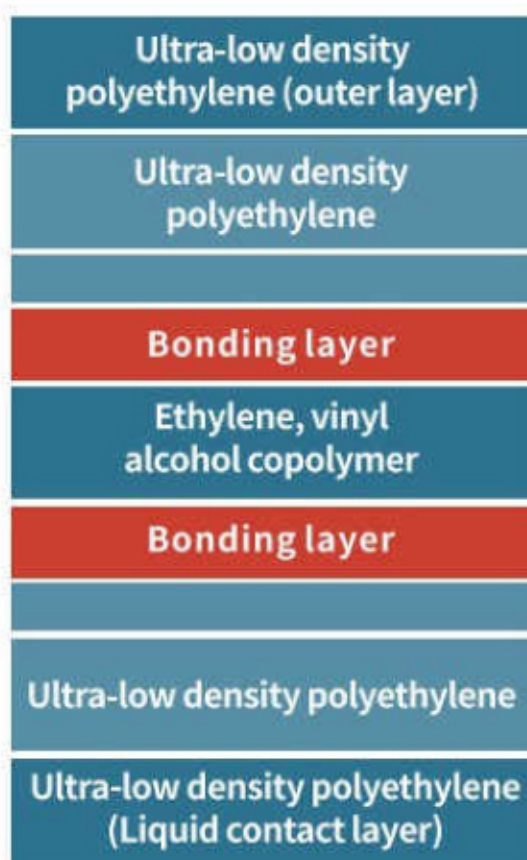
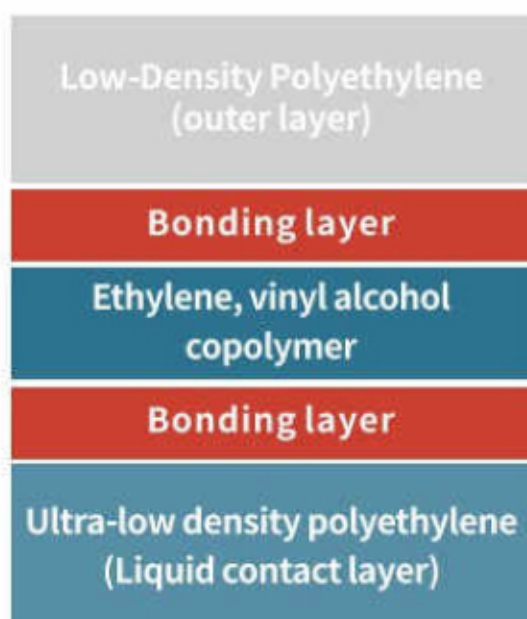




PRODUCT INTRODUCTION



SINGLE-USE BAG PRODUCTS

FILM INTRODUCTION

All single-use bags of INNOVA are made with Multi-layer PE co-extruded film

FEATURE

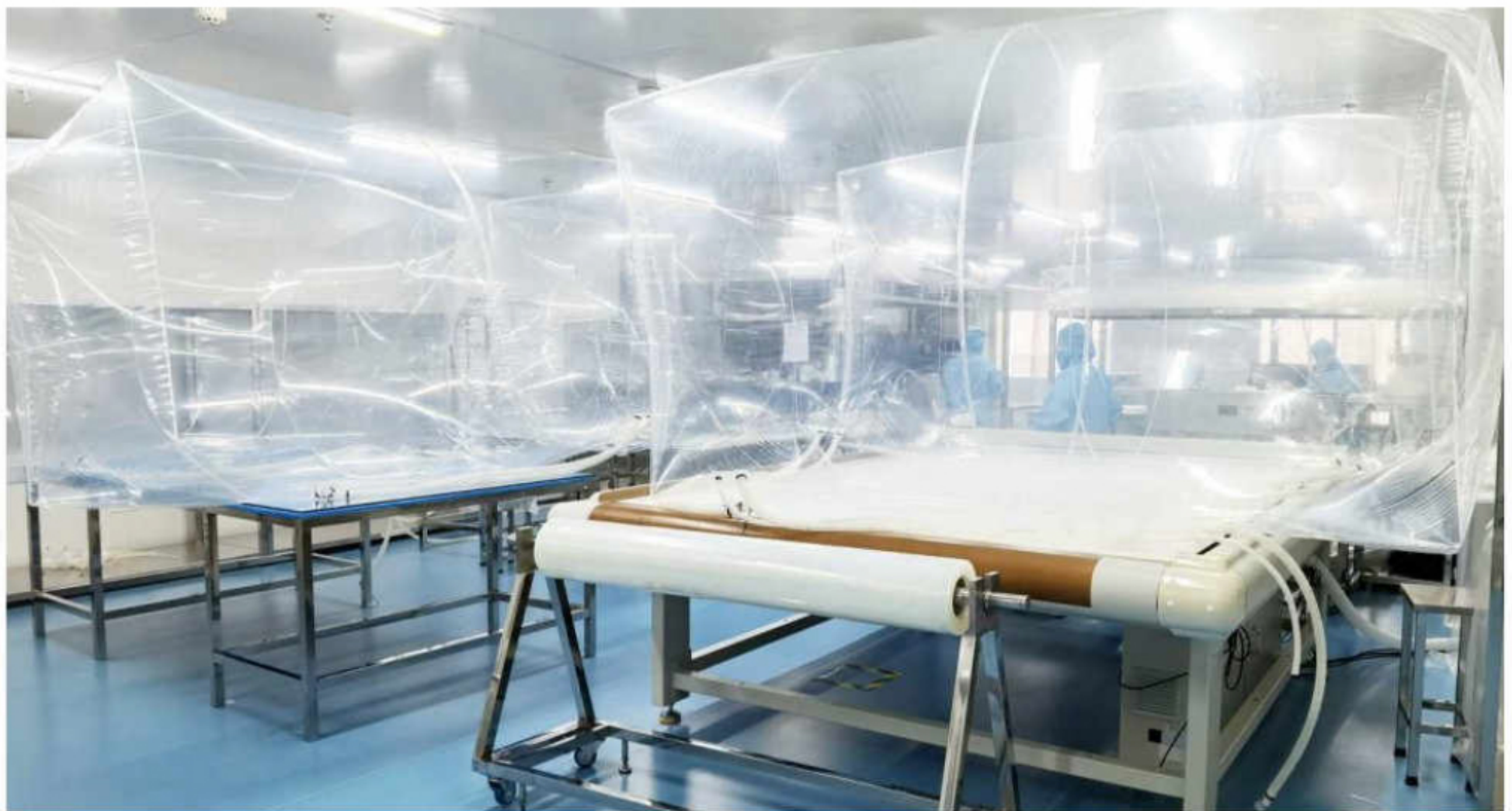
- 01 Thickness: 0.325mm
- 02 Good softness
- 03 Low precipitation/ dissolution
- 04 Good barrier property
- 05 Inner layer: ultra-low density polyethylene
- 06 ADCF
- 07 Sterilized by γ-ray irradiation (25-40KGy)

COMPATIBILITY

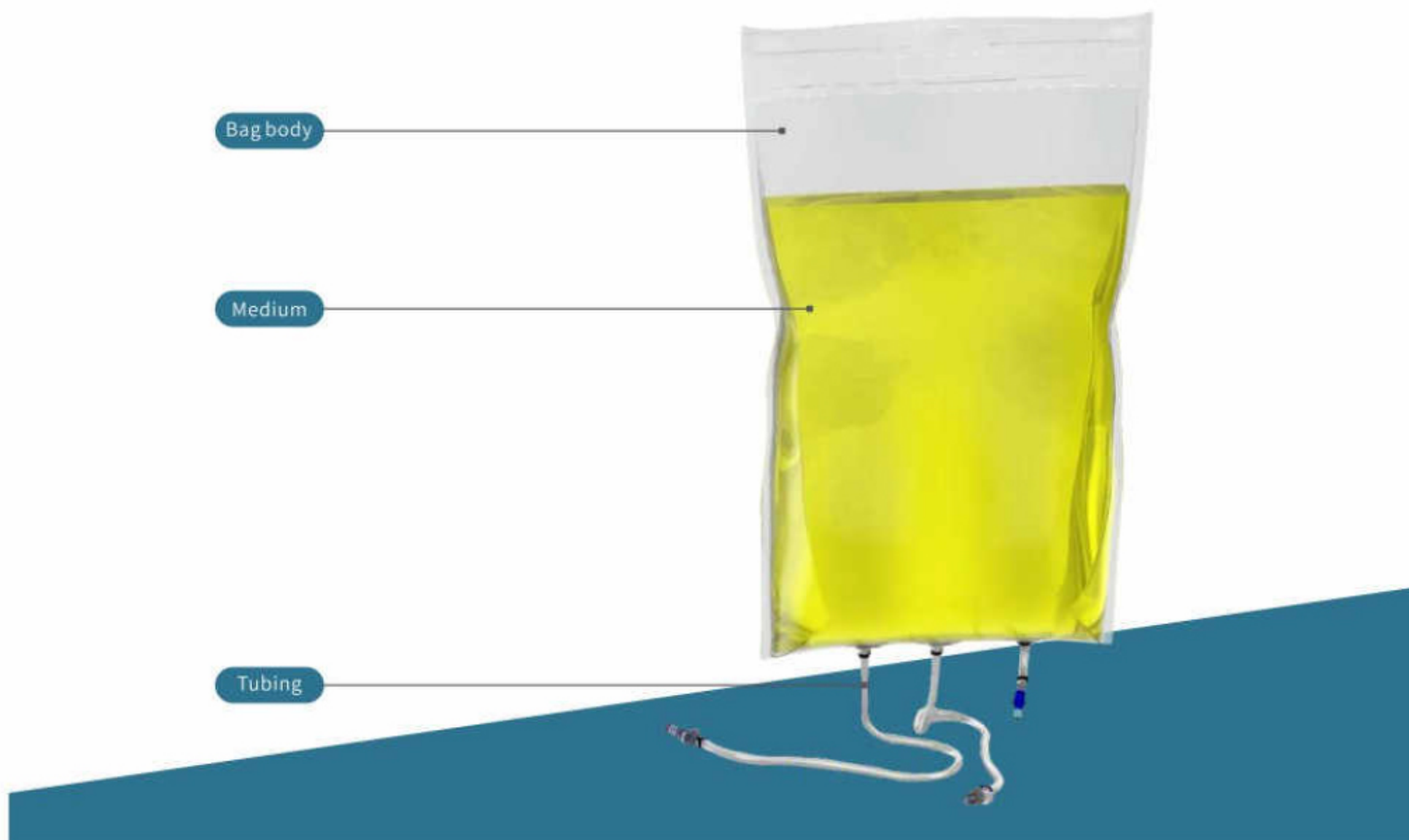
Items	Reference standards
Hemolysis test	ISO 10993-4
Cytotoxicity	ISO 10993-5
Implantation test	ISO 10993-6
Irritation and Sensitization test	ISO 10993-10
Acute systemic toxicity test	ISO 10993-11
Bacterial endotoxins-LAL test	USP<85>
Biological reactivity testing, in vivo, class VI	USP<88>
Plastic container European Pharmacopoeia test CH. 3.1.5	USP<661>

CHARACTERISTICS

Name	Test Value (pre-irradiation/ post-irradiation)	Reference Standards
Haze	7/7%	ASTM D-1003
Transparency	97/97%	ASTM D-1003
Light transmittance	93/93%	ASTM D-1003
Tensile strength	14/13MPa	ASTM D-882
Elongation at break	280/300%	ASTM D-882
Elasticity coefficient	370/350%	ASTM D-882
The lowest tolerable temperature	-45/-45°C	ISO8570
Density	0.9g	ASTM D-792
Water vapor permeability	0.35/0.32 (g/ (m ² .day)) (23°C,100%RH)	ASTM F-1249
Oxygen permeability	<0.05/<0.05 (cm ³ / (m ²)) (23°C,0%RH)	ASTM D-3985
Carbon dioxide permeability	<0.2/<0.2 (cm ³ / (m ²)) (23°C,0%RH)	ASTM D-2476



SINGLE-USE 2D BAG



FEATURE

- 01 Good stability
- 02 Good compatibility
- 03 Application for storage and transfer
- 04 Customization for configuration

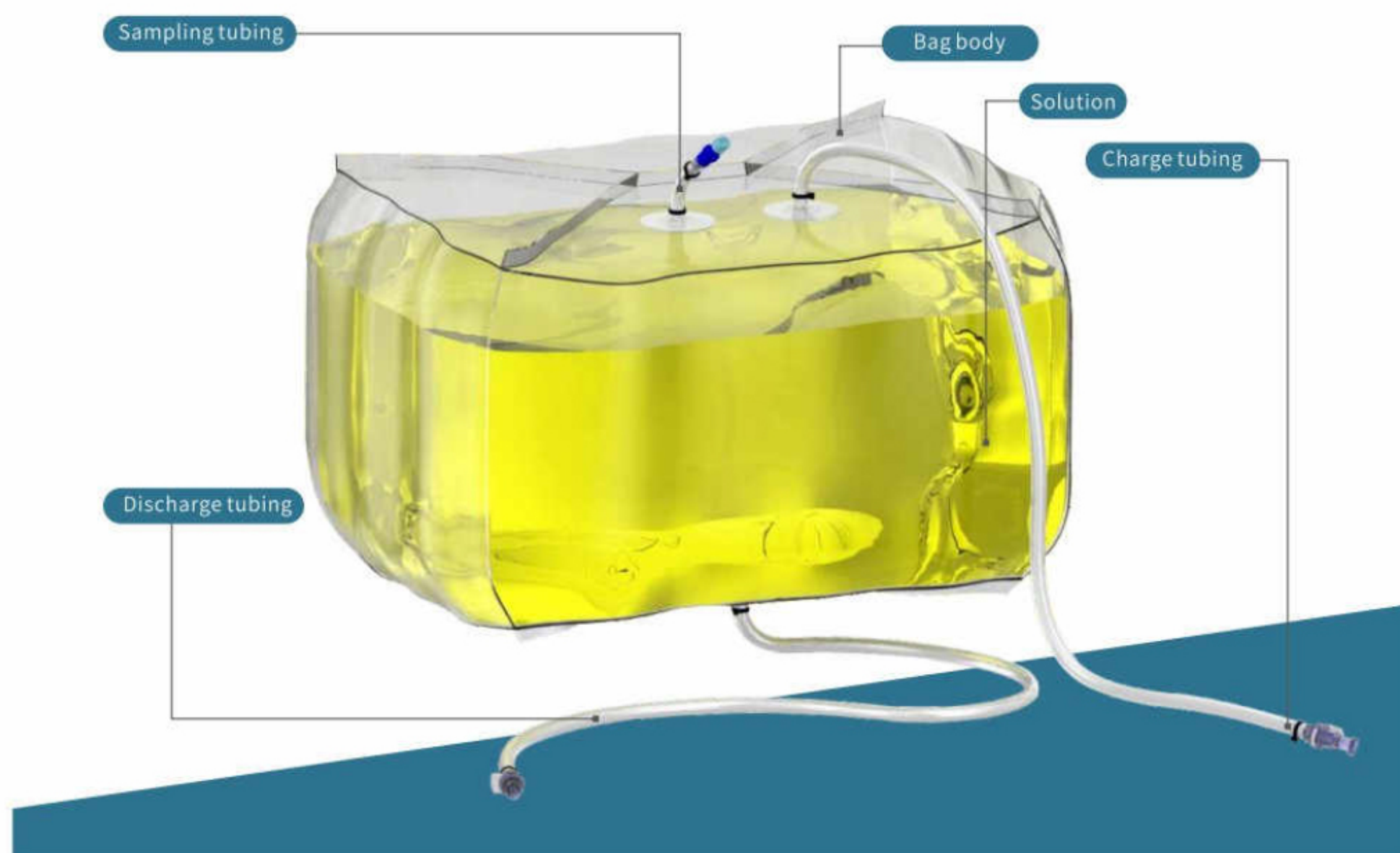
ADVANTAGE

- PRODUCING IN IS07/IS05 01 LEAKAGE TEST 02
Production in IS07/IS05 100% leakage test
- FREEZED 03 CUSTOMIZED 04
Frozen Customized

APPLICATION

- 01 Storage and transfer of medium
- 02 Storage and transfer of buffer
- 03 Collection and storage of samples and compositions
- 04 Storage of intermediate products and semi-products

SINGLE-USE 3D BAG



FEATURE

- 01 Good stability
- 02 Good compatibility

- 03 Application for storage and transfer
- 04 Customization for configuration

ADVANTAGE

**PRODUCING IN
IS07/IS05**

Production in IS07/IS05

Q1

LEAKAGE TEST

100% leakage test

Q2

FREEZED

Freezed

Q3

CUSTOMIZED

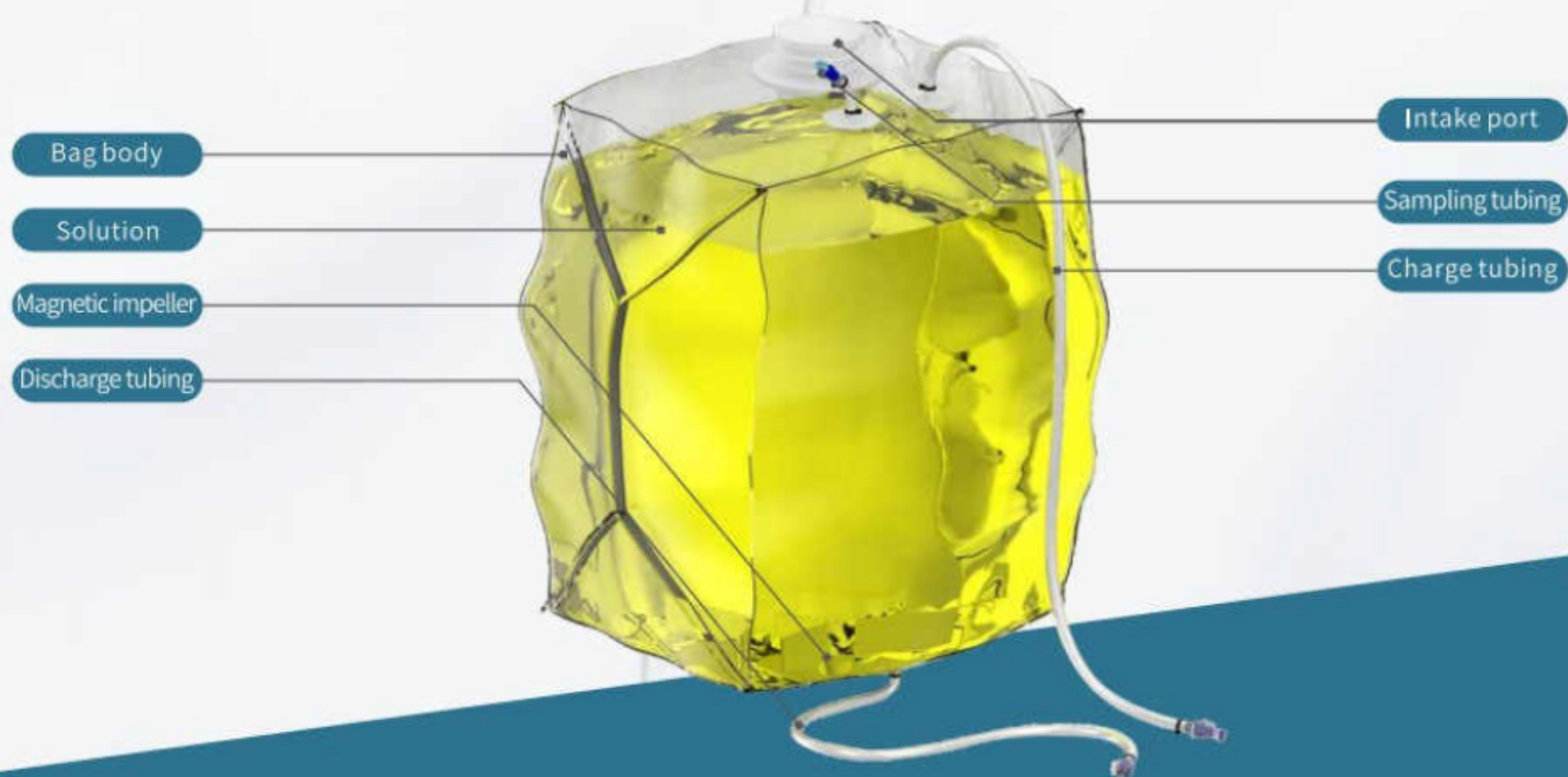
Customized

Q4

APPLICATION

- 01 Storage and transfer of medium
- 02 Storage and transfer of buffer
- 03 Collection and storage of samples and compositions
- 04 Storage of intermediate products and semi-products

SINGLE-USE MAGNETIC MIXING BAG



FEATURE

- 01 Good stability
- 02 Good compatibility
- 03 Application for preparation and transfer
- 04 Customization for configuration

APPLICATION

- 01 Medium preparation
- 02 Buffer preparation
- 03 pH adjustment
- 04 Intermediate products and semi-products preparation

ADVANTAGE

PRODUCING IN
IS07/IS05

Production in IS07/IS05

01

LEAKAGE TEST

100% leakage test

02

FREEZED

Freezed

03

CUSTOMIZED

Customized

04

05 Intermediate products mixing

06 Intermediate products inactivation

07 Semi-products preparation

SINGLE-USE SAMPLING BAG



FEATURE

- 01 Good chemical compatibility and biocompatibility
- 02 3 ports and 2 ports optional, and easy for configuration to suit sampling process
- 03 Customized to 5 sampling bag kits/10 sampling bag kits
- 04 Assembling with 2D bags/3D bags/mixing bags/ cell culture bags

APPLICATION

- 01 Sampling in various Processes

ADVANTAGE

PRODUCING IN
IS07/IS05

Production in IS07/IS05

FREEZED

Freezed

01

LEAKAGE TEST

100% leakage test

02

03

CUSTOMIZED

Customized

04

CONSUMABLES

CPC Connectors

Different connectors including quick connectors, aseptic connectors, aseptic dis-connectors and SIP connectors.

01

CPC quick connectors

Quick connectors including MPC.MPX, MPU and sanitary connectors; sanitary connectors can be connected to sanitary clamps with integrated into single-use or stainless steel process system



02

CPC aseptic connectors

CPC aseptic connectors can be applied into no-clean area and various types optional.



03

CPC aseptic dis-connectors

CPC aseptic dis-connectors can avoid contamination and various types optional



04

CPC SIP connectors

CPC SIP connectors are applied under SIP, and various types optional



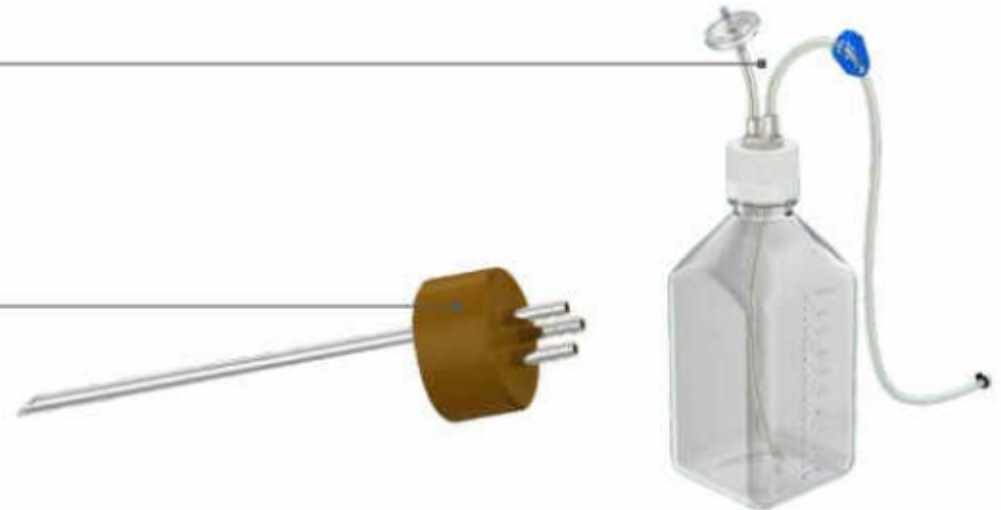
SINGLE-USE ADDITION BOTTLES/3 PORTS BOTTLE CAP

Single-use addition bottle

Pre-sterilized single-use bottle kit for ready to use
C-flex tubing can be connected to cell culture bags

3 ports bottle cap

3 ports bottle caps match with glass bottles



SILICONE TUBING/C-FLEX TUBING

SILICONE tubing/C-flex tubing
from domestic or abroad brands
for bio-pharmaceutical process



CONNECTORS AND TUBING CLAMPS

FEATURE

- 01 Including different sizes and types
- 02 Barbs specially designed for silicone, C-flex and other hoses, easy to install and uneasy to pull out
- 03 Durable and smooth inner surface
- 04 For piping connection/reducing conversion/branches or collection in bio-pharmaceuticals

Reducer



4 way connectors



T connectors



Y connectors



Thumb clamp



Y clips



CUSTOMIZED SERVICE

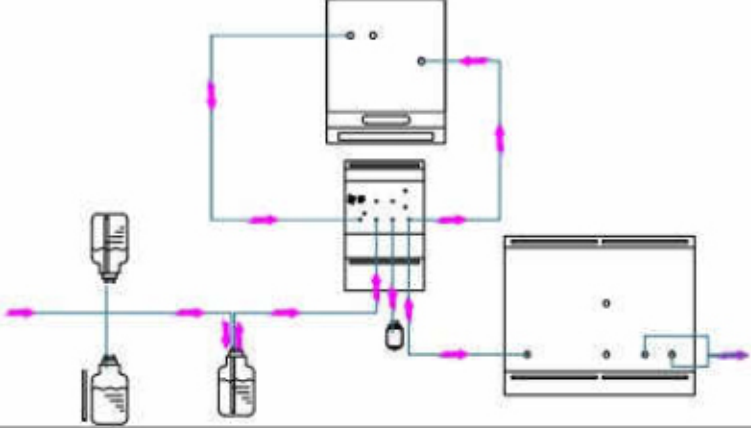


SERVICE DESCRIPTION

Provide customization of single-use cell culture bags/assembling/irradiation services according to the demands of customers. Accessories include hoses/quick connectors/aseptic connectors/SIP connectors/sampling bottles/filters etc.

FEATURE

- 01 Provide customization of single-use cell culture bags/process design
- 02 Production in ISO5/ISO7
- 03 Production line process to ensure quality
- 04 Fast and partial delivery

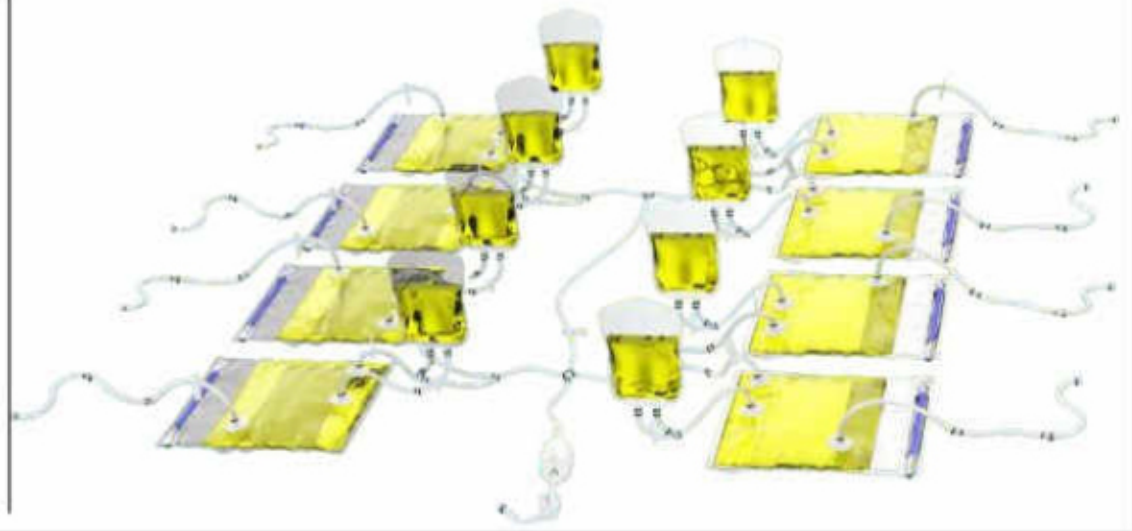
APPLICATION

<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">01</div>	<p>Customization cell culture bags and assembly services</p> <p>Provide customization of single-use cell culture bags/process design</p>	
<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">02</div>	<p>Customization filter and piping assembly</p> <p>Composed of one or more filters and piping and the kit sterilized</p>	
<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">03</div>	<p>Customization bottle and piping assembly</p> <p>Composed of one or more bottles and piping and the kit sterilized</p>	

04

Customization bags and assembly

Composed of more sampling bags/
addition bags/batch bags and the
kit sterilized



05

Customization bottles and assembly

Composed of addition bottles/
harvest bottles/batch bottles
and the kit sterilized





PRODUCT INTRODUCTION

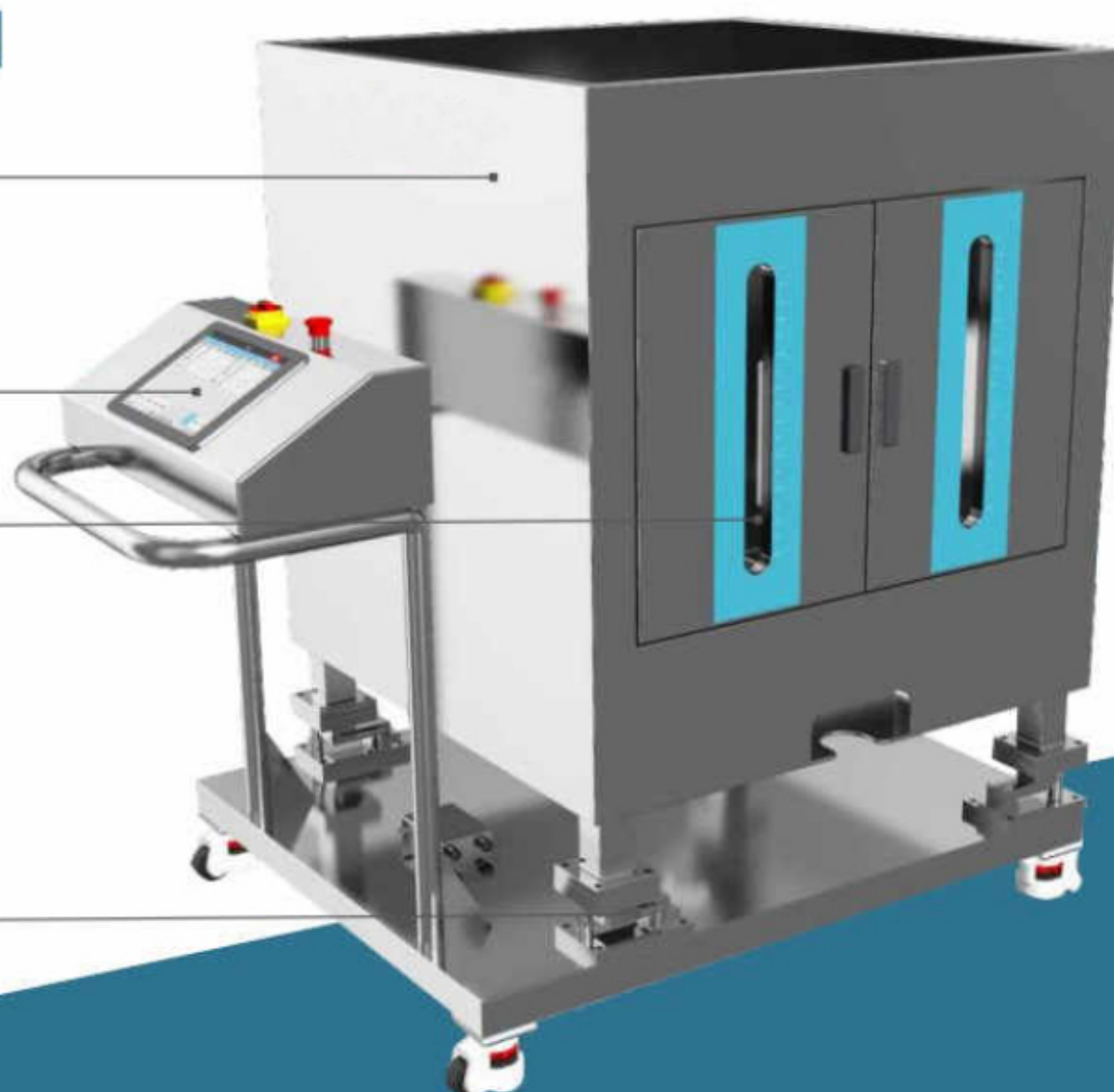
INO400 SINGLE-USE MAGNETIC MIXING SYSTEM

Container

Color touch screen

Operation door

Load cell



APPLICATION

- 01 Medium mixing and prepared
- 02 Mixing for vaccine adjuvant
- 03 Mixing pH or conductivity of intermediate product in purification process
- 04 Ultra filtration and semi-finished product prepared
- 05 Dilution preparation of concentrated buffer

INTRODUCTION

INO400 single-use magnetic mixing system adopts brand components from domestic and abroad. The equipment has a neat appearance, easy to clean and disinfect, concise human-machine interface, stable process control and convenient operation.

INO400 single-use magnetic mixing system is a stable and high efficient system with stainless steel liquid container to meet requirements of liquid-liquid/solid-liquid mixing etc.

INO400 single-use magnetic mixing system composed of master controller, universal magnetic drive unit, single-use bag with magnetic impeller, and a stainless steel container.

FEATURE

- 01 Piping skid and container manufactured by SS 304
- 02 The magnetic impeller in bag driven by coupling motor without seal
- 03 Siemens PLC control, color LCD touch screen, control stability and easy to operate
- 04 Modular design and configuration with temperature/load cell/pH/ DO/conductivity, etc.
- 05 External needle printer can print the real data optional
- 06 The single-use mixing bags are independently produced by ourselves with validation and stable long-term supply.
- 07 3 level security, audit trail, batch report, electronic signature, and GMP standards.

SPECIFICATION

Blade quantity	4/3 blades
Materials	PP
Maximum speed	300rpm
Location	Center or eccentricity



SPECIFICATION

Control System	Siemens color touch screen, Ethernet interface, USB interface, Human-machine interface, and save data
Agitator	Magnetic drive.Max. speed: 300rpm
Impeller※	Single-use magnetic impeller, impeller type optional. Impeller material is PP
Agitating bag※	Standard bags or customized according to container size and volume
Container Type ※	Round and square
Load cell※	Optional
pH※	Optional
Conductivity※	Optional
Temperature※	Optional
DO	Optional
Jacket design※	Optional. for low-temperature mixing
Software design※	Optional. 3 level security, audit trail, batch report, electronic signature, and GMP standards
Needle printer※	Optional
Operating temperature	No more than 45°C

Note: ※Optional

SPECIFICATION

Volume	50L	100L	200L	500L	1000L	2500L
Design	Discharge from bottom, sampling ports/addition ports and probe ports in the side					
Material	SS304					
Surface polished	Ra≤0.6μm					
Trundle	Large castor and polyurethane material					
Installation	Side operation door					



PRODUCT INTRODUCTION

INO400 SINGLE-USE MIXING SYSTEM



INTRODUCTION

It adopts brand components from domestic and abroad. The equipment has a neat appearance, easy to clean and disinfect, simple man-machine interface, and stable process control.

It is mixing system with advantages of portability/high mixing efficiency/convenient use/small footprint and convenient transportation.

Applied for liquid-liquid/solid-liquid mixing and meets the demands for small/medium scale mixing system.

FEATURE

- 01 | Piping skid and container manufactured by SS 304
- 02 | The upper stirring matched with the turbine stirring Impeller, and PTFE optional
- 03 | Siemens PLC control, color LCD touch screen, stability and easy to operate
- 04 | Emergency switch and 3 level security
- 05 | Platform scale optional
- 06 | Transfer base
- 07 | Volume 50L/100L/200L optional
- 08 | Standard bags and customization
- 09 | Container SS304 and HDPE optional

APPLICATION

- 01 | Mixing of medium and prepared
- 02 | Mixing of intermediate product in purification process
- 03 | Mixing of Ultra filtration process

SPECIFICATION

Control system	Servo mixing system, Siemens color touch screen, Ethernet interface, USB interface
Agitator	Upper mixing, Max. speed: 300rpm
Impeller※	Turbine agitator, blade material is PTFE
Agitating bag※	Standard bags or customization
Container type※	Round
Load cell※	Optional
Operating temperature	No more than 45°C

Note: ※ Optional

SPECIFICATION

Volume	50L	100L	200L
Material	SS304		
Surface polish	Ra≤0.6μm		
Trundle	Large castor and polyurethane material		
Bag installation	Easy to take out and install		
Drain	Bottom or drain optional		

Note: ※ Optional