

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

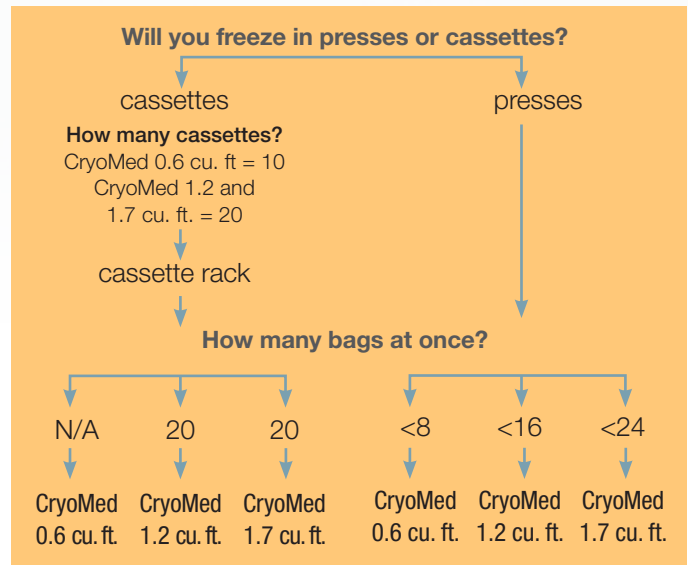
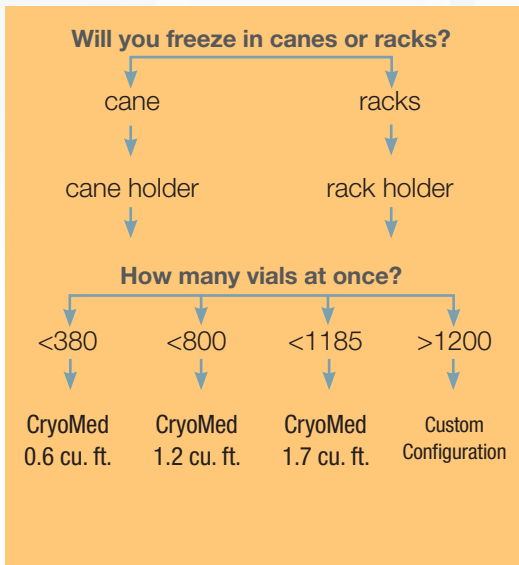


What is your method of sample preparation?

VIALS*

STRAWS

BAGS**



Will you freeze in straw racks or in IVF holders?






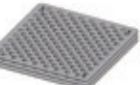


*assumes 1.2/2.0 mL vials
 **assumes 250 mL bag

› 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	5.9 x 9 (15 x 22.9)	Presses per chamber	4	8	12	4*	8*
	Bag press for 250 mL bag (Fenwal 4R5461 or equivalent)		Bags per rack	2	2	2	2	2
	Total # - bags per chamber		8	16	24	8*	16*	
	4000316	8 x 8.5 (20.3 x 21.6)	Presses per chamber	N/A	4	8	N/A	4*
	Bag press for 200 mL bag (Gambro DF-200 or equivalent)		Bags per rack	N/A	2	2	N/A	2*
	Total # - bags per chamber		N/A	8	16	N/A	8*	
	4000317	8.8 x 12 (22.4 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
	Bag press for Delmed 2030-2		Bags per rack	N/A	4	4	N/A	4*
	Total # - bags per chamber		N/A	16	32	N/A	16*	
	4000318	9 x 12 (22.9 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
	Bag press for 250 mL bag (Fenwal 4R5461 or equivalent)		Bags per rack	N/A	4	4	N/A	4*
	Total # - bags per chamber		N/A	16	32	N/A	16*	
	4000320	9 x 12 (22.9 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
	Bag press for 200 mL bag (Gambro DF-200 or equivalent)		Bags per rack	N/A	4	4	N/A	4*
	Total # - bags per chamber		N/A	16	32	N/A	16*	
	4000321	8 x 12 (20.3 x 30.5)	Presses per chamber	N/A	4	8	N/A	4*
	Bag press for 700 mL bag (Gambro DF-700 or equivalent)		Bags per rack	N/A	2	2	N/A	2*
	Total # - bags per chamber		N/A	8	16	N/A	8*	
	4000555	6 x 10.3 (15.2 x 26.2)	Presses per chamber	4	8	12	4*	8*
	Bag press for 500 mL bag (Fenwal 4R5462 or equivalent)		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)
	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)
 4000333	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)

> Quality Services Available (Must be ordered with equipment)

260049	Certification of Compliance (Unit Specific)
260045	Temperature Mapping
260043	Certificate of Conformance

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

Model No. & Description:
4000414 Upgrade kit consists of PC software and an RS-232 to USB adapter cord compatible with Windows XP, 7, and 8.