



**Thermo Scientific
Sorvall MTX and MX Plus
Micro-Ultracentrifuge Series**



powerful separation technology

quiet, compact design

Thermo
SCIENTIFIC

Thermo Scientific Sorvall MTX and MX Plus Micro-Ultracentrifuge Series

Our Sorvall® micro-ultracentrifuges deliver excellent performance and versatility for rapid small-volume processing applications. With RCF up to 1,048,000 x g, our Sorvall micro-ultracentrifuges feature advanced functionality in a compact footprint that easily fit in the lab.

Performance Redefined

Sorvall micro-ultracentrifuges deliver advanced sample separation performance and processing capacity, combining high speeds and RCFs with fast accel/decel rates.

Exceptional Versatility

High g-force rotors and advanced rotor designs offer excellent capacities and capabilities.

Flexibility for a Full Range of Micro-Ultra Applications

Accommodating tubes from 0.2 mL to 30 mL with a choice of fixed angle, swinging bucket or vertical rotors, our Sorvall micro-ultracentrifuges address the full range of small volume processing applications:

- Virus (i.e., HIV, SRSV, rotavirus)
- Cellular organelles (i.e., ribosomes, mitochondria, microsomes)
- Lipoproteins
- Nanoparticles
- Nucleic Acids





Thermo Scientific Sorvall Micro-Ultracentrifuges

Fast. Small. Quiet. Put the power within your reach.

- Fast separations
- Increased volume
- Simple yet powerful operator environment
- Compact and readily accessible from the bench top or within the laboratory

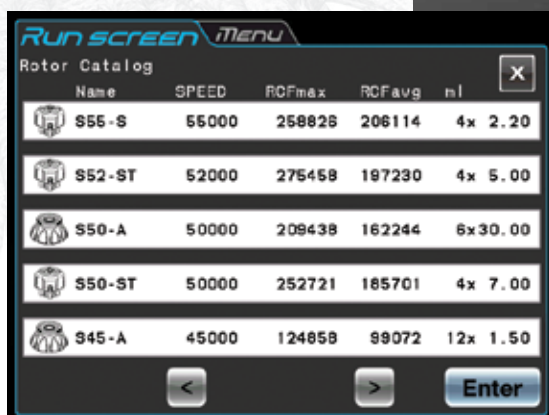







Powerful Separation Technology in a Quiet, Compact Design

Easy to use, the Sorvall MTX and MX Plus micro-ultracentrifuge series provide advanced functionality, rotor management and controlled access, to meet your laboratory needs.

Innovative Software for Improved Safety and Efficiency

The intuitive color LCD touchscreen keeps operation and programming simple giving you peace-of-mind. The display is easy to read and navigate. A graphical interface enables users to easily operate the system and select various menus and functions all by the touch of a button.



Run Screen Menu					
Rotor Catalog					
Name	SPEED	RCF _{max}	RCF _{avg}	ml	
 S55-S	55000	259826	206114	4x 2.20	
 S52-ST	52000	275458	197230	4x 5.00	
 S50-A	50000	209438	162244	6x30.00	
 S50-ST	50000	252721	185701	4x 7.00	
 S45-A	45000	124858	99072	12x 1.50	



Manage Rotor Life

The Rotor Life Management system allows you to log and control individual rotor usage by tracking the number of rotor runs and total spin hours.

Check Rotor Specifications

Key specifications for rotors are stored in memory, and can be recalled and viewed on the display screen.

Rotor Catalog

All rotors with model name and specifications are listed for your reference.

Operating Histories

Histories are recorded in memory (up to 100 cases), facilitating your ability to recall past operating parameters.

Flexible Control, Set-Up and Run Options for Greater Productivity

Innovative software puts you in control with more options. Customize set-up and run options for greater flexibility and efficiency. Control access in a multi-user environment for better security.



Control Access

The control access feature restricts access to authorized users in a multi-user environment. An identification (ID) code is required before the centrifuge will operate.

Real-Time Control / Program Start and Stop Times

The real-time control mode lets you set up a delayed start/stop run. Schedule runs so that your samples are ready when needed.

Actual Run Timer

With this feature, actual run timer starts when the set speed is attained, providing precise control of the net run-time for high-reproducibility separation. (Conventional run timer is also selectable.)

GMP/GLP Support

Optional Log Manager supports 21 CFR 11 with real time monitoring of up to 16 LAN connected centrifuges, encrypted data files, audit trail and real time graphic run monitor.



Set-Up and Recall Runs

Save time and steps for commonly used protocols by creating and storing up to 20 programs into memory in RPM or RCF mode, along with user ID and comments. Each program has up to 9 steps of operating parameters. You can change operating parameters, such as speed, time, temperature, during operation under one program.

Control Runs by Speed or g-Force

In automatic RCF/RPM mode, you can set runs to a maximum speed or to a desired g-force. No protocol conversion is necessary.

Perform Pulse-Runs

The pulse-run function provides quick spins of a few seconds, made possible with the excellent acceleration rate of the Sorvall MTX and MX Plus micro-ultracentrifuges.

Perform Step-Runs

The step-run function provides greater application flexibility.

Thermo Scientific Sorvall MTX 150

The Sorvall MTX 150 micro-ultracentrifuge offers all the speed, capacity, and performance you will need in a small, quiet (<45 dBA) benchtop design.

The Sorvall MTX 150 delivers outstanding speed (up to 150,000 rpm), g-force (up to 1,048,000 x g) and rotor capacities (up to 180 mL), to accomplish the most demanding ultracentrifuge applications. Its sleek design and intuitive LCD touchscreen interface provide space-saving and ease-of-use advantages, making our next generation micro-ultracentrifuge ideal for personal use on the lab bench. With standard electrical outlet capabilities, you have the added convenience of unit placement in your laboratory.

Fast

Accelerate to top speed of 150,000 rpm in only 80 seconds (with the S150-AT rotor)

Small

Save valuable bench space

Quiet

With noise levels below 45 dBA, you can work next to it without hearing it running

Powerful

Up to 1,048,000 x g, almost any separation is within reach

Large

Up to 180 mL for added versatility and throughput

Easy

Intuitive touch-sensitive color LCD with a graphical user interface simplifies operation

Safe

Self-locking rotor system and imbalance tolerant drive enhance convenience and safety



The Next Generation of Benchtop Micro-Ultracentrifuges

Easy to use

Simple Operation

Our Sorvall MTX 150 Micro-Ultracentrifuge provides user friendly, reliable operation to simplify loading and instrument set-up and operation. The Sorvall MTX 150 also offers visual tube balancing for enhanced ease-of-use.

Self-Locking Rotor System

Self-locking rotor system automatically secures the rotor to the drive shaft. This innovation eliminates the need to manually secure the rotor, facilitating rotor installation and enhancing safety.

GMP/GLP Data Compliance and Management

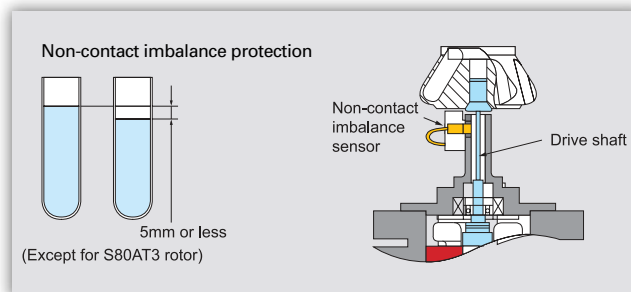
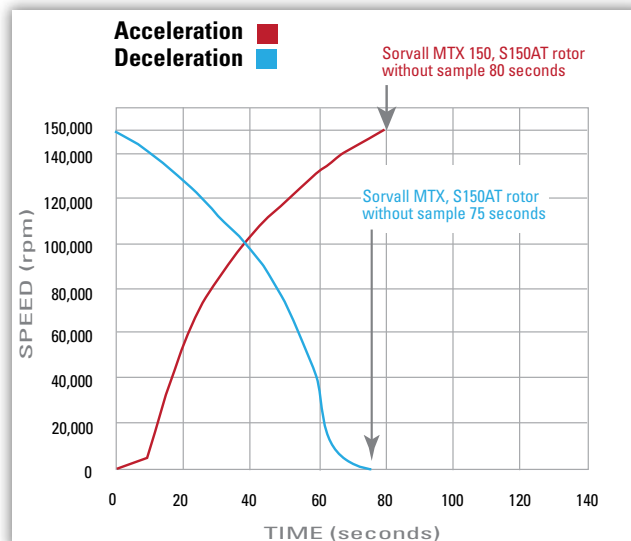
The Sorvall MTX 150 offers traceability and quality control for biopharmaceutical processing needs. A USB port allows connectivity to a memory stick, facilitating output of operating data in CSV format.

Fast Acceleration and Deceleration

The high torque drive in the Sorvall MTX 150 provides fast acceleration and deceleration rates, which means quicker separations and less waiting at the end of the run.

Powerful Imbalance Protection

For increased safety and convenience, the Sorvall MTX 150 has an imbalance tolerant drive allowing eye-balancing of tubes.





Get excellent performing technologies
in a floor model micro-ultracentrifuge

Thermo Scientific Sorvall MX 150 Plus and MX 120 Plus

The 150,000 rpm Sorvall MX 150 Plus and 120,000 rpm Sorvall MX 120 Plus are so small they can be located almost anywhere. Both models incorporate functionality to simplify rotor loading and instrument set-up and operation. Their cutting-edge combination of performance, capacity and compactness adds up to all the floor model micro-ultracentrifuge capabilities you need.



High Speeds and Low K-factors

150,000 rpm or 120,000 rpm maximum speeds with optimized rotor designs provide shorter total spin times.

Compact and Personal

Small 0.53 sq.m (5.7 sq.ft.) footprint allows for convenient location in your lab.

Quiet Operation

With noise levels below 45 dBA, you can work next to it without hearing it run.

Versatile Performance

A wide range of rotors and tube volumes support a host of different sample requirements.

Rugged Reliability

Maintenance-free brushless drive system and rotor imbalance protection ensures dependable performance.

Thermo Scientific Sorvall MTX and MX Plus Micro-Ultracentrifuge Series Rotor Selection Guide

Rotor	Cat No.	Capacity * (# places x volume)	Max. Speed (rpm)	Max. RCF (x g)	K-factor
Fixed Angle Rotors					
S150-AT	45582	8 x 2 mL	150,000	899,744	6.1
S140-AT	45978	10 x 2 mL	140,000	1,048,684	5.0
S120-AT3	45584	14 x 0.5 mL	120,000	649,826	7.8
S120-AT2	45583	10 x 2 mL	120,000	649,826	7.8
S110-AT	45539	8 x 5 mL	110,000	690,652	15
S100-AT4	45586	6 x 3.5 mL	100,000	540,628	16
S100-AT3	45585	20 x 0.2 mL	100,000	435,630	7.0
S80-AT2	45589	30 x 0.5 mL	80,000	357,440	14
S80-AT3	45590	8 x 8.3 mL	80,000	414,630	23
S70-AT	45591	20 x 0.5 mL	70,000	307,052	31
S58-A	45866	8 x 13.5 mL	58,000	288,958	50
S55-A2	45865	12 x 1.5 mL	55,000	201,046	40
S50-A	45540	6 x 30 mL	50,000	209,438	61
Swinging Bucket Rotors					
S55-S	45594	4 x 2.2 mL	55,000	258,826	44
S52-ST	45977	4 x 5 mL	52,000	275,458	79
S50-ST	45541	4 x 7 mL	50,000	252,721	77
Vertical Rotors					
S120-VT	45593	8 x 2 mL	120,000	500,237	7.9

* Volumes may not be exact

Sorvall MTX and MX Plus Series Rotor Highlights

S50-A Fixed Angle Rotor		<ul style="list-style-type: none"> • Our largest capacity rotor - (30 mL x 6 tubes) • "T-shape" handle for easy open/close rotor cover
S50-ST Swinging Bucket Rotor		<ul style="list-style-type: none"> • Our largest capacity swinging bucket rotor (4 x 7 mL), spins up to 28 mL per run • 7 mL tube series (3 types) provides versatility for better density gradient separations of cell organelles, proteins and viruses • Top-loading buckets reduce mishandling resulting in greater safety
S110-AT Fixed Angle Rotor		<ul style="list-style-type: none"> • High maximum RCF 691,000 x g with nominal capacity of 8 x 5 mL • Reduced separation time • Screw cap microtube can be centrifuged at 581,000 x g with exclusive adapter
S140-AT Fixed Angle Rotor		<ul style="list-style-type: none"> • Highest RCF with over 1,048,000 x g in the Sorvall MX 150 Plus and MTX 150 • Fast separations (k-factor = 5.0) • Ideal for rapid separation of serum lipoproteins, DNA, RNA and subcellular fractionation • Compatible with Re-Seal™ tubes

Thermo Scientific Sorvall MTX and MX Plus Micro-Ultracentrifuge Series

Technical Specifications	MTX 150	MX 150 Plus	MX 120 Plus
Type	Benchtop	Floor Model	Floor Model
Max. speed	150,000 rpm	150,000 rpm	120,000 rpm
Max. RCF	1,048,680 x g (with S140-AT rotor)	1,048,680 x g (with S140-AT rotor)	770,460 x g (with S140-AT rotor)
Max. rotor capacity - Fixed Angle	180 mL (6 x 30 mL) (with S50A rotor)		
Max. rotor capacity - Swinging Bucket	28 mL (4 x 7 mL) (with S50-ST rotor)		
Accel/decel. profiles	9/9, brake off 9/9, brake off		
Speed control accuracy	± 50 rpm		
Program memory	20, each with up to 9 steps		
Refrigeration system	Solid-state thermoelectric cooling		
Set temperature range	0 – 40 °C in 1 °C increments		
Ambient temperature operating range	5 – 35 °C		
Noise level measured 1M from instrument	< 45 dBA		
Heat output	0.7/ 2400 kW / BTU/hr		
Dimensions (H x W x D)	408 x 590 x 582 mm 16.1 x 23.2 x 22.9 in	910 x 440 x 520 mm 35.8 x 17.3 x 20.5 in	
Weight	97 / 213 kg / lb	105 / 231 kg / lb	
Regulatory standards	cCSAus, CE, IEC61010-2-020, EN61326-1 2006		

	Electrical Requirements	Cat. No.
MTX 150	115 V, 50/60 Hz, 12 A single phase	46960
MTX 150	208 V, 50/60 Hz, 6 A single phase	46961
MTX 150	220 V, 50/60 Hz, 6 A single phase	46962
MTX 150	230 V, 50/60 Hz, 6 A single phase	46963
MTX 150	240 V, 50/60 Hz, 6 A single phase	46964
MX 150 Plus	115 V, 50/60 Hz, 12 A single phase	50135650
MX 150 Plus	208 V, 50/60 Hz, 6 A single phase	50135641
MX 150 Plus	220 V, 50/60 Hz, 6 A single phase	50135642
MX 150 Plus	230 V, 50/60 Hz, 6 A single phase	50135643
MX 150 Plus	240 V, 50/60 Hz, 6 A single phase	50135644
MX 120 Plus	115 V, 50/60 Hz, 12 A single phase	50135645
MX 120 Plus	208 V, 50/60 Hz, 6 A single phase	50135646
MX 120 Plus	220 V, 50/60 Hz, 6 A single phase	50135647
MX 120 Plus	230 V, 50/60 Hz, 6 A single phase	50135648
MX 120 Plus	240 V, 50/60 Hz, 6 A single phase	50135649
Log Manager Network Edition		7500009
Network Interface for Log Manager		7500010

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