



Ultraspeed centrifuges

Rotor Guide for Sorvall MTX/MX Plus Micro-ultracentrifuges

Find the excellent fit for your application

With a comprehensive rotor portfolio

Thermo Scientific™ Rotor	Max. speed (rpm)	Max. RCF (x g) ¹	K Factor ²	Capacity: No. tubes x mL
Carbon fiber fixed angle rotors				
Thermo Scientific™ Fiberlite™ F55-12x1.5 MUC Rotor	55,000	221,575	45	12 x 1.5
Fixed angle rotors				
Thermo Scientific™ S150-AT Rotor	150,000	899,744	6.1	8 x 2.0
Thermo Scientific™ S140-AT Rotor	140,000	1,048,684	5.0	10 x 2.0
Thermo Scientific™ S120-AT3 Rotor	120,000	649,826	7.8	14 x 0.5
Thermo Scientific™ S120-AT2 Rotor	120,000	649,826	7.8	10 x 2.0
Thermo Scientific™ S110-AT Rotor	110,000	690,652	15	8 x 5.0
Thermo Scientific™ S100-AT4 Rotor	100,000	540,628	16	6 x 3.5
Thermo Scientific™ S100-AT3 Rotor	100,000	435,630	7.0	20 x 0.2
Thermo Scientific™ S80-AT3 Rotor	80,000	414,630	23	8 x 8.3
Thermo Scientific™ S80-AT2 Rotor	80,000	357,440	14	30 x 0.5
Thermo Scientific™ S70-AT Rotor	70,000	307,052	31	20 x 0.5
Thermo Scientific™ S58-A Rotor	58,000	288,958	50	8 x 13.5
Thermo Scientific™ S55-A2 Rotor	55,000	201,046	40	12 x 1.5
Thermo Scientific™ S50-A Rotor	50,000	209,438	61	6 x 30
Swinging bucket rotors				
Thermo Scientific™ S55-S Rotor	55,000	258,826	44	4 x 2.2
Thermo Scientific™ S52-ST Rotor	52,000	275,458	79	4 x 5.0
Thermo Scientific™ S50-ST Rotor	50,000	252,721	77	4 x 7.0
Vertical rotors				
Thermo Scientific™ S120-VT Rotor	120,000	500,237	7.9	8 x 2.0



Thermo Scientific™ Sorvall™ MX and MTX Ultracentrifuges

Thermo Scientific™ Fiberlite™ F55-12x1.5 MUC Rotor



Rotor specifications

Type	Fixed angle
Material	Carbon fiber composite
Capacity	12 x 1.5 mL
Maximum speed	55,000 rpm
Tube dimensions (Ø x L)	11 x 40 mm
Angle	45°
K factor	45
Net weight	1.8 kg/4.0 lb
Warranty	15 years

	RCF	Radius
Maximum	221,575 xg	65.4 mm
Average	176,176 xg	51.6
Minimum	128,744 xg	37.6

F55-12x1.5MUC rotor package (096-127022) includes:

Description	Cat. No.
1.5 mL polyallomer microtubes (1 pkg. of 100)	099-067135
O-ring refresher kit (5 o-rings, 3 vacuum grease packets, 3 lubricant packets)	021-127033
Lid fastening tool	014-2455
Rotor pad	017-0055
Lubricant	70006692
Ultraspeed rotor log book	52384

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
1.5	1.5	High Performance Microtube	314352HO1	100	12	55,000	221,575	11 x 40	-	-	-	-

Thermo Scientific™ S150-AT Rotor



Rotor specifications		
Type	Fixed angle	
Material	Titanium	
Capacity	8 x 2.0 mL	
Maximum speed	150,000 rpm	
Tube dimensions (Ø x L)	11 x 34 mm	
Angle	30°	
K factor	6.1	
Net weight	0.49 kg /1.1 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	899,744 xg	35.8 mm
Average	711,250 xg	28.3 mm
Minimum	522,756	20.8 mm

S150-AT rotor package includes:

Description	Cat. No.
S150-AT Rotor	45582
1.0 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45237
Large O-Ring for cover (qty. 2)	45702
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Starter kit for use with re-seal tubes {Includes 1 crown (45306), 10 plugs (45307), wrench (45308) and removal tool (45309)}	45305
11 mm x 32 mm tube vise	45537
11 mm x 25 mm tube vise	45536
Rotor stand	45357
Cover opener	45173

Thermo Scientific™ S150-AT Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
2.0	1.9	PA re-seal tube	45246	50	8	150,000	899,744	11 x 32	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise
1.5	1.5	PA re-seal tube	75000501	50	8	150,000	899,744	11 x 25	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45536	1	Tube vise
1.5	1.5	PA easy-seal tube	75000502	50	8	150,000	899,744	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5	1.5	PET easy-seal tube	75000503	50	8	120,000	575,836	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.0	1.0	PC thick-walled tube	45237	100	8	150,000	899,744	11 x 34	-	-	-	-

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S140-AT Rotor



Rotor specifications		
Type	Fixed angle	
Material	Titanium	
Capacity	10 x 2.0 mL	
Maximum speed	140,000 rpm	
Tube dimensions (Ø x L)	11 x 34 mm	
Angle	35°	
K factor	5.0	
Net weight	0.8 kg /1.8 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	1,048,684 xg	47.9 mm
Minimum	713,718 xg	32.6 mm

S140-AT rotor package includes:

Description	Cat. No.
S140-AT Rotor	45978
PC thick-walled tubes (qty. 1 pkg. of 100)	45237
Large O-Ring for cover	45986
Instruction manual	45735
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937

Accessories:

Description	Cat. No.
Starter kit for use with re-seal tubes {Includes 1 crown (45306), 10 Plugs (45307), Wrench (45308) and Removal tool (45309)}	45305
11 mm x 32 mm tube vise	45537
11 mm x 25 mm tube vise	45536
Rotor stand	45357
Cover opener	45173

Thermo Scientific™ S140-AT Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
2.0	1.9	PA re-seal tube	45246	50	8	150,000	899,744	11 x 32	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise
1.5	1.5	PA re-seal tube	75000501	50	8	150,000	899,744	11 x 25	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45536	1	Tube vise
1.5	1.5	PA easy-seal Tube	75000502	50	8	150,000	899,744	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5	1.5	PET easy-seal tube	75000503	50	8	120,000	575,836	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.0	1.0	PC thick-walled tube	45237	100	8	150,000	899,744	11 x 34	-	-	-	-
1.0	1.0	PA thick-walled tube	45998	50	10	120,000	770,462	11 x 34	-	-	-	-

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S120-AT3 Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	14 x 0.5 mL	
Maximum speed	120,000 rpm	
Tube dimensions (Ø x L)	8 x 34 mm	
Angle	30°	
K factor	7.8	
Net weight	0.57 kg /1.3 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	649,826 xg	40.4 mm
Average	534,015 xg	33.2 mm
Minimum	416,596 xg	25.9 mm

S120-AT3 rotor package includes:

Description	Cat. No.
S120-AT3 Rotor	45584
0.5 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45235
Large O-Ring for cover (qty. 2)	45532
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
0.5	0.5	PC thick-walled tube	45235	100	14	120,000	649,826	8 x 34	-	-	-	-
0.5	0.5	PA thick-walled tube	45236	100	14	80,000	288,812	8 x 34	-	-	-	-

Thermo Scientific™ S120-AT2 Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	10 x 2.0 mL	
Maximum speed	120,000 rpm	
Tube dimensions (Ø x L)	11 x 34 mm	
Angle	30°	
K factor	8.2	
Net weight	0.54 kg /1.2 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	649,826 xg	40.4 mm
Average	529,190 xg	32.9 mm
Minimum	408,554 xg	25.4 mm

S120-AT2 rotor package includes:

Description	Cat. No.
S120-AT2 Rotor	45583
1.0 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45237
Large O-Ring for cover (qty. 2)	45532
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Starter kit for use with re-seal tubes {Includes 1 crown (45306), 10 Plugs (45307), Wrench (45308) and Removal Tool (45309)}	45305
11 mm x 32 mm tube vise	45537
11 mm x 25 mm tube vise	45536
Rotor stand	45357
Cover opener	45173

Thermo Scientific™ S120-AT2 Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
2.0	1.9	PA re-seal tube	45246	50	8	150,000	899,744	11 x 32	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise
1.5	1.5	PA re-seal tube	75000501	50	8	150,000	899,744	11 x 25	Closure	45306	1	11 mm noryl crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45536	1	Tube vise
1.5	1.5	PA easy-seal tube	75000502	50	8	150,000	899,744	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5	1.5	PET easy-seal tube	75000503	50	8	120,000	575,836	11 x 29	Closure	75000504	1	11 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.0	1.0	PC thick-walled tube	45237	100	8	150,000	899,744	11 x 34	-	-	-	-

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S110-AT Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	8 x 5.0 mL	
Maximum speed	110,000 rpm	
Tube dimensions (Ø x L)	13 x 63 mm	
Angle	30°	
K factor	15.4	
Net weight	1.07 kg /2.4 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	690,652 xg	51.1mm
Average	510,893 xg	37.8 mm
Minimum	331,135 xg	24.5 mm

S110-AT rotor package includes:

Description	Cat. No.
S110-AT Rotor ¹	45539
4.0 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45239
Large O-Ring for cover (qty. 2)	45292
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Starter kit for use with 13 mm re-seal tubes {Includes 1 crown (45321), 10 Plugs (45307), Wrench (45308) and Removal tool (45309)}	45320
13 mm x 51 mm tube vise	45534
Rotor stand	45357
Cover opener	45173

¹ Rotor compatible only with Thermo Scientific Sorvall MTX-150 and MX Series micro-ultracentrifuges.

Thermo Scientific™ S110-AT Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
5.0	5.1	PA re-seal tube	45248	50	8	110,000	690,652	13 x 51	Closure	45321	1	13 mm Al crown ²
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45534	1	Tube vise
5.0	5.0	PA easy-seal tube	75000508	50	8	80,000	365,304	13 x 51	Closure	75000511	1	13 mm Al crown ²
									Closure	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	45309	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
4.0		PC thick-walled tube	45239	50	8	110,000	690,652	3 x 63	-	-	-	-
3.5	3.5	PA easy-seal tube	75000509	50	8	80,000	365,304	13 x 45	Closure	75000511	1	13 mm Al crown ²
									Closure	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
3.5	3.5	PET easy-seal tube	75000510	50	8	80,000	365,304	13 x 45	Closure	75000511	1	13 mm Al crown ²
									Closure	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5	1.5	PA easy-seal tube	75000512	50	8	80,000	365,304	13 x 29	Closure	75000511	1	13 mm Al crown ²
									Closure	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5	1.5	High performance microtube	314352H01	100	8	55,000	172,663	11 x 42	Adapter	45587	1	Adapter for Microtube
1.5	-	Corning™ Screw Cap Microtube ³	-	-	8	110,000	582,000	-	Adapter	S412067	1	Adapter for microtube

² Must order one crown for each place in the rotor.

³ Tubes must be purchased from manufacturer (cat. no. 430909).

Thermo Scientific™ S100-AT4 Rotor



Rotor specifications

Type	Fixed angle
Material	Titanium
Capacity	6 x 3.5 mL
Maximum speed	100,000 rpm
Tube dimensions (Ø x L)	13 x 51 mm
Angle	30°
K factor	15.9
Net weight	1.07 kg /2.4 lbs
Warranty	5 years

	RCF	Radius
Maximum	540,628 xg	48.4 mm
Average	414,407 xg	37.1 mm
Minimum	288,186 xg	25.8 mm

S100-AT4 rotor package includes:

Description	Cat. No.
S100-AT4 Rotor	45586
3.0 mL PC thick-walled tubes (qty. 2 pkg. of 50)	45238
Large O-Ring for cover (qty. 2)	45703
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45265

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Thermo Scientific™ S100-AT4 Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
3.2	3.2	PA re-seal tube	45247	50	6	100,000	540,628	13 x 35	Closure	-	1	13 mm Al crown ¹
									Closure	-	10	Stainless steel plug
									Tool	-	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45535	1	Tube vise
3.5	3.5	PA easy-seal tube	75000509	50	6	100,000	540,628	13 x 45	Closure	75000511	1	13 mm Al crown ²
									Closure	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
3.5	3.5	PET easy-seal tube	75000510	50	6	80,000	346,002	13 x 45	Closure	75000511	1	13 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
3.0	2.7	PC thick-walled tube	45238	50	6	100,000	540,628	13 x 51	-	-	-	-
2.0	1.9	PA re-seal tube	75000513	50	6	100,000	540,628	13 x 25	Closure	45318	1	13 mm Al crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45535	1	Tube vise
1.5				50	6	80,000	346,002	13 x 29	Closure	75000511	1	13 mm Al crown ¹
									Tool	75000505	1	Crown clamp
									Tool	75000506	1	Hex driver
									Tool	75000507	1	Tube removal tool
									Tool	75000481	1	Easy-seal tube vise
1.5				100	6	55,000	163,540	13 x 42	Adapter	45587	1	Adapter for microtube

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S100-AT3 Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	20 x 0.2 mL	
Maximum speed	100,000 rpm	
Tube dimensions (Ø x L)	7 x 20 mm	
Angle	30°	
K factor	7.0	
Net weight	0.52 kg /1.1 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	435,630 xg	39.0 mm
Average	383,131 xg	34.3 mm
Minimum	330,632 xg	29.6 mm

S100-AT3 rotor package includes:

Description	Cat. No.
S100-AT3 Rotor	45585
0.2 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45233
Large O-Ring for cover (qty. 2)	45704
Small O-Ring for cover (qty. 2)	45276
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45265

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
0.2	0.2	PC thick-walled tube	45233	100	20	100,000	435,630	7 x 20	-	-	-	-
0.2	0.2	PA thick-walled tube	45234	100	20	80,000	278,803	7 x 20	-	-	-	-

Thermo Scientific™ S80-AT3 Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	8 x 8.3 mL	
Maximum speed	80,000 rpm	
Tube dimensions (Ø x L)	16 x 59 mm	
Angle	30°	
K factor	23.2	
Net weight	1.6 kg /3.5 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	414,630 xg	58.0mm
Average	323,126 xg	45.2 mm
Minimum	230,906 xg	32.3 mm

S80-AT3 rotor package includes:

Description	Cat. No.
S80-AT3 Rotor	45590
6.0 mL PC thick-walled tubes (qty. 2 pkg. of 50)	45595
Large O-Ring for cover (qty. 2)	45704
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Starter kit for use with 16 mm re-seal tubes {Includes 1 crown (45321), 10 Plugs (45307), Wrench (45308) and Removal tool (45309)}	45700
16 mm x 53 mm tube vise	45701
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
8.0	8.3	PA Re-Seal Tube	45597	50	8	80,000	414,630	16 x 53	Closure	45599	1	16 mm Al crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45701	1	Tube vise
1.0	1.0	PC Thick-Walled Tube	45237	100	8	80,000	414,630	16 x 59	-	-	-	-
1.0	1.0	PA thick-walled tubes	45998	50	10	60,000	233,230	16 x 59	-	-	-	-

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S80-AT2 Rotor



Rotor specifications

Type	Fixed angle		
Material	Titanium		
Capacity	30 x 0.5 mL		
Maximum speed	80,000 rpm		
Tube dimensions (Ø x L)	8 x 34 mm		
Angle	30°		
K factor	Outer row: 14 Inner row: 16		
Net weight	1.6 kg /3.5 lbs		
Warranty	5 years		
	RCF	Radius	
Maximum	Outer row	357,440 xg	50.0 mm
	Inner row	303,824 xg	42.5 mm
Minimum	Outer row	253,782 xg	35.5 mm
	Inner row	200,881 xg	28.1mm

S80-AT2 rotor package includes:

Description	Cat. No.
S80-AT2 Rotor	45589
PC thick-walled tubes (qty. 1 pkg. of 100)	45235
Large O-Ring for cover (qty. 2)	45450
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
0.5	0.5	PC Thick-Walled Tube	45235	100	30	80,000	649,826	8x 34	-	-	-	-
0.5	0.5	PA Thick-Walled Tube	45236	100	30	80,000	288,812	8x 34	-	-	-	-

Thermo Scientific™ S70-AT Rotor



Rotor specifications

Type	Fixed angle	
Material	Titanium	
Capacity	20 x 0.5 mL	
Maximum speed	70,000 rpm	
Tube dimensions (Ø x L)	7 x 56 mm	
Angle	30°	
K factor	30.7	
Net weight	1.4 kg /3.1 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	307,052 xg	56.1 mm
Average	238,636 xg	43.6 mm
Minimum	169,672 xg	31.0 mm

S70-AT rotor package includes:

Description	Cat. No.
S70-AT Rotor	45591
0.5 mL PC thick-walled tubes (qty. 1 pkg. of 100)	45243
Large O-Ring for cover (qty. 2)	45297
Small O-Ring for cover (qty. 2)	45294
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
0.5	0.5	PC Thick-Walled Tube	45243	100	20	70,000	307,052	7 x 56	-	-	-	-

Thermo Scientific™ S58-A Rotor



Rotor specifications

Type	Fixed angle	
Material	Aluminum	
Capacity	8 x 13.5 mL	
Maximum speed	58,000 rpm	
Tube dimensions (Ø x L)	16 x 78 mm	
Angle	30°	
K factor	50.0	
Net weight	1.9 kg/ 4.2 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	288,959 xg	76.9 mm
Average	219,067 xg	58.3 mm
Minimum	148,800 xg	39.6 mm

S58-A rotor package includes:

Description	Cat. No.
S58-A Rotor ¹	45866
10.0 mL PC thick-walled tubes (qty. 2 pkg. of 50)	03237
Large O-Ring for cover (qty. 2)	8062270
Small O-Ring for cover (qty. 2)	8062014
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

¹ Rotor compatible only with Thermo Scientific Sorvall MTX-150 and MX Series micro-ultracentrifuges. Use of this rotor in the Thermo Scientific Sorvall Discovery SE Series requires software upgrade S305612C and S305613C.

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173
Ultracrimp/clearcrimp sealing tool	03920
Crimp gauge replacement	03919

Thermo Scientific™ S58-A Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
13.5	12.7	PA re-seal tube	45809	50	8	58,000	288,959	16 x 85	Closure	45810	1	13 mm Al crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45534	1	Tube vise
11.5	10.9	PA ultracrimp tube	03987	50	8	58,000	288,959	16 x 76	Closure	Included	1	Ultracrimp plugs and caps
									Tool	03920	1	Ultracrimp sealing tool
10.0	9.1	PC thick-walled tube ³	03020	25	8	58,000	288,959	16 x 80	Closure	03613	1	PP sealing assembly
10.0	6.8	PP thick-walled tube ⁴	03929	50	8	45,000	173,942	16 x 80	Closure	03613	1	PP sealing assembly
10.0	6.8	PC thick-walled tube	03237	50	8	58,000	288,959	16 x 71	-	-	-	-
10.0	6.8	PA thick-walled tube	03238	25	8	27,500	64,960	16 x 71	-	-	-	-

¹ Must order one crown for each place in the rotor.

² Must order one crown for each place in the rotor.

³ Rated to 50,000 rpm when partially filled.

⁴ Rated to 21,000 rpm when partially filled

Thermo Scientific™ S55-A2 Rotor



Rotor specifications

Type	Fixed angle	
Material	Aluminum	
Capacity	12 x 1.5 mL	
Maximum speed	55,000 rpm	
Tube dimensions (Ø x L)	11 x 42 mm	
Angle	45°	
K factor	39.8	
Net weight	0.8 kg/1.8 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	201,046 xg	59.5 mm
Average	163,202 xg	48.3 mm
Minimum	125,020 xg	37.0 mm

S55-A2 rotor package includes:

Description	Cat. No.
S55-A2 Rotor ¹	45865
1.5 mL High performance microtubes (qty. 1 pkg. of 100)	314352H01
Large O-Ring for cover (qty. 2)	45451
Small O-Ring for cover (qty. 2)	8062014
Rotor holding fixture	45266
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
1.5	1.5	High performance microtube	314352H01	100	12	55,000	201,046	11 x 42	-	-	-	-

¹ Rotor compatible only with Thermo Scientific Sorvall MTX-150 and MX Series micro-ultracentrifuges. Use of this rotor in the Thermo Scientific Sorvall Discovery SE Series requires software upgrade S305612C and S305613C.

Thermo Scientific™ S50-A Rotor



Rotor specifications

Type	Fixed angle	
Material	Aluminum	
Capacity	6 x 30 mL	
Maximum speed	50,000 rpm	
Tube dimensions (Ø x L)	26 x 96 mm	
Angle	35°	
K factor	7.0	
Net weight	60.7	
Warranty	5 years	
	RCF	Radius
Maximum	209,438 xg	75.0 mm
Average	162,244 xg	58.1 mm
Minimum	115,051 xg	41.2 mm

S50-A rotor package includes:

Description	Cat. No.
S50-A Rotor ¹	45540
25.0 mL PC thick-walled tubes (qty. 2 pkg of 10)	75000610
Large O-Ring for cover (qty. 2)	8062014
Small O-Ring for cover (qty. 2)	8062285
Rotor holding fixture	45266
Rotor stand	45357
Tweezers	452701
Tool box (B)	320717
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Rotor stand	45357
Cover opener	45173

¹ Rotor compatible only with Thermo Scientific Sorvall MTX-150 and MX Series micro-ultracentrifuges

Thermo Scientific™ Fiberlite™ S50-A Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
30.0	31.0	PA re-seal tube	75000514	50	6	50,000	209,438	26 x 76	Closure	75000521	1	26 mm Al crown ¹
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45534	1	Tube vise
25.0	19.8	PC thick-walled tube	75000610	10	6	50,000	209,438	26 x 96	-	-	-	-
25.0	19.8	PC thick-walled tube	75000611	10	6	30,000	75,398	26 x 96	-	-	-	-
20.0	20.3	PC bottle assembly	75000612	6	6	50,000	209,438	26 x 80	-	-	-	-

¹ Must order one crown for each place in the rotor.

Thermo Scientific™ S55-S Rotor



Rotor specifications

Type	Swinging Bucket	
Material	Aluminium	
Capacity	4 x 2.2 mL	
Maximum speed	55,000 rpm	
Tube dimensions (Ø x L)	11 x 34 mm	
Angle	180°	
K factor	43.8	
Net weight	1.19 kg/ 2.6 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	258,826 xg	76.6 mm
Average	206,114 xg	61.0 mm
Minimum	153,403 xg	45.4 mm

S55-S rotor package includes:

Description	Cat. No.
S55-S Rotor	45594
2.2 mL PA Thick-Walled Tubes (qty. 2 pkg. of 50)	45240
Bucket O-Ring (qty. 8)	45276
Bucket stand	45312
Bucket cap wrench	45277
Rotor stand	45275
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Conical Adapter Removal Tool	75000480
Spare Buckets	45358

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
2.2	2.2	PC thin-walled tube	45315	50	4	55,000	258,826	11 x 34	-	-	-	-
2.2	2.2	PC ultrathin tube	75000515	50	4	55,000	258,826	11 x 34	-	-	-	-
2.2	2.2	PA thick-walled tube	45240	50	4	55,000	258,826	11 x 34	-	-	-	-
1.4	1.4	PC ultracone tube	75000516	50	4	55,000	258,826	11 x 32	-	75000470	1	Conical adapter
									-	75000480	1	Conical adapter removal tool
1.4	1.4	PC ultracone tube	75000517	50	4	55,000	258,826	11 x 32	-	75000470	1	Conical adapter
									-	75000480	1	Conical adapter removal tool
1.0	1.0	PC thick-walled tube	45237	100	4	55,000	258,826	11 x 34	-	-	-	-

Thermo Scientific™ S52-ST Rotor



Rotor specifications

Type	Swinging Bucket	
Material	Titanium	
Capacity	4 x 5.0 mL	
Maximum speed	52,000 rpm	
Tube dimensions (Ø x L)	13 x 51 mm	
Angle	180°	
K factor	78.6	
Net weight	1.7 kg/ 3.7 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	279,458 xg	91.2 mm
Average	197,230 xg	65.3 mm
Minimum	119,002 xg	39.4 mm

S52-ST rotor package includes:

Description	Cat. No.
S52-ST Rotor	45977
5.0 mL PA thin-walled tube (qty. 1 pkg. of 50)	03127
Bucket O-Ring (qty. 8)	45999
Bucket stand	45312
Bucket cap wrench	45277
Rotor stand	45275
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Crimp gauge replacement	03919
Tube removal tool	12826
Cone-top 13 mm x 32 mm tube vise	45537
Conical adapter removal tool	75000480
Spare buckets (qty. 4)	S307471A

Thermo Scientific™ S52-ST Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
5.0	5.0	PA thin-walled tube	03127	50	4	52,000	275,458	13 x 51	-	-	-	-
5.0	5.0	PET thin-walled tube	46101	50	4	52,000	275,458	13 x 51	-	-	-	-
3.5	3.5	PA thick-walled tube	46102	50	4	52,000	275,458	13 x 51	-	-	-	-
3.4	3.4	PC thick-walled tube	46100	50	4	52,000	275,458	13 x 51	-	-	-	-
3.5	3.4	PA ultracone tube	75000473	50	4	52,000	275,458	13 x 48	Adapter	75000468	1	Conical adapter
									Tool	75000480	1	Conical adapter removal tool
3.5	3.4	PET ultracone tube	75000519	50	4	52,000	275,458	13 x 48	Adapter	75000468	1	Conical adapter
									Tool	75000480	1	Conical adapter removal tool
3.5	3.1	PA cone-top tube	75000456	50	4	52,000	275,458	13 x 32	Closure	75000457	1	13 mm noryl crown
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise
2.0	2.0	PA cone-top tube	75000458	50	4	52,000	275,458	13 x 25	Closure	75000457	1	13 mm noryl crown
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise

Thermo Scientific™ S50-ST Rotor



Rotor specifications		
Type	Swinging Bucket	
Material	Titanium	
Capacity	4 x 7.0 mL	
Maximum speed	50,000 rpm	
Tube dimensions (Ø x L)	13 x 51 mm	
Angle	180°	
K factor	78.6	
Net weight	1.8 kg/ 3.9 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	252,721 xg	90.5 mm
Average	185,701 xg	66.5 mm
Minimum	118,681 xg	42.5 mm

S50-ST rotor package includes:

Description	Cat. No.
S50-ST Rotor	45541
5.0 mL PA thin-walled tube (qty. 1 pkg. of 50)	S309146C
Bucket O-ring (qty. 8)	8062220
Bucket stand	45312
Bucket cap wrench	45277
Rotor stand	45275
Lubricant	61556
Vacuum grease	65937
Instruction manual	45735

Accessories:

Description	Cat. No.
Spare buckets (qty. 4)	46132

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
7.0	7.0	PET tube assembly	S309168A	50	4	50,000	252,721	16 x 52	-	-	-	-
7.0	7.0	PA tube assembly	S309146C	50	4	50,000	252,721	16 x 52	-	-	-	-

Thermo Scientific™ S120-VT Rotor



Rotor specifications		
Type	Fixed angle	
Material	Titanium	
Capacity	8 x 2.0 mL	
Maximum speed	120,000 rpm	
Tube dimensions (Ø x L)	11 x 32 mm	
Angle	0°	
K factor	7.9	
Net weight	0.63 kg/1.4 lbs	
Warranty	5 years	
	RCF	Radius
Maximum	500,237 xg	31.1 mm
Average	410,162 xg	25.5 mm
Minimum	320,088 xg	19.9 mm

S120-VT rotor package includes:

Description	Cat. No.
S120-VT Rotor	45593
PA re-seal tubes (qty. 2 pkg. of 50)	45246
Crowns (qty. 1)	45310
Stainless steel plugs for re-seal tubes (qty. 1 pkg. of 10)	45307
Removal tool	45309
Wrench	45308
Rotor caps (qty. 8)	45311
Rotor cap wrench	45271
Rotor holding fixture	45446
Torque wrench	45483
Lubricant	61556
Vacuum grease	65937
Instruction manual	45742

Accessories:

Description	Cat. No.
Starter kit for use with re-seal tubes {Includes 10 crowns (45306), 10 Plugs (45307), Wrench (45308) and Removal tool (45309)}	45305
Tube vise	45538
Tube racks	06822
Ultracrimp sealing tool	03920
Replacement plugs	03999

Thermo Scientific™ S120-VT Rotor - continued

Labware ordering information

Tube vol. (mL)	Fill vol. (mL)	Description	Cat. No.	Qty./pkg.	Tubes/rotor	Max. speed (rpm)	Max. RCF* (x g)	Ø x L (mm)	Required tube closures, adapters, tools, and accessories			
									Type	Cat. No.	Qty./pkg.	Description
2.0	1.9	PA re-seal tube	45246	50	8	120,000	500,237	11 x 32	Closure	45306	1	11 mm Al crown
									Closure	45307	10	Stainless steel plug
									Tool	45308	1	Wrench
									Tool	45309	1	Tube removal tool
									Tool	45537	1	Tube vise
1.5	1.5	PA ultracrimp tube	06708	50	8	120,000	500,237	11 x 37	Closure	Included	50	Ultracrimp plugs and caps
									Closure	06797	1	Rotor cap
									Accessory	06822	1	Tube racks
									Tool	03920	1	Ultracrimp sealing tool

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