# Thermo Scientific Forma FDE Series Ultra-Low Temperature Freezers

Medical Device

**ThermoFisher**
SCIENTIFIC

# Thermo Scientific™ Forma™ FDE Series Ultra-Low Temperature Freezers

- **H-drive hydrocarbon refrigeration system** provides sustainable performance with reliability you can count on

- **Low peak variation** helps ensure sample temperature protection throughout entire cabinet

- **Fast door opening recovery** in as little as 11 minutes

- **Long warm-up time** from -80°C to -50°C in up to 5 hours

- **Four capacities**: 300, 400, 500 and 600 2-inch boxes

- **Decrease storage footprint** up to 25%

- **5-year** standard warranty

## Designed to keep your samples safe

- Worry-free storage; with low peak variation, samples are protected throughout the entire cabinet.[1]

- Secure freezer settings with sample security

- FDA Class II Medical Device for Storage of Blood, Plasma, Tissue, Skin, and Bone[3]

- Backed by our Global Service and Support Team

## Limit environmental impact and lower HVAC costs

- Uses as low as 10.7 kWh/day, depending on size

- Less heat emission lowers HVAC costs

- SNAP compliant, natural hydrocarbon refrigerants

- Environmentally-friendly, water-blown foam insulation is compliant with SNAP

- Manufactured in an award-winning, zero-waste-to-landfill facility

## User-friendly and quiet

- New HIC touch screen user interface

- Quiet enough to reside directly in the laboratory; at just 50 dBA, the sound is comparable to a home refrigerator.[2]

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. All data based on internal data unless otherwise noted. Data on file.
3. FDA Class II Models are listed under product code KSE, regulation number 864.9700. This unit is not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.
   Reference: AABB - Technical Manual 17th Ed., page 273,274. STANDARDS FOR TISSUE BANKING 14th Ed., Section E, E3.300, E3.310, Table E3.331.
   Note for clarity: The 'Bone' is the Osteoarticular Graft, a weight bearing allograft with intact articular surfaces, consisting of a joint with associated soft tissue and bone. STANDARDS FOR TISSUE BANKING 14th Ed., Section page 8.

# Dependable storage with operational savings and sustainability

## User-friendly HIC interface and cabinet

- Easy to use: plug in and go; no setup required

- H-drive Information Center (HIC) combines easy-to-read temperature with simple capacitive touch buttons

- Advanced security features: alarm settings, setpoint security passcode, and padlock-compatible doors

- Egonomic design: single-hand door operation, eye-level display, and shelf-level placement that do not require floor-level loading of racks

- Four inner doors minimize ambient temperature during sample retrieval

## Specifications & Ordering Information

White blood and plasma

Clinical applications

Get Connected

### Upright Freezers (-50°C to -86°C)

| FDA Class II Model | Capacity | | Electrical | Amps / Breaker (Plug type) | Max Shelf Weight lbs. (kg) | Interior Dimensions H x W x D in. (cm) | Exterior Dimensions H x W* x D in. (cm) | Shipping Weight lbs. (kg) |
|---|---|---|---|---|---|---|---|---|
| | cu. ft. (L) | Cryoboxes (2 in.) | | | | | | |
| FDE30086LA | 14.9 | 300 | 115V/60Hz | 12.6/20 (NEMA 5-20) | 125 | 51.2 x 17.8 x 28.3 | 78.0 x 23.0 x 38.5 | 712 |
| FDE30086LD | (422) | | 208-230V/60Hz | 5.6/15 (NEMA 6-15) | (57) | (130.1 x 45.2 x 71.9) | (198.1 x 58.4 x 97.7) | (323) |
| FDE40086LA | 19.4 | 400 | 115V/60Hz | 13.0/20 (NEMA 5-20) | 165 | 51.2 x 23.1 x 28.3 | 78.0 x 28.3 x 38.5 | 687 |
| FDE40086LD | (549) | | 208-230V/60Hz | 5.9/15 (NEMA 6-15) | (75) | (130.1 x 58.8 x 71.9) | (198.1 x 71.9 x 97.7) | (312) |
| FDE50086LA | 24.1 | 500 | 115V/60Hz | 12.5/20 (NEMA 5-20) | 205 | 51.2 x 28.8 x 28.3 | 78.0 x 34.0 x 38.5** | 734 |
| FDE50086LD | (682) | | 208-230V/60Hz | 5.0/15 (NEMA 6-15) | (93) | (130.1 x 73.0 x 71.9) | (198.1 x 86.4 x 97.7) | (333) |
| FDE60086LA | 28.8 | 600 | 115V/60Hz | 12.7/20 (NEMA 5-20) | 245 | 51.2 x 34.4 x 28.3 | 78.0 x 39.6 x 38.5** | 820 |
| FDE60086LD | (816) | | 208-230V/60Hz | 6.2/15 (NEMA 6-15) | (111) | (130.1 x 87.3 x 71.9) | (198.1 x 100.6 x 97.7) | (372) |

*Allowance for handle and hinge, add 4.2 in (10.7cm) to cabinet width
**Doorway width clearance is 34.5 in (87.6cm) for FDE50086 and FDE60086

### Performance Data

| Model Series | Energy Consumption* (kW-hr/day) | Peak Variation from -80°C Setpoint (°C)** | 60 Second Door Opening Recovery Time (minutes) | Warm-Up Time (-80°C to -50°C) (minutes)*** | Noise Level (dBA) |
|---|---|---|---|---|---|
| FDE30086 | 10.7 | +6.9/-3.4 | 11 | 248 | 52 |
| FDE40086 | 12.5 | +5.2/-3.7 | 16 | 257 | 51 |
| FDE50086 | 12.9 | +4.0/-2.9 | 20 | 260 | 50 |
| FDE60086 | 13.8 | +3.9/-3.1 | 24 | 297 | 50 |

*Energy Consumption: Typical data - internal testing with freezer setpoint at -80°C and 20°C ambient temperature
**Peak Variation from Setpoint: Typical data - internal testing with freezer setpoint at -80°C and 20°C ambient temperature
***Warm Up Time: Typical data - internal testing with empty freezer setpoint at -80°C and ambient temperature at 20°C

## Options (Field installations must be performed by a qualified professional)

| Description | Installation | For Model Series FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|
| **LN$_2$ Backup System** | Factory | N/A | LN4567 | LN4567 | LN4567 |
| Maintains temperature down to -80°C with liquid nitrogen. *Models for FDE30086 are stand alone.* | Field | FLN300A* FLN300D** | FLN456LEA* FLN456LED** | FLN456LEA* FLN456LED** | FLN456LEA* FLN456LED** |
| **CO$_2$ Backup System** | Factory | N/A | CO4567 | CO4567 | CO4567 |
| Maintains temperature down to -67°C with CO$_2$. *Models for FDE30086 are stand alone.* | Field | FCO300A* FCO300D** | FCO456LEA* FCO456LED** | FCO456LEA* FCO456LED** | FCO456LEA* FCO456LED** |
| **Chart Recorder (Inkless)** Seven-day inkless recorder Range: -115° to +50°C (+5°C resolution) Dia.: 6 in. (15.2cm) | Factory | N/A | N/A | CR4567 | CR4567 |
| | Field | N/A | N/A | FCR500LE | FCR600LE |
| **Chart Recorder (Ink)** Seven-day ink recorder Range: -100° to +38°C (+2°C resolution) Dia.: 6 in. (15.2cm) *Models for FDE30086 and FDE40086 are stand alone.* | Factory | N/A | N/A | CRP4567 | CRP4567 |
| | Field | 6383-6A* 6383-6D** | 6383-6A* 6383-6D** | FCRP500LE | FCRP600LE |
| **Stainless Steel Freezer Interior** | Factory | SS34567 | SS34567 | SS34567 | SS34567 |
| **Water-Cooled Condenser Option** | Factory | N/A | N/A | N/A | WC34567*** |
| **Twist Lock Plug** NEMA L5-20P for 115V/60Hz | Factory | US125V20ATL | US125V20ATL | US125V20ATL | US125V20ATL |
| | Field | TL125V20A | TL125V20A | TL125V20A | TL125V20A |
| **Twist Lock Plug** NEMA L6-15P for 208-230V/60Hz | Factory | US230V15ATL | US230V15ATL | US230V15ATL | US230V15ATL |
| | Field | TL230V15A | TL230V15A | TL230V15A | TL230V15A |
| **Twist Lock Plug** NEMA L6-20P for 208-230V/60Hz | Factory | US230V20ATL | US230V20ATL | US230V20ATL | US230V20ATL |
| | Field | TL230V20A | TL230V20A | TL230V20A | TL230V20A |

*A = 115V/60Hz (NEMA 5-20 plug)
**D = 208-230V/60Hz (NEMA 6-15 plug)
*** WC34567 available on 208-230V/60Hz model only

## Accessories

| Description | For Model Series FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|
| **Air Filter (Replacement)** | AF34567LE | AF34567LE | AF34567LE | AF34567LE |
| **Alarm Delay Module** Eliminates nuisance alarms due to intermittent or transitory conditions. (The alarm conditions must exist for a user-defined period before the signal is broadcast.) | 6903 | 6903 | 6903 | 6903 |
| **Battery Backup (Replacement)** | 400159 | 400159 | 400159 | 400159 |
| **Chart Paper, for Inkless Recorder, 50/Pack** | N/A | N/A | 6185 | 6185 |
| **Chart Paper, for Ink Recorder, 50/Pack** | 17020 | 17020 | 17020 | 17020 |
| **Cryo Gloves, Medium** | 4425 | 4425 | 4425 | 4425 |
| **Cryo Gloves, Large** | 4426 | 4426 | 4426 | 4426 |
| **Seismic Restraint Kits** | TF-ULT300 | TF-ULT400 | TF-ULT500 | TF-ULT600 |
| **Shelf Kits: Include One Shelf and Clips** | SK300 | SK400 | SK500 | SK600 |

# Freezer Packages with Factory-Installed Options

## Forma FDE Ultra-Low Freezer with Two Shelves of Sliding Drawer Racks Plus Boxes

| Model | Capacity | | Electrical, 60Hz | # of Racks Included | Cryoboxes* Included |
| | cu. ft. (L) | Cryoboxes* | | | |
|---|---|---|---|---|---|
| FDE30086LARK | 14.9 (422) | 300 | 115V | 6 | 150 |
| FDE30086LDRK | 14.9 (422) | 300 | 208-230V | 6 | 150 |
| FDE40086LARK | 19.4 (549) | 400 | 115V | 8 | 200 |
| FDE40086LDRK | 19.4 (549) | 400 | 208-230V | 8 | 200 |
| FDE50086LARK | 24.1 (682) | 500 | 115V | 10 | 250 |
| FDE50086LDRK | 24.1 (682) | 500 | 208-230V | 10 | 250 |
| FDE60086LARK | 28.8 (816) | 600 | 115V | 12 | 300 |
| FDE60086LDRK | 28.8 (816) | 600 | 208-230V | 12 | 300 |

*For cryoboxes that measure 5 x 5 x 2 in (12.7 x 12.7 x 5 cm) (W x D x H)

## Forma FDE Ultra-Low Freezer with $LN_2$ Backup System, Two Shelves of Sliding Drawer Racks Plus Boxes

| Model | Capacity | | Electrical, 60Hz | # of Racks Included | Cryoboxes* Included |
| | cu. ft. (L) | Cryoboxes* | | | |
|---|---|---|---|---|---|
| FDE40086LARLN | 19.4 (549) | 400 | 115V | 8 | 200 |
| FDE40086LDRLN | 19.4 (549) | 400 | 208-230V | 8 | 200 |
| FDE50086LARLN | 24.1 (682) | 500 | 115V | 10 | 250 |
| FDE50086LDRLN | 24.1 (682) | 500 | 208-230V | 10 | 250 |
| FDE60086LARLN | 28.8 (816) | 600 | 115V | 12 | 300 |
| FDE60086LDRLN | 28.8 (816) | 600 | 208-230V | 12 | 300 |

*For cryoboxes that measure 5 x 5 x 2 in (12.7 x 12.7 x 5 cm) (W x D x H)

## Forma FDE Ultra-Low Freezer with $CO_2$ Backup System, Two Shelves of Sliding Drawer Racks Plus Boxes

| Model | Capacity | | Electrical, 60Hz | # of Racks Included | Cryoboxes* Included |
| | cu. ft. (L) | Cryoboxes* | | | |
|---|---|---|---|---|---|
| FDE40086LARCO | 19.4 (549) | 400 | 115V | 8 | 200 |
| FDE40086LDRCO | 19.4 (549) | 400 | 208-230V | 8 | 200 |
| FDE50086LARCO | 24.1 (682) | 500 | 115V | 10 | 250 |
| FDE50086LDRCO | 24.1 (682) | 500 | 208-230V | 10 | 250 |
| FDE60086LARCO | 28.8 (816) | 600 | 115V | 12 | 300 |
| FDE60086LDRCO | 28.8 (816) | 600 | 208-230V | 12 | 300 |

*For cryoboxes that measure 5 x 5 x 2 in (12.7 x 12.7 x 5 cm) (W x D x H)

# Freezer Packages with Factory-Installed Options

**Forma FDE Ultra-Low Freezer with Chart Recorder,
Two Shelves of Sliding Drawer Racks Plus Boxes**

| Model | Capacity | | Electrical, 60Hz | # of Racks Included | Cryoboxes* Included |
| | cu. ft. (L) | Cryoboxes* | | | |
|---|---|---|---|---|---|
| FDE50086LARCR | 24.1 (682) | 500 | 115V | 10 | 250 |
| FDE50086LDRCR | 24.1 (682) | 500 | 208-230V | 10 | 250 |
| FDE60086LARCR | 28.8 (816) | 600 | 115V | 12 | 300 |
| FDE60086LDRCR | 28.8 (816) | 600 | 208-230V | 12 | 300 |

*For cryoboxes that measure 5 x 5 x 2 in (12.7 x 12.7 x 5 cm) (W x D x H)

# Racks for Boxes and Microplates

## Racks for 2 in. (5cm) Boxes

| Catalog No. | Description | Dimensions H x W x D in. (cm) | Storage Capacities | For Model Series | | | |
| | | | | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|---|---|
| 920090 | Sliding Drawer Rack | 11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3) | Boxes/Rack | 25 | 25 | 25 | 25 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Boxes/Freezer | 300 | 400 | 500 | 600 |
| 1950520 | Adjustable Side Access Rack | 11.6 x 5.4 x 26.75 (29.5 x 13.7 x 67.9) | Boxes/Rack | 25 | 25 | 25 | 25 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Boxes/Freezer | 300 | 400 | 500 | 600 |

## Racks for 3 in. (7.62cm) Boxes

| Catalog No. | Description | Dimensions H x W x D in. (cm) | Storage Capacities | For Model Series | | | |
| | | | | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|---|---|
| 920091 | Sliding Drawer Rack | 11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3) | Boxes/Rack | 15 | 15 | 15 | 15 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Boxes/Freezer | 180 | 240 | 300 | 360 |
| 1950521 | Adjustable Side Access Rack for 3 in. boxes | 11.6 x 5.4 x 26.75 (29.5 x 13.7 x 67.9) | Boxes/Rack | 15 | 15 | 15 | 15 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Boxes/Freezer | 180 | 240 | 300 | 360 |

## Racking Shelf Kits

| Description | Storage Capacities | For Model Series | | | |
| | | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
| | Catalog No. | RSK300SD4 | RSK400SD4 | RSK500SD4 | RSK600SD4 |
|---|---|---|---|---|---|
| Sliding Drawer Racks with Boxes for One Shelf (5 x 5 x 2 in. Boxes with 100-Count Cell Dividers) | Racks Included | 3 | 4 | 5 | 6 |
| | Boxes Included | 75 | 100 | 125 | 150 |

## Racks for Standard or Deepwell Microplates

| Catalog No. | Description | Dimensions H x W x D in. (cm) | Storage Capacities | For Model Series | | | |
|---|---|---|---|---|---|---|---|
| | | | | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|  1950592 | Side Access Rack with Locking Rod | 11.9 x 5.5 x 25.7 (30.2 x 14 x 65.3) | Plates/Rack | 147 | 147 | 147 | 147 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Plates/Freezer | 1,764 | 2,352 | 2,940 | 3,528 |
|  1950523 | Side Access Microplate Rack | 11.9 x 5.5 x 25.7 (30.2 x 14 x 65.3) | Plates/Rack | 105 | 105 | 105 | 105 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Plates/Freezer | 1,260 | 1,680 | 2,100 | 2,520 |
|  1950642 | Sliding Drawer Microplate Rack | 11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3) | Plates/Rack | 35 | 35 | 35 | 35 |
| | | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | | Plates/Freezer | 420 | 560 | 700 | 840 |

## Boxes and Dividers

| Catalog No. | Description | # of Dividers | Quantity | Color |
|---|---|---|---|---|
| 5026-0909 | Thermo Scientific™ Nalgene™ polycarbonate 2 in. (5.08cm) box for 1.2 to 2mL vials | 81 | 24/Case | White |
| 5954 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | White |
| 820002 | 2 in. (5.08 cm) Fiberboard Box | 81 | 1 | White |
| 820109 | 2 in. (5.08 cm) Fiberboard Box | 100 | 1 | White |
| 5956 | 3 in. (7.62 cm) Fiberboard Box | 0 | 12/Pack | White |
| 820003 | 3 in. (7.62 cm) Fiberboard Box | 81 | 1 | White |
| 1950878 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Multiple |
| 1950879 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Pink |
| 1950880 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Red |
| 1950881 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Yellow |
| 1950882 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Green |
| 1950883 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Blue |
| 1950884 | 2 in. (5.08 cm) Fiberboard Box | 0 | 12/Pack | Black |

## Fiberboard Dividers

| Catalog No. | Description | Quantity/Pack |
|---|---|---|
| 5958 | Grid Dividers, Hold 100 x 12 mm Tubes/Vials | 12 |
| 6212 | Grid Dividers, Hold 81 x 13 mm Tubes/Vials | 12 |
| 5960 | Grid Dividers, Hold 64 x 14 mm Tubes/Vials | 12 |
| 5959 | Grid Dividers, Hold 49 x 16 mm Tubes/Vials | 12 |

## Vials and Tubes

| Catalog No. | Description | Quantity |
|---|---|---|
| 377267 | Thermo Scientific™ Nunc™ 1.8 mL Screw-Top Round-Bottom Vials with Internal Threading | 1,800/Case |

## Sliding Drawer Racks for Matrix and Cryobank Tubes

Racks work with all Thermo Scientific™ Matrix™ and Nunc™ Cryobank Tubes

| | For Model Series | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|
| **200 µL Capacity Tubes** | | | | | |
| 3747, 3748, 4988 | Matrix 200 µL 2D Internally Threaded Universal Tubes<br><br>Box Dimensions: 3.365 x 5.03 x 1.082 in. (8.5 x 12.8 x 2.75 cm) | **Rack Model No.** **1950787** | **1950787** | **1950787** | **1950787** |
| | | Freezer Rack Dimensions W x H x D | | | |
| | | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| | | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 56 | 56 | 56 | 56 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 64,512 | 86,016 | 107,520 | 129,024 |
| **500 µL Capacity Tubes** | | | | | |
| 3734, 3735, 4898 | Matrix 500 µL 2D Open Top Tubes<br><br>Box Dimensions: 3.365 x 5.03 x 1.022 in. (8.5 x 12.8 x 2.6 cm) | **Rack Model No.** **1950787** | **1950787** | **1950787** | **1950787** |
| | | Freezer Rack Dimensions W x H x D | | | |
| | | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| 3736, 3737, 4899 | Matrix 200 µL 2D Internally Threaded Universal Tubes with Installed DuraSeal™ Seal<br><br>Box Dimensions: 3.365 x 5.03 x 1.082 in. (8.5 x 12.8 x 2.75 cm) | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 56 | 56 | 56 | 56 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 64,512 | 86,016 | 107,520 | 129,024 |
| 374086, 374087 (including color options) | Nunc Cryobank 500µL Internally Threaded Tubes<br><br>Box Dimensions: 3.365 x 5.03 x 1.394 in. (8.5 x 12.8 x 3.5 cm) | **Rack Model No.** **1950791** | **1950791** | **1950791** | **1950791** |
| | | Freezer Rack Dimensions W x H x D | | | |
| | | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| 3743, 3744, 3745 (including color options) | Matrix 500 µL 2D Internally Threaded ScrewTop Tubes<br><br>Box Dimensions: 3.365 x 5.03 x 1.745 in. (8.5 x 12.8 x 4.4 cm) | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 42 | 42 | 42 | 42 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 48,384 | 64,512 | 80,640 | 96,768 |

## Sliding Drawer Racks for Matrix and Cryobank Tubes

Racks work with all Thermo Scientific™ Matrix™ and Nunc™ Cryobank Tubes

| | For Model Series | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|
| **750 µL Capacity Tubes** | | | | | |
| 3731, 3732, 4896 | Matrix 750 µL 2D Open Top Tubes  Box Dimensions: 3.365 x 5.03 x 1.55 in. (8.5 x 12.8 x 3.9 cm) | **Rack Model No.** | | | |
| | | **1950791** | **1950791** | **1950791** | **1950791** |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| 3729, 4896 | Matrix 750 µL 2D Tubes with Installed DuraSeal Seal  Box Dimensions: 3.365 x 5.03 x 1.55 in. (8.5 x 12.8 x 3.9 cm) | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 42 | 42 | 42 | 42 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 48,384 | 64,512 | 80,640 | 96,768 |
| **1 mL Capacity Tubes** | | | | | |
| 374088, 374089 (including color options) | Nunc Cryobank 1 mL Internally Threaded Tubes  Box Dimensions: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm) | **Rack Model No.** | | | |
| | | **1950642** | **1950642** | **1950642** | **1950642** |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| | | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 35 | 35 | 35 | 35 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 40,320 | 53,760 | 67,200 | 80,640 |
| 3740, 3741, 3742 (including color options) | Matrix 1 mL 2D Internally Threaded Screw Top Tubes  Box Dimensions: 3.365 x 5.03 x 2.3 in. (8.5 x 12.8 x 5.8 cm) | **Rack Model No.** | | | |
| | | **1950799** | **1950799** | **1950799** | **1950799** |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| | | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 28 | 28 | 28 | 28 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 32,256 | 43,008 | 53,760 | 64,512 |

# thermo scientific

## Sliding Drawer Racks for Matrix and Cryobank Tubes

Racks work with all Thermo Scientific™ Matrix™ and Nunc™ Cryobank Tubes

| | | For Model Series | FDE30086 | FDE40086 | FDE50086 | FDE60086 |
|---|---|---|---|---|---|---|
| **1.4 mL Capacity Tubes** | | | | | | |
| 3791, 3792, 4890 | Matrix 1.4 mL 2D Open Top Tubes Box Dimensions: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm) | Rack Model No. | 1950642 | 1950642 | 1950642 | 1950642 |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| 3801, 4890 | 1.4 mL 2D Tubes with Installed DuraSeal Seal Box Dimensions: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm) | Tubes/Box | 96 | 96 | 96 | 96 |
| | | Boxes/Rack | 35 | 35 | 35 | 35 |
| 3711, 3112, 4890 | Matrix 1.4 mL Human Readable Open Top Tubes Box Dimensions: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm) | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 40,320 | 53,760 | 67,200 | 80,640 |
| **1.8 to 2 mL Capacity Tubes** | | | | | | |
| 374500, 374501 | Nunc 1.8 mL Externally Threaded Universal Tubes Box Dimensions: 3.365 x 5.03 x 2.15 in. (8.5 x 12.8 x 5.5 cm) | Rack Model No. | 1950642 | 1950642 | 1950642 | 1950642 |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| 374221, 374223 | Nunc Cryobank 2 mL Internally Threaded Tubes Box Dimension: 3.365 x 5.03 x 2.15 in. (8.5 x 12.8 x 5.5 cm) | Tubes/Box | 48 | 48 | 48 | 48 |
| | | Boxes/Rack | 35 | 35 | 35 | 35 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 20,160 | 26,880 | 33,600 | 40,320 |
| **5 mL Capacity Tubes** | | | | | | |
| 374220, 374222 | Nunc Cryobank 5 mL Internally Threaded Tubes Box Dimensions: 3.365 x 5.03 x 3.78 in. (8.5 x 12.8 x 9.6 cm) | Rack Model No. | 1950819 | 1950819 | 1950819 | 1950819 |
| | | Freezer Rack Dimensions W x H x D | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) | 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) |
| | | Tubes/Box | 48 | 48 | 48 | 48 |
| | | Boxes/Rack | 21 | 21 | 21 | 21 |
| | | Racks/Shelf | 3 | 4 | 5 | 6 |
| | | Racks/Freezer | 12 | 16 | 20 | 24 |
| | | Tubes/Freezer | 12,096 | 16,128 | 20,160 | 24,192 |

## Find out more at **thermofisher.com/cold**

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