



Thermo Scientific Cryopreservation Equipment



Indefinite storage, infinite possibilities

Researchers worldwide protect more than two billion samples inside Thermo Scientific cold storage equipment.



With +4°C refrigerators to -196°C cryogenic freezers and Thermo Scientific Nalgene and Nunc consumables, you're free to concentrate on your work without having to worry about your valuable samples.

- **Thermo Scientific CryoMed** controlled-rate freezers prepare your samples prior to cryogenic storage, ensuring maximum viability
- **Thermo Scientific CryoPlus** LN₂ storage systems provide the ideal combination of liquid nitrogen storage reliability and microprocessor technology
- **Thermo Scientific dewars** offer cost-effective flexibility and portability
- A wide range of **accessories** including racks, consumables and safety alarms work with our storage systems, providing a comprehensive solution for long-term sample protection



Thermo Scientific Nalgene and Nunc cryogenic storage give you everything you need to safely store precious specimens, organize freezer space and simplify sample retrieval. Nalgene® and Nunc™ combine to provide one-stop shopping for the widest variety and highest quality of externally and internally threaded cryovials, storage boxes and lap top coolers.

Thermo Scientific Cryopreservation Equipment

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Thermo Scientific CryoMed Controlled-Rate Freezers



Our CryoMed freezers feature an integrated control system (consisting of freezing chamber, microprocessor control, and printer – all in one bench top unit), allowing multiple freezing profiles to be tailored to specific protocols. Freezer functionality is enhanced by a MS Windows®-based controlled-rate freezing interface software (included) that connects to your PC and external inkjet printer.

Easy Programming and Monitoring

- Chamber and sample temperatures and operation status are simultaneously displayed on a backlit LCD
- Chamber temperatures are monitored by a fixed-mount Type T thermocouple
- Sample temperature is monitored by Type T thermocouple with flexible cable (included)
- Pre-cool step automatically begins the temperature ramp when chamber and sample temperatures are equilibrated within 1°C
- Audible indicators alert operator when hold time has elapsed
- Continual operation if power outage lasts less than ten seconds; audible/visual alarm for outages lasting longer than ten seconds
- Modifiable access code for added security
- Six standard preset profiles and 10 user defined profiles (20 steps each) for customer-created profiles are standard. (Unlimited user defined profiles when operating through a PC).
- Preset profiles, which are suggested starting points for freezing protocols, can be copied and pasted easily to create new profiles. New profiles can be edited and named to meet your specific freezing protocol requirements.

Front- and top-access models are designed for human IVF and easy “seeding”



LN₂ Freezing System Components

- Intuitive control panel and integrated thermal printer
- Dual solenoid valves increase LN₂ injection volume for precise temperature control and accelerated freezing for optimum cell viability
- Specifically designed air handling system and patented liquid nitrogen injection ring work in tandem for precise temperature control and uniformity
- Overtemperature protection for heating element
- Specific models designed for human IVF use (510(k) number K021042)
- IVF chambers allow convenient top access for manual sample “seeding” applications

Construction

- Type 304 stainless-steel with exterior powder-coat finish
- Foamed in-place polyurethane insulation and Teflon® heat break minimizes cabinet condensation
- Bulb-style gaskets ensure tight door seal



Thermo Scientific CryoMed

Order Information

Product Name	CryoMed	CryoMed	CryoMed	CryoMed	CryoMed
Cat. No. (120V)	TF 7450	TF7452	TF7454	TF7456	TF7458
Cat. No. (220V)	11679073	11679074	11679075	11679076	11679077
Cat. No. (100V)	11679078	11679079	11679080	11679081	11679082
Selection Guide					
Application	Sample Preparation	Sample Preparation	Sample Preparation	Sample Preparation	Sample Preparation
Preparation Type	Controlled Rate Freezing	Controlled Rate Freezing	Controlled Rate Freezing	Controlled Rate Freezing	Controlled Rate Freezing
Chamber Volume	0.6 cu ft / 17 Liters	1.2 cu ft / 34 Liters	1.7 cu ft / 48.1 Liters	0.6 cu ft / 17 Liters	1.2 cu ft / 34 Liters
Access Type	Front Access	Front Access	Front Access	Front & Top Access IVF units	Front & Top Access IVF units
Temperature Range	50°C to -180°C	50°C to -180°C	50°C to -180°C	50°C to -180°C	50°C to -180°C
System Capability Specification					
Straw Rack	4	8	12	4*	8*
Number of straws per rack	40	40	40	40*	40*
Maximum number of straws	160	320	480	160*	320*
Cane Rack	1	1	1	1*	1*
Number of canes per rack	77	162	162	77*	162*
Maximum number of canes	77	162	162	77*	162*
Canister Rack Cord Blood	3	6	9	3*	6*
Number of canisters per cord blood rack	10	10	10	10*	10*
Maximum number of canisters for cord blood rack	30	60	90	30*	60*
Canister Rack Adjustable	N/A	2	2	N/A	2*
Number of canisters per adjustable rack	N/A	11	11	N/A	11*
Maximum number of canisters for adjustable	N/A	22	22	N/A	22*
Vial Rack Holder	1	1	1 & 1	1*	1*
Number of 1.2 & 2mL racks per holder	5	5	5	5*	5*
Number of 1.2 & 2mL vials per rack	76	161	237	76*	161*
Maximum number of 1.2 & 2mL vials	380	805	1,185	380*	805*
Number of 4 & 5mL racks per holder	3	3	3	3*	3*
Number of 4 & 5mL vials per rack	76	161	237	76*	161*
Maximum number of 4 & 5mL vials	228	483	711	228*	483*
Skin Rack 2 Level	1	2	3	1*	2*
Number of packets per 2 skin level rack	48	48	48	48*	48*
Maximum number of packets per 2 skin level rack	48	96	144	48*	96*
Skin Rack 1 Level	2	4	6	2*	4*
Number of packets per 2 skin level rack	24	24	24	24*	24*
Maximum number of packets per 2 skin level rack	48	96	144	48*	96*
Bag press Nexell R4R9953 (Fenwal 4R5461)	4	8	16	4*	8*
Number of bags Nexell R4R9953 (Fenwal 4R5461) per press	2	2	2	2*	2*
Maximum number of Nexell R4R9953 (Fenwal 4R5461) bags	8	16	32	8*	16*
Bag press Gambro DF-200	N/A	4	8	N/A	4*
Number of bags Gambro DF-200	N/A	2	2	N/A	2*
Maximum number of Gambro DF-200 bags	N/A	8	16	N/A	8*
Bag press Delmed 2030-2	N/A	4	8	N/A	4*
Number of bags Delmed 2030-2	N/A	4	4	N/A	4*
Maximum number of Delmed 2030-2 bags	N/A	16	32	N/A	16*

*These accessories can only be used when top loading cane vial and straw holders are not in use

Thermo Scientific CryoMed

Order Information

Product Name	CryoMed	CryoMed	CryoMed	CryoMed	CryoMed
Bag press Nexell R4R9953 (Fenwal 4R5461)	N/A	4	4	N/A	4*
Number of bags Nexell R4R9953 (Fenwal 4R5461)	N/A	4	4	N/A	4*
Maximum number of Nexell R4R9953 (Fenwal 4R5461) bags	N/A	16	16	N/A	16*
Bag press Gambro DF-200	N/A	4	8	N/A	4*
Number of bags Gambro DF-200	N/A	4	4	N/A	4*
Maximum number of Gambro DF-200 bags	N/A	16	32	N/A	16*
Bag press Gambro DF-700	N/A	4	8	N/A	4*
Number of bags Gambro DF-700	N/A	2	2	N/A	2*
Maximum number of Gambro DF-700 bags	N/A	8	16	N/A	8*
Bag press Nexell R4R9955 (Fenwal 4R5462)	4	8	12	4*	8*
Number of bags Nexell R4R9955 (Fenwal 4R5462)	2	2	2	2*	2*
Maximum number of Nexell R4R9955 (Fenwal 4R5462) bags	8	16	24	8*	16*
Holders & Plug for IVF application					
0.25 / 0.5mL straw holder (holds 4 straws)	N/A	N/A	N/A	N/A	N/A
1.2 / 2.0mL vial holder, (holds 1 vial)	N/A	N/A	N/A	N/A	N/A
1.2 / 2.0 / 4.0 / 5.0mL cane holder (holds 6, 5, 4, 3 canes)	N/A	N/A	N/A	N/A	N/A
Sleeve plug	N/A	N/A	N/A	N/A	N/A
Chamber Dimensions					
Exterior (w x h x d)	31.7 x 21.2 x 20.4 inches 80.5 x 53.8 x 51.8cm	37.7 x 21.2 x 20.4 inches 95.8 x 53.8 x 51.8cm	43.7 x 21.2 x 20.4 inches 111 x 53.8 x 51.8cm	31.7 x 22.5 x 20.4 inches 80.5 x 57.2 x 51.8cm	37.7 x 22.5 x 20.4 inches 95.8 x 57.2 x 51.8cm
Interior (w x h x d)	7 x 12 x 13 inches 17.8 x 30.5 x 33cm	13 x 12 x 13 inches 33 x 30.5 x 33cm	19 x 12 x 13 inches 48.3 x 30.5 x 33cm	7 x 12 x 13 inches 17.8 x 30.5 x 33cm	13 x 12 x 13 inches 33 x 30.5 x 33cm
Product Weight					
Net	140 lbs. / 63.5 kg	160 lbs. / 72.6 kg	180 lbs. / 81.63 kg	140 lbs. / 63.5 kg	160 lbs. / 72.6 kg
Packaged / Shipping	200 lbs. / 90.7 kg	215 lbs. / 97.5 kg	235 lbs. / 106.6 kg	200 lbs. / 90.7 kg	215 lbs. / 97.5 kg
Installation Information					
Product clearance	Add 2.8 inches (7.1cm) to F-B for utilities & door handle	Add 2.8 inches (7.1cm) to F-B for utilities & door handle	Add 2.8 inches (7.1cm) to F-B for utilities & door handle	Add 2.8 inches (7.1cm) to F-B for utilities & door handle	Add 2.8 inches (7.1cm) to F-B for utilities & door handle
Utility connection	0.5 inches, 45 degree flare, 6 ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6 ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6 ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6 ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6 ft (1.8m) SS flexible hose
Electrical 100V, 50/60 Hz	10.5 FLA, operating range 90-110V, NEMA 5-15P plug	10.5 FLA, operating range 90-110V, NEMA 5-15P plug	10.5 FLA, operating range 90-110V, NEMA 5-15P plug	10.5 FLA, operating range 90-110V, NEMA 5-15P plug	10.5 FLA, operating range 90-110V, NEMA 5-15P plug
Electrical 120V, 60 Hz	12 FLA, operating range 108-132V, NEMA 5-15P plug	12 FLA, operating range 108-132V, NEMA 5-15P plug	12 FLA, operating range 108-132V, NEMA 5-15P plug	12 FLA, operating range 108-132V, NEMA 5-15P plug	12 FLA, operating range 108-132V, NEMA 5-15P plug
Electrical 220V, 50/60 Hz	5.5 FLA, operating range 207-253V, CEE 7/7 plug	5.5 FLA, operating range 207-253V, CEE 7/7 plug	5.5 FLA, operating range 207-253V, CEE 7/7 plug	5.5 FLA, operating range 207-253V, CEE 7/7 plug	5.5 FLA, operating range 207-253V, CEE 7/7 plug
LN ₂ supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank

*These accessories can only be used when top loading cane vial and straw holders are not in use

Thermo Scientific CryoMed Accessories



- 1 Core Blood Freezing Rack and Optional Canisters
- 2 Two Level Skin Rack
- 3 1.2/2.0mL Cryo Rack and Holder
- 4 Cane Freezing Rack
- 5 Fenwals
- 6 Thermocouple Sensors
- 7 Flexible Metal Hose
- 8 Straw Rack

Order Information

Product Name	CryoMed	CryoMed	CryoMed	CryoMed	CryoMed
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Accessories

Racks

Straw Rack (0.25/0.5mL straws which holds 40 straws)	13262816	13262816	13262816	13262816*	13262816*
Cane Rack (162 canes)	N/A	TF4000303	TF4000303	N/A	TF4000303*
Cane Rack (77 canes)	13262836	13262836	13262836	13262836*	13262836*
Canister Rack Cord Blood holds 10 of 4000610 canisters	TF4000340	TF4000340	TF4000340	TF4000340*	TF4000340*
Canister Rack Adjustable (10 position, 5.875 to 7.875 inches)	TF185089	TF185089	TF185089	TF185089*	TF185089*
Vial Rack Holder for small racks (1.2 & 2mL vials) holds 5	TF4000702	TF4000702	TF4000702	TF4000702*	TF4000702*
Small rack for 1.2 & 2mL vials holds 76	TF4000701	TF4000701	TF4000701	TF4000701*	TF4000701*
Vial Rack Holder for large racks (1.2 & 2mL vials) holds 5	N/A	TF4000704	TF4000704	N/A	TF4000704*
Large rack for 1.2 & 2mL vials holds 161	N/A	TF4000703	TF4000703	N/A	TF4000703*
Vial Rack Holder for small racks (4 & 5mL vials) holds 3	13262838	13262838	13262838	13262838*	13262838*
Small rack for 4 & 5mL vials holds 76	13262837	13262837	13262837	13262837*	13262837*
Vial Rack Holder for large racks (4 & 5mL vials) holds 3	N/A	13262840	13262840	N/A	13262840*
Large rack for 4 & 5mL vials holds 161	N/A	13262839	13262839	N/A	13262839*
Skin Rack 3 Level (holds 72 skin packets)	13262817	13262817	13262817	13262817*	13262817*
Skin Rack 2 Level (holds 48 skin packets)	TF4000310	TF4000310	TF4000310	TF4000310*	TF4000310*
Skin Rack 1 Level (holds 24 skin packets)	13262818	13262818	13262818	13262818*	13262818*

*These accessories can only be used when top loading cane vial and straw holders are not in use

Thermo Scientific CryoMed Accessories

Order Information

Product Name	CryoMed	CryoMed	CryoMed	CryoMed	CryoMed
Presses					
Bag press Nexell R4R9953 (Fenwal 4R5461) holds 2 bags	TF4000314	TF4000314	TF4000314	TF4000314*	TF4000314*
Bag press Gambro DF-200 holds 2 bags	N/A	13262819	13262819	N/A	N/A
Bag press Delmed 2030-2 holds 4 bags	N/A	13262820	13262820	N/A	N/A
Bag press Nexell R4R9953 (Fenwal 4R5461) holds 4 bags	N/A	TF4000318	TF4000318	N/A	N/A
Bag press Gambro DF-200, holds 4 bags	N/A	13262821	13262821	N/A	N/A
Bag press Gambro DF-700, holds 2 bags	N/A	13262822	13262822	N/A	N/A
Bag press Nexell R4R9955 (Fenwal 4R5462), holds 2 bags	11679125	11679125	11679125	11679125*	11679125*
Sensors					
Thermocouple sensor for 1.2/2.0mL cryo tube	TF4000385	TF4000385	TF4000385	TF4000385*	TF4000385*
Thermocouple sensor for 4.0/5.0mL cryo tube	11679122	11679122	11679122	11679122*	11679122*
Thermocouple sensor ribbon type for bags	TF4000393	TF4000393	TF4000393	TF4000393*	TF4000393*
Thermocouple sensor 0.020 sheath straw sample	N/A	N/A	N/A	13262826	13262826
Thermocouple sensor 0.062 sheath vial sample	N/A	N/A	N/A	13262827	13262827
Holders & Plug for IVF application					
0.25 / 0.5mL straw holder (holds 4 straws)	N/A	N/A	N/A	13262841	13262841
1.2 / 2.0mL vial holder, (holds 1 vial)	N/A	N/A	N/A	TF4000711	TF4000711
1.2 / 2.0 / 4.0 / 5.0mL cane holder (holds 6, 5, 4, 3 canes)	N/A	N/A	N/A	TF4000714	TF4000714
Sleeve plug	N/A	N/A	N/A	13262781	13262781
Thermal Data					
Thermal Printer Paper (5 rolls/package)	TF4000566	TF4000566	TF4000566	TF4000566	TF4000566
Warranty					
Parts	1 Year	1 Year	1 Year	1 Year	1 Year
Regulatory Listing					
	cULus and CE	cULus and CE	cULus and CE	cULus and CE	cULus and CE
Protocols and on site validations services:					
Specification sheets for protocols & field validations deliverables are available upon request by calling 1-866-984-3766 or e-mailing LPG.presales@thermofisher.com					
GLP Level Protocols (IQ OQ)	13262209	13262209	13262209	13262209	13262209
GMP Level Protocols (IQ OQ PQ)	13262222	13262222	13262222	13262222	13262222
GLP Level (IQ OQ) Validation Service performed at the customer site (protocol included at no extra charge)	13262246	13262246	13262246	13262246	13262246
GMP Level (IQ OQ PQ) Validation Service performed at the customer site (protocol included at no extra charge)	13262259	13262259	13262259	13262259	13262259

*These accessories can only be used when top loading cane vial and straw holders are not in use

Thermo Scientific CryoPlus LN₂ Storage Systems

Our CryoPlus LN₂ storage systems provide precise and accurate control over all parameters without complicated programming. Storage capacities of up to 38,500 vials (2.0mL) make the most of your laboratory storage space.

Microprocessor Control

- Precise liquid level control over 16 parameters; with autofill system
- Control panel is mounted on the top of the unit for convenient access and easy touchpad programming
- Digital temperature display sensor is located under the lid; this indicates the highest temperature reading inside the tank
- 24 tricolor LEDs continuously display actual liquid nitrogen level and high-level/low-level setpoints
- Remote alarm contacts for in-house remote alarms or connection to a Sensaphone® Telephone Dialing System

Standard Accessories

- CryoPlus 1 model has 0.5" 45° flare, 4' (1.2m) flexible hose
- CryoPlus 2, 3 and 4 come with 0.5" 45° flare, 6' (1.8m) flexible hose

Optional Accessories

- A complete offering of racks including vertical, square and arrowhead options to maximize storage space
- Choose from cardboard, polycarbonate or stainless steel cryo boxes
- Sensaphone® Telephone Dialing System for added peace of mind



Thermo Scientific CryoPlus

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Cat. No. (100-120V, 50/60 Hz)	TF7400	TF7402	TF7404	TF7406
Cat. No. (200-230V, 50/60 Hz)	TF7401	TF7403	TF7405	TF7407
Selection Guide				
Application	Sample Storage	Sample Storage	Sample Storage	Sample Storage
Storage Type	AutoFill Vessel / Racks, Frames & Canisters	AutoFill Vessel / Racks, Frames & Canisters	AutoFill Vessel / Racks, Frames & Canisters	AutoFill Vessel / Racks, Frames & Canisters
LN ₂ Capacity	90 Liters	200 Liters	340 Liters	552 Liters
Static Evaporation Rate – <i>See footnote (1)</i>	3 Liters/Day	5 Liters/Day	8 Liters/Day	10 Liters/Day
Static Holding Time – <i>See footnote (1)</i>	30 Days	40 Days	42.5 Days	55 Days
Tank Diameter	16 inch / 40.6cm	24 inch / 61cm	31 inch / 78.7cm	39.5 inch / 100.3cm
Interior Tank Height	27.5 inch / 69.9cm	27.5 inch / 69.9cm	27.5 inch / 69.9cm	27.5 inch / 69.9cm
Maximum System Capability				
Vial Capacity 2mL	6,318 with arrowhead rack no. TF4000044	13,000 with square rack no. TF4000006 or vertical rack no. TF4000012	24,000 with vertical rack no. TF4000012	38,500 with vertical rack no. TF4000012
Vial Capacity 4mL	3,888 with arrowhead rack no. 13262810	7,920 with square rack no. TF4000008	13,464 with square rack no. TF4000008	24,552 with square rack no. TF4000008
Vial Capacity 5mL	3,402 with arrowhead rack no. 13262800	6,930 with square rack no. 11679098	11,781 with square rack no. 11679098	21,483 with square rack no. 11679098
Bag Capacity 50mL, Fenwal 4R9951	238 with 7 place frame no. 13262835	630 with 7 place frame no. 13262835	1,078 with 7 place frame no. 13262835	1,792 with 7 place frame no. 13262835
Bag Capacity 250mL bag, Fenwal 4R5461	112 with 4 place frame no. TF4000371	256 with 4 place frame no. TF4000371	448 with 4 place frame no. TF4000371	696 with 4 place frame no. TF4000371
Bag Capacity 500mL bag, Fenwal 4R5462	88 with 4 place frame no. 11679120	200 with 4 place frame no. 11679120	328 with 4 place frame no. 11679120	608 with 4 place frame no. 11679120
Bag Capacity 500mL bag, Gambro DF-200	76 with 4 place frame no. 13262846	160 with 4 place frame no. 13262846	272 with 4 place frame no. 13262846	464 with 4 place frame no. 13262846
Bag Capacity 700mL bag, Gambro DF-700	40 with 4 place frame no. 13262825	104 with 4 place frame no. 13262825	176 with 4 place frame no. 13262825	N/A
Cane Capacity	800 with Canister Cane Storage square rack no. 11679121	2,000 with Canister Cane Storage square rack no. 11679121	3,400 with Canister Cane Storage square rack no. 11679121	6,200 with Canister Cane Storage square rack no. 11679121
Maximum Organizational Capability				
Number of square racks	4	10	17	31
Number of vertical racks	11	26	48	77
Number of arrowhead racks	6	N/A	N/A	N/A
Number of frames (50mL bag, Fenwal 4R9951)	34	90	154	256
Number of frames (250mL bag, Fenwal 4R5461)	28	64	112	174
Number of frames (500mL bag, Fenwal 4R5462)	22	50	82	152
Number of frames (500mL bag, Gambro DF-200)	19	40	68	116
Number of frames (700mL bag, Gambro DF-700)	10	26	44	N/A

Footnote:

(1) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.

Thermo Scientific CryoPlus

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Product Exterior Dimension				
Width x Height x Depth	21.5 x 41 x 26 inches 54.6 x 104.1 x 66cm	28.5 x 41 x 34 inches 72.4 x 104.1 x 86.4cm	34.5 x 41 x 41.5 inches 87.6 x 104.1 x 105.4cm	43.5 x 47 x 50 inches 110.5 x 119.4 x 127cm
Product Weight				
Empty	214 lbs. / 97.1 kg	325 lbs. / 147.4 kg	416 lbs. / 188.7 kg	820 lbs. / 371.9 kg
Full	354 lbs. / 160.6 kg	680 lbs. / 308.4 kg	1021 lbs. / 463.1 kg	1620 lbs. / 734.8 kg
Packaged / Shipping	260 lbs. / 117.9 kg	480 lbs. / 217.7 kg	550 lbs. / 249 kg	1070 lbs. / 485.3 kg
Installation information				
Product clearance	Add 5 inches (12.7cm) to F-B for utilities & lid opening	Add 5 inches (12.7cm) to F-B for utilities & lid opening	Add 5 inches (12.7cm) to F-B for utilities & lid opening	Add 5 inches (12.7cm) to F-B for utilities & lid opening Total height with lid open is 97 inches (246.38cm)
Utility connection	0.5 inches, 45 degree flare, 4ft (1.2m) SS flexible hose	0.5 inches, 45 degree flare, 6ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6ft (1.8m) SS flexible hose	0.5 inches, 45 degree flare, 6ft (1.8m) SS flexible hose
Electrical 120V, 60 Hz	0.5 FLA, operating range 90-132V, NEMA 5-15P plug	0.5 FLA, operating range 90-132V, NEMA 5-15P plug	0.5 FLA, operating range 90-132V, NEMA 5-15P plug	0.5 FLA, operating range 90-132V, NEMA 5-15P plug
Electrical 220V, 50 Hz	0.5 FLA, operating range 180-253V, CEE 7/7 plug	0.5 FLA, operating range 180-253V, CEE 7/7 plug	0.5 FLA, operating range 180-253V, CEE 7/7 plug	0.5 FLA, operating range 180-253V, CEE 7/7 plug
LN ₂ supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank	Requires 22 psi low pressure supply tank
Warranty				
Vessel Vacuum	2 Year	2 Years	2 Years	2 Years
Parts	1 Year	1 Year	1 Year	1 Year
Regulatory Listing				
	cULus and CE	cULus and CE	cULus and CE	cULus and CE

Protocols and on site validations services:

Specification sheets for protocols & field validations deliverables are available upon request by calling pre-sales at +1.866.984.3766 or e-mailing at LPG.presales@thermofisher.com

GLP Level Protocols (IQ OQ)	13262210	13262210	13262210	13262210
GMP Level Protocols (IQ OQ PQ)	13262223	13262223	13262223	13262223
GLP Level (IQ OQ) Validation Services performed at the customer site (protocol included at no extra charge)	13262247	13262247	13262247	13262247
GMP Level (IQ OQ PQ) Validation Services performed at the customer site (protocol included at no extra charge)	13262260	13262260	13262260	13262260



Thermo Scientific CryoPlus Accessories

- 1 Platform divider
- 2 Vertical racks
- 3 Arrowhead racks
- 4 Square racks with stainless steel boxes
- 5 Canister cane storage racks
- 6 Cassettes
- 7 Platform riser
- 8 Frames
- 9 Square vertical racks with boxes
- 10 Square mini vertical rack with boxes



Thermo Scientific CryoPlus Accessories

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Racks				
Vertical				
Liquid Phase				
2mL, 5 cardboard boxes (100 cell divider)	TF4000012	TF4000012	TF4000012	TF4000012
2mL, 12 cardboard boxes (25 cell divider). Mini Rack.	13262815	13262815	13262815	13262815
Vapor Phase				
2mL, 4 cardboard boxes (100 cell divider)	TF4000011	TF4000011	TF4000011	TF4000011
Square				
Liquid Phase				
2mL includes 12 cardboard boxes with a 100 cell divider	TF4000042	TF4000042	TF4000042	TF4000042
2mL, 13 cardboard boxes (100 cell divider) – <i>See footnote (2)</i>	TF4000006	TF4000006	TF4000006	TF4000006
2mL, 13 Stainless Steel boxes (100 cell divider)	11679097	11679097	11679097	11679097
4mL, 8 cardboard boxes (100 cell divider)	TF4000008	TF4000008	TF4000008	TF4000008
4mL, 8 Stainless Steel boxes (100 cell divider)	13262799	13262799	13262799	13262799
5mL, 7 cardboard boxes (100 cell divider)	11679098	11679098	11679098	11679098
Vapor Phase				
2mL, 11 cardboard boxes (100 cell divider)	TF4000001	TF4000001	TF4000001	TF4000001
2mL, 11 Stainless Steel boxes (100 cell divider)	11679095	11679095	11679095	11679095
4mL, 7 cardboard boxes (100 cell divider)	13262797	13262797	13262797	13262797
4mL, 7 Stainless Steel boxes (100 cell divider)	13262798	13262798	13262798	13262798
5mL, 6 cardboard boxes (100 cell divider)	11679096	11679096	11679096	11679096
Canister Cane Storage				
Vapor				
2mL, 4mL, 5mL vial and straw canes includes 8 canisters	11679121	11679121	11679121	11679121
Arrowhead				
Liquid				
2mL, 12 cardboard boxes (81 cell divider)	11679105	N/A	N/A	N/A
2mL, 13 cardboard boxes (81 cell divider)	TF4000044	N/A	N/A	N/A
2mL, 12 Stainless Steel boxes (81 cell divider)	11679106	N/A	N/A	N/A
4mL, 8 cardboard boxes (81 cell divider)	13262810	N/A	N/A	N/A
4mL, 8 Stainless Steel boxes (81 cell divider)	13262811	N/A	N/A	N/A
5mL, 7 cardboard boxes (81 cell divider)	13262800	N/A	N/A	N/A
Vapor				
2mL, 11 cardboard boxes (81 cell divider)	13262812	N/A	N/A	N/A
2mL, 11 Stainless Steel boxes (81 cell divider)	13762368	N/A	N/A	N/A
2mL, 10 cardboard boxes (81 cell divider)	TF4000108	N/A	N/A	N/A
Boxes				
Cardboard				
Vertical				
2mL (with a 100 cell divider)	TF4000014	TF4000014	TF4000014	TF4000014
Square				
2mL (with a 100 cell divider)	TF4000014	TF4000014	TF4000014	TF4000014
4mL (with a 100 cell divider)	11679099	11679099	11679099	11679099
5mL (with a 100 cell divider)	11679099	11679099	11679099	11679099
Arrowhead				
2mL (Does not include a 81 cell divider)	11679110	11679110	11679110	11679110
4mL (Does not include a 81 cell divider)	13262813	13262813	13262813	13262813
5mL (Does not include a 81 cell divider)	13262813	13262813	13262813	13262813

Footnote:

(2) This rack will not accommodate polycarbonate boxes. Use TF4000042 instead.

Thermo Scientific CryoPlus Accessories

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Polycarbonate				
Vertical				
2mL (100 cell division)	13994076	13994076	13994076	13994076
2mL (81 cell division)	13994077	13994077	13994077	13994077
Square				
2mL (100 cell division)	13994076	13994076	13994076	13994076
2mL (81 cell division)	13994077	13994077	13994077	13994077
4mL (81 cell division)	13994079	13994079	13994079	13994079
Stainless Steel				
Square				
2mL (Does not include a 100 cell divider)	11679118	11679118	11679118	11679118
4mL (Does not include a 100 cell divider)	TF4000239	TF4000239	TF4000239	TF4000239
Arrowhead				
2mL (Does not include a 81 cell divider)	TF4000181	N/A	N/A	N/A
Cell Dividers				
Square box 100 – <i>See footnote (3)</i>	TF4000013	TF4000013	TF4000013	TF4000013
Arrowhead box 81 – <i>See footnote (3)</i>	TF4000181	TF4000181	TF4000181	TF4000181
Frames				
Liquid				
Bag Capacity 50mL, Fenwal 4R9951, holds 7 cassettes	13262835	13262835	13262835	13262835
Bag Capacity 250mL bag, Fenwal 4R5461, holds 4 cassettes	TF4000371	TF4000371	TF4000371	TF4000371
Bag Capacity 500mL bag, Fenwal 4R5462, holds 4 cassettes	11679120	11679120	11679120	11679120
Bag Capacity 500mL bag, Gambro DF-200, holds 4 cassettes	13262846	13262846	13262846	13262846
Bag Capacity 700mL bag, Gambro DF-700, holds 4 cassettes	13262825	13262825	13262825	N/A
Vapor				
Bag Capacity 50mL, Fenwal 4R9951, holds 6 cassettes	13262833	13262833	13262833	13262833
Bag Capacity 250mL bag, Fenwal 4R5461, holds 4 cassettes	TF4000371	TF4000371	TF4000371	TF4000371
Bag Capacity 500mL bag, Fenwal 4R5462, holds 4 cassettes	11679120	11679120	11679120	11679120
Cassettes				
Bag Capacity 50mL, Fenwal 4R9951 swing arm canister	13262829	13262829	13262829	13262829
Bag Capacity 250mL bag, Fenwal 4R5461 sliding canister	TF4000335	TF4000335	TF4000335	TF4000335
Bag Capacity 500mL bag, Fenwal 4R5462 sliding canister	TF4000336	TF4000336	TF4000336	TF4000336
Bag Capacity 500mL bag, Gambro DF-200 sliding canister	13262823	13262823	13262823	13262823
Bag Capacity 500mL bag, Gambro DF-200 swing arm canister	TF4000356	TF4000356	TF4000356	TF4000356
Bag Capacity 700mL bag, Gambro DF-700 sliding canister	13262824	13262824	13262824	13262824
Bag Capacity 700mL bag, Gambro DF-700 swing arm canister	11679119	11679119	11679119	11679119

Footnote:

(3) All cell divider material is cardboard for both cardboard and stainless steel box application.

Thermo Scientific CryoPlus Accessories

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Platform Dividers				
50mL Fenwal 4R9951 for frames and canisters	13262830	13262831	13262832	13262846
250mL Fenwal 4R5461 for frames and canisters	N/A	13262808	13262803	TF4000053
500mL Fenwal 4R5462 for frames and canisters	N/A	13262809	13262804	11679100
500mL Gambio DF-200 for frames and canisters	N/A	N/A	13262801	13262805
700mL Gambio DF-700 for frames and canisters	N/A	N/A	13262802	N/A
Platform Risers (Vapor Phase only)				
Rack				
Vertical				
5.0 inch riser for rack part # 4000011	11679102	11679102	TF4000064	13262806
Square				
3.5 inch riser for rack part # 4000001	TF4000060	TF4000060	TF4000063	TF4000066
3.5 inch riser for rack part # 4000002	TF4000060	TF4000060	TF4000063	TF4000066
4.0 inch riser for rack part # 4000005	11679101	11679103	11679104	13262807
5.0 inch riser for rack part # 4000003	11679102	11679102	4000064	13262806
5.0 inch riser for rack part # 4000004	11679102	11679102	4000064	13262806
SUC-1 (Canister Cane Storage)				
3.5 inch riser for rack part # 4000379	TF4000060	TF4000060	TF4000063	TF4000066
Arrowhead				
4.0 inch riser for rack part # 4000097	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000100	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000101	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000108	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000109	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000110	11679101	N/A	N/A	N/A
4.0 inch riser for rack part # 4000111	11679101	N/A	N/A	N/A
Frames				
Bag Capacity 50mL , Fenwal 4R9951, 6 places for cassettes	TF4000060	TF4000060	TF4000063	TF4000066
Bag Capacity 250mL bag, Fenwal 4R5461, 4 places for cassettes	TF4000060	TF4000060	TF4000063	TF4000066
Bag Capacity 500mL bag, Fenwal 4R5462, 4 places for cassettes	TF4000060	TF4000060	TF4000063	TF4000066
Thermal Data				
120V, 60 Hz Printer with cable assembly and RS-232 connector kit	TF4000565	TF4000565	TF4000565	TF4000565
220V, 50Hz Printer with cable assembly and RS-232 connector kit	13262834	13262834	13262834	13262834
Thermal Printer Paper (5 rolls/package)	TF4000566	TF4000566	TF4000566	TF4000566
Recorder Kit				
120, 60 Hz with 6" diameter circular chart, 7 day temperature recorder, pen and chart drive (top, left and right side mount)	TF201175	TF201175	TF201175	TF201175
220, 50 Hz with 6" diameter circular chart, 7 day temperature recorder, pen and chart drive (top, left and right side mount)	13262795	13262795	13262795	13262795
Replacement Felt Tip Pen	13262796	13262796	13262796	13262796
Sensaphone® Telephone Dialing Systems				
4 pre-programmed numbers, 120V 60 Hz	13994066	13994066	13994066	13994066
4 pre-programmed numbers, 220V 50 Hz	11679091*	11679091*	11679091*	11679091*
8 pre-programmed numbers, 120V 60Hz	13994069	13994069	13994069	13994069
8 pre-programmed numbers, 220V 50Hz	11679093*	11679093*	11679093*	11679093*
RJ-11 Remote Alarm Cable Kit used to connect remote alarm to equipment	11679090	11679090	11679090	11679090

*Not CE marked

Thermo Scientific CryoPlus Accessories

Order Information

Product Name	CryoPlus 1	CryoPlus 2	CryoPlus 3	CryoPlus 4
Hot Gas Bypass				
120 V factory installed	11679088	11679088	11679088	11679088
220 V factory installed	13262793	13262793	13262793	13262793
120 V field installed	TF195700	TF195700	TF195700	TF195700
220 V field installed	13262794	13262794	13262794	13262794
Misc.				
T-Valve assembly	TF4000290	TF4000290	TF4000290	TF4000290



Thermo Scientific BioCane Canister and Cane Systems

Our BioCane canister and cane systems cost-effectively store cell, tissues or other biological samples. Available in four sizes, the system can safely hold samples for up to seven months without replenishing LN₂.



- Models include six stainless-steel canisters to accommodate vials (eight with BioCane 73 – Shown here with optional hinged handle.)
- Canisters are color-coded to simplify sample identification
- Durable aluminum construction and vacuum insulation
- Narrow-mouth design minimizes LN₂ evaporation
- Secure locking clasp

Thermo Scientific BioCane

Order Information

Product Name	BioCane 20	BioCane 34	BioCane 47	BioCane 73
Cat. No.	1167591	1167592	1167593	13762351
Application	Portable Sample Storage Vessel	Portable Sample Storage Vessel	Portable Sample Storage Vessel	Portable Sample Storage Vessel
Storage Type	Manual Fill / Canister	Manual Fill / Canister	Manual Fill / Canister	Manual Fill / Canister
LN ₂ Capacity	20.5 Liters	34.8 Liters	47.4 Liters	73 Liters
Static Evaporation Rate – <i>See footnote (1)</i>	0.1 Liters / Day	0.18 Liters / Day	0.4 Liters / Day	0.6 Liters / Day
Static Holding Time	227 Days	193 Days	121 Days	121 Days
Neck Diameter	2.0 inch / 5.1cm	3.5 inch / 8.8cm	5.0 inch / 12.7cm	6.0 inch / 15.2cm
Number of Canisters (included)	6	6	6	8
Canister Dimensions	11" L x 1.5" Dia (27.9 x 3.8cm)	11" L x 2.8" Dia (27.9 x 7.1cm)	11" L x 4" Dia (27.9 x 10.2cm)	11" L x 5" Dia (27.9 x 12.7cm)
Maximum System Capability				
Number of Canes per canister	5	20	42	60
Vial Capacity 1.2mL (6 per cane)	180	720	1,512	2,880
Vial Capacity 2mL (5 per cane)	150	600	1,260	2,400
Vial Capacity 4mL (3 per cane)	90	360	756	1,440
Vial Capacity 5mL (2 per cane)	60	240	504	960
Straw Capacity (10 per cane)	300	1,200	2,520	4,800
Vessel Exterior Dimension				
Diameter x Height	14.5 x 25.7 inch 36.8 x 65.3cm	18.2 x 26.6 inch 46.2 x 67.6cm	20.0 x 26.5 inch 50.8 x 67.3cm	22.0 x 27.3 inch 55.9 x 69.3cm
Product Weight				
Empty	26 lbs. / 11.8 kg	34 lbs. / 15.4 kg	39 lbs. / 17.7 kg	52 lbs. / 23.6 kg
Full	63 lbs. / 28.2 kg	96 lbs. / 43.5 kg	120 lbs. / 54.5 kg	192 lbs. / 87.3 kg
Packaged / Shipping	29 lbs. / 13.2 kg	41 lbs. / 18.6 kg	47 lbs. / 21.3 kg	95 lbs. / 43.2 kg
Accessory				
Vials				
1mL, case of 500	1167648	1167648	1167648	1167648
Cryogenic Vials(E), case/500, 1.2mL, 13.5mm O.K., 38.1mm H	13262843	13262843	13262843	13262843
1.5mL, case of 500	1167649	1167649	1167649	1167649
Cryogenic Vials(E), case/500, 2.0mL, 13.5mm O.K., 48.3mm H	13262842	13262842	13262842	13262842
Misc.				
Low Level Alarm	TF8130	TF8130	TF8130	TF8130
Wheeled Accessory Cart (5 inches high)	1167016	1167016	1167016	116762
Square Rack Option interchangeable with canisters (includes 5 cardboard boxes, each box with 40 cell dividers) – <i>See footnote (2)</i>	N/A	N/A	TF195555	N/A
Hinge Handle Canister	N/A	N/A	N/A	13262828
One Cryo Cane, 1.2mL – 6 Ampule	11679113	11679113	11679113	11679113
CryoSleeve (100 per case, length 273mm / 10.75 inches)	1157661	1157661	1157661	1157661
Warranty				
Vessel Vacuum	5 Years	5 Years	5 Years	5 Years
Parts	2 Years	2 Years	2 Years	2 Years
Regulatory Listing				
	CE	CE	CE	CE

Footnotes:

(1) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.

(2) 1.2 / 2mL vial capacity with each square rack is 125 vials

Thermo Scientific Locator PLUS Rack and Box Systems

Available with or without ultrasonic level monitor, our Locator PLUS indexed rack and box systems allow quick, efficient sample retrieval and offer cost-effective maximum storage capacity (up to 6,000 samples) combined with minimum liquid nitrogen consumption.



- Outstanding temperature uniformity: samples are stored below -180°C even when less than 2" (5cm) of liquid nitrogen remains in the vessel
- Ultrasonic Level Monitor safeguards irreplaceable samples with minimal liquid nitrogen evaporation and conduction
- Monitor provides continuous LED readout of liquid nitrogen level in 1/8 increments
- Optional alarm sounds when nitrogen level falls below safe range
- Advanced vacuum insulation minimizes liquid nitrogen evaporation and reduces operating costs
- Secure locking clasp prevents unauthorized entry
- Includes stainless-steel racks designed for use with 2" (5cm) Nalgene cryogenic boxes (larger racks available for 5.0mL ampoules in Locator Jr. PLUS and Locator 4 PLUS)



Thermo Scientific Locator PLUS

Order Information

Product Name	Locator Jr. PLUS	Locator 4 PLUS	Locator 6 PLUS	Locator 8 PLUS
Cat. No. (does not include level monitor)	1167658	1167655	1167656	1167671
Cat. No. (With factory installed level monitor 100-240V) – See footnote (1)	13762353	13762355	11-676-57	13762358
Selection Guide				
Application	Portable Sample Storage Vessel	Portable Sample Storage Vessel	Portable Sample Storage Vessel	Portable Sample Storage Vessel
Storage Type	Manual Fill / Rack & Box	Manual Fill / Rack & Box	Manual Fill / Rack & Box	Manual Fill / Rack & Box
LN ₂ Capacity	71 Liters	121 Liters	184 Liters	121 Liters
Neck Diameter	8.5 inch / 21.5cm	8.5 inch / 21.5cm	8.5 inch / 21.5cm	6.0 inch / 15.2cm
Static Evaporation Rate – See footnote (2)	0.85 Liters / Day	0.99 Liters / Day	0.99 Liters / Day	0.60 Liters / Day
Static Holding Time	83 Days	122 Days	185 Days	201 Days
Number of 1.2 / 2mL vial racks	4	4	6	8
Maximum System Capability				
Number of 2mL vial boxes per rack	5	10	10	10
Number of 2mL vials per box	100	100	100	25
Vial Capacity 2mL	2,000	4,000	6,000	2,000
Vial Capacity 5mL	648	1,620	2,430	N/A
Vessel Exterior Dimension (Add 2 inches for lid & handle)				
Diameter x Height	22.0 x 26.9 inch 55.8 x 68.3cm	22.0 x 37.5 inch 55.8 x 95.3cm	26.0 x 37.5 inch 66.0 x 95.3cm	22.0 x 37.5 inch 55.8 x 95.3cm
Product Weight				
Empty – See footnote (3)	59.4 lbs. / 27 kg	82.5 lbs. / 37.5 kg	105.3 lbs. / 47.9 kg	81.3 lbs. / 37 kg
Full – See footnote (3)	82 lbs. / 37.3 kg	133.5 lbs. / 60.7 kg	180.3 lbs. / 82 kg	132 lbs. / 60 kg
Packaged / Shipping	91 lbs. / 41.3 kg	118 lbs. / 53.5 kg	160 lbs. / 72.6 kg	115 lbs. / 52.2 kg
Accessories				
Racks				
5.0mL vial Rack , does not include boxes	1167667	1167668	13262845	N/A
Boxes				
2" height: 1.0 & 1.5mL Nalgene, 100 vial per box, case of 10	TF1167647	TF1167647	TF1167647	N/A
2" height: 2mL Nalgene, 25 vial per box, case of 80	N/A	N/A	N/A	116763A
2" height: 2mL Nalgene, 81 vial per box, case of 40	116763B	116763B	116763B	N/A
2" height: 2mL Nalgene, 81 vial per box, case of 20	116763C	116763C	116763C	N/A
4" height: 5mL Nalgene, 81 vial per box, each	TF1167661	TF1167661	TF1167661	N/A
Vials				
1mL, case of 500	1167648	1167648	1167648	1167648
Cryogenic Vials(E), case/500, 1.2mL, 13.5mm O.K., 38.1mm H	13262843	13262843	13262843	13262843
1.5mL, case of 500	1167649	1167649	1167649	1167649
Cryogenic Vials(E), case/500, 2.0mL, 13.5mm O.K., 48.3mm H	13262842	13262842	13262842	13262842
Misc.				
Low Level Alarm (stand alone)	TF8130	TF8130	TF8130	TF8130
Wheeled Accessory Cart (5 inches high)	116762	116762	1167666	116762
Customer installed level monitor 100-240V	13762364	13762365	13762367	13762366
Log Book	1950338	1950338	1950338	1950338
CryoClaw	1167595	1167595	1167595	1167595
Replacement Suction Cups (2) for CryoClaw	1167596	1167596	1167596	1167596
Warranty				
Vessel Vacuum	3 Years	3 Years	3 Years	3 Years
Parts and Level Monitor	1 Year	1 Year	1 Year	1 Year
Regulatory Listing				
	cCSAus and CE	cCSAus and CE	cCSAus and CE	cCSAus and CE

Footnotes:

(1) For China models use CY509106CN for Locator Jr. PLUS and use CY509108CN for Locator 4 PLUS and use CY509109CN for Locator 6 PLUS and use CY509111CN for Locator 8 PLUS.

(2) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.

(3) Add 1.6 lbs. / 0.73 kg for units with level monitor.

Thermo Scientific Locator Rack and Box Systems

Our Locator rack and box systems simplify sample storage and retrieval with unique hanging rack and gridded box design, advanced vacuum insulation, unmatched temperature uniformity and an innovative liquid nitrogen monitor.

- Outstanding temperature uniformity: samples are stored below -180°C even when less than 2" (5cm) of liquid nitrogen remains in the vessel
- Ultrasonic Level Monitor safeguards irreplaceable samples with minimal liquid nitrogen evaporation and conduction
- Optional monitor provides continuous LED readout of liquid nitrogen level; activates visual and audible alarms when level falls below safe range of approximately 1" (2.5cm)
- Optional alarm also alerts operator in the event of excessive liquid nitrogen loss
- Secure locking clasp prevents unauthorized entry
- Includes stainless-steel racks designed for use with 2" (5cm) Nalgene cryogenic boxes (larger racks available for 5.0mL ampoules in Locator Jr. and Locator 4)



Thermo Scientific Locator

Order Information

Product Name	Locator Jr.	Locator 4	Locator 8
Cat. No. (does not include level monitor)	116761C	116761A	116761B
Cat. No. (With factory installed level monitor 100-240V) – <i>See footnote (1)</i>	13762352	13762354	13762357
Selection Guide			
Application	Portable Sample Storage Vessel	Portable Sample Storage Vessel	Portable Sample Storage Vessel
Storage Type	Manual Fill / Rack & Box	Manual Fill / Rack & Box	Manual Fill / Rack & Box
LN ₂ Capacity	60.00 Liters	111.0 Liters	111.0 Liters
Neck Diameter	8.5 inch / 21.5cm	8.5 inch / 21.5cm	6.0 inch / 15.2cm
Static Evaporation Rate – <i>See footnote (2)</i>	0.85 Liters / Day	0.99 Liters / Day	0.6 Liters / Day
Static Holding Time	70 Days	112 Days	185 Days
2mL vial racks standard (boxes not included)	4	4	8
Maximum System Capability			
Number of 1.2 / 2mL vial boxes per rack	4	9	9
Number of 1.2 / 2mL vials per box	100	100	25
Vial Capacity 1.2 / 2mL	1,600	3,600	1,800
Vial Capacity 5mL	648	1,620	N/A
Vessel Exterior Dimension (Add 2 inches for lid & handle)			
Diameter x Height	22.0 x 24.5 inch 55.8 x 62.2cm	22.0 x 35.5 inch 55.8 x 90.2cm	22.0 x 35.5 inch 55.8 x 95.3cm
Product Weight			
Empty – <i>See footnote (3)</i>	54.1 lbs. / 24.6 kg	77.8 lbs. / 35.4 kg	77.8 lbs. / 35.4 kg
Full – <i>See footnote (3)</i>	76.5 lbs. / 34.8 kg	128.5 lbs. / 58.4 kg	128.5 lbs. / 58.4 kg
Packaged / Shipping	90 lbs. / 40.8 kg	115 lbs. / 52.2 kg	117 lbs. / 53.1 kg
Accessories			
Racks			
5.0mL vial Rack, does not include boxes	1167667	1167668	N/A
Boxes			
2" height: 1.0 & 1.5mL Nalgene, 100 vial per box, case of 10	TF1167647	TF1167647	N/A
2" height: 2mL Nalgene, 25 vial per box, case of 80	N/A	N/A	116763A
2" height: 2mL Nalgene, 81 vial per box, case of 40	116763B	116763B	N/A
2" height: 2mL Nalgene, 81 vial per box, case of 20	116763C	116763C	N/A
4" height: 5mL Nalgene, 81 vial per box, each	1167661	1167661	N/A
Vials			
1mL, case of 500	1167648	1167648	1167648
Cryogenic Vials(E), case/500, 1.2mL, 13.5mm O.K., 38.1mm H	13262843	13262843	13262843
1.5mL, case of 500	1167649	1167649	1167649
Cryogenic Vials(E), case/500, 2.0mL, 13.5mm O.K., 48.3mm H	13262842	13262842	13262842
Misc.			
Low Level Alarm (stand alone)	TF8130	TF8130	TF8130
Wheeled Accessory Cart (5 inches high)	116762	116762	116762
Logbook	1950338	1950338	1950338
Customer installed level monitor 100-240V – <i>See footnote (4)</i>	13762361	13762362	13762363
CryoClaw	1167595	1167595	1167595
Replacement Suction Cups (2) for CryoClaw	1167596	1167596	1167596
Warranty			
Vessel Vacuum	3 Years	3 Years	3 Years
Parts and Level Monitor	1 Year	1 Year	1 Year
Regulatory Listing			
	cCSAus and CE	cCSAus and CE	cCSAus and CE

Footnotes:

- (1) For China models use CY509105CN for Locator Jr. and use CY509107CN for Locator 4 and use CY509110CN for Locator 8.
- (2) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.
- (3) Add 1.6 lbs. / 0.73 kg for units with level monitor.
- (4) For China models use CN509X1CN for Locator Jr. and use CN509X4CN for Locator 4 and use CN509X7CN for Locator 8.

Thermo Scientific Thermo Series Liquid Nitrogen Transfer Vessels

Designed for storing and dispensing small amounts of liquid nitrogen, our Thermo Series includes four models with capacities from 5 to 32L.



- Designed to bring liquid nitrogen to other cryo vessels
- Lightweight aluminum dewars assure low-static evaporation rates
- Compact Thermo 5 and 10 dewars feature a convenient handle for pouring and for use in applications where only small quantities of liquid nitrogen are needed
- Thermo 10, 20 and 30 can be fitted with self-pressurized withdrawal accessory devices to easily dispense LN₂ without pouring
- Optional withdrawal device, 12mL dipper and wheeled accessory cart

Thermo Scientific Thermo Series

Order Information

Product Name	Thermo 5	Thermo 10	Thermo 20	Thermo 30
Cat. No.	116705A	116705B	116705C	116705D
Selection Guide				
Application	Transfer Vessel	Transfer Vessel	Transfer Vessel	Transfer Vessel
Storage Type	Manual Fill	Manual Fill	Manual Fill	Manual Fill
LN ₂ Capacity	5.0 Liters	10.0 Liters	20.0 Liters	32.0 Liters
Neck Diameter	2.2 inch / 5.6cm	2.2 inch / 5.6cm	2.0 inch / 5.0cm	2.5 inch / 6.4cm
Static Evaporation Rate – <i>See footnote (1)</i>	0.15 Liters / Day	0.18 Liters / Day	0.18 Liters / Day	0.22 Liters / Day
Static Holding Time	33.3 Days	55.6 Days	111 Days	145 Days
Vessel Exterior Dimension				
Diameter x Height	8.8 x 18.2 inch 22.4 x 46.2cm	10.3 x 21.5 inch 26.2 x 54.6cm	14.5 x 24.7 inch 36.8 x 62.7cm	17.0 x 24.1 inch 43.2 x 61.2cm
Product Weight				
Empty	8 lbs. / 3.6 kg	12 lbs. / 5.5 kg	19 lbs. / 8.6 kg	25 lbs. / 11.4 kg
Full	17 lbs. / 7.7 kg	31 lbs. / 14.1 kg	55 lbs. / 25 kg	82 lbs. / 37.3 kg
Shipping	12 lbs. / 5.5 kg	14 lbs. / 6.4 kg	24 lbs. / 10.9 kg	30 lbs. / 13.6 kg
Accessories				
Withdrawal Device	N/A	1167012	1167011	1167010
12mL Dipper	1167013	1167013	1167013	1167013
Wheeled Accessory Cart (5 inches high)	N/A	N/A	1167016	1167016
Warranty				
Vessel Vacuum	1 Year	1 Year	1 Year	1 Year
Parts	1 Year	1 Year	1 Year	1 Year

Footnotes:

(1) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.



Thermo Scientific Arctic Express Storage Systems

Our Arctic Express and Arctic Express Dual systems protect samples during shipment and storage. Featuring excellent flexibility and safety features, these systems can be used as dry shippers or laboratory cryo storage vessels.



Arctic Express Dual Shipper Storage Systems

- When filled with liquid nitrogen and placed in the laboratory, Arctic Express dual shippers can be used as a “can” and “cane” storage system indefinitely with static holding times of up to 125 days
- Dual shippers hold six numbered, color-coded, stainless steel cans (included) which accommodate canes that hold ampoules
- Hard-shell shipping container comes standard with dual shippers

Arctic Express IATA-Shipper Transport Systems

- Worldwide shipment of infectious materials with the highest safety and security; approved by UN and IATA

- Two week holding time preserves sample integrity
- Lockable cover with internal security compartment provides protection and sample isolation
- Aluminum container with handle holds internal security compartment

Arctic Express Cryogenic Shipping Containers

- Innovative material absorbs liquid nitrogen to prevent spillage during shipment
- 13- and 21-day liquid nitrogen holding times allow specimens to be shipped safely
- Durable construction and sturdy base allow dry shipper to withstand rough handling
- Lockable lid prevents unauthorized entry
- Easily transported via most common carriers
- Lightweight aluminum design and convenient pail-style handle

Thermo Scientific Arctic Express

Order Information

Product Name	Arctic Express 5	Arctic Express 10	Arctic Express 20	Arctic Express IATA Approved
Cat. No.	116763D	1167669	13762350	11675902
Selection Guide				
Application	Dry Shipping Container	Dry Shipping Container	Dry Shipping Container	Dry Shipping Container
Storage Type	Manual Fill / Canister	Manual Fill / Canister	Manual Fill	Manual Fill
LN ₂ Capacity	1.5 Liters	4.3 Liters	10.0 Liters	10.0 Liters
Neck Diameter	1.4 inch / 3.5cm	2.0 inch / 5.0cm	8.5 inch / 21.6cm	8.5 inch / 21.6cm
Canister Diameter	1.2 inch / 3.1cm	1.8 inch / 4.6cm	N/A	N/A
Static Evaporation Rate – <i>See footnote (1)</i>	0.19 Liters / Day	0.2 Liters / Day	0.7 Liters / Day	0.7 Liters / Day
Static Holding Time	8 Days	21 Days	14 Days	14 Days
Number of Canisters (included)	1	1	N/A – <i>See footnote (2)</i>	Internal Security Compartment
Canister Dimensions (Length x Diameter)	5 x 1.2 inches (12.7 x 3.0cm)	11 x 1.80 inches (27.9 x 4.6cm)	N/A	N/A
Hard Shell Shipping Container	standard	standard	standard	standard
Shipping dimensions (Diameter x Height)	15 x 24 inches 38.1 x 61cm	15 x 24 inches 38.1 x 61cm	22 x 28 inches 55.9 x 71.1cm	22 x 28 inches 55.9 x 71.1cm
Maximum System Capability				
Number of Canes per canister	3	8	161	N/A
Number of 1.2mL vials per Cane	3	6	6	N/A
Vial Capacity 1.2mL	9	48	966	480
Vial Capacity 2mL	9	48	966	384
Vial Capacity 4mL	6	24	483	288
Vial Capacity 5mL	3	16	322	N/A
Straw Capacity	15	120	1,610	N/A
Vessel Exterior Dimension				
Diameter x Height	7.3 x 13.5 inch 18.5 x 34.3cm	8.7 x 19.4 inch 22.1 x 49.3cm	15.0 x 23.0 inch 38.1 x 58.4cm	15.0 x 23.0 inch 38.1 x 58.4cm
Product Weight				
Empty	6 lbs. / 2.7 kg	13 lbs. / 5.9 kg	30 lbs. / 13.6 kg	36 lbs. / 16.4 kg
Fully Absorbed	8.8 lbs. / 4 kg	20.0 lbs. / 9.1 kg	47 lbs. / 21.4 kg	53 lbs. / 24.1 kg
Packaged / Shipping	24 lbs. / 10.9 kg	29 lbs. / 13.2 kg	52 lbs. / 23.6 kg	58 lbs. / 26.4 kg
Warranty				
Vessel Vacuum	3 Years	3 Years	3 Years	3 Years
Parts	1 Year	1 Year	1 Year	1 Year
Regulatory Listing				
	CE	CE	CE	CE

Footnotes:

(1) Static evaporation rates are based on new container performance with no lid openings and no product loads. Actual working performance may vary with individual applications.

(2) Shipments of bone marrow, heart valves, or other large samples require specific package size to determine capacity.



Thermo Scientific Arctic Express Dual

Order Information

Product Name	Arctic Express Dual 10	Arctic Express Dual 19	Arctic Express Dual 28
Cat. No.	11675900	13262844	11675903
Selection Guide			
Application	Transport / Storage System	Transport / Storage System	Transport / Storage System
Storage Type	Manual Fill / Canisters	Manual Fill / Canisters	Manual Fill / Canisters
LN ₂ Capacity	10.0 Liters	18.5 Liters	28.0 Liters
Absorbed LN ₂ Capacity	3 Liters	3 Liters	8 Liters
Neck Diameter	2.0 inch / 5.08cm	2.2 inch / 5.6cm	3.8 inch / 9.7cm
Static Holding Time – Laboratory	42 Days	125 Days	50 Days
Static Holding Time – Shipper	21 Days	21 Days	21 Days
Number of cansisters (included)	6	6	6
Canister Dimensions	1.5 x 11 inches 3.8 x 27.9cm	1.6 x 11 inches 4.1 x 27.9cm	3.1 x 11 inches 7.9 x 27.9cm
Hard Shell Shipping Container	standard	standard	standard
Exterior dimensions (Diameter x Height)	18 x 25 inches 45.7 x 63.5cm	22 x 28 inches 55.9 x 71.1cm	22 x 28 inches 55.9 x 71.1cm
Maximum System Capability			
Number of Canes per canister	5	6	21
Total number of Canes	30	36	126
Vial Capacity 1.2mL (6 per cane)	180	216	756
Vial Capacity 2mL (5 per cane)	150	175	630
Vial Capacity 4mL (3 per cane)	90	108	378
Vial Capacity 5mL (2 per cane)	60	72	252
Straw Capacity (10 per cane)	300	360	1,260
Vessel Exterior Dimension			
Diameter x Height	10.2 x 21.6 inch 25.9 x 54.9cm	14.5 x 25.7 inch 36.8 x 65.3cm	18.2 x 22.0 inch 46.2 x 55.9cm
Product Weight			
Empty	17 lbs. / 7.7 kg	24 lbs. / 10.9 kg	37 lbs. / 16.8 kg
Full	35 lbs. / 15.9 kg	57 lbs. / 25.9 kg	87 lbs. / 39.5 kg
Packaged / Shipping	34 lbs. / 15.5 kg	46 lbs. / 20.9 kg	60 lbs. / 27.3 kg
Accessories			
Vials			
1mL, case of 500	1167648	1167648	1167648
Cryogenic Vials(E), case/500, 1.2mL, 13.5mm O.K., 38.1mm H	13262843	13262843	13262843
1.5mL, case of 500	1167649	1167649	1167649
Cryogenic Vials(E), case/500, 2.0mL, 13.5mm O.K., 48.3mm H	13262842	13262842	13262842
Misc.			
Low Level Alarm, stand alone – See footnote (1)	TF8130	TF8130	TF8130
Wheeled Accessory Cart, 5 inches high – See footnote (1)	N/A	1167016	1167016
One Cryo Cane, 1.2ml – 6 Ampule	11679113	11679113	11679113
CryoSleeve (100 per case, length 273mm / 10.75 inches)	1157661	1157661	1157661
Warranty			
Vessel Vacuum	3 Years	3 Years	3 Years
Parts	1 Year	1 Year	1 Year
Regulatory Listing			
	CE	CE	CE

Footnote:

(1) The low level alarm and wheeled accessory cart can only be used in the laboratory application. Not for shipping.

Thermo Scientific Thermo-Flask Benchtop Liquid Nitrogen Containers

Our Thermo-Flask liquid nitrogen containers feature inner vessels of borosilicate glass evacuated to 1×10^{-5} mmHg. Available in stainless steel, and featuring vented clamped lids, carrying handles and rubber cushioned bases.



- Durable, corrosion-resistant stainless steel exterior
- Shallow wide-mouth ideal for use as a cold trap
- Convenient dish-shaped design perfect for benchtop use with crushed ice and dry ice/alcohol
- "Push-fit" insulated lid, vented to prevent pressure build-up



Thermo Scientific Thermo-Flask

Order Information

Cat No.	13262780	13762372	1167025C	116704B	116704C
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Selection Guide

Application	LN ₂ Benchtop Container	LN ₂ Benchtop Container	LN ₂ Benchtop Container	LN ₂ Benchtop Container	LN ₂ Benchtop Container
Storage Type	Manual Fill / Shallow Wide Mouth	Manual Fill / Shallow Wide Mouth	Manual Fill / SS with Lids and Handles	Manual Fill / SS with Lids and Handles	Manual Fill / SS with Lids and Handles
LN ₂ Capacity	1000mL	1900mL	1.01 Liters	2.01 Liters	4.51 Liters
Inside Neck Diameter	5.1 inch / 13cm	6.1 inch / 15.5cm	3.4 inch / 8.6cm	4.2 inch / 10.7cm	5.9 inch / 15cm

Vessel Exterior Dimension

Diameter x Height	6.3 x 4.5 inches 16 x 11.4cm	7.3 x 5.4 inches 18.5 x 13.7cm	4.6 x 9 inches 11.7 x 22.9 cm	5.6 x 10.6 inches 14.2 x 26.9cm	7.2 x 13.8 inches 18.3 x 35.1cm
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Product Weight

Packaged / Shipping	8 lbs. / 3.6 kg	10 lbs. / 4.5 kg	6 lbs. / 2.7 kg	8 lbs. / 3.6 kg	10 lbs. / 4.5 kg
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Accessories

12mL Dipper	1167013	1167013	1167013	1167013	1167013
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Warranty

Vessel Vacuum	1 Year	1 Year	1 Year	1 Year	1 Year
Parts	1 Year	1 Year	1 Year	1 Year	1 Year



Thermo Scientific LN₂ Supply Tanks

All of our stainless steel LN₂ supply tanks are rated at 22 psi.
Supply tank evaporates 2% of its volume/day.

Order Information

Product Name	Thermo 50	Thermo 180	Thermo 230
Cat. No.	TF8127	TF8120	TF8121
Selection Guide			
Application	LN ₂ Supply Tank	LN ₂ Supply Tank	LN ₂ Supply Tank
Type	Stainless Steel Low Pressure (22 psi)	Stainless Steel Low Pressure (22 psi)	Stainless Steel Low Pressure (22 psi)
LN ₂ Capacity	50.0 Liters	180.0 Liters	230.0 Liters
Static Evaporation Rate	4% per day	4% per day	4% per day
Caster	Standard	Option	Standard
Vessel Exterior Dimension			
Diameter x Height / Hand Truck	16.0 x 41 inches 40.6 x 104.1cm	20.0 x 63.5 inches 50.8 x 161.3cm	26.0 x 54.8 inches / Hand Truck: 27 x 28 F/B inch 66.0 x 139.2cm / Hand Truck: 68.6 x 71.1 F/Bcm
Product Weight			
Empty	98.5 lbs. / 47.7 kg	210 lbs. / 95.3 kg	275 lbs. / 124.7 kg
Full	187.6 lbs. x 85.1 kg	531 lbs. / 231 kg	684.9 x 310.6 kg
Packaged / Shipping	98.45 lbs. / 47.7 kg	210 lbs. / 95.3 kg	275 lbs. / 124.7 kg
Accessories			
LN ₂ Cylinder Hand Truck with Pneumatic wheels	N/A	TF4000173	N/A
LN ₂ Cylinder Roller Base	N/A	11679108	N/A
6 ft transfer hose	TF4000401	TF4000401	TF4000401
Phase separator for transfer hose	TF4000571	TF4000571	TF4000571
Warranty			
Vessel Vacuum	2 Years	2 Years	2 Years
Parts	1 Year	1 Year	1 Year



Thermo Scientific Cryopreservation Accessories



- | | | | |
|-----------------------------|-----------------------------------|----------------------------------|--------------------------------|
| 1 Cell dividers | 5 LN ₂ measuring stick | 8 Cryo sleeve with optional cane | 13 Sensaphone dialing system |
| 2 Square box with hole | 6 CryoClaw | 9 Cryo markers | 14 Low-level alarm with sensor |
| 3 Rectangular cardboard box | 7 Cryo gloves | 10 T-valve assembly | 15 Flexible metal hose |
| 4 Polycarbonate boxes | | 11 Phase separator | |
| | | 12 Tongs | |

Thermo Scientific Cryopreservation Accessories

Order Information

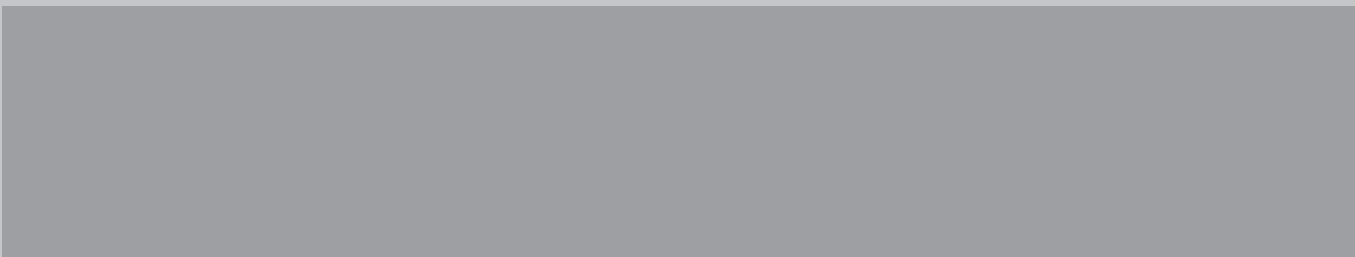
Description	Cat. No.
Cryo Vials	
<i>Each vial is constructed of sterile polypropylene with a white marking area and includes a screw cap.</i>	
1.2mL, self-standing, conical interior bottom, silicone washer, one case of 500	13762371
2.0mL, self-standing, round interior bottom, silicone washer, one case of 500	11679112
4.0mL, self standing, round bottom, silicone washer, one case of 500	13762369
5.0mL, round bottom, silicone washer, one case of 500	13762370
Cryo Vial Color Coding Caps	
Rainbow (assortment of all colors), one case of 400	11679124
Cryo Boxes	
Individual	
2.0" (5.1cm) Rectangular Cardboard Box, includes a 40-cell Divider	11679109
2.0" (5.1cm) Square Stainless Steel Box, Does Not include a 100-Cell Divider	11679118
2.0" (5.1cm) Square Cardboard Box, includes a 100-Cell Divider	TF4000014
2.75" (7.0cm) Square Cardboard Box, Does Not include a 25-Cell Divider	13262792
3.0" (7.6cm) Square Cardboard Box, includes a 100-Cell Divider	11679099
2.0" (5.1cm) High Polycarbonate Box with 100 Cell Divider, includes a numerical grid system printed on the cover	13994076
2.0" (5.1cm) High Polycarbonate Box with 81 Cell Divider, includes a numerical grid system printed on the cover	13994077
3.0" (5.1cm) High Polycarbonate Box with 81 Cell Divider, includes a numerical grid system printed on the cover	13994079
Dividers	
Cardboard 100-Cell Divider	TF4000013
Cardboard 40-Cell Divider	11679107
Cardboard 25-Cell Divider	13262782
Canes	
One Cane, 1.2mL – 6 Ampoule	11679113
One Aluminum Cane for storage of 12.5mm diameter Cryo Tubes	11679115
One Cane, 5.0mL – 2 Ampoule, 2009 = 10	13262814
One Aluminum Cane for 9.2mL and 10.0mL Goblets, 2009 = 0	11679114
Cryo Sleeve	
Cardboard Sleeve, 0.6" (1.5cm) interior diameter, 10.8" (27.4cm) long, one case of 100	11679114
Polyvinyl chloride sleeve, 0.6" (1.5cm) interior diameter, 10.8" (27.4cm) long, one case of 100	1535023
Tongs	
<i>Transport vials from freezing racks to boxes</i>	
Stainless Steel Cryo Tongs	11679123
Claws	
<i>Retrieve fallen object in the LN₂ vessels</i>	
CryoClaw	1167595
Replacement suction cups for CryoClaw	1167596
Measuring Stick	
LN ₂ Measuring Stick	11679083

Thermo Scientific Cryopreservation Accessories

Order Information

Description	Cat. No.
Gloves (Water Proof Cryo)	
Mid-Arm, 14.0" to 15.0" (35.6cm to 38.1cm)	
Small	13262783
Medium	13262784
Large	13262785
Elbow-Length, 18.0" to 20.0" (45.7cm to 50.8cm)	
Medium	13262786
Large	11679085
Extra-Large	13262787
Shoulder-Length, 28.0" (71.1cm)	
Medium	13262788
Large	13262789
Extra-Large	13262790
Aprons	
Small, 36.0"W (91.4cm)	19807666
Medium, 42.0"W (106.7cm)	13262791
Large, 48.0"W (121.9cm)	19807667
Cryo Marker Pens	
<i>Fine tip, fast-drying, non-smearing, permanent ink; recommended for all Cryogenic vials at -200C (-328F).</i>	
Black, blue, green, and red, set of 4	TF4000221
Black, set of 4	11679117
LN₂ Transfer Hoses and Phase Separator	
4.0 ft. (1.2m) Flexible Metal Hose, 1/2", 45 degree flare, swivel ends	TF4000400
6.0 ft. (1.8m) Flexible Metal Hose, 1/2", 45 degree flare, swivel ends	TF4000401
Phase Separator, 1.3" (3.3cm) diameter x 3.0" (7.6cm) long x 1/4" FPT	TF4000571
Low Level Alarm	
Low Level Alarm (120V) with Sensor for any standard-sized LN ₂ container, includes dry contacts for remote alarm	TF8130
Sensaphone® Telephone Dialing Systems	
4 pre-programmed numbers, 120V 60 Hz	13994066
4 pre-programmed numbers, 220V 50 Hz*	11679091
8 pre-programmed numbers, 120V 60Hz	13994069
8 pre-programmed numbers, 220V 50Hz*	11679093
Phase Separator	
Phase Separator with manual valve & T fitting, used to connect two transfer hoses to a supply tank	TF4000290

*Not CE marked





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