

# Thermo Scientific™ TSX Series Ultra-Low Freezers

Now available in four sizes



Designed to meet the highest protection and sustainability standards for ultra-low storage

- 🍃 **Four capacities:** 400, 500, 600 and 700 2-inch (5cm) box
- 🍃 **Re-designed, user interface** with capacitive touch screen
- 🍃 **Best peak variation of energy-efficient ultra-low freezers:** less than 5°C
- 🍃 **Fastest door opening recovery on the market:** 17 minutes
- 🍃 **Best overall temperature uniformity:** < 5.2°C with door openings, < 4.0°C with no door openings
- 🍃 **Long warm-up time** from -80°C to -50°C at 5.05 hours
- 🍃 **Low energy usage:** less than 8 kWh/day depending on size
- 🍃 **5 year standard warranty:** plus 7 additional years on V-drive compressors\*



\*Restrictions and exclusions apply. Warranty is void if the unit is not maintained as set forth in the operation and service manuals.

## Designed to keep samples safe

- Low peak variation protects samples throughout the entire freezer cabinet<sup>1</sup>
- V-Drive technology with adaptive control is designed to detect high and low usage patterns, adjust compressor speeds, and reduce energy without compromising protection
- Records temperature and events for the lifetime of the freezer

## Designed to limit environmental impact and protect your budget

- Reduce energy usage up to 70% by replacing an older ultra-low freezer with a new TSX<sup>2</sup>
- Uses less than 8 kWh/day, depending on size
- Produces less environmental heat emissions and lowers HVAC costs
- Natural refrigerants compliant with EU F-Gas regulation: R170 and R290
- Environmentally-friendly, water-blown foam insulation
- Manufactured in an award-winning,<sup>3</sup> zero-waste to landfill facility

## User-friendly design and lab footprint

- All new freezer and user interface design
- Available in four sizes
- Quiet enough to reside directly in the laboratory. At just 45.5 dBA, the sound is comparable to a home refrigerator
- Advanced security features

All data based on internal data unless otherwise noted. Data on file.

1. Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C. Performance data varies across freezer size and electrical specifications.

2. For energy savings up to 70% at -80°C set point, reference info was: 8.7 kWh/day TSX600 compared >5 year large ULT 31.9 kWh/day energy calculator. At -70°C set point, reference info was: 7.9 kWh/day TSX600 compared >5 year large ULT 31.9 kWh/day energy calculator.

3. *Industry Week* Best Plant Award, 2013. <http://www.industryweek.com/quality/2013-iw-best-plants-winner-thermo-fisher-scientific-growing-quality-culture-lab>

## User friendly touch-screen interface and cabinet

- NEW! Easy-to-use** set-up wizard, event log, temperature mapping and data downloads
- NEW! Capacitive touch** – even when using latex gloves
- Eliminate the need for a separate chart recorder** with datalogging and temperature mapping features, all exportable via a built-in USB port
- Advanced security features:** alarm settings, password-protected controller, padlock-compatible doors and optional access card entry
- Ergonomic design:** comfortable door handle, eye-level touch-screen and shelf-level placement that doesn't require floor-level loading of racks
- Four capacities** (400, 500, 600 and 700 2-inch/5cm box) to accommodate a variety of storage needs and lab footprint specifications



## Specifications & Ordering Information

### Thermo Scientific TSX Series Upright Freezers (-50°C to -86°C)

| Model Number | Capacity |                  | Electrical      | Amps / Breaker (Plug) | Max. Shelf Weight kg | Interior Dimensions H x W x D cm | Exterior Dimensions H x W* x D cm | Shipping Weight kg |
|--------------|----------|------------------|-----------------|-----------------------|----------------------|----------------------------------|-----------------------------------|--------------------|
|              | liters   | 5cm (2") cryobox |                 |                       |                      |                                  |                                   |                    |
| TSX40086V    | 549      | 400              | 230V / 50Hz     | 4.0/10 (European)     | 75                   | 130.1 x 58.8 x 71.9              | 198.1 x 71.9 x 95.5               | 290                |
| TSX40086D    |          |                  | 208-230V / 60Hz | 4.0/10 (NEMA 6-15)    |                      |                                  |                                   | 290                |
| TSX50086V    | 682      | 500              | 230V / 50Hz     | 5.2/10 (European)     | 93                   | 130.1 x 73.0 x 71.9              | 198.1 x 86.4 x 95.5**             | 316                |
| TSX50086D    |          |                  | 208-230V / 60Hz | 5.1/10 (NEMA 6-15)    |                      |                                  |                                   | 316                |
| TSX60086V    | 816      | 600              | 230V / 50Hz     | 4.0/10 (European)     | 111                  | 130.1 x 87.3 x 71.9              | 198.1 x 100.6 x 95.5**            | 347                |
| TSX60086D    |          |                  | 208-230V / 60Hz | 4.0/10 (NEMA 6-15)    |                      |                                  |                                   | 347                |
| TSX70086V    | 949      | 700              | 230V / 50Hz     | 6.1/10 (European)     | 129                  | 130.1 x 101.6 x 71.9             | 198.1 x 114.8 x 95.5**            | 394                |
| TSX70086D    |          |                  | 208-230V / 60Hz | 5.8/10 (NEMA 6-15)    |                      |                                  |                                   | 394                |

\* Allowance for handle and hinge, add 10.7 cm to cabinet width

\*\* Doorway width clearance is 87.6 cm for TSX50086, TSX60086, and TSX70086

### Performance Data

| Model Number | Energy Consumption (kW-hr/day)* Standard Mode | Peak Variation from -80°C setpoint (°C)** | Door Opening Recovery (minutes) | Warm Up Time (-80°C to -50°C) (minutes)*** | Noise Level (dBA) |
|--------------|---|---|---------------------------------|--|-------------------|
| TSX40086     | 7.9   | +6.0 / +1.1                               | 17                              | 267  | 47.5              |
| TSX50086     | 8.3   | +6.7 / +2.0                               | 27                              | 281  | 49.0              |
| TSX60086     | 8.7   | +6.9 / +1.8                               | 24                              | 303  | 45.5              |
| TSX70086     | 9.5   | +7.8 / +2.2                               | 28                              | 289  | 48.0              |

\* Energy Calculation: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C

\*\* Peak Variation From Setpoint: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C

\*\*\* Warm Up Time: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C



## Thermo Scientific™ TSX Series Ultra-Low Freezers

### Options and Accessories (Field Installed must be installed by a qualified professional)

| Options  | Installation | TSX40086        | TSX50086        | TSX60086        | TSX70086        |
|--|--------------|-----------------|-----------------|-----------------|-----------------|
| <b>LN2 Backup System</b><br>Maintains temperature down to -80°C with liquid nitrogen.  | Factory      | LN4567          | LN4567          | LN4567          | LN4567          |
|  | Field        | FLN4567LE       | FLN4567LE       | FLN4567LE       | FLN4567LE       |
| <b>CO2 Backup System</b><br>Maintains temperature down to -67°C with CO2.  | Factory      | CO4567          | CO4567          | CO4567          | CO4567          |
|  | Field        | FCO4567LE       | FCO4567LE       | FCO4567LE       | FCO4567LE       |
| <b>Chart Recorder (Inkless)</b><br>6" (15.2 cm), seven day inkless recorder, -115° to +50°C, +5°C resolution   | Factory      | CR4567          | CR4567          | CR4567          | CR4567          |
|  | Field        | FCR400TSXLE     | FCR500TSXLE     | FCR600TSXLE     | FCR700TSXLE     |
| <b>Chart Recorder (Ink)</b><br>6" (15.2 cm), seven day ink recorder, -100° to +38°C, +2°C resolution   | Factory      | CRP4567         | CRP4567         | CRP4567         | CRP4567         |
|  | Field        | FGRP400TSXLE    | FGRP500TSXLE    | FGRP600TSXLE    | FGRP700TSXLE    |
| <b>Access Key Option Card</b><br>Access control. Includes five key cards. Supports ISO15693 and ISO14443 protocols.  | Factory      | RAC34567        | RAC34567        | RAC34567        | RAC34567        |
|  | Field        | FAC34567LE      | FAC34567LE      | FAC34567LE      | FAC34567LE      |
| <b>Stainless Steel Freezer Interior</b>  | Factory      | SS34567         | SS34567         | SS34567         | SS34567         |
| <b>Twist Lock Plug</b><br>NEMA L6-15P for 208-230V / 60Hz  | Factory      | US230V15ATL     | US230V15ATL     | US230V15ATL     | US230V15ATL     |
|  | Field        | TL230V15A       | TL230V15A       | TL230V15A       | TL230V15A       |
| <b>Twist Lock Plug</b><br>NEMA L6-20P for 208-230V / 60Hz  | Factory      | US230V20ATL     | US230V20ATL     | US230V20ATL     | US230V20ATL     |
|  | Field        | TL230V20A       | TL230V20A       | TL230V20A       | TL230V20A       |
| <b>Shelf Kit:</b> Includes one shelf and shelf support clips   | Factory      | TSX5SHELFOPTION | TSX5SHELFOPTION | TSX5SHELFOPTION | TSX5SHELFOPTION |
|  | Field        | SK400TSX        | SK500TSX        | SK600TSX        | SK700TSX        |
| Accessories  |              | TSX40086        | TSX50086        | TSX60086        | TSX70086        |
| <b>Access Key Pack:</b> Includes five key cards.   |              | ACE34567        | ACE34567        | ACE34567        | ACE34567        |
| <b>Chart Paper Ink</b> (Pack of 50)  |              | 17020           | 17020           | 17020           | 17020           |
| <b>Chart Paper Inkless</b> (Pack of 50)  |              | 6185            | 6185            | 6185            | 6185            |
| <b>Replacement Air Filter</b>  |              | AF34567LE       | AF34567LE       | AF34567LE       | AF34567         |
| <b>Replacement Back-Up Battery</b>   |              | 400159          | 400159          | 400159          | 400159          |
| <b>Alarm Delay Module:</b> Eliminates nuisance alarms due to intermittent or transitory conditions. Adjustable delay requires alarm condition to exist for user defined period before signal is released to monitoring system. |              | 6903            | 6903            | 6903            | 6903            |
| <b>Cryo Gloves Medium</b>  |              | 4425            | 4425            | 4425            | 4425            |
| <b>Cryo Gloves Large</b>   |              | 4426            | 4426            | 4426            | 4426            |
| <b>Seismic Restraint Kit</b>   |              | TF-ULT400       | TF-ULT500       | TF-ULT600       | TF-ULT700       |

## Thermo Scientific™ TSX Series Ultra-Low Freezers

### Racks for Boxes and Microplates

| Racks for 2" (5.08 cm) Boxes |                             |                            |                   |          |          |          |          |
|------------------------------|-----------------------------|----------------------------|-------------------|----------|----------|----------|----------|
| Model No.                    | Description                 | Dimensions<br>H x W x D cm | Storage           | TSX40086 | TSX50086 | TSX60086 | TSX70086 |
| 920090                       | Sliding Drawer Rack         | 30.2 x 14 x 68.3           | Boxes Per Rack    | 25       | 25       | 25       | 25       |
|                              |                             |                            | Racks Per Shelf   | 4        | 5        | 6        | 7        |
|                              |                             |                            | Racks Per Freezer | 16       | 20       | 24       | 28       |
|                              |                             |                            | Boxes Per Freezer | 400      | 500      | 600      | 700      |
| 1950520                      | Adjustable Side Access Rack | 29.5 x 13.7 x 67.9         | Boxes Per Rack    | 25       | 25       | 25       | 25       |
|                              |                             |                            | Racks Per Shelf   | 4        | 5        | 6        | 7        |
|                              |                             |                            | Racks Per Freezer | 16       | 20       | 24       | 28       |
|                              |                             |                            | Boxes Per Freezer | 400      | 500      | 600      | 700      |

| Racks for 3" (7.62 cm) Boxes |                     |                            |                   |          |          |          |          |
|------------------------------|---------------------|----------------------------|-------------------|----------|----------|----------|----------|
| Model No.                    | Description         | Dimensions<br>H x W x D cm | Storage           | TSX40086 | TSX50086 | TSX60086 | TSX70086 |
| 920091                       | Sliding Drawer Rack | 30.2 x 14 x 68.3           | Boxes Per Rack    | 15       | 15       | 15       | 15       |
|                              |                     |                            | Racks Per Shelf   | 4        | 5        | 6        | 7        |
|                              |                     |                            | Racks Per Freezer | 16       | 20       | 24       | 28       |
|                              |                     |                            | Boxes Per Freezer | 240      | 300      | 360      | 420      |

| Racking Shelf Kits   |                |           |           |           |           |
|--|----------------|-----------|-----------|-----------|-----------|
| Description  | Storage        | TSX40086  | TSX50086  | TSX60086  | TSX70086  |
| Sliding Drawer Racks and 2" Boxes with 100 Count Cell Dividers<br>(fits one shelf) | Model No.      | RSK400SD4 | RSK500SD4 | RSK600SD4 | RSK700SD4 |
|  | Racks Included | 4         | 5         | 6         | 7         |
|  | Boxes Included | 100       | 125       | 150       | 175       |

| Racks for Microplates |  |                            |                    |          |          |          |          |
|-----------------------|--|----------------------------|--------------------|----------|----------|----------|----------|
| Model No.             | Description  | Dimensions<br>H x W x D cm | Storage            | TSX40086 | TSX50086 | TSX60086 | TSX70086 |
| 1950592               | Side Access Rack with Locking Rod for Standard or Deepwell | 30.2 x 14 x 65.3           | Plates Per Rack    | 147      | 147      | 147      | 147      |
|                       |  |                            | Racks Per Shelf    | 4        | 5        | 6        | 7        |
|                       |  |                            | Racks Per Freezer  | 16       | 20       | 24       | 28       |
|                       |  |                            | Plates Per Freezer | 2352     | 2940     | 3528     | 4116     |

## Thermo Scientific™ TSX Series Ultra-Low Freezers

### Boxes

| Model No. | Description   | # of Divisions | Quantity | Color    |
|-----------|---|----------------|----------|----------|
| 5026-0909 | Thermo Scientific™ Nalgene™ polycarbonate 2" (5.08 cm) box for 1.2-2.0 mL vials | 81             | 24       | white    |
| 5954      | 2" (5.08 cm) fiberboard box   | 0              | 12       | white    |
| 820002    | 2" (5.08 cm) fiberboard box   | 81             | 1        | white    |
| 820109    | 2" (5.08 cm) fiberboard box   | 100            | 1        | white    |
| 5956      | 3" (7.62 cm) fiberboard box   | 0              | 12       | white    |
| 820003    | 3" (7.62 cm) fiberboard box   | 81             | 1        | white    |
| 1950878   | 2" (5.08 cm) fiberboard box   | 0              | 12       | multiple |
| 1950879   | 2" (5.08 cm) fiberboard box   | 0              | 12       | pink     |
| 1950880   | 2" (5.08 cm) fiberboard box   | 0              | 12       | red      |
| 1950881   | 2" (5.08 cm) fiberboard box   | 0              | 12       | yellow   |
| 1950882   | 2" (5.08 cm) fiberboard box   | 0              | 12       | green    |
| 1950883   | 2" (5.08 cm) fiberboard box   | 0              | 12       | blue     |
| 1950884   | 2" (5.08 cm) fiberboard box   | 0              | 12       | black    |

### Fiberboard Dividers

| Model No. | Description                      | Quantity/Case |
|-----------|----------------------------------|---------------|
| 5958      | Grid dividers for 100 12mm vials | 12            |
| 6212      | Grid dividers for 81 13mm vials  | 12            |
| 5960      | Grid dividers for 64 14mm vials  | 12            |
| 5959      | Grid dividers for 49 16mm vials  | 12            |

### Vials and Tubes

| Model No. | Description   | Quantity/Case |
|-----------|---|---------------|
| 377267    | Thermo Scientific™ Nunc™ 1.8mL screw-top round-bottom vials with internal threading | 1,800         |

# Thermo Scientific™ TSX Series Ultra-Low Freezers

## Sliding Drawer Racks for Matrix and Cryobank Tubes

|   |   | Freezer Model                           | TSX40086            | TSX50086            | TSX60086            | TSX70086            |
|---|---|---|---------------------|---------------------|---------------------|---------------------|
| <b>200 µL Capacity Tubes</b>                              |   |   |                     |                     |                     |                     |
| 3747,<br>3748,<br>4988                                    | Thermo Scientific™<br>Matrix™ 200 µL 2D<br>Internally-threaded<br>Universal Tubes<br>Box Dimension:<br>8.5 x 12.8 x 2.75 cm                             | <b>Rack Model No</b>                    | <b>1950787</b>      | <b>1950787</b>      | <b>1950787</b>      | <b>1950787</b>      |
|   |   | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
|   |   | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |   | Boxes Per Rack                          | 56                  | 56                  | 56                  | 56                  |
|   |   | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |   | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
|   |   | Tubes Per Freezer                       | 86,016              | 107,520             | 129,024             | 150,528             |
| <b>500 µL Capacity Tubes</b>                              |   |   |                     |                     |                     |                     |
| 3734,<br>3735,<br>4898                                    | Thermo Scientific<br>Matrix 500 µL 2D<br>Open Top Tubes<br>Box Dimension:<br>8.5 x 12.8 x 2.6 cm  | <b>Rack Model No</b>                    | <b>1950787</b>      | <b>1950787</b>      | <b>1950787</b>      | <b>1950787</b>      |
|   |   | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
| 3736,<br>3737,<br>4899                                    | Thermo Scientific™<br>Matrix™ 200 µL 2D with<br>Duraseals Installed<br>Internally-threaded<br>Universal Tubes<br>Box Dimension:<br>8.5 x 12.8 x 2.75 cm | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |   | Boxes Per Rack                          | 56                  | 56                  | 56                  | 56                  |
|   |   | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |   | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
|   |   | Tubes Per Freezer                       | 86,016              | 107,520             | 129,024             | 150,528             |
| 374086,<br>374087<br>(including<br>color<br>options)      | Thermo Scientific<br>Nunc™ Cryobank™<br>500 µl Internally<br>Threaded Tubes<br>Box Dimension:<br>8.5 x 12.8 x 3.5 cm                                    | <b>Rack Model No</b>                    | <b>1950791</b>      | <b>1950791</b>      | <b>1950791</b>      | <b>1950791</b>      |
|   |   | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
| 3743,<br>3744,<br>3745<br>(including<br>color<br>options) | Thermo Scientific<br>Matrix 500 µL 2D<br>Internally Threaded<br>ScrewTop Tubes<br>Box Dimension:<br>8.5 x 12.8 x 4.4 cm                                 | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |   | Boxes Per Rack                          | 42                  | 42                  | 42                  | 42                  |
|   |   | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |   | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
|   |   | Tubes Per Freezer                       | 64,512              | 80,640              | 96,768              | 112,896             |

# Thermo Scientific™ TSX Series Ultra-Low Freezers

## Sliding Drawer Racks for Matrix and Cryobank Tubes

|   |  | Freezer Model                           | TSX40086            | TSX50086            | TSX60086            | TSX70086            |
|---|--|---|---------------------|---------------------|---------------------|---------------------|
| <b>750 µL Capacity Tubes</b>                              |  |   |                     |                     |                     |                     |
| 3731,<br>3732,<br>4896                                    | Thermo Scientific<br>Matrix 750 µL 2D<br>Open Top Tubes<br>Box Dimension:<br>8.5 x 12.8 x 3.9 cm                       | <b>Rack Model No</b>                    | <b>1950791</b>      | <b>1950791</b>      | <b>1950791</b>      | <b>1950791</b>      |
|   |  | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
| 3729,<br>4896   | Thermo Scientific<br>Matrix 750 µL 2D Tubes<br>with Duraseals Installed<br>Box Dimension:<br>8.5 x 12.8 x 3.9 cm       | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |  | Boxes Per Rack                          | 42                  | 42                  | 42                  | 42                  |
|   |  | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |  | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
|   |  | Tubes Per Freezer                       | 64,512              | 80,640              | 96,768              | 112,896             |
| <b>1.0 mL Capacity Tubes</b>                              |  |   |                     |                     |                     |                     |
| 374088,<br>374089<br>(including<br>color<br>options)      | Thermo Scientific<br>Nunc Cryobank 1.0 mL<br>Internally Threaded<br>Tubes<br>Box Dimension:<br>8.5 x 12.8 x 4.9 cm     | <b>Rack Model No</b>                    | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      |
|   |  | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
|   |  | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |  | Boxes Per Rack                          | 35                  | 35                  | 35                  | 35                  |
|   |  | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |  | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
| Tubes Per Freezer   | 53,760   | 67,200                                  | 80,640              | 94,080              |                     |                     |
| 3740,<br>3741,<br>3742<br>(including<br>color<br>options) | Thermo Scientific<br>Matrix 1.0mL 2D<br>Internally Threaded<br>ScrewTop Tubes<br>Box Dimension:<br>8.5 x 12.8 x 5.8 cm | <b>Rack Model No</b>                    | <b>1950799</b>      | <b>1950799</b>      | <b>1950799</b>      | <b>1950799</b>      |
|   |  | Freezer Rack<br>Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
|   |  | Tubes per Box                           | 96                  | 96                  | 96                  | 96                  |
|   |  | Boxes Per Rack                          | 28                  | 28                  | 28                  | 28                  |
|   |  | Racks Per Shelf                         | 4                   | 5                   | 6                   | 7                   |
|   |  | Racks Per Freezer                       | 16                  | 20                  | 24                  | 28                  |
| Tubes Per Freezer   | 43,008   | 53,760                                  | 64,512              | 75,264              |                     |                     |

# Thermo Scientific™ TSX Series Ultra-Low Freezers

## Sliding Drawer Racks for Matrix and Cryobank Tubes

|                                     |   | Freezer Model                        | TSX40086            | TSX50086            | TSX60086            | TSX70086            |
|-------------------------------------|---|--------------------------------------|---------------------|---------------------|---------------------|---------------------|
| <b>1.4 mL Capacity Tubes</b>        |   |                                      |                     |                     |                     |                     |
| 3791,<br>3792,<br>4890              | Thermo Scientific Matrix 1.4ml 2D Open Top Tubes<br>Box Dimension:<br>8.5 x 12.8 x 4.9 cm                       | <b>Rack Model No</b>                 | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      |
|                                     |   | Freezer Rack Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
| 3801,<br>4890                       | Thermo Scientific Matrix 1.4mL 2D Tubes with Duraseals Installed<br>Box Dimension:<br>8.5 x 12.8 x 4.9 cm       | Tubes per Box                        | 96                  | 96                  | 96                  | 96                  |
|                                     |   | Boxes Per Rack                       | 35                  | 35                  | 35                  | 35                  |
| 3711,<br>3112,<br>4890              | Thermo Scientific Matrix 1.4ml Human Readable Open Top Tubes Installed<br>Box Dimension:<br>8.5 x 12.8 x 4.9 cm | Racks Per Shelf                      | 4                   | 5                   | 6                   | 7                   |
|                                     |   | Racks Per Freezer                    | 16                  | 20                  | 24                  | 28                  |
|                                     |   | Tubes Per Freezer                    | 53,760              | 67,200              | 80,640              | 94,080              |
| <b>1.8 to 2.0 mL Capacity Tubes</b> |   |                                      |                     |                     |                     |                     |
| 374500,<br>374501                   | Thermo Scientific Nunc 1.8 mL Externally-threaded Universal Tubes<br>Box Dimension:<br>8.5 x 12.8 x 5.5 cm      | <b>Rack Model No</b>                 | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      | <b>1950642</b>      |
|                                     |   | Freezer Rack Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
| 374221,<br>374223                   | Thermo Scientific Nunc Cryobank 2.0 ml Internally Threaded Tubes<br>Box Dimension:<br>8.5 x 12.8 x 5.5 cm       | Tubes per Box                        | 48                  | 48                  | 48                  | 48                  |
|                                     |   | Boxes Per Rack                       | 35                  | 35                  | 35                  | 35                  |
|                                     |   | Racks Per Shelf                      | 4                   | 5                   | 6                   | 7                   |
|                                     |   | Racks Per Freezer                    | 16                  | 20                  | 24                  | 28                  |
|                                     |   | Tubes Per Freezer                    | 26,880              | 33,600              | 40,320              | 47,040              |
| <b>5.0 mL Capacity Tubes</b>        |   |                                      |                     |                     |                     |                     |
| 374220,<br>374222                   | Thermo Scientific Nunc Cryobank 5.0 ml Internally Threaded Tubes<br>Box Dimension:<br>8.5 x 12.8 x 9.6 cm       | <b>Rack Model No</b>                 | <b>1950819</b>      | <b>1950819</b>      | <b>1950819</b>      | <b>1950819</b>      |
|                                     |   | Freezer Rack Dimensions<br>W x H x D | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm | 14 x 30.3 x 68.5 cm |
|                                     |   | Tubes per Box                        | 48                  | 48                  | 48                  | 48                  |
|                                     |   | Boxes Per Rack                       | 21                  | 21                  | 21                  | 21                  |
|                                     |   | Racks Per Shelf                      | 4                   | 5                   | 6                   | 7                   |
|                                     |   | Racks Per Freezer                    | 16                  | 20                  | 24                  | 28                  |
|                                     |   | Tubes Per Freezer                    | 16,128              | 20,160              | 24,192              | 28,224              |





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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

