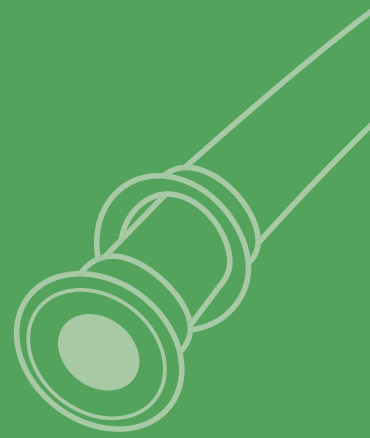
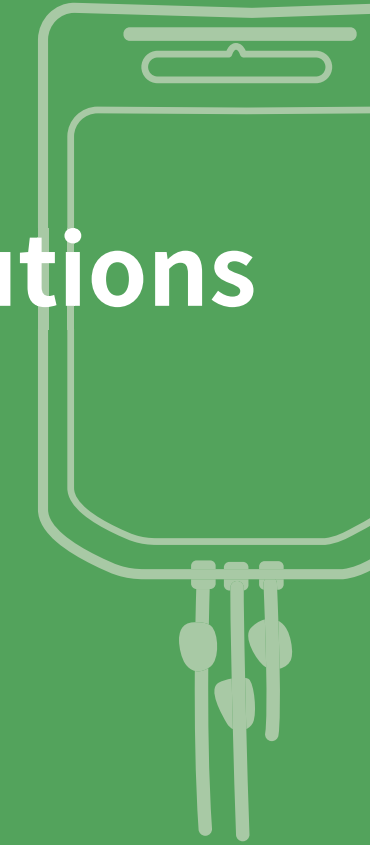
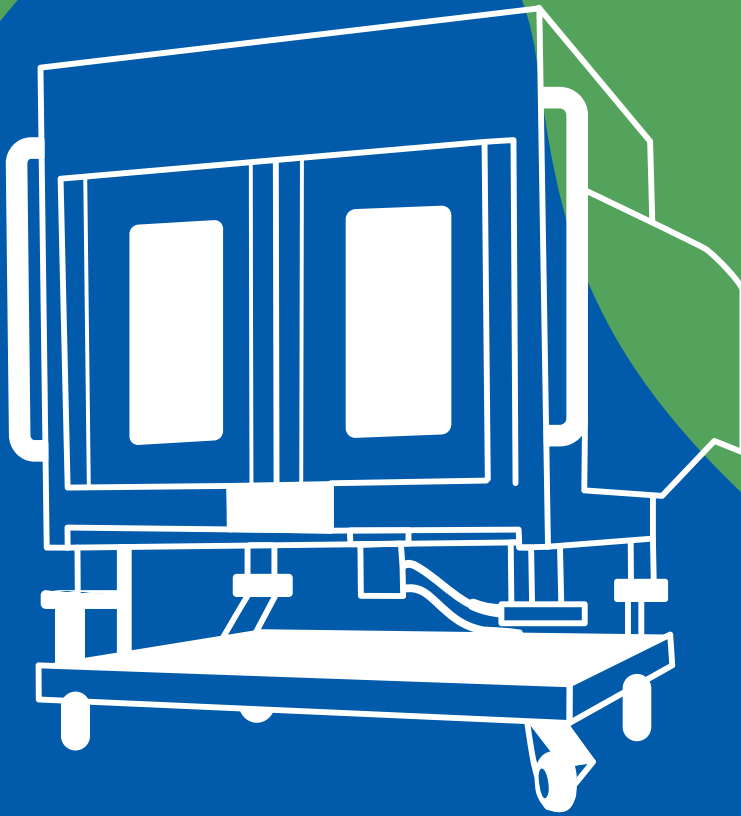




Single-use Process Solutions

Product Catalog 2022 Ver.00



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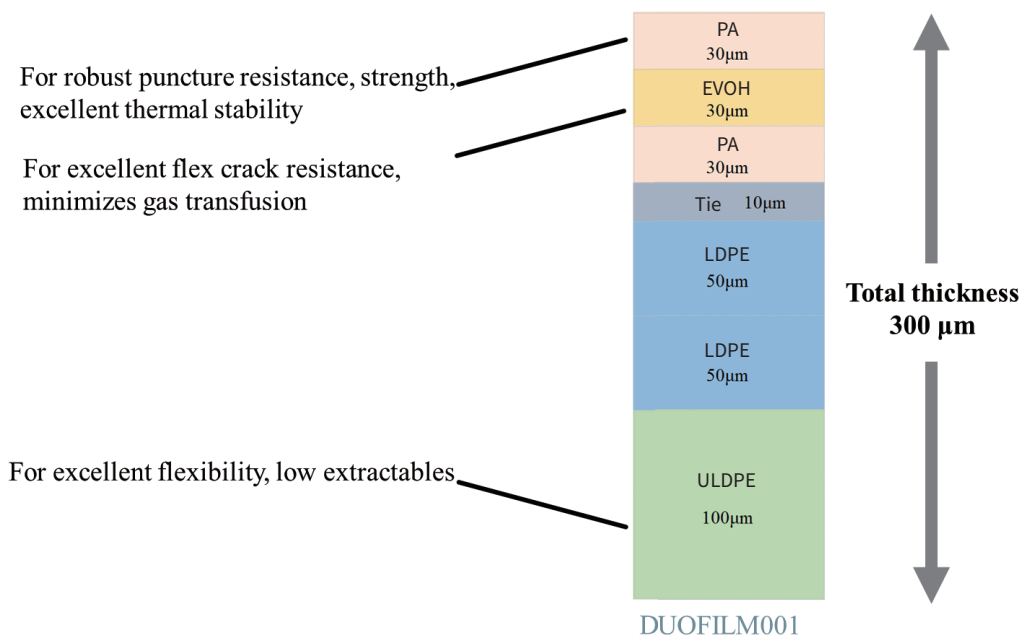
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Single-use Process Bag

DuoFilm-001 Film

Product Description

The DuoFilm-001 film developed by our company is co-extruded with seven layers of PA (polyamide), EVOH (ethylene vinyl alcohol polymer), LDPE (low density polyethylene) and ULDPE (ultra low density polyethylene), with a thickness of 0.3mm. The PA layer outside provides with a strong puncture resistance, strength and stability; the EVOH layer minimizes the diffusion of gas on the film and maintains a good flexing and fracturing resistance; ULDPE is the liquid contacting layer which features excellent physical and chemical properties and biocompatibility.



Product Features

- Verified by a series of standards, such as USP<85>, USP<87>, USP<88>, USP<661> and ISO10993-4, etc.
- Complete product models
- Customizable according to customer needs
- Good mixing effect at a fast speed
- Quick response and a short delivery cycle
- Customized E&L research service available
- The 3D mixing bag, 3D liquid storage bag, 2D liquid storage bag, cask bag, open bag, sampling bag and feeding bag are available in different sizes

2D Liquid Storage Bag

Product Description

Lianghei 2D liquid storage bag is a product specially developed for liquid storage and transfer in the biopharmaceutical process. The bags are available from 5 mL to 50 L, and can be customized according to customers' needs. The Duo-Film-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei 2D liquid storage bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Sterile filtration and storage of buffer and medium
- Bulk harvest
- Component collection
- Sample collection
- Storage of intermediates
- Shipment of final product

Product Features

- Compliance with USP<85>, USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 5 mL to 50 L
- Customizable according to customer needs
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative



3D Liquid Storage Bag

Product Description

Lianghei 3D liquid storage bag is a product specially developed for liquid storage and transfer in the biopharmaceutical process. The bags are available from 38 L to 568 L, and can be customized according to customers' needs. The DuoFilm-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei 3D cask liquid storage bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Sterile filtration and storage of buffer and medium
- Bulk harvest
- Component collection
- Sample collection
- Storage of intermediates
- Shipment of final product

Product Features

- Compliance with USP<85>, USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 38 L to 568 L
- Customizable according to customer needs
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative



Open Lined Bag

Product Description

Lianghei open lined bag is a product specially developed for liquid storage and transfer in the biopharmaceutical process. The bags are available from 38 L to 568 L, and can be customized according to customers' needs. The DuoFilm-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei weighing and feeding integrated bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Preparation of buffer and medium
- Temporary storage of liquid

Product Features

- Compliance with USP<85>, USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 38 L to 568 L
- Customizable according to customer needs
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative

3D Stereo/Foldable Square Liquid Storage Bag

Product Description

Lianghei foldable square liquid storage bag/3D stereo liquid storage bag is a product specially developed for liquid storage and transfer in the biopharmaceutical process. The bags are available from 50 L to 3000 L, and can be customized according to customers' needs. The DuoFilm-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei foldable square liquid storage bag/3D stereo liquid storage bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Sterile filtration and storage of buffer and medium
- Bulk harvest
- Component collection
- Sample collection
- Storage of intermediates
- Shipment of final product

Product Features

- Compliance with USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 38 L to 568 L for the cask liquid storage bag and from 50 L to 3,000 L for the square liquid storage bag
- Customizable according to customer needs
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative



Feeding Bag

Product Description

Lianghei weighing and feeding integrated bag is a product specially developed for liquid storage and transfer in the biopharmaceutical process. The bags are available from 5 L to 50 L, and can be customized according to customers' needs. The DuoFilm-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei weighing and feeding integrated bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Solid/liquid weighing
- Solid/liquid transfer
- Solid/liquid feeding

Product Features

- Compliance with USP<85>, USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 5 L to 50 L
- Customizable according to customer needs
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative



Mini DuoMix Mixing Bag/DuoMix Mixing Bag

Product Description

Lianghei 3D mixing bag can be used with Lianghei mixing equipment, and other mixing bags adapted to other mixing equipment are also provided. It is a product specially developed for liquid-liquid and liquid-solid mixing in the biopharmaceutical process. The bags are available from 2 L to 3,000 L, and can be customized according to customers' needs. The DuoFilm-001 film is a 7-layer laminated bio-specific film with a thickness of 0.3 mm and a liquid contact layer of ULDPE with excellent physicochemical and biocompatibility properties. Lianghei 3D liquid storage bag fully complies with cGMP and biopharmaceutical operation requirements in terms of raw materials, product assembly, and sterilization processes.

Application scope

- Preparation of buffer and medium
- Temporary storage, mixing and temperature control of intermediates
- Low pH incubation/virus inactivation
- Preparation of semi-finished products
- Adjuvant addition and mixing



Product Features

- Compliance with USP<85>, USP<87>, USP<88>, USP<661>, ISO10993, etc.
- Complete models available from 2 L to 3000 L
- Customizable according to customer needs
- Good mixing effect at a fast speed
- Quick response and a short delivery cycle

Ordering information

For customization service, please contact the local sales representative

Function design

Items	Overview
Volume	2L 5L 10L 20L 50L 100L 200L 500L 1000L 1500L 2000L 2500L 3000L
Configuration	Mixing, materials input, temperature monitor, pH and Cond
Materials	Main body: PE; connectors and other parts: PP; tubes: platinum vulcanized silicone, TPE
Options	Special size, configuration, shape, inlet and outlet tube, connector, etc

Remark: customizable according to customer needs

Single-use process tubes

HPT Platinum Vulcanized Silicone Tube

Product Description

Lianghei silicone tube is manufactured in the clean workshop that complies with ISO 14644 CLASS 7, and follows the requirements of ISO 9001:2015 quality management system and GMP related regulations. All links of the manufacturing process, from receipt to production, are under strict control. Once the batch number is assigned, inspection can be performed and the batch information is traceable.

The platinum vulcanized silicone tube manufactured in the clean room features good stability and ultra-low volatility, and is specially designed and developed for single use in biopharmaceutical applications. The HPT platinum vulcanized silicone tube has undergone extensive physical, chemical and biological tests and meets the USP, FDA CFR 177.2600, ISO 10993, and Ph. Eur. 3.1.9. The full BPOG's standardized extractables testing was carried out by a third party testing laboratory.

Application scope

- Pharmaceutical and biotechnological processes
- Ultrapure fluid transfer
- Single-use system
- Tube assembly
- Laboratory

Product Features

- Testing of sub-visible particles as per USP 788
- Free of animal-derived components
- Operating temperature range: -60°C to 200°C
- Resistance to extreme temperature, compression set, chemical attack, ozone, radiation, moisture and environmental exposure
- Autoclavable or sterilization by GAMMA rays
- Sterility validation by gamma irradiation according to ISO 11137 Method Vdmax 25
- Traceable batch of records and double-layer package with identification
- Documented quality control as per ISO 9001:2015
- Complete validation package available upon request
- Monthly monitoring and testing of microorganism and airborne particles in clean workshops
- Pest free management in the factories and park

Physical Performance

Performance	ASTM method	Parameters
Hardness Type A Shore Durometer 15 s	D2240	50
Tensile strength psi	D412	1276
Elongation at break 100%	D412	760
Tear strength ppi	D642	266
Specific gravity	D792	1.17
Tensile modulus psi	D412	311

Biocompatibility

Validation item	Regulatory Standards
Bacterial endotoxin	USP 85
Biological reactivity test - in vitro	USP 87
Biological reactivity test - in vivo	USP 88
Elastic sealant for injection	USP 381
Physicochemical properties of plastics	USP 661
Sub-visible particles	USP 788
Genotoxicity, carcinogenicity and reproductive toxicity	ISO 10993 3
Selection of tests for interactions with blood - in vitro hemocompatibility	ISO 10993 4
In vitro cytotoxicity test	ISO 10993 5
Stimulation and sensitivity test - Kligman maximization test	ISO 10993 10
Systemic toxicity test	ISO 10993 11
Rubber products	FDA 21 CFR 177.2600
Sealing and tubing testing of organic silicone elastomers	EP 3.1.9
Extractables	BPOG

Ordering information

NO.	Inner diameter		Outer diameter		Wall thickness		Length (m)
	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	
SUS-HPT-0063-0188	1.59	1/16	4.76	3/16	1.59	1/16	15
SUS-HPT-0094-0219	2.38	3/32	5.56	7/32	1.59	1/16	15
SUS-HPT-0125-0250	3.18	1/8	6.35	1/4	1.59	1/16	15
SUS-HPT-0125-0313	3.18	1/8	7.95	5/16	2.38	3/32	15
SUS-HPT-0125-0375	3.18	1/8	9.53	3/8	3.18	1/8	15
SUS-HPT-0156-0281	3.96	5/32	7.14	9/32	1.59	1/16	15
SUS-HPT-0156-0406	3.96	5/32	10.31	13/32	3.18	1/8	15
SUS-HPT-0188-0313	4.76	3/16	7.95	5/16	1.59	1/16	15
SUS-HPT-0188-0375	4.76	3/16	9.53	3/8	2.38	3/32	15
SUS-HPT-0250-0313	6.35	1/4	7.95	5/16	0.79	1/32	15
SUS-HPT-0250-0375	6.35	1/4	9.53	3/8	1.59	1/16	15
SUS-HPT-0250-0438	6.35	1/4	7.95	7/16	2.38	3/32	15
SUS-HPT-0250-0500	6.35	1/4	9.53	1/2	3.18	1/8	15
SUS-HPT-0313-0438	7.9	5/16	11.11	7/16	1.59	1/16	15
SUS-HPT-0313-0500	7.9	5/16	12.7	1/2	2.38	3/32	15
SUS-HPT-0375-0500	9.53	3/8	12.7	1/2	1.59	1/16	15
SUS-HPT-0375-0563	9.53	3/8	14.3	9/16	2.38	3/32	15
SUS-HPT-0375-0625	9.53	3/8	15.88	5/8	3.18	1/8	15
SUS-HPT-0500-0688	12.7	1/2	17.47	11/16	2.38	3/32	15
SUS-HPT-0500-0750	12.7	1/2	19.05	3/4	3.18	1/8	15
SUS-HPT-0625-0875	15.88	5/8	22.22	7/8	3.18	1/8	15
SUS-HPT-0750-1000	19.05	3/4	25.4	1	3.18	1/8	15
SUS-HPT-0750-1125	19.05	3/4	28.57	1-1/8	4.76	3/16	15
SUS-HPT-0750-1250	19.05	3/4	31.75	1-1/4	6.35	1/4	15
SUS-HPT-1000-1375	25.4	1	34.92	1-3/8	4.76	3/16	15
SUS-HPT-1000-1500	25.4	1	38.1	1-1/2	6.35	1/4	15

TGP Silicone Tube for Peristaltic Pump

Product Description

TGP tube for peristaltic pump is a silicone hose of high quality and high purity. Specially designed for peristaltic pumps and pinch valves, it is an ideal choice for peristaltic pump delivery applications. Thanks to the stable biotechnological process, this product is of outstanding strength and performance, longer service life, and ultra-smooth internal surface for better fluid delivery. Its service life on the pump can reach up to 1,000 h.

Application scope

- Pharmaceutical and biotechnological processes
- Single-use system
- Vaccine production
- Ultrapure fluid transfer
- Peristaltic pump delivery
- Aseptic filling

Product Features

- Testing of sub-visible particles as per USP 788
- Free of animal-derived components
- Operating temperature range: -60°C to 200°C
- Minimal leachability that contributes to the integrity of fluid delivery and resistance to extreme temperature, compression set, chemical attack, ozone, radiation, moisture and environmental exposure
- Autoclavable or sterilization by GAMMA rays
- Sterility assurance by gamma irradiation according to ISO 11137 Method VDmax 25
- Documented quality control as per ISO 9001:2015
- Complete validation report available upon request

Physical Performance

Performance	ASTM method	Parameters
Hardness Type A Shore Durometer 15 s	D2240	50
Tensile strength psi	D412	1290
Elongation at break 100%	D412	480
Tear strength ppi	D642	102
Specific gravity	D792	1.13
Tensile modulus psi	D412	306

Biocompatibility

Validation item	Regulatory Standards
Bacterial endotoxin	USP 85
Biological reactivity test - in vitro	USP 87
Biological reactivity test - in vivo	USP 88
Elastic sealant for injection	USP 381
Physicochemical properties of plastics	USP 661
Sub-visible particles	USP 788
Genotoxicity, carcinogenicity and reproductive toxicity	ISO 10993 3
Selection of tests for interactions with blood - in vitro hemocompatibility	ISO 10993 4
In vitro cytotoxicity test	ISO 10993 5
Stimulation and sensitivity test - Kligman maximization test	ISO 10993 10
Systemic toxicity test	ISO 10993 11
Rubber products	FDA 21 CFR 177.2600
Sealing and tubing testing of organic silicone elastomers	EP 3.1.9
Extractables	BPOG

Ordering information

NO.	Inner diameter		Outer diameter		Wall thickness		Length (m)
	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	
SUS-TGP-0125-0250	3.18	1 / 8	6.35	1 / 4	1.59	1 / 16	15
SUS-TGP-0125-0313	3.18	1 / 8	7.95	5 / 16	2.38	3 / 32	15
SUS-TGP-0188-0313	4.76	3 / 16	7.95	5 / 16	1.59	1 / 16	15
SUS-TGP-0188-0375	4.76	3 / 16	9.53	3 / 8	2.38	3 / 32	15
SUS-TGP-0188-0438	4.76	3 / 16	11.11	7 / 16	3.18	1 / 4	15
SUS-TGP-0250-0375	6.35	1 / 4	9.53	3 / 8	1.59	1 / 16	15
SUS-TGP-0250-0438	6.35	1 / 4	11.11	7 / 16	2.38	3 / 32	15
SUS-TGP-0250-0500	6.35	1 / 4	12.7	3 / 8	3.18	1 / 8	15
SUS-TGP-0313-0500	7.95	5 / 16	12.7	7 / 16	2.38	3 / 32	15
SUS-TGP-0375-0563	9.53	3 / 8	14.3	1 / 2	2.38	1 / 8	15
SUS-TGP-0375-0625	9.53	3 / 8	15.88	1 / 2	3.18	3 / 32	15
SUS-TGP-0500-0688	12.7	1 / 2	17.47	9 / 16	2.38	3 / 32	15
SUS-TGP-0500-0750	12.7	1 / 2	19.05	5 / 8	3.18	1 / 8	15
SUS-TGP-0625-0875	15.88	5 / 8	22.22	11 / 16	3.18	1 / 8	15
SUS-TGP-0750-1000	19.05	3 / 4	25.4	3 / 4	3.18	1 / 8	15
SUS-TGP-0750-1125	19.05	3 / 4	28.57	1-1/8	4.76	3 / 16	15
SUS-TGP-0750-1250	19.05	3 / 4	31.75	1-1/4	6.35	1 / 4	15
SUS-TGP-1000-1375	25.4	1	34.92	1-3/8	4.76	3 / 16	15

TPT Pressure-resistant Silicone Tube

Product Description

Compared with traditional braided pressure-resistant silicone tube, TPT pressure-resistant silicone tube is a transparent hose without reinforcement layer, which is not only convenient for users to observe the fluid inside, but also can effectively avoid potential particle shedding from cutting the braided reinforced hose.

Application scope

- Pharmaceutical and biotechnological processes
- Single-use system
- Virus filtration
- Ultrapure fluid transfer
- Peristaltic pump delivery
- Harvest and ultrafiltration

Product Features

- Testing of sub-visible particles as per USP 788
- Avoid potential particle shedding from cutting the braided reinforced hose
- Free of animal-derived components
- Operating temperature range: -60°C to 200°C
- Autoclavable or sterilization by GAMMA rays
- Sterility validation by gamma irradiation according to ISO 11137 Method VDmax 25
- Traceable batch of records and double-layer package with product identification
- Documented quality control as per ISO 9001:2015
- Complete validation package available upon request
- Monthly monitoring and testing of microorganism and airborne particles in clean workshops
- Pest free management in the factories and park

Physical Performance

Performance	ASTM method	Parameters
Hardness Type A Shore Durometer 15 s	D2240	65
Tensile strength psi	D412	1082
Elongation at break 100%	D412	147
Tear strength ppi	D642	860
Specific gravity	D792	1.2
Tensile modulus psi	D412	280

Biocompatibility

Validation item	Regulatory Standards
Bacterial endotoxin	USP 85
Biological reactivity test - in vitro	USP 87
Biological reactivity test - in vivo	USP 88
Elastic sealant for injection	USP 381
Physicochemical properties of plastics	USP 661
Sub-visible particles	USP 788
Genotoxicity, carcinogenicity and reproductive toxicity	ISO 10993 3
Selection of tests for interactions with blood - in vitro hemocompatibility	ISO 10993 4
In vitro cytotoxicity test	ISO 10993 5
Stimulation and sensitivity test - Kligman maximization test	ISO 10993 10
Systemic toxicity test	ISO 10993 11
Rubber products	FDA 21 CFR 177.2600
Sealing and tubing testing of organic silicone elastomers	EP 3.1.9
Extractables	BPOG

Ordering information

NO.	Inner diameter		Outer diameter		Wall thickness		Operating pressure at 21.1 °C		Length (m)
	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Psi)	(Bar)	
SUS-TPT-0125-0250	3.18	1 / 8	6.35	1 / 4	1.59	1 / 16	87	6	15
SUS-TPT-0250-0375	6.35	1 / 4	9.53	3 / 8	1.59	1 / 16	81	5.6	15
SUS-TPT-0375-0625	9.53	3 / 8	15.88	5 / 8	3.18	1 / 8	72	5	15
SUS-TPT-0500-0750	12.7	1 / 2	19.05	3 / 4	3.18	1 / 8	70	4.8	15
SUS-TPT-0625-1000	15.88	5 / 8	25.4	1	4.76	3 / 16	65	4.5	15
SUS-TPT-0750-1000	19.05	3 / 4	25.4	1	3.18	1 / 8	61	4.2	15
SUS-TPT-0750-1125	19.05	3 / 4	28.57	1-1/8	4.76	3 / 16	58	4	15
SUS-TPT-1000-1375	25.4	1	34.92	1-3/8	4.76	3 / 16	55	3.8	15

I-Flex Thermoplastic Tube

Product Description

I-Flex thermoplastic tube, specially developed for the biopharmaceutical industry, is weldable, heat-sealed, and moldable, and can be applied to deliver highly purified fluids.

Application scope

- Cell culture medium
- Cell fermentation
- Single-use system
- Vaccine production
- R&D in laboratory

Product Features

- Thermoplastic elastomers (TPEs) are developed specifically for fluid delivery in the pharmaceutical industry to make single-use biopharmaceutical hoses
- The thermoplastic tube is made of materials complying with USP Class VI, FDA, ISO, Ph. Eur. 3.2.2.1
- It is of good elasticity, translucent, and can be sterilized, heat-sealed and heat-welded
- Free of silicone oil and animal-derived components
- The smooth inner wall offers good flow performance, and the translucent color allows complete visual monitoring of the fluid
- The filing number is provided on the packaging bag and box for product tracking, and the quality control procedure has been filed
- Specified length, size and packaging are available upon request
- Testing of sub-visible particles as per USP 788
- Avoid potential particle shedding from cutting the braided reinforced hose
- Free of animal-derived components
- Operating temperature range: -40°C to 135°C
- Autoclavable or sterilization by GAMMA rays
- Sterility validation by gamma irradiation according to ISO 11137 Method VDmax 25
- Traceable batch of records and double-layer package with product identification
- Documented quality control is carried out as per ISO 9001:2015, and a complete validation package is available upon request
- Microorganism and airborne particles in clean workshops are monitored and inspected on a monthly basis, and pest-free management is performed in factories and parks

Physical Performance

Performance	ASTM method	Parameters
Hardness Type A Shore Durometer 15 s	D2240	59
Tensile strength psi	D412	860
Elongation at break 100%	D412	280

Biocompatibility

Validation item	Regulatory Standards
Bacterial endotoxin	USP 85
Biological reactivity test - in vitro	USP 87
Biological reactivity test - in vivo	USP 88
Elastic sealant for injection	USP 381
Physicochemical properties of plastics	USP 661
Sub-visible particles	USP 788
Genotoxicity, carcinogenicity and reproductive toxicity	ISO 10993 3
Selection of tests for interactions with blood - in vitro hemocompatibility	ISO 10993 4
In vitro cytotoxicity test	ISO 10993 5
Stimulation and sensitivity test - Kligman maximization test	ISO 10993 10
Systemic toxicity test	ISO 10993 11
Rubber products	FDA 21 CFR 177.2600
Sealing and tubing testing of organic silicone elastomers	EP 3.1.9
Extractables	BPOG

Ordering information

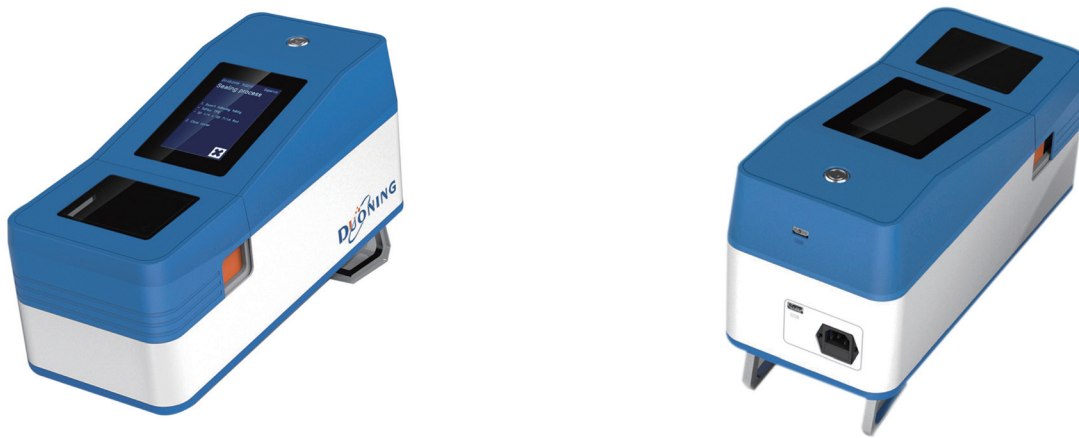
NO.	Inner diameter		Outer diameter		Wall thickness		Length (m)
	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	
SUS-TPE-0125-0250	3.18	1/8	6.35	1/4	1.59	1/16	15
SUS-TPE-0188-0313	4.76	3/16	7.94	5/16	1.59	1/16	15
SUS-TPE-0188-0375	4.76	3/16	9.53	3/8	2.38	3/32	15
SUS-TPE-0250-0375	6.35	1/4	9.53	3/8	1.59	1/16	15
SUS-TPE-0250-0438	6.35	1/4	11.11	7/16	2.38	3/32	15
SUS-TPE-0250-0500	6.35	1/4	12.7	1/2	3.18	1/8	15
SUS-TPE-0313-0500	7.94	5/16	12.7	1/2	2.38	3/32	15
SUS-TPE-0375-0500	9.53	3/8	12.7	1/2	1.59	1/16	15
SUS-TPE-0375-0563	9.53	3/8	14.28	9/16	2.38	3/32	15
SUS-TPE-0375-0625	9.53	3/8	15.88	5/8	3.18	1/8	15
SUS-TPE-0500-0688	12.7	1/2	17.46	11/16	2.38	3/32	15
SUS-TPE-0500-0750	12.7	1/2	19.05	3/4	3.18	1/8	15
SUS-TPE-0625-0875	15.88	5/8	22.22	7/8	3.18	1/8	15
SUS-TPE-0750-1000	19.05	3/4	25.4	1	3.18	1/8	15
SUS-TPE-0750-1125	19.05	3/4	28.57	1-1/8	4.76	3/16	15
SUS-TPE-0750-1250	19.05	3/4	31.75	1-1/4	6.35	1/4	15
SUS-TPE-1000-1375	25.4	1	34.92	1-3/8	4.76	3/16	15

Single-use Support Equipment

SUS sealer

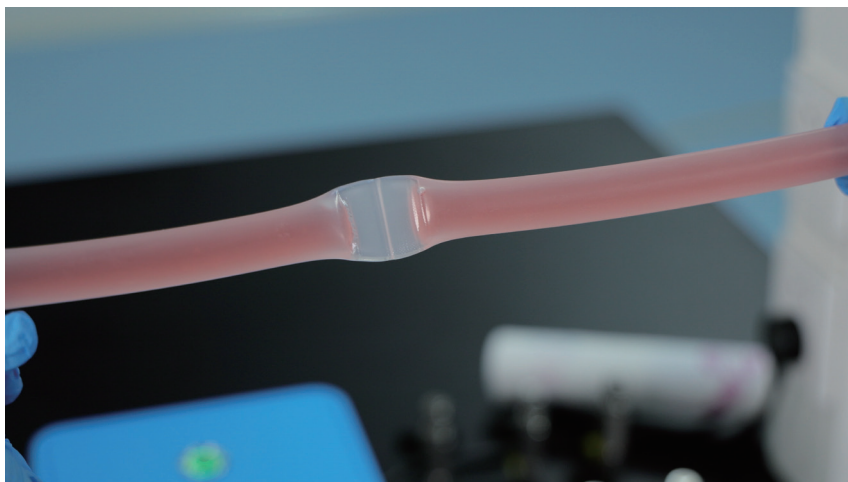
Product Description

Duoning sealer is a fully automatic process equipment used for the sterile disconnection of TPE hose outside the laminar flow cabinet to assure the sterility of product.



Application scope

- Sterile disconnection of TPE hose with a liquid storage bag
- Sterile disconnection of TPE hose of feeding bag
- Sterile disconnection of TPE hose of sampling bag



Hose sealing process

- Put the hose into the sealer
- Select a sealing program
- Open the cap automatically when the sealing is finished
- Disconnection of tube according to the guiding line

Product Features

- Wide coverage:

OD1/4"~OD1", 6 kinds of commonly used hose diameters in the pharmaceutical industry can be treated to meet all the needs of production;

- Easy operation:

Select the corresponding program according to the diameter of the hose with one key and no complex operation is needed;

- Powerful compatibility:

One device could be used for the hose sizes commonly used and no change of hose holder is required when switching between different hose diameters;

- Extensibility:

If the current standard process cannot meet the requirements, the sealing process can be customized by yourselves;

- User-friendly Human machine interface:

The sealer is equipped with a big touch screen which could display the real time parameters, status and temperature of the sealing;

- Significant sealing effect:

The tube can be sealed when it's empty, filled with fluid, as well as filled with fluid and under pressure with a sealing width up to 20 mm. A clear guiding line is indicated in the middle of the sealing to ensure an accurate disconnection of the hose.

- Strong data reliability:

Management with three level rights, storage of nearly 20,000 set of data which can be audit-traced and exported with one click

- Hand held set optional

Product Parameters

Items	Parameters
Article No.	DNSS0101
Power supply	100-240V, 50-60HZ
Power	75W
Dimension	410*175*246
Net weight	7.5kg
Materials	Aviation aluminum + stainless steel
Heat sealing time	3'00"-5'30"
Cooling mode	Air cooling
Heat sealing environment	5°C-40°C
Protection grade	IP32

DuoMix/Mini DuoMix Dispensing System

Product Description

The DuoMix/Mini DuoMix liquid dispensing system consists of a supporting container and a control system, which is perfect for liquid-liquid and liquid-solid mixing in the biopharmaceutical process, such as preparation of media, and collection and mixing of purified products. The supporting container is made of 304 stainless steel, and the control system is a cGMP-compliant DuoMix standard control system. The liquid dispensing system is available in 50 L, 100 L, 200 L, 500 L, 1,000 L, 1,500 L, 2,000 L, 2,500L, 3,000L and can be equipped with different functions according to actual needs. Meanwhile, it can be used in combination with Duoning 3D mixing bag to save cleaning time and improve production efficiency.

Product Features

- Reduced contamination risk
- Easy to install and use
- Meet the requirements of Good Manufacturing Practice for Drugs
- Use in conjunction with single-use mixing bags to reduce the downtime associated with cleaning validation
- The capacity of multi-line facilities can be improved with the single-use system
- Powerful mixing system for fast mixing
- Detachable modular control cabinet and quick response for equipment maintenance
- Optional pH, temperature, dissolved oxygen, conductivity, printing function and peristaltic pump in addition to basic functions such as weighing and mixing
- Customizable according to customer needs

Product feature of Mini DuoMix

- Tanks of multiple sizes can be equipped on one equipment due to the split structure
- Available in 2L, 5L, 10L and 20L
- Optional pH, dissolved oxygen, conductivity, printing function and peristaltic pump in addition to basic functions such as weighing and mixing
- Small size that can be placed directly on a table

Application scope

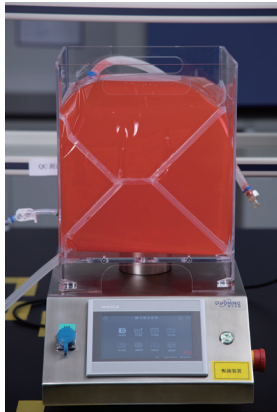
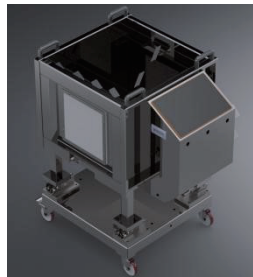

- Ultrapure fluid transfer

Function design

Items	Overview
Volume	2L 5L 10L 20L 50L 100L 200L 500L 1000L 1500L 2000L 2500L 3000L
Configuration	Mixing ,materials input, temperature monitor, pH and Cond
Materials	Main body: PE; connectors and other parts: PP; tube: platinum vulcanized silicone, TPE
Options	Special size, configuration, shape, inlet and outlet tube, connector, etc

Remark: customizable according to customer needs

Ordering information

Product name	Article No.	Working volume	Jacket	Diagram
MiniDuoMix mixing system (desktop mixing system)	PMMix-2L	2L	Jacket-free	
	PMMix-5L	5L		
	PMMix-10L	10L		
	PMMix-20L	20L		
DuoMix mixingsystem (stainless steel mixing system)	SSMix-50L	50L	Jacket-free	
	SSMix-100L	100L		
	SSMix-200L	200L		
	SSMix-500L	500L		
	SSMix-1000L	1000L		
	SSMix-1500L	1500L		
	SSMix-2000L	2000L		
	SSMix-2500L	2500L		
	SSMix-3000L	3000L		
	SSMix-50L-J	50L	Jacket	
	SSMix-100L-J	100L		
	SSMix-200L-J	200L		
	SSMix-500L-J	500L		
	SSMix-1000L-J	1000L		
	SSMix-1500L-J	1500L		
SSMix-2000L-J	2000L			
SSMix-2500L-J	2500L			
SSMix-3000L-J	3000L			

Duoning Liquid Storage System

Product Description

Duoning liquid storage system consists of supporting containers such as stainless steel liquid storage cart, foldable liquid storage tank, plastic tray and base.

The stainless steel liquid storage cart is available in 50 L to 3,000 L, which is reasonably designed, portable and easy to clean, and can be customized according to customers' needs.

The foldable liquid storage tank is available in 250 L, 500 L and 1,000L. It is made of polypropylene (PP), which meets the requirements of cGMP, and it occupies a small area due to its foldable design.

The plastic tray is made of polyethylene (PE) and is available in 5 L, 10 L, 20 L, 30 L and 50 L, which can be customized for special needs. The plastic storage drum is made of polyethylene (PE) and is available in 50L, 100L, 200L, 500L and 1000L.

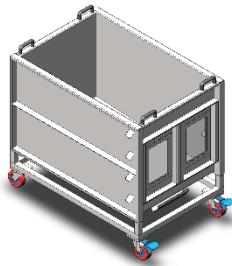

Product Features

- Complete models available for liquid storage in various volumes
- Customizable according to customers' needs
- Made of materials in fully compliance with cGMP requirements
- Quick response and fast supply






Application scope

- Ultrapure fluid transfer


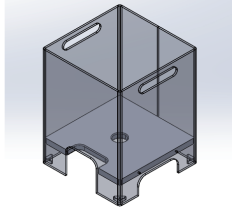
Ordering information

Product name	Article No.	Working volume	Materials	Diagram
Stainless steel liquid storage equipment	SSTank-50L	50L	304 stainless steel	
	SSTank-100L	100L		
	SSTank-200L	200L		
	SSTank-300L	300L		
	SSTank-500L	500L		
	SSTank-650L	650L		
	SSTank-1000L	1000L		
	SSTank-1500L	1500L		
	SSTank-2000L	2000L		
	SSTank-2500L	2500L		
SSTank-3000L	3000L			
Plastic storage equipment	PETank-50L	50L	PE	
	PETank-100L	100L		
	PETank-200L	200L		
	PETank-500L	500L		
	PETank-1000L	1000L		
Plastic storage square drum (Substitute of plastic storage drum)	PEBucket-50L	50L	PE	NA
	PEBucket-100L	100L		
	PEBucket-200L	200L		
	PEBucket-300L	300L		

Ordering information

Product name	Article No.	Working volume	Materials	Diagram
Plastic storage drum	PETank-19L	19L	LLDPE	
	PETank-38L	38L		
	PETank-57L	57L		
	PETank-113L	113L		
	PETank-208L	208L		
	PETank-303L	303L		
	PETank-378L	378L		
	PETank-568L	568L		
	PETank-757L	757L		
Foldable liquid storage square tank	PPTank-250L	250L	PP	
	PPTank-500L	500L		
	PPTank-1000L	1000L		
2D storage tray	PED-5L	5L	HDPE	
	PED-10L	10L		
	PED-20L	20L		
	PED-30L	30L		
	PED-50L	50L		
Plastic storage drum base	SSDolly-19L	19L	304 stainless steel	
	SSDolly-38L	38L		
	SSDolly-57L	57L		
	SSDolly-113L	113L		
	SSDolly-208L	208L		
	SSDolly-303L	303L		
	SSDolly-378L	378L		
	SSDolly-568L	568L		
	SSDolly-757L	757L		
Plastic foldable square box base	SSDolly-250L	250L	304 stainless steel	
	SSDolly-500L	500L		
	SSDolly-1000L	1000L		

Ordering information

Product name	Article No.	Working volume	Materials	Diagram
Multi-layer liquid storage transfer cart	SSChart-50L-5A	50L×1×5	304 stainless steel	
	SSChart-50L-5B	50L×2×5		
Metal disconnecting pliers	SSTong-A (Pneumatic)	$0 \leq \text{scope} < 0.438\text{IN}$	304 stainless steel	NA
	SSTong-B (Electric)	$0 \leq \text{scope} \leq 0.75\text{IN}$		
Mini DuoMix supporting container	PMHolder-2L	2L	PMMA	
	PMHolder-5L	5L		
	PMHolder-10L	10L		
	PMHolder-20L	20L		
Feeding system	SSCL-XX (Volume) x (feeding port size), such as SSCL-204	-	Stainless steel feeding bracket	NA
	SSClip-A	-	Stainless steel pin	
	SSForklift-A	-	Hand lifting bracket	
	SSForklift-B	-	Electric lifting bracket	
Through-wall sleeve	Pass-4N	4" (same level)	304 stainless steel	NA
	Pass-4	4" (different level)		
	Pass-5N	5" (same level)		
	Pass-5	5" (different level)		

Automatic bulk dispensing system

Product Description

The automatic bulk dispensing system is designed as a modular supporting several weighing modules and compatible with bags and bottles in different sizes. Among them, the height-adjustable weighing module could minimize the dead volume of the tube. It is also designed with pressure warning and flow warning functions which can be used for the integrity test of filters, pipelines, bags and bottles. The filling volume varies from 50mL-20L with a high filling precision. The system recovery can be improved with reverse flow or air purging. As a graphical operating software with data integrity, digital signature and audit functions, it is fully compliance and can be locked manually or automatically.

Application scope

- Medium dispensing
- Buffer dispensing
- Bulk dispensing

Product Features

- Fully automatic filtration and dispensing
- Adaptable to bottles and bags in different sizes
- Industrial PLC control system
- With automatic and manual modes
- Integrity test online or after completion
- Multiple dispensing modes
- Tube bracket is provided to avoid bending of tubes
- Barcode can be scanned to identify the tube and solvent automatically
- Height-adjustable weighing module is provided
- Weighing modules provided at multiple point for accurate weighing



Ordering information

Materials	316 stainless steel (Ra: 0.6)
PLC controller	Siemens
Protection grade	IP54
Filling volume	50mL- 20L
Label printing	Cryoware label
Integration	Communication between OPC drivers and third-party systems
Compliance	Conforming to FDA21CFR Part11 and GAMP5
Max-Min flow	0.04L/min - 12.0L/min
Filling accuracy	50g-100g: $\pm 10\%$
	101g-250g: $\pm 2\%$
	251g-1000g: $\pm 1\%$
	1001-16000g: $\pm 0.5\%$

SHANGHAI DUONING BIOTECHNOLOGY CO.,LTD.

Tel: 021-64340155

E-mail: marketing@duoningbio.com

Website: www.duoningbio.net

Address: Building 30, Shentian New Office Space, No. 1525, Minqiang Road,
Songjiang District, Shanghai

