thermo scientific



Thermo Scientific[™] TSX Series Ultra-Low Freezers

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

- 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 usage: less than 9 kWh/day, depending on size

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

- Labs can reduce energy usage up to 70% by replacing an older ultra-low freezer with a new TSX freezer²
- 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 ultra-low temperature freezers (ULTs) are validated by the ACT label program in partnership with the My Green Lab[™] organization
- 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.

^{2.} For energy savings up to 70% at -80°C setpoint, reference info was 8.7 kWh/day TSX600 compared to >5 year large ULT 31.9 kWh/day energy calculator. At -70°C setpoint, reference info was 7.9 kWh/day TSX600 compared to >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 touchscreen interface and cabinet

- Easy to use—setup wizard, event log, temperature mapping, and data downloads
- Capacitive touch—even when using latex gloves
- Improved cloud-connected, wireless monitoring capability—with the Thermo Scientific™ DeviceLink™ Hub standard on every TSX model
- 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 touchscreen, and shelf-level placement that doesn't require floor-level loading of racks







Specifications and Ordering Information

Thermo Sc	Thermo Scientific TSX Series Upright Freezers (-50°C to -86°C)									
	Capacity			Max. Shelf						
Model Number	cu. ft. (liters)	2" cryobox	Electrical	Amps / Breaker (Plug)	Weight Ibs (kg)	Interior Dimensions H x W x D in (cm)	Exterior Dimensions H x W* x D in (cm)	Shipping Weight Ibs (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	640 (000)		
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	5.2/10 (European)	205	51.2 x 28.8 x 28.3	78.0 x 34.0 x 37.6**	606 (016)		
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	4.0/10 (European)	245	51.2 x 34.4 x 28.3	78.0 x 39.6 x 37.6**	765 (347)		
TSX60086D	(816)	600	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	6.1/10 (European)	285	51.2 x 40.0 x 28.3	78.0 x 45.2 x 37.6**	960 (204)		
TSX70086D	(949)	700	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)		

 $^{^{\}star}$ Allowance for handle and hinge, add 4.2 in (10.7 cm) to cabinet width

Performa	Performance Data								
Model Number	Energy Consumption (kWh/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	77	+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	0.5				49.0				
TSX60086V	8.6	+7.7 / +1.8	31	297	45.5				
TSX60086D	0.0	+1.7 / +1.0	31	291	45.5				
TSX70086V	9.4	+7.1 / +2.0	31	339	48.0				
TSX70086D	5.4	+1.1 / +2.0		339					

^{*} Energy Calculation: 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



^{**} Doorway width clearance is 34.5 in (87.6 cm) for TSX50086, TSX60086, and TSX70086

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

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

		·			
Options	Installation	TSX40086	TSX50086	TSX60086	TSX70086
LN ₂ Backup System	Factory	LN4567	LN4567	LN4567	LN4567
Maintains temperature down to -80°C with liquid nitrogen.	Field	FLN4567LE	FLN4567LE	FLN4567LE	FLN4567LE
CO ₂ Backup System	Factory	CO4567	CO4567	CO4567	CO4567
Maintains temperature down to -67°C with CO ₂ .	Field	FCO4567LE	FCO4567LE	FCO4567LE	FCO4567LE
Chart Recorder (Inkless)	Factory	CR4567	CR4567	CR4567	CR4567
6" (15.2 cm), seven day inkless recorder, -115° to +50°C, +5°C resolution	Field	FCR400TSXLE	FCR500TSXLE	FCR600TSXLE	FCR700TSXLE
Chart Recorder (Ink)	Factory	CRP4567	CRP4567	CRP4567	CRP4567
6" (15.2 cm), seven day ink recorder, -100° to +38°C, +2°C resolution	Field	FCRP400TSXLE	FCRP500TSXLE	FCRP600TSXLE	FCRP700TSXLE
Access Key Option Card	Factory	RAC34567	RAC34567	RAC34567	RAC34567
Access control. Includes five key cards. Supports ISO15693 and ISO14443 protocols.	Field	FAC34567LE	FAC34567LE	FAC34567LE	FAC34567LE
Stainless Steel Freezer Interior	Factory	SS34567	SS34567	SS34567	SS34567
Twist Lock Plug	Factory	US125V20ATL	US125V20ATL	US125V20ATL	US125V20ATL
NEMA L5-20P for 115V / 60Hz	Field	TL125V20A	TL125V20A	TL125V20A	TL125V20A
Twist Lock Plug	Factory	US230V15ATL	US230V15ATL	US230V15ATL	US230V15ATL
NEMA L6-15P for 208-230V / 60Hz	Field	TL230V15A	TL230V15A	TL230V15A	TL230V15A
Twist Lock Plug	Factory	US230V20ATL	US230V20ATL	US230V20ATL	US230V20ATL
NEMA L6-20P for 208-230V / 60Hz	Field	TL230V20A	TL230V20A	TL230V20A	TL230V20A
Chalf Mitalian land and shalf and shalf arranged size	Factory	TSX5SHELFOPTION	TSX5SHELFOPTION	TSX5SHELFOPTION	TSX5SHELFOPTION
Shelf Kit: Includes one shelf and shelf support clips	Field	SK400TSX	SK500TSX	SK600TSX	SK700TSX

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

^{*} 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	# of Racks	# of Boxes*			
TSX40086VRAK	400 box	19.4	230V / 50Hz	8	200			
TSX40086DRAK	400 box	19.4	208-230V / 60Hz	8	200			
TSX50086VRAK	500 box	24.1	230V / 50Hz	10	250			
TSX50086DRAK	500 box	24.1	208-230V / 60Hz	10	250			
TSX60086VRAK	600 box	28.8	230V / 50Hz	12	300			
TSX60086DRAK	600 box	28.8	208-230V / 60Hz	12	300			
TSX70086VRAK	700 box	33.5	230V / 50Hz	14	350			
TSX70086DRAK	700 box	33.5	208-230V / 60Hz	14	350			

TSX with factory-installed LN₂ back-up, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical	# of Racks	# of Boxes*			
TSX40086VRAKLN	400 box	19.4	230V / 50Hz	8	200			
TSX40086DRAKLN	400 box	19.4	208-230V / 60Hz	8	200			
TSX50086VRAKLN	500 box	24.1	230V / 50Hz	10	250			
TSX50086DRAKLN	500 box	24.1	208-230V / 60Hz	10	250			
TSX60086VRAKLN	600 box	28.8	230V / 50Hz	12	300			
TSX60086DRAKLN	600 box	28.8	208-230V / 60Hz	12	300			
TSX70086VRAKLN	700 box	33.5	230V / 50Hz	14	350			
TSX70086DRAKLN	700 box	33.5	208-230V / 60Hz	14	350			

TSX with factory-installed CO ₂ back-up, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical	# of Racks	# of Boxes*			
TSX40086VRAKCO	400 box	19.4	230V / 50Hz	8	200			
TSX40086DRAKCO	400 box	19.4	208-230V / 60Hz	8	200			
TSX50086VRAKCO	500 box	24.1	230V / 50Hz	10	250			
TSX50086DRAKCO	500 box	24.1	208-230V / 60Hz	10	250			
TSX60086VRAKCO	600 box	28.8	230V / 50Hz	12	300			
TSX60086DRAKCO	600 box	28.8	208-230V / 60Hz	12	300			
TSX70086VRAKCO	700 box	33.5	230V / 50Hz	14	350			
TSX70086DRAKCO	700 box	33.5	208-230V / 60Hz	14	350			

TSX with factory-installed chart recorder, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical	# of Racks	# of Boxes*			
TSX40086VRAKCR	400 box	19.4	230V / 50Hz	8	200			
TSX40086DRAKCR	400 box	19.4	208-230V / 60Hz	8	200			
TSX50086VRAKCR	500 box	24.1	230V / 50Hz	10	250			
TSX50086DRAKCR	500 box	24.1	208-230V / 60Hz	10	250			
TSX60086VRAKCR	600 box	28.8	230V / 50Hz	12	300			
TSX60086DRAKCR	600 box	28.8	208-230V / 60Hz	12	300			
TSX70086VRAKCR	700 box	33.5	230V / 50Hz	14	350			
TSX70086DRAKCR	700 box	33.5	208-230V / 60Hz	14	350			

TSX with factory-installed access card, two shelves of sliding drawer racks, including boxes								
Model No.	Capacity Freezer	Cubic Feet	Electrical	# of Racks	# of Boxes*			
TSX40086VRAKHID	400 box	19.4	230V / 50Hz	8	200			
TSX40086DRAKHID	400 box	19.4	208-230V / 60Hz	8	200			
TSX50086VRAKHID	500 box	24.1	230V / 50Hz	10	250			
TSX50086DRAKHID	500 box	24.1	208-230V / 60Hz	10	250			
TSX60086VRAKHID	600 box	28.8	230V / 50Hz	12	300			
TSX60086DRAKHID	600 box	28.8	208-230V / 60Hz	12	300			
TSX70086VRAKHID	700 box	33.5	230V / 50Hz	14	350			
TSX70086DRAKHID	700 box	33.5	208-230V / 60Hz	14	350			

 $^{^{\}star}$ 2-inch fiberboard boxes with 100-count cell dividers

Racks for Boxes and Microplates

Racks for 2" (5.08 cm) Boxes								
Model No.	Description	Dimensions H x W x D in. (cm)	Storage	TSX40086	TSX50086	TSX60086	TSX70086	
			Boxes Per Rack	25	25	25	25	
920090	Ollalia a Dan a a Dani	11.9 x 5.5 x 26.9 (30.2 x 14 x 68.3)	Racks Per Shelf	4	5	6	7	
	Sliding Drawer Rack		Racks Per Freezer	16	20	24	28	
			Boxes Per Freezer	400	500	600	700	
			Boxes Per Rack	25	25	25	25	
1050500	Adjustable Side	11.6 x 5.4 x 26.75	Racks Per Shelf	4	5	6	7	
1950520	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	
	Olalias David David	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	Sliding Drawer Rack		Racks Per Freezer	16	20	24	28	
			Boxes Per Freezer	240	300	360	420	

Racking Shelf Kits							
Description	Storage	TSX40086	TSX50086	TSX60086	TSX70086		
	Model No.	RSK400SD4	RSK500SD4	RSK600SD4	RSK700SD4		
Sliding Drawer Racks and 2" Boxes with 100 Count Cell Dividers (fits one shelf)	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 Shelf	4	5		6 7		
1950592	with Locking Rod for Standard or Deepwell	(30.2 x 14 x 65.3)	Racks Per Freezer	16	16 20	24	28		
			Plates Per Freezer	2352	2940	147 6 24	4116		

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 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	y Tubes					
	Thermo Scientific™	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)
3747,	Matrix™ 200 μL 2D Internally-threaded	Tubes per Box	96	96	96	96
3748, 4988	Universal Tubes Box Dimension:	Boxes Per Rack	56	56	56	56
1000	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
	(0.0 x 12.0 x 2.70 011)	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	Tubes per Box	96	96	96	96
		Boxes Per Rack	56	56	56	56
3736, 3737, 4899	Internally-threaded Universal Tubes	Racks Per Shelf	4	5	6	7
	Box Dimension: 3.365 x 5.03 x 1.082 in.	Racks Per Freezer	16	20	24	28
	(8.5 x 12.8 x 2.75 cm)	Tubes Per Freezer	86,016	107,520	129,024	150,528
	Thermo Scientific Nunc™ Cryobank™	Rack Model No	1950791	1950791	1950791	1950791
374086, 374087 (including color options)	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	1 1950791 6.96 in. 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) 96 42 6	42
3729, 4896	with Duraseals Installed Box Dimension:	Racks Per Shelf	4	5	6	7
	3.365 x 5.03 x 1.55 in. (8.5 x 12.8 x 3.9 cm)	Rack Model No	20	24	28	
	, ,	Tubes Per Freezer	64,512	80,640	1950791 5.5 x 11.9 x 26.96 in. 14 x 30.3 x 68.5 cm) 96 42 6 24	112,896

1.0 mL Capacit	y Tubes					
	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 (including color options)	Nunc Cryobank 1.0 mL Internally Threaded	Tubes per Box	96	96	96	96
	Tubes 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
		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		
		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
3742 (including color	ScrewTop Tubes Box Dimension:	ScrewTop Tubes Boxes Per Rack	28	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

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Thermo Scientific™ TSX Series Ultra-Low Freezers

Sliding Drawer Racks for Matrix and Cryobank Tubes

		Freezer Model	TSX40086	TSX50086	TSX60086	TSX70086
1.4 mL Capacit	y Tubes					
	Thermo Scientific Matrix	Rack Model No	1950642	1950642	1950642	1950642
3791, 3792, 4890	1.4 mL 2D Open Top Tubes 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	Duraseals Installed 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 in. (14 x 30.3 x 68.5 cm)
	Thermo Scientific	Tubes per Box	48	48	5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) 96 35 6 24 80,640 1950642 5.5 x 11.9 x 26.96 in. (14 x 30.3 x 68.5 cm) 48 35 6 24 40,320 1950819 5.5 x 11.9 x 26.96 in.	48
	Nunc Cryobank 2.0 mL Internally Threaded Tubes	Boxes Per Rack	35	35	35	35
374221, 374223	Box Dimension:	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	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)
074000 074000	5.0 mL Internally Threaded Tubes	Tubes per Box	48	48	48	48
374220, 374222	Box Dimension:	Boxes Per Rack	21	21	21	21
	3.365 x 5.03 x 3.78 in.	Racks Per Shelf	4	5	6	7
	(8.5 x 12.8 x 9.6 cm)	Racks Per Freezer	16	20	24	28
		Tubes Per Freezer	16,128	20,160	24,192	28,224

