options



### 3D Single-use Bags -- Standard Options

Option 1. Lifemeta STT Pt-cured Silicone Tubing + EC Easy Connector				
#	Volume	Inlet/Outlet Lines*	Sampling**	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug		B3D50LT21K
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug		B3D100T21K
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug		B3D200T21K
4	3D 250 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Needlefree	B3D250T21K
5	3D 500 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug	Swabable	B3D500T21K
6	3D 1000 L		Valve	B3D10XT21K
7	3D 1500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug		B3D15XT21K
8	3D 2000 L	<b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		B3D20XT21K
9	3D 3000 L			B3D30XT21K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured Silicone tubing.

### Option 2. Lifemeta STT Pt-cured Silicone Tubing + Tri-clamp Fitting (TC25/TC50)

#	Volume	Inlet/Outlet Lines*	Sampling**	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + $\frac{3}{4}''$ Tri-clamp Fitting (TC25) <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + $\frac{3}{4}''$ Tri-clamp Fitting (TC25)		B3D50LT21T
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D100T21S
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)	Needlefree	B3D200T21S
4	3D 250 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)	Swabable	B3D250T21S
5	3D 500 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)	Valve	B3D500T21S
6	3D 1000 L			B3D10XT21S
7	3D 1500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D15XT21S
8	3D 2000 L	<b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D20XT21S
9	3D 3000 L			B3D30XT21S

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured Silicone tubing.

### Option 3. Lifemeta STT Pt-cured Silicone Tubing + AseptiQuik G Connector

#	Volume	Inlet/Outlet Lines*	Sampling **	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector		B3D50LT21A
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector		B3D100T21A
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector		B3D200T21A
4	3D 250 L		Needlefree	B3D250T21A
5	3D 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector <b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector	Swabable	B3D500T21A
6	3D 1000 L		Valve	B3D10XT21A
7	3D 1500 L			B3D15XT21A
8	3D 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector <b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + AseptiQuik G Connector		B3D20XT21A
9	3D 3000 L			B3D30XT21A

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured Silicone tubing.

### Option 4. Lifemeta STF TPE Tubing + Tubing Plug

#	Volume	Inlet/Outlet Lines*	Sampling **	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + Tubing Plug <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + Tubing Plug		B3D50LF21P
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + Tubing Plug		B3D100F21P
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + Tubing Plug		B3D200F21P
4	3D 250 L		Needlefree	B3D250F21P
5	3D 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + Tubing Plug <b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + Tubing Plug	Swabable	B3D500F21P
6	3D 1000 L		Valve	B3D10XF21P
7	3D 1500 L			B3D15XF21P
8	3D 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + Tubing Plug <b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + Tubing Plug		B3D20XF21P
9	3D 3000 L			B3D30XF21P

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 40 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STF TPE Tubing.

### Option 5. Lifemeta STF TPE Tubing + EC Easy Connector

#	Volume	Inlet/Outlet Lines*	Sampling **	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + ECS Female Connector + ECS Male Plug <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + ECS Male Connector + ECS Female Plug		B3D50LF21K
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + ECS Female Connector + ECS Male Plug		B3D100F21K
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + ECS Male Connector + ECS Female Plug		B3D200F21K
4	3D 250 L		Needlefree	B3D250F21K
5	3D 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + ECM Female Connector + ECM Male Plug <b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + ECM Male Connector + ECM Female Plug	Swabable	B3D500F21K
6	3D 1000 L		Valve	B3D10XF21K
7	3D 1500 L			B3D15XF21K
8	3D 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + ECM Female Connector + ECM Male Plug <b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + ECM Male Connector + ECM Female Plug		B3D20XF21K
9	3D 3000 L			B3D30XF21K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 40 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  STF TPE Tubing.

### Option 6. Lifemeta STF TPE Tubing + Tri-clamp Fitting (TC25/TC50)

#	Volume	Inlet/Outlet Lines*	Sampling **	Cat. No.
1	3D 50 L	<b>Inlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + $\frac{3}{4}''$ Tri-clamp Fitting (TC25) <b>Outlet:</b> 100 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + $\frac{3}{4}''$ Tri-clamp Fitting (TC25)		B3D50LF21T
2	3D 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D100F21S
3	3D 200 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D200F21S
4	3D 250 L		Needlefree	B3D250F21S
5	3D 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50) <b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)	Swabable	B3D500F21S
6	3D 1000 L		Valve	B3D10XF21S
7	3D 1500 L			B3D15XF21S
8	3D 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50) <b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STF TPE Tubing + $1\frac{1}{2}''$ Tri-clamp Fitting (TC50)		B3D20XF21S
9	3D 3000 L			B3D30XF21S

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 40 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STF TPE Tubing.

# Lifecube™ MIX Single-use Mixing Bags

Cobetter Lifecube single-use mixing bags offer no-clean, many specifications, pre-sterilization, easy to install and flexibility of use, etc. The Lifecube Single-use Mixing bags are made of multi-layer co-extrusion film, feature good physical and chemical properties and extremely low gas permeability. Lifecube single-use mixing bags are suitable for a wide range of mixing steps in upstream and downstream processes.



## Quality Assurance

- ISO 9001:2015 quality management system
- ISO Class 4.8 / ISO 7/ ISO 8 cleanroom production
- 100% leak testing
- ADCF raw materials, complies with FDA 21 CFR Part 177-182 (Indirect food additives)
- Meet the requirement of current USP <87> Class VI, Biological Reactivity Test, In Vitro
- Meet the criteria of current USP <88> Class VI, Biological Reactivity Test, In Vivo
- Aqueous extraction contains < 0.25 EU/mL as determined by Limulus Amebocyte Lysate (LAL), USP <85>
- Particulate matter in the product eluent meets the requirements in USP <788> for large volume parenterals
- Verified gamma irradiation dose according to ISO 11137

## Features

- Magnetic suction/magnetic suspension mixing, integrated/split system, compatible with other brands;
- Fast installation, well mixing run and easy setup;
- Double-layer packaging, sterilized by 25~45 kGy gamma irradiation;
- Many specifications, meeting a variety of preparation applications;
- Customized bag sizes, flexibly match different specification of containers;
- Customized Tubings, connectors and filters ;
- Sensors can be customized to allow on-line monitoring during the process;
- Hardware with audit trail and automatic management functions available.

## Applications

- Buffer and culture medium preparation
- Semi-finished products preparation
- Batch mixing

## Configurable Options

### Powder Port

1-1/2", 3", 4", 8"

TC Clamp



TC Blind Cap



Silicone Gasket



Powder Port



### Electrode Port

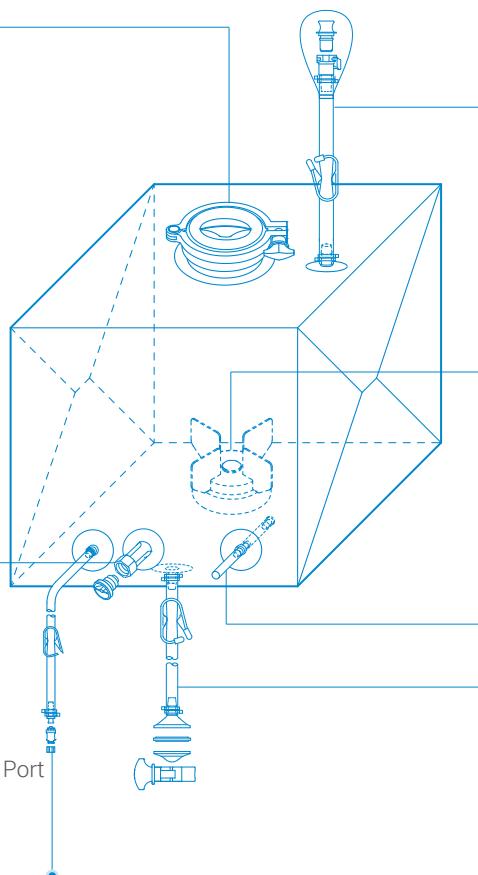
Vertical Thread Electrode Port

Inclined Thread Electrode Port

Bioreactor Probe Sleeve

(3/4"、1/2"HB) Bag Electrode Port

(3/4"HB to PG13.5) Thread Electrode Port



### Inlet

Platinum-Cured Silicone/TPE Tubing  
+ Connectors/TC25/TC50/Plug

### Impellers

Lifecube MP series impeller



Lifecube ML series impeller



Lifecube MG series impeller



Lifecube MK series impeller



Lifecube MKP series impeller



Lifecube MS series impeller



### Thermal electrode sleeve

### Outlet

Platinum-Cured Silicone/TPE Tubing  
+ Connectors/TC25/TC50/Plug

### Sampling Connectors

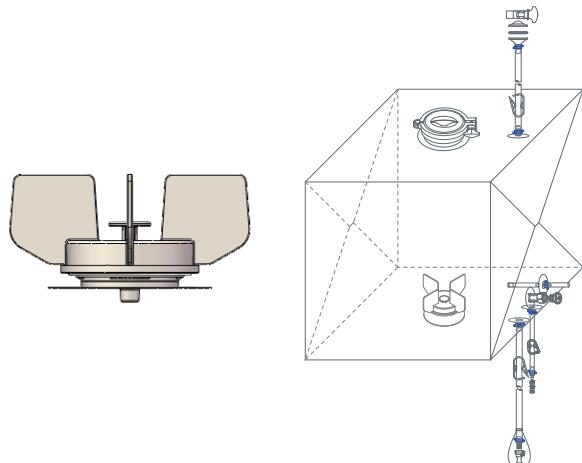
Needlefree swabable valve

Sampling plug



## MIX Single-use Mixing Bags -- Standard Options

MP Single-use Mixing Bags	
Mixing Type	Cobetter Lifecube MP Single-use Mixing Bags
Impeller	MPM
Materials of Construction	Main part: HDPE Welding pad: HDPE Bearing: PVDF + Silicon Nitride Plug: HDPE
Volume	20 L - 3000 L
Total Fluid Contact Area	716 cm <sup>2</sup>
Main Height*	8 cm
Speed**	≤ 300 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

### Option 1. Cobetter Lifecube MP Single-use Mixing Bags

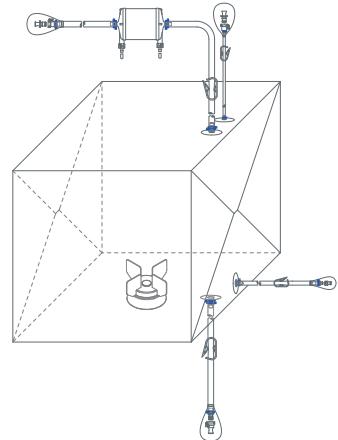
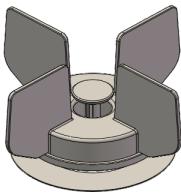
#	Volume	Inlet/Outlet Lines*	Sampling**	Powder Port	Cat. No.
1	MP 50 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug			BMP50LT41Y1K
2	MP 100 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug			BMP100T41Y1K
3	MP 200 L				BMP200T41Y1K
4	MP 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Needlefree	4" TC	BMP500T41H1K
5	MP 1000 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug	Swabable	(with Silicone	BMP10XT41H1K
6	MP 1500 L		Valve	Gasket,	BMP15XT41H1K
7	MP 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug		Blind Cap	BMP20XT41H1K
8	MP 2500 L	<b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		and Clamp)	BMP25XT41H1K
9	MP 3000 L				BMP30XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

### ML Single-use Mixing Bags

Mixing Type	Cobetter Lifecube ML Single-use Mixing Bags
Impeller	MPL
Materials of Construction	Main part: HDPE Welding pad: HDPE Plug: HDPE
Volume	20 L - 1000 L
Total Fluid Contact Area	706 cm <sup>2</sup>
Main Height *	8 cm
Speed **	≤ 210 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

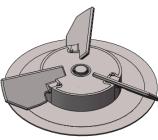
### Option 2. Cobetter Lifecube ML Single-use Mixing Bags

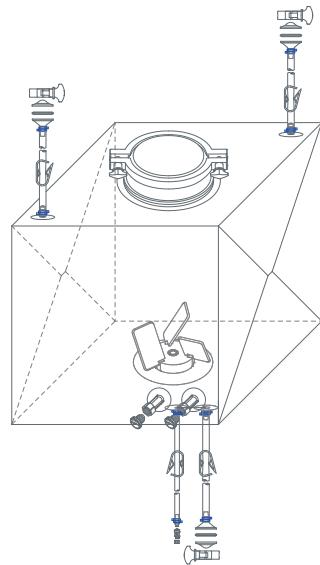
#	Volume	Inlet/Outlet Lines*	Sampling**	Powder Port	Cat. No.
1	ML 50 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug	4" TC		BM <sub>L</sub> 50LT41Y1K
2	ML 100 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug	Needlefree (with Silicone)		BM <sub>L</sub> 100T41Y1K
3	ML 200 L		Swabable	Gasket,	BM <sub>L</sub> 200T41Y1K
4	ML 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Valve	Blind Cap	BM <sub>L</sub> 500T41H1K
5	ML 1000 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		and Clamp)	BM <sub>L</sub> 10XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

### MG Single-use Mixing Bags

Mixing Type	Cobetter Lifecube MG Single-use mixing Bags		
Impeller	MCX20	MCX50	MCX100
			
Materials of Construction	Main part: HDPE Welding pad: HDPE Bearing: Zirconia + PEEK		
Volume	20 L	50 L	100 L - 3000 L
Total Fluid Contact Area	558 cm <sup>2</sup>	818 cm <sup>2</sup>	1058 cm <sup>2</sup>
Main Height*	5 cm	5 cm	12 cm
Speed**	≤ 250 rpm	≤ 250 rpm	≤ 250 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

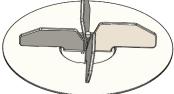
### Option 3. Cobetter Lifecube MG Single-use Mixing Bags

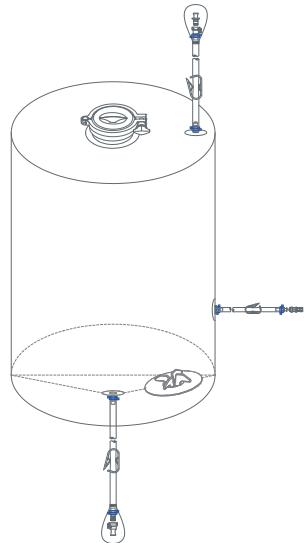
#	Volume	Inlet/Outlet Lines*	Sampling**	Powder Port	Cat. No.
1	MG 50 L	Inlet: 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug			BMG50LT41Y1K
2	MG 100 L	Outlet: 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug			BMG100T41Y1K
3	MG 200 L				BMG200T41Y1K
4	MG 500 L	Inlet: 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Needlefree	4" TC	BMG500T41H1K
5	MG 1000 L	Outlet: 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug	Swabable	(with Silicone	BMG10XT41H1K
6	MG 1500 L		Valve	Gasket,	BMG15XT41H1K
7	MG 2000 L	Inlet: 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug		Blind Cap	BMG20XT41H1K
8	MG 2500 L	Outlet: 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		and Clamp)	BMG25XT41H1K
9	MG 3000 L				BMG30XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

### MK Single-use Mixing Bags

Mixing Type	Cobetter Lifecube MK Single-use mixing Bags		
Impeller	MK11	MK12	MK13
			
Materials of Construction	Main part: PP		
Welding pad: HDPE			
Volume	1 L - 50 L	100 L - 200 L	500 L -1000 L
Total Fluid Contact Area	155 cm <sup>2</sup>	397 cm <sup>2</sup>	809 cm <sup>2</sup>
Main Height *	2 cm	3 cm	4 cm
Speed **	≤ 1000 rpm	≤ 500 rpm	≤ 250 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

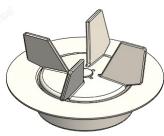
### Option 4 of Cobetter Lifecube MK Single-use Mixing Bags

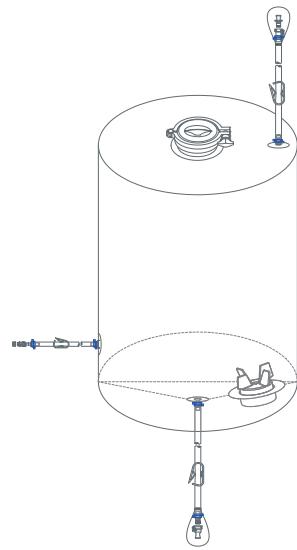
#	Volume	Inlet/Outlet Lines*	Sampling **	Powder Port	Cat. No.
1	MK 50 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug		4" TC	BMK50LT41Y1K
2	MK 100 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug	Needlefree	(with Silicone	BMK100T41Y1K
3	MK 200 L		Swabable	Gasket,	BMK200T41Y1K
4	MK 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Valve	Blind Cap	BMK500T41H1K
5	MK 1000 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		and Clamp)	BMK10XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

### MKP Single-use Mixing Bags

Mixing Type	Cobetter Lifecube MKP Single-use Mixing Bags		
Impeller	MK21	MK215	MK22
			
Materials of Construction	Main part: PP		
	Welding pad: HDPE		
Volume	100 L - 200 L	500 L	1000 L - 3000 L
Total Fluid Contact Area	730 cm <sup>2</sup>	796 cm <sup>2</sup>	1236 cm <sup>2</sup>
Main Height *	5 cm	6 cm	6 cm
Speed **	≤375 rpm	≤375 rpm	≤380 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

### Option 5. Cobetter Lifecube MKP Single-use Mixing Bags

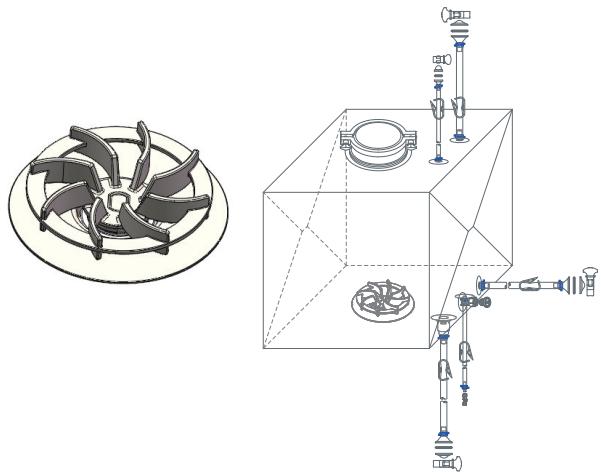
#	Volume	Inlet/Outlet Lines*	Sampling**	Powder Port	Cat. No.
1	MKP 100 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug <b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug			BMKP100T41Y1K
2	MKP 200 L				BMKP200T41Y1K
3	MKP 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug <b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug	Needlefree	4" TC	BMKP500T41H1K
4	MKP 1000 L		Swabable	(with Silicone	BMKP10XT41H1K
5	MKP 1500 L		Valve	Gasket,	BMKP15XT41H1K
6	MKP 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug <b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug		Blind Cap	BMKP20XT41H1K
7	MKP 2500 L			and Clamp)	BMKP25XT41H1K
8	MKP 3000 L				BMKP30XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

### MS Single-use Mixing Bags

Mixing Type	Cobetter Lifecube MS Single-use Mixing Bags
Impeller	MS
Materials of Construction	Main part: HDPE Welding pad: HDPE
Volume	50 L - 3000 L
Total Fluid Contact Area	1316 cm <sup>2</sup>
Main Height*	4 cm
Speed**	≤ 750 rpm



\* Height from the welding plate to the top of the impeller;

\*\* For reference only. The mixing speed is different from bag specifications, stirring volumes, solutions and brand of mixers. Please confirm the mixing speed and efficiency according to the actual situation.

### Option 6. Cobetter Lifecube MS Single-use Mixing Bags

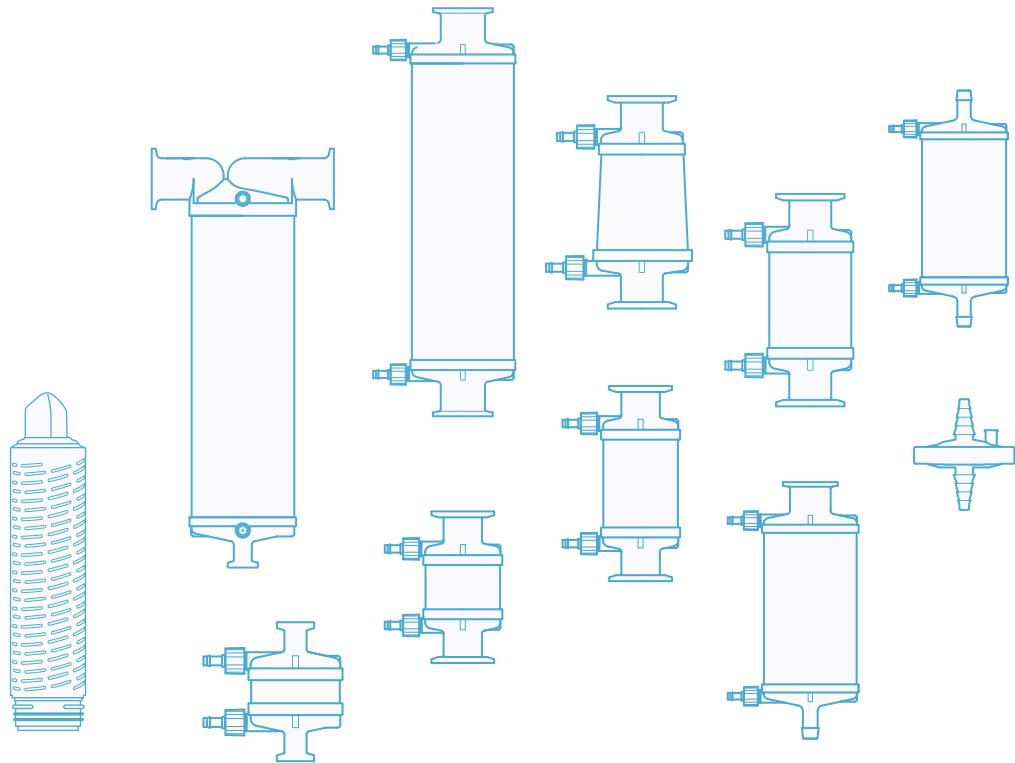
#	Volume	Inlet/Outlet Lines*	Sampling**	Powder Port	Cat. No.
1	MS 50 L	<b>Inlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Female Connector + ECS Male Plug			BMS50LT41Y1K
2	MS 100 L	<b>Outlet:</b> 150 cm $\frac{3}{8}'' \times \frac{5}{8}''$ STT Pt-cured Silicone Tubing + ECS Male Connector + ECS Female Plug			BMS100T41Y1K
3	MS 200 L				BMS200T41Y1K
4	MS 500 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug	Needlefree	4" TC	BMS500T41H1K
5	MS 1000 L	<b>Outlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug	Swabable	(with Silicone	BMS10XT41H1K
6	MS 1500 L		Valve	Gasket, Blind Cap	BMS15XT41H1K
7	MS 2000 L	<b>Inlet:</b> 150 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Female Connector + ECM Male Plug		and Clamp)	BMS20XT41H1K
8	MS 2500 L	<b>Outlet:</b> 300 cm $\frac{1}{2}'' \times \frac{3}{4}''$ STT Pt-cured Silicone Tubing + ECM Male Connector + ECM Female Plug			BMS25XT41H1K
9	MS 3000 L				BMS30XT41H1K

\* Inlet/Outlet Lines: The size and length can be customized;

\*\* Sampling Lines: 20 cm  $\frac{1}{4}'' \times \frac{7}{16}''$  Cobetter Lifemeta STT Pt-cured silicone tubing.

# Our Mission

Through Excellent Products & Sustainable Innovative Solutions,  
We Help Customers Solve Process Problems & Increase Yield.



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