

thermo scientific



Thermo Scientific Cryopreservation Storage Equipment

Indefinite sample storage. Infinite possibilities.

ThermoFisher
SCIENTIFIC



Thermo Scientific Cryopreservation Equipment

Our cryopreservation sample preparation and storage solutions offer scientists outstanding temperature performance, low operating costs and integrated control features.

Extended Hold Times – Unlike mechanical systems, Thermo Scientific LN₂ storage solutions are designed to offer consistent temperatures even when electricity is lost. Samples remain protected much longer during power outages than alternative technologies. With cryo storage tanks, the need to locate backup storage and relocate samples is dramatically reduced.

Low Power Consumption – Because most Thermo Scientific cryogenic storage products rely on liquid nitrogen, they consume less power than a standard light bulb, providing significant energy savings.

Zero Greenhouse Gases – Because LN₂ storage depends on the cooling power of naturally sourced nitrogen gas, there are no halogenated hydrocarbon refrigerants used and no greenhouse gas concerns.

**dependable,
secure
sample protection**

dependable sample preparation

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 printer.



Easy Programming and Monitoring

- The CryoMed controlled rate freezer can be operated directly from the unit's built-in microprocessor or remotely through the PC interface
- Includes a Java®-based PC software (as a standard feature) compatible with current Windows operating systems
- Backlit LCD provides at-a-glance operational status
- Allows at-a-glance from a distance to view sample and chamber tracking
- Chamber and sample temperatures and operation status are simultaneously displayed on a backlit LCD
- Chamber and sample temperatures are monitored by Type T thermocouples, which eliminate lag time and provide "real time" responsiveness
- Standard alarms enable open thermocouple, heater malfunction, high/low temp limit, temperature tracking, power failure, and completion of run
- Four-digit access code for added security
- Six standard preset profiles and ten user defined profiles for customer-created profiles are standard

LN₂ Freezing System Components

- Dual solenoid valves increase LN₂ injection volume for precise temperature control and accelerated freezing
- Specifically designed air handling system and patented liquid nitrogen injection ring work in tandem for precise temperature control and uniformity
- Over-temperature protection for heating provides a safe working environment
- IVF chambers are compliant with human sample standards and provide convenient top access for manual seeding of samples

Construction

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

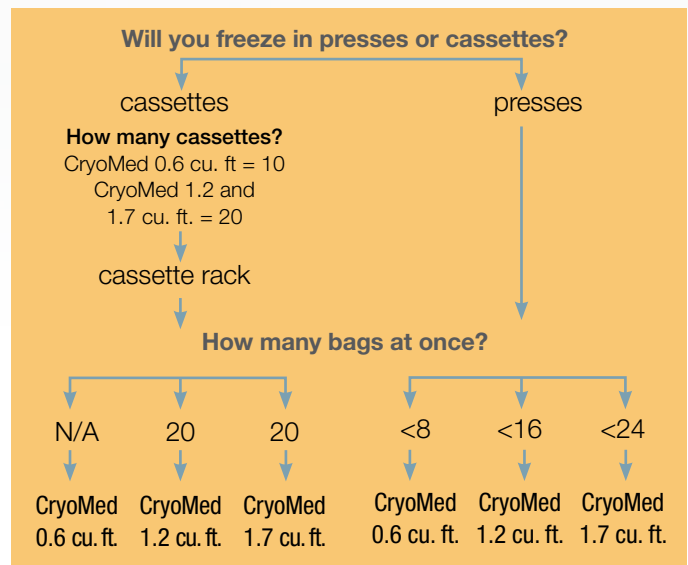
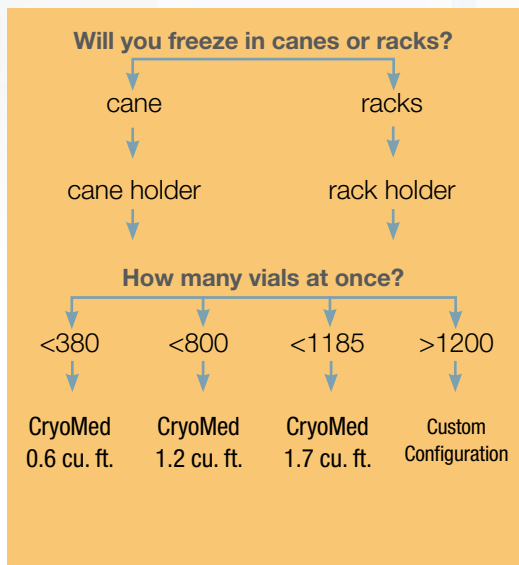


What is your method of sample preparation?

VIALS*

STRAWS

BAGS**



Will you freeze in straw racks or in IVF holders?









*assumes 1.2/2.0 mL vials

**assumes 250 mL bag

› Thermo Scientific CryoMed Controlled Rate Freezers











Model No.	Electrical	Plug Type	Chamber Volume	Access Type	Temp. Range	Exterior Dimensions W x H x D in. (cm)	Interior Dimensions W x H x D in. (cm)	Shipping Weight	Regulatory Listings	LN ₂ and Utility connection
7450	120v/60 Hz	NEMA 5-15P	0.6 cu. ft. / 17L	Front Loading	50° to -180°C	31.7 x 21.2 x 20.4 (80.5 x 53.8 x 51.8)	7 x 12 x 13 (17.8 x 30.5 x 33)	200 lbs. / 90.7 kg	cULus and CE	All models require 22 psi (1.5 bar) low pressure supply tank and are supplied with one 6' braided stainless steel hose, with .5" x 45 degree flare connectors on each end
7451	220v/50 Hz	CEE 7/7								
7472	100v/60 Hz	NEMA 5-15P								
7452	120v/60 Hz	NEMA 5-15P	1.2 cu. ft. / 34L			37.7 x 21.2 x 20.4 (95.8 x 53.8 x 51.8)	13 x 12 x 13 (33 x 30.5 x 33)	215 lbs. / 97.5 kg		
7453	220v/50 Hz	CEE 7/7								
7473	100v/60 Hz	NEMA 5-15P								
7454	120v/60 Hz	NEMA 5-15P	1.7 cu. ft. / 48.1L	43.7 x 21.2 x 20.4 (111 x 53.8 x 51.8)	19 x 12 x 13 (48.3 x 30.5 x 33)	235 lbs. / 106.6 kg				
7455	220v/50 Hz	CEE 7/7								
7474	100v/60 Hz	NEMA 5-15P								
7456	120v/60 Hz	NEMA 5-15P	0.6 cu. ft. / 17L	Front and Top Loading (IVF)	50° to -180°C	31.7 x 21.2 x 20.4 (80.5 x 57.2 x 51.8)	7 x 12 x 13 (17.8 x 30.5 x 33)	200 lbs. / 90.7 kg	510K, CFDA, cULus and CE	
7457	220v/50 Hz	CEE 7/7								
7475	100v/60 Hz	NEMA 5-15P								
7458	120v/60 Hz	NEMA 5-15P	1.2 cu. ft. / 34L			43.5 x 47 x 50 (95.8 x 57.2 x 51.8)	13 x 12 x 13 (33 x 30.5 x 33)	215 lbs. / 97.5 kg		
7459	220v/50 Hz	CEE 7/7								
7476	100v/60 Hz	NEMA 5-15P								

› CryoMed Freezing Racks and Holders








Model No. & Description	Dimensions H x W x D in. (cm)	Storage	CryoMed 0.6 cu. ft.	CryoMed 1.2 cu. ft.	CryoMed 1.7 cu. ft.	CryoMed - IVF 0.6 cu. ft.	CryoMed - IVF 1.2 cu. ft.
 4000294 Straw rack for .25/.5 mL straws - holds 40 straws	11.3 x 3 x 5.25 (28.7 x 7.6 x 13.3)	Racks per chamber	4	8	12	4*	8*
		Straws per rack	40	40	40	40	40
		Total # straws per chamber	160	320	480	160*	320*
 4000303 Cane freezing rack - large	11 x 12 x 12 (28 x 30.5 x 30.5)	Racks per chamber	N/A	1	1 large & 1 small	N/A	1*
		Canes per rack	N/A	162	162 & 77	N/A	162*
		Vials (2 mL) per cane	N/A	5	5	N/A	5*
		Total # vials per chamber	N/A	810	1,195	N/A	810*
 4000700 Cane freezing rack - small	11 x 6 x 12 (28 x 15.2 x 30.5)	Racks per chamber	1	N/A	1 large & 1 small	1*	N/A
		Canes per rack	77	N/A	162 & 77	77*	N/A
		Vials (2 mL) per cane	5	N/A	5	5*	N/A
		Total # vials per chamber	385	N/A	1,195	385*	N/A
 4000701 1.2/2 mL freezing rack - small	1.1 x 6 x 12 (2.8 x 15.2 x 30.5)	Racks per chamber	5	N/A	5 large & 5 small	5*	N/A
		Vials per rack	76	N/A	161 & 76	76*	N/A
		Total # vials per chamber	380	N/A	1,185	380*	N/A
 4000702 Small rack holder for 4000701 racks	9.8 x 6.2 x 12.4 (24.9 x 15.7 x 31.5)	Rack holders per chamber	1	N/A	1 large & 1 small	1*	N/A
		Racks per rack holder	5	N/A	5 & 5	5*	N/A
		Total # racks per chamber	5	N/A	10	5*	N/A
 4000703 1.2/2 mL freezing rack - large	1.1 x 12 x 12 (2.8 x 30.5 x 30.5)	Racks per chamber	N/A	5	5 large & 5 small	N/A	5*
		Vials per rack	N/A	161	161 & 76	N/A	161*
		Total # vials per chamber	N/A	805	1,185	N/A	805*

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

> CryoMed Freezing Racks and Holders





Model No. & Description	Dimensions H x W x D in. (cm)	Storage	CryoMed 0.6 cu. ft.	CryoMed 1.2 cu. ft.	CryoMed 1.7 cu. ft.	CryoMed - IVF 0.6 cu. ft.	CryoMed - IVF 1.2 cu. ft.
 4000704 Large rack holder for 4000703 racks	9.8 x 12.2 x 12.4 (24.9 x 31 x 31.5)	Rack holders per chamber	N/A	1	1 large & 1 small	N/A	1*
		Racks per rack holder	N/A	5	5 & 5	N/A	5*
		Total # racks per chamber	N/A	5	10	N/A	5*
 4000705 4 or 5 mL freezing rack - small	2.6 x 6 x 12 (6.6 x 15.2 x 30.5)	Racks per chamber	3	N/A	3 large & 3 small	3*	N/A
		Vials per rack	76	N/A	161 & 76	76*	N/A
		Total # vials per chamber	228	N/A	711	228*	N/A
 4000706 Small rack holder for 4000705 racks	8.1 x 6.2 x 12.4 (20.6 x 15.7 x 31.5)	Rack holders per chamber	1	N/A	1 large & 1 small	1*	N/A
		Racks per rack holder	3	N/A	3 & 3	3*	N/A
		Total # racks per chamber	3	N/A	6	3*	N/A
 4000707 4 or 5 mL freezing rack - large	8.1 x 12.2 x 12.4 (20.6 x 31 x 31.5)	Racks per chamber	N/A	3	3 large & 3 small	N/A	3*
		Vials per rack	N/A	161	161 & 76	N/A	161*
		Total # vials per chamber	N/A	483	711	N/A	483*
 4000708 Large rack holder for 4000707 racks	8.1 x 12.2 x 12.4 (20.6 x 31 x 31.5)	Rack holders per chamber	N/A	1	1 large & 1 small	N/A	1*
		Racks per rack holder	N/A	3	3 & 3	N/A	3*
		Total # racks per chamber	N/A	5	6	N/A	3*
 4000310 Two level skin rack - holds skin packets measuring 5 x 7 in.	10.5 x 6.2 x 12.6 (26.7 x 15.7 x 32)	Rack holders per chamber	1	2	3	1*	2*
		Skin packets per rack	48	48	48	48	48
		Total # skin packets per chamber	48	96	144	48*	96*
 4000312 One level skin rack - holds skin packets measuring 5 x 7 in.	5.2 x 6.2 x 12.6 (13.2 x 15.7 x 32)	Rack holders per chamber	2	4	6	2*	4*
		Skin packets per rack	24	24	24	24	24
		Total # skin packets per chamber	48	96	144	48*	96*
 4000340 Cord blood freezing rack for 50 mL canisters (4000610)	11 x 4 x 5 (28 x 10.2 x 12.7)	Rack holders per chamber	3	6	9	3*	6*
		Canisters per rack	10	10	10	10	10
		Total # canisters per chamber	30	60	90	30*	60*
 4000340 Cord blood freezing rack for 25 mL canisters (1950381)	11 x 4 x 5 (28 x 10.2 x 12.7)	Rack holders per chamber	3	6	9	3*	6*
		Canisters per rack	10	10	10	10	10
		Total # canisters per chamber	30	60	90	30*	60*
 185089 Adjustable freezing rack for canisters	11.6 x 5.5 to 7.5 x 8.2 (29.5 x 14 to 19 x 20.8)	Rack holders per chamber	N/A	2	2	N/A	2*
		Canisters per rack	N/A	10	10	N/A	10*
		Total # canisters per chamber	N/A	20	20	N/A	20*

> CryoMed Freezing Presses

Model No. & Description	Dimensions H x W x D in. (cm)	Storage	CryoMed 0.6 cu. ft.	CryoMed 1.2 cu. ft.	CryoMed 1.7 cu. ft.	CryoMed - IVF 0.6 cu. ft.	CryoMed - IVF 1.2 cu. ft.
 4000314 Bag press for 250 mL bag (Fenwal 4R5461 or equivalent)	5.9 x 9 (15 x 22.9)	Presses per chamber	4	8	12	4*	8*
		Bags per rack	2	2	2	2	2
		Total # - bags per chamber	8	16	24	8*	16*
 4000316 Bag press for 200 mL bag (Gambro DF-200 or equivalent)	8 x 8.5 (20.3 x 21.6)	Presses per chamber	N/A	4	8	N/A	4*
		Bags per rack	N/A	2	2	N/A	2*
		Total # - bags per chamber	N/A	8	16	N/A	8*
 4000317 Bag press for Delmed 2030-2	8.8 x 12 (22.4 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
		Bags per rack	N/A	4	4	N/A	4*
		Total # - bags per chamber	N/A	16	32	N/A	16*
 4000318 Bag press for 250 mL bag (Fenwal 4R5461 or equivalent)	9 x 12 (22.9 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
		Bags per rack	N/A	4	4	N/A	4*
		Total # - bags per chamber	N/A	16	32	N/A	16*
 4000320 Bag press for 200 mL bag (Gambro DF-200 or equivalent)	9 x 12 (22.9 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
		Bags per rack	N/A	4	4	N/A	4*
		Total # - bags per chamber	N/A	16	32	N/A	16*
 4000321 Bag press for 700 mL bag (Gambro DF-700 or equivalent)	8 x 12 (20.3 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
		Bags per rack	N/A	2	2	N/A	2*
		Total # - bags per chamber	N/A	8	16	N/A	8*
 4000555 Bag press for 500 mL bag (Fenwal 4R5462 or equivalent)	6 x 10.3 (15.2 x 26.2)	Presses per chamber	4	8	12	4*	8*
		Bags per rack	2	2	2	2	2
		Total # - bags per chamber	8	16	24	4*	16*


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

> CryoMed Holders and Plugs for Top Loading Chambers*

Model No. & Description	Storage	CryoMed 0.6 cu. ft.	CryoMed 1.2 cu. ft.	CryoMed 1.7 cu. ft.	CryoMed - IVF 0.6 cu. ft.	CryoMed - IVF 1.2 cu. ft.	
	4000710	Holders per chamber	N/A	N/A	N/A	18	30
	.25/.5 mL straw holder	Straws per holder	N/A	N/A	N/A	4	4
		Total # - straws per chamber	N/A	N/A	N/A	72	120
	4000711	Holders per chamber	N/A	N/A	N/A	18	30
	1.2/2 mL vial holder	Vials per holder	N/A	N/A	N/A	1	1
		Total # - vials per chamber	N/A	N/A	N/A	18	30
	180254	Holders per chamber	N/A	N/A	N/A	18	30
	Cane holder	Canes per holder	N/A	N/A	N/A	1	1
		Total # - canes per chamber	N/A	N/A	N/A	18	30
	180255	Plugs per chamber	N/A	N/A	N/A	18	30
	Sleeve plug						

*IVF chamber includes 18 sleeve plugs for the small chamber and 30 sleeve plugs for the large chamber, and 1 each of the straw holder (#4000710), 2 mL vial holder (#4000711), and 1 cane holder (#4000714).


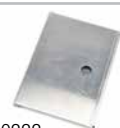
> CryoMed Sample Sensors*

Model No. & Description	CryoMed 0.6 cu. ft.	CryoMed 1.2 cu. ft.	CryoMed 1.7 cu. ft.	CryoMed - IVF 0.6 cu. ft.	CryoMed - IVF 1.2 cu. ft.
 4000393	Thermocouple sensor for 1.2/2 mL vials		4000385	4000385*	
	Thermocouple sensor for 4/5 mL vials		4000386	4000386*	
	Thermocouple sensor ribbon type for bags		4000393	4000393*	
	Thermocouple sensor .02 sheath for straws		4000384	4000402	
	Thermocouple sensor .062 sheath for vials		N/A	4000403	

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

NOTE: Front load CryoMed includes a 2 mL sample sensor (Model no. 4000385). The IVF chamber includes a vial sensor (Model no. 4000403) and a straw sensor (Model no. 4000402).

> CryoMed Canisters for Freezing Racks

Model No. & Description	Dimensions H x W x D in. (cm)
 1950831	1950831 (Pall/MedSep 25 mL, OriGen CS 25, or equivalent) Swing arm canister for 25 mL bag 3.6 x 3.9 x 0.4 (9.14 x 9.4 x 1)
	4000610 (Fenwal 4R9951, OriGen CS 50 or equivalent) Swing arm canister for 50 mL bag 3.7 x 6.3 x 0.5 (9.4 x 16 x 1.3)
	4000356 (Gambro DF-200 or equivalent) Swing arm canister for 200 mL bag 6.4 x 7.8 x 0.8 (16.3 x 19.1 x 2)
 4000333	4000357 (Gambro DF-700, OriGen CS 1000 or equivalent) Swing arm canister for 700 mL bag 6.5 x 12.1 x 0.8 (16.5 x 30.7 x 2)
	4000335 (Fenwal 4R5461, OriGen CS 25 or equivalent) Sliding canister for 250 mL bag 5.5 x 7.6 x 0.4 (14 x 19.3 x 1)
	4000336 (Fenwal 4R5462, OriGen CS 500 or equivalent) Sliding canister for 500 mL bag 5.6 x 9.2 x 0.4 (14.2 x 23.4 x 1)
	4000332 (Gambro DF-200 or equivalent) Sliding canister for 200 mL bag 6.4 x 7.8 x 0.8 (16.3 x 19.1 x 2)
4000333 (Gambro DF-700, OriGen CS 1000 or equivalent) Sliding canister for 700 mL bag 6.5 x 11.8 x 0.8 (16.5 x 30 x 2)	

> Printer Paper

Model No. & Description

4000566 Thermal printer paper (5 rolls per pack)

> Windows® 7-8 Compatible Software for Previous- Generation CryoMed

Model No. & Description:

4000414 Upgrade kit consists of PC software (version 3.0) compatible with Windows XP, 7, 8, and 10 and includes a USB adapter with supporting software.

> Quality Services Available

(Must be ordered with equipment)

260049 Certification of Compliance (Unit Specific)

260045 Temperature Mapping

260043 Certificate of Conformance