



Single-use products and capabilities

Comprehensive single-use product portfolio

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Abbreviations:

ETFE: ethylene tetrafluoroethylene
FEP: fluorinated ethylene propylene
HEPA: high-efficiency particulate air
HDPE: high-density polyethylene
LDPE: low-density polyethylene
LLDPE: linear low-density polyethylene
PC: polycarbonate
PE: polyethylene
PFA: perfluoroalkoxy alkane
PETG: polyethylene terephthalate glycol
PTFE: polytetrafluoroethylene
PO: polyolefin
PP: polypropylene
PS: polystyrene
TFE: tetrafluoroethylene

* Our guarantee for a leakproof seal is subject to our standard product warranty, as set forth in the Thermo Fisher Scientific Terms and Conditions of Sale. Our products are leakproof at ambient temperature and pressure when used with their corresponding closures. However, to ensure safe usage, customers are advised to test our containers and closures under conditions of their planned applications.

Single-use BioProcess Containers (BPCs)

What is a single-use BPC?

Thermo Scientific BPCs are single-use flexible container systems commonly used for critical liquid-handling applications in the biopharmaceutical industry. BPC systems are cost-effective alternatives to conventional stainless steel systems. They employ a novel design approach and are highly valued for their versatility and utility. BPC components are readily integrated into a variety of high-performance systems for all steps in the production of biologics.

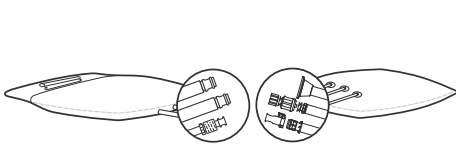
Key features

- All BPCs are produced in state-of-the-art facilities with current good manufacturing practices (cGMPs) and common processes for manufacturing redundancy
- Production of chambers from 50 mL to 10,000 L capacity
- Automated lines for producing BPC chambers
- Strong engineering support to design and maintain products and processes



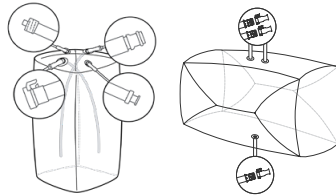
Main types of BPC chambers

The 3 main types of BPCs are the Thermo Scientific™ 2D Labtainer™ BPC, 3D Productainer™ BPC, and tank liner BPC. Specialty BPCs are also available for specific applications and use in bioprocess equipment.



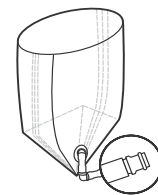
2D Labtainer BPC systems

This design is used for small, simple BPCs and is produced from two sheets of film that are heat-sealed around the perimeter to form a pillow-shaped chamber. The ports are heat-sealed into the end seal or onto one of the faces of the chamber.



3D Productainer BPC systems

This design is used for larger and more complicated BPCs. A square tube is formed by heat-sealing sheets of film together. Top- and bottom- porting options are available, and a greater range of size and complexity of chamber designs is possible.



Tank liner BPC systems

This design is used with commercially available overhead mixers. Tank liners remove the need for tank cleaning and help reduce cycle times. Tank liners are optimized for use with Thermo Scientific™ drums and commonly used industry-standard cylindrical tanks.

BPC application solutions

Support operations	Applications	BPC solution
Media or buffer preparation	<ul style="list-style-type: none"> • Powder delivery • Hydration in open-top vessel • Hydration in closed system 	<ul style="list-style-type: none"> • Thermo Scientific Powdertainer BPC systems • Tank liners with outer support containers
Filtration	<ul style="list-style-type: none"> • Filtration of media and buffers 	<ul style="list-style-type: none"> • BPC assembly or manifold/transfer assembly including a filter option
Harvest	<ul style="list-style-type: none"> • Collection and storage of harvest from a bioreactor or fermentor 	<ul style="list-style-type: none"> • Catalog top- and bottom-drain BPCs from 50 L to 200 L with outer support containers • Custom BPCs with and without transfer assemblies
Bulk storage	<ul style="list-style-type: none"> • Storage of media, buffers, and intermediates 	<ul style="list-style-type: none"> • Catalog BPCs from 50 mL to 200 L and outer support containers (custom BPCs also available)
Waste collection	<ul style="list-style-type: none"> • Non-aseptic collection of waste liquid 	<ul style="list-style-type: none"> • Tank liners, catalog BPCs, or custom BPCs
Sampling	<ul style="list-style-type: none"> • Collection of sample volumes from bioreactors, mixers, and storage containers 	<ul style="list-style-type: none"> • Catalog BPCs from 50 mL to 50 L • Custom manifolds and transfer assemblies
Shipping	<ul style="list-style-type: none"> • Shipping of bulk liquids, buffers, process liquids, and intermediates between facilities • Bulk solutions or suspensions requiring mixing after shipping 	<ul style="list-style-type: none"> • Top- and bottom-drain BPCs up to 200 L
Separation	<ul style="list-style-type: none"> • Feeding and receiving liquid from the separation system 	<ul style="list-style-type: none"> • Catalog top- and bottom-drain BPCs from 50 L to 200 L with outer support containers • Custom BPCs with and without transfer assemblies
Purification	<ul style="list-style-type: none"> • Feeding buffers to the purification system • Fraction collection and storage 	<ul style="list-style-type: none"> • Catalog top- and bottom-drain BPCs from 50 L to 200 L with outer support containers • Catalog Labtainer systems from 50 mL to 50 L • Custom BPCs with and without transfer assemblies and/or manifolds
Filling	<ul style="list-style-type: none"> • Bulk reservoir for filling systems 	<ul style="list-style-type: none"> • Catalog top- and bottom-drain BPCs from 50 L to 200 L with outer support containers • Transfer assemblies to transfer liquid from reservoir to filling system

BPC manufacturing

BPC manufacturing process

- **Chamber manufacture**—the main components of a BPC chamber are plastic film and ports that enable tubing to be attached to the chamber. There are a number of different port designs depending on the type of chamber.
- **Final assembly**—additional components are attached to the BPC chamber to produce a complete BPC. This is done to either a catalog or custom specification in an ISO 7 clean room in one of our four manufacturing facilities. BPC assembly is a manual process, which provides the required flexibility in BPC configuration. Thermo Scientific™ fluid transfer assemblies are also produced to complement BPC systems. Final assembly is done under the same controlled environment and to the same level of quality.
- **Final inspection and packaging**—each lot of BPCs is 100% visually inspected against product specifications, and packaged and sealed in two independent outer dust cover polyethylene bags while still in the ISO 7–certified area. They are then placed in cardboard cartons labeled with product and lot identification.
- **Sterility assurance level**—BPCs are gamma irradiated in their outer packaging by a dose of 25–40 kGy for BPCs and fluid transfer assemblies produced in Logan, UT and Cramlington, UK, and 27.5–45 kGy in Millersburg, PA and Matamoros, Mexico by external local contractors in the US and Europe.



Quality control and assurance

To help ensure that BPC systems conform to the quality standards expected in the bioprocess industry, BPC systems are subject to rigorous quality control in compliance with cGMP (21 CFR Part 820) and ISO 9001:2000 from the receipt of components to the release of the final product.

Our production control processes help ensure complete lot traceability for each batch. The process control document becomes the stepwise manufacturing record that physically accompanies the lot through every step of the manufacturing process. At the end of the process, the production record is reviewed by the quality assurance team for completeness, and correctness prior to the release of the lot and issuance of the certificate of analysis (CoA).



Component incoming inspection

Component type	Inspection
Film	<ul style="list-style-type: none"> • Contamination • Gels or carbons • Width and gusset dimensions • Film thickness • Tensile strength and elongation—to ASTM D882 • Chemical—using FTIR spectroscopy to ensure consistency and reliability
Ports, fittings, and tubing	<ul style="list-style-type: none"> • Appearance and visual inspection • Dimensions
Chambers	<ul style="list-style-type: none"> • Appearance • Seam and port seal strength • Dimensions • Leak and burst testing

Final BPC product inspection

Test	Details
100% visual inspection on a light table	<ul style="list-style-type: none"> • Correctness • Completeness • Particulate dust cover polyethylene bags • Defects and damage • Correct packaging
Hydro-burst test	Performed according to a statistical process control plan. The container is steadily inflated until there is a breach of integrity.

Lot release and CoA

Lot release	CoA
<ul style="list-style-type: none"> • Bill of materials • Certificate of irradiation • Production quality inspections • Production integrity testing • Labels • Deviations • CoA 	<ul style="list-style-type: none"> • Product name • Part number • Lot number • Expiration date • Irradiation dose • Confirmation USP and EP testing of film • Product integrity testing when applicable • Statements on endotoxin content, particles, and sterility when possible

Validation

A BPC Validation Master Plan has been developed for all Thermo Scientific BPC products in compliance with the concepts of cGMP for medical devices. Meaningful product validations are designed to demonstrate compliance with release criteria and product claims.

Process validation evaluates manufacturing conditions as well as product cleanliness and consistency. Process qualification is performed when a new product or change in a manufacturing process is introduced. This consists of a production build and validation testing to verify that the product meets the specification acceptance criteria.

Gamma irradiation

Validation of the gamma irradiation sterility assurance level (SAL) for the BPC products is performed on a quarterly basis as per ANSI/AAMI/ISO 1137:2006 guidelines, parts 1, 2, and 3. It involves testing a “worst-case” BPC assembly. The current production irradiation dose of 25–40 kGy in Logan, UT and Cramlington, UK sites, or 27.5–45 kGy in the Millersburg, PA and Matamoros, Mexico sites, provide a SAL of 10^{-6} . The dose audit performed follows the VD_{max} method outlined in ANSI/AAMI/ISO 1137:2006.

Endotoxin and particulates

Process validations and monitoring have been established for endotoxin and particulates for the manufacture of BPC systems. Particulate samples from the fluid path of a worst-case BPC assembly are tested according to USP 788: Light Obscuration Particle Count Test, and endotoxin testing is performed to USP 85 in conjunction with bioburden testing.

EMA/410/01 rev. 3 compliance

Due to heightened concerns over animal-origin components, we have taken a leadership role to compile vendor certificates of origin on each catalog component.

These certifications not only provide information as to whether a given component is of animal origin, but also

certify whether the component comes in contact with animal-derived materials in synthesis, purification, or other manufacturing processes. Supplier statements also contain information on the species, tissue, and country of origin of any animal-derived substance along with supplier information on purification or manufacturing steps that would help reduce risk of adventitious animal-origin agents.

Thermo Scientific™ single-use products for bioproduction have BSE-TSE and EMA/410 information available for each product contact material in our catalog component library. Statements can be made available for each assembly upon request.

BPC validation documentation

Complex BPCs forming the single-use part of systems such as the Thermo Scientific S.U.B.s, S.U.F.s, and S.U.M.s are supported by a Validation Guide covering important information regarding their testing and design. The document is product-specific rather than lot-specific and is supplied in electronic format. It is organized into two sections:

- **Materials guide**—details of testing protocols and results obtained
- **Performance and functional testing**—an overview of engineering design, testing, and test results of individual components as well as of the complete assembly

BPC system hardware documentation

The hardware systems of the S.U.B., S.U.F., and S.U.M. are supplied with an equipment turnover package (ETP) in electronic format with key supporting information including: top-level hardware drawings, component or instrument manuals, utility requirements, recommended maintenance, torque wrench operating instructions, warranty statement, detailed electrical panel drawings, and electrical schematics. A premium ETP is also available on request for an additional fee and includes: factory acceptance test (FAT) checklist, site acceptance test (SAT) protocol, and weld and passivation certificates.

Thermo Scientific films

Thermo Scientific BPCs are built to meet your single-use bioprocessing needs, whether upstream for cell culture and fermentation, or downstream for sophisticated applications, or simply as holding and transfer systems in your cGMP bioprocessing facilities.

Films engineered for the most demanding applications

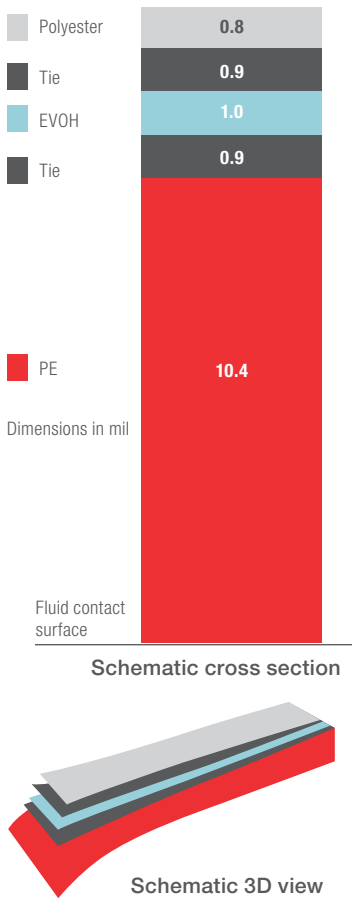
The Thermo Scientific™ films are engineered to meet the most demanding requirements of your bioproduction processes.

- Aegis5-14 film is our newest and best polyethylene (PE) film. This film is a single-web, five-layer film produced in a cGMP facility—the outer layer is a polyester elastomer coextruded with an EVOH barrier layer and a low-density polyethylene product contact layer
- CX5-14 film has the same construction as Aegis5-14 film, and is one of the most widely used PE films in the industry, proven over 10 years
- The ASI 26/77 polyethylene (PE) is a dual-web, multi-layer film that is produced in a cGMP facility and used for general applications
- The ASI 28 film is robust, four-layer, ethylene vinyl acetate (EVA) coextruded film produced in a cGMP facility—this film provides an excellent, highly durable moisture and oxygen barrier
- The CX3-9 film is a three-layer, 9 mil cast film, which is used primarily for open-top tank liners, powderainers, and SUF condenser BPCs
- The ASI 26 film is a single-web, 5 mil cast film, which is also used primarily for open-top tank liners



CX5-14 film

CX5-14 film is a five-layer, 14 mil cast film produced in a cGMP facility. The outer layer is a polyester elastomer coextruded with an ethylene vinyl alcohol barrier layer and a low-density polyethylene product-contact layer. CX5-14 film is manufactured using no animal-derived components.

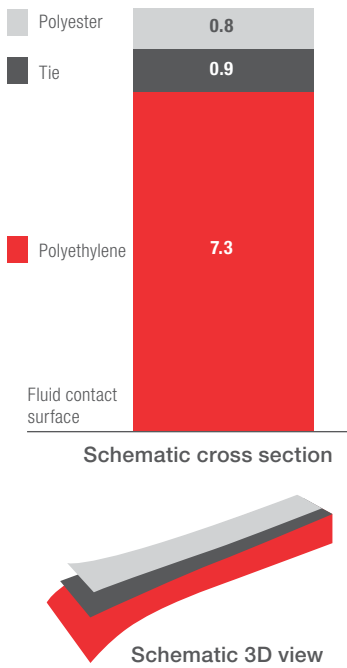


Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	2,316 psi	16 MPa
Elongation	ASTM D882	476%	
Yield strength	ASTM D882	1,238 psi	8.5 MPa
2% secant modulus	ASTM D882	37,898 psi	261.3 MPa
Tensile toughness	ASTM D882	235 lbf-in.	2.7 kN-cm
Puncture resistance	ASTM F1306	26 lbf	116 N
Seam strength	ASTM F88	31 lbf/in.	54 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	0.024 cc/100 in. ² /day	0.37 cc/m ² /day
CO ₂ transmission rate	MOCON™ method, 0% RH outside, 100% RH inside, 23°C	0.089 cc/100 in. ² /day	1.38 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.023 g/100 in. ² /day	0.35 g/m ² /day
Haze	ASTM D1003 (outside dry/inside dry)	70%	
Glass transition temperature	ASTM E1640	-19°F	-28°C
Film gauge		0.014 in.	0.356 mm
Film contact material		Polyethylene	
Temperature range*		-112°F to 140°F	-80°C to 60°C
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.5–4 Mrad	25–40 kGy
Biocompatibility data (post-gamma irradiation, >50 kGy)			
USP Class VI	USP <88>	Pass	
Cytotoxicity	USP <87>	Pass	
Bacterial endotoxin	USP <85>	0.006 EU/mL	
Heavy metals	USP <661>	<1 ppm	
Buffering capacity	USP <661>	<1 mL	
Nonvolatile residue	USP <661>	<1 mg	
Residue on ignition	USP <661>	<1 mg	
Hemolysis	ISO 10993-4	Nonhemolytic	
Appearance	EP <3.2.2.1>	Pass	
Acidity and alkalinity	EP <3.2.2.1>	Pass	
Absorbance	EP <3.2.2.1>	Pass	
Reducing substances	EP <3.2.2.1>	Pass	
Transparency	EP <3.2.2.1>	Pass	

All tests are run post-gamma irradiation unless otherwise noted. * Subzero conditions require proper support and handling.

CX3-9 film

CX3-9 film is a three-layer, 9 mil cast film produced in a cGMP facility. The outer layer is a polyester elastomer coextruded with a low-density polyethylene product contact layer. CX3-9 film is manufactured using animal origin-free components.

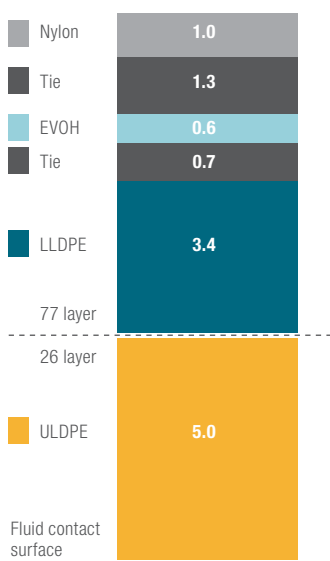


Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	4,996 psi	34.4 MPa
Elongation	ASTM D882	1,026%	
Yield strength	ASTM D882	820 psi	5.7 MPa
2% secant modulus	ASTM D882	11,459 psi	79 MPa
Tensile toughness	ASTM D882	439 lbf-in.	5.0 kN-cm
Puncture resistance	ASTM F1306	28 lbf	125 N
Seam strength	ASTM F88	18 lbf/in.	31.5 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	93.4 cc/100 in. ² /day	1,448 cc/m ² /day
CO ₂ transmission rate	MOCON method, 0% RH outside, 100% RH inside, 23°C	450 cc/100 in. ² /day	6,968 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.061 g/100 in. ² /day	0.95 g/m ² /day
Haze	ASTM D1003 (outside dry/inside dry)	63%	
Glass transition temperature	ASTM E1640	-17°F	-27°C
Film gauge		9 mil	0.229 mm
Film contact material		Polyethylene	
Temperature range*		-112°F to 140°F	-80°C to 60°C
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.5–4.0 Mrad	25–40 kGy
Biocompatibility data (post-gamma irradiation, >50 kGy)			
USP Class VI	USP <88>	Pass	
Cytotoxicity	USP <87>	Pass	
Bacterial endotoxin	USP <85>	0.006 EU/mL	
Heavy metals	USP <661>	<1 ppm	
Buffering capacity	USP <661>	<1 mL	
Nonvolatile residue	USP <661>	<1 mg	
Residue on ignition	USP <661>	<1 mg	
Hemolysis	ISO 10993-4	Pass	
Appearance	EP <3.2.2.1>	Pass	
Acidity and alkalinity	EP <3.2.2.1>	Pass	
Absorbance	EP <3.2.2.1>	0.0055 units	
Reducing substances	EP <3.2.2.1>	<1 mL	
Transparency	EP <3.2.2.1>	Pass	

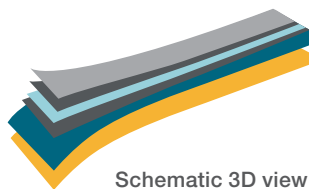
All tests are run post-gamma irradiation unless otherwise noted. * Subzero conditions require proper support and handling.

ASI 26/77 film

ASI 26/77 polyethylene film is comprised of two web-layers. The product contact web is made from ultra low density polyethylene (ULDPE) and has a thickness of 5 mil. The non-product contact 5-layer, 7 mil web is constructed of nylon with an ethylene vinyl alcohol barrier layer and a linear low density polyethylene (LLDPE) layer.



Schematic cross section

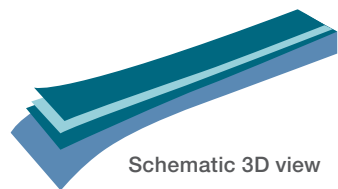
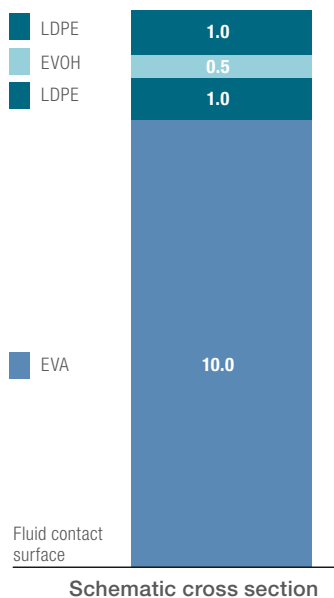


Schematic 3D view

Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	3,015 psi	20.8 MPa
Elongation	ASTM D882	486%	
Yield strength	ASTM D882	1,973 psi	13.6 MPa
2% secant modulus	ASTM D882	57,350 psi	395 MPa
Tensile toughness	ASTM D1004	262 lbf-in.	3 kN-cm
Puncture resistance	ASTM F1306	11 lbf	49 N
Seam strength	ASTM F88	28 lbf/in.	49.1 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	0.041 cc/100 in. ² /day	0.64 cc/m ² /day
CO ₂ transmission rate	MOCON method, 0% RH outside, 100% RH inside, 23°C	0.110 cc/100 in. ² /day	1.71 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.022 g/100 in. ² /day	0.34 g/m ² /day
Haze	ASTM D1003 (outside dry/inside dry)	60%	
Glass transition temperature	ASTM E1640	-16.6°F	-27°C
Film gauge		12 mil	0.305 mm
Film contact material		Polyethylene	
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.75–4.5 Mrad	27.5–45 kGy
Biocompatibility data (post-gamma irradiation, >45 kGy)			
USP Class VI	USP <88>	Pass	
Cytotoxicity	USP <87>	Pass	
Bacterial endotoxin	USP <85>	≤0.5 EU/mL	
Heavy metals	USP <661>	<1 ppm	
Buffering capacity	USP <661>	0.10 mL	
Nonvolatile residue	USP <661>	1.6 mg	
Residue on ignition	USP <661>	<5 mg	
Appearance	EP <3.2.2.1>	Pass	
Acidity and alkalinity	EP <3.2.2.1>	Pass	
Absorbance	EP <3.2.2.1>	Pass	
Reducing substances	EP <3.2.2.1>	Pass	
Transparency	EP <3.2.2.1>	Pass	

ASI 28 film

ASI 28 film is a four-layer, 12.5 mil, coextruded film that provides an excellent moisture and oxygen barrier and high durability.



Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	2,118 psi	14.6 MPa
Elongation	ASTM D882	639%	
Yield strength	ASTM D882	828 psi	5.7 MPa
2% secant modulus	ASTM D882	11,574 psi	79.8 MPa
Tensile toughness	ASTM D882	215 lbf-in.	2.4 kN-cm
Puncture resistance	ASTM F1306	11 lbf-in.	0.12 kN-cm
Seam strength	ASTM F88	20 lbf/in.	35.0 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	0.28 cc/100 in. ² /day	4.34 cc/m ² /day
CO ₂ transmission rate	MOCON method, 0% RH outside, 100% RH inside, 23°C	0.58 cc/100 in. ² /day	8.99 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.11 g/100 in. ² /day	1.70 g/m ² /day
Haze	ASTM D1003 (outside dry/inside dry)	87%	
Glass transition temperature	ASTM E1640	-19°F	-28°C
Film gauge		12.5 mil	0.318 mm
Film contact material		Ethyl vinyl acetate	
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.75–4.5 Mrad	27.5–45 kGy
Biocompatibility data (post-gamma irradiation, >45 kGy)			
USP Class VI	USP <88>	Pass	
Bacterial endotoxin	USP <85>	≤0.5 EU/mL	
Heavy metals	USP <661>	<1 ppm	
Buffering capacity	USP <661>	Pass	
Nonvolatile residue	USP <661>	<1 mg	
Residue on ignition	USP <661>	Pass	
Hemolysis	ISO10993-4	Nonhemolytic	
Cytotoxicity	ISO10993-5	Pass	
Appearance	EP <3.2.2.1>	Pass	
Acidity and alkalinity	EP <3.2.2.1>	Pass	
Absorbance	EP <3.2.2.1>	Pass	
Reducing substances	EP <3.2.2.1>	Pass	
Transparency	EP <3.2.2.1>	Pass	

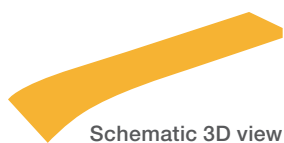
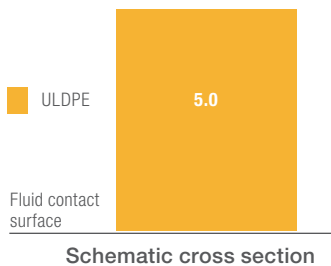
ASI 26 film

Thermo Scientific™ BioProcess Containers (BPCs) are built to meet your single-use upstream and downstream bioprocessing needs. The integrity of stored contents depends primarily on the characteristics of the film—the largest component of any flexible container system.

ASI 26 film is a single-web, 5 mil cast film, which is engineered to meet the most demanding requirements of your bioproduction processes.

Key benefits

- Good toughness and puncture resistance
- Highly flexible and stretchable material
- Free of animal-derived components
- Available in open-top tank liners

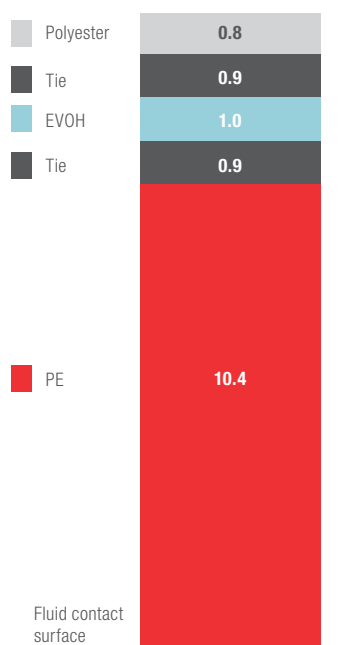


Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	3,628 psi	25 MPa
Elongation	ASTM D882	833%	
Yield strength	ASTM D882	1,198 psi	8.3 MPa
2% secant modulus	ASTM D882	19,961 psi	138 MPa
Tensile toughness	ASTM D1004	163 lbf-in.	1.8 kN-cm
Puncture resistance	ASTM F1306	6.5 lbf	29 N
Seam strength	ASTM F88	10 lbf/in.	17.5 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	129 cc/100 in. ² /day	2,000 cc/m ² /day
CO ₂ transmission rate	MOCON method, 0% RH outside, 100% RH inside, 23°C	621 cc/100 in. ² /day	9,617.5 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.073 g/100 in. ² /day	1.13 g/m ² /day
Glass transition temperature	ASTM E1640	–21°F	–29.5°C
Film gauge		5 mil	0.127 mm
Film contact material		Polyethylene	
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.75–4.5 Mrad	27.5–45 kGy
Biocompatibility data			
USP acute systemic injection test	USP <88>	Pass	
USP intracutaneous injection test	USP <88>	Pass	
USP intramuscular implantation test	USP <88>	Pass	
USP MEM elution method	USP <87>	Non-cytotoxic	
Physiochemical test for plastics	USP <661>	Pass	

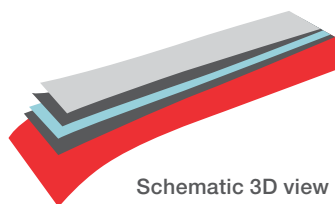
Aegis5-14 film

Thermo Scientific BPCs are built to meet your single-use bioprocessing needs, whether upstream for cell culture and fermentation, or downstream for sophisticated applications, or simply as holding and transfer systems in your cGMP bioprocessing facilities.

Aegis5-14 film is a five-layer, 14 mil cast film produced in a cGMP facility. The outer layer is a polyester elastomer coextruded with an ethylene vinyl alcohol barrier layer and a low-density polyethylene product contact layer. Aegis5-14 film is manufactured using no animal-derived components and has reduced number of concentration of anti-oxidant additives.



Schematic cross section



Schematic 3D view

Property	Test protocol	Average values	
Physical data (post-gamma irradiation, 25–40 kGy)			
Tensile strength	ASTM D882	2,392 psi	16.5 MPa
Elongation	ASTM D882	487%	
Yield strength	ASTM D882	1,362 psi	9.4 MPa
2% secant modulus	ASTM D882	43,389 psi	299 MPa
Tensile toughness	ASTM D882	243 lbf-in.	2.7 kN-cm
Puncture resistance	ASTM F1306	25 lbf	111 N
Seam strength	ASTM F88	31 lbf/in.	54 N/cm
O ₂ transmission rate	ASTM D3985, 0% relative humidity (RH) outside, 90% RH inside, 23°C	0.023 cc/100 in. ² /day	0.36 cc/m ² /day
CO ₂ transmission rate	MOCON method, 0% RH outside, 100% RH inside, 23°C	0.087 cc/100 in. ² /day	1.35 cc/m ² /day
Water vapor transmission rate	ASTM F1249, 0% RH outside, 100% RH inside, 23°C	0.023 g/100 in. ² /day	0.35 g/m ² /day
Haze	ASTM D1003 (outside dry/inside dry)	68%	
Glass transition temperature	ASTM E1640	–24°F	–31°C
Film gauge		0.014 in.	0.356 mm
Film contact material		Polyethylene	
Temperature range*		–112°F to 140°F	–80°C to 60°C
10 ⁻⁶ sterility assurance level	ANSI/AAMI/ISO 11137:2006	2.5–4 Mrad	25–40 kGy
Biocompatibility data (post-gamma irradiation, >50 kGy)			
USP Class VI	USP <88>	Pass	
Cytotoxicity	USP <87>	Pass	
Bacterial endotoxin	USP <85>	0.005 EU/mL	
Heavy metals	USP <661>	<1 ppm	
Buffering capacity	USP <661>	<1 mL	
Nonvolatile residue	USP <661>	<1 mg	
Residue on ignition	USP <661>	<1 mg	
Hemolysis	ISO 10993-4	Nonhemolytic	
Appearance	EP <3.2.2.1>	Pass	
Acidity and alkalinity	EP <3.2.2.1>	Pass	
Absorbance	EP <3.2.2.1>	Pass	
Reducing substances	EP <3.2.2.1>	Pass	
Transparency	EP <3.2.2.1>	Pass	

All tests are run post-gamma irradiation unless otherwise noted. * Subzero conditions require proper support and handling.

Labtainer Pro BioProcess Containers (BPCs)

As technology and innovation advances within the bioproduction industry, single-use technologies have also made considerable progress in the drug and vaccine manufacturing space. Some of the well-established and known advantages of single-use technologies are lowered costs, reduced contamination risks, decreased facility footprint, increased flexibility, and production throughput efficiency with less clean-up, all resulting in quicker turnaround and increased production capabilities. The innovative concept of the new Thermo Scientific™ Labtainer™ Pro BioProcess Container (BPC) provides improved flexibility and assurance—without compromise.

Key advantages

Bioproduction requirements differ depending on the applications and processes used within a workflow. Products selected should complement workflow requirements. The Labtainer Pro BPC was developed in response to a variety of bioproduction workflow needs. The 2D style of the Labtainer Pro BPC provides improved ease of use, high reliability, and assured quality in sizes ranging from 50 mL to 20 L.

Applications

- Bioreactor feed and harvest
- Buffer and media storage; intermediate product hold and storage
- Bulk product storage prior to filling
- Chromatography feed
- Fraction collection
- Product sampling and transport



Key benefits

- Consistent contact materials in all BPCs of sizes from 50 mL to 2,000 L
- Film robustness for a reliable and durable product
- Improved handling for better ergonomics
- Optimized drainage
- Wider range of port sizing: 1/8–1/2 in. to eliminate the need for setup and step-down connections, resulting in fewer connections and better, less turbulent flow
- High level of assurance with 100% helium testing, automated manufacturing, and lot-based endotoxin and particulate testing
- No sharps or tools required for packaging removal, eliminating the risk of damage from unpacking tools.
- Reduction in packaging material, creating a more environmentally friendly product

Product features

Reliability

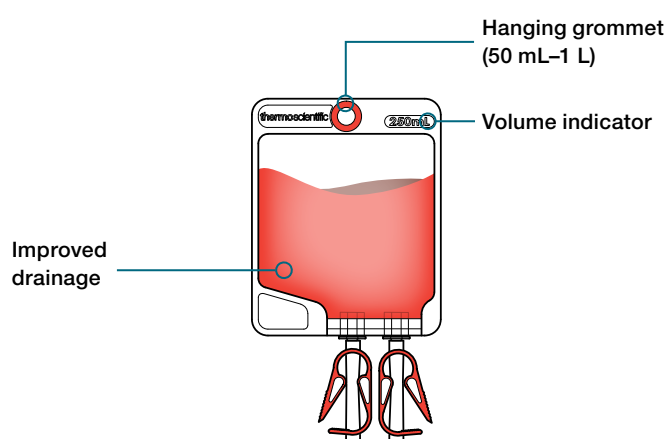
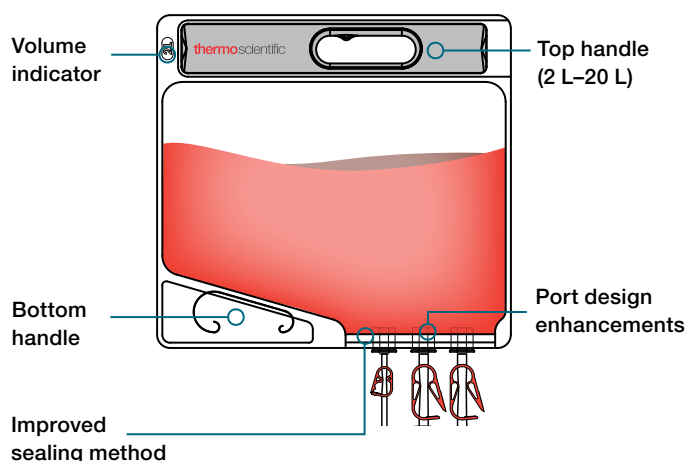
- **Enhanced port design and customization**—2-, 3-, and 4-port configurations available without the need for excess ports in the chamber
- **Improved sealing method**—impulse heat sealing for port insertion utilizing Labtainer Automated Manufacturing (LAM) technology
- **100% helium integrity testing**—helps ensure that our best product is delivered to the customer

Quality

- **Upgraded packaging**—easy-peel tape on the shipping box and an easy-open polyethylene (PE) outer bag
- **Waste management**—cardboard reduction up to 25%
- **Improved outer polyethylene bag**—manufactured in a controlled environment, resulting in cleaner packaging with less risk of particulates
- **Lot-based testing**—implementation of lot-based bacterial endotoxin (BET) testing and particulate testing of Labtainer Pro BPC products to USP <788> and USP <85> standards

Easy of use

- **Enhanced ergonomics**—improved handle features with the addition of a lower handle on the 2, 5, 10, and 20 L BPCs
- **Optimized drainage**—chamber design, port location, and low-profile port design minimizes liquid holdup

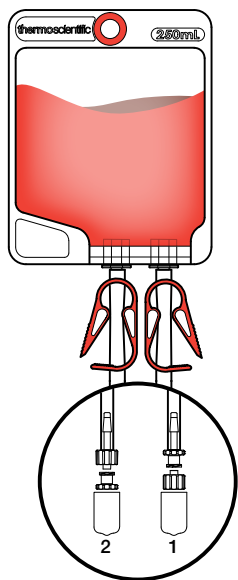


Labtainer Pro BPC chamber specifications and options.

Chamber size	Chamber dimensions (W x L)	Total surface area	Porting range options	Handling options
50 mL	15.0 x 11.7 cm (5.9 x 4.6 in.)	28.6 sq. in.	2-port	Hanging grommet
100 mL	15.0 x 14.2 cm (5.9 x 5.6 in.)	40.1 sq. in.	2-port	Hanging grommet
250 mL	15.0 x 18.8 cm (5.9 x 7.4 in.)	59.9 sq. in.	2-port	Hanging grommet
500 mL	18.5 x 23.6 cm (7.3 x 9.3 in.)	102.3 sq. in.	2- or 3-port	Hanging grommet
1,000 mL	18.5 x 30.0 cm (7.3 x 11.8 in.)	136.8 sq. in.	2- or 3-port	Hanging grommet
2 L	34.3 x 32.5 cm (13.5 x 12.8 in.)	232.2 sq. in.	2-, 3-, or 4-port	Upper reinforced hanging handle
5 L	34.3 x 40.9 cm (13.5 x 16.1 in.)	318.7 sq. in.	2-, 3-, or 4-port	Upper reinforced hanging handle
10 L	34.3 x 64.3 cm (13.5 x 25.3 in.)	550.5 sq. in.	2-, 3-, or 4-port	Upper and lower reinforced hanging handles
20 L	45.0 x 69.3 cm (17.7 x 27.3 in.)	777.4 sq. in.	2-, 3-, or 4-port	Upper and lower reinforced hanging handles

Labtainer Pro BPCs

2 ports



Line 1

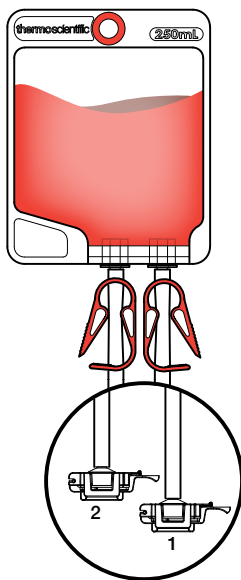
Luer lock body with plug
 Tubing: C-Flex™, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Line 2

Luer lock insert with cap
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
50 mL	PL30014.01
100 mL	PL30014.02
250 mL	PL30014.03

2 ports



Line 1

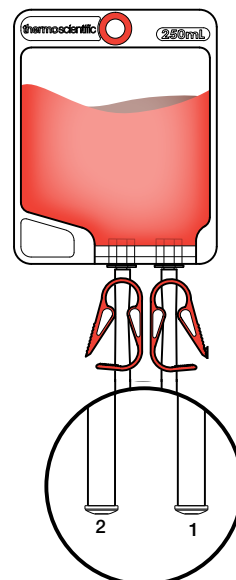
CPC™ AseptiQuik™ Connector G
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 2

AseptiQuik Connector G
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Size	Cat. No.
	Aegis5-14
50 mL	PL30015.01
100 mL	PL30015.02
250 mL	PL30015.03

2 ports



Line 1

Plug
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

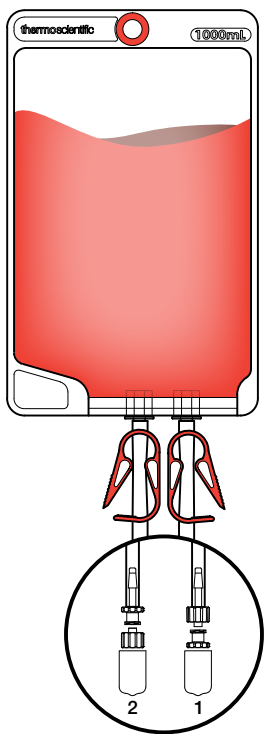
Line 2

Plug
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
50 mL	PL30016.01
100 mL	PL30016.02
250 mL	PL30016.03

Labtainer Pro BPCs

2 ports



Line 1

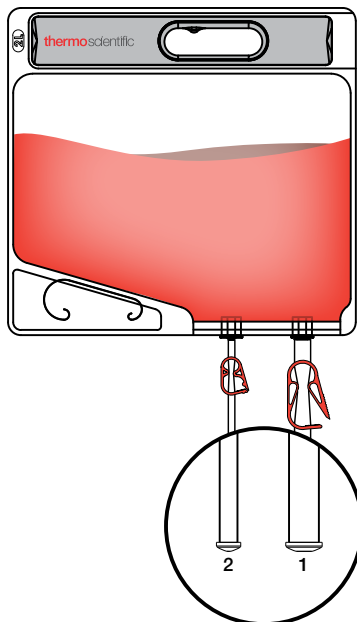
Luer lock insert with cap
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 2

Luer lock body with plug
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Size	Cat. No.
	Aegis5-14
500 mL	PL30018.01
1 L	PL30018.02

2 ports



Line 1

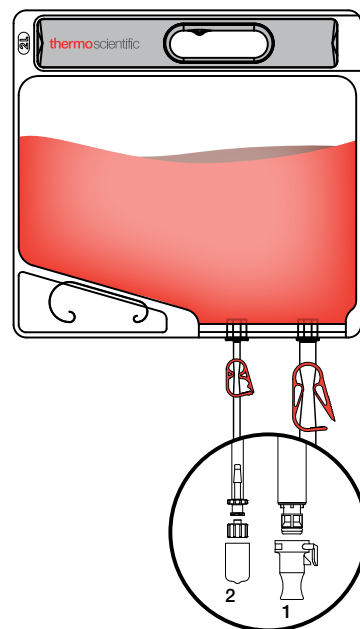
Plug
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 2

Plug
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
500 mL	PL30017.01
1 L	PL30017.02
2 L	PL30021.01
5 L	PL30021.02
10 L	PL30021.03
20 L	PL30021.04

2 ports



Line 1

MPC insert
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

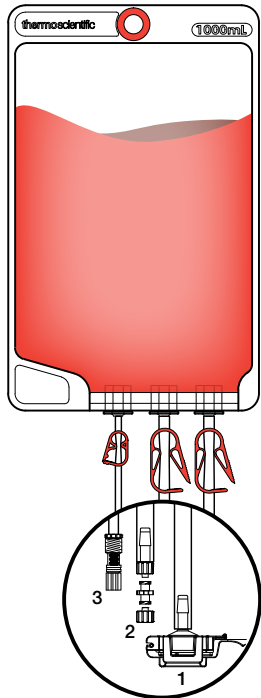
Line 2

Luer lock insert with cap
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
2 L	PL30022.01
5 L	PL30022.02
10 L	PL30022.03
20 L	PL30022.04

Labtainer Pro BPCs

3 ports



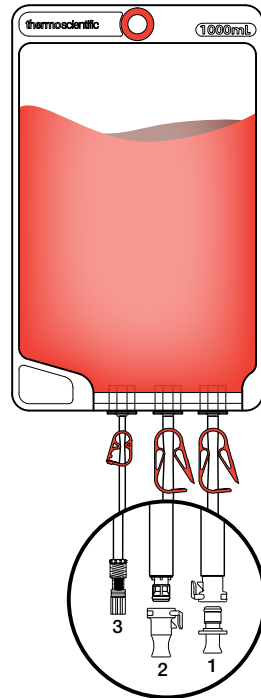
Line 1
 AseptiQuik Connector G
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 2
 Luer lock body and insert
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 3
 Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 10.2 cm (4 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
500 mL	PL30019.01
1 L	PL30019.02

3 ports



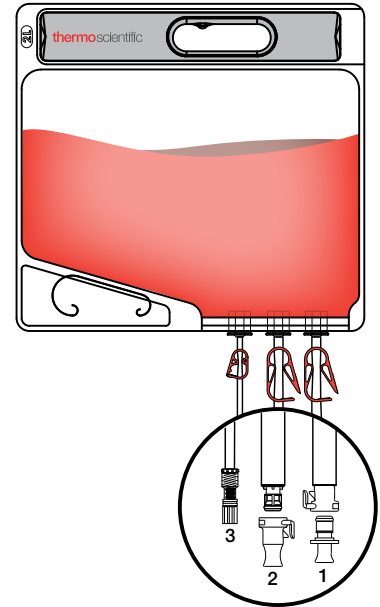
Line 1
 MPC body
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 2
 MPC insert
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 3
 Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 10.2 cm (4 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
500 mL	PL30020.01
1 L	PL30020.02

3 ports



Line 1
 MPC body
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

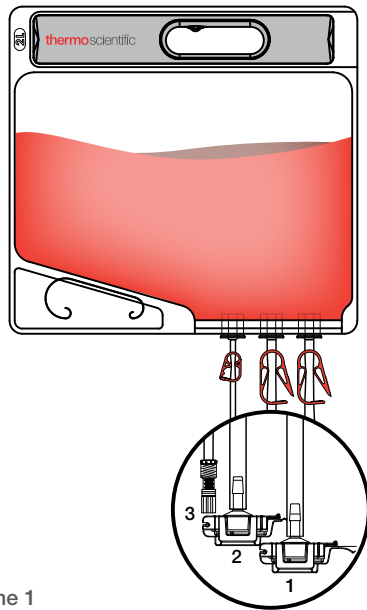
Line 2
 MPC insert
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 3
 Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 10.2 cm (4 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
	Aegis5-14
2 L	PL30023.01
5 L	PL30023.02
10 L	PL30023.03
20 L	PL30023.04

Labtainer Pro BPCs

3 ports



Line 1

AseptiQuik Connector G
 Tubing: C-Flex, length: 61 cm (24 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 2

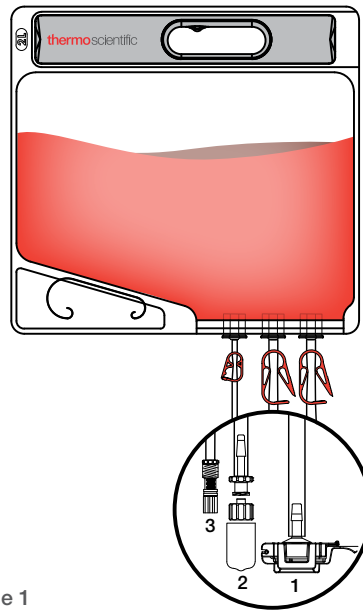
AseptiQuik Connector G
 Tubing: C-Flex, length: 61 cm (24 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 3

Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 10.2 cm (4 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
Aegis5-14	
2 L	PL30024.01
5 L	PL30024.02
10 L	PL30024.03
20 L	PL30024.04

3 ports



Line 1

AseptiQuik Connector G
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 2

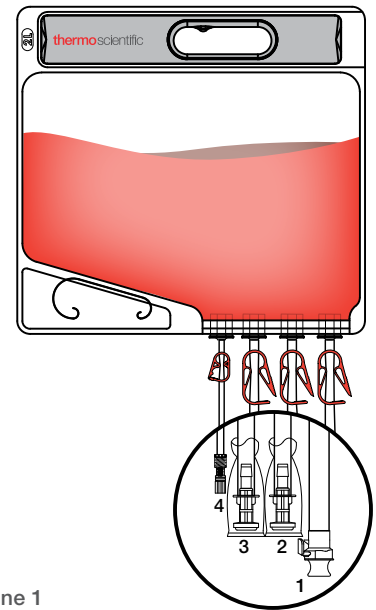
Luer lock body with plug
 Tubing: C-Flex, length: 30.5 cm (12 in.)
 ID x wall x OD: 0.64 x 0.24 x 1.12 cm
 (1/4 x 3/32 x 7/16 in.)

Line 3

Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 10.2 cm (4 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
Aegis5-14	
2 L	PL30025.01
5 L	PL30025.02
10 L	PL30025.03
20 L	PL30025.04

4 ports



Line 1

MPX body
 Tubing: C-Flex, length: 61 cm (24 in.)
 ID x wall x OD: 1.27 x 0.32 x 1.91 cm
 (1/2 x 1/8 x 3/4 in.)

Line 2

3/4 in. tri-clamp with gasket, sterilized
 Tubing: C-Flex, length: 61 cm (24 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 3

3/4 in. tri-clamp with gasket, sterilized
 Tubing: C-Flex, length: 61 cm (24 in.)
 ID x wall x OD: 0.95 x 0.32 x 1.59 cm
 (3/8 x 1/8 x 5/8 in.)

Line 4

Luer lock body with needleless Luer insert
 Tubing: C-Flex, length: 46 cm (18 in.)
 ID x wall x OD: 0.32 x 0.16 x 0.64 cm
 (1/8 x 1/16 x 1/4 in.)

Size	Cat. No.
Aegis5-14	
2 L	PL30026.01
5 L	PL30026.02
10 L	PL30026.03
20 L	PL30026.04

2D Labtainer BPC systems

Key features

- Thermo Scientific™ 2D Labtainer™ systems are 2-panel, pillow-style BPCs
- Chambers are constructed from CX5-14, Aegis5-14, ASI 26/77, and ASI 28 films
- Labtainer systems have 2–3 edge ports along one end with a handle on the opposing end
- 2-port Labtainer BPCs are available in sizes from 50 mL to 2,000 mL
- 3-port Labtainer BPCs are available in sizes from 2 to 50 L
- Line sets can be customized for easy integration with existing process operations and equipment
- Labtainer BPC systems can be customized into multi-container manifold configurations
- Labtainer BPC systems can be added as sample container adjuncts to 2D or 3D BPCs



Applications

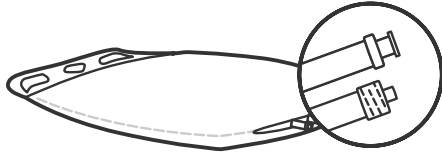
- Harvest from bioreactors or fermentors
- Feed into bioreactors or fermentors
- Sample collection from bioreactors or fermentors
- Buffer preparation and storage
- Culture media preparation and storage
- Process liquid preparation and storage
- Chromatography feed and fraction collection
- Harvest, storage, and transport of bulk drug product and bulk drug precursors



Small BPCs constructed with Aegis5-14 and CX5-14 films

2 ports

Pack of 10



Line 1

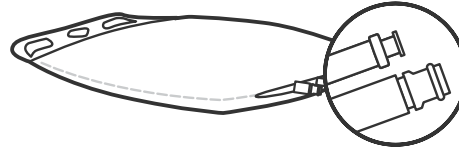
Luer lock body connection, polypropylene
No tubing

Line 2

Luer lock insert connection, polypropylene
No tubing

2 ports

Pack of 10



Line 1

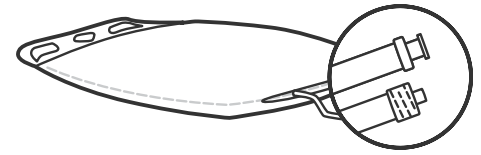
Luer lock body connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Line 2

MPC insert, polycarbonate
No tubing

2 ports

Pack of 10



Line 1

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Line 2

Luer lock insert connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

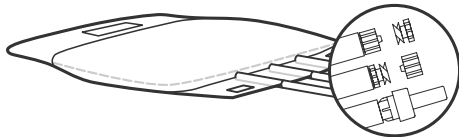
Size	Dimensions (LxW)	Cat. No.
50 mL	11.7 x 13.7 cm (4.6 x 5.4 in.)	Aegis5-14 SH3105011
		CX5-14 SH3065711
100 mL	14.7 x 14.2 cm (5.8 x 5.6 in.)	Aegis5-14 SH3105012
		CX5-14 SH3065712
250 mL	19.1 x 15 cm (7.5 x 5.9 in.)	Aegis5-14 SH3105013
		CX5-14 SH3065713
500 mL	26.4 x 17.3 cm (10.4 x 6.8 in.)	Aegis5-14 SH3105014
		CX5-14 SH3065714
1 L	29.7 x 20.1 cm (11.7 x 7.9 in.)	Aegis5-14 SH3105014
		CX5-14 SH3065715
2 L	34.8 x 24.4 cm (13.7 x 9.6 in.)	Aegis5-14 SH3105015
		CX5-14 SH3065716

Size	Dimensions (LxW)	Cat. No.
50 mL	11.7 x 13.7 cm (4.6 x 5.4 in.)	Aegis5-14 SH3104811
		CX5-14 SH3066211
100 mL	14.7 x 14.2 cm (5.8 x 5.6 in.)	Aegis5-14 SH3104812
		CX5-14 SH3066212
250 mL	19.1 x 15 cm (7.5 x 5.9 in.)	Aegis5-14 SH3104813
		CX5-14 SH3066213
500 mL	26.4 x 17.3 cm (10.4 x 6.8 in.)	Aegis5-14 SH3104814
		CX5-14 SH3066214
1 L	29.7 x 20.1 cm (11.7 x 7.9 in.)	Aegis5-14 SH3104815
		CX5-14 SH3066215
2 L	34.8 x 24.4 cm (13.7 x 9.6 in.)	Aegis5-14 SH3104816
		CX5-14 SH3066216

Size	Dimensions (LxW)	Cat. No.
50 mL	11.7 x 13.7 cm (4.6 x 5.4 in.)	Aegis5-14 SH3096111
		CX5-14 SH3065811
100 mL	14.7 x 14.2 cm (5.8 x 5.6 in.)	Aegis5-14 SH3096112
		CX5-14 SH3065812
250 mL	19.1 x 15 cm (7.5 x 5.9 in.)	Aegis5-14 SH3096113
		CX5-14 SH3065813
500 mL	26.4 x 17.3 cm (10.4 x 6.8 in.)	Aegis5-14 SH3096114
		CX5-14 SH3065814
1 L	29.7 x 20.1 cm (11.7 x 7.9 in.)	Aegis5-14 SH3096115
		CX5-14 SH3065815
2 L	34.8 x 24.4 cm (13.7 x 9.6 in.)	Aegis5-14 SH3096116
		CX5-14 SH3065816

Small BPCs constructed with ASI 28 film

3 ports



Line 1

Luer lock insert connection with 4.8 mm (3/16 in.) barb and cap
 Tubing: EVA
 ID x OD: 6.0 x 7.9 mm (0.24 x 0.31 in.)

Line 2

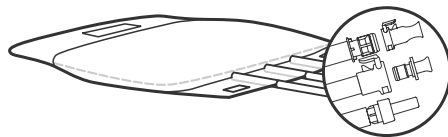
Luer lock body connection with 4.8 mm (3/16 in.) barb and plug
 Tubing: EVA
 ID x OD: 6.0 x 7.9 mm (0.24 x 0.31 in.)

Line 3

Tubing: EVA, injection port

Size	Dimensions (LxW)	Cat. No.
100 mL	12.7 x 9.1 cm (5 x 3.6 in.)	ASI 28 SS000011
250 mL	16.5 x 12.5 cm (6.5 x 4.9 in.)	ASI 28 SS000021
500 mL	20.3 x 16.5 cm (8 x 6.5 in.)	ASI 28 SS000031

3 ports



Line 1

MPC insert with 6.4 mm (1/4 in.) barb and cap
 Tubing: EVA + C-Flex 374
 ID x OD: 6.0 x 7.9 mm (0.24 x 0.31 in.)

Line 2

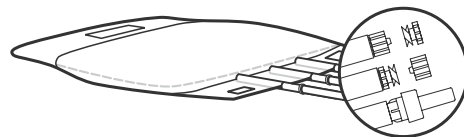
MPC body with 6.4 mm (1/4 in.) barb and plug
 Tubing: EVA
 ID x OD: 6.0 x 7.9 mm (0.24 x 0.31 in.)

Line 3

Tubing: EVA, injection port

Size	Dimensions (LxW)	Cat. No.
100 mL	12.7 x 9.1 cm (5 x 3.6 in.)	ASI 28 SS000111
250 mL	16.5 x 12.5 cm (6.5 x 4.9 in.)	ASI 28 SS000121
500 mL	20.3 x 16.5 cm (8 x 6.5 in.)	ASI 28 SS000131
1 L	24.9 x 19.8 cm (9.8 x 7.8 in.)	ASI 28 SS000141

3 ports



Line 1

Luer lock insert connection with 4.1 mm (5/32 in.) barb, cap, slide clamp, and 4.8 x 4.1 mm (3/16 x 5/32 in.) reducer
 Tubing: EVA + C-Flex 374, length: 30 cm (12 in.)
 ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Line 2

Luer lock body connection with 4.1 mm (5/32 in.) barb, plug, slide clamp, and 4.8 x 4.1 mm (3/16 x 5/32 in.) reducer
 Tubing: EVA + C-Flex 374, length: 30 cm (12 in.)
 ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Line 3

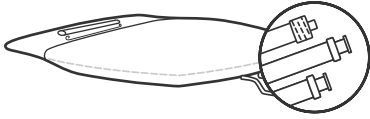
Tubing: EVA, injection port

Size	Dimensions (LxW)	Cat. No.
100 mL	12.7 x 9.1 cm (5 x 3.6 in.)	ASI 28 SS000061
250 mL	16.5 x 12.5 cm (6.5 x 4.9 in.)	ASI 28 SS000071
500 mL	20.3 x 16.5 cm (8 x 6.5 in.)	ASI 28 SS000081
1 L	24.9 x 19.8 cm (9.8 x 7.8 in.)	ASI 28 SS000091
2 L	33.3 x 20.3 cm (13.1 x 8 in.)	ASI 28 SS000101

Large BPCs constructed with Aegis5-14 and CX5-14 films

3 ports

Single pack



Line 1

Luer lock insert connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 2

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

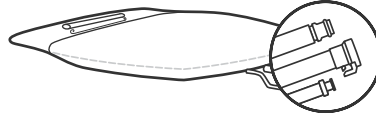
Line 3

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Size	Dimensions (LxW)	Cat. No.
2 L	29.5 x 31 cm (11.6 x 12.2 in.)	Aegis5-14 SH3104905
		CX5-14 SH3071305
5 L	37.6 x 33.3 cm (14.8 x 13.1 in.)	Aegis5-14 SH3104901
		CX5-14 SH3071301
10 L	62.2 x 30 cm (24.5 x 11.8 in.)	Aegis5-14 SH3104902
		CX5-14 SH3071302
20 L	65.5 x 43.2 cm (25.8 x 17 in.)	Aegis5-14 SH3104903
		CX5-14 SH3071303
50 L	82.6 x 58.4 cm (32.5 x 23 in.)	Aegis5-14 SH3104904
		CX5-14 SH3071304

3 ports

Single pack



Line 1

MPC insert, polycarbonate
Tubing: C-Flex, length: 61 cm (24 in.)
ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

Line 2

MPC body, polycarbonate
Tubing: C-Flex, length: 61 cm (24 in.)
ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

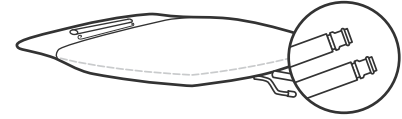
Line 3

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 61 cm (24 in.)
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Size	Dimensions (LxW)	Cat. No.
2 L	29.5 x 31 cm (11.6 x 12.2 in.)	Aegis5-14 SH3096305
		CX5-14 SH3071205
5 L	37.6 x 33.3 cm (14.8 x 13.1 in.)	Aegis5-14 SH3096301
		CX5-14 SH3071201
10 L	62.2 x 30 cm (24.5 x 11.8 in.)	Aegis5-14 SH3096302
		CX5-14 SH3071202
20 L	65.5 x 43.2 cm (25.8 x 17 in.)	Aegis5-14 SH3096303
		CX5-14 SH3071203
50 L	82.6 x 58.4 cm (32.5 x 23 in.)	Aegis5-14 SH3096304
		CX5-14 SH3071204

3 ports

Single pack



Line 1

MPC insert, polycarbonate
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 9.7 x 12.7 mm (0.38 x 0.5 in.)

Line 2

MPC insert, polycarbonate
Tubing: C-Flex, length: 30 cm (12 in.)
ID x OD: 9.7 x 12.7 mm (0.38 x 0.5 in.)

Line 3

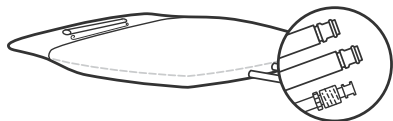
Plugged; no tubing

Size	Dimensions (LxW)	Cat. No.
2 L	29.5 x 31 cm (11.6 x 12.2 in.)	Aegis5-14 SH3096505
		CX5-14 SH3071405
5 L	37.6 x 33.3 cm (14.8 x 13.1 in.)	Aegis 5-14 SH3096501
		CX5-14 SH3071401
10 L	62.2 x 30 cm (24.5 x 11.8 in.)	Aegis 5-14 SH3096502
		CX5-14 SH3071402
20 L	65.5 x 43.2 cm (25.8 x 17 in.)	Aegis5-14 SH3096503
		CX5-14 SH3071403
50 L	82.6 x 58.4 cm (32.5 x 23 in.)	Aegis5-14 SH3096504
		CX5-14 SH3071404

Large BPCs constructed with Aegis5-14 and CX5-14 films

3 ports

Single pack—edge ports



Line 1

MPC insert, polycarbonate

No tubing

Line 2

MPC insert, polycarbonate

No tubing

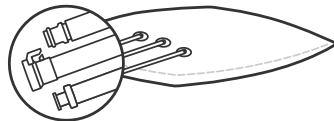
Line 3

Injection port

No tubing

3 ports

Single pack—pillow design with panel ports



Line 1

MPC insert, polycarbonate

Tubing: C-Flex, length: 61 cm (24 in.)

ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

Line 2

MPC body, polypropylene

Tubing: C-Flex, length: 61 cm (24 in.)

ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

Line 3

Luer lock body connection, polypropylene

Tubing: C-Flex, length: 66 cm (26 in.)

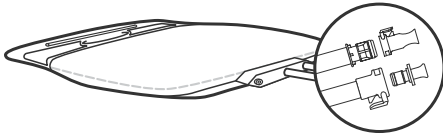
ID x OD: 3.2 x 6.4 mm (0.13 x 0.25 in.)

Size	Dimensions (LxW)	Cat. No.
2 L	29.5 x 31 cm (11.6 x 12.2 in.)	Aegis5-14 SH3100505
		CX5-14 SH3070905
5 L	37.6 x 33.3 cm (14.8 x 13.1 in.)	Aegis5-14 SH3100501
		CX5-14 SH3070901
10 L	62.2 x 30 cm (24.5 x 11.8 in.)	Aegis5-14 SH3100502
		CX5-14 SH3070902
20 L	65.5 x 43.2 cm (25.8 x 17 in.)	Aegis5-14 SH3100503
		CX5-14 SH3070903
50 L	82.6 x 58.4 cm (32.5 x 23 in.)	Aegis5-14 SH3100504
		CX5-14 SH3070904

Size	Outer container Cat. No.	Cat. No.
50 L	SV5007602	CX5-14 SH3066701
100 L	SV5007603	CX5-14 SH3066702
200 L	SV5007604	CX5-14 SH3066703

Large BPCs constructed with ASI 26/77 and ASI 28 films

3 ports



Line 1

MPC insert with 9.7 mm (3/8 in.) barb, cap, and pinch clamp

Tubing: C-Flex 374, length: 30 cm (12 in.)

ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 2

MPC body with 9.7 mm (3/8 in.) barb, plug, and pinch clamp

Tubing: C-Flex 374, length: 30 cm (12 in.)

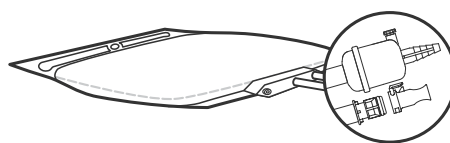
ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 3

Injection port

Size	Dimensions (LxW)	Cat. No.
10 L	32 x 56.5 cm (12.6 x 22.3 in.)	ASI 26/77 SS00040I
20 L	42.6 x 63.5 cm (16.8 x 25 in.)	ASI 26/77 SS00041I

3 ports



Line 1

0.2 µm PES membrane capsule filter and pinch clamp

Tubing: C-Flex 374, length: 30 cm (12 in.)

ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 2

MPC insert with cap and pinch clamp

Tubing: C-Flex 374, length: 91.4 cm (36 in.)

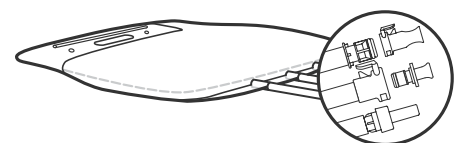
ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 3

Injection port

Size	Dimensions (LxW)	Cat. No.
1 L	24.9 x 19.8 cm (9.8 x 7.8 in.)	ASI 26/77 SS00158I
5 L	32 x 31.6 cm (12.6 x 12.4 in.)	ASI 26/77 SS00159I
10 L	32 x 56.5 cm (12.6 x 22.3 in.)	ASI 26/77 SS00160I
20 L	42.6 x 63.5 cm (16.8 x 25 in.)	ASI 26/77 SS00161I

3 ports



Line 1

MPC insert with 9.7 mm (3/8 in.) barb, cap, and pinch clamp

Tubing: EVA

ID x OD: 9.7 x 12.1 mm (0.38 x 0.48 in.)

Line 2

MPC body with 9.7 mm (3/8 in.) barb, plug, and pinch clamp

Tubing: EVA

ID x OD: 9.7 x 12.1 mm (0.38 x 0.48 in.)

Line 3

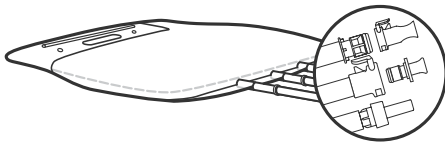
Tubing: EVA, injection port

ID x OD: 6.1 x 8.1 mm (0.24 x 0.32 in.)

Size	Dimensions (LxW)	Cat. No.
5 L	31.5 x 32.0 cm (12.4 x 12.6 in.)	ASI 28 SS00016I
10 L	56.6 x 32.5 cm (22.3 x 12.8 in.)	ASI 28 SS00017I
20 L	63.3 x 42.7 cm (24.9 x 16.8 in.)	ASI 28 SS00018I
50 L	69.3 x 58.4 cm (27.3 x 23 in.)	ASI 28 SS00019I

Large BPCs constructed with ASI 26/77 and ASI 28 films

3 ports



Line 1

MPC insert with 9.7 mm (3/8 in.) barb, cap, pinch clamp, and 9.7 mm (3/8 in.) connector
 Tubing: EVA + C-Flex 374, length: 30 cm (12 in.)
 ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 2

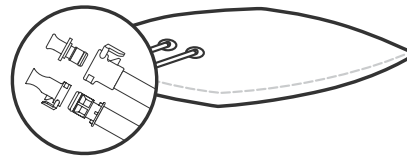
MPC body with 9.7 mm (3/8 in.) barb, cap, pinch clamp, and 9.7 mm (3/8 in.) connector
 Tubing: EVA, length: 30 cm (12 in.)
 ID x OD: 9.7 x 16 mm (0.38 x 0.63 in.)

Line 3

Tubing: EVA, injection port

Size	Dimensions (LxW)	Cat. No.
5 L	31.5 x 32.0 cm (12.4 x 12.6 in.)	ASI 28 SS00020I
10 L	56.6 x 32.5 cm (22.3 x 12.8 in.)	ASI 28 SS00021I
20 L	63.3 x 42.7 cm (24.9 x 16.8 in.)	ASI 28 SS00022I
50 L	69.3 x 58.4 cm (27.3 x 23 in.)	ASI 28 SS00023I

2 ports



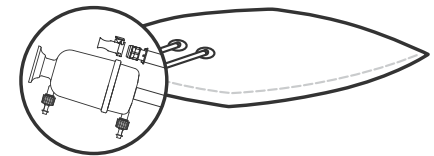
Line 1

MPC insert with 9.7 mm (3/8 in.) barb, cap, and pinch clamp
 Tubing: silicone, length: 51 cm (20 in.)
 ID x OD: 9.5 x 15.9 mm (0.38 x 0.63 in.)

Line 2

MPC body with 9.7 mm (3/8 in.) barb, plug, and pinch clamp
 Tubing: silicone, length: 51 cm (20 in.)
 ID x OD: 9.5 x 15.9 mm (0.38 x 0.63 in.)

2 ports



Line 1

0.2 µm PES membrane capsule filter and pinch clamp
 Tubing: C-Flex 374, length: 91.4 cm (36 in.)
 ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)

Line 2

MPC insert with cap and pinch clamp
 Tubing: C-Flex 374, length: 91.4 cm (36 in.)
 ID x OD: 9.5 x 16 mm (0.38 x 0.63 in.)

Size	Cat. No.
50 L	ASI 26/77 SS00103I
100 L	ASI 26/77 SS00104I
200 L	ASI 26/77 SS00105I

Size	Cat. No.
50 L	ASI 26/77 SS00162I
100 L	ASI 26/77 SS00163I
200 L	ASI 26/77 SS00164I

Three60 Single-Use Sampling System

The simple design behind the Thermo Scientific™ Three60™ Sampling System provides the ability to take a representative product sample with minimal effort. For a small volume liquid transfer, CIP or SIP process is utilized to prepare the tank. The pre-irradiated BPCs and assemblies help ensure an integral fluid path while the quick-turn valve and pinch-and-cut disconnectors maintain liquid transfer and removal from BPCs.



With the Three60 Single-Use Sampling System, there are no parts to be assembled, disassembled, or cleaned, and unlike other single-use sampling systems, no additional tools are needed. The entire set can be easily applied to any fluid holding vessel or transfer line and four samples can be removed in only a few minutes.

The Three60 system is compatible with a variety of vessels through a sanitary connector; no expensive hardware is needed. Each Three60 system package contains a valve and four assemblies with pinch-and-cut disconnectors.

Kit to tank

The Three60 system is pre-irradiated and assembled into a one-piece kit. Simply remove the device from the kit and apply to the vessel.

- **Quick-turn Three60™ valve**—the face of the Three60 valve can be sterilized with the tank through traditional CIP/SIP processes. The valve has four assemblies. This helps keep the product and technician contamination-free.
- **Pinch-and-cut disconnectors**—allow the technician to quickly separate the sample and eliminate the need for tools or tube sealing.
- **Injection ports**—Luer lock injection site; extract through either the septum or twist-off Luer lock to pour.
- **Pre-irradiated BPC assemblies**—provided with pre-irradiated BPC assemblies in sizes ranging from 50 mL to 2 L produced using the ASI 77 film.

Ordering information

Description	Cat. No.
Three60 sampling BPCs	
50 mL, 2-port sampling BPC	B100563-I
100 mL, 2-port sampling BPC	B100564-I
250 mL, 2-port sampling BPC	B100565-I
500 mL, 2-port sampling BPC	B100566-I
1 L, 2-port sampling BPC	B100567-I
Three60 sampling systems	
50 mL Three60 sampling system with 4 x 2-port sampling BPCs	4MP0034
100 mL Three60 sampling system with 4 x 2-port sampling BPCs	4MP0035
250 mL Three60 sampling system with 4 x 2-port sampling BPCs	4MP0036
500 mL Three60 sampling system with 4 x 2-port sampling BPCs	4MP0037
1 L Three60 sampling system with 4 x 2-port sampling BPCs	4MP0038
2 L Three60 sampling system with 4 x 2-port sampling BPCs	4MP0039

3D Productainer BPC systems

Key features

- Use this system to eliminate post-use cleaning steps required with reusable containers, and to reduce cross-contamination risks.
- All 3D BPCs are constructed in an ISO 7 cleanroom under cGMP conditions.
- All 3D BPCs are designed to fit the full range of support containers, both square and cylindrical, from 50 to 2,000 L.

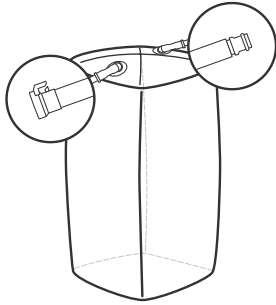
Applications

- Hydration and filtration of process buffers, liquids, and culture media.
- Chromatography feed and fraction collection.
- Storage and transport of bulk drug product and bulk drug precursors.
- Harvest from and feed into bioreactors and fermentors.
- Dispensing, packaging, and storage of cell culture media, buffers, and process liquids.



3D square tube design with top port dispense

2 ports



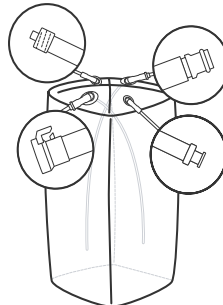
Line 1

MPC insert, polycarbonate
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

Line 2

MPC body, polycarbonate
 Tubing: C-Flex, length: 45.7 cm (18 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

4 ports



Line 1

MPC insert, polycarbonate
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.),
 with dip tube length dependent on BPC size

Line 2

Luer lock insert connection, polypropylene
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

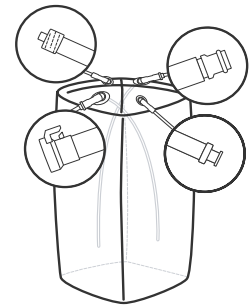
Line 3

Luer lock body connection, polypropylene
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 4

MPC body, polycarbonate
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 in. x 0.63 in.),
 dip tube length: 30.5 cm (12 in.)

4 ports



Line 1

MPX insert, polycarbonate
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.),
 with dip tube length dependent on BPC size

Line 2

Luer lock insert connection, polypropylene
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.)

Line 3

Luer lock body connection, polypropylene
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 4

MPX body, polycarbonate
 Tubing: C-Flex, length: 121.9 cm (48 in.)
 ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.),
 dip tube length: 30.5 cm (12 in.)

Size	Outer container Cat. No.	Cat. No.
50 L	SV5007602	Aegis5-14 SH3096401
		CX5-14 SH3064901
100 L	SV5007603	Aegis5-14 SH3096402
		CX5-14 SH3064902
200 L	SV5007604	Aegis5-14 SH3096403
		CX5-14 SH3064903

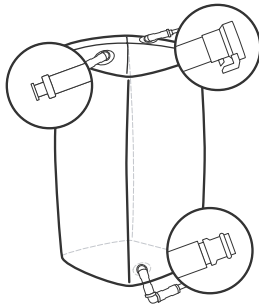
Size	Outer container Cat. No.	Cat. No.
50 L Dip tube: 38 cm (15 in.)	SV5007602	Aegis5-14 SH3096601
		CX5-14 SH3065101
100 L Dip tube: 71 cm (28 in.)	SV5007603	Aegis5-14 SH3096602
		CX5-14 SH3065102
200 L Dip tube: 81 cm (32 in.)	SV5007604	Aegis5-14 SH3096603
		CX5-14 SH3065103

Size	Outer container Cat. No.	Cat. No.
50 L Dip tube: 38 cm (15 in.)	SV5007602	Aegis5-14 SH3097701
		CX5-14 SH3065301
100 L Dip tube: 71 cm (28 in.)	SV5007603	Aegis5-14 SH3097702
		CX5-14 SH3065302
200 L Dip tube: 81 cm (32 in.)	SV50076.04	Aegis5-14 SH3097703
		CX5-14 SH3065303

All dip tube lengths for the SKUs above are 9 cm (3.5 in.) or shorter.

3D square tube design with bottom port dispense

3 ports



Line 1

MPX body, polycarbonate
Tubing: C-Flex, length: 45.7 cm (18 in.)
ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)

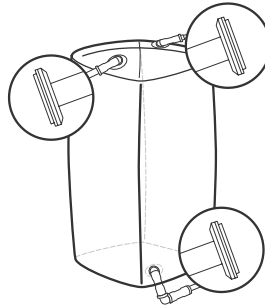
Line 2

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 30.5 cm (12 in.)
ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 3

MPX insert, polycarbonate
Tubing: C-Flex, length: 121.9 cm (48 in.)
ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.),
bottom port

3 ports



Line 1

19.1 mm (0.75 in.) tri-clamp, polyethylene
Tubing: C-Flex, length: 45.7 cm (18 in.)
ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)

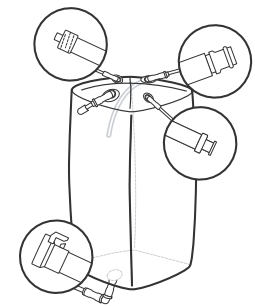
Line 2

19.1 mm (0.75 in.) tri-clamp, polyethylene
Tubing: C-Flex, length: 45.7 cm (18 in.)
ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)

Line 3

19.1 mm (0.75 in.) tri-clamp, polyethylene
Tubing: C-Flex, length: 121.9 cm (48 in.)
ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)

5 ports



Line 1

MPC insert, polycarbonate
Tubing: C-Flex, length: 121.9 cm (48 in.) dip tube
ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.),
with dip tube length dependent on BPC size

Line 2

Luer lock insert connection, polypropylene
Tubing: C-Flex, length: 121.9 cm (48 in.)
ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 3

Luer lock body connection, polypropylene
Tubing: C-Flex, length: 121.9 cm (48 in.)
ID x OD: 6.4 x 9.7 mm (0.25 x 0.38 in.)

Line 4

Plugged, no tubing

Line 5

MPC body, polycarbonate
Tubing: silicone, length: 121.9 cm (48 in.)
ID x OD: 9.7 x 15.9 mm (0.38 x 0.63 in.),
bottom port

Size	Cat. No.
50 L	Aegis5-14 SH3096701
	CX5-14 SH3065001
100 L	Aegis5-14 SH3096702
	CX5-14 SH3065002
200 L	Aegis5-14 SH3096703
	CX5-14 SH3065003

Size	Cat. No.
50 L	Aegis5-14 SH3096801
	CX5-14 SH3067201
100 L	Aegis5-14 SH3096802
	CX5-14 SH3067201 SH3067202
200 L	Aegis5-14 SH3096803
	CX5-14 SH3067203

Size	Outer container Cat. No.	Cat. No.
50 L Dip tube: 30.5 cm (12.5 in.)	SV5051704	Aegis5-14 SH3096901
		CX5-14 SH3065201
100 L Dip tube: 30.5 cm (12.5 in.)	SV5051705	Aegis5-14 SH3096902
		CX5-14 SH3065202
200 L Dip tube: 81 cm (32 in.)	SV5051706	Aegis5-14 SH3096903
		CX5-14 SH3065203

Fluid transfer assemblies

We are a premier supplier of single-use technologies, including catalog and custom single-use fluid transfer assemblies.

Assurance of supply

Our transfer assemblies are manufactured in three efficient, cGMP-compliant manufacturing sites: two in North America—Logan, UT, and Millersburg, PA—and one in Cramlington, UK.

Applications

- Media and buffer transfer
- Product sampling
- Bioreactor feed transfer
- Harvest collection
- Filtration and purification process connection
- Bulk product and final fill
- Dispensing and aliquoting



Key benefits

- Compatibility with any hardware system
- Design systems to integrate within your processes
- Helps save time and money through partnering
- No need for cleaning and gamma-irradiation
- Helps reduce cross-contamination

Criteria to consider when selecting transfer assemblies

Pumping characteristics	Peristaltic pumping is the most common method so the flow rate and pump life of tubing in a system are important.
Clarity	Most but not all of the tubing types are clear. The ability to see tubing contents is normally important.
Method of connection	Most connection systems involve attaching the tubing to a hose barb in a standard size. Tubing welders and sealers require specific types of tubing.
Supporting data	Regulatory compliance, NOA status, and extractables studies are often required. A database of information on all standard tubing is available.
Economics	Different tubing types, bore sizes, and wall thicknesses can vary widely in cost. In general, the larger the bore size and wall thickness, the more expensive the tubing.

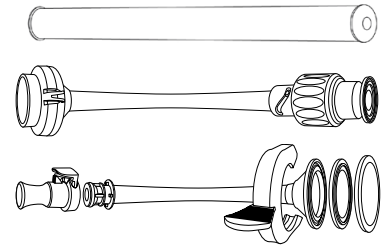
Extension sets

- Single length of tubing to connect separate vessels, BPCs, or other single-use accessories
- Available in multiple lengths
- Can be combined to bridge additional distances



Tubing size	Tubing length	End connections	Cat. No.
3.2 mm (1/8 in.) ID, 1.6 mm (1/16 in.) wall, C-Flex 374	1 m (39.4 in.)	Capped—for welders	SH3107901
	2.5 m (98.4 in.)	Capped—for welders	SH3107902
	5 m (196.9 in.)	Capped—for welders	SH3107903
6.35 mm (1/4 in.) ID, 1.6 mm (1/16 in.) wall, C-Flex 374	1 m (39.4 in.)	Capped—for welders	SH3108001
	2.5 m (98.4 in.)	Capped—for welders	SH3108002
	5 m (196.9 in.)	Capped—for welders	SH3108003
6.35 mm (1/4 in.) ID, 2.4 mm (3/32 in.) wall, C-Flex 374	1 m (39.4 in.)	Capped—for welders	SH3108101
	2.5 m (98.4 in.)	Capped—for welders	SH3108102
	5 m (196.9 in.)	Capped—for welders	SH3108103
9.52 mm (3/8 in.) ID, 3.2 mm (1/8 in.) wall, C-Flex 374	1 m (39.4 in.)	Capped—for welders	SH3108201
	2.5 m (98.4 in.)	Capped—for welders	SH3108202
	5 m (196.9 in.)	Capped—for welders	SH3108203
12.7 mm (1/2 in.) ID, 3.2 mm (1/8 in.) wall, C-Flex 374	1 m (39.4 in.)	Capped—for welders	SH3108301
	2.5 m (98.4 in.)	Capped—for welders	SH3108302
	5 m (196.9 in.)	Capped—for welders	SH3108303
6.35 mm (1/4 in.) ID, 11.11 mm (7/16 in.) wall, C-Flex 374	1 m (39.4 in.)	Luer	SH3111701
	1 m (39.4 in.)	MPC	SH3111801
	2.5 m (98.4 in.)	Luer	SH3111702
	2.5 m (98.4 in.)	MPC	SH3111802
	5 m (196.9 in.)	Luer	SH3111703
	5 m (196.9 in.)	MPC	SH3111803

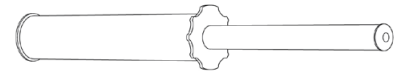
Extension sets—continued



Tube size	Tube length	End connections	Cat. No.
3.2 mm (1/8 in.) ID, 6.3 mm (1/4 in.) wall, C-Flex 374	1 m (39.4 in.)		SH3111901
	2.5 m (98.4 in.)	Luer	SH3111902
	5 m (196.9 in.)		SH3111903
9.52 mm (3/8 in.) ID, 15.88 mm (5/8 in.) wall, C-Flex 374	1 m (39.4 in.)		SH3111601
	2.5 m (98.4 in.)	MPC	SH3111602
	5 m (196.9 in.)		SH3111603
12.7 mm (1/2 in.) ID, 19.05 mm (3/4 in.) wall, C-Flex 374	1 m (39.4 in.)		SH3112001
	2.5 m (98.4 in.)	MPX	SH3112002
	5 m (196.9 in.)		SH3112003
12.7 mm (1/2 in.) ID, 19.1 mm (3/4 in.) wall, silicone tubing	91.4 cm (36 in.)	Steam-Thru II connection 19.1 x 38.1 mm (3/4 x 1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb; ReadyMate DAC with 12.7 mm (1/2 in.) barb	SS00042I
		Steam-Thru II connection 19.1 x 38.1 mm (3/4 x 1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb; Kleenpak insert connection with 12.7 mm (1/2 in.) barb	SS00043I
		Lynx ST connection 19.1 x 38.1 mm (3/4 x 1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb; ReadyMate DAC with 12.7 mm (1/2 in.) barb	SS00044I
		Lynx ST connection 38.1 mm (1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb; Kleenpak insert connection with 12.7 mm (1/2 in.) barb	SS00045I
		38.1 mm (1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb with gasket, end cap, and push/pull clip; MPX body + cap	SS00062I
		19.1 mm (3/4 in.) sanitary x 12.7 mm (1/2 in.) barb with gasket, end cap, and push/pull clip; MPX body + cap	SS00063I
9.5 mm (3/8 in.) ID, 16 mm (5/8 in.) wall, silicone tubing	91.4 cm (36 in.)	38.1 mm (1 1/2 in.) sanitary x 9.5 mm (3/8 in.) barb with gasket, end cap, and push/pull clip; MPC insert + cap	SS00064I
		38.1 mm (1 1/2 in.) sanitary x 12.7 mm (1/2 in.) barb with gasket, end cap, and push/pull clip; MPC insert + cap	SS00065I

Adaptor sets

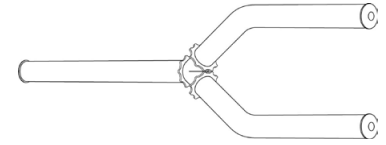
- Two lengths of C-Flex tubing differing in size joined in a single length
- Useful for connecting tubing or porting of differing sizes



Tubing size	Tubing length	End connections	Cat. No.
3.2 mm (1/8 in.) ID x 1.6 mm (1/16 in.) wall to 6.35 mm (1/4 in.) ID x 1.6 mm (1/16 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108401
3.2 mm (1/8 in.) ID x 1.6 mm (1/16 in.) wall to 6.35 mm (1/4 in.) ID x 2.4 mm (3/32 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108501
3.2 mm (1/8 in.) ID x 1.6 mm (1/16 in.) wall to 9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108601
6.35 mm (1/4 in.) ID x 1.6 mm (1/16 in.) wall to 9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108701
6.35 mm (1/4 in.) ID x 1.6 mm (1/16 in.) wall to 12.7 mm (1/2 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108801
6.35 mm (1/4 in.) ID x 2.4 mm (3/32 in.) wall to 9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3108901
6.35 mm (1/4 in.) ID x 2.4 mm (3/32 in.) wall to 12.7 mm (1/2 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3109001
9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall to 12.7 mm (1/2 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Capped—for welders	SH3109101
3.22 mm (1/8 in.) ID x 6.35 mm (1/4 in.) OD to 9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Luer to MPC	SH3112101
3.22 mm (1/8 in.) ID x 6.35 mm (1/4 in.) OD to 9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) wall, C-Flex 374	2 m (78.7 in.)	Luer to MPC	SH3112201
6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112301
6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112401
6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112501
6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112601
9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112701
9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112801
9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3112901
9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) OD to 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 m (78.7 in.)	MPX to MPC	SH3113001

Y sets

- Three lengths of C-Flex tubing joined by a Y-connector
- Enables user to split one connection into two or combine two connections into one
- Join multiple Y sets to create a branching assembly



Tube size	Tube length	End connections	Cat. No.
3 x 3.2 mm (1/8 in.) ID x 1.6 mm (1/16 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Capped—for welders	SH3109201
3 x 6.35 mm (1/4 in.) ID x 1.6 mm (1/16 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Capped—for welders	SH3109301
3 x 6.35 mm (1/4 in.) ID x 2.4 mm (3/32 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Capped—for welders	SH3109401
3 x 9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Capped—for welders	SH3109501
3 x 12.7 mm (1/2 in.) ID x 3.2 mm (1/8 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Capped—for welders	SH3109601
3 x 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX body-insert	SH3110401
3 x 12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX insert-body	SH3110501
3 x 9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX body-insert	SH3110601
3 x 9.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX insert-body	SH3110701
3 x 6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX body-insert	SH3110801
3 x 6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	MPX insert-body	SH3110901
3 x 3.22 mm (1/8 in.) ID x 6.35 mm (1/4 in.) wall, C-Flex 374	2 x 0.51 m (20.1 in.) to 0.51 m (20.1 in.)	Luer	SH3111001

Pump sets

- Two lengths of C-Flex tubing joined by a section of Pharmed BPT
- Designed to deliver extended performance when used with a peristaltic pump



Tubing size	Tubing length	End connections	Cat. No.
3.2 mm (1/8 in.) ID x 1.6 mm (1/16 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.) C-Flex 374	Capped—for welders	SH3109701
6.35 mm (1/4 in.) ID x 1.6 mm (1/16 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.) C-Flex 374	Capped—for welders	SH3109801
6.35 mm (1/4 in.) ID x 2.4 mm (3/32 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.) C-Flex 374	Capped—for welders	SH3109901
9.52 mm (3/8 in.) ID x 3.2 mm (1/8 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.) C-Flex 374	Capped—for welders	SH3110001
12.7 mm (1/2 in.) ID, 3.2 mm (1/8 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.) C-Flex 374	Capped—for welders	SH3110101
3.22 mm (1/8 in.) ID x 6.35 mm (1/4 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.), C-Flex 374	Luer	SH3111101
0.52 mm (3/8 in.) ID x 15.88 mm (5/8 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.), C-Flex 374	MPC	SH3111201
12.7 mm (1/2 in.) ID x 19.05 mm (3/4 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.), C-Flex 374	MPX	SH3111301
6.35 mm (1/4 in.) ID x 9.52 mm (3/8 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.), C-Flex 374	MPC	SH3111401
6.35 mm (1/4 in.) ID x 11.11 mm (7/16 in.) wall	0.25 m (10 in.) C-Flex 374 to 0.5 m (19.7 in.) Pharmed BPT to 0.25 m (10 in.), C-Flex 374	MPC	SH3111501

Standard Single-Use Bottle Assembly Systems

Fluid transfer systems can easily consist of multiple components that all need to be sourced, purchased, inventoried, and assembled. With the Thermo Scientific™ Standard Single-Use Bottle Assembly Systems, we can relieve you of the burden of managing individual components and validating the systems in-house. Realize labor savings and mitigate risk by leaving the assembly and processing to us. These easy-to-order configured solutions include rigid support containers with preconfigured cap sets, and are delivered gamma-irradiated for use right out of the package.



Applications

- Media and buffer transfer
- Product sampling
- Harvest collection and bulk storage
- Filtration and purification process connection

Key benefits

- Designed for a broad range of applications, including bioproduction, life science, and general lab use.
- Helps eliminate setup and post-use cleaning steps required for reusable containers
- Helps reduce cross-contamination risks
- Allows process-specific flexibility with multiple bottle sizes

Assembly details

- Each bottle is topped with an assembly including a cap, puck, and tubing
- Most assemblies contain two ports with C-Flex™ tubing; the 2 L size includes a third port, also with C-Flex tubing
- One line on each assembly is dedicated to venting.
- The second and third lines are for liquid transfer and include 1/8 in. plug fittings, to be used with your preferred welding or sealing equipment
- Fluid path of the finished product has been validated according to AAMI TIR33 with a 10⁻⁶ sterility assurance level (SAL)

Closure	Tubing connection	Tubing length, in. (cm)	Fluid path ID x OD, in. (mm)	Size	Cat. No.
PC Standard Single-Use Bottle Assembly Systems					
38–430 mm	Port 1: PP tube plug port Port 2: Vent filter	Port 1: 24 (60.96) Port 2: 2 (5.08)	Port 1: 1/8 x 1/4 (3.2 x 6.4) Port 2: 1/8 x 1/4 (3.2 x 6.4)	125 mL	SB000011
				250 mL	SB000021
				500 mL	SB000031
				1 L	SB000041
53 B	Port 1: PP tube plug port Port 2: Vent filter port Port 3: PP tube plug	Port 1: 12 (30.48) Port 2: 3 (7.62) Port 3: 12 (30.48)	Port 1: 1/4 x 3/8 (6.4 x 9.6) Port 2: 1/4 x 3/8 (6.4 x 9.6) Port 3: 1/4 x 3/8 (6.4 x 9.6)	2 L	SB000051
PETG Standard Single-Use Bottle Assembly Systems					
38–430 mm	Port 1: PP tube plug port Port 2: Vent filter	Port 1: 24 (60.96) Port 2: 2 (5.08)	Port 1: 1/8 x 1/4 (3.2 x 6.4) Port 2: 1/8 x 1/4 (3.2 x 6.4)	125 mL	SB000061
				250 mL	SB000071
				500 mL	SB000081
				1 L	SB000091
53 B	Port 1: PP tube plug port Port 2: Vent filter port Port 3: PP tube plug	Port 1: 12 (30.48) Port 2: 3 (7.62) Port 3: 12 (30.48)	Port 1: 1/4 x 3/8 (6.4 x 9.6) Port 2: 1/4 x 3/8 (6.4 x 9.6) Port 3: 1/4 x 3/8 (6.4 x 9.6)	2 L	SB000101

Nalgene Top Works Fluid Transfer Systems

Thermo Scientific™ Nalgene™ Top Works™ Fluid Transfer Systems are aseptic handling solutions for pharmaceutical, biotechnology, and laboratory liquid transfer applications.

Customize Nalgene bottles and carboys with closures, including platinum-cured silicone stopper inserts and tubing. Available with various ports, tubing lengths, and closure sizes.

Key features

- Closures are specifically designed to mate with most Nalgene bottles and carboys
- Leakproof systems for secure, aseptic handling of valued products compared to pouring
- Includes long tubing lengths, both inside and outside the container, to support integration with most Nalgene bottles and carboys
- Ready to accept additional fluid transfer components such as aseptic connectors and air vent filters
- Autoclavable



Ordering information: One system per case.

Compliance: USP Class VI.

Nalgene Top Works Fluid Transfer Systems

Closure size, mm	No. of ports	Port ID size, in. (mm)	No. per case	Cat. No.
38-430	3	1 x 1/4 (6.35), 2 x 1/8 (3.18)	1	02-923-15K
53B	None (solid insert)	–	1	02-923-15L
53B	2	2 x 1/4 (6.35)	1	02-923-15M
53B	3	1 x 1/8 (3.18), 2 x 1/4 (6.35)	1	02-923-15N
83B	None (solid insert)	–	1	02-923-15P
83B	2	2 x 1/4 (6.35)	1	02-923-15Q
83B	3	1 x 3/8 (9.52), 2 x 1/4 (6.35)	1	02-923-15R
GL45 PSF	3	1 x 1/8 (3.18), 2 x 1/4 (6.35)	1	14-831-342B

* GL45 closure system for Schott™, Corning™, and Wheaton™ media bottles.

Nalgene Pharma-Grade Platinum-Cured Silicone Tubing

Thermo Scientific™ Nalgene™ Pharma-Grade Platinum-Cured Silicone Tubing is flexible, durable, and translucent. This high-purity tubing is designed for a variety of pumps and transfer applications, including pharmaceutical, laboratory, and bioprocess manufacturing.

Key features

- Tasteless, odorless, noncytotoxic and nonhemolytic
- Contains no phthalate plasticizers or peroxides that can leach out into transported fluid
- Low-binding surface minimizes absorption of proteins and food products
- Autoclavable; also can be sterilized by gamma radiation, EtO, and chemical procedures
- Durometer hardness: Shore A, 50

Ordering information: Double bagged in case of 50 ft (15.2 m).



Compliance: Meets USP <87> Cytotoxicity (Agar Diffusion and MEM Elution methods), USP <88> Class VI, USP <661> Physicochemical Tests, ISO10993-3 Bacterial Mutagenicity—Ames Assay, ISO10993-4 Hemolysis Direct Contact, EP 3.1.9 Silicone Elastomer for Closures and Tubing, and FDA CFR 177.2600 Rubber Articles Intended for Repeated Use.

Note: Not intended for invasive use.

Nalgene Pharma-Grade Platinum-Cured Silicone Tubing

ID x OD x wall, in. (mm)	Critical dimensions, in.				Concentricity TIR max, in.	Working PSI	Tubing length, ft (m)	Cat. No.
	ID	Tolerance	Wall	Tolerance				
1/16 x 1/8 x 1/32 (1.59 x 3.18 x 0.79)	0.062	±0.005	0.032	±0.002	0.002	18	50 (15.2)	14-179-110
1/8 x 1/4 x 1/16 (3.18 x 6.35 x 1.59)	0.125	±0.005	0.063	±0.005	0.005	18	50 (15.2)	14-179-111
3/16 x 5/16 x 1/16 (4.76 x 7.94 x 1.59)	0.188	±0.005	0.063	±0.005	0.005	14	50 (15.2)	14-179-112
3/16 x 3/8 x 3/32 (4.76 x 9.53 x 2.38)	0.188	±0.005	0.094	±0.003	0.003	18	50 (15.2)	14-179-113
1/4 x 3/8 x 1/16 (6.35 x 9.53 x 1.59)	0.250	±0.010	0.063	±0.003	0.003	12	50 (15.2)	14-179-114
1/4 x 7/16 x 3/32 (6.35 x 11.11 x 2.38)	0.250	±0.010	0.094	±0.003	0.003	15	50 (15.2)	14-179-115
1/4 x 1/2 x 1/8 (6.35 x 12.7 x 3.18)	0.250	±0.010	0.125	±0.005	0.005	18	50 (15.2)	14-179-116
5/16 x 1/2 x 3/32 (7.94 x 12.7 x 2.38)	0.312	±0.010	0.094	±0.003	0.003	13	50 (15.2)	14-179-117
3/8 x 1/2 x 1/16 (9.53 x 12.7 x 1.59)	0.375	±0.015	0.063	±0.002	0.002	9	50 (15.2)	14-179-118
3/8 x 9/16 x 3/32 (9.53 x 14.29 x 2.38)	0.375	±0.015	0.094	±0.003	0.003	12	50 (15.2)	14-179-119
3/8 x 5/8 x 1/8 (9.53 x 15.88 x 3.18)	0.375	±0.015	0.125	±0.005	0.005	14	50 (15.2)	14-179-120
1/2 x 11/16 x 3/32 (12.7 x 17.46 x 2.38)	0.500	±0.015	0.094	±0.005	0.005	10	50 (15.2)	14-179-121
1/2 x 3/4 x 1/8 (12.7 x 19.05 x 3.18)	0.500	±0.015	0.125	±0.005	0.005	12	50 (15.2)	14-179-122
5/8 x 7/8 x 1/8 (15.88 x 22.23 x 3.18)	0.625	±0.015	0.125	±0.005	0.005	10	50 (15.2)	14-179-123
3/4 x 1 x 1/8 (19.05 x 25.4 x 3.18)	0.750	±0.020	0.125	±0.005	0.005	10	50 (15.2)	14-179-12

Nalgene Pharma-Grade Platinum-Cured Silicone Tubing for Peristaltic Pumps

Thermo Scientific™ Nalgene™ Pharma-Grade Platinum-Cured Silicone Tubing for Peristaltic Pumps is flexible, durable, and translucent. This high-purity tubing is designed for a variety of pumps and transfer applications, including pharmaceutical, laboratory, and bioprocess manufacturing.

Key features

- Tasteless, odorless, noncytotoxic and nonhemolytic
- Contains no phthalate plasticizers or peroxides that can leach out into transported fluid
- Low-binding surface minimizes absorption of proteins and food products
- Autoclavable; also can be sterilized by gamma radiation, EtO, and chemical procedures
- Durometer hardness: Shore A, 50

Ordering information: Double bagged in case of 25 ft (7.6 m).



Compliance: Meets USP <87> Cytotoxicity (Agar Diffusion and MEM Elution methods), USP <88> Class VI, USP <661> Physicochemical Tests, ISO10993-3 Bacterial Mutagenicity—Ames Assay, ISO10993-4 Hemolysis Direct Contact, EP 3.1.9 Silicone Elastomer for Closures and Tubing, and FDA CFR 177.2600 Rubber Articles Intended for Repeated Use.

Nalgene Pharma-Grade Platinum-Cured Silicone Tubing for Peristaltic Pumps

Description	ID x OD x wall, in. (mm)	Critical dimensions, in.				Concentricity TIR max, in.	Working PSI	Tubing length, ft (m)	Cat. No.
		ID	Tolerance	Wall	Tolerance				
Silicone pump tubing; pump size #15	1/16 x 1/8 x 1/32 (1.59 x 3.18 x 0.79)	0.188	±0.008	0.100	±0.005	0.005	11	25 (7.6)	14-176-276
Silicone pump tubing; pump size #16	1/8 x 1/4 x 1/16 (3.18 x 6.35 x 1.59)	0.125	±0.008	0.063	±0.005	0.005	11	25 (7.6)	14-176-278
Silicone pump tubing; pump size #17	3/16 x 5/16 x 1/16 (4.76 x 7.94 x 1.59)	0.250	±0.005	0.063	±0.005	0.005	7	25 (7.6)	14-176-279
Silicone pump tubing; pump size #18	3/16 x 3/8 x 3/32 (4.76 x 9.53 x 2.38)	0.313	±0.005	0.063	±0.005	0.005	6	25 (7.6)	14-176-280
Silicone pump tubing; pump size #24	1/4 x 3/8 x 1/16 (6.35 x 9.53 x 1.59)	0.250	±0.005	0.100	±0.005	0.005	9	25 (7.6)	14-176-281
Silicone pump tubing; pump size #25	1/4 x 7/16 x 3/32 (6.35 x 11.11 x 2.38)	0.188	±0.005	0.063	±0.003	0.003	9	25 (7.6)	14-176-282
Silicone pump tubing; pump size #73	1/4 x 1/2 x 1/8 (6.35 x 12.7 x 3.18)	0.375	±0.015	0.135	±0.010	0.010	8	25 (7.6)	14-176-294
Silicone pump tubing; pump size #82	5/16 x 1/2 x 3/32 (7.94 x 12.7 x 2.38)	0.500	±0.015	0.135	±0.010	0.010	8	25 (7.6)	14-176-295

Note: Not intended for invasive use.

Nalgene Braided Platinum-Cured Silicone Tubing

Thermo Scientific™ Nalgene™ Braided Platinum-Cured Silicone Tubing is durable, high-purity tubing designed for a variety of pump and transfer applications including pharmaceutical, laboratory, bioprocess manufacturing, and food and beverage applications.

Manufactured with interwoven polyester braid for added safety, pressure, and kink resistance.

Key features

- Contains no phthalate plasticizers or peroxides that can leach out into transported fluid
- Low-binding surface minimizes absorption of proteins and food products
- Tasteless, odorless, noncytotoxic, nonpyrogenic, and nonhemolytic
- Autoclavable; also can be sterilized by gamma radiation, EtO, and chemical procedures
- Durometer hardness: Shore A, 65



Ordering information: Double bagged in 25 ft (7.6 m) cases.

Compliance: Meets FDA, USDA, and US Pharmacopeia Class VI, 24th Edition requirements for plastic materials, and 3A sanitary standards.

Nalgene Braided Platinum-Cured Silicone Tubing

ID x OD x wall, in. (mm)	Max pressure, psig		Length per case, ft (m)	Cat. No.
	at 73°F (23°C)	at 320°F (160°C)		
1/4 x 9/16 x 5/32 (6.35 x 14.29 x 3.97)	156	78	25 (7.6)	14-176-307
3/8 x 21/32 x 5/32 (9.52 x 16.67 x 3.97)	136	68	25 (7.6)	14-176-308
1/2 x 13/16 x 5/32 (12.7 x 20.64 x 3.97)	126	63	25 (7.6)	14-176-309

Nalgene 50 Platinum-Cured Silicone Tubing

Minimize absorption of proteins and food products. Flexible and durable, Thermo Scientific™ Nalgene™ 50 Platinum-Cured Silicone Tubing features a low-binding surface, making it ideal for a variety of pump and transfer applications in pharmaceutical, laboratory, bioprocess manufacturing, and food and beverage industries.



Key features

- High-purity, translucent tubing contains no phthalate plasticizers or peroxides to leach out into transported fluid
- Tasteless, odorless, noncytotoxic, nonpyrogenic, and nonhemolytic
- Autoclavable; also can be sterilized by gamma radiation, EtO, and chemical procedures
- Durometer hardness: Shore A, 50

Note: Not intended for invasive use.

Ordering information: Double bagged in case of 50 ft (15.2 m).

Compliance: Meets FDA, USDA, and US Pharmacopeia Class VI, 24th Edition requirements for plastic materials, and 3A sanitary standards.

Nalgene 50 Platinum-Cured Silicone Tubing

ID x OD x wall, in. (mm)	Critical dimensions, in.				Concentricity TIR max, in.	Working PSI	Tubing length, ft (m)	Cat. No.
	ID	Tolerance	Wall	Tolerance				
1/16 x 1/8 x 1/32 (1.59 x 3.18 x 0.79)	0.062	±0.005	0.062	±0.005	0.002	18	50 (15.2)	14-176-332A
1/8 x 1/4 x 1/16 (3.18 x 6.35 x 1.59)	0.125	±0.005	0.125	±0.005	0.005	18	50 (15.2)	14-176-332B
3/16 x 5/16 x 1/16 (4.76 x 7.94 x 1.59)	0.188	±0.005	0.188	±0.005	0.005	14	50 (15.2)	14-176-332C
3/16 x 3/8 x 3/32 (4.76 x 9.53 x 2.38)	0.188	±0.005	0.188	±0.005	0.003	18	50 (15.2)	14-176-332D
1/4 x 3/8 x 1/16 (6.35 x 9.53 x 1.59)	0.250	±0.010	0.250	±0.010	0.003	15	50 (15.2)	14-176-332E
1/4 x 7/16 x 3/32 (6.35 x 11.11 x 2.38)	0.250	±0.010	0.250	±0.010	0.003	15	50 (15.2)	14-176-332F
1/4 x 1/2 x 1/8 (6.35 x 12.7 x 3.18)	0.250	±0.010	0.250	±0.010	0.005	18	50 (15.2)	14-176-332G
5/16 x 1/2 x 3/32 (7.94 x 12.7 x 2.38)	0.312	±0.010	0.312	±0.010	0.003	13	50 (15.2)	14-176-332H
3/8 x 1/2 x 1/16 (9.53 x 12.7 x 1.59)	0.375	±0.015	0.375	±0.015	0.002	9	50 (15.2)	14-176-332J
3/8 x 9/16 x 3/32 (9.53 x 14.29 x 2.38)	0.375	±0.015	0.375	±0.015	0.003	12	50 (15.2)	14-176-332K
1/2 x 11/16 x 3/32 (12.7 x 17.46 x 2.38)	0.500	±0.015	0.500	±0.015	0.005	10	50 (15.2)	14-176-332M
1/2 x 3/4 x 1/8 (12.7 x 19.05 x 3.18)	0.500	±0.015	0.500	±0.015	0.005	12	50 (15.2)	14-176-332N
5/8 x 7/8 x 1/8 (15.88 x 22.23 x 3.18)	0.625	±0.015	0.625	±0.015	0.005	10	50 (15.2)	14-176-332P
3/4 x 1 x 1/8 (19.05 x 25.4 x 3.18)	0.750	±0.020	0.750	±0.020	0.005	10	50 (15.2)	14-176-332Q
3/8 x 5/8 x 1/8 (9.53 x 15.88 x 3.18)	0.375	±0.015	0.125	±0.005	0.0005	8	50 (15.2)	14-176-332L

Nalgene 50 Platinum-Cured Silicone Tubing for Peristaltic Pumps

Minimize absorption of proteins and food products with Thermo Scientific™ Nalgene™ 50 Platinum-Cured Silicone Tubing for Peristaltic Pumps. This flexible and durable tubing features a low-binding surface, making it ideal for a variety of pump and transfer applications in pharmaceutical, laboratory, bioprocess manufacturing, and food and beverage industries.

Key features

- Tasteless, odorless, noncytotoxic, nonpyrogenic, and nonhemolytic
- Contains no phthalate plasticizers or peroxides that can leach out into transported fluid
- Low-binding surface minimizes absorption of proteins and food products
- Autoclavable; also can be sterilized by gamma radiation, EtO, and chemical procedures
- Durometer hardness: Shore A, 50

Ordering information: Double bagged in case of 25 ft (7.6 m).



Compliance: Meets FDA, USDA, and US Pharmacopeia Class VI, 24th Edition requirements for plastic materials, and 3A sanitary standards.

Nalgene 50 Platinum-Cured Silicone Tubing for Peristaltic Pumps

Description	Critical dimensions, in.				Concentricity TIR max, in.	Working PSI	Tubing length, ft (m)	Cat. No.
	ID	Tolerance	Wall	Tolerance				
Silicone pump tubing; pump size #15	0.188	±0.008	0.100	±0.005	0.005	11	25 (7.6)	14-176-276
Silicone pump tubing; pump size #17	0.250	±0.005	0.063	±0.005	0.005	7	25 (7.6)	14-176-278
Silicone pump tubing; pump size #18	0.313	±0.005	0.063	±0.005	0.005	6	25 (7.6)	14-176-279
Silicone pump tubing; pump size #24	0.250	±0.005	0.100	±0.005	0.005	9	25 (7.6)	14-176-281
Silicone pump tubing; pump size #25	0.188	±0.005	0.063	±0.003	0.003	9	25 (7.6)	14-176-282
Silicone pump tubing; pump size #73	0.375	±0.015	0.135	±0.010	0.010	8	25 (7.6)	14-176-294
Silicone pump tubing; pump size #82	0.500	±0.015	0.135	±0.010	0.010	7	25 (7.6)	14-176-295

Nalgene Quick-Filling/Venting Closures

Thermo Scientific™ Nalgene™ Quick-Filling/Venting Closures feature quick-disconnect fittings with tubulation for attachment to the tubing of choice.

Customizable, ported 83B closure features panel-mounted, quick-disconnect fittings and inside/outside barbed fittings. Designed as a ready-made alternative to cumbersome in-house filling and dispensing procedures.

Key features

- Available in 2- or 3-port styles for 1/4 or 3/8 in. (6.35 mm or 9.53 mm) tubing, offering an ideal platform for customization of your Nalgene bottle or carboy
- Container integrity is assured with internal valve-style quick-disconnect fittings
- Ideal for use in vacuum systems with Thermo Scientific™ Nalgene™ Heavy-Duty Vacuum Carboys and Bottles (Cat. No. 2226 and 2126)
- Use with Thermo Scientific™ Nalgene™ 180 heavy-wall tubing (Cat. No. 8000-0145 or 8000-0065)
- Alternative and replacement fittings are available for further customization options (Cat. No. 2159)

Disclaimer: Use with heavy-wall or vacuum tubing. Not recommended for vacuum use with lighter-weight containers. EPDM gaskets will not hold vacuum after multiple autoclavings.



Nalgene Quick-Filling/Venting Closures

Hose barb ID, in. (mm)	No. of ports	No. per case	Cat. No.
1/4 (6.35)	2	1	02-92-319
3/8 (9.53)	2	1	02-923-23
1/4 (6.35)	3	1	02-923-24
3/8 (9.53)	3	1	02-923-25

Nalgene PP Replacement Coupling Inserts for Quick-Filling/Venting Closure

Thermo Scientific™ Nalgene™ PP Replacement Coupling Inserts support one-handed connection and disconnection when applied to mating coupling bodies.

These male, barbed quick-disconnect replacement coupling inserts are for use with Nalgene Quick-Filling/Venting Closures.

Key features

- For use with Nalgene Quick-Filling/Venting Closures (Cat. No. 2158)
- Promotes fewer leak points and faster installations

Note: 1/4 and 3/8 in. coupling inserts are not interchangeable.



Nalgene PP Replacement Coupling Inserts for Quick-Filling/Venting Closures

Tubing ID, in. (mm)	No. per case	Cat. No.
Straight		
1/4 (6.35)	6	02-923-14
3/8 (9.53)	6	02-923-16
Elbow		
1/4 (6.35)	6	02-923-17
3/8 (9.53)	6	02-923-18

Nalgene Filling/Venting PP Closures

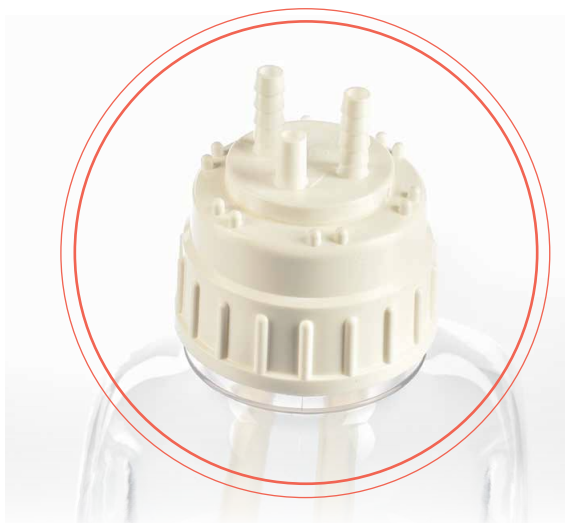
Thermo Scientific™ Nalgene™ Filling/Venting Closures are aseptic handling solutions for pharmaceutical, biotechnology, and laboratory liquid transfer applications.

Available for use with Nalgene bottles and carboys with either 53B or 83B closures, including premounted lengths of platinum-cured silicone tubing for easy customization of bottles and carboys.

Key features

- White polypropylene closure with thermoplastic elastomer gasket, thermoplastic elastomer port caps, and platinum-cured silicone tubing
- Ready to accept additional fluid transfer components such as aseptic connectors and air vent filters
- Closures are specifically designed to mate with most Nalgene bottles and carboys
- Leakproof systems for secure, aseptic handling of valued products compared to pouring
- Autoclavable

Includes: Nalgene platinum-cured silicone tubing and thermoplastic elastomer port caps.



Nalgene Filling/Venting PP Closures

Tubing ID, in. (mm)	Closure size, mm	No. per case	Cat. No.
1/4 (6.35)	53	6	02-923-13Y
1/4 (6.35)	83	6	02-923-13Z
1/2 (12.7)	83	6	02-923-15

Nalgene Barbed Bulkhead PP Fittings

Thermo Scientific™ Nalgene™ Barbed Bulkhead PP Fittings promote the customization of most Nalgene bottle and carboy closures for aseptic transfer of liquids.

Key features

- Polypropylene fittings, acetal nuts, silicone gaskets, thermoplastic elastomer port caps
- 53B closures will accept two 1/4-inch fittings
- Fittings are barbed at both ends to accept tubing inside and outside the container
- Autoclavable



Includes: Instructions, drilling template, and a set of two panel-mount barbed fittings, acetal nuts, and silicone gaskets.

Nalgene Barbed Bulkhead PP Fittings

Tubing ID, in. (mm)	Closure size, mm	No. per case	Cat. No.
1/2 (13)	2	24	15-315-1
1/4 (6.35)	2	24	15-315-2

Nalgene HDPE Vacuum Check Valve and Positive Connector

Thermo Scientific™ Nalgene™ HDPE Vacuum Check Valves prevent back pressure with aspirator-type vacuum pumps.

Works best between 10 in.-Hg and 28 in.-Hg. Designed for use with 1/4. in to 5/16 in. (6.35 mm to 7.94 mm)

Key features

- 2-piece design, easy to disassemble for cleaning
- Includes silicone diaphragm for prevention of back pressure

Note: Not for use with liquids.

Nalgene HDPE Vacuum Check Valve and Positive Connector

Description	No. per pack	No. per case	Cat. No.
Vacuum check valve for 1/4 in. to 5/16 in. (6.4 mm to 7.9 mm) ID tubing	6	72	15-339-2



Nalgene T-Type Tubing Connectors

Thermo Scientific™ Nalgene™ T-Type Tubing Connectors are molded of polypropylene resin and free of animal-derived components.

Non-tapered hose barbs maximize liquid flow.

Key features

- Double bagged to maintain cleanliness
- Autoclavable



Nalgene T-Type Tubing Connectors

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/8 (3.18)	12	72	15-319A
3/16 (4.76)	12	72	15-319B
1/4 (6.35)	12	72	15-319C
5/16 (7.94)	12	72	15-319D
3/8 (9.53)	12	48	15-319E
1/2 (12.7)	12	48	15-319F

Nalgene Y-Type Tubing Connectors

Thermo Scientific™ Nalgene™ Y-Type Tubing Connectors are molded of polypropylene resin and free of animal-derived components.

Non-tapered hose barbs maximize liquid flow.

Key features

- Double bagged to maintain cleanliness
- Autoclavable



Nalgene Y-Type Tubing Connectors

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/8 (3.18)	12	72	15-320-10A
3/16 (4.76)	12	72	15-320-10B
1/4 (6.35)	12	72	15-320-10C
5/16 (7.94)	12	72	15-320-10D
3/8 (9.53)	12	48	15-320-10E
1/2 (12.7)	12	48	15-320-10F

Nalgene PP Pinch Clamp

Thermo Scientific™ Nalgene™ PP Pinch Clamp allows precise, one-handed regulation of fluid flow. The molded one-piece design is ideal for use with Nalgene tubing.

Key features

- Polypropylene construction will not corrode or deform like metal clamps
- Pinch clamp for 1/4 in. to 7/16 in. (6.35 mm to 11.11 mm) OD tubing
- One-piece design contains no sharp edges
- Autoclavable



Nalgene PP Pinch Clamp

Material	Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
Polypropylene	1/4 to 7/16 (6.35 to 11.11)	12	72	05-835B

Nalgene One-Way PP Stopcocks

Thermo Scientific™ Nalgene™ One-Way PP Stopcocks promote accurate liquid flow control in liquid-handling systems.

Ideal for use in developing in-house fluid transfer systems.

Key features

- Polypropylene stopcock with TFE plug
- Accepts 1/4 in. to 7/16 in. (6.35 mm to 11.11 mm) ID tubing
- One-way fluid path for accurate filling or dispensing
- Autoclavable



Nalgene One-Way PP Stopcocks

Plug bore, mm	Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
2	1/4 to 5/16 (6.35 to 7.94)	1	6	14-630-1A
4	1/4 to 5/16 (6.35 to 7.94)	1	6	14-630-1C

Nalgene Three-Way PP Stopcocks

Thermo Scientific™ Nalgene™ Three-Way Stopcocks feature three tabulated ports arranged in a T shape.

Ideal for use in developing in-house fluid transfer systems.

Key features

- Polypropylene stopcock with TFE plug
- Accepts 1/4 in. to 7/16 in. (6.35 mm to 11.11 mm) ID tubing
- Use with any combination of two ports or all three ports
- Autoclavable



Nalgene Three-Way PP Stopcocks

Plug bore, mm	Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
2	1/4 to 5/16 (6.35 to 7.94)	1	4	14-630-2A
4	1/4 to 5/16 (6.35 to 7.94)	1	4	14-630-2C

Nalgene Quick HDPE Disconnects

Thermo Scientific™ Nalgene™ Quick HDPE Disconnects provide a solution for rapid, smooth connections between two fluid paths. Tubulations slide together snugly with a twist providing a fast, smooth connection.

Key features

- Two tapered tubulations that fit tightly together with male/female connection, allowing for rapid joining or separation of fluid paths
- Available in sizes ranging from 1/4 in. to 5/16 in. (6.35 mm to 7.94 mm) and 3/8 in. to 7/16 in. (9.53 mm to 11.11 mm) to accommodate many types of fluid transfer needs



Nalgene Quick HDPE Disconnects

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/4 to 5/16 (6.35 to 7.94)	12	72	15-315A
3/8 to 7/16 (9.53 to 11.11)	12	72	15-315AB

Nalgene Valved Quick PP Disconnects

Thermo Scientific™ Nalgene™ Valved Quick PP Disconnects are ideal for use in developing in-house fluid transfer systems. The couplings feature tubulation for attachment of tubing and an internal valve that seals when the fittings are removed, maintaining the integrity of your transfer liquids.

Key features

- Chemically resistant polypropylene and EPDM O-ring can be gamma irradiated
- PP acetal sleeve with stainless steel spring and EPR seal
- Leakproof termination of fluid paths when uncoupled
- Design promotes one-handed operation



Nalgene Valved Quick PP Disconnects

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/4 (6.35)	2	12	15-315-55
3/8 (9.53)	2	12	15-315-56

Nalgene 3/4 in. Mini Hose PP Barb Connectors

Thermo Scientific™ Nalgene™ 3/4 in. Mini Hose PP Barb Connectors allow easy connections of 3/4 in. sanitary fittings to flexible tubing.

Ideal for use in developing in-house fluid transfer systems requiring sanitary-style connections.

Key features

- May be used in combination with 3/4 in. Nalgene Silicone Sanitary Gaskets and true-union clamps
- Autoclavable



Nalgene 3/4 in. Mini Hose PP Barb Connectors

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/2 (12.7)	1	2	15-318-3C

Nalgene 1 in. Sanitary PP Hose Barb Connector

The Thermo Scientific™ Nalgene™ 1 in. Sanitary PP Hose Barb Connector supports connections between 1 in. sanitary fittings to flexible tubing.

Ideal for use in developing in-house fluid transfer systems requiring sanitary-style connections.

Key features

- May be used in combination with 1 in. Nalgene Silicone Sanitary Gaskets and true-union clamps
- Autoclavable



Nalgene 1 in. Sanitary PP Hose Barb Connector

Fits tubing ID, in. (mm)	No. per pack	No. per case	Cat. No.
1/2 (12.7)	1	2	15-318-4C

Rigid containment solutions

Designed specifically for the storage and transport of active pharmaceutical ingredients and bulk intermediates, Thermo Scientific™ Nalgene™ production bottles and carboys offer leakproof* storage for sensitive liquids, buffers, media, and more. They are available in PC, PETG, PP, LDPE, HDPE, FEP, PFA, and in volumes ranging from 5 mL to 50 L. Extensive regulatory documentation assures that the products meet your demanding biotechnology requirements and reduces the time and cost to implement them in your process.

Clean containers that meet the demands of your workflow and the regulatory bodies that govern it

Making sure the equipment and materials used in critical environments meet the demanding standards of cleanliness can be a challenging process. Reduce the risk of failing to meet USP <788> requirements by using the cleanest validated containers on the market.

Packaging in the right configuration

The Nalgene multi-tiered portfolio provides bioproduction facilities with a variety of high-quality, sterile storage and transport solutions. This enables you to choose the appropriate product necessary to suit your application—through the step- down process and into your clean room.

Key features

- Multiple tiers
 - Platinum Certified Clean containers are certified to contain less than 1/3 of the allowable particulate limits specified in USP <788> (available in PETG, PC, and HDPE)
 - Certified clean containers meet USP <788> low particulate requirements (Available in PETG and PC)
- Ready-to-use products with dual sterile barriers
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner) and double-called cartons
- Produced in clean room (ISO class 7)
- Certified leakproof* to protect valuable contents



* Our guarantee for a leakproof seal is subject to our standard product warranty, as set forth in the Thermo Fisher Scientific Terms and Conditions of Sale. Our products are leakproof at ambient temperature and pressure when used with their corresponding closures. However, to ensure safe usage, customers are advised to test our containers and closures under conditions of their planned applications. Please contact technicalsupport@thermofisher.com if you need additional information about our products.

Nalgene PETG Square Media Bottles

Thermo Scientific™ Nalgene™ Square PETG Media Bottles are heavy-walled and durable, ideal for storage and sampling of active pharmaceutical ingredients and bulk intermediates and well suited for the preparation and containment of buffers, culture media, and general laboratory solutions.

PETG features low permeability to CO₂ and O₂ and may provide a longer-term storage solution for pH-sensitive contents.

Key features

- Made from durable, damage-resistant PETG with white HDPE closures
- Suitable for frozen storage down to –40°C
- Leakproof* bottles and closures are provided sterile and nonpyrogenic; eliminates costly washing, depyrogenation, and autoclaving steps
- Available in low-particulate format
- Supported by extensive validation documentation



Ordering information: Packed in shrink-wrapped trays.

Compliance: USP Class VI, noncytotoxic, USP <661>, nonpyrogenic, FDA 21 CFR 177.1315.

Nalgene Square PETG Media Bottles with Closures

Nominal capacity, mL (oz)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
30 (1)	20	38	64	24	96	03-311-1V
60 (2)	24	41	82	24	96	03-311-1W
125 (4)	38-430	52	108	24	48	03-312-1
250 (8)	38-430	59	144	24	48	03-312-3
500 (16)	38-430	73	178	12	24	03-312-4
1,000 (32)	38-430	92	219	12	24	03-312-5
2,000 (64)	53B	116	271	6	12	03-311-1X

Heat-Shrink Bands for Nalgene PETG Media Bottles

Description	Closure size, mm	No. per pack	No. per case	Cat. No.
Fits 30 mL square PETG media bottles	20-415	500	1,000	0181450
Fits 60 mL square PETG media bottles	24-415	500	1,000	0181451
Fits 125–1,000 mL square PETG media bottles	38-430	500	1,000	0181452
Fits 2,000 mL square PETG media bottles	53B	500	1,000	0181453

Nalgene PETG Certified Clean Square Media Bottles

Key features

- SAL of 10^{-6} inside and outside of the container
- Compliant with USP <788>
- <0.5 EU/mL endotoxin
- Produced in clean room
- Improved labeling
- Ready-to-use products with dual sterile barriers for your step-down process
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner) and double-walled cartons

Nalgene PETG Certified Clean Square Media Bottles

Nominal capacity, mL (oz)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
30 (1)	20	38	64	6	72	15-350-201
60 (2)	24	41	82	6	72	15-350-202
125 (4)	38-430	52	108	6	48	15-350-203
250 (8)	38-430	59	144	6	48	15-350-204
500 (16)	38-430	73	178	4	24	15-350-205
1,000 (32)	38-430	92	219	4	24	15-350-206
2,000 (64)	53B	116	271	1	12	15-350-207

Nalgene PETG Platinum Certified Clean Square Media Bottles

Key features

- SAL of 10^{-6} inside and outside of the container
- Below one-third of the allowable USP <788> particulate limits
- <0.25 EU/mL endotoxin
- Improved labeling
- Washed with WFI (water for injection) and inspected, assembled, and packaged in Class 5 (100) cleanrooms with Class 4 (10) hoods and full gowning for operators
 - Ready-to-use products with dual sterile barriers for your step-down process
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner) and double-walled cartons

Nalgene PETG Platinum Certified Clean Square Media Bottles

Volume	Closure size	Outer diameter (OD)	Height with closure	Quantity per pack/case	Cat. No.
5 mL	20 mm	22 mm	46 mm	52/416	14-388-030
20 mL	20 mm	30 mm	65 mm	84/504	14-388-031
30 mL	20 mm	38 mm	64 mm	7/70	14388023
60 mL	24 mm	41 mm	82 mm	6/72	14388024
125 mL	38-430 mm	54 mm	110 mm	5/50	14388025
250 mL	38-430 mm	59 mm	144 mm	12/48	14388026
500 mL	38-430 mm	74 mm	177 mm	5/70	14388027
1,000 mL	38-430 mm	92 mm	219 mm	5/35	14388028
2,000 mL	53B	116 mm	271 mm	5/20	14388029

Nalgene PETG Biotainer Bottles

Thermo Scientific™ Nalgene™ Biotainer™ Bottles are molded of crystal-clear PETG.

These square bottles are ideal for prolonged storage of pH-sensitive materials such as culture media. Biotainer bottles are supplied sterile and ready to use. They eliminate the cost of cleaning, sterilizing, and associated validations compared to bottles designed for reuse.

Key features

- Constructed of durable, crystal-clear PETG, ensuring sample integrity
- PP closures feature a PE foam core liner for leakproof* assurance
- Customization options are available for fluid transfer applications
- Supported by extensive validation documentation
- Suitable for storage in conditions from –40°C to 70°C

Compliance: USP Class VI, noncytotoxic, USP <661>, nonpyrogenic, FDA 21 CFR 177.1315.



Nalgene PETG Biotainer Bottles

Nominal capacity, mL	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
125	38	52	105	5	100	02-540-260
500	38	77	176	5	70	02-540-261
500	38	77	176	35	70	02-540-262
1,000	48	98	201	5	35	02-540-263
1,000	48	98	201	35	35	02-540-264
2,000	48	116	265	20	20	02-540-266
2,000	48	116	265	5	20	02-540-265
5,000	48	166	299	1	6	02-540-701
5,000	48	166	299	6	6	02-540-700

1. Fits 3-ported 48 mm closure for attachment of tubing.
2. With polyethylene handle.

Nalgene PETG Certified Clean Biotainer Bottles

Key features

- SAL of 10^{-6} inside and outside of the container
- Compliant with USP <788>
- <0.5 EU/mL endotoxin
- Produced in clean room
- Improved labeling
- Ready-to-use products with dual sterile barriers for your step-down process
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner)
 - Double-walled cartons

Nalgene PETG Certified Clean Biotainer Bottles

Volume	Closure size	Outer diameter (OD)	Height with closure	Quantity per pack/case	Cat. No.
125 mL	38 mm	52 mm	105 mm	5/100	14-388-011
500 mL	38 mm	77 mm	176 mm	5/70	14-388-012
1,000 mL	48 mm	98 mm	201 mm	5/35	14-388-013
2,000 mL	48 mm	116 mm	265 mm	20/20	14-388-014
2,000 mL	48 mm	116 mm	265 mm	5/20	14-388-015
5,000 mL	48 mm	166 mm	299 mm	1/6	14-388-016
5,000 mL	48 mm	166 mm	299 mm	1/6	14-388-017

* With polyethylene handle.

Nalgene PETG Platinum Certified Clean Biotainer Bottles

Key features

- SAL of 10^{-6} inside and outside of the container
- Below one-third of the allowable USP <788> particulate limits
- <0.25 EU/mL endotoxin
- Improved labeling
- Washed with WFI (water for injection) and inspected, assembled, and packaged in Class 5 (100) cleanrooms with Class 4 (10) hoods and full gowning for operators
- Ready-to-use products with dual sterile barriers for your step-down process
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner)
 - Double-walled cartons

Nalgene PETG Platinum Certified Clean Biotainer Bottles

Volume	Closure size	Outer diameter (OD)	Height with closure	Quantity per pack/case	Cat. No.
125 mL	38 mm	52 mm	105 mm	5/100	14388032
500 mL	38 mm	77 mm	176 mm	5/70	14388033
1,000 mL	48 mm	98 mm	201 mm	5/35	14388034
2,000 mL	48 mm	116 mm	265 mm	5/20	14388035

Nalgene HDPE Biotainer Bottles

Thermo Scientific™ Nalgene™ HDPE Biotainer™ Bottles are well suited for storage and transport of biological solutions. These square bottles offer excellent chemical resistance and are supplied certified sterile and ready to use. They eliminate the cost of cleaning, sterilizing, and associated validations compared to bottles designed for reuse.

Key features

- PP closures feature a silicone liner for leakproof* assurance
- Supported by extensive validation documentation
- Suitable for storage in conditions from -100°C to 120°C

Compliance: USP Class VI, noncytotoxic, USP <661>, nonpyrogenic, FDA 21 CFR 177.1520.



Nalgene HDPE Biotainer Bottles

Nominal capacity, L	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
4	38	143	299	8	24	02-540-268
4	38	143	299	24	24	02-540-269
4	38	143	299	8	24	02-540-267

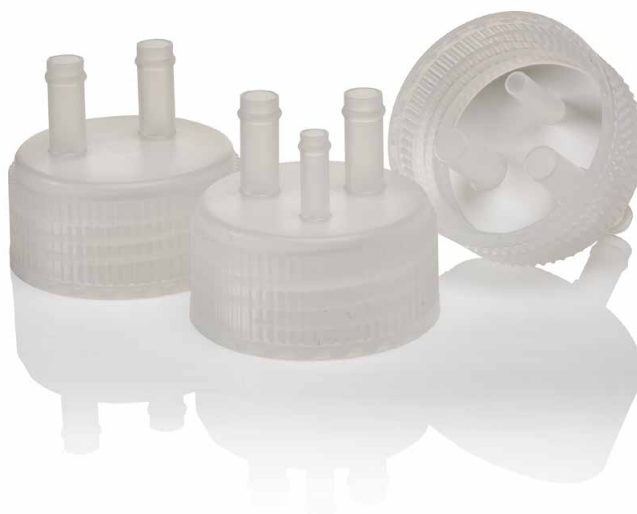
Nalgene 2- and 3-Ported Closures for Biotainer Bottles

Thermo Scientific™ Nalgene™ 48 mm filling/venting closures are designed for aseptic handling in pharmaceutical, biotechnology, and laboratory liquid transfer applications.

Specifically designed to mate with Nalgene Biotainer bottles with 48 mm closure.

Key features

- Ready to accept additional fluid transfer components such as aseptic connectors and vent filters
- PP closures with silicone liners are available in 2- and 3-ported versions
- Stable to gamma irradiation
- Ports have tubulations on inside and outside of the closure for attachment of tubing



Nalgene Closures for Biotainer Bottles

Description	Neck finish, mm	Port ID, in. (mm)	No. per case	Cat. No.
3-ported closure	48	2 1/4 (6.35), 1 3/16 (4.76)	4	02-945-120
2-ported closure	48	2 1/4 (6.35)	4	02-945-130

Nalgene Biotainer Replacement Closures

Thermo Scientific™ Nalgene™ Biotainer™ Replacement Closures for 1, 2, 5, 10, and 20 L PC Biotainer bottles and carboys.

Key features

- PP with silicone liner
- Closure size: 48 mm
- Sterile



Nalgene Biotainer Replacement Closures

Description	Closure size, mm	No. per pack	No. per case	Cat. No.
Polypropylene, silicone-lined replacement closures, sterile	48	1	300	12-565-975

Nalgene HDPE Fluorinated Carboys

Thermo Scientific™ Nalgene™ Fluorinated HDPE Carboys enhance long-term container performance, prevent permeation loss, and yield lower extractables. Fluorination improves barrier properties and reduces solvent absorption and penetration.

Key features

- Heavy-duty walls are safe, durable, and resistant to splitting and punctures
- Fluorocarbon surfaces inside and out
- White polypropylene closure
- Graduated and leakproof*



Nalgene HDPE Fluorinated Carboys

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	389	1	6	03-312-18
20 (5)	22.5 (5.5)	83B	282	526	1	4	03-312-189

Nalgene HDPE Amber Carboy

Thermo Scientific™ Nalgene™ Amber HDPE Carboys are an ideal choice for storing and mixing photosensitive chemicals, reagents, buffers, and standards. Meets requirements of the US Pharmacopoeia Light Transmission Test (USP latest edition) for storage of light-sensitive materials.

Key features

- Molded of opaque amber HDPE, offering excellent chemical resistance
- Amber polypropylene closure
- Convenient wide shoulder handles
- Leakproof*



Nalgene HDPE Amber Carboy

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	389	1	6	12-565-646

Nalgene HDPE Single-Use Carboy

Thermo Scientific™ Nalgene™ Single-Use HDPE Carboys are safer than glass and are the ideal containers to economically maintain and transfer sterile fluids and reagents.

Sterile and ready for one-time use.

Key features

- Wide-mouth design for easy filling and dispensing of liquids
- Suitable for use in storage conditions of -100°C to 120°C
- Molded of HDPE, offering excellent chemical resistance and impact resistance
- White polypropylene closure
- Customization options available for fluid transfer applications
- Supported by extensive validation documentation
- Leakproof*



Ordering information: Optional stainless steel handle available (Cat. No. 03-409-8).

Compliance: USP Class VI, noncytotoxic.

Nalgene HDPE Single-Use Carboy

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	389	1	6	03-312-18
33 (9)	41 (11)	83B	381	546	1	1	03-409-24C

Nalgene Handle for Single-Use Carboy

Thermo Scientific™ Nalgene™ Handle for Single-Use Carboy is made of stainless steel and attaches to 20 L carboys for easy handling.

Key features

- For use with Nalgene Single-Use HDPE Carboy (Cat. No. 03-409-24B)



Nalgene Handle for Single-Use Carboy

Description	Material	No. per case	Cat. No.
Handle for 20 L single-use carboy	Stainless steel	1	03-409-8

Nalgene HDPE Platinum Certified Clean Bottles and Carboys

Low particulates, sterility, and low endotoxins help maintain product integrity.

Thermo Scientific™ Nalgene™ Platinum Certified Clean HDPE containers are certified to contain less than one-third of the allowable particulate limits specified in USP <788>. The bottles and carboys are washed in specially designed automated washers using only water purified to USP standards, including USP WFI for the final rinse, so there are no added detergents or chemicals. Class 100 (ISO Class 5) clean room handling follows washing and drying, including Class 10 (ISO Class 4) hoods for packaging.

All container-closure systems are guaranteed leakproof* to protect precious contents.

Key features

- Sterile products are ready to use with robust triple-layer packaging for clean room use
- Robust HDPE can be used from –100°C to 65°C, allowing for both heated mixing and frozen storage or shipment; it is recommended to always test in conditions of actual use, as results may vary depending upon application
- Certified low endotoxin (0.25 EU/mL) according to USP <85> to limit pyrogens
- Products can be supplied with forced extraction studies**, validation binders**, and certificates



Compliance: USP Class VI, noncytotoxic, USP <661>, nonpyrogenic, FDA 21 CFR 177.1520.

Nalgene HDPE Platinum Certified Clean Bottles and Carboys

Description	Volume	Closure size	Optical density (OD)	Height with closure	No. per pack/case	Cat. No.
Narrow-mouth bottle	30 mL	20-415	34.3 mm	61 mm	12/72	14-388-009
	250 mL	24-415	61 mm	133 mm	12/72	14-388-008
	500 mL	28-415	72.6 mm	170.4 mm	12/48	14-388-006
	1 L	38-430	91.4 mm	215.9 mm	6/24	14-388-004
Wide-mouth bottle	250 mL	43-415	61 mm	99.3 mm	12/72	14-388-007
	500 mL	53-415	72.6 mm	168.2 mm	12/48	14-388-005
	1 L	63-415	91.44 mm	199.2 mm	6/24	14-388-003
Carboy with integrated handles	10 L	83B	250.2 mm	389 mm	1/6	14-388-002
	20 L		284.2 mm	501.7 mm	1/4	14-388-001
	33 L		381 mm	546 mm	1/1	14-388-000

Nalgene HDPE Rectangular Carboys

Thermo Scientific™ Nalgene™ Rectangular HDPE Carboys have a sturdy, space-saving design. These carboys are ideal for storing solutions and handling large volumes of powders and other solid samples.

Key features

- Graduated in liters and gallons
- Wide-mouth opening permits easy filling, transferring, and cleaning
- White polypropylene closure
- Includes sturdy stainless steel handle attached to molded-in shoulder loops
- Autoclavable and leakproof*



Nalgene HDPE Rectangular Carboys without Spigots

Capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
9 (2)	9 (2)	100-415	220 x 153 x 360 (9 x 6 x 14)	1	6	02-961-10A
20 (5)	21 (5.5)	100-415	320 x 229 x 399 (13 x 9 x 16)	1	4	02-961-10B

Nalgene HDPE Heavy-Duty Rectangular Carboys

Thermo Scientific™ Nalgene™ Heavy-Duty Rectangular HDPE Carboys provide a space-saving option for storing and transporting reagents and other liquids.

Key features

- Heavy-walled construction for durability and chemical resistance
- Graduated in liters and gallons
- Design includes integral handle for easy transport and pouring
- White polypropylene closure
- Leakproof*



Nalgene HDPE Heavy-Duty Rectangular Carboys

Capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
20 (5)	20 (5)	70	330 x 228 x 406 (13 x 9 x 16)	1	4	02-961-56A

Nalgene HDPE Heavy-Duty Wide-Mouth Jug

Thermo Scientific™ Nalgene™ Heavy-Duty Wide-Mouth HDPE Jug features a large 120 mm opening. Molded-in handle and recessed bottom provide a sturdy grip when lifting and pouring. Wide stance and low center of gravity assure stability.

Key features

- Wide-mouth 120 mm opening permits easy filling, transferring, and cleaning of jugs
- Ideal for storing powders
- Graduated in liters and gallons as a convenient guide
- White polypropylene closure
- Space-saving rectangular shape



Nalgene HDPE Heavy-Duty Wide-Mouth Jug

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
20 (5)	25 (6.6)	120	305 x 203 x 457 (12 x 8 x 18)	1	4	02-960-11

Nalgene HDPE Jerricans

Key features

- Integral spout is angled for easy, accurate pouring
- Includes white, tethered polypropylene closure to prevent loss
- Graduated in liters and gallons as a convenient guide
- Molded-in handle and recessed bottom provides a sturdy grip when lifting and pouring
- Space-saving rectangular shape optimizes limited storage space
- Leakproof*



Nalgene HDPE Jerricans

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
6 (1.5)	8 (2)	53B	213 x 176 x 335 (8 x 7 x 13)	1	6	02-961-50A
10 (2.5)	12 (3)	53B	246 x 199 x 376 (10 x 8 x 15)	1	6	02-961-50AB
20 (5)	24 (6)	53B	320 x 245 x 452 (13 x 10 x 18)	1	4	02-961-50AC

Nalgene HDPE 13 L Jerricans

Thermo Scientific™ Nalgene™ 13 L HDPE Jerricans have a unique double-spout design, ideal as a reservoir in automated systems.

The rugged design with wide stance and low center of gravity provides stability.

Key features

- 53B white polypropylene closure can be customized with input or output tubing, while the 38 mm closure can be used for refilling and emptying
- Molded-in handle provides a sturdy grip when carrying heavy contents
- Integral shoulder handle and molded bottom grip offers added assistance with lifting
- Molded of HDPE, offering good chemical resistance for a wide variety of solutions
- Rectangular shape optimizes limited storage space



Compliance: USP Class VI, FDA 21 CFR 177.1520.

Nalgene HDPE 13 L Jerricans

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
13 (3.5)	14 (3.7)	53B	290 x 189 x 378 (11 x 7 x 15)	1	4	02-960-23
13 (3.5)	14 (3.7)	53B; 38-430	290 x 189 x 378 (11 x 7 x 15)	1	4	02-960-24

Nalgene HDPE Fluorinated Jerricans

Thermo Scientific™ Nalgene™ Fluorinated HDPE Jerricans have a rugged design with wide stance and low center of gravity that provide greater stability.

Fluorinated surface inside and out improves barrier properties and reduces solvent absorption while enhancing long-term container performance and preventing loss due to permeation.

Key features

- Includes tethered white polypropylene closure to prevent loss
- Graduated in liters and gallons as a convenient guide
- Molded-in handle and recessed bottom provides a sturdy grip when carrying heavy contents
- Space-saving rectangular shape
- Leakproof*



Nalgene HDPE Fluorinated Jerricans

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
10 (2.5)	14 (3.7)	53B	246 x 199 x 376 (10 x 8 x 15)	1	6	02-960-12
20 (5)	24 (6)	53B	320 x 245 x 452 (13 x 10 x 18)	1	4	02-960-13

Nalgene PC Biotainer Bottles and Carboys

Thermo Scientific™ Nalgene™ PC Biotainer™ Bottles and Carboys are excellent for freezing applications.

Nalgene PC Biotainer Bottles and Carboys are designed specifically for pharmaceutical and biological manufacturers. Supplied sterile and ready to use, they reduce the risk of carryover contamination and eliminate the cost of cleaning, sterilization, and associated validations.

Key features

- Constructed of durable, translucent PC, ensuring the integrity of your sample
- PP closures feature a silicone liner for leakproof* assurance
- Customization options available for fluid transfer applications
- Supported by extensive validation documentation
- Suitable for use in storage conditions of -100°C to 100°C



Compliance: USP Class VI, noncytotoxic, USP <661>, nonpyrogenic, FDA 21 CFR 177.1315 for 5 to 5,000 mL, and FDA 21 CFR 177.1520 for 10 to 20 L.

Nalgene PC Biotainer Bottles and Carboys

Nominal capacity	Closure size, mm	OD, mm (shape)	Height with closure, mm	No. per pack	No. per case	Cat. No.
5 mL	20	22.4 (round)	46.7	100	500	02-950-14
20 mL	20	29.7 (round)	65.3	500	500	12-565-196
125 mL	38	52.1 (square)	104.6	5	50	02-540-250
1,000 mL	48	98 (square)	201	5	35	02-540-251
2,000 mL	48	116 (square)	265	5	20	02-540-252
5,000 mL	48	166 (square)	299	1	6	02-540-253
5,000 mL	48	166 (square)	299	6	6	02-540-254
10 L	48	255 (square)	337	1	2	02-540-257
10 L	48	255 (square)	337	1	2	02-540-258
20 L	48	255 (square)	493	1	3	02-540-259

1. Validation vial.

2. Fits 3-ported 48 mm closure for attachment of tubing.

3. With polyethylene handle.

Nalgene PC Certified Clean Biotainer Containers

Sterile containers, free from added interfering chemicals and low in particulates, are required to maintain both clean room as well as product integrity.

Thermo Scientific™ Nalgene™ Certified Clean PC Biotainer™ Bottles and Carboys reduce the risk of carryover contamination. These square containers are certified and lot-to-lot tested to meet USP <788> low-particulate requirements to limit potential particulate contamination.

Inspection procedures throughout manufacturing include leak testing, dimensional testing, visual inspection for particulates, and release testing to ensure the carboy meets all specifications.

The leakproof* containers are free from added interfering chemicals and low in particulates to maintain both clean room as well as product integrity. The square carboys are available in three different sizes with volumes of 5, 10, or 20 L either with or without attached handle.



Key features

- Constructed of light blue, durable, translucent PC with silicone-lined polypropylene closures
- Produced in ISO Class 7 clean room to limit particulates during molding
- Certified low endotoxin (0.50 EU/mL) according to USP <85> to reduce pyrogens
- Sterile, ready-to-use products with robust triple-layer packaging for clean room use
- Products can be supplied with forced extraction studies**, validation binders**, and certificates

Nalgene PC Certified Clean Biotainer Bottles and Carboys

Volume	Closure size	Outer diameter (OD)	Height with closure	Quantity per pack/case	Cat. No.
125 mL	38 mm	52 mm	105 mm	5/50	14-388-018
1,000 mL	48 mm	98 mm	201 mm	5/35	14-388-019
2,000 mL	38 mm	116 mm	265 mm	5/20	14-388-020
5,000 mL	38 mm	166 mm	299 mm	1/6	03-313-112
5,000 mL	48 mm	166 mm	299 mm	1/2	03-313-113
10,000 mL	48 mm	255 mm	337 mm	1/2	03-313-114
10,000 mL	48 mm	255 mm	337 mm	1/2	03-313-115
20,000 mL	48 mm	255 mm	495 mm	1/3	03-313-116

* With attached handle.

** Forced extraction studies and validation binders from Thermo Fisher Scientific, where available, are provided under a confidentiality agreement to assist customers in product selection. Customers are responsible for determining what studies are recommended for their specific applications. Forced extraction studies and validation binders may be requested by contacting us at ROCREGSupport@thermofisher.com

Nalgene PC Platinum Certified Clean Biotainer Containers

Key features

- SAL of 10^{-6} inside and outside of the container
- Below one-third of the allowable USP <788> particulate limits
- <0.25 EU/mL endotoxin
- Washed with WFI (water for injection) and inspected, assembled, and packaged in Class 5 (100) cleanrooms with Class 4 (10) hoods and full gowning for operators
- Ready-to-use products with dual sterile barriers for your step-down process
 - Triple layer packaging (2 heat-sealed bags + 1 carton liner)
 - Double-walled cartons



Nalgene PC Platinum Certified Clean Biotainer Bottles and Carboys

Volume	Closure size	Outer diameter (OD)	Height with closure	Quantity per pack/case	Cat. No.
5 mL	20 mm	22 mm	46 mm	52/416	14-388-043
20 mL	20 mm	30 mm	69 mm	84/504	14-388-044
125 mL	38 mm	52 mm	105 mm	5/50	14-388-036
1,000 mL	48 mm	98 mm	201 mm	5/35	14-388-037
2,000 mL	38 mm	116 mm	265 mm	5/20	14-388-037
5,000 mL	48 mm	166 mm	299 mm	1/6	14388039
10,000 mL	48 mm	255 mm	337 mm	1/2	14388040

* With attached handle.

Nalgene PC Round Clearboy Carboys

Thermo Scientific™ Nalgene™ Round PC Clearboy™ Carboys offer durability and are lighter and safer than glass. These transparent carboys are useful for large-volume media and culture preparation, especially where visual inspection of contents for quality is important. Ideal for refrigerated or frozen storage of aqueous solutions such as sterile water, reagents, and media.

Key features

- Available in 10 L and 20 L sizes for a variety of biopharmaceutical applications
- Graduated in liters and gallons
- Molded of transparent, durable polycarbonate with white polypropylene closure and thermoplastic elastomer gasket
- Customization options available for fluid transfer applications
- Autoclavable and leakproof*



Nalgene PC Round Clearboy Carboys

Capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12.5 (3.3)	83B	253	394	1	4	02-962-6A
20 (5)	24 (6)	83B	287	536	1	4	02-962-6B

Nalgene Rectangular PC Clearboy Carboys

Key features

- Wide-mouth opening permits easy filling, transferring, and cleaning
- Graduated in liters and gallons as a convenient guide
- Stainless steel handle for ease of use
- Molded of transparent PC, making this carboy ideal when visual inspection of contents is required
- White polypropylene closure
- Autoclavable and leakproof*



Nalgene Rectangular PC Clearboy Carboys

Capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
9 (2)	9 (2)	100-415	220 x 153 x 360 (9 x 6 x 14)	1	1	02-961-55A
20 (5)	21 (5.5)	100-415	320 x 229 x 399 (13 x 9 x 16)	1	1	02-961-55C

Nalgene Validation Bottles

Thermo Scientific™ Nalgene™ PC Validation Bottles are the ideal size to perform material compatibility validation studies for Nalgene PC carboys.

Key features

- Molded of durable translucent polycarbonate, ensuring the integrity of your samples
- White polypropylene closure includes thermoplastic elastomer gasket
- Manufactured with the same materials and molding processes as Nalgene PC carboys (Cat. Nos. 02-962-6A/02-962-6B)
- Accommodates convenient material compatibility validation, requiring lower amounts of expensive reagents
- Autoclavable



Nalgene PC Validation Bottles

Nominal capacity, mL (oz)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
30 (1)	20-415	32	75	1	30	15-350-25
250 (8)	53B	74	135	1	6	02-923-10
2,000 (64)	53B	123	296	1	12	15-350-26

Nalgene PC Certified Clean Validation Bottle

Nominal capacity, mL (oz)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
5 mL	20-400 mm	22.4 mm	46.7 mm	52	416	14388021
20 mL	20-400 mm	29.7 mm	65.3 mm	84	504	14388022

Nalgene PETG Certified Clean Validation Bottle

Nominal capacity, mL (oz)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
5 mL	20-415 mm	22.25 mm	45.9 mm	52	416	14388010

Nalgene PP Autoclavable Carboys with Handles

Thermo Scientific™ Nalgene™ Autoclavable PP Carboys with Handles are ideal for the containment of media, bulk pharmaceutical ingredients, and other solutions.

Key features

- Constructed of polypropylene with white polypropylene closure and thermoplastic elastomer gasket
- Convenient shoulder handles allow easy carrying and pouring
- Available in 10, 20, and 50 L sizes for a variety of biopharmaceutical applications
- Graduated in liters and gallons
- Autoclavable and leakproof*



Nalgene PP Autoclavable Carboys with Handles

Capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	389	1	6	02-960-20C
20 (5)	22.5 (5.5)	83B	282	526	1	4	02-960-20A
50 (13)	54 (14)	83B	379	678	1	1	02-960-20B

Nalgene PP Heavy-Duty Vacuum Carboys

Thermo Scientific™ Nalgene™ Heavy-Duty PP Vacuum Carboys are ideal when service conditions are most extreme. Useful as a vacuum trap; will hold a vacuum for 8 hours.

Key features

- Constructed of polypropylene with white polypropylene closure and thermoplastic elastomer gasket
- Customization options are available for fluid transfer applications
- Autoclavable and leakproof*

Ordering information: For 1–5 L sizes, please refer to Thermo Scientific™ Nalgene™ Heavy-Duty PPCO Vacuum Bottles with Closure: Lab Pack

Disclaimer: Not rated for pressure use.



Nalgene PP Heavy-Duty Vacuum Carboys

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	1	6	02-960-14
20 (5)	22.5 (5.5)	83B	282	1	4	02-960-15

Nalgene PP Autoclavable Wide-Mouth Carboys with Handles

Thermo Scientific™ Nalgene™ Autoclavable Wide-Mouth PP Carboys with Handles have a convenient, large opening for storage and transport of solids and powders.

Key features

- Convenient, wide shoulder handles; allows easy carrying and pouring, even with gloved hands
- Graduated in liters and gallons
- White polypropylene closure
- Wide-mouth opening promotes ease of cleaning and dispensing
- Autoclavable and leakproof*



Nalgene PP Autoclavable Wide-Mouth Carboys with Handles

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	100-415	250	343	1	6	02-961-65A
20 (5)	22.5 (5.5)	100-415	282	483	1	4	02-961-65C

Nalgene PP Sanitary Carboys

The Thermo Scientific™ Nalgene™ Sanitary PP Carboys with 3-inch. sanitary neck have a nonthreaded design. The 3-inch. flange accepts standard tri-clover fittings. A clamping-closure system securely seals the carboy, requiring no torque while eliminating back-off issues.

Key features

- Sanitary design is easier to clean than threaded alternatives
- To seal closure, use a combination of gasket, end cap, and sealing clamp
- Available in 10, 20, and 50 L sizes, supporting a variety of containment needs



Nalgene PP Sanitary Carboys

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Neck finish	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	3-in. tri-clover	250	353	1	1	02-963-8A
20 (5)	22.5 (5.5)	3-in. tri-clover	282	353	1	1	02-963-8B
50 (13)	50 (13)	3-in. tri-clover	379	545	1	1	02-963-8C

Nalgene PC Sanitary Carboy

The Thermo Scientific™ Nalgene™ Sanitary PC Carboy has a one-piece molded, nonthreaded design for use as a receiver or dispensing vessel in biopharmaceutical applications. The 3-inch flange accepts standard tri-clover fittings. A clamping-closure system securely seals the carboy, requiring no torque while eliminating back-off issues.

Key features

- Sanitary design is easier to clean than threaded alternatives
- Molded of the same PC resin as Nalgene PC Clearboy carboys and bottles, supporting a switch to sanitary PC carboys without material validation issues
- To seal closure, use a combination of gasket, end cap, and sealing clamp
- Sanitary carboy also available in PP (Cat. No. 02-963-8)
- Graduated and autoclavable



Nalgene PC Sanitary Carboy

Nominal capacity, L (gal)	Neck finish	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
20 (5)	3 in. tri-clover	287	498	1	4	02-961-20

Nalgene PP Autoclavable Carboys with Sanitary Flange

Thermo Scientific™ Nalgene™ Autoclavable Carboys feature a 1.5-inch, secure, nonthreaded sanitary dispensing port. They are ideal for use as a supply reservoir.

Key features

- Convenient molded-in handles for easy handling
- Graduated in liters and gallons as a convenient guide
- White polypropylene closure with thermoplastic elastomer gasket
- Dispensing port used in combination with 1.5-inch, gasket and true-union clamp
- Autoclavable and leakproof*

Compliance: USP Class VI, noncytotoxic.



Nalgene Autoclavable PP Carboys with Sanitary Flange

Nominal capacity, L (gal)	Approximate brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B, 1.5-in. tri-clover	250	353	1	1	02-963-3A
20 (5)	22.5 (5.5)	83B, 1.5-in. tri-clover	282	353	1	1	02-963-3B
50 (13)	54 (14)	83B, 1.5-in. tri-clover	379	678	1	1	02-963-3C

Nalgene PP End Caps

Thermo Scientific™ Nalgene™ PP End Caps are used to securely close off 3/4-inch mini and 3-inch sanitary ports on Nalgene Sanitary Carboys.

Groove on underside of the end cap accepts standard sanitary gasket for sealing the systems.

Key features

- Offers reliable, repeatable seals when used in combination with silicone gasket (Cat. No. 14-831-319) and true-union clamp (Cat. No. 2670)
- Autoclavable

Compliance: USP Class VI.



Nalgene PP End Caps

Description	No. per case	Cat. No.
End cap for 3/4-in. mini	1	14-831-315B
End cap for 3-in. tri-clover	1	12-565-976

Nalgene Ported End Caps

Thermo Scientific™ Nalgene™ Ported End Caps in PC or PP provide sanitary ports, which offer easy filling and dispensing. Securely mounts to 3-inch sanitary flange for applications used with Nalgene Sanitary Carboys.

Key features

- Available in PC and PP
- Autoclavable
- Offers a reliable, reproducible seal when used in combination with silicone gasket and true-union clamps
- Customized options available when used with 3/4 in. mini hose barb fitting

Nalgene Ported End Caps

Description	Port size, in.	No. per pack	No. per case	Cat. No.
PC ported end cap for 3 in. tri-clover	3/4-in. mini x 2	1	4	02-961-21
PP ported end cap for 3 in. tri-clover	3/4-in. mini x 2	1	4	02-961-22



Nalgene Silicone Sanitary Gaskets for Nalgene Carboys

Thermo Scientific™ Nalgene™ Silicone Sanitary Gaskets offer a reliable, leakproof seal when used with Nalgene end caps and true-union clamps.

Constructed of platinum-cured silicone, the gaskets ensure the highest degree of purity for biopharmaceutical applications.

Key features

- For use with Nalgene carboys (Cat. No. 2261, 2630, and 2640)
- Autoclavable

Compliance: Meets USP Class VI requirements.



Nalgene Silicone Sanitary Gaskets for Nalgene Carboys

Description	No. per pack	No. per case	Cat. No.
Gasket for 3/4-in. mini	1	6	14-831-319A
Gasket for 1 1/- in. tri-clover	1	6	14-831-319C
Gasket for 3-in. tri-clover	1	6	14-831-319F

Nalgene True-Union Clamps

Thermo Scientific™ Nalgene™ True-Union Clamps offer reliable, repeatable seals when used in combination with silicone gaskets and end caps.

Key features

- Constructed of PVDF
- Autoclavable



Nalgene True-Union Clamps

Description	No. per case	Cat. No.
True-union clamp for 3/4 in. mini	1	14-831-318A
True-union clamp for 1 1/2 in. tri-clover	1	02-923-91
True-union clamp for 3 in. tri-clover	1	12-565-977

Nalgene Heavy-Duty Clamps

Thermo Scientific™ Nalgene™ Heavy-Duty Stainless Steel Clamps assure leakproof fluid seals when used with Nalgene Sanitary Carboys.

Key features

- Strong, spring-loaded clamp
- For use with Nalgene Sanitary PC Carboy
- Autoclavable



Nalgene Heavy-Duty Stainless Steel Clamps

Description	No. per case	Cat. No.
Stainless steel clamp for 3-in. tri-clover	1	14-831-353C

Nalgene PP Rectangular Carboys

Thermo Scientific™ Nalgene™ Rectangular PP Carboys are molded of tough, translucent, and autoclavable polypropylene. Ideal for storing solutions and handling large volumes of powders and other solid samples.

Key features

- Large-neck opening for easy filling and cleaning
- Includes sturdy stainless steel handle attached to molded-in shoulder loops
- Graduated in liters and gallons as a convenient guide
- Autoclavable and leakproof*



Nalgene PP Rectangular Carboys

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	L x W x H, mm (in.)	No. per pack	No. per case	Cat. No.
9 (2)	9 (2)	100-415	220 x 153 x 360 (9 x 6 x 14)	1	6	02-961-53A
20 (5)	21 (5.5)	100-415	320 x 229 x 399 (13 x 9 x 16)	1	4	02-961-53C

Nalgene Narrow-Mouth and Wide-Mouth Bottle Replacement Closures

Designed to fit Thermo Scientific™ Nalgene™ carboys and bottles to provide a guaranteed leakproof* system.

Key features

- Fits Nalgene large carboys and bottles with 53B and 83B neck finishes



Nalgene replacement closures

Description	No. per pack	No. per case	Cat. No.
Nalgene closures for large carboys and bottles; white, polypropylene, autoclavable			
38-430 replacement closure for large Nalgene bottles	12	12	02-923-14M
53B replacement closure for large Nalgene bottles or carboys	12	12	02-923-14N
83B replacement closure for large Nalgene bottles or carboys	2	2	02-923-14T
Thermoplastic elastomer gasket for 53B closure	12	12	01-291-3
Thermoplastic elastomer gasket for 83B closure	5	5	09-548-252
Nalgene replacement closure; white high-density polyethylene			
53B replacement cap with thermoplastic elastomer gasket for large Nalgene bottles or carboys	12	12	12-565-978
Nalgene replacement closure with strap; white polypropylene			
53B replacement closure and strap for Nalgene jerricans	10	10	02-945-122
Nalgene replacement closure, high-density polyethylene			
83B replacement cap with thermoplastic elastomer gasket for large Nalgene bottles or carboys	2	2	12-565-979

Nalgene LDPE Round Carboys

Thermo Scientific™ Nalgene™ Round LDPE Carboys are an ideal choice for storage and transport of reagents.

Key features

- Wide shoulder handles allow for easy pouring and carrying
- Graduated in liters and gallons
- White polypropylene closure
- Accepts 13.5 rubber stopper for alternative sealing method
- Leakproof*



Nalgene LDPE Round Carboys

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	83B	250	389	1	6	02-961D
15 (3.75)	17	83B	285	429	1	4	02-961DE
20 (5)	22.5 (5.5)	83B	282	526	1	4	02-961A
25 (6.5)	27.5	83B	287	594	1	4	02-961B
50 (13)	54 (14)	83B	379	668	1	1	02-961C

Nalgene LDPE Wide-Mouth Carboys with Handles

Thermo Scientific™ Nalgene™ Wide-Mouth LDPE Carboys with Handles have a convenient, large opening for storage and transport of solids and powders.

Key features

- Convenient, wide shoulder handles allow easy carrying and pouring, even with gloved hands
- Graduated in liters and gallons
- Wide-mouth opening promotes ease of cleaning and dispensing, and can accommodate overhead mixers
- White polypropylene closure
- Leakproof*, not autoclavable

Ordering information: For autoclavable wide-mouth carboys, please refer to Cat. Nos. 02-961-65A/02-961-65C



Nalgene LDPE Wide-Mouth Carboys with Handles

Nominal capacity, L (gal)	Nominal brim capacity, L (gal)	Closure size, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
10 (2.5)	12 (3)	100-415	250	343	1	6	02-961-60A
15 (4)	17 (4.5)	100-415	286	389	1	6	02-961-60C
20 (5)	22.5 (5.5)	100-415	282	483	1	4	02-961-60E

Nalgene FEP Low Particulate/Low Metals Bottles

Thermo Scientific™ Nalgene™ FEP Low Particulate/Low Metals Bottles feature a narrow mouth and certification to contain less than 20 particles per mL at 0.3 µm and greater.

Each bottle is double bagged under Class 10 laminar flow hoods inside a Class 100 clean room. Composed of FEP, these bottles are excellent for storing high-purity chemicals. Product includes a Certificate of Quality that assures the product has been tested and accepted in accordance with specifications.

Key features

- Certified to particulate and trace metal levels
- Linerless caps provide the ultimate in leakproof* protection without the use of liner that can wrinkle, cause leaks, or contaminate your reagents
- Exhibits flexibility, impact resistance, and excellent visibility of contents for a wide variety of uses in the lab or production environment
- Excellent resistance to chemicals found in laboratories and production environments
- Nonsterile
- Metals certified to microliter (ppb) levels of <0.20 Hg, <0.5 Be, <1.0 As, Cd, Pb, <2.0 Sb, Se, <5.0 Ag, Co, Cr, Cu, Mn, Ti, V, <10 Ba, Ni, Zn, <50 Mg, <75 Al, <100 Ca, Fe, K, Na
- Autoclavable and translucent



- Metals certified to microliter (ppb) levels of <0.20 Hg, <0.5 Be, <1.0 As, Cd, Pb, <2.0 Sb, Se, <5.0 Ag, Co, Cr, Cu, Mn, Ti, V, <10 Ba, Ni, Zn, <50 Mg, <75 Al, <100 Ca, Fe, K, Na
- Autoclavable and translucent

Includes: ETFE screw closure.

Note: Completely disengage threads or remove cap before autoclaving.

Nalgene FEP Low Particulate/Low Metals Bottles

Nominal capacity, mL (oz)	Closure size, mm	Neck ID, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
125 (4)	24	17	46	115	1	6	03-313-104
250 (8)	24	17	60	134	1	4	03-313-105
500 (16)	28	20	73	166	1	4	03-313-106
1,000 (32)	38	26	90	203	1	4	03-313-107

Nalgene FEP Narrow-Mouth Bottles

Thermo Scientific™ Nalgene™ FEP Narrow-Mouth Bottles are among the most inert, chemical-resistant, corrosion-resistant containers available.

With outstanding resistance to extreme temperatures and virtually all chemicals, these bottles are ideal for trace metal analysis and applications involving organic solvents. The bottles can be vigorously cleaned in boiling nitric acid and are guaranteed leakproof*.

Key features

- The most inert, chemical-resistant, and corrosion-resistant containers available; ideal for trace metal analysis and applications involving organic solvents
- Withstands rigorous cleaning in boiling nitric acid; temperature range from -105°C to 150°C (-157°F to 302°F) for a wide range of uses including high-purity storage
- Can be autoclaved for sterilization
- Autoclavable, leakproof*, and transparent



Includes: ETFE screw closure.

Note: These bottles cannot withstand gamma irradiation. Completely disengage threads or remove cap before autoclaving.

Nalgene FEP Narrow-Mouth Bottles

Capacity, mL (oz)	Closure size, mm	Neck ID, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
30 (1)	20	14	32	75	1	8	02-923-30AA
60 (2)	20	14	39	84	1	8	02-923-30BB
125 (4)	24	17	46	115	1	6	02-923-30A
250 (8)	24	17	60	134	1	4	02-923-30B
500 (16)	28	20	73	166	1	4	02-923-30C
1,000 (32)	38	26	90	203	1	4	02-923-30D
2,000 (64)	38-430	24	121	245	1	2	02-923-30E

Nalgene PFA Narrow-Mouth Bottles

Thermo Scientific™ Nalgene™ PFA Narrow-Mouth Bottles are among the most temperature-resistant, inert, chemical-resistant, corrosion-resistant containers available.

With outstanding resistance to extreme temperatures and virtually all chemicals, these bottles are ideal for trace metal analysis and applications involving organic solvents. The bottles can be rigorously cleaned in boiling nitric acid and are guaranteed leakproof*.

Key features

- Withstands -270°C to 250°C (-454°F to 482°F)
- Inert to virtually all chemicals except molten alkali metals, fluorine at high temperatures, and complex halogenated compounds at high temperatures and pressures
- Packaged individually
- Autoclavable



Includes: Leakproof*, linerless PFA screw closures.

Note: These bottles cannot withstand gamma irradiation. Completely disengage threads or remove cap before autoclaving.

Nalgene PFA Narrow-Mouth Bottles

Capacity, mL (oz)	Closure size, mm	Neck ID, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
30 (1)	20	14	32	75	1	8	02-923-35H
60 (2)	20	14	39	84	1	8	02-923-35J
125 (4)	38-430	24	46	127	1	6	02-923-35K
250 (8)	38-430	24	59	146	1	4	02-923-35L
500 (16)	38-430	24	72	181	1	4	02-923-35M
1,000 (32)	38-430	24	90	216	1	4	02-923-35N

Nalgene FEP Wide-Mouth Bottles

Thermo Scientific™ Nalgene™ FEP Wide-Mouth Bottles with ETFE closures provide excellent temperature and chemical resistance.

With outstanding resistance to extreme temperatures and virtually all chemicals, these bottles are ideal for trace metal analysis and applications involving organic solvents. The bottles can be rigorously cleaned in boiling nitric acid and are guaranteed leakproof*.

Key features

- The most inert, chemical-resistant, and corrosion-resistant containers available; ideal for trace metal analysis and applications involving organic solvents
- Withstands rigorous cleaning in boiling nitric acid; temperature range from -105°C to 150°C (-157°F to 302°F) for a wide range of uses including high-purity storage
- Can be autoclaved for sterilization
- Wide mouth for easy filling
- Autoclavable, leakproof*, and transparent

Nalgene FEP Wide-Mouth Bottles

Capacity, mL (oz)	Closure size, mm	Neck ID, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
125 (4)	33	25	46	117	1	6	02-924-15A
250 (8)	43	33	59	128	1	4	02-924-15C
500 (16)	48	38	71	165	1	4	02-924-15E
1,000 (32)	53	43	91	209	1	4	02-924-15G



Includes: ETFE screw closure.

Note: These bottles cannot withstand gamma irradiation. Completely disengage threads or remove cap before autoclaving.

Nalgene Wide-Mouth EP Tox/TCLP Bottle

Thermo Scientific™ Nalgene™ Wide-Mouth EP Tox/TCLP Bottles are ideal to use at high and low temperatures for trace metal analysis and applications with organic solvents.

Offers laboratories a safer alternative to glass.

Key features

- 2.2 L temperature-resistant FEP bottle has wide mouth for large-sized samples
- PTFE resin-lined polypropylene caps included
- Specially designed for US EPA Method 1311: Toxicity Characteristic Leaching Program (TCLP)
- Autoclavable and leakproof*

Includes: Polypropylene screw closure with PFA lining.

Note: This bottle cannot withstand gamma irradiation. Completely disengage threads before autoclaving.



Nalgene Wide-Mouth EP Tox/TCLP Bottle

Capacity, L	Closure size, mm	Neck ID, mm	OD, mm	Height with closure, mm	No. per pack	No. per case	Cat. No.
2.2	100	89	119	241	1	2	02-924-15H

Critical environment products

Thermo Scientific™ clean process products and services are ideal for critical environments—the only thing in your container is what you add.

Working within a critical environment such as a clean room necessitates high-quality materials and equipment since contamination can quickly spell disaster for what are typically exceedingly sensitive applications. It is therefore essential that products used in your critical environments, such as plastic bottles, vials, carboys, caps, and other materials, conform to necessary standards of cleanliness.

Didn't find an item in our catalog to fit your needs?

Whether your cleaning needs are for high volumes or smaller quantities, Thermo Scientific™ critical container processing and cleaning services have the flexibility to meet your cleaning requirements.

Recommended for biopharma, vaccine, and quality-control applications

All cleaning services and packaging can be done in our certified class 100/10 clean room with full traceability. Thermo Scientific™ processes available for standard and custom containers include:

- Low particle cleaning
- Depyrogenation
- Chemical cleaning for trace analysis
- Nuclease-free cleaning and certification
- Custom sterilization
- Surface modification services
- Custom packaging services
- Class 100/10 cleaning services

To see how easily your custom application can become routine, complete our custom cleaning specification sheet at [thermofisher.com/cleanrequest](https://www.thermofisher.com/cleanrequest) and receive feedback from our customer service specialists.



Particle-Certified Glass Containers

Containers are assembled to contain as few as 5 particles per milliliter at ≥ 0.5 microns. Assembled with low-shedding polypropylene closures with chemically inert PTFE-faced liners that do not contain adhesives. Both clear and amber glass products are available.

Key features

- Containers and closures cleaned in proprietary HEPA-filtered washing and drying equipment
- Clean packaged in Class 10 HEPA-filtered workstations inside our Class 100 clean room
- Certified to contain as few as 5 particles/mL at ≥ 0.5 microns
- Containers and components to meet USP <788> and other container sizes and materials available as custom options by contacting your sales specialist



Applications

- Sampling for QC
- Pharmaceutical and biotech use

Description	Capacity, oz (mL)	Closure size, mm	Closure liner	OD x H, in.	OD x H, mm	Quantity	Cat. No.
Amber glass wide-mouth bottle with closed top polypropylene closure (≤ 20 particles/mL at 0.5 microns)	0.5 (15)	28-400	PTFE	1.218 x 1.984	30.93	57	12-200-111
Clear glass vial with open-top closure, particulate cleaned (≤ 10 particles/mL at 0.5 microns)	1.35 (40)	24-414	PTFE/silicone septa	1.08 x 3.74	27.5 x 95.0	90	12-200-160
Amber glass Boston round bottle with open-top closure (≤ 10 particles/mL at 0.5 microns)	2 (60)	20-400	PTFE/silicone septa	1.516 x 3.688	38.50 x 93.66	24	12-200-138
Amber glass packer bottle with lined closure (≤ 10 particles/mL at 0.5 microns)	2 (60)	33-400	PTFE	1.75 x 3.00	44.45 x 76.20	24	12-100-001
Clear glass Boston round bottle with closed-top closure (≤ 5 particles/mL at 0.5 microns)	4 (125)	24-414	PTFE/silicone	1.875 x 4.375	47.63 x 111.13	12	12-200-102
Amber glass Boston round bottle with closed-top closure (≤ 5 particles/mL at 0.5 microns)	4 (125)	22-400	PTFE/silicone	1.875 x 4.375	47.63 x 111.13	12	12-200-101
Amber glass packer bottle with PTFE-lined closure (≤ 10 particles/mL at 0.5 microns)	4 (125)	38-400	PTFE	2.125 x 3.75	53.975 x 95.25	12	12-200-104
Clear glass Boston round bottle with closed-top closure (≤ 5 particles/mL at 0.5 microns)	8 (250)	24-414	PTFE/silicone	2.375 x 5.375	60.33 x 136.53	24	12-100-000
Amber glass Boston round bottle with closed-top closure (≤ 5 particles/mL at 0.5 microns)	8 (250)	22-400	PTFE/silicone	2.375 x 5.443	60.33 x 138.25	12	12-200-103
Amber glass wide-mouth packer bottle with closure (≤ 5 particles/mL at 0.5 microns)	8 (250)	45-400	PTFE	2.563 x 4.688	65.10 x 119.075	12	12-100-002
Clear glass jar, wide mouth, with closure (≤ 5 particles/mL at 0.5 microns)	16 (500)	89-400	PTFE	3.578 x 3.781	90.88 x 96.04	12	12-200-157
Amber glass Boston round bottle with closure (≤ 5 particles/mL at 0.5 microns)	16 (500)	28-400	PTFE	3.00 x 6.625	76.20 x 168.28	12	5005728195
Amber glass wide-mouth packer bottle with closure (≤ 5 particles/mL at 0.5 microns)	16 (500)	53-400	PTFE	3.172 x 5.75	80.57 x 146.05	12	12-200-106
Amber glass Boston round bottle with closure (≤ 5 particles/mL at 0.5 microns)	32 (1,000)	33-430	PTFE/silicone	3.75 x 8.50	95.25 x 215.90	12	12-200-100
Clear glass jar, wide mouth, with closure (≤ 5 particles/mL at 0.5 microns)	32 (1,000)	89-400	PTFE	3.75 x 6.69	95.25 x 169.85	12	12-200-159
Amber fluorinated glass jug with closure (≤ 10 particles/mL at 0.5 microns)	80 (2,500)	38-430	PTFE/silicone	5.25 x 12.00	133.4 x 305.0	6	12-200-156
Amber glass wide-mouth packer bottle with closure (≤ 5 particles/mL at 0.5 microns)	84 (2,500)	70-400	PTFE	5.50 x 9.375	139.70 x 238.13	4	12-100-003
Amber glass jug with closure (≤ 5 particles/mL at 0.5 microns)	128 (4,000)	38-430	PTFE/silicone	6.25 x 13.25	158.75 x 336.55	4	12-200-137

Class 100/10 Particle-Certified HDPE Bottles

Thermo Scientific™ Particle-Certified HDPE Bottles protect the quality of products or laboratory samples.

HDPE bottles with polypropylene closures are leakproof and suitable for use in sample packaging and may be used with combination packaging for hazardous shipping. Low-metals bottles are double bagged, and low-metals certification includes aluminum, calcium, copper, iron, potassium, magnesium, manganese, sodium, and zinc at <10 ppb each.

Key features

- Produced in our Class 10/100 clean room
- Optional QC documentation available for several trace metals
- Certificate of Analysis provided
- Supplied with polypropylene closure

Applications

- Sampling for stability studies
- Pharmaceutical and biotech use
- Plastic certified to contain as few as 20 particles/mL at ≥0.5 microns



Class 100/10 Particle-Certified HDPE Bottles

Description	Capacity, oz (mL)	Closure size, mm	Liner	OD x H, in. (mm)	No. per case	Cat. No.
HDPE narrow-mouth Nalgene bottle with closure	4 (125)	24-415	NA	2.00 x 4.00 (50.80 x 101.60)	24	12-200-117
HDPE narrow-mouth Nalgene bottle with closure, low metals	4 (125)	24-415	NA	2.00 x 4.00 (50.80 x 101.60)	24	12-200-118
HDPE narrow-mouth Nalgene bottle with closure	8 (250)	24-415	NA	2.50 x 5.25 (63.50 x 133.35)	24	12-200-140
HDPE narrow-mouth Nalgene bottle with closure	32 (1,000)	38-430	NA	3.625 x 8.50 (92.08 x 215.90)	12	12-200-139
HDPE narrow-mouth Nalgene bottle with closure, low metals	32 (1,000)	38-430	NA	3.625 X 8.50 (92.08 x 215.90)	12	12-200-116

Total Organic Carbon–Certified Vials

These low-level certified vials are intended for total organic carbon (TOC) testing and sampling. Several sizes of containers are available, including the popular 40 mL autosampler vials that are cleaned, certified, and ready to use. Use these vials to simplify and reduce the cost of cleaning validations.

Key features

- Low background perfect for preparation and storage of standards
- Each lot tested and certified to contribute <10 or <20 ppb TOC background

Applications

- USP Method <643> testing
- Offline and grab sampling of high-purity water



40 mL vials fit most automated TOC instruments

Total Organic Carbon–Certified Vials

Description	Capacity, oz (mL)	Closure size, mm	Liner	OD x H, in.	OD x H, mm	Quantity	Cat. No.
Screw thread glass tube (round bottom) silanized 16 x 125 (certified for <20 ppb for TOC)	0.6 (18)	15-425	PTFE/silicone septa	0.563 x 5.00	14.30 x 127.0	255	12-100-005
Screw thread glass tube (round bottom) silanized with closure 16 x 125 (certified for <10 ppb for TOC)	0.6 (18)	15-425	PTFE/silicone septa	0.563 x 5.00	14.30 x 127.0	255	12-100--376
Clear glass flat-bottom tube with closure 18 x 100 (<20 ppb for TOC)	0.58 (17)	15-425	PTFE/silicone septa	0.699 x 3.937	17.75 x 100.0	200	12-200-131
30 mL polysulphone tube with closure, TOC cleaned only, no Certificate of Analysis (COA)	1 (30)	20-400	PTFE/silicone septa	1.02 x 3.74	26 x 95	100	12-200-165
24-414 polypropylene cap, TOC cleaned only, no COA	NA	24-414	PTFE/silicone septa	NA	NA	72	12-200-164
Clear glass vial with closure, dust covers (certified for <20 ppb for TOC)	1.35 (40)	24-414	PTFE/silicone septa	1.083 x 3.740	27.50 x 95.00	72	5005721113
Amber glass vial with closure, dust covers (certified for <10 ppb for TOC)	1.35 (40)	24-414	PTFE/silicone septa	1.083 x 3.740	27.50 x 95.00	144	12-200-166
Clear glass vial with closure, dust covers (certified for <20 ppb for TOC)	1.35 (40)	24-414	PTFE/silicone septa	1.083 x 3.740	27.50 x 95.00	144	5005721114
Clear glass vial with closure, dust covers (certified for <10 ppb for TOC)	1.35 (40)	24-414	PTFE/silicone septa	1.083 x 3.740	27.50 x 95.00	144	12-100-370
Clear glass vial (certified for <10 ppb for TOC)	1.35 (40)	24-414	PTFE/silicone septa	1.125 x 3.75	28.58 x 95.25	72	12-100-250
Amber glass Boston round bottle with closed-top closure (certified for <20 ppb TOC)	4 (125)	22-400	PTFE/silicone	1.875 x 4.375	47.63 x 111.13	12	12-100-375
Amber glass Boston round bottle with open-top polypropylene closure (certified for <20 ppb TOC)	8 (250)	24-414	PTFE/silicone septa	2.359 x 5.368	59.92 x 136.35	12	12-100-374
Clear glass Boston round bottle with open-top polypropylene closure (certified for <20 ppb TOC)	8 (250)	24-414	PTFE/silicone septa	2.359 x 5.368	59.92 x 136.35	24	12-100-373
Clear glass Boston round bottle with closed-top closure (certified for <20 ppb TOC)	32 (1,000)	33-400	PTFE	3.797 x 8.531	96.44 x 216.69	12	12-100-403
Amber glass Boston round bottle with closed-top closure (certified for <20 ppb TOC)	32 (1,000)	33-430	PTFE	3.797 x 8.531	96.44 x 216.69	12	12-100-136

Total Organic Carbon Water

Thermo Scientific™ high-purity specialty water is low in organic and inorganic impurities at the time of packaging.

Processing includes reverse osmosis, activated carbon, and ultraviolet TOC reduction. Certified to down to 50 ppb. Use for sample and standard dilutions, lab blank determination, and equipment rinsing.

Key features

- Exceeds 17 megaohm resistivity
- Filtered through 0.1 micron hydrophobic membrane filters

Applications

- Sample and standards dilution
- Lab blank determination
- Equipment rinsing



Total Organic Carbon Water

Description	Capacity, oz (mL)	Closure size, mm	Liner	OD x H, in. (mm)	No. per case	Cat. No.
Amber glass bottle with closure (filled)	32 (1,000)	33-430	PTFE/ silicone	3.70 x 8.10 (93.98 x 205.74)	12	5005728194
Amber jug with closure (filled)	128 (4,000)	38-430	PTFE/ silicone	6.25 x 13.25 (158.75 x 36.55)	4	12-100-350

Depyrogenated Glass Containers

Thermo Scientific™ Depyrogenated Glass Containers are specially prepared to meet endotoxin levels of 0.06 EU/mL. Reduce the need to invest in expensive capital equipment with ready-to-use depyrogenated glassware in a wide variety of sizes and configurations.

Key features

- Cleaning and packaging performed in our Class 100/10 clean room
- Endotoxin levels surpass USP Water for Injection (0.25 EU/mL)
- Certificate of Analysis provided



Applications

- Packaging and storing articles that will be terminally sterilized
- Storage of laboratory reagents and media
- Sample storage
- Water sampling

Depyrogenated Glass Containers

Description	Capacity, oz. (mL)	Closure size, mm	Liner	OD x H, in.	OD x H, mm	Quantity	Cat. No.
Clear glass vial with urea closure	0.12 (4)	13-425	PTFE	0.583 x 1.772	14.8 x 45.00	72	12-200-121
Clear glass vial with closed-top black polypropylene closure	0.68 (20)	24-400	PTFE/silicone	1.083 x 2.244	27.50 x 57.00	72	12-100-006
Clear glass wide-mouth straight-side jar with closure	2 (60)	53-400	PTFE	2.2 x 1.9	55.88 x 48.26	24	12-100-380
Amber glass wide-mouth jar with closure	2 (60)	33-400	PTFE	1.75 x 2.968	44.45 x 75.39	24	12-100-382
Amber glass wide-mouth straight-side short jar with closure	4 (125)	58-400	PTFE	2.25 x 2.75	57.15 x 69.85	24	12-200-112
Clear glass wide-mouth straight-side short jar with closure	4 (125)	58-400	PTFE	2.359 x 2.702	59.92 x 68.63	24	12-100-381
Clear glass wide-mouth tall jar with closure	4 (125)	48-400	PTFE	2.00 x 4.00	50.80 x 101.60	24	12-200-113
Amber glass wide-mouth packer bottle with closure	4 (125)	38-400	PTFE	2.125 x 3.75	53.98 x 95.25	24	12-100-383
Amber glass wide-mouth packer bottle with closure	8 (250)	45-400	PTFE	2.563 x 4.688	65.100 x 119.075	12	12-200-105
Amber glass wide-mouth straight-side jar	8 (250)	70-400	PTFE	2.875 x 3.5	73.03 x 88.90	24	12-100-004
Clear glass wide-mouth straight-side jar	8 (250)	70-400	PTFE	2.875 x 3.5	73.03 x 88.90	24	12-200-114
Amber glass wide-mouth packer bottle with closure	16 (500)	53-400	PTFE	3.172 x 5.75	80.57 x 146.05	12	12-200-107
Clear glass wide-mouth straight-side jar	16 (500)	89-400	PTFE	3.578 x 3.781	98.87 x 90.88	12	12-200-158
Amber glass wide-mouth packer bottle with closure	32 (1,000)	53-400	PTFE	3.89 x 7.00	98.81 x 177.8	12	12-200-108
Clear glass wide-mouth bottle with closure	32 (1,000)	89-400	PTFE	3.75 x 6.687	95.25 x 169.85	12	12-200-115
Amber glass wide-mouth packer bottle with closure	40 (1,200)	70-400	PTFE	7.500 x 4.125	190.50 x 104.78	24	12-200-109
Clear glass wide-mouth bottle	64 (2,000)	83-400	PTFE	5.00 x 8.50	127.00 x 215.90	6	12-100-379
Amber glass wide-mouth packer bottle with closure	84 (2,500)	70-400	PTFE	5.50 x 9.375	139.70 x 238.13	4	12-200-110
Clear glass wide-mouth bottle	128 (4,000)	110-400	PTFE	6.145 x 9.953	156.08 x 252.81	4	12-100-378

Depyrogenated Sterile Vials

Thermo Scientific™ Depyrogenated Sterile Vials are available in sizes from 1 mL to 100 mL. Sterile vials are Type 1 borosilicate, assembled with butyl stoppers and aluminum seals.

Key features

- Suitable for the same applications as Depyrogenated Glass Containers, but where an aseptic protocol is required
- Certificate of Sterility and Pyrogen Test included with each lot



Depyrogenated Sterile Vials

Description	Capacity, oz (mL)	Closure size, mm	Closure liner	OD x H, in.	OD x H, mm	Quantity	Cat. No.
Clear glass vial preassembled with stopper and aluminum crimp seal	0.068 (2)	13	Butyl rubber stopper	0.63 x 1.378	16 x 35	100	12-200-148
Amber glass vial preassembled with stopper and aluminum crimp seal	0.068 (2)	13	Butyl rubber stopper	0.63 x 1.378	16 x 35	100	12-200-149
Clear glass vial preassembled with stopper and aluminum crimp seal	0.17 (5)	13	Butyl rubber stopper	0.594 x 2.00	15.09 x 50.80	50	12-200-152
Clear glass vial preassembled with stopper and aluminum crimp seal	0.17 (5)	20	Butyl rubber stopper	0.781 x 1.50	19.84 x 38.10	50	12-200-153
Amber glass vial preassembled with stopper and aluminum crimp seal	0.17 (5)	20	Butyl rubber stopper	0.781 x 1.50	19.84 x 38.10	50	12-200-154
Clear glass vial preassembled with stopper and aluminum crimp seal	0.34 (10)	20	Butyl rubber stopper	0.813 x 2.00	20.65 x 50.80	50	5005728350
Amber glass vial preassembled with stopper and aluminum crimp seal	0.34 (10)	20	Butyl rubber stopper	0.813 x 2.00	20.65 x 50.80	50	12-200-146
Clear glass vial preassembled with stopper and aluminum crimp seal	0.68 (20)	20	Butyl rubber stopper	0.969 x 2.313	24.61 x 58.75	50	12-200-147
Clear glass vial preassembled with stopper and aluminum crimp seal	1.014 (30)	20	Butyl rubber stopper	1.313 x 2.50	33.35 x 63.50	50	12-200-150
Amber glass vial preassembled with stopper and aluminum crimp seal	1.014 (30)	20	Butyl rubber stopper	1.313 x 2.50	33.35 x 63.50	50	12-200-134
Clear glass vial preassembled with stopper and aluminum crimp seal	1.7 (50)	20	Butyl rubber stopper	1.50 x 2.688	38.1 x 68.28	50	12-200-151
Amber glass vial preassembled with stopper and aluminum crimp seal	1.7 (50)	20	Butyl rubber stopper	1.50 x 2.688	38.1 x 68.28	50	12-200-135
Clear glass vial preassembled with stopper and aluminum crimp seal	3.4 (100)	20	Butyl rubber stopper	1.75 x 3.75	44.45 x 95.25	50	12-200-145
Amber glass vial preassembled with stopper and aluminum crimp seal	3.4 (100)	20	Butyl rubber stopper	1.75 x 3.75	44.45 x 95.25	50	12-200-132

Silanized Glassware Products

Deactivated sites on the surface of the glass allow for maximum recovery of trace analytes. The Thermo Scientific™ line of ready-to-use silanized vials and culture tubes save valuable time and minimize costs when performing quantitative analysis or storing materials. Use for trace organic analysis, processing of materials prone to glass adhesion, or extraction glassware needs.

Key features

- Barrier coating provides protection against alkalinization of stored materials
- Save valuable personnel time and minimize waste costs
- Certificate of conformance included



Silanized Glassware Products

Description	Capacity, oz (mL)	Closure size, mm	Liner	OD x H, in.	OD x H, mm	Quantity	Cat. No.
Amber glass vial with screw-thread closure	0.068 (2)	8-425	PTFE/silicone	0.472 x 1.26	11.99 x 32.00	100	12-200-126
Clear glass vial with closed-top closure	0.068 (2)	8-425	PTFE	0.472 x 1.26	11.99 x 32.00	100	12-200-128
Amber glass vial with closed-top closure	0.068 (2)	8-425	PTFE	0.472 x 1.26	11.99 x 32.00	100	12-200-129
Amber glass vial with closure	0.12 (4)	13-425	PTFE/foam	0.583 x 1.772	14.80 x 45.00	100	12-200-124
Amber glass vial with closed-top closure	0.12 (4)	13-425	PTFE	0.583 x 1.772	14.80 x 45.00	100	12-200-127
Clear glass vial with closed-top closure	0.12 (4)	13-425	PTFE	0.583 x 1.772	14.80 x 45.00	100	12-200-130
Amber glass vial with closure	0.27 (8)	15-425	PTFE/foam	0.669 x 2.362	16.99 x 59.99	100	12-200-125
Amber glass vial with solid closed-top septa closure	0.68 (20)	24-414	PTFE/silicone	1.083 x 2.244	27.50 x 57.00	72	12-200-122
Clear glass vial with solid closed-top septa closure	0.68 (20)	24-414	PTFE/silicone	1.083 x 2.244	27.50 x 57.00	72	12-200-123
Amber glass Boston round bottle with black closure	32 (1,000)	33-430	PTFE	3.797 x 8.531	96.44 x 216.69	12	12-200-120
Amber glass vial with solid closed-top septa closure	0.68 (20)	24-414	PTFE/silicone	1.083 x 2.244	27.51 x 57.00	72	12-200-122
Amber glass Boston round bottle with black closure	32 (1,000)	33-430	PTFE/silicone	3.70 X 8.10	93.98 x 205.74	12	12-200-120

Silanized Disposable Culture Tubes, Type 1 borosilicate glass*

Clear glass culture tubes 12 x 75 (closures are not included)	0.20 (6)	NA	NA	0.47 x 2.95	12 x 75	1,000	12-100-384
Screw-thread glass tube 13 x 100 (closures are not included)	0.27 (8)	13-415	NA	0.51 x 3.94	13 x 100	1,000	12-100-386
Clear glass culture tubes 13 x 100 (closures are not included)	0.34 (10)	NA	NA	0.51 x 3.94	13 x 100	1,000	12-100-385
Screw-thread glass tube 16 x 100 (closures are not included)	0.41 (12)	16-415	NA	0.63 x 3.94	16 x 100	1,000	12-100-387
Clear glass culture tubes 16 x 100 (closures are not included)	0.51 (15)	NA	NA	0.63 x 3.94	16 x 100	1,000	12-100-388
Screw-thread glass tube 16 x 125 (closures are not included)	0.54 (16)	16-415	NA	0.63 x 4.92	16 x 125	1,000	12-100-390
Clear glass culture tubes 16 x 125 (closures are not included)	0.64 (19)	NA	NA	0.63 x 4.92	16 x 125	1,000	12-100-389

* Type 1 borosilicate glass tubes sold 1,000 per case, 250 per inner pack.

Adherent cell culture

Nunc Cell Factory systems and accessories

When it comes to producing consistent-quality vaccines and biologics designed to improve and save lives, nobody can do it alone. We have the hands-on expertise to help you accelerate productivity and ease the burden of regulatory compliance. With a comprehensive range of adherent cell production and storage solutions, a global supply chain, and commitment to service and support, we're with you every step of the way.

Perfect your cell culture processes at every stage, from research and process development to large-scale biomanufacturing. The quality of our Thermo Scientific™ Nunc™ production cell culture platforms, including Nunc Cell Factory™ systems and Nunc™ roller bottles, reflects the rigorous standards that have made us the world's leading provider of cell culture products.

Cell Factory systems and accessories

Scale up production of vaccines, monoclonal antibodies, or pharmaceuticals. Nunc Cell Factory systems are compact, multilayer, single-use adherent cell culture systems designed to meet the needs of scale-up and production of your products.

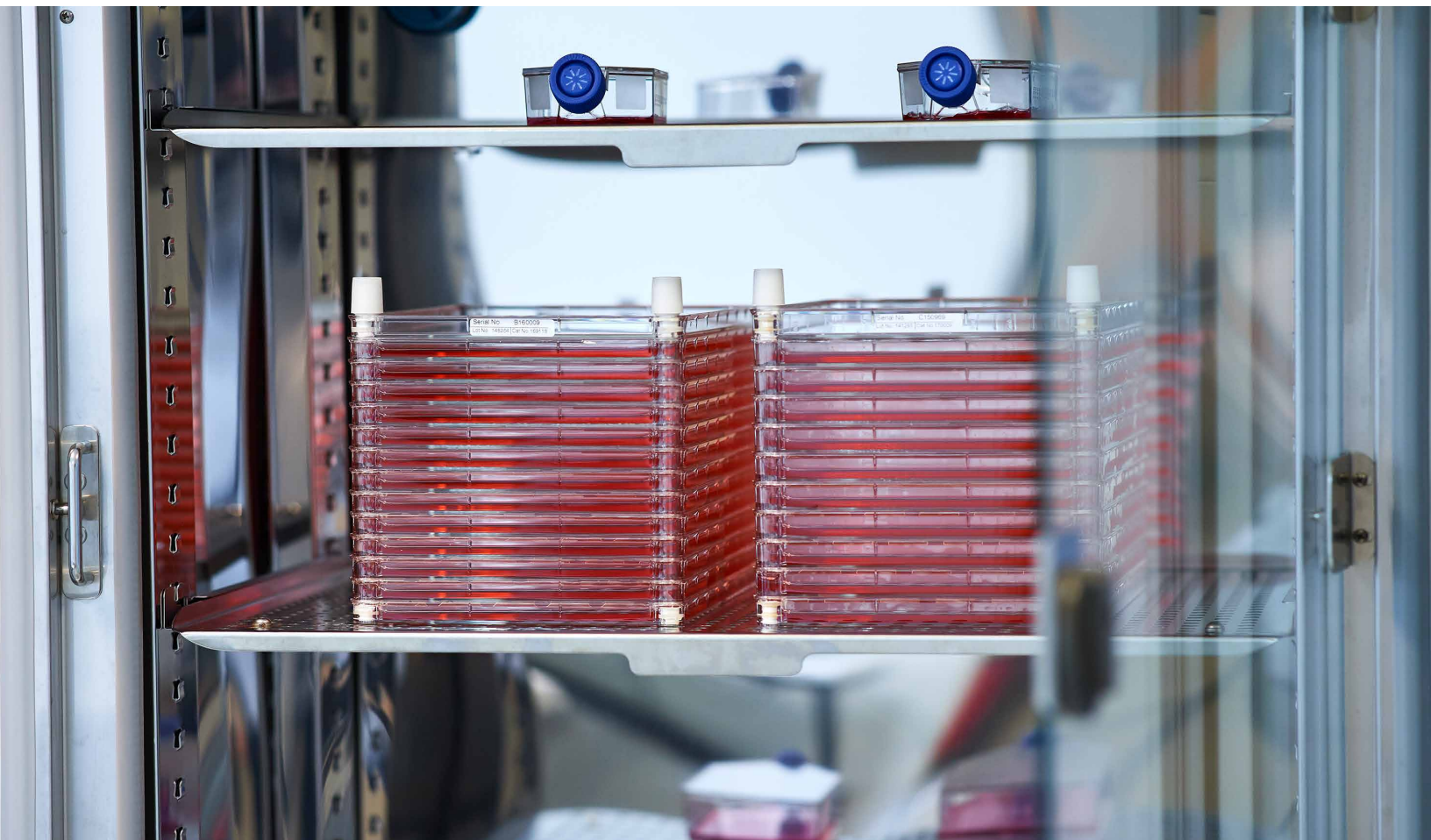
Cell Factory automation equipment

Supports the use of aseptic methods for fluid handling relating to filling, inoculation, feeding, and harvesting of the Nunc Cell Factory system. These accessories enable the further development of applications requiring a more closed cell culture system, reducing the number of open interventions.

Roller bottles

Developed for applications such as industrial-scale production of vaccines, monoclonal antibodies, and biotherapeutics, Nunc roller bottles provide the reliability that you demand for all your cell growth needs.

We offer an unmatched portfolio of Nunc roller bottles. The choice is yours with options available in both polystyrene (PS) and polyethylene terephthalate (PETG) with smooth and expanded surface formats, enabling you to find the optimal substrate for your cell culture.



Nunc High-Density Cell Factory systems

Thermo Scientific™ Nunc™ High-Density Cell Factory™ systems offer 30% more surface area and yield* than the standard Cell Factory system or similar multitray systems for adherent cell culture. The economic benefits of these high-density systems are immediate with impacts across many functions of an organization, as they enable end users to optimize their manufacturing footprint, reduce labor and material usage, and increase cell culture yield.

Key features

- **Increase yield**—30% more surface area and yield* all within the standard Cell Factory system footprint
- **Enhance productivity**—increase labor and handling efficiencies by achieving more output in a single process
- **Improve process economics**—increase manufacturing capacity without capital investment
- **Seize environmental opportunities**—consume less and reduce your decontamination and waste disposal costs
- **Maintain current protocols**—constructed of polystyrene chambers and assembled without use of adhesives or solvents



* The increase in yield may vary depending on the type of cells cultured.

Nunc High-Density Cell Factory systems, Nunclon Delta surface, polystyrene, sterile

No. of layers	Culture area, cm ²	Nominal dimensions L x W x H mm (in.)	No. per pack	No. per case	Cat. No.
3	1,896	333 x 204 x 54 (13.1 x 8.0 x 2.1)	1	4	12-565-752
13	8,216	333 x 204 x 186 (13.1 x 8.0 x 7.3)	1	3	12-565-751
52	32,864	333 x 204 x 698 (13.1 x 8.0 x 27.5)	1	1	12-565-750

Nunc Standard Cell Factory systems

The Thermo Scientific™ Nunc™ Standard Cell Factory™ system is the proven solution for large-scale production of cells, vaccines, and therapeutic proteins—with the same growth kinetics as laboratory-scale cell culture products.

Available in 1-, 2-, 4-, 10-, and 40-tray versions, the ports of the standard Cell Factory system make it easy to customize and create a closed system with the use of custom tubing assemblies that facilitate venting, filling, and harvesting.

Key features

- Constructed of polystyrene and assembled without use of adhesives or solvents
- Ideal for adherent cells
- Boost production efficiency with more surface area in a small footprint
- Reduce contamination risks with a closed system
- Experience faster results and lot-to-lot consistency
- Certified Thermo Scientific™ Nunc™ Nunclon™ Delta surface ensures consistent growth, layer to layer



Nunc Standard Cell Factory systems

No. of layers	Culture area, cm ²	No. per pack	No. per case	Cat. No.
1	632	1	8	12-565-37
2	1,264	1	6	12-565-38
4	2,528	1	10	12-565-90
10	6,320	1	2	12-565-39
10	6,320	1	6	12-565-40
40	25,280	1	2	12-565-289

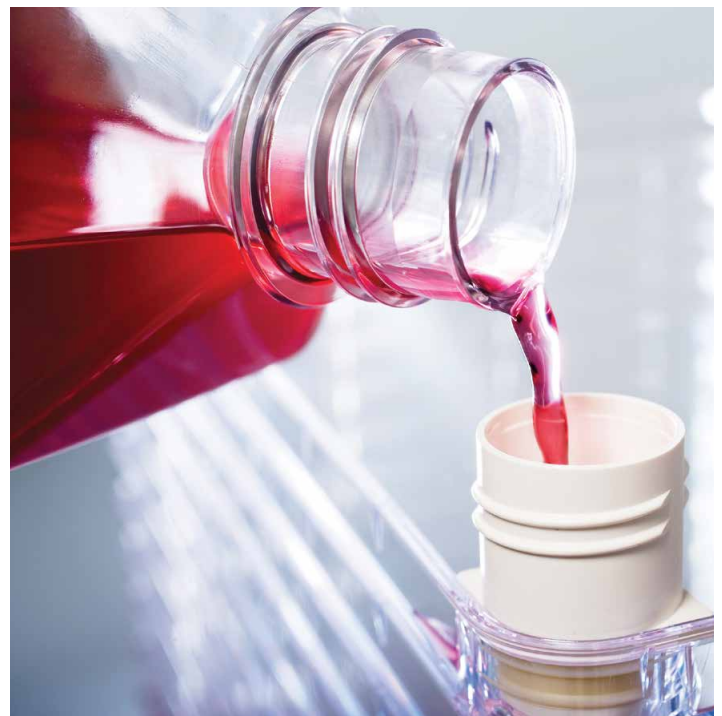
Nunc EasyFill Cell Factory systems

The Thermo Scientific™ Nunc™ EasyFill™ Cell Factory™ system is a single-use system with a large, vented screw closure and versatile port design for pouring and aseptic filling.

To get started, simply pour the media directly into the large opening of the EasyFill Cell Factory system. The linear, multilayer format promotes easy scalability and is ideal for both research and commercial-scale cell culture applications.

Key features

- Constructed of polystyrene and assembled without use of adhesives or solvents
- Save valuable space; each 10-layer system holds the equivalent of 36 T-175 flasks
- Enhance productivity with 5x faster fill and empty times compared to T-175 flasks
- Achieve fast start-up; no accessories required with Nunc EasyFill Cell Factory systems
- Certified Nunc Nunclon Delta surface ensures consistent growth layer to layer, lot to lot



Nunc EasyFill Cell Factory systems

No. of layers	Culture area, cm ²	No. per pack	No. per case	Cat. No.
1	632	1	6	12-567-300
2	1,264	1	6	12-567-301
4	2,528	1	4	12-567-302
10	6,320	1	2	12-567-303
10	6,320	1	6	12-565-022

Nunc Cell Factory accessories

Thermo Scientific™ Nunc™ Cell Factory™ accessories support the use of aseptic methods for fluid handling relating to filling, inoculation, feeding, and harvesting procedures of the Nunc Cell Factory system. These accessories enable the further development of applications requiring a more closed cell culture system, reducing the number of open interventions.

Key features

- Connect media bag or tubing set to any Nunc Cell Factory system for enhanced aseptic connectivity for filling and harvesting
- Prevent buildup of back pressure during filling
- Venting options provide additional air venting when filling and harvesting by gravity or with a peristaltic pump



Cat. No.	12-566-340	147074	12-566-342	12-566-346	12-567-219	12-567-220
Description	Nunc EasyFill replacement vent caps	Nunc EasyFill vent/close cap	1.0 µm air vent filter assembly	0.22 µm air vent filter assembly	Tubing set with female MPC connector	Feed tubing set with male MPC connector
Material	HDPE	HDPE	HDPE closure	HDPE closure	–	–
Gamma irradiated	Yes	Yes	Yes	Yes	Yes	Yes
Units per packs/case	1/10	1/100	1/2	1/2	1/2	1/2
System compatibility	Nunc EasyFill	Nunc EasyFill	Nunc EasyFill	Nunc EasyFill	All	All

* Includes HDPE connector (Cat. No. 171840), white Tyvek filter adaptor cap (Cat. No. 167525), port cover caps (Cat. No. 170615), tubing clamp, and 2 m silicone tubing. Clamp and tubing not sold separately.



Cat. No.	12-566-956	12-565-1191	167525	12-565-1193	12-566-132
Description	Nunc Cell Factory connector	Nunc Cell Factory connector (autoclavable)	White Tyvek filter adaptor cap	Port cover cap, blue	Individual 1.0 µm air vent filter
Material	PC	FEP	HDPE	HDPE	–
Gamma irradiated	No	No	Yes	Yes	Yes
Units per pack/case	10/10	2/2	1/20	2/40	1/10
System compatibility	All	All	All	All	All

Nunc PS Roller Bottles

Thermo Scientific™ Nunc™ PS Roller Bottles provide reliability and reproducibility necessary for laboratory- and industrial-scale applications, including vaccines, cell culture expansion, and the production of other biologics. Minimize validation of cell culture scale-up processes from plates to flasks to roller bottles by choosing a family of products that utilize polystyrene materials.

Key features

- Constructed of polystyrene with high-density polyethylene closures
- One-piece seamless design reduces possibility of leaking through a seam
- Shallow and deep indents at bottom make the roller bottle excellent for both manual and automated handling
- Noncytotoxic; USP <87>, USP Class VI, and USP <85> endotoxin compliance
- Vertical pleat orientation facilitates emptying and reduces retention of product
- Roller bottles are cell culture treated for consistent, reliable cell attachment
- Gamma sterilized to 10⁻⁶ SAL



Nunc PS Roller Bottles

Description	Surface area, cm ²	No. per pack	No. per case	Cat. No.
Roller bottle, smooth surface, vented	850	2	20	12-565-685
		20	20	12-565-686
Roller bottle, smooth surface	850	20	20	12-565-687
		20	20, double bagged	12-565-688
EZ roller bottle, smooth surface, shallow indent, vented	850	2	20	12-565-689
EZ roller bottle, smooth surface, deep indent, vented	850	2	20	12-565-690
EZ roller bottle, smooth surface, deep indent	850	20	20	12-565-681
		20	20, double bagged	12-565-682
Roller bottle, pleated surface, vented	1,450	20	20, double bagged	12-565-683
Roller bottle, pleated surface	1,450	20	20	12-565-684
		20	20, double bagged	12-565-699

Replacement closures for Nunc TufRol Roller Bottles

Description	Material	No. per pack	No. per case	Cat. No.
Vented closures	HDPE	250	500	12-575-130
Easy on/off closures	HDPE	250	500	12-575-131



Nunc PETG Roller Bottles

Thermo Scientific™ Nunc™ PETG Roller Bottles increase cell expansion and product yield without the need to purchase additional production equipment or increase labor.

For laboratory- and industrial-scale applications including vaccines, cell culture expansion, and the production of other biologics.

Key features

- Molded of durable, virtually unbreakable PETG, offering the safest roller bottle solution on the market today
- Can be frozen down to -40°C ; supports freeze/thaw cell release methods, reducing reliance on trypsin
- Gamma sterilized to 10^{-6} SAL
- Quick-action HDPE ergonomic closure reduces wrist strain and increases productivity
- Noncytotoxic; USP <87>, USP Class VI, and USP <85> endotoxin compliance



Nunc PETG Roller Bottles

Description	Surface area, cm^2	No. per pack	No. per case	Cat. No.
Roller bottle, smooth surface	1,050	5	20	12-565-526
		20	20	12-565-527
Roller bottle, smooth surface, vented	1,050	5	20	12-5575-120
Roller bottle, pleated surface	1,700	20	20	12-565-528
Roller bottle, smooth surface	1,800	22	22	12-565-529
Roller bottle, pleated surface	2,100	5	20	12-565-530
		20	20	12-565-531
Roller bottle, pleated surface	4,200	22	22	12-565-532

Nalgene PC Magnetic Culture Vessel

Thermo Scientific™ Nalgene™ Magnetic Culture Vessels are designed for efficient top-to-bottom mixing at low speeds.

Lightweight and break-resistant, these vessels are excellent for use on magnetic stir plates. Two magnetic stir bars are included—small for bacteria and large for mammalian cells.

Key features

- Polypropylene closures
- Includes two ports for easy access to cultures
- Magnetic stir bar keeps cells suspended at low stirring speeds, minimizing shear
- Adjustable impeller height supports process modifications
- Molded of lightweight and durable PC; safer than glass alternatives
- TFE stir bar, polypropylene/TFE stirring assembly



Nalgene PC Magnetic Culture Vessel

Working capacity, L	No. of ports	No. per case	Cat. No.
1	2 x 38-430	1	03-409-9K

Nalgene PC Culture Vessel with Ports

Thermo Scientific™ Nalgene™ Culture Vessels feature four ports supporting easy access to your suspension cultures. Economical, lightweight, and break-resistant.

Key features

- Molded of transparent PC for easy viewing of your cultures
- White polypropylene closures
- Graduated in 0.5 L increments from 3 to 12 L
- Use with overhead drive mixers and lower assemblies for top-to-bottom mixing
- Port accessories are available; ports accept any Thermo Scientific™ Nalgene™ 38-430 size closure
- Noncytotoxic, autoclavable, and USP Class VI-compliant



Nalgene PC Culture Vessel with Ports

Working capacity, L	No. of ports	No. per case	Cat. No.
12	4 x 38-430	1	03-409-9H

Nalgene PP Probe Adapter Closure

Thermo Scientific™ Nalgene™ Probe Adapter Closures allow for insertion of 7 to 14 mm diameter probes into Nalgene culture vessels and bottles with 38-430 neck finishes.

Provides controlled access to the interior of culture vessels.

Key features

- Molded of autoclavable PP; ready for in-house sterilization
- Includes a silicone gasket to ensure a leakproof seal
- Allows insertion of 7 mm to 14 mm diameter probes into 1 L and 12 L culture vessels
- Ideal for use with any Nalgene bottle or culture vessel with a 38-430 neck finish



Nalgene PP Probe Adapter Closure

Description	No. per case	Cat. No.
38-430 probe adapter closure	2	02-923-21

Nalgene PP Closures with Barbed Bulkhead Fittings

Thermo Scientific™ Nalgene™ PP Closures with Barbed Bulkhead Fittings support the integration of tubing sets with Nalgene culture vessels. Promotes the customization of Nalgene culture vessels for aseptic transfer of liquids.

Key features

- Size 38-430 closures are predrilled, allowing for easy, safe in-house assembly
- Barbed bulkhead fittings also sold separately (Cat. No. 15-315-1 and 15-315-2)
- Molded of autoclavable PP, ready for in-house sterilization



Nalgene PP Closures with Barbed Bulkhead Fittings

Description	No. per case	Cat. No.
38-430 closure with 1/2 in. OD barbed fitting	4	02-923-14W
38-430 closure with 1/4 in. OD barbed fitting	4	02-923-14X

Nalgene Magnetic Carboy Stirrer

Thermo Scientific™ Nalgene™ Magnetic Carboy Stirrer is used with Nalgene 10 L and 20 L carboys for low-speed mixing of high volumes of media and buffer solution.

Adjusts easily to fit either a 10 L or 20 L Nalgene carboy with an 83B closure. Supplied with a closure and two impellers. Eliminates the need to retrieve magnets from your solution.

Key features

- Polyvinylidene fluoride with stainless steel–reinforced shaft, TFE stir bar, impeller, and polypropylene screw closure
- Provides low-speed mixing of high volumes of media and buffer solution
- Fits 10 L or 20 L Nalgene carboys with 83B closure
- For use with a magnetic stir plate (not included)
- Autoclavable

Nalgene Magnetic Carboy Stirrer

Length, mm	No. per case	Cat. No.
588	1	14-511-220



Specifications

Closure size, mm	83B
Shaft OD	13 mm
Shaft length	588 mm
Stir bar diameter	13 mm
Stir bar length	75 mm

Nalgene Autoclavable Septum Closures

Thermo Scientific™ Nalgene™ Autoclavable Septum Closures allow aseptic injection of reagent or sample withdrawal without compromising sterility or integrity of contents. Suitable for use with any bottle or container with 38-430 neck, including Nalgene culture vessels.

Key features

- Use with 18-gauge or smaller needles for aseptic injection of reagent or sample withdrawal without compromising sterility or integrity of contents
- Thermoplastic elastomer
- Autoclavable

Note: For laboratory use only; not for in vitro diagnosis or parenterals.

Nalgene Autoclavable Septum Closures

Description	No. per case	Cat. No.
38-430 autoclavable septum closures	12	02-923-20



Storage and transport solutions

Durable and built for performance

Our portfolio of rigid support containers is designed to hold BPCs and tank liners for internal or transportation needs. Outer support containers are available that can support both functions, and options for short- or long-term uses for critical or noncritical applications.

Our portfolio of reusable support containers accommodates a range of functionalities and chamber dimensions. The interaction between the BPC and the outer container system is important in simple liquid-handling applications, where the BPC system is not shipped, and becomes even more critical when transportation takes place. We offer plastic and stainless steel options to suit your storage and transport needs.

- **Plastic**—useful for internal and transportation applications. Top drain only and top- and bottom-drain, high-density polyethylene cylindrical drums from 50 to 300 L. Regular and cylindrical tanks are also available in HDPE, LLPDE and PP in sizes ranging from 75 L to 757 L.

Outer support containers fulfill two primary needs

- **In-process/internal unit operations**—We offer a range of Thermo Scientific™ drums and industry-standard cylindrical tanks to help you process liquid preparation and storage and take care of your storage and collection and waste collection needs.
- **Transport**—large-volume liquid shipping Thermo Scientific drums

Selecting BPCs and the correct support containers

There are multiple design considerations depending on your needs:

- **Application**—storage, mixing, waste collection, or shipping
- **Batch size, filling, and emptying**—determines the volume and port size
- **Number of process steps**—determines the number of ports and their location
- **Location of process step**—consider clean room-ready containers for clean room operations

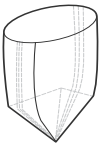
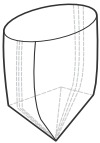
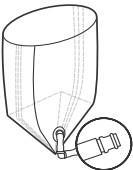
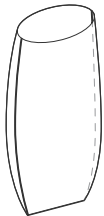
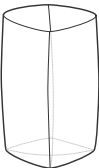
Open-top tank liner key features

- Thermo Scientific™ tank liners are designed for use with commercially available overhead mixers (not supplied)
- Removes the need for tank cleaning and helps reduce cycle times.
- Supplied gamma-irradiated to minimize bioburden

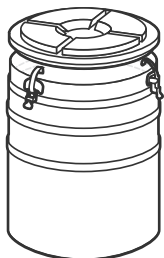


Thermo Scientific open-top tank liners

Open-top tank liner specifications

Description	Size	Outer containers Cat. No.	Tank liner Cat. No.
Top-drain, for use with Thermo Scientific drums			
 <p>0 ports</p>	50 L	SV5007602	CX3-9 SH3064701
	100 L	SV5007603	CX3-9 SH3064702
	200 L	SV5007604	CX3-9 SH3064703
Top-drain, for use with cylindrical tanks			
 <p>0 ports</p>	50 L	11100-0015	CX3-9 SH3064704
Top- and bottom-drain			
 <p>Line 1: MPX insert, polycarbonate C-Flex™ tubing, length: 182.9 cm (72 in.) ID x OD: 12.7 x 19.1 mm (0.5 x 0.75 in.)</p>	50 L	SV50517.04	CX3-9 SH3064601
	100 L	SV50517.05	CX3-9 SH3064602
	200 L	SV50517.06	CX3-9 SH3064603
2D pillow-style			
 <p>These 2D (pillow-style) tank liners are available as a simple and low-cost solution. A single BPC will accommodate a variety of tank sizes.</p>	50 L	11100-0015	ASI 26 B100048I
	130 L	11100-0030	ASI 26 B100038I
	200 L	11100-0055	ASI 26 B100037I
	340 L	11100-0080	ASI 26 B100049I
	400 L	11100-0100	ASI 26 B100050I
	560 L	11100-0150	ASI 26 B100051I
3D pillow-style			
 <p>The 3D liners are available and sized for specific totes. This seamless design offers a more streamlined fit, eliminating pooling areas or “pleats”.</p>	50 L	11100-0015	ASI 26 B100364I
	100 L	11100-0030	ASI 26 B100373I
	200 L	11100-0055	ASI 26 B100363I
	300 L	11100-0080	ASI 26 B101459I
	560 L	11100-0150	ASI 26 B101460I

Flat-bottom LLDPE drum, top dispense, with clamps



Size	Dimensions (D x H)	Cat. No.
50 L	45 x 53 cm (19.25 x 21.75 in.)	SV5007602
100 L	45 x 79 cm (19.25 x 35 in.)	SV5007603
200 L	59 x 93 cm (23.5 x 36.75 in.)	SV5007604

Nalgene Tank Liners

Thermo Scientific™ Nalgene™ Coex Polyethylene Film Tank Liners feature an open-bag, flat-bottom design to enhance your mixing capabilities.

Ideal for single-use, biopharmaceutical, and diagnostic reagent fluid processing using rigid Nalgene cylindrical plastic tanks. Available in sizes ranging from 5 gal to 200 gal (19 L to 757 L).

Key features

- Designed specifically to fit Nalgene cylindrical tanks from 5 gal to 200 gal (19 L to 757 L)
- Gamma irradiated, noncytotoxic, and certified nonpyrogenic
- Coex polyethylene film is free of animal-derived components



Nalgene Tank Liners

Capacity, gal (L)	Fits Nalgene Tank Cat. No.	No. per pack	No. per case	Cat. No.
5 (19)	11100-0005	1	10	02-540-610
	11200-0005			
	54100-0005			
7.5 (28)	11100-0007	1	10	02-540-611
	11200-0007			
	54100-0007			
10 (38)	11100-0010	1	10	02-540-612
	11200-0010			
	54100-0010			
15 (57)	11100-0015	1	10	02-540-613
	11200-0015			
	54100-0015			
30 (113)	11100-0030	1	10	02-540-614
	11200-0030			
	54100-0030			
55 (208)	11100-0055	1	10	02-540-615
	11200-0030			
	54100-0055			
80 (303)	11100-0080	1	10	02-540-616
100 (378)	11100-0100	1	10	02-540-617
150 (568)	11100-0150	1	10	02-540-618
200 (757)	11100-0200	1	10	02-540-619

Nalgene Cylindrical PP Tank with Cover

Thermo Scientific™ Nalgene™ Cylindrical PP Tanks are autoclavable and available in a variety of sizes to meet application needs.

Key features

- Seamless construction for easy cleaning
- Offers excellent stress-crack resistance
- Economical alternative to stainless steel tanks
- Includes matching cover that significantly reduces evaporation and contamination

Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.



Nalgene Cylindrical PP Tank with Cover

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
5 (19)	11 x 15 (28 x 38)	1	14-831-100
7.5 (28)	12 x 18 (30 x 46)	1	14-831-101
10 (38)	13 x 20 (33 x 51)	1	14-831-102
15 (57)	14 x 28 (36 x 71)	1	14-831-332E
30 (113)	18 x 30 (46 x 76)	1	14-831-104
55 (208)	22 x 36 (56 x 91)	1	14-831-105
100 (378)	28 x 44 (71 x 112)	1	14-831-108

Nalgene Lightweight Graduated Cylindrical LLDPE Tank with Cover

Thermo Scientific™ Nalgene™ Lightweight LLDPE tanks are an economical solution for less rigorous applications.

Key features

Seamless construction for easy cleaning

- Offers excellent stress-crack resistance
- Economical alternative to stainless steel tanks
- Includes matching cover that significantly reduces evaporation and contamination

Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.



Nalgene Lightweight Graduated Cylindrical LLDPE Tank with Cover

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
5 (19)	11 x 15 (28 x 38)	1	14-834-29A
7.5 (28)	12 x 18 (30 x 46)	1	14-834-29B
10 (38)	13 x 20 (33 x 51)	1	14-834-29C
15 (57)	14 x 28 (36 x 71)	1	14-834-29D
30 (113)	18 x 30 (46 x 76)	1	14-834-29E
55 (208)	22 x 36 (56 x 91)	1	14-834-29F

Nalgene Lightweight Cylindrical LLDPE Tank with Cover and Spigot

Thermo Scientific™ Nalgene™ Lightweight Cylindrical LLDPE tanks with installed spigots are an economical solution for less rigorous applications.

These tanks offer the same characteristics as the Nalgene 54100 tank series with a spigot installed for dispensing.

Key features

- Seamless construction for easy cleaning
- Offers excellent stress-crack resistance
- Economical alternative to stainless steel tanks
- Includes matching cover that significantly reduces evaporation and contamination
- Equipped with Thermo Scientific™ Nalgene™ Needle Spigot (Cat. No. 96423) for dispensing

Compatible products: Thermo Scientific™ Nalgene™ Spigots for Storage Tanks (Cat. No. 6421-0010).

Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.



Nalgene Lightweight Cylindrical LLDPE Tank with Cover and Spigot

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
5 (19)	11 x 15 (28 x 38)	1	14-834-31A
7.5 (28)	12 x 18 (30 x 46)	1	14-834-31B
10 (38)	13 x 20 (33 x 51)	1	14-834-31C
15 (57)	14 x 28 (36 x 71)	1	14-834-31D
30 (113)	18 x 30 (46 x 76)	1	14-834-31E
55 (208)	22 x 36 (56 x 91)	1	14-834-31F

Nalgene Heavy-Duty Cylindrical LLDPE Tank with Cover

Thermo Scientific™ Nalgene™ Heavy-Duty Cylindrical LLDPE tanks are rigid, seamless tanks offered in a variety of sizes to meet your application needs.

Key features

- Features rigid walls for maximum strength and durability
- Molded of LLDPE offering increased chemical and temperature resistance
- Includes matching cover that significantly reduces evaporation and contamination

Compatible products: Nalgene Tank Liners
(Cat. No. 343050 series)

Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.



Nalgene Heavy-Duty Cylindrical LLDPE Tank with Cover

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
5 (19)	11 x 15 (28 x 38)	1	14-831-310A
7.5 (28)	12 x 18 (32 x 46)	1	14-831-310E
10 (38)	13 x 20 (33 x 51)	1	14-831-310F
15 (57)	14 x 28 (36 x 71)	1	14-831-310B
30 (113)	19 x 30 (48 x 76)	1	14-831-310C
55 (208)	22 x 36 (56 x 91)	1	14-831-310D
80 (303)	24 x 48 (61 x 122)	1	14-831-310G
100 (378)	28 x 44 (71 x 112)	1	14-831-310H
150 (568)	32 x 49 (81 x 124)	1	14-831-332A
200 (757)	37 x 51 (94 x 130)	1	14-831-332B

Nalgene Heavy-Duty Cylindrical LLDPE Tank with Spigot

Thermo Scientific™ Nalgene™ Heavy-Duty Cylindrical LLDPE Tanks are offered with a needle-type spigot for easy dispensing.

Key features

- Factory-installed spigot accepts 5/8 in. ID tubing
- Features rigid walls for maximum strength and durability
- Seamless construction for easy cleaning
- Molded of LLDPE offering increased chemical and temperature resistance
- Includes matching cover that significantly reduces evaporation and contamination

Compatible products: Nalgene Spigot for Storage Tanks (Cat. No. 6421-0010).

Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.



Nalgene Heavy-Duty Cylindrical LLDPE Tank with Spigot

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
5 (19)	11 x 15 (28 x 38)	1	14-831-312A
7.5 (28)	12 x 18 (30 x 46)	1	14-831-312B
10 (38)	13 x 20 (33 x 51)	1	14-831-312C
15 (57)	14 x 28 (36 x 71)	1	14-831-312D
30 (113)	19 x 30 (48 x 76)	1	14-831-312E
55 (208)	22 x 36 (56 x 91)	1	14-831-312F

Nalgene Rectangular PP Tank with Cover

Thermo Scientific™ Nalgene™ Rectangular PP Tanks are autoclavable and available in a variety of sizes to meet your application needs.

Key features

- Seamless construction for easy cleaning
- Suitable for use with many organic chemicals
- Offers excellent stress-crack resistance
- Includes matching cover that significantly reduces evaporation and contamination



Nalgene Rectangular PP Tank with Cover

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
2 (8)	8 x 8 x 9 (20 x 20 x 23)	1	14-831-110
5 (20)	10 x 10 x 14 (25 x 25 x 36)	1	14-831-111
8 (30)	12 x 12 x 14 (30 x 30 x 36)	1	14-831-112
10 (38)	18 x 13 x 14 (46 x 33 x 36)	1	14-831-113
13 (50)	24 x 12 x 13 (61 x 30 x 33)	1	14-831-114
32 (120)	24 x 18 x 20 (61 x 45 x 51)	1	14-831-115

Nalgene Heavy-Duty Rectangular LLDPE Tank with Cover

Thermo Scientific™ Nalgene™ Heavy-Duty Rectangular LLDPE Tanks are versatile, economical alternatives to stainless steel tanks.

Key features

- Seamless construction for easy cleaning
- Stepped flange provides drip containment and grip for lifting
- Includes matching cover that significantly reduces evaporation and contamination
- Molded of LLDPE offering increased chemical and temperature resistance



Note: All Nalgene tanks used at elevated temperatures or with liquids of high specific gravity should be externally supported.

Caution: Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater, and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.

Nalgene Heavy-Duty Rectangular LLDPE Tank with Cover

Capacity, gal (L)	Nominal OD x H, in. (cm)	No. per case	Cat. No.
2 (8)	8 x 8 x 9 (20 x 20 x 23)	1	14-831-330H
5 (20)	15 x 10 x 11 (38 x 25 x 28)	1	14-831-330J
8 (30)	12 x 12 x 14 (30 x 30 x 36)	1	14-831-330A
10 (38)	18 x 13 x 14 (46 x 33 x 36)	1	14-831-330B
13 (50)	18 x 13 x 20 (46 x 33 x 51)	1	14-831-330K
16 (60)	24 x 13 x 13 (61 x 33 x 33)	1	14-831-330C
32 (120)	24 x 18 x 20 (61 x 46 x 51)	1	14-831-330D
40 (160)	24 x 18 x 25 (61 x 46 x 64)	1	14-831-330R

Nalgene Closed-Dome PP Tanks

Thermo Scientific™ Nalgene™ Closed-Dome PP Tanks with white PP closure are an excellent choice for reagent storage, aseptic mixing, and dispensing.

Autoclavable and offered in a variety of sizes to meet application needs.

Key features

- Designed for use as a closed-containment system
- Includes 150 mm gasketed screw closure, greatly reducing evaporation and contamination
- Domed bottoms offer good drainage
- Mounting flats accept bulkhead fittings up to 2 in.
- Graduated in liters and gallons

Compliance: Comply with FDA Reg. 177.1520 and USP Class VI.



Nalgene Closed-Dome PP Tanks

Capacity, gal (L)	Nominal OD x H, in. (cm)*	No. per case	Cat. No.
20 (76)	17 x 32 (42 x 79)	1	14-831-124
30 (114)	18 x 39 (47 x 99)	1	14-831-122
55 (210)	22 x 44 (57 x 112)	1	14-831-123
100 (380)	29 x 52 (72 x 132)	1	14-831-116

* Height measurement includes closure.

Nalgene Closed-Dome Bio Tank Closure with Mixer Support Assembly

Thermo Scientific™ Nalgene™ Closed-Dome Bio Tank Closure with Mixer Support Assembly is for use with all sizes of Nalgene closed-dome tanks.

Unique sanitary flange assembly allows overhead mixing in a closed system.

Key features

- 6 in. (15.2 cm) PP screw closure with a 2 in. (5.1 cm) sanitary ferrule welded in the center
- 2 in. (5.1 cm) silicone gasket and a PDVF true-union clamp
- Autoclavable
- Mixer not included



Compatible products:

Nalgene Closed-Dome Tanks
(Cat. No. 2650 series).

Nalgene Closed-Dome Bio Tank Closure with Mixer Support Assembly

Closure size, mm (in.)	Material	No. per pack	No. per case	Cat. No.
15.2 (6)	Polypropylene, PVDF, silicone	1	1	14-831-311M

Nalgene Spigots for Storage Tanks

Thermo Scientific™ Nalgene™ Spigots for Storage Tanks are used for safe and efficient liquid dispensing. For use only with Nalgene tanks up to 100 gal with factory-installed threaded boss.

Key features

- Includes two PTFE O-rings that provide positive seal

Note: Make sure container and spigot have compatible chemical resistance before installing.



Nalgene Spigots for Storage Tanks

Fitting	No. per pack	No. per case	Cat. No.
Polypropylene			
1 1/2 in. x 12 female screw thread	12	12	02-963-7A
Low-density polyethylene			
19 mm NPT male thread	6	6	02-963-7B
12.7 mm NPT male thread	6	6	02-963-7C

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