

Single-use technologies

Storage and transport containers

Plastic and stainless steel solutions

thermo scientific

Storage and transport solutions

Use Thermo Scientific[™] single-use systems to store and transport process liquids, buffers, media, and bulk drug precursors

Thermo Scientific[™] rigid support containers hold closed-system Thermo Scientific[™] BioProcess Containers (BPCs) and open-top tank liners for harvest and storage, or process liquid transportation.

These reusable support containers accommodate a variety of sizes and processes:

- **Plastic**—for in-house and transportation applications
 - Top-drain only and top- and bottom-drain, high-density polyethylene (HDPE) cylindrical drums
 - Square or rectangular polypropylene (PP) containers
 - Cylindrical, PP, linear low-density polyethylene (LLDPE) tanks
- Stainless steel—Thermo Scientific[™] HyPerforma[™] Smartainer[™] II systems are used for in-house, large-volume liquid handling operations and range from 100 to 2,000 L

Outer support containers for both production processes and transportation

• In-process/internal unit operations-

HyPerforma Smartainer II systems, plastic rigid outer support containers and drums, and Thermo Scientific[™] Nalgene[™] cylindrical tanks are used with closed-system BPCs and open-top tank liners for process liquid preparation, storage, and waste collection needs

• **Transport**—large-volume liquid shipping including plastic square and rectangular support containers and cylindrical drums

Selecting BPCs and support containers

Multiple design considerations help determine the ideal container solution for your process 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—ready-to-use containers for clean room operations



Drums

Drums provide a qualified shipping system for BPCs.

Key features

- Bottom- and top-drain options with a locking lid
- Multiuse for shipping and storage applications
- Rugged LLDPE construction
- Ergonomic design for ease of use
- Matching dolly available for mobility
- 50 L to 250 L size options available

BPC options

- Standard BPCs available in Thermo Scientific[™] CX5-14 and Aegis[™] 5-14 films
- Custom BPCs available in Thermo Scientific[™] ASI[™] 26/77 films
- Standard tank liners available in Thermo Scientific[™] CX3-9 and ASI 26 films



Drum specifications

	Description	Size	Dimensions (D x H)	Cat. No.
	Flat-bottom linear LLDPE drum, top dispense, with clamps	50 L	45 x 53 cm (18 x 21 in.)	<u>SV50076.02</u>
		100 L	45 x 79 cm (18 x 31 in.)	<u>SV50076.03</u>
		200 L	59 x 93 cm (23 x 36 in.)	<u>SV50076.04</u>
	Conical LLDPE drum, 1 port, size: 4.5 cm (1.77 in.) with clamps	50 L	60 x 58 cm (24 x 23 in.)	<u>SV50517.04</u>
		100 L	60 x 76 cm (24 x 30 in.)	<u>SV50517.05</u>
		200 L	60 x 114 cm (24 x 45 in.)	<u>SV50517.06</u>
	Conical LLDPE drum, 1 port, size: 5.1 cm (2 in.) with clamps	250 L	60 x 133.4 cm (24 x 53 in.)	SV50517.40
	Conical LLDPE drum, 1 port, size: 10.2 cm (4 in.) with clamps; use support plate	50 L	60 x 58 cm (24 x 23 in.)	<u>SV50517.08</u>
		100 L	60 x 76 cm (24 x 30 in.)	<u>SV50517.09</u>
		200 L	60 x 114 cm (24 x 45 in.)	<u>SV50517.10</u>
		250 L	60 x 133.4 cm (24 x 53 in.)	SV50517.41
	Plastic drum dolly	50 L 100 L 200 L	62 x 18 cm (23 x 7 in.)	<u>SV50029.03</u>

Cylindrical tanks

Nalgene cylindrical tanks are convenient, cost-effective containers for BPCs, media, chemical, and waste storage. Cylindrical tanks are not qualified as shipping containers.

Key features

- Low-cost option
- LLDPE and PP construction
- Top-drain access only for in-house use
- 19 L to 757 L options available

BPC options

- Standard BPCs available in CX5-14 and ASI 26/77 films
- Standard open-top tank liners available in CX3-9 film, ASI 26 film, and Coex polyethylene films



Cylindrical tank specifications

Description	Size	Dimensions (D x H)	Cat. No.
Cylindrical, heavy-duty, flat-bottom, LLDPE tank with lid, top dispense	19 L	28 x 38 cm (11 x 15 in.)	<u>11100-0005</u>
	57 L	33 x 69 cm (13 x 27 in.)	<u>11100-0015</u>
	113 L	46 x 76 cm (18 x 30 in.)	<u>11100-0030</u>
	208 L	56 x 91 cm (22 x 36 in.)	<u>11100-0055</u>
	303 L	61 x 122 cm (24 x 48 in.)	<u>11100-0080</u>
	378 L	71 x 112 cm (28 x 44 in.)	<u>11100-0100</u>
	568 L	79 x 124 cm (31 x 49 in.)	<u>11100-0150</u>
Plastic drum dolly	50, 100, 200 L	62 x 18 cm (23.38 x 7.13 in.)	<u>SV50029.03</u>

Plastic outer support containers

Thermo Scientific[™] outer support containers include rigid plastic vessels that support BPC products to help meet your large-volume liquid storage, handling, and transportation needs.

Key features

- Robust design and sturdy HDPE/acrylonitrile butadiene styrene (ABS) and PP construction permits multiple uses
- Collapsible walls fold down for easy storage when bins are not in use
- Easy stackable storage when either empty or full
- Bottom- and top-drain options are available
- Clean room units designed with smoother surfaces to help simplify clean-in-place operations
- Qualified for transportation

BPC options

- Standard BPCs available in CX5-14 and Aegis5-14 films
- Custom BPCs available in ASI 26/77 film



Plastic outer support container specifications

Size	Outer dimensions (W x D x H)	Dispensing and material	Cat. No.	
250 L	81 x 61 x 97 cm (32 x 24 x 38 in.)	Top and bottom, PP	SV50139.15	
500 L	120 x 80 x 104 cm (47 x 32 x 41 in.)	Top and bottom, ABS/HDPE	SV50139.12	
600 L	116 x 116 x 96 cm (46 x 46 x 39 in.)	Top and bottom, PP	SV50139.11	
1,000 L	116 x 116 x 129 cm (46 x 46 x 51 in.)	Top and bottom, PP	SV50139.06	
Stainless steel carts				
250 L	82 x 62 cm (32 x 24 in.)	Stainless steel	SV50139.17	
500 L	122 x 81 cm (48 x 32 in.)	Stainless steel	SV50139.13	
600 L 1,000 L	116 x 116 cm (46 x 46 in.)	Stainless steel	SV50139.16	

HyPerforma Smartainer II systems

HyPerforma Smartainer II systems are durable outer support containers for BPCs that are used for in-house, large-volume liquid handling operations.

Key features

- Simple and economical containers constructed with 304 stainless steel
- HyPerforma Smartainer systems are designed to allow both top and bottom discharge from BPCs
- Modular system with optional accessories for mobility and BPC handling
- BPCs are constructed of Aegis5-14 and CX5-14 films with dimensions optimized for HyPerforma Smartainer systems
- Catalog (non-jacketed) configurations are available in unit volumes of 100, 200, 500, 1,000, 1,500, 2,000, 2,500, and 3,000 L
- For applications requiring heating or cooling of process liquids, jacketed HyPerforma Smartainer systems are available as custom products



HyPerforma Smartainer stainless steel outer container specifications

Size	Outer dimensions (W x D x H)	Inner dimensions (W x D x H)	Cat. No.
200 L	79 x 60 x 79 cm (31 x 24 x 31 in.)	73 x 53 x 58 cm (29 x 21 x 23 in.)	<u>SV50160.01</u>
500 L	121 x 79 x 97 cm (48 x 31 x 38 in.)	114 x 74 x 75 cm (45 x 29 x 29 in.)	<u>SV50160.02</u>
1,000 L	121 x 98 x 135 cm (48 x 39 x 53 in.)	114 x 91 x 115 cm (45 x 36 x 45 in.)	<u>SV50160.03</u>
1,500 L	121 x 98 x 175 cm (48 x 39 x 69 in.)	114 x 91 x 152 cm (45 x 36 x 60 in.)	<u>SV50160.04</u>
2,000 L	121 x 98 x 224 cm (48 x 39 x 88 in.)	114 x 91 x 200 cm (45 x 36 x 79 in.)	<u>SV50160.05</u>

Note: For 2,500 L and 3,000 L HyPerforma Smartainer II systems, please contact your sales representative.

HyPerforma Smartainer and jacketed HyPerforma Smartainer system components

- 1. HyPerforma Smartainer or jacketed HyPerforma Smartainer system—specially designed stainless steel container to support BPCs
- 2. BPC hoist (optional)—assists in handling and loading the BPC into the HyPerforma Smartainer or jacketed HyPerforma Smartainer system
- 3. Tray assembly (optional)—conveniently holds dispense pumps, tube welders, and other items
- 4. Cart (optional)—assists in moving the HyPerforma Smartainer or jacketed HyPerforma Smartainer system short distances over smooth and level surfaces

Note: Components above vary based on selected configuration.

Thermo Scientific[™] 3D Productainer[™] BPC for HyPerforma Smartainer systems

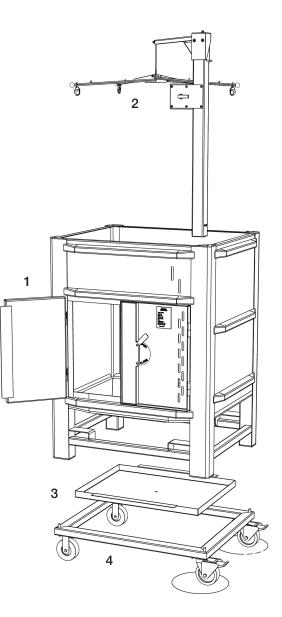
- Catalog BPC configurations are available in unit volumes of 100, 200, 500, 1,000, 1,500, and 2,000 L
- BPCs are constructed from Aegis5-14 and CX5-14 film with dimensions optimized for HyPerforma Smartainer systems

HyPerforma Smartainer BPC ordering information-5 ports

Size	Cat. No.		
	Smartainer system	Aegis5-14 film	CX5-14 film
500 L	<u>SV50160.02</u>	<u>SH30969.04</u>	<u>SH30652.04</u>
1,000 L	<u>SV50160.03</u>	<u>SH30969.05</u>	<u>SH30652.05</u>
1,500 L	<u>SV50160.04</u>	<u>SH30969.06</u>	<u>SH30652.06</u>
2,000 L	<u>SV50160.05</u>	<u>SH30652.08</u>	<u>SH30969.08</u>

HyPerforma Smartainer BPC ordering information-3 ports

Size	Cat. No.			
	Smartainer system	Aegis5-14 film	CX5-14 film	
100 L	<u>SV50160.01</u>	<u>SH31047.01</u>	<u>SH30717.01</u>	
200 L	<u>SV50160.01</u>	<u>SH31047.02</u>	<u>SH30717.02</u>	
500 L	<u>SV50160.02</u>	<u>SH31047.03</u>	<u>SH30717.03</u>	





Nalgene bottles, carboys, and tanks

The Thermo Scientific[™] Nalgene[™] low and ultralow particulate storage portfolio enables you to choose the appropriate product quality for your application. The tiered portfolio offers customers benefits from:

- Low particulates—USP <788> compliance reduces the chance of contamination, decreasing potential loss of high-value contents
- Improved packaging—triple-layer packaging facilitates ease of entry into clean room environments
- Sterile and ready-to-use containers—reduced need for validation, washing, packaging, and sterilization; saves resources

Bottles and carboys

Designed specifically for the storage and transport of active pharmaceutical ingredients and bulk intermediates, Nalgene low and ultralow particulate production bottles and carboys offer leakproof storage for sensitive liquids, buffers, media, and more.* They are available in PC, PETG, PP, LDPE, and HDPE, and in volumes ranging from 30 mL to 50 L. Extensive regulatory documentation helps assure that the products meet your demanding biotechnology requirements and reduces the time and cost to implement them in your process.

Closed-dome PP tanks

Thermo Scientific[™] Nalgene[™] Closed-Dome PP Tanks are designed to store, mix, and dispense reagents in a closed containment system. Offered in sizes ranging from 75 to 380 L, tanks feature a 150 mm neck opening fitted with a gasketed closure for secure sealing.

Key features

- Tanks may be fitted with spigots
- Autoclavable PP tanks and closures

* 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 under use with our required specifications at ambient temperature and pressure when used with their corresponding closures, when handled properly and secured by the user properly. However, to ensure safe usage, customers are advised to test our containers and closures under conditions of their planned application. Please contact **technicalsupport@thermofisher.com** if you need additional information about our products.

Learn more at thermofisher.com/sutstoragetransport

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