

Lifecube[®] Single-use Bags



Lifecube® Single-use Bags

The iconic starting point of the single-use system was that in the 1980s when pharmaceutical companies began to use plastic capsule filters in small scale. In the 1990s, sterile 10-inch capsule filters (pre-sterilized by gamma irradiation) entered people's vision. At the same time, disposable plastic bags began to be used in the pharmaceutical process and developed rapidly, with the emergence of 2D and 3D single-use plastic bags of different types and volumes. Not only used in storage of liquids, today single-use bags also cover the entire biopharmaceutical process including upstream cell culture, downstream buffer mixing and storage, and storage of the final product. The comprehensive advantages of the single-use system are as follows.

- · Single-use system eliminates the risk of cross contamination and greatly improves safety.
- · No need for cleaning and sterilization in place. The annual production batches of the production workshop in the same scale are greatly increased, and the production efficiency is greatly improved.
- · Reduced the cost of QC and cleaning verification.

Cobetter Lifecube® single-use bags are exclusively designed by Hangzhou Cobetter Filtration Equipment Co., Ltd. The entire manufacturing process of Cobetter Lifecube single-use bags from raw material storage to product packaging is completed in the ISO Class 8 clean zones. Cobetter establishes and continuously maintains the company's quality assurance system in accordance with the requirements of ISO® 9001:2015 quality management system and cGMP. All the products are manufactured under strict quality system to ensure stable and reliable quality. Cobetter Lifecube® can help you achieve simpler process, greater process efficiency and productivity, easier verification and safer products.

Features Typical Applications

- The film has low level of extractables and 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
- Flexibly design bags and tubings for various processes

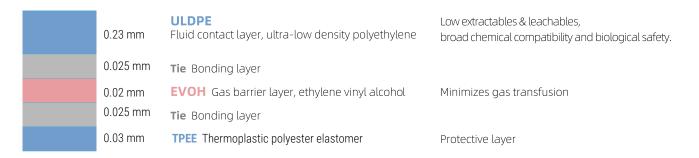


- Buffer and media preparation, storage and transfer
- Preparation of bioreactor feeds
- Purified components collection
- Storage of purified intermediates
- Stock solution storage and transfer

Lifecube® Film

Specifications

The film of Cobetter Lifecube® single-use bags is composed of five layers. The thickness, materials and performance of each layer are given below.



Film Specifications

Physical Property	Value (Before / after gamma sterilization, 25 kGy)	Procedure		
Haze	21.2 %	ASTM D-1003		
Transmittance	90.2 %	ASTM D-1003		
Tensile Strength at Break	Horizontal 21.9 MPa, Longitudinal 26.9 MPa	ASTM D-882		
Elongation at Break	Horizontal 380%, Longitudinal 420%	ASTM D-882		
Elastic Modulus	Horizontal 277 MPa, Longitudinal 289 MPa	ASTM D-882		
Min. Cold Temperature Tolerance	-70°C	ISO 8570		
Density	0.941 g/cm³	ASTM D-792		
Water Vapor Transmission Rate	0.593 g/(m²-day) (23 °C, 100 % RH)	ASTM F-1249		
Oxygen Permeability	1.024 cm ³ /(m ² -day· 0.1 MPa) (23 °C, 0 % RH)	ASTM D-3985		
Carbon Dioxide Permeability	1.455 cm³/(m ²-day- 0.1 MPa) (23 °C, 0 % RH)	ASTM F-2476		
Particle Shedding	Particulate matter in the product eluent meets the requirements in USP	<788> for large volume		
Bacterial Endotoxin	Aqueous extraction contains < 0.25 EU/mL as determined by Limulus An	nebocyte Lysate (LAL),		
Physicochemical Test for Plastics	Meet the requirements of USP <661> physicochemical tests for plastics.			
ISO 10993-4 Hemolysis	Meet the requirements of ISO 10993-4 in direct contact with the human	blood.		
USP <87> Cytotoxicity	Meet the requirement of USP <87> In Vitro Biological Reactivity Test.			
USP <88> Biological Reactivity	Meet the criteria of the USP <88> Biological Reactivity Test for Class VI pl	lastics.		
Indirect Food Additive	The fluid contact component materials meet the FDA Indirect Food Add	itive requirements cited in 21 CFR 177–182.		
Animal Free	Products do not contain animal derived components and are free from T	TSE risk.		
Quality Assurance	These products are manufactured in a facility which adheres to ISO® 900	1:2015 Practices.		

Note: All data based on value after gamma sterilization, 25 kGy





Lifecube® 2D/3D Single-use Bags

Quality Assurance

- · ISO® 9001:2015 quality management system
- · ISO Class 7 clean zones
- · 100% leak testing for Lifecube® 2D single-use bags
- · ADCF raw materials
- · Meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182
- · Meet the requirement of USP <87> In Vitro Biological Reactivity Test
- · Meet the criteria of the USP <88> Biological Reactivity Test for Class VI plastics
- 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
- · Verify gamma irradiation dose according to ISO® 11137
- · Provide product Validation Guide and Certificate of Quality

Features

- · Good physical strength and excellent biological safety
- · Integrated bag body designed for Lifecube® 2D single-use bags and less residual liquid
- · Double-layer sterile packaging sterilized by 25-45 kGy gamma irradiation
- · Local supply. Variable and flexible customized services
- · Various and scalable

Typical Applications

- \cdot Buffer and media storage and transfer after filtration
- · Intermediates storage
- · Stock solution storage



Buffer and Media Applications

Connection via CPC MPC/MPX Quick Couplers

D 10 L K2D10L521C	Volun	ne	Cat. No. Inlet/Outlet		Sampling	
D 10 L K2D10LS21C	2D	5 L	K2D05LS21C	Inlet·	50 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tuhing	
D 20 L K2D20L521C D 35 L K2D35L521C Outlet: 50 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + Needlefree Swabable Valve + 3/8" HB MPC Coupling Inserts Inlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Bodies D 100 L K3D100521C Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Inserts D 250 L K3D200521C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 500 L K3D500521C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts D 1000 L K3D10X521C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts D 1000 L K3D10X521C Unlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 1500 L K3D15X521C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 1500 L K3D15X521C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies	2D	10 L	K2D10LS21C	mica	3	
D 50 L K2D50LS21C +3/8" HB MPC Coupling Inserts Inlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing +3/8" HB MPC Coupling Bodies D 200 L K3D200S21C Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing +3/8" HB MPC Coupling Inserts Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +3/8" HB MPC Coupling Bodies D 250 L K3D250S21C	2D	20 L	K2D20LS21C			
Inlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Bodies D 200 L K3D200S21C Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Inserts Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPX Coupling Bodies D 500 L K3D250S21C Utlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 1000 L K3D10XS21C Utlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies O 1000 L K3D15XS21C Utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing	2D	35 L	K2D35LS21C	Outlet:	50 cm ID 3/8" * OD 5/8" Lifemeta $^{\text{TM}}$ STS Pt-cured Silicone Tubing	+ Needlefree Swabable Valve
D 100 L K3D100S21C +3/8" HB MPC Coupling Bodies D 200 L K3D200S21C Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing +3/8" HB MPC Coupling Inserts D 250 L K3D250S21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies D 500 L K3D500S21C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Inserts D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies D 1500 L K3D10XS21C Utlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies D 1000 L K3D10XS21C Utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies O utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies	2D	50 L	K2D50LS21C		+ 3/8" HB MPC Coupling Inserts	
D 200 L K3D200S21C Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Inserts Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 500 L K3D500S21C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + Needlefree Swabable Valve + ½" HB MPX Coupling Bodies D 1500 L K3D10XS21C Utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies O 1000 L K3D10XS21C Utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies				Inlet:	150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing	
+ 3/8" HB MPC Coupling Inserts Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies D 500 L K3D500S21C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts O 1000 L K3D10XS21C Utlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies O 1000 L K3D10XS21C Utlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing	3D	100 L	K3D100S21C		+ 3/8" HB MPC Coupling Bodies	
D 250 L K3D250S21C	3D	200 L	K3D200S21C	Outlet:	3	
D 250 L K3D250S21C +½" HB MPX Coupling Bodies D 500 L K3D500S21C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + Needlefree Swabable Valve D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies D 1500 L K3D15XS21C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing D 1500 L K3D15XS21C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing					+ 3/8" HB MPC Coupling Inserts	
D 500 L K3D500S21C Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + Needlefree Swabable Valve + ½" HB MPX Coupling Inserts D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies 1500 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing 1500 cm ID ½" *		0.501	V2525264.6	Inlet:	3	20 cm ID ¼" Lifemeta™ STS
+½" HB MPX Coupling Inserts D 1000 L K3D10XS21C D 1500 L K3D15XS21C Outlet: 300 cm ID ½"* OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing	3D				+ ½" HB MPX Coupling Bodies	
D 1000 L K3D10XS21C Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing +½" HB MPX Coupling Bodies Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing	3D	500 L	K3D500S21C	Outlet:	3	+ Needlefree Swabable Valve
D 1000 L K3D10XS21C +½" HB MPX Coupling Bodies D 1500 L K3D15XS21C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing					+ ½" HB MPX Coupling Inserts	
+½"HB MPX Coupling Bodies D 1500 L K3D15XS21C Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing	3D	1000 I	K3D10XS21C	Inlet:	3	
Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ S1S Pt-cured Silicone Tubing	3D				. 3	
+ ½" HB MPX Coupling Inserts	3D			Outlet:	3	
	30	2000 L	K3D20X32TC		+ ½" HB MPX Coupling Inserts	

Connection via Tri-clamps (TC)

Volume Cat.		Cat. No.	Inlet/Outlet	Sampling	
2D 2D 2D	5 L 10 L 20 L	K2D05LS21T K2D10LS21T K2D20LS21T	Inlet: 50 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	10 cm ID ¼" Lifemeta™ STS Pt-cured Silicone Tubing	
2D 2D	35 L 50 L	K2D35LS21T K2D50LS21T	Outlet: 50 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	+ Needlefree Swabable Valve	
3D 3D	100 L 200 L	K3D100S21S K3D200S21S	Inlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing +1-½"Tri-clamp (TC50) Outlet: 150 cm ID 3/8" * OD 5/8" Lifemeta™ STS Pt-cured Silicone Tubing +1-½"Tri-clamp (TC50)		
3D 3D	250 L 500 L	K3D250S21S K3D500S21S	Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50) Outlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50)	20 cm ID ¼" Lifemeta™ STS Pt-cured Silicone Tubing + Needlefree Swabable Valve	
3D 3D 3D	1000 L 1500 L 2000 L	K3D10XS21S K3D15XS21S K3D20XS21S	Inlet: 150 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50) Outlet: 300 cm ID ½" * OD ¾" Lifemeta™ STS Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50)		



Buffer, Media and Purified Solution Applications

Connection via CPC MPC/MPX Quick Couplers

Volume		Cat. No.		Inlet/Outlet	Sampling
2D 2D	250 mL 500 mL	K2D025D2NC K2D050D2NC	Inlet:	50 cm ID ¼"* OD 7⁄6" Lifemeta™ STD Pt-cured Silicone Tubing + ¼" HB MPC Coupling Bodies	None
2D 2D	1 L 2 L	K2D01LD21C K2D02LD21C	Outlet:	50 cm ID ¼"*OD 1/6" Lifemeta™ STD Pt-cured Silicone Tubing + ¼" HB MPC Coupling Inserts	10 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing + Needlefree Swabable Valve
2D 2D 2D	5 L 10 L 20 L	K2D05LD21C K2D10LD21C K2D20LD21C	Inlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Bodies	10 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing
2D 2D	35 L 50 L	K2D35LD21C K2D50LD21C	Outlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Inserts	+ Needlefree Swabable Valve
3D 3D	100 L 200 L	K3D100D21C K3D200D21C	Inlet: Outlet:	150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Bodies 150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 3/8" HB MPC Coupling Inserts	
3D 3D	250 L 500 L	K3D250D21C K3D500D21C	Inlet: Outlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies 150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts	20 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing + Needlefree Swabable Valve
3D 3D 3D	1000 L 1500 L 2000 L	K3D10XD21C K3D15XD21C K3D20XD21C	Inlet: Outlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + ½" HB MPX Coupling Bodies 300 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + ½" HB MPX Coupling Inserts	

Connection via Tri-clamps (TC)

Volume		ne Cat. No.		Inlet/Outlet	Sampling	
2D 2D	250 mL 500 mL	K2D025D2NT K2D050D2NT	Inlet:	50 cm ID ¼"*OD 7⁄6" Lifemeta™ STD Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	None	
2D 2D	1 L 2 L	K2D01LD21T K2D02LD21T	Outlet:	50 cm ID ¼" * OD 7⁄6" Lifemeta™ STD Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	10 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing + Needlefree Swabable Valve	
2D 2D 2D	5 L 10 L 20 L	K2D05LD21T K2D10LD21T K2D20LD21T	Inlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	10 cm ID ¼" Lifemeta™ STD	
2D 2D	35 L 50 L	K2D35LD21T K2D50LD21T	Outlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + ¾" Tri-clamp (TC25)	Pt-cured Silicone Tubing + Needlefree Swabable Valve	
3D 3D	100 L 200 L	K3D100D21S K3D200D21S	Inlet: Outlet:	150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50) 150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50)		
3D 3D	250 L 500 L	K3D250D21S K3D500D21S	Inlet: Outlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50) 150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50)	20 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing + Needlefree Swabable Valve	
3D 3D 3D	1000 L 1500 L 2000 L	K3D10XD21S K3D15XD21S K3D20XD21S	Inlet: Outlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50) 300 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + 1-½" Tri-clamp (TC50)		

Connection via AseptiQuik® Connectors

Volume		e Cat. No.		Inlet/Outlet	Sampling	
2D 2D	250 mL 500 mL	K2D025D2NA K2D050D2NA	Inlet:	50 cm ID ¼"* OD 7/s" Lifemeta™ STD Pt-cured Silicone Tubing	None	
20	500 ML	KZDUSUDZNA		+ 1/4" AseptiQuik® G Connector		
2D	1 L	K2D01LD21A	Outlet:	50 cm ID ¼ " * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing	10 cm ID ¼" Lifemeta™ STD Pt-cured Silicone Tubing	
2D	2 L	K2D02LD21A		+ 1/4" AseptiQuik® G Connector	+ Needlefree Swabable Valve	
2D	5 L	K2D05LD21A	Inlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing		
2D	10 L	K2D10LD21A		+ 3/8" AseptiQuik® G Connector		
2D	20 L	K2D20LD21A			10 cm ID ¼" Lifemeta™ STD	
2D	35 L	K2D35LD21A	Outlet:	50 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing	Pt-cured Silicone Tubing + Needlefree Swabable Valve	
2D	50 L	K2D50LD21A		+ 3/8" AseptiQuik® G Connector	r reculence swapable valve	
			Inlet:	150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing		
3D	100 L	K3D100D21A		+ 3/8" AseptiQuik® G Connector		
3D	200 L	K3D200D21A	Outlet:	150 cm ID 3/8" * OD 5/8" Lifemeta™ STD Pt-cured Silicone Tubing		
				+ 3/8" AseptiQuik® G Connector		
			Inlet:	150 cm ID ½" * OD ¾" Lifemeta [™] STD Pt-cured Silicone Tubing	20 cm ID ¼" Lifemeta™ STD	
3D	250 L	K3D250D21A		+ ½" AseptiQuik® G Connector	Pt-cured Silicone Tubing + Needlefree Swabable Valve	
3D	500 L	K3D500D21A	Outlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing		
				+ ½" AseptiQuik® G Connector		
3D	1000 L	K3D10XD21A	Inlet:	150 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing		
3D	1500 L	K3D15XD21A		+ ½" AseptiQuik® G Connector		
3D	2000 L	K3D20XD21A	Outlet:	300 cm ID ½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing + ½" AseptiQuik® G Connector		

Connection via C-Flex® 374 Tubing

Volur	me	e Cat. No. Inlet/Outlet		Sampling
2D 2D	250 mL 500 mL	K2D025C2NP K2D050C2NP	Inlet: 50 cm ID ¼"*OD 7/ω"C-Flex® 374 Tubing + Tubing Plug	None
2D 2D	1 L 2 L	K2D01LC2CP K2D02LC2CP	Outlet: 50 cm ID ¼"*OD 7/6"C-Flex® 374 Tubing + Tubing Plug	40 cm ID ¼" C-Flex® 374 Tubing + Female Luer Lock + Plug
2D 2D 2D 2D 2D 2D	5 L 10 L 20 L 35 L 50 L	K2D05LC2CP K2D10LC2CP K2D20LC2CP K2D35LC2CP K2D50LC2CP	Inlet: 50 cm ID 3/8" * OD 5/8" C-Flex® 374 Tubing + Tubing Plug Outlet: 50 cm ID 3/8" * OD 5/8" C-Flex® 374 Tubing + Tubing Plug	40 cm ID ¼" C-Flex® 374 Tubing + Female Luer Lock + Plug
3D 3D	100 L 200 L	K3D100C2CP K3D200C2CP	Inlet: 150 cm ID 3/8" * OD 5/8" C-Flex® 374 Tubing + Tubing Plug Outlet: 150 cm ID 3/8" * OD 5/8" C-Flex® 374 Tubing + Tubing Plug	
3D 3D	250 L 500 L	K3D250C2CP K3D500C2CP	Inlet: 150 cm ID ½" * OD ¾" C-Flex® 374 Tubing + Tubing Plug Outlet: 150 cm ID ½" * OD ¾" C-Flex® 374 Tubing + Tubing Plug	40 cm ID ¼" C-Flex® 374 Tubing + Female Luer Lock + Plug
3D 3D 3D	1000 L 1500 L 2000 L	K3D10XC2CP K3D15XC2CP K3D20XC2CP	Inlet: 150 cm ID ½" * OD ¾" C-Flex® 374 Tubing + Tubing Plug Outlet: 300 cm ID ½" * OD ¾" C-Flex® 374 Tubing + Tubing Plug	

^{*} Pharma-50 Pt-cured Silicone Tubing is available. For more pre-designed solutions, please contact Cobetter sales or technica Tassistance.



Supporting Containers







- · Provide 3D supporting transfer carts
- · 304 stainless steel
- · Optional weighing module
- · Flexible customized services

Cobetter provides stainless steel containers suporting Lifecube® single-use bags for customers.

Customized stainless steel container carts are also available for customer requirements.





Lifecube® AS Single-use Sampling Bags

Quality Assurance

- · ISO® 9001:2015 quality management system
- · ISO Class 7 clean zones
- · 100% leak testing
- · ADCF raw materials
- · Meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182
- \cdot Meet the requirement of USP <87> In Vitro Biological Reactivity Test
- · Meet the criteria of the USP <88> Biological Reactivity Test for Class VI plastics
- · 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
- · Verify gamma irradiation dose according to ISO® 11137

Features

- · Good physical strength and excellent 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
- · Local supply. Variable and flexible customized services

Typical Applications

- · Sampling with single-use bags
- · Secondary sampling from sampling bag
- · Store samples after sampling



Order Information

Volume	Cat. No.	Line 1	Line 2
5 mL	KAS5ML1DLN	20 cm ID 1/8" * O 1/4" Lifemeta™ STD Pt-cured Silicone Tubing + Male Luer Lock + Sealing Cap	None
50 mL	KAS0051DLF	20 cm ID 1/8" * OD 1/4" Lifemeta™ STD Pt-cured Silicone Tubing	20 cm ID 1/8" * OD 1/4" Lifemeta™ STD Pt-cured Silicone Tubing
100 mL	KAS0101DLF	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Needlefree Swabable Valve
250 mL	KAS0251DLF	20 cm ID 1/4" * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing	20 cm ID 1/4" * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing
500 mL	KAS0501DLF	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Needlefree Swabable Valve
50 mL	KAS0051DLV	20 cm ID 1/8" * OD 1/4" Lifemeta™ STD Pt-cured Silicone Tubing	20 cm ID 1/8" * OD 1/4" Lifemeta™ STD Pt-cured Silicone Tubing
100 mL	KAS0101DLV	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Sampling Plug
250 mL	KAS0251DLV	20 cm ID 1/4" * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing	20 cm ID 1/4" * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing
500 mL	KAS0501DLV	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Sampling Plug
5 mL	KAS5ML1CLN	40 cm ID 1/8" * OD 1/4" C-Flex® 374 Tubing + Male Luer Lock + Sealing Cap	None
50 mL	KAS0051CLF	40 cm ID 1/8" * OD 1/4" C-Flex® 374 Tubing	40 cm ID 1/8" * OD 1/4" C-Flex® 374 Tubing
100 mL	KAS0101CLF	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Needlefree Swabable Valve
250 mL	KAS0251CLF	40 cm ID 1/4" * OD 7/16" C-Flex® 374 Tubing	40 cm ID 1/4" * OD 7/16" C-Flex® 374 Tubing
500 mL	KAS0501CLF	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Needlefree Swabable Valve
50 mL	KAS0051CLV	40 cm ID 1/4" * OD 1/4" C-Flex® 374 Tubing	40 cm ID 1/4" * OD ¼" C-Flex® 374 Tubing
100 mL	KAS0101CLV	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Sampling Plug
250 mL	KAS0251CLV	40 cm ID 1/4" * OD 7/16" C-Flex® 374 Tubing	40 cm ID 1/4" * OD 7/16" C-Flex* 374 Tubing
500 mL	KAS0501CLV	+ Male Luer Lock + Sealing Cap	+ Female Luer Lock + Sampling Plug

 $[\]hbox{\tt *For more pre-designed solutions, please contact Cobetter sales or technical assistance.}$



Lifecube® SA Single-use Assemblies



Quality Assurance

- · ISO® 9001:2015 quality management system
- · ISO Class 7 clean zones
- · 100% leak testing
- · ADCF raw materials
- · Meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182
- · Meet the requirement of USP <87> In Vitro Biological Reactivity Test
- · Meet the criteria of the USP <88> Biological Reactivity Test for Class VI plastics
- · 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
- · Verify gamma irradiation dose of sterile packaging according to ISO® 11137

Features

- · Provide common used connector assemblies
- · Double-layer sterile packaging sterilized by 25-45 kGy gamma irradiation
- · Provide non-sterile packaging that can be autoclaved
- · Local supply. Variable and flexible customized services

Typical Applications

- \cdot Connect single-use system to stainless steel system
- · System connections with different connectors



Order Information

AseptiQuik® G Connectors to Tri-clamps (TC)

70	Cat. No.	Connector 1	Tubing	Connector 2	
//-	SAL1DR05AT		50 cm ID 1⁄4" * OD 7/16" Lifemeta™ STD Pt-cured Silicone Tubing		
	SAL1DY05AT		50 cm ID¾" * OD %" Lifemeta™ STD Pt-cured Silicone Tubing	¾"Tri-clamp (TC25)	
	SAL1DH05AT	AseptiQuik® G Connector	50 cm ID½" * OD ¾" Lifemeta™ STD Pt-cured Silicone Tubing		
P	SAL1DR05AS		50 cm ID¼" * OD ⅓16" Lifemeta™ STD Pt-cured Silicone Tubing	1-½"Tri-clamp (TC50)	
Was L.	SAL1DY05AS		50 cm ID¾" * OD%" Lifemeta™ STD Pt-cured Silicone Tubing		
	SAL1DH05AS		50 cm ID½" * OD¾" Lifemeta™ STD Pt-cured Silicone Tubing		

Connector 2

3/4"Tri-clamp (TC25)

1-1/2"Tri-clamp (TC50)

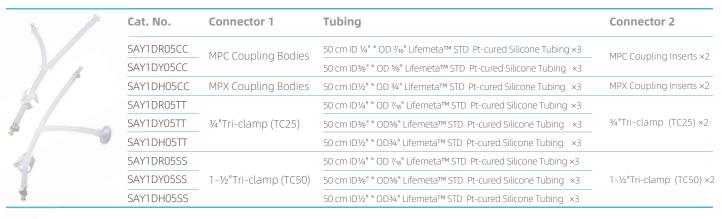
3/4"Tri-clamp (TC25)

1-1/2"Tri-clamp (TC50)

CPC MPC/MPX Quick Couplers to Tri-clamps (TC)



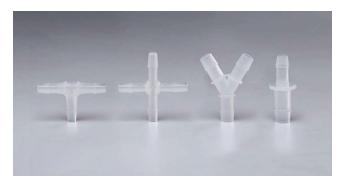
Tee Fitting Connection



^{*} For more pre-designed solutions, please contact Cobetter sales or technical assistance.



Lifemeta[™] SF Pharmaceutical Grade Connectors







Quality Assurance

- · ISO® 9001:2015 quality management system
- · ISO Class 7 clean zones
- · ADCF raw materials
- · Meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182
- · Meet the requirement of USP <87> In Vitro Biological Reactivity Test
- \cdot Meet the criteria of the USP <88> Biological Reactivity Test for Class VI plastics
- · 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

Features

- · Polypropylene material. Can be sterilized by gamma irradiation at 25-45 kGy or autoclaved 30 minutes at 126 °C
- · Withstand vacuum pressure at room temperature to 5.5 bar
- · Cobetter self-producted with short delivery time



Order Information

Cat. No.	Description	Packaging	
SFLRTNN	¼" Hose Barb (HB) to ¾"Tri-clamp (TC25)		
SFLYTNN	%" Hose Barb (HB) to ¾"Tri-clamp (TC25)		
SFLHTNN	½" Hose Barb (HB) to ¾"Tri-clamp (TC25)		
SFLRSNN	1/4" Hose Barb (HB) to 1-1/2"Tri-clamp (TC50)		
SFLYSNN	⅓" Hose Barb (HB) to 1-½"Tri-clamp (TC50)	Non-sterile	
SFLHSNN	½" Hose Barb (HB) to 1-½"Tri-clamp (TC50)		
SFLMSNN	¾" Hose Barb (HB) to 1-½"Tri-clamp (TC50)		
SFYHHHNN	½" Hose Barb (HB) -½" HB -½" HB Y-Fitting		
SFTRRRNN	1/4" Hose Barb (HB) -1/4" HB -1/4" HB T-Fitting		
SFXRRRRNN	1/4" Hose Barb (HB) -1/4" HB -1/4" HB -1/4" HB Cross Fitting		

^{*}For more connector types, please contact Cobetter sales or technical assistance.

