thermo scientific



Thermo Scientific[™] TSX Series Ultra-Low Freezers

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

- Outstanding peak variation when in high-performance mode: +/- 5°C
- Fast door-opening recovery: <30 minutes
- Outstanding temperature uniformity: +/- 5.2°C °
- Long warm-up time from -80°C to -50°C at <5.0 hours
- Four capacities: 400, 500, 600 and 700 2-inch box
- **12-year compressor warranty**: 5 years for full parts and labor, additional 7 years for compressor*
- Low energy useage: less than 9 kWh/day depending on size

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

New: Optional exterior illumination kit for enhanced management of system health



Designed to keep samples safe

- Low peak variation protects samples throughout the entire freezer cabinet¹
- 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
- No expensive, free-piston engines to repair
- Backed by our Global Service and Support Team
- New exterior illumination option for quick visual freezer health status
- New frost management with adjustable cabinet heater

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 TSX²
- Uses less than 9 kWh/day, depending on size
- · Produces less environmental heat emissions and lowers HVAC costs
- SNAP compliant, natural hydrocarbon refrigerants
- SNAP compliant, environmentally-friendly, water-blown foam insulation
- All TSX ULTs are validated by the ACT label program in partnership with MyGreenLabs
- Manufactured in an award-winning,³ zero-waste to landfill facility

User-friendly design and lab footprint

- Intuitive easy-to-use touchscreen provides critical system performance feedback
- Match cabinet size to your footprint and storage requirements
- 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.

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.
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 touchscreen interface and cabinet

- Easy-to-use—set-up wizard, event log, temperature mapping and data downloads
- Capacitive touch-even when using latex gloves
- Improved cloud-connected, wireless monitoring capability—with Device Link standard on every TSX
- Built-in USB port—allows for quick data download for system diagnostics and analysis
- Advanced security features—alarm settings, 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





Specifications and Ordering Information

Thermo Sci	Thermo Scientific TSX Series Upright Freezers (-50°C to -86°C)									
	Cap	pacity			Max. Shelf					
Model	cu. ft.	2"		Amps / Breaker	Weight	Interior Dimensions	Exterior Dimensions	Shipping Weight		
Number	(liters)	cryobox	Electrical	(Plug)	lbs (kg)	H x W x D in (cm)	H x W* x D in (cm)	lbs (kg)		
TSX40086V	19.4	400	230V / 50Hz	> 4.0/10 (European)	165	51.2 x 23.1 x 28.3	78.0 x 28.3 x 37.6	665 (302)		
TSX40086D	(549)	400	208-230V / 60Hz	4.0/10 (NEMA 6-15)	(75)	(130.1 x 58.8 x 71.9)	(198.1 x 71.9 x 95.5)	640 (290)		
TSX50086V	24.1	500	230V / 50Hz	> 4.0/10 (European)	205	51.2 x 28.8 x 28.3	78.0 x 34.0 x 37.6**	721 (327)		
TSX50086D	(682)	500	208-230V / 60Hz	5.1/10 (NEMA 6-15)	(93)	(130.1 x 73.0 x 71.9)	(198.1 x 86.4 x 95.5)	696 (316)		
TSX60086V	28.8	600	230V / 50Hz	8.5/15 (NEMA 5-15)	245	51.2 x 34.4 x 28.3	78.0 x 39.6 x 37.6**	790 (358)		
TSX60086D	(816)	000	208-230V / 60Hz	4.0/10 (NEMA 6-15)	(111)	(130.1 x 87.3 x 71.9)	(198.1 x 100.6 x 95.5)	765 (347)		
TSX70086V	33.5	700	230V / 50Hz	10.6/15 (NEMA 5-15)	285	51.2 x 40.0 x 28.3	78.0 x 45.2 x 37.6**	894 (406)		
TSX70086D	(949)	/00	208-230V / 60Hz	5.8/10 (NEMA 6-15)	(129)	(130.1 x 101.6 x 71.9)	(198.1 x 114.8 x 95.5)	869 (394)		

* Allowance for handle and hinge, add 4.2 in (10.7 cm) to cabinet width

** Doorway width clearance is 34.5 in (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)				
TSX40086V	7.7	+7.8 / +0.6	20	292	47.5				
TSX40086D	7.7	+7.07 +0.0	20	292	47.5				
TSX50086V	8.5	+8.3/+0.3	25	264	49.0				
TSX50086D	8.5	+0.37+0.3			49.0				
TSX60086V	8.6	+7.7 / +1.8	31	297	4 E E				
TSX60086D	8.6	+/./ / +1.8	31	297	45.5				
TSX70086V	9.4	.71 / .00	01	339	49.0				
TSX70086D	9.4	+7.1 / +2.0	31	339	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

Find out more at **thermofisher.com/tsx**

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

Installation	TSX40086	TSX50086	TSX60086	TSX70086
Factory	LN4567	LN4567	LN4567	LN4567
Field	FLN4567LE	FLN4567LE	FLN4567LE	FLN4567LE
Factory	CO4567	CO4567	CO4567	CO4567
Field	FCO4567LE	FCO4567LE	FCO4567LE	FCO4567LE
Factory	CR4567	CR4567	CR4567	CR4567
Field	FCR400TSXLE	FCR500TSXLE	FCR600TSXLE	FCR700TSXLE
Factory	CRP4567	CRP4567	CRP4567	CRP4567
Field	FCRP400TSXLE	FCRP500TSXLE	FCRP600TSXLE	FCRP700TSXLE
Factory	RAC34567	RAC34567	RAC34567	RAC34567
Field	FAC34567LE	FAC34567LE	FAC34567LE	FAC34567LE
Factory	SS34567	SS34567	SS34567	SS34567
Factory	US125V20ATL	US125V20ATL	US125V20ATL	US125V20ATL
Field	TL125V20A	TL125V20A	TL125V20A	TL125V20A
Factory	US230V15ATL	US230V15ATL	US230V15ATL	US230V15ATL
Field	TL230V15A	TL230V15A	TL230V15A	TL230V15A
Factory	US230V20ATL	US230V20ATL	US230V20ATL	US230V20ATL
Field	TL230V20A	TL230V20A	TL230V20A	TL230V20A
Factory	TSX5SHELFOPTION	TSX5SHELFOPTION	TSX5SHELFOPTION	TSX5SHELFOPTION
Field	SK400TSX	SK500TSX	SK600TSX	SK700TSX
	Factory Field Factory Field Factory Field Factory Field Factory Factory Field Factory Field Factory Field Factory Field Factory Field	FactoryLN4567FieldFLN4567LEFactoryCO4567FieldFCO4567LEFactoryCR4567FieldFCR400TSXLEFactoryCRP4567FieldFCR400TSXLEFactoryRAC34567FieldFAC34567LEFactorySS34567FactoryUS125V20ATLFieldTL125V20AFactoryUS230V15ATLFieldTL230V15AFactoryUS230V20ATLFieldTL230V20AFactoryTSX5SHELFOPTION	FactoryLN4567LN4567FieldFLN4567LEFLN4567LEFactoryCO4567CO4567FieldFCO4567LEFCO4567LEFactoryCR4567CR4567FieldFCR400TSXLEFCR500TSXLEFactoryCRP4567CRP4567FieldFCRP400TSXLEFCR500TSXLEFactoryRAC34567RAC34567FieldFCRP400TSXLEFCRP500TSXLEFactoryRAC34567SS34567FieldFAC34567LEFAC34567LEFactoryUS125V20ATLUS125V20ATLFieldTL125V20ATL125V20AFieldTL230V15ATLUS230V15ATLFieldTL230V15ATL230V15AFactoryUS230V20ATLUS230V20ATLFieldTL230V20ATL230V20AFactoryTL230V20ATL230V20AFactoryTSX5SHELFOPTIONTSX5SHELFOPTION	FactoryLN4567LN4567LN4567FieldFLN4567LEFLN4567LEFLN4567LEFactoryCO4567CO4567CO4567FieldFCO4567LEFCO4567LEFCO4567LEFactoryCR4567CR4567CR4567FieldFCR400TSXLEFCR500TSXLEFCR600TSXLEFactoryCRP4567CRP4567CRP4567FieldFCRP400TSXLEFCR500TSXLEFCR600TSXLEFactoryCRP4567CRP4567CRP4567FieldFCRP400TSXLEFCRP500TSXLEFCRP600TSXLEFactoryRAC34567RAC34567RAC34567FieldFAC34567LEFAC34567LEFAC34567LEFactoryUS125V20ATLUS125V20ATLUS125V20ATLFieldTL125V20ATL125V20ATL125V20AFieldTL230V15ATLUS230V15ATLUS230V15ATLFieldTL230V15ATL230V15ATL230V15AFactoryUS230V20ATLUS230V20ATLUS230V20ATLFieldTL230V20ATL230V20ATL230V20AFactoryTSX5SHELFOPTIONTSX5SHELFOPTIONTSX5SHELFOPTION

Accessories [†]	TSX40086	TSX50086	TSX60086	TSX70086
Access Key Pack (U.S.): Includes five key cards. Supports ISO15693 protocol	ACU34567	ACU34567	ACU34567	ACE34567
Chart Paper Ink (Pack of 50)	17020	17020	17020	17020
Chart Paper Inkless (Pack of 50)	6185	6185	6185	6185
Accessory for light bars	TSXLBSM	TSXLBSM	TSXLBLG	TSXLBLG
Replacement Air Filter	AF34567LE	AF34567LE	AF34567LE	AF34567
Replacement Back-Up Battery	400159	400159	400159	400159
Alarm Delay Module: Eliminates nuisance alarms due to intermittent or transitory conditions. Adjustable delaly requires alarm condition to exist for user defined period before signal is released to monitoring system.	6903	6903	6903	6903
Cryo Gloves Medium	4425	4425	4425	4425
Cryo Gloves Large	4426	4426	4426	4426
Seismic Restraint Kit	TF-ULT400	TF-ULT500	TF-ULT600	TF-ULT700

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

+ Optional accessories for TSX400/500 and TSX600/700

Packages

TSX with two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical, 60Hz	# of Racks	# of Boxes*			
TSX40086ARAK	400 box	19.4	115V	8	200			
TSX40086DRAK	400 box	19.4	208-230V	8	200			
TSX50086ARAK	500 box	24.1	115V	10	250			
TSX50086DRAK	500 box	24.1	208-230V	10	250			
TSX60086ARAK	600 box	28.8	115V	12	300			
TSX60086DRAK	600 box	28.8	208-230V	12	300			
TSX70086ARAK	700 box	33.5	115V	14	350			
TSX70086DRAK	700 box	33.5	208-230V	14	350			

TSX with factory-installed LN2 back-up, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical, 60Hz	# of Racks	# of Boxes*			
TSX40086ARAKLN	400 box	19.4	115V	8	200			
TSX40086DRAKLN	400 box	19.4	208-230V	8	200			
TSX50086ARAKLN	500 box	24.1	115V	10	250			
TSX50086DRAKLN	500 box	24.1	208-230V	10	250			
TSX60086ARAKLN	600 box	28.8	115V	12	300			
TSX60086DRAKLN	600 box	28.8	208-230V	12	300			
TSX70086ARAKLN	700 box	33.5	115V	14	350			
TSX70086DRAKLN	700 box	33.5	208-230V	14	350			

TSX with factory-installed CO2 back-up, two shelves of sliding drawer racks, including boxes									
Model No.	Capacity Freezer	Cubic Feet	Electrical, 60Hz	# of Racks	# of Boxes*				
TSX40086ARAKCO	400 box	19.4	115V	8	200				
TSX40086DRAKCO	400 box	19.4	208-230V	8	200				
TSX50086ARAKCO	500 box	24.1	115V	10	250				
TSX50086DRAKCO	500 box	24.1	208-230V	10	250				
TSX60086ARAKCO	600 box	28.8	115V	12	300				
TSX60086DRAKCO	600 box	28.8	208-230V	12	300				
TSX70086ARAKCO	700 box	33.5	115V	14	350				
TSX70086DRAKCO	700 box	33.5	208-230V	14	350				

TSX with factory-installed access card, two shelves of sliding drawer racks, including boxes									
Model No.	Capacity Freezer	Cubic Feet	Electrical, 60Hz	# of Racks	# of Boxes*				
TSX40086ARAKHID	400 box	19.4	115V	8	200				
TSX40086DRAKHID	400 box	19.4	208-230V	8	200				
TSX50086ARAKHID	500 box	24.1	115V	10	250				
TSX50086DRAKHID	500 box	24.1	208-230V	10	250				
TSX60086ARAKHID	600 box	28.8	115V	12	300				
TSX60086DRAKHID	600 box	28.8	208-230V	12	300				
TSX70086ARAKHID	700 box	33.5	115V	14	350				
TSX70086DRAKHID	700 box	33.5	208-230V	14	350				

* 2-inch fiberboard boxes with 100-count cell dividers

TSX with factory-installed chart recorder, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical, 60Hz	# of Racks	# of Boxes*			
TSX40086ARAKCR	400 box	19.4	115V	8	200			
TSX40086DRAKCR	400 box	19.4	208-230V	8	200			
TSX50086ARAKCR	500 box	24.1	115V	10	250			
TSX50086DRAKCR	500 box	24.1	208-230V	10	250			
TSX60086ARAKCR	600 box	28.8	115V	12	300			
TSX60086DRAKCR	600 box	28.8	208-230V	12	300			
TSX70086ARAKCR	700 box	33.5	115V	14	350			
TSX70086DRAKCR	700 box	33.5	208-230V	14	350			

Racks for Boxes and Microplates

Model No.	Description	Dimensions H x W x D in. (cm)	Storage	TSX40086	TSX50086	TSX60086	TSX70086
920090		11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3)	Boxes Per Rack	25	25	25	25
	Sliding Drawer Rack		Racks Per Shelf	4	5	6	7
			Racks Per Freezer	16	20	24	28
			Boxes Per Freezer	400	500	600	700
			Boxes Per Rack	25	25	25	25
1950520	Adjustable Side	11.6 x 5.4 x 26.75	Racks Per Shelf	4	5	6	7
	Access Rack	(29.5 x 13.7 x 67.9)	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 H x W x D in. (cm)	Storage	TSX40086	TSX50086	TSX60086	TSX70086		
	Sliding Drawer Rack	11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3)	Boxes Per Rack	15	15	15	15		
000001			Racks Per Shelf	4	5	6	7		
920091			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 (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 H x W x D in. (cm)	Storage	TSX40086	TSX50086	TSX60086	TSX70086		
			Plates Per Rack	147	147	147	147		
1050500	Side Access Rack	11.9 x 5.5 x 25.7	Racks Per Shelf4Racks Per Freezer16	5	6	7			
1950592	with Locking Rod for Standard or Deepwell	(30.2 x 14 x 65.3)		16	20	24	28		
			Plates Per Freezer	2352	2940	3528	4116		

Boxes

Description	# of Divisions	Quantity	Color
Thermo Scientific™ Nalgene [™] polycarbonate 2" (5.08 cm) box for 1.2–2.0 mL vials	81	24	white
2" (5.08 cm) fiberboard box	0	12	white
2" (5.08 cm) fiberboard box	81	1	white
2" (5.08 cm) fiberboard box	100	1	white
3" (7.62 cm) fiberboard box	0	12	white
3" (7.62 cm) fiberboard box	81	1	white
2" (5.08 cm) fiberboard box	0	12	multiple
2" (5.08 cm) fiberboard box	0	12	pink
2" (5.08 cm) fiberboard box	0	12	red
2" (5.08 cm) fiberboard box	0	12	yellow
2" (5.08 cm) fiberboard box	0	12	green
2" (5.08 cm) fiberboard box	0	12	blue
2" (5.08 cm) fiberboard box	0	12	black
	Thermo Scientific [™] Nalgene [™] polycarbonate 2" (5.08 cm) box for 1.2–2.0 mL vials 2" (5.08 cm) fiberboard box 2" (5.08 cm) fiberboard box 2" (5.08 cm) fiberboard box 3" (7.62 cm) fiberboard box 3" (7.62 cm) fiberboard box 2" (5.08 cm) fiberboard box	Thermo Scientific" Nalgene" polycarbonate 2" (5.08 cm) box for 1.2–2.0 mL vials 81 2" (5.08 cm) fiberboard box 0 2" (5.08 cm) fiberboard box 81 2" (5.08 cm) fiberboard box 100 3" (7.62 cm) fiberboard box 0 3" (7.62 cm) fiberboard box 0 2" (5.08 cm) fiberboard box 0	Thermo Scientific" Nalgene" polycarbonate 2" (5.08 cm) box for 1.2–2.0 mL vials 81 24 2" (5.08 cm) fiberboard box 0 12 2" (5.08 cm) fiberboard box 81 1 2" (5.08 cm) fiberboard box 100 1 2" (5.08 cm) fiberboard box 00 12 3" (7.62 cm) fiberboard box 0 12 3" (7.62 cm) fiberboard box 0 12 2" (5.08 cm

Fiberboard Dividers

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

Vials and Tubes

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

Sliding Drawer Racks for Matrix and Cryobank Tubes

-		Freezer Model	TSX40086	TSX50086	TSX60086	TSX70086
200 µL Capacit	v Tubes	Treezer model	10,40000	10,0000		1001000
		Rack Model No	1950787	1950787	1950787	1950787
	Thermo Scientific™	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)
3747,	Matrix™ 200 µL 2D Internallv-threaded	Tubes per Box	96	96	96	96
3748, 4988	Universal Tubes	Boxes Per Rack	56	56	56	56
-000	Box Dimension: 3.365 x 5.03 x 1.082 in. (8.5 x 12.8 x 2.75 cm)	Racks Per Shelf	4	5	6	7
	(0.3 x 12.0 x 2.73 (11)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	86,016	107,520	129,024	150,528
500 µL Capacit	y Tubes					
	Thermo Scientific Matrix 500 µL 2D	Rack Model No	1950787	1950787	1950787	1950787
3734, 3735, 4898	Open Top Tubes Box Dimension: 3.365 x 5.03 x 1.022 in. (8.5 x 12.8 x 2.6 cm)	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)
	Thermo Scientific [™] Matrix [™] 200 µL 2D with Duraseals Installed Internally-threaded Universal Tubes	Tubes per Box	96	96	96	96
		Boxes Per Rack	56	56	56	56
3736, 3737, 4899		Racks Per Shelf	4	5	6	7
	Box Dimension: 3.365 x 5.03 x 1.082 in. (8.5 x 12.8 x 2.75 cm)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	86,016	107,520	129,024	150,528
	Thermo Scientific	Rack Model No	1950791	1950791	1950791	1950791
374086, 374087 (including color options)	Nunc [™] Cryobank [™] 500 µl Internally Threaded Tubes Box Dimension: 3.365 x 5.03 x 1.394 in. (8.5 x 12.8 x 3.5 cm)	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 per Box	96	96	96	96
3743, 3744,	Thermo Scientific Matrix 500 µL 2D Internally	Boxes Per Rack	42	42	42	42
3745 (including color	Threaded ScrewTop Tubes Box Dimension:	Racks Per Shelf	4	5	6	7
options)	3.365 x 5.03 x 1.745 in. (8.5 x 12.8 x 4.4 cm)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	64,512	80,640	96,768	112,896

Sliding Drawer Racks for Matrix and Cryobank Tubes

		Freezer Model	TSX40086	TSX50086	TSX60086	TSX70086
750 μL Capacit	y Tubes					
	Thermo Scientific	Rack Model No	1950791	1950791	1950791	1950791
3731, 3732, 4896	Matrix 750 µL 2D Open Top Tubes Box Dimension: 3.365 x 5.03 x 1.55 in. (8.5 x 12.8 x 3.9 cm)	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 per Box	96	96	96	96
	Thermo Scientific Matrix 750 µL 2D Tubes	Boxes Per Rack	42	42	42	42
3729, 4896	with Duraseals Installed Box Dimension:	Racks Per Shelf	4	5	6	7
	3 365 x 5 03 x 1 55 in	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	64,512	80,640	96,768	112,896

	Thermo Scientific	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
374088, 374089	Nunc Cryobank 1.0 mL Internally Threaded	Tubes per Box	96	96 96	96	96
(including color options)	Tubes Box Dimension:	Boxes Per Rack		35	35	
optionsj	3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm)	Racks Per Shelf		5	6	7
		Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	53,760	67,200	80,640	94,080
		Rack Model No	1950799	1950799	1950799	1950799
	Thermo Scientific	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
3740, 3741,	Matrix 1.0 mL 2D Internally Threaded	Tubes per Box	96	96 96	96	96
3742 (including color	ScrewTop Tubes Box Dimension:	Boxes Per Rack	28 2	28	28	28
options)	3.365 x 5.03 x 2.3 in. (8.5 x 12.8 x 5.8 cm)	Racks Per Shelf	4	5	6	7
	(0.0 × 12.0 × 0.0 011)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	43,008	53,760	64,512	75,264

thermo scientific

Thermo Scientific[™] TSX Series Ultra-Low Freezers

Sliding Drawer Racks for Matrix and Cryobank Tubes

		Freezer Model	TSX40086	TSX50086	TSX60086	TSX70086
1.4 mL Capacity	y Tubes					·
	Thermo Scientific Matrix 1.4 mL 2D Open Top Tubes	Rack Model No	1950642	1950642	1950642	1950642
3791, 3792, 4890	Box Dimension: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm)	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
	Thermo Scientific Matrix 1.4 mL 2D Tubes with	Tubes per Box	96	96	96	96
3801, 4890	Box Dimension: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm)	Boxes Per Rack	35	35	35	35
	Thermo Scientific Matrix	Racks Per Shelf	4	5	6	7
3711, 3112,	1.4 mL Human Readable Open Top Tubes Installed	Racks Per Freezer	16	20	24	28
4890	Box Dimension: 3.365 x 5.03 x 1.92 in. (8.5 x 12.8 x 4.9 cm)	Tubes Per Freezer	53,760	67,200	80,640	94,080
1.8 to 2.0 mL Ca	apacity Tubes					
	Thermo Scientific	Rack Model No	1950642	1950642	1950642	1950642
374500, 374501	Nunc 1.8 mL Externally Threaded Universal Tubes Box Dimension: 3.365 x 5.03 x 2.15 in. (8.5 x 12.8 x 5.5 cm)	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 ir (14 x 30.3 x 68.5 cm
	Thermo Scientific Nunc Cryobank 2.0 mL Internally Threaded Tubes Box Dimension:	Tubes per Box	48	48	48	48
		Boxes Per Rack	35	35	35	35
374221, 374223		Racks Per Shelf	4	5	6	7
	3.365 x 5.03 x 2.15 in.	Racks Per Freezer	16	20	24	28
	(8.5 x 12.8 x 5.5 cm)	Tubes Per Freezer	26,880	33,600	40,320	47,040
5.0 mL Capacit	ty Tubes					
		Rack Model No	1950819	1950819	1950819	1950819
	Thermo Scientific Nunc Cryobank 5.0 mL Internally Threaded Tubes	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 ir (14 x 30.3 x 68.5 cm
374220, 374222		Tubes per Box	48	48	48	48
JI 7220, 014222	Box Dimension:	Boxes Per Rack	21	21	21	21
	3.365 x 5.03 x 3.78 in. (8.5 x 12.8 x 9.6 cm)	Racks Per Shelf	4	5	6	7
	(0.0 x 12.0 X 9.0 UIII)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	16,128	20,160	24,192	28,224

