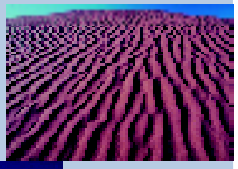
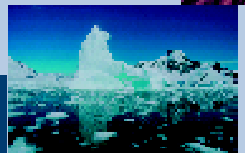
Cincinnati Sub-Zero



# T/TF/V-Series
# Chilling Chambers/Freezers





ISO-9001
CERTIFIED

**Pre-Engineered Performance**

# Chilling Chambers/Freezers

Cincinnati Sub-Zero's Chilling Chambers are the premier ultra-low temperature industrial freezers made in the USA. Designed with heavy-duty construction, our units are built-to-last for years of trouble-free operation. These chambers are primarily used for age-hardening, stress-relieving, expansion assembly, martensiting, dimensional stabilization, and other heavy-duty industrial cooling applications.

## Model Number Example: T-13-2-2-S/WC

**T** - Product Line
**13** - Cubic Feet of Workspace
**2-2** - 2 HP HFC-404A, 2 HP R-508B Cascade Refrigeration System
**S/WC** - Semi-Hermetic Compressors, Water Cooled Condenser

Three different styles are available in our Chilling Chamber Line.

- The **T-Series** top-loading chambers are used for heavy production loads where high capacities and high performance are required.
- The **TF-Series** front loading chambers offer side-by-side operation with batch-type heat treating furnaces, heavy-duty rollers and guides to interface directly with most charge car load/unload mechanisms, and compatibility with part baskets and trays used in other heat-treating mechanisms.
- The **V-Series** top-loading chambers offer economical chilling capability primarily used as storage freezers and in tool rooms where light duty storage or laboratory freezers are not adequate.

Our Production Chilling Chambers/Freezers are designed to meet your most demanding applications. Where standard models don't meet your application needs, our extensive range of custom capabilities can provide enhanced performance. With these standard features, optional accessories, custom capabilities, and benefits what else do you need in a chilling chamber!

## Standard Features/Accessories

- ☑ Digital Display Temperature Controller
- ☑ Fused Electrical Components
- ☑ Fully Enclosed NEMA 12 Electrical Compartment
- ☑ Oil Tight Switches and Lights
- ☑ Refrigeration Pressure Gauges
- ☑ Refrigeration Service Taps
- ☑ Manual Defrost Switch (T&TF-Series)
- ☑ Water Cooled Condenser
- ☑ Heavy Duty Heliarc Welded Vapor Tight Liner with Brushed Stainless Steel Interior
- ☑ Adjustable Chrome Plated Latch
- ☑ Non-Settling Low "K" Factor Foam Insulation
- ☑ Casters (V-Series)
- ☑ Lid/Door Switch (T & TF-Series)

## Optional Accessories

- ☑ Lid Mounted Air Circulator (V-Series)
- ☑ Air Cooled/Remote Refrigeration
- ☑ Liquid Nitrogen Boost Cooling
- ☑ Automatic Defrost Systems
- ☑ Casters (T-Series)
- ☑ Access Ports
- ☑ Running Time Meter
- ☑ Product Soak Timer
- ☑ 50 Hz. Operation
- ☑ Temperature Recorders
- ☑ EIA-232/485 Communications
- ☑ Electrical Disconnect Switch
- ☑ Windows-Based Software Packages

## Custom Capabilities

- ☑ Explosion-Proof Chambers
- ☑ Custom-Size Chambers
- ☑ Liquid Nitrogen Cooled
- ☑ Liquid Baths
- ☑ Compliance to all Wiring Standards
- ☑ Custom Control Interface Capability
- ☑ CE Approval

## Benefits

- ☑ Heavy-Duty, Built-to-Last Construction
- ☑ Trouble-Free Operation
- ☑ High Volume Air Circulation (T&TF-Series)
- ☑ Removable Service Panels
- ☑ Easy-to-Open Lid (Gas Spring or Pneumatic)
- ☑ Fast and Efficient Cooling
- ☑ Conserves Cooling Water
- ☑ Zero Ozone Depletion Refrigerants

## BASIC PARAMETERS

### Temperature Range

Standard Range: -40ºF to -120ºF (-40ºC to -85ºC)
Optional Liquid Nitrogen Cooling: -300ºF (-184ºC)
(Consult factory for specifications on this option)

### Performance

Based on water cooled operation with 3 phase, 60 hertz power, and 75ºF (24ºC) ambient room temperature. Performance will be reduced by approximately 17% for 50 hertz.

### Cooling Capacity

The pounds (kilograms) of steel stated in the chart is the quantity of 75ºF (24ºC) steel that can be placed in a -120ºF (-85ºC) prechilled chamber and expect the chamber to recover to -120ºF (-85ºC) within one hour. The additional time required for the load temperature to stabilize after chamber air temperature recovery depends on factors such as the part's thickness and the amount of exposed surface area.

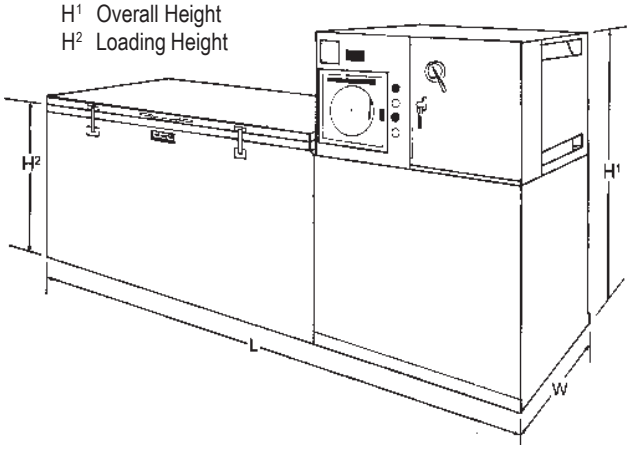
Floor load is rated for 200 Lbs. per square foot. However, floor reinforcement is available for larger capacities.

# Basic Specifications - Here's what our Chilling Chambers can do...

| Model | Cooling Capacity LBS (KG) Steel/Hr. | Workspace Size IN (CM) L | W | D | Overall Size IN (CM) L | W | $H^1$ | $H^2$ | *Recommended Minimum Service 230V | 460V |
|---|---|---|---|---|---|---|---|---|---|---|
| T-13-105-105 | 75 (34) | 36 (91) | 24 (61) | 26 (66) | 111 (282) | 42 (107) | 61 (155) | 36 (92) | 25 | 15 |
| T-13-2-2 | 125 (57) | 36 (91) | 24 (61) | 26 (66) | 111 (282) | 42 (107) | 61 (155) | 36 (92) | 30 | 15 |
| T-21-2-2 | 112 (51) | 60 (152) | 24 (61) | 26 (66) | 135 (343) | 42 (107) | 64 (163) | 36 (92) | 30 | 15 |
| T-21-3-3 | 250 (114) | 60 (152) | 24 (61) | 26 (66) | 143 (363) | 42 (107) | 64 (163) | 36 (92) | 50 | 25 |
| T-25-3-3 | 248 (113) | 48 (122) | 30 (76) | 30 (76) | 135 (343) | 48 (122) | 64 (163) | 40 (102) | 50 | 25 |
| T-25-6-6 | 324 (147) | 48 (122) | 30 (76) | 30 (76) | 135 (343) | 48 (122) | 64 (163) | 40 (102) | 90 | 45 |
| T-25-705-705 | 638 (290) | 48 (122) | 30 (76) | 30 (76) | 135 (343) | 48 (122) | 64 (163) | 40 (102) | 90 | 45 |
| T-37-3-3 | 236 (107) | 72 (183) | 30 (76) | 30 (76) | 159 (404) | 48 (122) | 64 (163) | 40 (102) | 50 | 25 |
| T-37-6-6 | 312 (142) | 72 (183) | 30 (76) | 30 (76) | 159 (404) | 48 (122) | 64 (163) | 40 (102) | 90 | 45 |
| T-37-705-705 | 627 (285) | 72 (183) | 30 (76) | 30 (76) | 159 (404) | 48 (122) | 64 (163) | 40 (102) | 90 | 45 |
| T-60-6-6 | 290 (132) | 60 (152) | 48 (122) | 48 (122) | 149 (379) | 66 (168) | 64 (163) | 46 (117) | 90 | 45 |
| T-60-705-705 | 605 (275) | 60 (152) | 48 (122) | 48 (122) | 149 (379) | 66 (168) | 64 (163) | 46 (117) | 90 | 45 |
| T-96-6-6 | 285 (130) | 72 (183) | 48 (122) | 48 (122) | 161 (409) | 66 (168) | 67 (170) | 58 (148) | 90 | 45 |
| T-96-705-705 | 594 (270) | 72 (183) | 48 (122) | 48 (122) | 161 (409) | 66 (168) | 67 (170) | 58 (148) | 90 | 45 |
| TF-23-6-6 | 300 (136) | 30 (75) | 38 (95) | 30 (75) | 58 (150) | 92 (234) | 101 (260) | 138 (350) | 90 | 45 |
| TF-23-705-705 | 400 (182) | 30 (75) | 38 (95) | 30 (75) | 58 (150) | 92 (234) | 101 (260) | 138 (350) | 90 | 45 |
| TF-42-705-705 | 400 (182) | 36 (90) | 50 (125) | 36 (90) | 64 (165) | 104 (265) | 107 (270) | 150 (380) | 90 | 45 |
| TF-42-10-10 | 600 (273) | 36 (90) | 50 (125) | 36 (90) | 64 (165) | 104 (265) | 107 (270) | 150 (380) | 125 | 60 |
| TF-49-705-705 | 400 (182) | 42 (105) | 50 (125) | 36 (90) | 70 (180) | 104 (265) | 107 (270) | 150 (380) | 90 | 45 |
| TF-49-10-10 | 600 (273) | 42 (105) | 50 (125) | 36 (90) | 70 (180) | 104 (265) | 107 (270) | 150 (380) | 125 | 60 |
| TF-49-15-15 | 900 (409) | 42 (105) | 50 (125) | 36 (90) | 70 (180) | 104 (265) | 107 (270) | 150 (380) | 150 | 70 |
| TF-84-15-15 | 850 (386) | 42 (105) | 74 (190) | 42 (105) | 70 (180) | 128 (325) | 113 (290) | 162 (410) | 150 | 70 |
| V-6-1-1 | 60 (27) | 32 (80) | 18 (46) | 18 (46) | 47 (119) | 32 (81) | 47 (119) | 43 (109) | 20 | 10 |
| V-9-105-105 | 100 (45) | 48 (122) | 18 (46) | 18 (46) | 64 (163) | 32 (81) | 47 (119) | 43 (109) | 25 | 12 |
| V-11-105-105 | 95 (43) | 60 (152) | 18 (46) | 18 (46) | 77 (196) | 32 (81) | 47 (119) | 43 (109) | 25 | 15 |

Notes: All metric dimensions are approximate. Addition of certain options may affect chamber performance.
*Recommended minimum service amps based on 3 phase and 60 hertz. Optional 50 hertz is available.

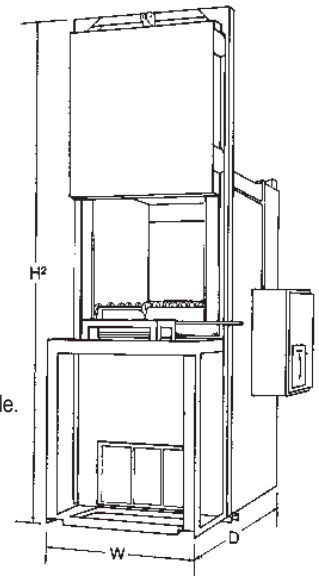
**T & V-Series:**
$H^1$ Overall Height
$H^2$ Loading Height




**TF-Series:**
$H^1$ Overall height on 4" skid with door support channels removed for shipping.

$H^2$ Overall installed height from building floor to top of door support channels.

Standard load roller height is 50" from building floor. Other heights are available.



# Meeting the needs of our customers...

Cincinnati Sub-Zero has designed thousands of test chambers for special applications. We can custom design the right environmental testing system for you. Whether you require environmental test chambers, thermal shock/temperature cycling units or special calibration bath systems, CSZ is prepared to design and build the test chamber to fit all your needs.

## Parts

CSZ maintains a complete parts inventory that are readily available for overnight delivery - increasing your uptime.

## Service

Our factory-trained dealer service organizations throughout the world are supported by CSZ field service technicians. This combination of experts assures timely, professional and cost-effective installation, start-up, and service.

With Sales and Service locations across the United States, we can provide complete customer support for all of your environmental simulation needs.




CSZ
Cincinnati Sub-Zero

INTERTECHNOLOGY INC.
1-800-465-1600

Tel: 416-445-5500
Fax: 416-445-1170
E-Mail: sales@intertechnology.ca
Website: www.intertechnology.com