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Nunc EasyFill Cell Factory system

Proven, versatile, and easy to use

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Committed to reliability, performance, and productivity

The Thermo Scientific™ Nunc™ EasyFill™ Cell Factory™ portfolio is a robust and easy-to-use cell culture platform for applications in the production of human and animal vaccines, therapeutic proteins, cell therapy, and gene therapy.

To address the needs of your workflow, the portfolio offers the EasyFill and EasyFill-2 systems. The EasyFill-2 system contains dual large port openings to accommodate faster rates of emptying and filling and increased system aeration. Both systems feature our certified Thermo Scientific™ Nunclon™ Delta cell culture surface, which is available on most Nunc cell culture products to ensure consistent performance from lot to lot and from format to format. In addition, both systems come in multiple-train versions and are compatible with Cell Factory equipment to support process scale-up.

Key advantages

- **Proven platform**—adopted by global pharmaceutical companies to manufacture vaccines, and gene therapy and cell therapy products
- **No adhesive or solvent**—the Nunc Cell Factory system is constructed of polystyrene chambers and assembled with ultrasonic welded technology, which differs from competitor products that use glue substances
- **Adapt to your workflow**—for aseptic processes, direct plug-and-play port options enable you to optimize your process with confidence; versatile port design facilitates both pouring and aseptic filling techniques



Enhance workflow productivity

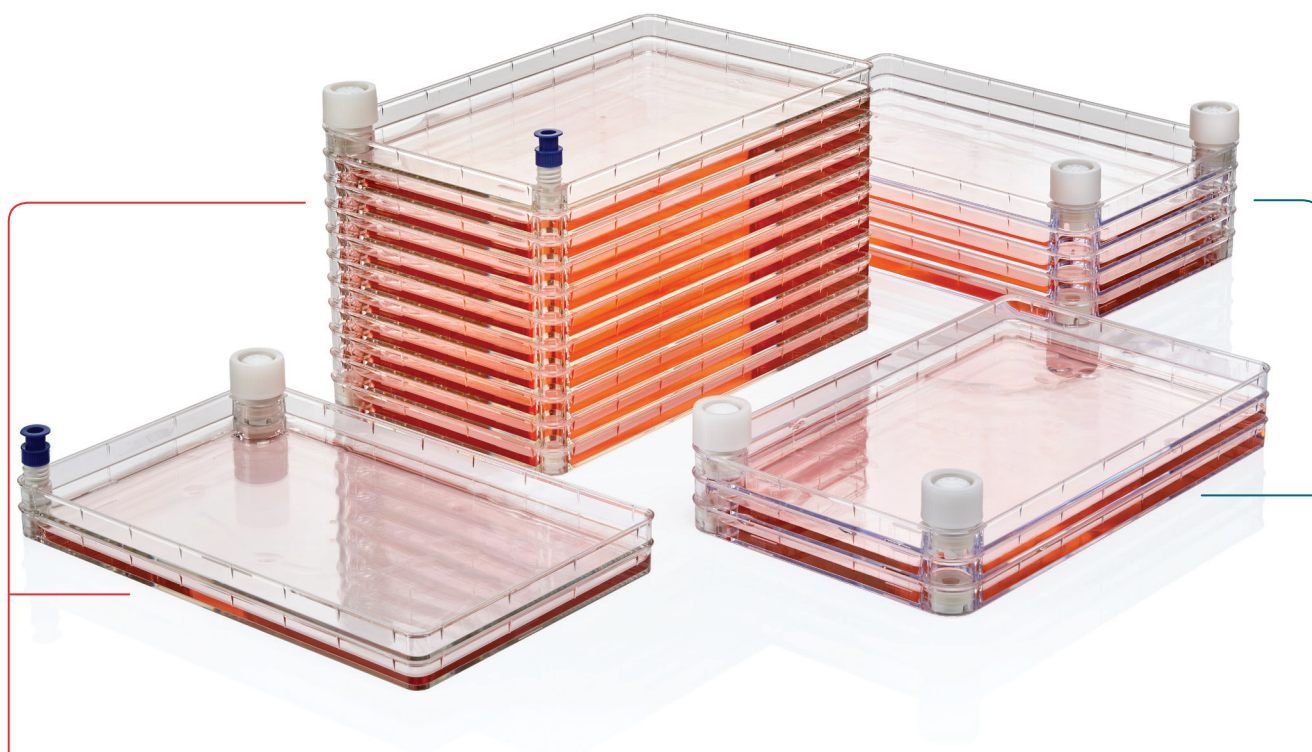
High quality and dependability

- Maximize cell and product yield, and enhance your workflow productivity—EasyFill systems come in 1-, 2-, 4-, 10-, and 40-tray versions; the cell culture surface area of one 10-layer Cell Factory unit is equivalent to the area of 36 T-175 flasks
- Obtain faster results and lot-to-lot consistency, as these systems have the same growth kinetics as laboratory-scale Nunc cell culture dishes and flasks
- Nunc Cell Factory systems are designed for a variety of biological and commercial applications, with a certified sterility assurance level of 10^{-6} achieved following ISO 11137-2 guidelines
- Nunclon Delta surface treatment for consistent performance from layer to layer and from lot to lot; our cell culture certification includes verification of monolayer formation and cloning efficiency using four different cell lines
- Configuration service to design and certify full Cell Factory assembly to meet your process needs
- Continuity and reliability of manufacturing to help ensure dependent supply chain
- EasyFill systems facilitate faster filling and emptying with a large opening design; fill and empty 5 times faster.

Benefits	EasyFill	EasyFill-2
Offered with 1, 2, 4, 10, and 40 layers	•	•
Reduced risk of pressure buildup with venting caps	•	•
Sterility by gamma irradiation and 100% inspection for particulates	•	•
Compatibility with Cell Factory equipment	•	•
Plug-and-play port for aseptic connections	•	•
Number of large ports to promote cell growth	1	2

Product specifications

The EasyFill and EasyFill-2 Cell Factory systems are constructed from the same raw materials, including the resin and components. The EasyFill Cell Factory system is manufactured at the Roskilde, Denmark site and the EasyFill-2 Cell Factory system is manufactured at the Suzhou, China site.



Nunc EasyFill Cell Factory systems specifications

Layer	Cell culture area	Nominal dimensions (L x W x H)	Qty pk/cs	Cat. No.
1	634 cm ²	335 x 205 x 36 mm	1/6	140000
2	1,268 cm ²	335 x 205 x 53 mm	1/6	140250
4	2,537 cm ²	335 x 205 x 87 mm	1/4	140360
10	6,342 cm ²	335 x 205 x 189 mm	1/2	140400
10	6,342 cm ²	335 x 205 x 189 mm	1/6	140410
40	25,368 cm ²	335 x 205 x 698 mm	1/2	140440

Accessories include:

- Port cover cap, blue (Cat. No. 17615)
- Replacement vent cap (Cat. No. 146008)

Nunc EasyFill-2 Cell Factory systems specifications

Layer	Cell culture area	Nominal dimensions (L x W x H)	Qty pk/cs	Cat. No.
1	631 cm ²	335 x 205 x 36 mm	1/6	169170
2	1,261 cm ²	335 x 205 x 53 mm	1/6	169171
4	2,523 cm ²	335 x 205 x 87 mm	1/4	169172
10	6,306 cm ²	335 x 205 x 189 mm	1/6	169173
40	25,225 cm ²	335 x 205 x 698 mm	1/2	169174

Accessories include:

- 2 replacement vent caps (Cat. No. 146008)
- 2 vent/close caps (Cat. No. 147074)

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

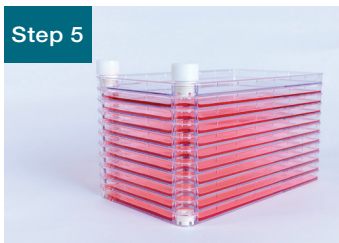
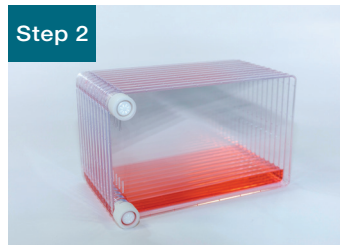
- Connect to a media bag or tubing set into any Cell Factory system for enhanced aseptic connectivity for filling and harvesting
- Prevent buildup of back pressure during filling
- Venting options provide additional air venting when filling and harvesting by gravity or with a peristaltic pump



Cat. No.	146008	147074	140067	140080	140815	140817
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	EasyFill and EasyFill-2	EasyFill and EasyFill-2	EasyFill and EasyFill-2	EasyFill and EasyFill-2	EasyFill only	EasyFill only



Cat. No.	140099	173250	167525	170615	179553
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	EasyFill only	EasyFill only	EasyFill only	EasyFill only	EasyFill only



EasyFill Cell Factory system—instructions for use

1. Pour the medium and cells directly into the system.
2. Before the equilibration step, it is helpful to replace the filter cap with vent/close cap to reduce risk of contamination. Equilibrate by placing the Cell Factory system on the side.
3. Turn the Cell Factory system 90°, so that the filling inlet is up. The medium will be distributed in equal amounts to each chamber.
4. Carefully tilt the Cell Factory system to a horizontal position. Handle the system by holding it by the sides; do not manipulate by holding the upper rim.
5. Incubate the cultures following an appropriate protocol.
6. Loosen the filter cap and remove the other cap. Empty the fluid directly into a reservoir.

How much medium, PBS, and trypsin do I use with my Nunc Cell Factory system?

Culturing in a Cell Factory system is as simple as culturing in a T-flask or dish. Seed the Cell Factory system with the same medium and at the same cell density as in a flask or dish. A volume of 150–200 mL per tray (2.4–3.2 mm depth) is commonly used. Simply identify the size of the Cell Factory system you are using in the table below, then use the suggested working volumes for each step of the cell culture process.

Nunc Cell Factory system	Seeding		Harvesting		
	Surface area	Volume of medium*	Phosphate-buffered saline (PBS), no Ca ²⁺ or Mg ²⁺	0.25% trypsin-EDTA	Medium for stopping cell dissociation (mL)
1-layer EasyFill and EasyFill-2	631 cm ²	150–200 mL	30–40 mL	20 mL	40 mL
2-layer EasyFill and EasyFill-2	1,261 cm ²	300–400 mL	60–80 mL	40 mL	80 mL
4-layer EasyFill and EasyFill-2	2,523 cm ²	600–800 mL	120–160 mL	80 mL	160 mL
10-layer EasyFill and EasyFill-2	6,306 cm ²	1,500–2,000 mL	300–400 mL	160 mL	400 mL
40-layer EasyFill and EasyFill-2	25,225 cm ²	6,000–8,000 mL	1,200–1,600 mL	800 mL	1,600 mL

* To ensure equal distribution of cells on each layer, cells should be added to the medium and mixed thoroughly prior to filling the Cell Factory system. Suggested volumes are based on the cultivation of Vero and MRC-5 cell lines. Some cell lines may require higher or lower volume.

Find out more at [thermofisher.com/cellfactory](https://www.thermofisher.com/cellfactory)

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