HyPerforma Smartainer 3.0 systems

Large-volume stainless steel support containers for single-use BioProcess Containers (BPCs)

Thermo Scientific™ HyPerforma™ Smartainer™ 3.0 systems are stainless steel support containers used for in-house, large-volume, liquid-handling operations. These systems have an updated design and offer multiple sizes up to 3,000 L.

Key features

- Containers constructed with 304 stainless steel

- Designed to allow bottom draining from Thermo Scientific™ BPCs

- Modular system with optional accessories for increased mobility and BPC handling

- Non-jacketed outer container systems are available in unit volumes of 200, 500, 1,000, 1,500, 2,000, 2,500, and 3,000 L

- Jacketed versions are available in all sizes, for applications where heating or cooling are required

BPC options

- Catalog BPC configurations are available in unit volumes of 200, 500, 1,000, 1,500, 2,000, 2,500, and 3,000 L

- BPCs are constructed from Thermo Scientific™ Aegis™ 5-14, CX5-14, and ASI™ 26/77 film with dimensions optimized for HyPerforma Smartainer systems
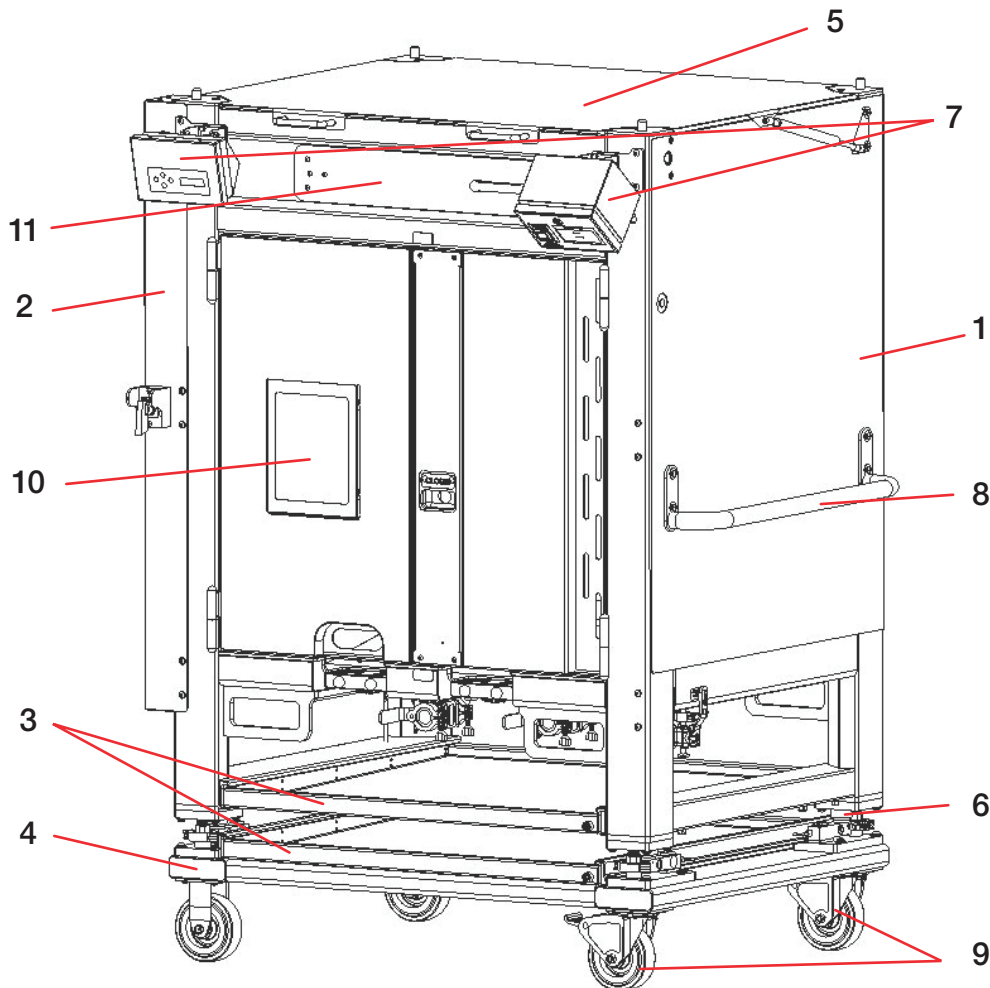
Applications

- Storing and in-house handling of process liquids

- Feeding media into bioreactors and buffers into purification systems

- Receiving and storing harvest from bioreactors

Note: Not intended for shipping applications.

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HyPerforma Smartainer 3.0 system components

1. **Jacketed or non-jacketed HyPerforma Smartainer 3.0 system**—supports BPCs by design.

2. **BPC hoist**—for handling and loading BPCs. Optional for the 500 L system, available options include a manual or pneumatic hoist (shown below) for the 1,000 L system, and pneumatic hoist only for larger sizes.

3. **Tray assembly**—holds dispense pumps, tube welders, and other items for convenient storage and access. It can be located on the cart or at the base of the HyPerforma Smartainer 3.0 system.

4. **Cart**—for moving empty HyPerforma Smartainer 3.0 systems over smooth and level surfaces within or between in-house storage or clean room areas. Available for vessels up to 1,000 L.

5. **Lid**—stainless steel lid, which help ensure protection of the BPC against light and physical damage. Options include insulated lid with pneumatic lift assist and noninsulated lid.

6. **Load cells**—integrated load cells on all sizes, which provide weight measurements for liquid inside the container.

7. **Display location**—load cell and temperature transmitters can be mounted on the left or right side of the HyPerforma Smartainer 3.0 system.

8. **Handle**—available on either the left or right side for vessels with a cart or casters, up to 1,000 L. Recommended for mobile units.

9. **Casters**—option available to mount units up to 1,000 L directly onto casters.

10. **Document holder**—for easy access to process control or production documents.

11. **Top port access cover**—helps ensure light protection and access to ports.

Note: Components above vary based on selected configuration.

1,000 L HyPerforma Smartainer 3.0 system

Specifications for the HyPerforma Smartainer stainless steel container

Size	Inner dimensions (L x W x H)	Outer dimensions (L x W x H)	HyPerforma Smartainer 3.0 system Cat. No.	
200 L	73.02 x 53.34 x 58.67 cm (28.75 x 21.0 x 23.1 in.)	83.18 x 63.5 x 106.04 cm (32.75 x 25.0 x 41.75 in.)	Non-jacketed	SBN0200.7001
		83.82 x 64.01 x 106.04 cm (33.0 x 25.2 x 41.75 in.)	Jacketed	SBN0200.7002
500 L	114.3 x 73.66 x 88.64 cm (45.0 x 29.0 x 34.9 in.)	124.46 x 83.82 x 125.73 cm (49 x 33.0 x 49.5 in.)	Non-jacketed	SBN0500.7001
		125.22 x 84.07 x 125.73 cm (49.3 x 33.1 x 49.5 in.)	Jacketed	SBN0500.7002
1,000 L	114.3 x 91.44 x 126.74 cm (45.0 x 36.0 x 49.9 in.)	124.46 x 101.6 x 163.83 cm (49.0 x 40.0 x 64.5 in.)	Non-jacketed	SBN1000.7001
		125.22 x 101.85 x 163.83 cm (49.3 x 40.1 x 64.5 in.)	Jacketed	SBN1000.7002
1,500 L	114.3 x 91.44 x 179.83 cm (45.0 x 36.0 x 70.8 in.)	124.46 x 101.6 x 214.63 cm (49.0 x 40.0 x 84.5 in.)	Non-jacketed	SBN1500.7001
		125.22 x 101.85 x 214.63 cm (49.3 x 40.1 x 84.5 in.)	Jacketed	SBN1500.7002
2,000 L	114.3 x 19.44 x 233.42 cm (45.0 x 36.0 x 91.9 in.)	124.46 x 101.6 x 267.33 cm (49.0 x 40.0 x 105.25 in.)	Non-jacketed	SBN2000.7001
		125.22 x 101.85 x 267.33 cm (49.3 x 40.1 x 105.25 in.)	Jacketed	SBN2000.7002
2,500 L	129.54 x 120.65 x 212.59 cm (51.0 x 47.5 x 83.7 in.)	139.7 x 130.81 x 247.01 cm (55.0 x 51.5 x 97.25 in.)	Non-jacketed	SBN2500.7001
		140.46 x 131.06 x 247.01 cm (55.3 x 51.6 x 97.25 in.)	Jacketed	SBN2500.7002
3,000 L	129.54 x 120.65 x 212.59 cm (51 x 47.5 x 97.7 in.)	139.7 x 130.81 x 282.57 cm (55.0 x 51.5 x 111.25 in.)	Non-jacketed	SBN3000.7001
		140.46 x 131.06 x 282.57 cm (55.3 x 51.6 x 111.25 in.)	Jacketed	SBN3000.7002

Note: Dimensions are provided for estimates only. Actual outer dimensions will vary depending on configuration selected.

Thermo Scientific™ 3D Productainer™ BPC for Smartainer 3.0 systems

8 ports (single pack)

Line 1

- 38.1 mm (1.5 in.) tri-clamp, polypropylene with C-Flex™ tubing

- Tubing length: 121.9 cm (48 in.), ID 12.7 mm (0.50 in.), OD 19.05 mm (0.75 in.)

Line 2

- 12.7 mm MPX insert, polycarbonate with C-Flex tubing

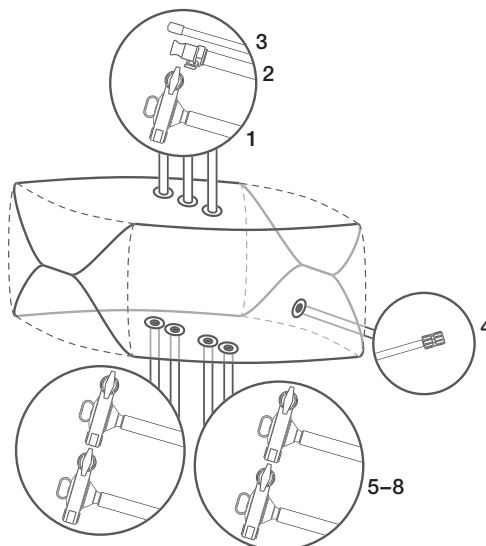- Tubing length: 121.9 cm (48 in.), ID 12.7 mm (0.50 in.), OD 19.05 mm (0.75 in.)

Line 3

- Luer lock body connection, polypropylene with C-Flex tubing

- Tubing length: 121.9 cm (48 in.), ID 6.4 mm (0.25 in.), OD 11.11 cm (0.44 in.)

Line 4

- Temperature probe, small-volume sampling insert, silicone

- Tubing length: 91.4 mm (36 in.), ID 3.18 mm (0.13 in.), OD 6.4 mm (0.25 in.)

Line 5, 6, 7, and 8

- 38.1 mm (1.5 in.) tri-clamp, polypropylene with C-Flex tubing

- Tubing length: 121.9 cm (48 in.), ID 25.4 mm (1 in.), OD 35.1 mm (1.38 in.), bottom ports

HyPerforma Smartainer BPC ordering information

Size	Cat. No.		
	Aegis5-14	CX5-14	ASI 26/77
200 L (horizontal gusseted)	SH31188.01	SH31058.01	SS00195-I
500 L (horizontal gusseted)	SH31188.02	SH31058.02	SS00196-I
500 L (vertical gusseted)	SH31188.03	SH31058.03	SS00197-I
1,000 L	SH31188.04	SH31058.04	SS00198-I
1,500 L	SH31188.05	SH31058.05	SS00199-I
2,000 L	SH31188.06	SH31058.06	SS00200-I
2,500 L	SH31188.07	SH31058.07	SS00201-I
3,000 L	SH31188.08	SH31058.08	SS00202-I

Presentation (as dry BPC systems)

Description	Details
Outer packaging	Supplied "flat-packed"—two polyethylene outer layers
Label	• Description • Product code • Lot number • Expiration date on outer packaging and shipping container
Sterilization	Irradiation inside outer packaging: • 25–40 kGy for BPCs produced in Logan, Utah and Cramlington, UK • 27.5–45 kGy for BPCs produced in Millersburg, Pennsylvania and Matamoros, Mexico
Shipping container	Durable cardboard carton
Documentation	Certificates of Analysis and Irradiation provided with each batch for delivery

Custom BPC options

Description	Details
Tubing type	C-Flex (animal origin free (AOF) in clear or white), silicone, PharMed™, or AdvantaFlex™
Tubing size	Specific lengths with ID 3.18–25.4 mm (0.13–1.0 in.), depending on type of tubing chosen
Connectors	• Luer: ID 3.18–6.35 mm (0.13–0.25 in.) • CPC quick-connect: ID 6.35–19 mm (0.25–0.75 in.) • Steam-in-place connector: ID 6.35–19 mm (0.25–0.75 in.) • Tri-clamp: ID 3.18–25.4 mm (0.13–1.0 in.) • Mini tri-clamp: ID 6.35–12.7 mm (0.25–0.5 in.) • Aseptic connection and aseptic disconnection devices
Others	• Needle-free sample port • Capsule filters
Dip tubes	• Optional 6.35–12.7 mm (0.25–0.5 in.) ID

Presentation of HyPerforma Smartainer systems

Description	Details
Label	Product will be labeled according to applicable requirements. • Product code • Capacity • Serial number
Shipping container	• Standard configurations are dependent on product's physical size. • Some are banded to a pallet, and shipped inside a completely closed wooden crate.
Documentation	• Data sheet • User's guide Note: All documentation is provided in electronic format.

Find out more at
thermofisher.com/sutstoragetransport

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