

versatile and reliable

Thermo Scientific TSC Series chest freezers contain all the sample protection features of our TSE and TSD upright series. Choose a -86°C or -40°C cabinet in four convenient sizes as well as a full range of racking solutions.

Rugged construction for everyday use

- Heavy gauge, cold-rolled steel cabinets with a powder coat paint finish for a uniform exterior that resists chipping and rust.
- 5" (127mm) foamed-in-place, polyurethane insulation reduces power consumption, maintains temperature setpoint and combined with sub lids and door gasket, provides longer holding time in the event of a power failure.
- State-of-the-art, refrigeration system improves temperature control and increases reserve capacity, resulting in a more stable temperature sample.
- Stainless steel interior.
- 1" (2.5cm) access ports allow for the use of independent probes or instrumentation.



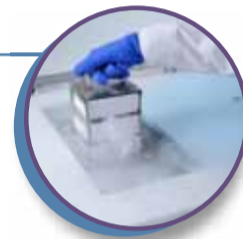
Optional CO₂ or LN₂ back-up

Optional choice of CO₂ or LN₂ safety back-up systems for additional sample protection in the event of a power or mechanical failure.



Microprocessor control

Centralized information center, including microprocessor control and monitoring system ensures that all controls and displays are easy to reach and read. Knee level on the 3 cu. ft. (85L) models.



Polystyrene interiorsub-lids

Reduce cold air loss and improve temperature recovery after door openings.



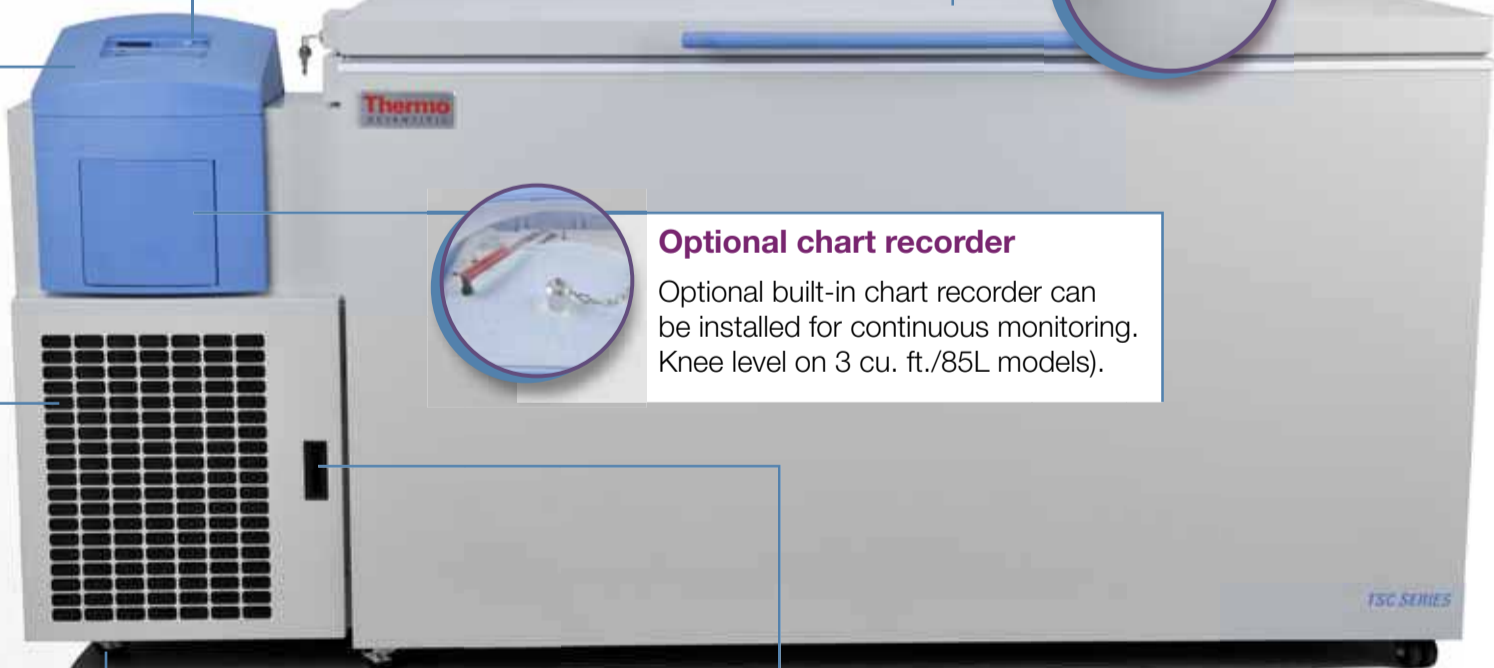
Single-hand operation

Easy-to-use, ergonomic, lockable door handle.



Optional chart recorder

Optional built-in chart recorder can be installed for continuous monitoring. Knee level on 3 cu. ft./85L models).



Simplified installation

With our new easy-roll 2" (5cm) locking casters.

RS-485 and 4-20 milliamp analog outputs

For independent monitoring devices and recorders.



Easy-to-remove, washable filter

Provides protection from dust on condenser, reducing the risk of refrigeration malfunction or risk to samples

Thermo Scientific TSC Series -86°C Chest Freezers

| Model No. | Capacity cu. ft. (liters) | 2 in. Box Qty. | Electrical | Amps / Breaker (Plug) | Interior Dimensions H x W x D in. (cm) | Exterior Dimensions H x W x D in. (cm) | Shipping Weight lbs. (kg) |
|---|---------------------------|----------------|---|--|---|--|---------------------------|
| TSC390A TSC390V | 3.0 (85) | 63 | 115V / 60Hz 230V / 50Hz | 10.5/20 (NEMA 5-20) 5.4/15 (European) | 16.5 x 18.5 x 18.5 (41.69 x 47.0 x 47.0) | 43.8 x 28.5 x 29.9 (113.3 x 72.4 x 75.9) | 432 (196) |
| TSC1390A TSC1390D TSC1390V | 12.7 (360) | 252 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 16/20 (NEMA 5-20) 12/15 (NEMA 6-15) 12/15 (European) | 28.0 x 42.5 x 18.5 (71.1 x 108.0 x 47.0) | 40.5 x 72.0 x 33.4 (102.9 x 182.9 x 84.8) | 716 (325) |
| TSC1790A TSC1790D TSC1790V | 17.0 (481) | 348 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 16/20 (NEMA 5-20) 12/15 (NEMA 6-15) 12/15 (European) | 28.0 x 58.8 x 18.5 (71.1 x 149.4 x 47.0) | 40.5 x 87.6 x 33.8 (102.9 x 222.5 x 85.9) | 821 (372) |
| TSC2090A TSC2090D TSC2090V | 20.0 (566) | 396 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 16/20 (NEMA 5-20) 12/15 (NEMA 6-15) 12/15 (European) | 28.0 x 66.5 x 18.5 (71.1 x 168.9 x 47.0) | 40.5 x 96.0 x 33.4 (102.9 x 243.8 x 84.8) | 833 (378) |

Thermo Scientific TSC Series -40°C Chest Freezers (-10°C to -40°C)

| Model No. | Capacity cu. ft. (liters) | 2 in. Box Qty. | Electrical | Amps / Breaker (Plug) | Interior Dimensions H x W x D in. (cm) | Exterior Dimensions H x W x D in. (cm) | Shipping Weight lbs. (kg) |
|---|---------------------------|----------------|---|---|---|--|---------------------------|
| TSC350A TSC350V | 3.0 (85) | 63 | 115V / 60Hz 230V / 50Hz | 5/15 (NEMA 5-20) 3/15 (European) | 16.5 x 18.5 x 18.5 (41.69 x 47.0 x 47.0) | 43.8 x 28.5 x 29.9 (113.3 x 72.4 x 75.9) | 395 (179) |
| TSC1350A TSC1350D TSC1350V | 12.7 (360) | 252 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 6.5/15 (NEMA 5-20) 6.5/15 (NEMA 6-15) 6.5/15 (European) | 28.0 x 42.5 x 18.5 (71.1 x 108.0 x 47.0) | 40.5 x 72.0 x 33.4 (102.9 x 182.9 x 84.8) | 659 (299) |
| TSC1750A TSC1750D TSC1750V | 17.0 (481) | 348 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 6.5/15 (NEMA 5-20) 6.5/15 (NEMA 6-15) 6.5/15 (European) | 28.0 x 58.8 x 18.5 (71.1 x 149.4 x 47.0) | 40.5 x 87.6 x 33.8 (102.9 x 222.5 x 85.9) | 764 (34) |
| TSC2050A TSC2050D TSC2050V | 20.0 (566) | 396 | 115V / 60Hz 208-230V / 60Hz 230V / 50Hz | 6.5/15 (NEMA 5-20) 6.5/15 (NEMA 6-15) 6.5/15 (European) | 28.0 x 66.5 x 18.5 (71.1 x 168.9 x 47.0) | 40.5 x 96.0 x 33.4 (102.9 x 243.8 x 84.8) | 776 (352) |

Monitoring and Remote Options

| Model No. | Electrical | Description |
|----------------------------------|----------------------------|--|
| 5612-1A 5612-3V | 120V / 60Hz 230V / 50Hz | Remote Alarm with Audible Signal Extend the freezer's on-board alarm systems to remote locations in the facility |
| 400047 400182 | 120V / 60Hz 220V / 50Hz | Sensaphone Telephone Dialing System Monitors up to four channels and dials up to four telephone numbers. A dedicated telephone line is required. Not approved for sales requiring CE. |
| 400134 400183 | 120V / 60Hz 220V / 50Hz | Sensaphone Telephone Dialing System Monitors up to eight channels and dials up to eight telephone numbers. A dedicated telephone line is required. Not approved for sales requiring CE. |
| 400048 400049 | 120V / 60Hz 220V / 50Hz | Temperature / Power Monitor External digital and audible/visual alarm monitors temperature and power supply of the freezer. Includes temperature probes. |

Options

| Model No. | Installation | Description |
|-----------|---------------|---|
| 1950447 | Factory | LN2 Back-Up System Maintains temperature down to -80°C with liquid nitrogen |
| 1950448 | Field | |
| 1950445 | Factory | CO2 Back-Up System Maintains temperature down to -70°C with CO2 |
| 1950446 | Field | |
| 201241 | Factory | Chart Recorder 6" (150mm), seven day recorder to -150°C. Includes box of chart paper (quantity: 50) |
| 201240 | Field | |
| 398213 | RS-232 (0-1) | Data Outputs (Factory-Installed Only) |
| 398214 | RS-485 (0-1V) | |
| 398215 | RS-485 (0-5V) | |
| 195967 | Factory | Water-Cooled Condenser Option for -86°C Chest Freezers See page 24 for details. |

Accessories

| Model No. | Description |
|-----------|---|
| 195947 | Replacement Air Filter for 3 cu. ft. (84.9L) Chest Freezers (quantity: 5) |
| 195948 | Replacement Air Filter for Other Chest Freezers (quantity: 5) |
| 17020 | Ink Chart Paper (quantity: 50) |
| 400159 | Replacement Back-Up Battery |
| 245231 | Red Felt Tip Pen |
| 245232 | Blue Felt Tip Pen |
| 4425 | Cryo Gloves (medium) |
| 4426 | Cryo Gloves (large) |
| 4000401 | LN2 Transfer Hose – flexible 6' metal hose: 0.5" diameter, 45° flare with swivel end |
| 950316 | Wall Clamp – CO2 cylinder holder for securing tank to the wall for OSHA guidelines |
| 991505 | High-Pressure Liquid CO2 Hose – 6' long, kink-resistant, stainless steel lined, double-braided sheath. 316 stainless steel NPT F fitting. Maximum working pressure 2,500 psig. |

Chest Freezer Racks

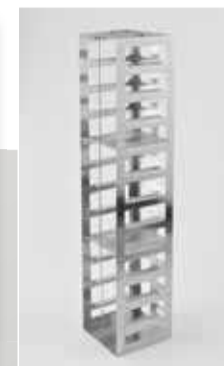
| Model No. (Description) | Dimensions W x D x H in. (cm) | Freezer Vol. cu. ft. (liters) | Boxes/ Rack (Plates) | Racks/ Freezer (Plates) | Boxes/ Freezer (Plates) |
|---|--|--|----------------------------|-------------------------------|-------------------------------|
| 398184 (2" Box Rack with locking rod) | 5.5 x 5.5 x 15.2 (14 x 14 x 38.6) | 3.0 (85) | 7 | 9 | 63 |
| 398186 (2" Box Rack with locking rod) | 5.5 x 5.6 x 26.5 (14 x 14.2 x 67.3) | 12.7 (360) 17.0 (481) 20.0 (566) | 12 12 12 | 21 29 33 | 252 348 396 |
| 398185 (3" Box Rack) | 5.5 x 5.5 x 16 (14 x 14 x 40.6) | 3.0 (85) | 5 | 9 | 45 |
| 398187 (3" Box Rack) | 9.4 x 5.5 x 26.5 (14 x 14 x 67.3) | 12.7 (360) 17.0 (481) 20.0 (566) | 8 8 8 | 21 29 33 | 168 232 264 |
| 398188 (27 Position Microplate Rack) | 5.3 x 3.5 x 25.8 (13.5 x 8.9 x 65.5) | 12.7 (360) 17.0 (481) 20.0 (566) | (27) (27) (27) | (33) (48) (51) | (891) (1,296) (1,377) |
| 114048 (Wire Basket with Rollers)* | 11.8 x 16.5 x 12.3 (29.9 x 41.9 x 31.2) | 12.7 (360) 20.0 (566) | N/A | 5 9 | N/A |
| 189001 189000 (Basket Rail Set) | 11.8 x 16.5 x 12.3 (29.9 x 41.9 x 31.2) | 12.7 (360) 20.0 (566) | N/A | N/A | N/A |



**2" Box Rack
Model No.
398184**



**3" Box Rack
Model No.
398185**



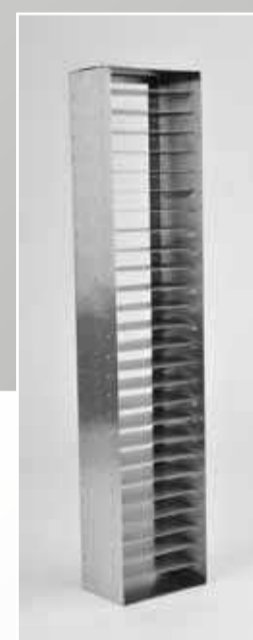
**2" Box Rack
Model No.
398186**



**Wire Basket
Model No.
114048**



**3" Box
Rack
Model No.
398187**



**Microplate
Rack
Model No.
398188**

See Page 19 for Boxes and Dividers