



Thermo Scientific Rotor Guide

**Rotor, Tube, Bottle, Accessory Reference
for Ultracentrifuge, Micro-Ultracentrifuge,
Superspeed and Large Capacity Floor Model Centrifuges**

THERMO SCIENTIFIC Rotor Guide

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Superspeed and Large Capacity Floor Model Centrifuges

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FIBERLITE
F14-6x250y
Rotor

14,000 RPM 23,100kg
MADE IN USA

Ultracentrifuge Rotors

Rotor	Max. Speed (rpm)	Max. RCF (xg) ¹	K Factor ²	Capacity: Places x Volume (mL)
Fixed Angle				
Fiberlite F65L-6x13.5	65,000	324,000	70	6 x 13.5
Fiberlite F50L-8x39	50,000	266,000	87	8 x 39
Fiberlite F50L-24x1.5	50,000	280,000	33	24 x 1.5
Fiberlite F40L-8x100	40,000	213,000	141	8 x 100
T-8100	100,000	802,006	17.7	8 x 6.5
T-890	90,000	692,149	25.1	8 x 12.5
TFT-80.4	80,000	468,246	25.8	10 x 4.4
TFT-80.2	80,000	429,643	22.6	12 x 2
T-1270	70,000	448,811	36.3	12 x 12.5
T-865	65,000	429,459	51.7	8 x 36
T-1250	50,000	301,032	68.7	12 x 36
T-647.5	47,500	250,259	121	6 x 100
TFT-45.6	45,000	238,859/ 204,993 ³	41.1/ 49.6 ³	40 x 6.0
A-621	21,000	66,993	751	6 x 250
Swinging Bucket				
TH-660	60,000	488,576	44.4	6 x 4.4
AH-650	50,000	296,005	53	6 x 5
TH-641	41,000	287,660	114	6 x 13.2
Surespin 630 (17 mL)	30,000	166,880	268	6 x 17
Surespin 630 (36 mL)	30,000	166,880	219	6 x 36
AH-629 (17 mL)	29,000	155,846	284	6 x 17
AH-629 (36 mL)	29,000	151,243	242	6 x 36
Vertical				
Stepsaver 70V6	70,000	467,420	8.7	8 x 6
Stepsaver 65V13	65,000	400,671	12.9	8 x 13.5
Stepsaver 50V39	50,000	241,831	35.8	8 x 39
TV-1665	65,000	414,357	9.8	16 x 6
TV-860	60,000	340,596	25.2	8 x 35
Zonal				
TZ-28	28,000	83,457	312	1 x 1,350

¹ RCF calculated for maximum rotor radius.

² K factor calculated assuming maximum volume in a sealed tube.

³ Outer row value/inner row value.

Thermo Scientific Fiberlite F65L-6x13.5 Rotor



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 13.5 mL
Maximum Speed	65,000 rpm
Tube Dimensions Ø x L	16 x 76 mm
Angle	30°
K Factor	70
Net Weight	4.31 kg/9.5 lb
Warranty	15 years

	RCF	RADIUS
Maximum	324,000 xg	68.4 mm
Minimum	99,372 xg	21 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL WX Series/Discovery Series	BECKMAN® Floor Model L-Series
Fiberlite F65L-6x13.5	Cat. No.	096-067135	096-067135
	Max. Speed	65,000 rpm	65,000 rpm
	Max. RCF	324,000 xg	324,000 xg

Fiberlite F65L-6x13.5 Rotor Package includes:

Description	Cat. No.
Rotor Lid Assembly	099-067135
O-ring Refresher Kit (Includes 5 O-rings, 3 Vacuum Grease Packets (65937), 3 Lubricant Packets (61556) and 4 oz FiberClene Lab Cleaner (017-0024))	021-067135
Lid Fastening Tool	014-2455
PC Bottle Assembly (qty. 3 pkg. of 2)	010-0128
Tube Removal Tool	097-1133
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Ultraspeed Rotor Log Book	52384
Extra Overspeed Decal (65,000 rpm)	014-2466

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
13.5	10.4	PC Bottle Assembly	010-1382	2	6	65,000	324,000	16 x 76	Closure	Included	2	Aluminum Sealing Assembly
									Tool	097-1133	1	Removal Tool
13.5	10.4	PC Bottle Only	010-1380	6	6	65,000	324,000	16 x 76	—	—	—	—
13.5	8.9	OptiSeal™ Polyallomer Tube	010-1262	56	6	65,000	324,000	16 x 60	Closure	010-1355	2	Spacer
									Tool	017-0045	1	Tube Removal Tool
									Tool	017-0044	1	Tube Extraction Tool

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Thermo Scientific Fiberlite F50L-8x39 Rotor



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	8 x 39 mL
Maximum Speed	50,000 rpm
Tube Dimensions Ø x L	25 x 89 mm
Angle	23°
K Factor	87
Net Weight	8.39 kg/18.5 lb
Warranty	15 years

	RCF	RADIUS
Maximum	266,000 xg	95.07 mm
Minimum	109,200 xg	43 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL WX Series/Discovery Series	BECKMAN® Floor Model L-Series
Fiberlite F50L-8x39	Cat. No.	096-087051	096-087051
	Max. Speed	50,000 rpm	50,000 rpm
	Max. RCF	266,000 xg	266,000 xg

Fiberlite F50L-8x39 Rotor Package includes:

Description	Cat. No.
Rotor Lid Assembly	099-087051
O-ring Refresher Kit {Includes 5 O-rings, 3 Vacuum Grease Packets (65937), 3 Lubricant Packets (61556) and 4 oz FiberClene Lab Cleaner (017-0024)}	021-087051
Lid Fastening Tool	014-2455
PC Bottle Assembly (qty. 4 pkg. of 2)	010-0514
Tube Removal Tool	097-1133
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Ultraspeed Rotor Log Book	52384
Extra Overspeed Decal (50,000 rpm)	014-2456

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
39	26.3	PC Bottle Assembly	010-1371	2	8	50,000	266,000	25 x 89	Closure	Included	2	Aluminum Sealing Assembly
									Tool	097-1133	1	Removal Tool
39	26.3	PC Bottle Only	010-1370	6	8	50,000	266,000	25 x 89	—	—	—	—
39	32.4	OptiSeal™ Polyallomer Tube	010-1289	56	8	50,000	266,000	25 x 77	Closure	010-1356	2	Spacer
									Tool	017-0045	1	Tube Removal Tool
									Tool	017-0044	1	Tube Extraction Tool

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Thermo Scientific Fiberlite F50L-24x1.5 Rotor



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	24 x 1.5 mL
Maximum Speed	50,000 rpm
Tube Dimensions Ø x L	11 x 40 mm
Angle	45°
K Factor	33
Net Weight	5.3 kg/11.5 lbs
Warranty	15 years

	RCF	RADIUS
Maximum	280,000 xg	100 mm
Minimum	201,600 xg	72 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL WX Series/Discovery Series	BECKMAN® Floor Model L-Series
Fiberlite F50L-24x1.5	Cat. No.	096-247028	096-247028
	Max. Speed	50,000 rpm	50,000 rpm
	Max. RCF	280,000 xg	280,000 xg

Fiberlite F50L-24x1.5 Rotor Package includes:

Description	Cat. No.
Rotor Lid Assembly	099-247028
O-ring Refresher Kit {Includes 5 O-rings, 3 Vacuum Grease Packets (65937), 3 Lubricant Packets (61556) and 4 oz FiberClene Lab Cleaner (017-0024)}	021-247028
Lid Fastening Tool	014-2455
1.5 mL Polyallomer Microtubes (qty. 1 pkg. of 24)	010-1216
1.5 mL Polyallomer Microtubes (qty. 1 pkg. of 100)	314352H01
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Ultraspeed Rotor Log Book	52384
Extra Overspeed Decal (50,000 rpm)	014-2456

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	1.5	Polyallomer Microtubes ¹	314352H01	100	24	50,000	280,000	11 x 40	Closure	Included	–	Snap-on seals

¹ Polyallomer Microtubes may be run partially filled at the maximum speed from 1.5 to 0.2 mL volume per tube.

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Thermo Scientific Fiberlite F40L-8x100 Rotor



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	8 x 100 mL
Maximum Speed	40,000 rpm
Tube Dimensions Ø x L	38 x 102 mm
Angle	25°
K Factor	141
Net Weight	11.34 kg/25 lb
Warranty	15 years

	RCF	RADIUS
Maximum	213,000 xg	119 mm
Minimum	86,016 xg	48.8 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL WX Series/Discovery Series	BECKMAN® Floor Model L-Series
Fiberlite F40L-8x100	Cat. No.	096-087057	096-087057
	Max. Speed	37,500 rpm	40,000 rpm
	Max. RCF	197,600 xg	213,000 xg

Fiberlite F40L-8x100 Rotor Package includes:

Description	Cat. No.
Rotor Lid Assembly	099-087057
O-ring Refresher Kit {Includes 5 O-rings, 3 Vacuum Grease Packets (65937), 3 Lubricant Packets (61556) and 4 oz FiberClene Lab Cleaner (017-0024)}	021-087057
Lid Fastening Tool	014-2455
PC Bottle Assembly (qty. 1 pkg. of 8)	010-1333
Tube Removal Tool	097-1133
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Ultraspeed Rotor Log Book	52384
Extra Overspeed Decal (40,000 rpm)	014-2456

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
100	76	PC Bottle Assembly	010-1333	8	8	40,000	213,000	38 x 102	Closure	Included	8	Aluminum Sealing Assembly
									Tool	097-1133	1	Removal Tool
100	70	PC Bottle Only	010-1331	8	8	40,000	213,000	38 x 102	—	—	—	—
39	26.3	PC Bottle Assembly	010-1371	2	8	30,000	120,000	25 x 89	Adapter	010-0189	2	1 place/adapter
									Closure	Included	2	Aluminum Sealing Assembly
									Tool	097-1133	1	Removal Tool
13.5	10.4	PC Bottle Assembly	010-1382	2	8	30,000	120,000	16 x 76	Adapter	010-0191	2	1 place/adapter
									Closure	Included	2	Aluminum Sealing Assembly
									Tool	097-1133	1	Removal Tool

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	8 x 6.5 mL
Maximum Speed	100,000 rpm
Tube Dimensions Ø x L	13 x 64 mm
Angle	26°
K Factor	17.7
Net Weight	3.7 kg/8.2 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	802,006 xg	71.8 mm
Average	599,829 xg	53.7 mm
Minimum	397,652 xg	35.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-8100 Rotor Package includes:

Description	Cat. No.
T-8100 Rotor	45621
Rotor Cover O-ring (qty. 2)	45657
Rotor Cover Locking Nut O-ring (qty. 5)	45658
Rotor Cover Tool	20490312
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (100,000 rpm)	45659
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	45623

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tube Rack	03921
Rotor Cap	45662
Tube Cap Vise	52176
Tube Removal Tool	52177

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
6.0	5.7	PA Ultracrimp Tube	03945	50	8	100,000	802,006	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	45662	1	Rotor Cap
									Accessory	03921	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
6.0	5.7	PET Clearcrimp Tube	01086	50	8	100,000	802,006	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	45662	1	Rotor Cap
									Accessory	03921	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
6.5	5.8	PA Thin-walled Tube	45660	50	8	80,000	513,284	13 x 64	Closure	45801	1	Multipiece Titanium Assembly
									Tool	52176	1	Tube Cap Vise
									Tool	52177	1	Tube Removal Tool
6.5	5.8	PC Thin-walled Tube	45661	50	8	60,000	288,722	13 x 64	Closure	45801	1	Multipiece Titanium Assembly
									Tool	52176	1	Tube Cap Vise
									Tool	52177	1	Tube Removal Tool

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Thermo Scientific T-890 Rotor

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F65L-6x13.5](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	8 x 12.5 mL
Maximum Speed	90,000 rpm
Tube Dimensions Ø x L	16 x 80 mm
Angle	25°
K Factor	25.1
Net Weight	4.5 kg /9.9 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	692,149 xg	76.5 mm
Average	500,790 xg	55.3 mm
Minimum	309,431 xg	34.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-890 Rotor Package includes:

Description	Cat. No.
T-890 Rotor	11690
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (90,000 rpm)	11696
Rotor Cover	70050436
Rotor Cover O-ring (qty. 2)	20290464
Rotor Cover Locking Nut	70048779
Rotor Cover Locking Nut O-ring (qty. 5)	91910
Rotor Cover Tool	20490312
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	11656

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tube Racks (qty. 2)	03922
Wrench for Re-Seal Tubes	75000478
Tube Removal Tool for Re-Seal Tubes	75000479
Tool Kit for Multipiece Assembly {Includes Tube Cap Vise (52176), Tube Removal Tool (52177), Torque Wrench (52881) and 7/16" Wrench (52882)}	52609

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
12.5	11.8	PA Thin-walled Tube	03128	50	8	75,000	480,659	16 x 76	Closure	52178	1	Multipiece Aluminum Seal Assembly ¹
									Closure	52634	1	Multipiece Titanium Seal Assembly ¹
									Accessories	52609	1	Tool Kit for Multipiece Assembly
11.5	11.5	PA Ultracrimp Tube	03987	50	8	90,000	692,149	16 x 76	Closure	Included	50	Plug and Cap
									Closure	03993	1	Rotor Cap
									Accessory	03922	1	Tube Racks
									Tool	03920	1	Crimp Sealing Tool
11.5	11.5	PET Clearcrimp Tube	01087	50	8	90,000	692,149	16 x 76	Closure	Included	50	Plug and Cap
									Closure	03993	1	Rotor Cap
									Accessory	03922	1	Tube Racks
									Tool	03920	1	Crimp Sealing Tool
10.0	6.8	PA Thick-walled Tube	03238	50	8	45,000	173,037	16 x 71	—	—	—	—
10.0	6.8	PC Thick-walled Tube	03237	50	8	65,000	361,028	16 x 71	—	—	—	—
10.0	9.1	PP Oak Ridge Tube ²	03929	50	8	50,000	213,626	16 x 80	Closure	03613	25	Nylon Screw Cap
10.0	9.1	PC Oak Ridge Tube ³	03020	25	8	65,000	361,028	16 x 80	Closure	03613	25	Nylon Screw Cap
6.3	6.5	PA Cone-Top Tube	75000450	50	8	80,000	546,883	16 x 45	Closure	75000452	1	16 mm Crown ⁴
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool

¹ Either aluminum rated to 65,000 rpm (52178) or titanium rated to 75,000 rpm (52634) closure is required.

² Rated to 21,000 rpm when partially filled.

³ Rated to 50,000 rpm when partially filled.

⁴ Must order one crown for each place in the rotor.

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	10 x 4.4 mL
Maximum Speed	80,000 rpm
Tube Dimensions Ø x L	11 x 60 mm
Angle	25°
K Factor	25.8
Net Weight	3.5 kg/7.7 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	468,246 xg	65.5 mm
Average	356,010 xg	49.8 mm
Minimum	243,774 xg	34.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TFT-80.4 Rotor Package includes:

Description	Cat. No.
TFT-80.4 Rotor	54356
Rotor Cover	750050436
Rotor Cover Tool	20490312
Rotor Cover Locking Nut	70048779
Rotor Cover O-ring (qty. 5)	20290464
Rotor Cover Locking Nut O-ring (qty. 5)	11551
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (80,000 rpm)	11628
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	54355

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03091
Tube Racks	03773
Wrench	75000478
Tube Removal Tool	75000479
Re-Seal Cone-top Tube Vise 13 mm	75000481
Tool Kit for Multipiece Assembly {Includes Tube Cap Vise (52176) and Tube Removal Tool (11557)}	54380

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
4.4	3.3	PA Thin-walled Tube	03955	50	10	80,000	468,246	11 x 60	Closure	54366	1	Multipiece Aluminum Assembly
									Tool	52176	1	Tube Cap Vise
									Tool	11557	1	Tube Removal Tool
4.4	2.7	PC Threaded Thick-walled Tube	54361	50	10	45,000	148,156	11 x 60	Closure	54365	1	Aluminum Screw Cap
									Tool	52176	1	Tube Cap Vise
									Tool	11557	1	Tube Removal Tool
3.5	3.5	PA Ultracrimp Tube	03905	50	10	80,000	468,246	11 x 60	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	03091	1	Rotor Cap
									Accessory	03773	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
2.0	2.0	PA Re-Seal Cone-top Tube	75000459	50	10	80,000	468,246	11 x 32	Closure	75000460	1	11 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool
									Tool	75000481	1	Tube Vise

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

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	12 x 2.0 mL
Maximum Speed	80,000 rpm
Tube Dimensions Ø x L	8 x 51 mm
Angle	25°
K Factor	22.6
Net Weight	2.5 kg/5.5 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	429,643 xg	60.1 mm
Average	335,994 xg	47.0 mm
Minimum	242,344 xg	33.9 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TFT-80.2 Rotor Package includes:

Description	Cat. No.
TFT-80.2 Rotor	54456
Rotor Cover	70051388
Rotor Cover Locking Nut	70048779
Rotor Cover Tool	20490312
Rotor Cover O-ring (qty. 5)	20290479
Rotor Cover Locking Nut O-ring (qty. 5)	11551
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (80,000 rpm)	11628
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	54462

Accessories:

Description	Cat. No.
Tube Removal Tool	11537

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
2.0	1.3	PA Thin-walled Tube	54460	50	12	80,000	429,643	8 x 51	Closure	54459	1	Multipiece Aluminum Assembly
									Tool	11557	1	Tube Removal Tool

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	12 x 12.5 mL
Maximum Speed	70,000 rpm
Tube Dimensions Ø x L	16 x 80 mm
Angle	24°
K Factor	36.3
Net Weight	5.9 kg/13.0 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	448,811 xg	82.0 mm
Average	335,513 xg	61.3 mm
Minimum	222,216 xg	40.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-1270 Rotor Package includes:

Description	Cat. No.
T-1270 Rotor	08259
Rotor Cover	08336
Rotor Cover Locking Nut	08253
Rotor Cover O-ring (qty. 1)	67932
Rotor Cover Locking Nut O-ring (qty. 1)	64667
Rotor Cover Tool	20490312
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (70,000 rpm)	08254
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	08255
Washer for Locking Nut	51301

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cover Removal Tool	52652
Tool Kit for Multipiece Assembly {Includes Tube Cap Vise (52176), Tube Removal Tool (52177), Torque Wrench (52881) and 7/16" Wrench (52882)}	52609
Rotor Cap	03993
Tube Racks	03922
Wrench	75000478
Tube Removal Tool	75000479

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
12.5	11.8	PA Thin-walled Tube	03128	50	12	70,000	448,811	16 x 76	Closure	52178	1	Multipiece Aluminum Assembly ¹
									Closure	52634	1	Multipiece Titanium Seal
									Tool	52609	1	Tool Kit
11.5	11.5	PA Ultracrimp Tube	03987	50	12	70,000	448,811	16 x 76	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	03993	1	Rotor Cap
									Accessory	03922	1	Tube Racks
									Tool	03920	1	Ultracrimp Sealing Tool
11.5	11.5	PET Clearcrimp Tube	01087	50	12	70,000	448,811	16 x 76	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	03993	1	Rotor Cap
									Accessory	03922	1	Tube Racks
									Tool	03920	1	Ultracrimp Sealing Tool
10.0	6.8	PA Thick-walled Tube	03238	50	12	45,000	185,478	16 x 71	–	–	–	
10.0	6.8	PC Thick-walled Tube	03237	50	12	65,000	386,985	16 x 71	–	–	–	
10.0	9.1	PP Oak Ridge Tube ²	03929	50	12	50,000	228,985	16 x 80	Closure	03613	25	Nylon Screw Cap
10.0	9.1	PC Oak Ridge Tube ³	03020	25	12	65,000	386,985	16 x 80	Closure	03613	25	Nylon Screw Cap
6.5	6.5	PA Re-Seal Cone-top Tube	75000450	50	12	70,000	448,811	16 x 45	Closure	75000452	1	16 mm Noryl Crown ⁴
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool

¹ Rated up to 65,000 rpm only.

² Tube is limited to 21,000 rpm when partially filled.

³ Rated to 50,000 rpm when partially filled.

⁴ Must order one crown for each place in the rotor.

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Thermo Scientific T-865 Rotor

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F50L-8x39](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	8 x 36 mL
Maximum Speed	65,000 rpm
Tube Dimensions Ø x L	25 x 97 mm
Angle	23.5°
K Factor	51.7
Net Weight	8.3 kg/18.3 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	429,459 xg	91.0 mm
Average	305,340 xg	64.7 mm
Minimum	181,222 xg	38.4 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-865 Rotor Package includes:

Description	Cat. No.
T-865 Rotor	51411
Rotor Cover	51380
Rotor Cover Locking Nut	51338
Rotor Cover O-ring (qty. 2)	64666
Rotor Cover Locking Nut O-ring (qty. 2)	64667
Rotor Cover Tool	20490312
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (65,000 rpm)	51345
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	52266
Washer for Locking Nut	51301

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cover Removal Tool	52652
Tool Kit for Multipiece Assembly {Includes Tube Cap Vise (51834), Tube Removal Tool (52013) and Torque Wrench (66298)}	52610
Rotor Cap	03996
Tube Racks	03935
Tube Removal Tool	314353

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
36.0	33.0	PA Thin-walled Tube	03141	25	8	65,000	429,459	25 x 89	Closure	52572	1	Multipiece Aluminum Assembly
									Tool	52610	1	Tool Kit
35.0	35.0	PA Ultracrimp Tube	03989	25	8	65,000	429,459	25 x 97	Closure	Included	50	Plug and Cap
									Accessory	03996	1	Rotor Cap
									Accessory	03935	1	Tube Racks
									Tool	03920	1	Ultracrimp Sealing Tool
30.0	23.0	PP Oak Ridge Tube ¹	314349	25	8	45,000	205,835	25 x 94	Closure	314347	1	Aluminum Sealing Cap
									Tool	314353	1	Tube Removal Kit
30.0	23.0	PC Oak Ridge Tube ²	314348	25	8	65,000	429,459	25 x 94	Closure	314347	1	Aluminum Sealing Cap
									Tool	314353	1	Tube Removal Kit
11.5	11.5	PA Ultracrimp Tube	03987	50	8	65,000	429,459	16 x 76	Closure	Included	50	Plug and Cap
									Adapter	00399	1	Adapter
									Accessory	03996	1	Rotor Cap
									Accessory	03922	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
11.5	11.5	PET Clearcrimp Tube	01087	50	8	65,000	429,459	16 x 76	Closure	Included	50	Plug and Cap
									Adapter	00399	1	Adapter
									Closure	03996	1	Rotor Cap
									Accessory	03922	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
10.0	6.8	PA Thick-walled Tube	03238	50	8	45,000	205,835	16 x 71	Adapter	00399	1	Adapter
10.0	6.8	PC Thick-walled Tube	03237	50	8	65,000	429,459	16 x 71	Adapter	00399	1	Adapter
10.0	9.1	PP Oak Ridge Tube ³	03929	50	8	30,000	91,482	16 x 80	Closure	03613	25	Nylon Screw Cap
									Adapter	00399	1	Adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	8	30,000	91,482	16 x 80	Closure	03613	25	Nylon Screw Cap
									Adapter	00399	1	Adapter

¹ Tube must be run full.

² Rated to 45,000 rpm when partially filled.

³ Rated to 21,000 rpm when partially filled.

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	12 x 36 mL
Maximum Speed	50,000 rpm
Tube Dimensions Ø x L	25 x 97 mm
Angle	24°
K Factor	68.7
Net Weight	11.1 kg/24.5 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	301,032 xg	108.0 mm
Average	227,030 xg	81.3 mm
Minimum	152,750 xg	54.7 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-1250 Rotor Package includes:

Description	Cat. No.
T-1250 Rotor	11713
Rotor Cover	11716
Rotor Cover Locking Nut	11715
Rotor Cover O-ring (qty. 1)	11549
Rotor Cover Locking Nut O-ring (qty. 1)	11550
Rotor Cover Tool	20490312
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (50,000 rpm)	51349
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	11718

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Closure Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tool Kit for Multipiece Assembly {Includes Tube Cap Vise (51834), Tube Removal Tool (52013) and Torque Wrench (66298)}	52610
Rotor Cap	03996
Tube Racks	03935
Tube Removal Tool	314353

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
36.0	33.0	PA Thin-walled Tube	03141	25	12	50,000	301,032	25 x 89	Closure	52572	1	Multipiece Aluminum Assembly
									Tool	52610	1	Tool Kit
35.0	35.0	PA Ultracrimp Tube	03989	25	12	50,000	301,032	25 x 97	Closure	Included	50	Plug and Cap
									Closure	03996	1	Rotor Cap
									Accessory	03935	1	Tube Racks
									Tool	03920	1	Ultracrimp Sealing Tool
30.0	23.0	PP Oak Ridge Tube ¹	314349	25	12	37,000	164,845	25 x 94	Closure	314347	1	Aluminum Sealing Cap
									Tool	314353	1	Tube Removal Kit
30.0	23.0	PC Oak Ridge Tube ²	314348	25	12	50,000	301,032	25 x 94	Closure	314347	1	Aluminum Sealing Cap
									Tool	314353	1	Tube Removal Kit
11.5	11.5	PA Ultracrimp Tube	03987	50	12	27,500	91,062	16 x 76	Closure	Included	50	Plug and Cap
									Adapter	00399	1	Adapter
									Closure	03996	1	Rotor Cap
									Accessory	03922	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
11.5	11.5	PET Clearcrimp Tube	01087	50	12	27,500	91,062	16 x 76	Closure	Included	50	Plug and Cap
									Adapter	00399	1	Adapter
									Closure	03996	1	Rotor Cap
									Accessory	03922	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
10.0	6.8	PA Thick-walled Tube	03238	50	12	27,500	91,062	16 x 71	Adapter	00399	1	Adapter
10.0	6.8	PC Thick-walled Tube	03237	50	12	27,500	91,062	16 x 71	Adapter	00399	1	Adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	12	21,000	53,102	16 x 80	Closure	03613	25	Nylon Screw Cap
									Adapter	00399	1	Adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	12	27,500	91,062	16 x 80	Closure	03613	25	Nylon Screw Cap
									Adapter	00399	1	Adapter

¹ Tube must be run full.

² Rated to 37,000 rpm when partially filled.

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Go to: [Fiberlite F40L-8x100](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	6 x 100 mL
Maximum Speed	47,500 rpm
Tube Dimensions Ø x L	39 x 107 mm
Angle	22.5°
K Factor	121.0
Net Weight	11 kg/24.3 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	250,259 xg	99.3 mm
Average	167,847 xg	66.6 mm
Minimum	85,436 xg	33.9 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

T-647.5 Rotor Package includes:

Description	Cat. No.
T-647.5 Rotor	08322
Rotor Cover	08333
Rotor Cover Tool	20490312
Rotor Cover O-ring (qty. 1)	64668
Rotor Cover Locking Nut O-ring (qty. 1)	64667
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Locking Nut	08331
Extra Overspeed Decal (80,000 rpm)	51350
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	08326
Washer for Locking Nut	51301

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Closure Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03998
Tube Rack	03940
Tube Removal Tool	314353
Replacement O-ring for Sealing Assembly (314462)	314463
Rotor Cover Removal Tool	00693

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
90.0	89.0	PA Ultracrimp Tube	03990	25	6	47,500	250,259	39 x 107	Closure	Included	25	Plug and Cap
									Closure	03998	1	Rotor Cap
									Accessory	03940	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
75.0	68.0	PC Oak Ridge Tube ¹	314460	6	6	47,500	250,259	39 x 107	Closure	314462	1	Aluminum Sealing Lid
									Tool	314353	1	Tube Removal Kit

¹ Rated to 41,000 rpm when partially filled.

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	40 x 6 mL
Maximum Speed	45,000 rpm
Tube Dimensions Ø x L	13 x 66 mm
Angle	20°
K Factor	41.4 Outer Row, 49.6 Inner Row
Net Weight	10.9 kg/24.3 lbs
Warranty	7 years

	RCF		RADIUS	
	OUTER / INNER		OUTER / INNER	
Maximum	238,859 xg / 204,252 xg		105.6 mm / 90.3 mm	
Average	205,383 xg / 170,775 xg		90.8 mm / 75.5 mm	
Minimum	171,906 xg / 137,299 xg		76.0 mm / 60.7 mm	

ROTOR AND ACCESSORIES ORDERING INFORMATION

TFT-45.6 Rotor Package includes:

Description	Cat. No.
TFT-45.6 Rotor	11637
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Rotor Cover	70048671
Rotor Cover Locking Nut	70048348
Rotor Cover Tool	20490312
Rotor Cover O-ring (qty. 5)	11547
Rotor Cover Locking Nut O-ring (qty. 5)	11551
Rotor Cover Tool	20490312
Extra Overspeed Decal (45,000 rpm)	51351
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	11512

Accessories:

Description	Cat. No.
Ultracrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03992
Tube Rack	03921
Wrench	75000478
Tube Removal Tool	75000479
Re-Seal Cone-top Tube Vise 13 mm	75000481

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
6.0	5.7	PA Ultracrimp Tube	03945	50	40	45,000	238,859	13 x 66	Closure	Included	50	Plug and Cap
									Closure	03992	1	Rotor Cap
									Accessory	03921	1	Tube Cap
									Tool	03920	1	Ultracrimp Sealing Tool
6.0	5.7	PET Clearcrimp Tube	01086	50	40	45,000	238,859	13 x 66	Closure	Included	50	Plug and Cap
									Closure	03992	1	Rotor Cap
									Accessory	03921	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
3.5	3.1	PA Re-Seal Cone-top Tube	75000456	50	40	45,000	238,859	13 x 32	Closure	75000457	1	13 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000481	1	Tube Vise
2.0	2.0	PA Re-Seal Cone-top Tube	75000458	50	40	45,000	238,859	13 x 25	Closure	75000457	1	13 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000481	1	Tube Vise
									Tool	75000479	1	Tube Removal Tool

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

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	6 x 250 mL
Maximum Speed	21,000 rpm
Tube Dimensions Ø x L	61 x 153 mm
Angle	23°
K Factor	751.0
Net Weight	13.6 kg/30.1 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	66,993 xg	136.0 mm
Average	42,536 xg	86.4 mm
Minimum	18,078 xg	36.7 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

A-621 Rotor Package includes:

Description	Cat. No.
A-621 Rotor	11876
Rotor Cover	11967
Rotor Cover Locking Nut	11999
Rotor Cover O-ring (qty. 6)	92233
Rotor Cover Locking Nut O-ring (qty. 6)	90793
Rotor Cover Tool	20490312
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (21,000 rpm)	52277
Ultracentrifuge Rotor Log Book	52384
Instruction Manual	11872
Retaining Ring Pliers	65614

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	200.0	PA Oak Ridge Bottle	314250H01	4	6	21,000	66,993	61 x 120	Closure	314249H01	1	Screw Cap
250.0	280.0	PP Dry-Spin Bottle	03069	12	6	13,000	25,673	61 x 146	Closure	Included	12	Sealed Lid
250.0	270.0	PC Dry-Spin Bottle	03098	12	6	16,000	38,889	61 x 146	Closure	Included	12	Sealed Lid

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Titanium
Capacity	6 x 4.4 mL
Maximum Speed	60,000 rpm
Tube Dimensions Ø x L	11 x 60 mm
Angle	90°
K Factor	44.4
Net Weight	5.8 kg/12.8 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	488,576 xg	121.5 mm
Average	374,173 xg	93.1 mm
Minimum	259,770 xg	64.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TH-660 Rotor Package includes:

Description	Cat. No.
TH-660 Rotor	10502
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (60,000 rpm)	51346
4.4 mL Buckets (qty. 6)	10509
Bucket O-ring (qty. 6)	63713
Bucket Rack	52243
Bucket Cap Tool	20048389
Instruction Manual	10506
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
Conical Adapter Removal Tool	75000480
11 x 32 mm Tube Vise	75000481
Wrench	75000478
Tube Removal Tool	75000479

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
4.4	4.0	PA Thin-Walled Tube	03955	50	6	60,000	488,576	11 x 60				
4.0	4.0	PA Re-Seal Cone-top Tube	75000483	50	6	57,000	440,940	11 x 57	Closure	75000460	1	11 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000481	1	Tube Vise
3.4	3.4	PET Thin-Walled Ultracone Tube	75000469	50	6	60,000	488,576	11 x 57	Adapter	75000470	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
3.4	3.4	PA Thin-Walled Ultracone Tube	75000472	50	6	60,000	488,576	11 x 57	Adapter	75000470	1	Conical Tube Adapter
									Tool	75000480		Conical Adapter Removal Tool
2.0	2.0	PA Re-Seal Cone-top Tube	75000459	50	6	60,000	488,576	11 x 32	Closure	75000460	1	11 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool
									Tool	75000481	1	Tube Vise

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

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	6 x 5 mL
Maximum Speed	50,000 rpm
Tube Dimensions Ø x L	13 x 51 mm
Angle	90°
K Factor	53.0
Net Weight	3.0 kg/6.6 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	296,005 xg	106.0 mm
Average	235,687 xg	84.4 mm
Minimum	175,369 xg	62.8 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

AH-650 Rotor Package includes:

Description	Cat. No.
AH-650 Rotor	54294
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (50,000 rpm)	51349
5 mL Buckets (qty. 6)	52072
Bucket Cap Tool	52258
Bucket O-ring (qty. 6)	63713
Bucket Rack	52243
Instruction Manual	52274
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
Conical Adapter Removal Tool	75000480
Conical Adapter	75000468
Re-Seal Cone-top Tube Vise 13 mm	75000481
Wrench	75000478

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
5.0	5.0	PA Thin-walled Tube	03127	50	6	50,000	296,005	13 x 51	—	—	—	—
4.0	4.0	PA Re-Seal Cone-top Tube	75000482	50	6	49,000	284,283	13 x 48	Closure	75000457	1	13 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000481	1	Tube Vise
3.5	3.4	PA Ultracone Tube	75000473	50	6	50,000	296,005	13 x 48	Adapter	75000468	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
3.5	3.4	PET Ultracone Tube	75000467	50	6	50,000	296,005	13 x 48	Adapter	75000468	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
3.5	3.1	PA Re-Seal Cone-top Tube	75000456	50	6	50,000	296,005	13 x 32	Closure	75000457	1	13 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool
									Tool	75000481	1	Tube Vise
2.0	2.0	PA Re-Seal Cone-top Tube	75000458	50	6	50,000	296,005	13 x 25	Closure	75000460	1	13 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool
									Tool	75000481	1	Tube Vise

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

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Titanium
Capacity	6 x 13.2 mL
Maximum Speed	41,000 rpm
Tube Dimensions Ø x L	14 x 89 mm
Angle	90°
K Factor	114.0
Net Weight	5.6 kg/12.3 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	287,660 xg	153.2 mm
Average	211,333 xg	112.6 mm
Minimum	135,005 xg	71.9 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TH-641 Tubes Rotor Package includes:

Description	Cat. No.
TH-641 Rotor	54295
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (41,000 rpm)	51353
13.2 mL Buckets (qty. 6)	08225
Bucket Rack	52243
Bucket Cap Tool	11556
Bucket O-ring (qty. 6)	08232
Instruction Manual	52243
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
Conical Adapter Removal Tool	75000480
Conical Adapter	75000466
Tube Removal Tool	75000479
Wrench	75000478

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
13.2	10.0	PA Thin-walled Tube	03699	50	6	41,000	287,660	14 x 89	—	—	—	—
12.0	12.2	PET Thin-walled Tube	06752	50	6	41,000	287,660	14 x 89	—	—	—	—
11.0	11.0	PA Re-Seal Cone-top Tube	75000411	50	6	41,000	287,660	14 x 88	Closure	75000455	1	14 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
9.1	9.1	PET Thin-walled Ultracone Tube	75000465	50	6	41,000	287,660	14 x 84	Adapter	75000466	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
9.1	9.1	PET Thin-walled Ultracone Tube	75000465	50	6	41,000	287,660	14 x 84	Adapter	75000466	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
9.0	9.0	PA Thin-walled Ultracone Tube	75000474	50	6	41,000	287,660	14 x 84	Adapter	75000466	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
5.9	5.9	PA Re-Seal Cone-top Tube	75000454	50	6	41,000	287,660	14 x 47	Closure	75000455	1	14 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
									Tool	75000479	1	Tube Removal Tool

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

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Thermo Scientific SureSpin 630 (17 mL) Rotor



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Titanium
Capacity	6 x 17 mL
Maximum Speed	30,000 rpm
Tube Dimensions Ø x L	16 x 102 mm
Angle	90°
K Factor	268.0
Net Weight	8 kg/17.6 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	166,880 xg	166 mm
Minimum	64,339 xg	64 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

SureSpin 630 (17 mL) Rotor Package includes:

Description	Cat. No.
SureSpin 630 (17 mL) Rotor	79363
Rotor Stand	51942
Vacuum Grease	65937
Lubricant	61556
17mL Buckets (qty. 6)	79364
Extra Overspeed Decal (30,000 rpm)	51361
Bucket O-ring (qty. 6)	79370
Bucket Rack	52240
Instruction Manual	79369
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
36 mL Buckets (qty. 6)	79365
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tube Racks (qty. 2)	03327
Conical Adapter Removal Tool	75000480
Conical Adapter	75000464

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
17.0	17.9	PET Thin-Walled Tube	06750	50	6	30,000	166,880	16 x 102	–	–	–	–
17.0	16.0	PA Thin-Walled Tube	03126	50	6	30,000	166,880	16 x 102	–	–	–	–
15.0	15.0	PA Re-Seal Cone-top Tube	75000414	50	6	30,000	166,880	16 x 100	Closure	75000452	1	16 mm Noryl Crown
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
13.0	12.7	PET Thin-walled Ultracone Tube	75000463	N/A	6	30,000	166,880	16 x 96	Adapter	75000464	1	1 place/adapter
									Tool	75000480	1	Conical Adapter Removal Tool
13.0	12.3	PA Thin-walled Ultracone Tube	75000475	N/A	6	30,000	166,880	16 x 96	Adapter	75000464	1	1 place/adapter
									Tool	75000480	1	Conical Adapter Removal Tool

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Thermo Scientific SureSpin 630 (36 mL) Rotor

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F50L-8x39](#)



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Titanium
Capacity	6 x 36 mL
Maximum Speed	30,000 rpm
Tube Dimensions Ø x L	25 x 89 mm
Angle	90°
K Factor	219.0
Net Weight	7.9 kg/17.4 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	166,880 xg	166.0 mm
Average	121,792 xg	121.2 mm
Minimum	76,704 xg	76.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

SureSpin 630 (36 mL) Rotor Package includes:

Description	Cat. No.
SureSpin 630 (36 mL) Rotor	79368
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (30,000 rpm)	51361
36 mL Buckets (qty. 6)	79365
Bucket O-ring (qty. 6)	79374
Bucket Rack	52240
Instruction Manual	79369
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
17 mL Buckets (qty. 6)	79364
Conical Adapter Removal Tool	75000480
Conical Adapter	75000462
Wrench	75000478

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
36.0	38.1	PET Thin-Walled Tube	75000471	50	6	30,000	166,880	25 x 88	—	—	—	—
36.0	35.0	PA Thin-Walled Tube	03141	25	6	30,000	166,880	25 x 89	—	—	—	—
31.0	31.0	PA Re-Seal Cone-top Tube	75000427	50	6	29,000	155,940	25 x 81	Closure	75000428	1	25 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
28.0	29.4	PA Ultracone Tube	75000476	50	6	30,000	166,880	25 x 84	Adapter	75000462	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
28.0	28.7	PET Ultracone Tube	75000461	50	6	30,000	166,880	25 x 84	Adapter	75000462	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool

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

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	6 x 17 mL
Maximum Speed	29,000 rpm
Tube Dimensions Ø x L	16 x 102 mm
Angle	90°
K Factor	284.0
Net Weight	6.2 kg/13.7 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	155,846 xg	165.9 mm
Average	108,219 xg	115.2 mm
Minimum	60,591 xg	64.5 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

AH-629 (17 mL) Rotor Package includes:

Description	Cat. No.
AH-629 (17 mL) Rotor	54285
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (29,000 rpm)	51362
17 mL Buckets (qty. 6)	52030
Bucket O-ring (qty. 6)	63712
Bucket Rack	52240
Instruction Manual	54276
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
36 mL Buckets (qty. 6)	52305
Conical Adapter Removal Tool	75000480
Conical Adapter	75000464
Tube Removal Tool	75000479

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
17.0	17.9	PET Thin-Walled Tube	06750	50	6	29,000	155,846	16 x 102	–	–	–	–
17.0	16.0	PA Thin-Walled Tube	03126	50	6	29,000	155,846	16 x 102	–	–	–	–
15.0	15.0	PA Re-Seal Cone-top Tube	75000414	50	6	29,000	155,846	16 x 100	Closure	75000452	1	16 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
13.0	12.7	PET Thin-walled Ultracone Tube	75000463	50	6	29,000	155,846	16 x 96	Adapter	75000464	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
13.0	12.3	PA Thin-walled Ultracone Tube	75000475	50	6	29,000	155,846	16 x 96	Adapter	75000464	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool

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

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	6 x 36 mL
Maximum Speed	29,000 rpm
Tube Dimensions Ø x L	25 x 89 mm
Angle	90°
K Factor	242.0
Net Weight	6.4 kg/14.1 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	151,243 xg	161.0 mm
Average	109,487 xg	116.6 mm
Minimum	67,731 xg	72.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

AH-629 (36 mL) Rotor Package includes:

Description	Cat. No.
AH-629 (36 mL) Rotor	54284
Rotor Stand	20048993
Vacuum Grease	65937
Lubricant	61556
Extra Overspeed Decal (29,000 rpm)	51362
36 mL Buckets (qty. 6)	52035
Bucket O-ring (qty. 6)	64667
Bucket Rack	52240
Instruction Manual	54276
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
17 mL Buckets (qty. 6)	52030
Conical Adapter Removal Tool	75000480
Conical Adapter	75000462

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
36.0	38.1	PET Thin-Walled Tube	75000471	50	6	29,000	151,243	25 x 88	—	—	—	—
36.0	35.0	PA Thin-Walled Tube	03141	25	6	29,000	151,243	25 x 89	—	—	—	—
31.0	31.0	PA Re-Seal Cone-top Tube	75000427	50	6	29,000	151,243	25 x 81	Closure	75000428	1	25 mm Noryl Crown ¹
									Closure	75000451	10	Stainless Steel Plug
									Tool	75000478	1	Wrench
28.0	29.4	PA Ultracone Tube	75000476	50	6	29,000	151,243	25 x 84	Adapter	75000462	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool
28.0	28.7	PET Ultracone Tube	75000461	50	6	29,000	151,243	25 x 84	Adapter	75000462	1	Conical Tube Adapter
									Tool	75000480	1	Conical Adapter Removal Tool

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

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ROTOR SPECIFICATIONS

Type	Vertical
Material	Titanium
Capacity	8 x 6 mL
Maximum Speed	70,000 rpm
Tube Dimensions Ø x L	13 x 66 mm
Angle	0°
K Factor	8.7
Net Weight	7.6 kg/16.8 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	467,420 xg	85.4 mm
Average	431,022 xg	78.8 mm
Minimum	394,625 xg	72.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

StepSaver 70V6 Rotor Packages include:

Description	Cat. No.
Stepsaver 70V6 (6 mL) Rotor	79240
Rotor Stand	20048993
Extra Overspeed Decal (70,000 rpm)	08254
PA Ultracrimp Tube, 6 mL (qty. 1 pkg. of 50)	79273
6 mL Ultracrimp Cartridge Set (qty. 8)	79286
Tube Racks (qty. 2)	03921
Cartridge Set Rack	79211
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384
Stepsaver 70V6 (2 mL) Rotor	79274
Rotor Stand	20048993
Extra Overspeed Decal (70,000 rpm)	08254
PA Ultracrimp Tube, 2 mL (qty. 1 pkg. of 50)	79251
2 mL Ultracrimp Cartridge Set (qty. 8)	79289
Tube Racks (qty. 2)	79242
Cartridge Set Rack	79211
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384
Stepsaver 70V6 (5.1 mL Quick-Seal) Rotor	79280
Rotor Stand	20048993
Extra Overspeed Decal (70,000 rpm)	08254
5.1 mL Quick-Seal Cartridge Set (qty. 8)	79291
Cartridge Set Rack	79211
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384

ROTOR AND ACCESSORIES ORDERING INFORMATION

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
6 mL Ultracrimp Tube Rack	03921
2 mL Ultracrimp Tube Rack	79242
6 mL Ultracrimp Cartridge Set (qty. 8)	79286
2 mL Ultracrimp Cartridge Set (qty. 8)	79289
5.1 mL Quick-Seal Cartridge Set (qty. 8)	79291
6 mL Ultracrimp Individual Cartridge (qty. 1)	79241
2 mL Ultracrimp Individual Cartridge (qty. 1)	79261
5.1 mL Quick-Seal Individual Cartridge (qty. 1)	79250
Cartridge Set Rack	79211

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
6.0	5.7	PA Ultracrimp Tube	79273	50	8	70,000	467,420	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79286	8	6 mL Ultracrimp Cartridge Set
									Accessory	03921	1	6 mL Ultracrimp Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
6.0	5.7	PET Clearcrimp Tube	79293	50	8	70,000	467,420	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79286	8	6 mL Ultracrimp Cartridge Set
									Accessory	03921	1	6 mL Ultracrimp Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
5.1	5.1	PA Quick-Seal Tubes ¹	342412	–	8	70,000	467,420	13 x 51	Closure	79291	1	5.1 mL Quick-Seal Cartridge Set
5.1	5.1	PET Quick-Seal Tubes ¹	344075	–	8	70,000	467,420	13 x 51	Closure	79291	1	5.1 mL Quick-Seal Cartridge Set
2.0	2.0	PA Ultracrimp Tube	79251	50	8	70,000	467,420	13 x 45	Closure	Included	8	Ultracrimp Plugs and Caps
									Closure	79289	8	2 mL Ultracrimp Cartridge Set
									Accessory	79242	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
2.0	2.0	PET Clearcrimp Tube	79292	50	8	70,000	467,420	13 x 45	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79289	8	2 mL Ultracrimp Cartridge Set
									Accessory	79242	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool

¹ Tubes must be purchased from manufacturer.

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Thermo Scientific StepSaver 65V13 Rotor



ROTOR SPECIFICATIONS

Type	Vertical
Material	Titanium
Capacity	8 x 13.5 mL Outer Row, 8 x 6 mL Inner Row
Maximum Speed	65,000 rpm
Tube Dimensions Ø x L	13 x 66 mm
Angle	0°
K Factor	12.9 (13.5 mL), 10.3 (6 mL)
Net Weight	9.7 kg/21.4 lbs
Warranty	7 years

	RCF	RADIUS
	13.5 mL / 6 mL	13.5 mL / 6 mL
Maximum	400,671 xg / 393,120 xg	84.9 mm / 83.3 mm
Average	361,972 xg / 361,972 xg	76.7 mm / 76.7 mm
Minimum	323,274 xg / 330,825 xg	68.5 mm / 70.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

StepSaver 65V13 Rotor Packages include:

Description	Cat. No.
Stepsaver 65V13 (13.5 mL) Rotor	79243
Rotor Stand	20048993
Extra Overspeed Decal (65,000 rpm)	51345
PA Ultracrimp Tube, 13.5 mL (qty. 1 pkg. of 50)	79246
13.5 mL Ultracrimp Cartridge Set (qty.8)	79296
Tube Racks (qty. 2)	79247
Cartridge Set Rack	79212
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384
Stepsaver 65V13 (13.5 mL Quick-Seal) Rotor	79285
Rotor Stand	20048993
Extra Overspeed Decal (65,000 rpm)	51345
13.5 mL Quick-Seal Cartridge Set (qty. 8)	79298
Cartridge Set Rack	79212
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384
Stepsaver 65V13 (6 mL) Rotor	79290
Rotor Stand	20048993
Extra Overspeed Decal (65,000 rpm)	51345
PA Ultracrimp Tube, 6 mL (qty. 1 pkg. of 50)	79231
6 mL Ultracrimp Cartridge Set (qty. 8)	79297
Tube Racks (qty. 2)	03921
Cartridge Set Rack	79212
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384

ROTOR AND ACCESSORIES ORDERING INFORMATION

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
13.5 mL Ultracrimp Tube Racks	79247
6 mL Ultracrimp Tube Racks	03921
13.5 mL Ultracrimp Cartridge Set (qty. 8)	79296
13.5 mL Quick-Seal Cartridge Set (qty. 8)	79298
6 mL Ultracrimp Cartridge Set (qty. 8)	79297
13.5 mL Ultracrimp Individual Cartridge (qty. 1)	79244
13.5 mL Quick-Seal Individual Cartridge (qty. 1)	79252
6 mL Ultracrimp Individual Cartridge (qty. 1)	79260
Cartridge Set Rack	79212

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
13.5	13.8	PA Ultracrimp Tube	79246	50	8	65,000	400,671	16 x 93	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79296	8	13.5 mL Ultracrimp Cartridge Set
									Accessory	79247	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
13.5	13.8	PET Clearcrimp Tube	79294	50	8	65,000	400,671	16 x 93	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79296	8	13.5 mL Ultracrimp Cartridge Set
									Accessory	79247	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
13.5	13.5	PA Quick-Seal Tubes ¹	342413	—	8	65,000	400,671	16 x 76	Closure	79298	8	13.5 mL Quick-Seal Cartridge Set
13.5	13.5	PET Quick-Seal Tubes ¹	344322	—	8	65,000	400,671	16 x 76	Closure	79298	8	13.5 mL Quick-Seal Cartridge Set
6.0	5.7	PA Ultracrimp Tube	79273	50	8	65,000	393,120	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79297	8	6 mL Ultracrimp Cartridge Set
									Accessory	03921	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
2.0	2.0	PET Clearcrimp Tube	79292	50	8	65,000	393,120	13 x 45	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79297	8	6 mL Ultracrimp Cartridge Set
									Accessory	03921	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool

¹ Tubes must be purchased from manufacturer

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Thermo Scientific StepSaver 50V39 Rotor



ROTOR SPECIFICATIONS

Type	Vertical
Material	Titanium
Capacity	8 x 39 mL Outer Row, 8 x 13.5 mL Inner Row
Maximum Speed	50,000 rpm
Tube Dimensions Ø x L	16 x 93 mm
Angle	0°
K Factor	35.8 (39 mL), 22.6 (13.5 mL)
Net Weight	10.3 kg/ 22.7 lbs
Warranty	7 years

	RCF	RADIUS
	39 mL / 13.5 mL	39 mL / 13.5 mL
Maximum	241,831 xg / 228,706 xg	86.6 mm / 81.9 mm
Average	205,807 xg / 205,807 xg	73.7 mm / 73.7 mm
Minimum	169,784 xg / 169,784 xg	60.8 mm / 60.8 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

StepSaver 50V39 Rotor Packages include:

Description	Cat. No.
StepSaver 50V39 (39 mL) Rotor	79245
Rotor Stand	20048993
Extra Overspeed Decal (50,000 rpm)	51349
PA Ultracrimp Tube, 39 mL (qty. 1 pkg. of 50)	79253
39 mL Ultracrimp Cartridge Set (qty. 8)	79299
Tube Racks (qty. 2)	79249
Cartridge Set Rack	79288
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384
StepSaver 50V39 (13.5 mL) Rotor	79277
Rotor Stand	20048993
Extra Overspeed Decal (50,000 rpm)	51349
PA Ultracrimp Tube, 13.5 mL (qty. 1 pkg. of 50)	79246
13.5 mL Ultracrimp Cartridge Set (qty. 8)	79300
Tube Racks (qty. 2)	79247
Cartridge Set Rack	79288
Instruction Manual	79231
Ultracentrifuge Rotor Log Book	52384

ROTOR AND ACCESSORIES ORDERING INFORMATION

Accessories:

Description	Cat. No.
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
39 mL Ultracrimp Tube Rack	79249
13.5 mL Ultracrimp Tube Rack	79247
39 mL Ultracrimp Cartridge Set (qty. 8)	79299
13.5 mL Ultracrimp Cartridge Set (qty. 8)	79300
39 mL Ultracrimp Individual Cartridge (qty. 1)	79248
13.5 mL Ultracrimp Individual Cartridge (qty. 1)	79263
Cartridge Set Rack	79288

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
39.0	38.9	PA Ultracrimp Tube	79253	50	8	50,000	241,831	25 x 113	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79299	8	39 mL Ultracrimp Cartridge Set
									Accessory	79249	1	Tube Rack
									Tool	03920	1	Ultracrimp Closure Tool
39.0	38.9	PET Clearcrimp Tube	79295	50	8	50,000	241,831	25 x 113	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79299	8	39 mL Ultracrimp Cartridge Set
									Accessory	79249	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
13.5	13.8	PA Ultracrimp Tube	79246	50	8	50,000	228,706	16 x 93	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79300	8	13.5 mL Ultracrimp Cartridge Set
									Accessory	79247	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
13.5	13.8	PET Clearcrimp Tube	79294	50	8	50,000	228,706	16 x 93	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	79300	8	13.5 mL Ultracrimp Cartridge Set
									Accessory	79247	1	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool

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ROTOR SPECIFICATIONS

Type	Vertical
Material	Titanium
Capacity	16 x 6 mL
Maximum Speed	65,000 rpm
Tube Dimensions Ø x L	13 x 66 mm
Angle	0°
K Factor	9.8
Net Weight	9.07 kg/19.9 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	414,357 xg	87.8 mm
Average	383,209 xg	81.2 mm
Minimum	352,062 xg	74.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TV-1665 Rotor Package includes:

Description	Cat. No.
TV-1665 Rotor	11672
Rotor Stand	20048993
Lubricant	61556
Extra Overspeed Decal (65,000 rpm)	51345
Instruction Manual	11670
Ultracentrifuge Rotor Log Book	52384

Accessories:

Description	Cat. No.
Ultracrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tube Rack	03921
Rotor Cap	03991
Tool Kit for Ultracrimp Sealing System {Includes Rotor Holding Fixture (52540), Torque Wrench (52580) and Socket Cap Wrench (52882)}	12770
Tool Kit for 5 mL Thin-walled Tube {Includes Rotor Holding Fixture (52540) and Wrench (52363)}	52598

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
6.0	5.7	PA Ultracrimp Tube	03945	50	16	65,000	414,357	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Accessory	03921	1	6 mL Ultracrimp Tube Rack
									Tool	12770	1	Tool Kit for Ultracrimp Sealing System
									Tool	03920	1	Ultracrimp Sealing Tool
6.0	5.7	PET Clearcrimp Tube	01086	50	16	65,000	414,357	13 x 66	Closure	Included	50	Ultracrimp Plugs and Caps
									Accessory	03921	1	6 mL Ultracrimp Tube Rack
									Tool	12770	1	Tool Kit for Ultracrimp Sealing System
									Tool	03920	1	Ultracrimp Sealing Tool
5.0	4.4	PA Thin-Walled Tubes ¹	03127	50	16	65,000	414,357	13 x 51	Closure	52521	1	Body Cap
									Closure	52522	8	Plugs
									Tool	52598	1	Tool Kit for 5 mL Thin-walled Tube

¹ Must use caps and plugs together.

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ROTOR SPECIFICATIONS

Type	Vertical
Material	Titanium
Capacity	8 x 35 mL
Maximum Speed	60,000 rpm
Tube Dimensions Ø x L	25 x 97 mm
Angle	0°
K Factor	25.2
Net Weight	11.4 kg/25.1 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	340,596 xg	84.7 mm
Average	289,325 xg	72.0 mm
Minimum	238,055 xg	59.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TV-860 Rotor Package includes:

Description	Cat. No.
TV-860 Rotor	53289
Rotor Stand	20048993
Lubricant	61556
Extra Overspeed Decal (60,000 rpm)	51346
Instruction Manual	53292
Ultracentrifuge Rotor Log Book	52834
Tool Kit for Ultracrimp Sealing System {Includes Rotor Holding Fixture (52540) and Torque Wrench (52580)}	12771

Accessories:

Description	Cat. No.
Ultracrimp Sealing Tool	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Tube Rack	03935
Rotor Cap	03994
Tool Kit for Ultracrimp Sealing System {Includes Rotor Holding Fixture (52540) and Torque Wrench (52580)}	12771

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
35.0	35.0	PA Ultracrimp Tube	03989	25	8	60,000	340,596	25 x 97	Closure	54459	50	Ultracrimp Plugs and Caps
										03994	1	Rotor Cap
										03935	1	Tube Rack
										12771	1	Tool Kit for Ultracrimp Sealing System

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Thermo Scientific TZ-28 Rotor



ROTOR SPECIFICATIONS

Type	Zonal
Material	Titanium
Capacity	1350 mL
Maximum Speed	28,000 rpm
Tube Dimensions Ø x L	N/A
Angle	90°
K Factor	312.0
Net Weight	7.8 kg/17.2 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	83,457 xg	95.3 mm
Average	57,579 xg	65.8 mm
Minimum	31,701 xg	36.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

TZ-28 Rotor Package includes:

Description	Cat. No.
TZ-28 Rotor	52358
Core Septa	49609
O-ring for Septa (qty. 6)	66193
Rotor Cover Wrench	49274
T-Wrench 9/64x6"	92365
T-Wrench 5/32x6"	92366
Rotor Holding Fixture	9065
Sample Inject Needle	66026
Lubricant	61556
O-ring for Rotor Cover (qty. 1)	90840
Feed Adapter	49007
O-ring for Feed Adapter	63037
Instruction Manual	52415

ROTOR AND ACCESSORIES ORDERING INFORMATION continued

TZ-28 Rotor Continuous Flow Ultracentrifuge Conversion Kit includes:		12271
Description		Cat. No.
Vacuum Grease		65937
Overspeed Decal (28,000 rpm)		51363
Tapered Drive Assembly		52496
Rotor Adapter for Drive Assembly		52418
Socket Head Screw for Rotor Adapters (qty. 3)		60912
Drive Adapter Assembly Wrench		52497
Sealing Cover		52417
O-ring for Sealing Cover (qty. 2)		66330
Socket Head Screw for Sealing Cover (qty. 3)		62987
Distributor Body		52425
O-ring for Upper Distributor Body (qty. 2)		64578
O-ring for Lower Distributor Body (qty. 2)		66308
Hold Down Plate for Distributor Body		52416
O-ring for Conversion Kit (qty. 6)		61289
Socket Head Screw for Hold Down Plate (qty. 3)		66329
Instruction Manual		52415
Ultracentrifuge Rotor Log Book		52384

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Micro-Ultracentrifuge Rotors

Rotor	Max. Speed (rpm)	Max. RCF (xg) ¹	K Factor ²	Capacity: Places x Volume (mL)
Fixed Angle				
S150-AT	150,000	899,744	6.1	8 x 2
S140-AT	140,000	1,048,684	5.0	10 x 2
S120-AT3	120,000	649,826	7.8	14 x 0.5
S120-AT2	120,000	649,826	8.2	10 x 2
S110-AT	110,000	690,652	15.4	8 x 5
S100-AT6	100,000	603,180	17.7	8 x 5.1
S100-AT4	100,000	540,628	15.9	6 x 3.5
S100-AT3	100,000	435,630	7.0	20 x 0.2
S80-AT3	80,000	414,630	23.2	8 x 8.3
S80-AT2	80,000	357,440/ 303,824 ³	14/ 16 ³	30 x 0.5
S70-AT	70,000	307,052	30.7	20 x 0.5
S58-A	58,000	288,959	35.0	8 x 13.5
S55-A2	55,000	201,046	39.8	12 x 1.5
S55-A	55,000	259,839	55.6	8 x 13.5
S50-A	50,000	209,438	60.7	6 x 30
S45-A	45,000	124,858	66.6	12 x 1.5
Swinging Bucket				
S55-S	55,000	258,826	43.8	4 x 2.2
S52-ST	52,000	275,458	78.6	4 x 5
S50-ST	50,000	252,721	76.6	4 x 7
Vertical				
S120-VT	120,000	500,237	7.9	8 x 2

¹ RCF calculated for maximum rotor radius.

² K factor calculated assuming maximum volume in a sealed tube.

³ Outer row value/inner row value.



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 xg	20.8 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

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

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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.

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

S140-AT Rotor Package includes:

Description	Cat. No.
S140-AT Rotor	45978
PC Thick-Walled Tubes Tube (qty. 1 pkg. of 100)	45237
Large O-ring for Cover	45986
Instruction Manual	45735
Rotor Holding Fixture	45266
Vacuum Grease	65937
Lubricant	61556
Rotor Stand	45357
Cover Opener	45173

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
11 mm x 32 mm Tube Vise	45537
11 mm x 25 mm Tube Vise	45536

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
2.0	1.9	PA Re-Seal Tube	45246	50	10	140,000	1,048,684	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	10	140,000	1,048,684	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	45537	1	Tube Vise
1.5	1.5	PA Easy-Seal Tube	75000502	50	10	140,000	1,048,684	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	10	140,000	1,048,684	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 Tubes	45237	100	10	140,000	1,048,684	11 x 34	–	–	–	–
1.0	1.0	PA Thick-walled Tubes	45598	50	10	120,000	770,462	11 x 34	–	–	–	–

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

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	45276
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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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	–	–	–	–

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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 10 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

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
2.0	1.9	PA Re-Seal Tube	45246	50	10	120,000	649,826	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	10	120,000	649,826	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	10	120,000	649,826	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	10	120,000	649,826	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	10	120,000	649,826	11 x 34	—	—	—	—

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

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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	51.1 mm
Average	510,893 xg	37.8 mm
Minimum	331,135 xg	24.5 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S110-AT Rotor Package includes:

Description	Cat. No.
S110-AT Rotor ¹	45539
4.0 mL PC Thick-Walled Tubes (qty. 2 pkg. of 50)	45239
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	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.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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
									Tool	75000505	1	Crown Clamp
									Tool	75000506	1	Hex Driver
									Tool	75000507	1	Tube Removal Tool
									Tool	75000481	1	Easy-Seal Tube Vise
4.0	3.4	PC Thick-Walled Tube	45239	50	8	110,000	690,652	13 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
									Tool	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
									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	PA Easy-Seal Tube	75000512	50	8	80,000	365,304	13 x 29	Closure	75000511	1	13 mm Al Crown ²
									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	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).

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Titanium
Capacity	8 x 5.1 mL
Maximum Speed	100,000 rpm
Tube Dimensions Ø x L	13 x 63 mm
Angle	30°
K Factor	17.7
Net Weight	1.13 kg /2.5 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	603,180 xg	54.0 mm
Average	452,385 xg	40.5 mm
Minimum	300,473 xg	26.9 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S100-AT6 Rotor Package includes:

Description	Cat. No.
S100-AT6 Rotor	45588
4.0 mL PC Thick-Walled Tubes (qty. 2 pkg. of 50)	45239
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	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

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
5.0	5.1	PA Re-Seal Tube	45248	50	8	100,000	603,180	13 x 51	Closure	45321	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
5.0	5.0	PA Easy-Seal Tube	75000508	50	8	80,000	386,035	13 x 51	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
4.0	3.4	PC Thick-Walled Tube	45239	50	8	100,000	603,180	13 x 63	–	–	–	–
3.5	3.5	PA Easy-Seal Tube	75000509	50	8	80,000	386,035	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
3.5	3.5	PET Easy-Seal Tube	75000510	50	8	80,000	–	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
1.5	1.5	PA Easy-Seal Tube	75000512	50	8	80,000	–	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	1.5	High Performance Microtube	314352H01	100	8	55,000	–	11 x 42	Adapter	45587	1	Adapter for Microtube

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

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	45296
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

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
3.5	3.2	PA Re-Seal Tube	45247	50	6	100,000	540,628	13 x 35	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
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 ¹
									Tool	75000505	1	Crown Clamp
									Tool	75000506	1	Hex Driver
									Tool	75000507	1	Tube Removal Tool
									Tool	75000481	1	Easy-Seal Tube Vise
3.5	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	1.5	PA Easy-Seal Tube	75000512	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	1.5	High Performance Microtube	314352H01	100	6	55,000	163,540	13 x 42	Adapter	45244	1	Adapter for Microtube

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

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	45322
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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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	–	–	–	–

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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	58.0 mm
Average	323,126 xg	45.2 mm
Minimum	230,906 xg	32.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

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 (45599), 10 Plugs (45307), Wrench (45308) and Removal Tool (45309)}	45700
Re-Seal 16 mm x 53 mm Tube Vise	45701
Rotor Stand	45357
Cover Opener	45173

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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
6.0	5.3	PC Thick-Walled Tube	45595	50	8	80,000	414,630	16 x 59	–	–	–	–
6.0	5.3	PA Thick-Walled Tube	45596	50	8	60,000	233,230	16 x 59	–	–	–	–

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

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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	28.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S80-AT2 Rotor Package includes:

Description	Cat. No.
S80-AT2 Rotor	45589
PC Thick-Walled Tubes (qty. 1 pkg. of 100)	45235
Rotor Holding Fixture	45266
Large O-ring for cover (qty. 2)	S4040544
Small O-ring for Cover (qty. 2)	45294
Instruction Manual	45735
Lubricant	61556
Vacuum Grease	65937

Accessories:

Description	Cat. No.
Rotor Stand	45357
Cover Opener	45173

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
0.5	0.5	PC Thick-Walled Tubes	45235	100	30	80,000	357,440	8 x 34	–	–	–	–
0.5	0.5	PA Thick-Walled Tubes	45236	100	30	80,000	357,440	8 x 34	–	–	–	–

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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	—	—	—	—

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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	35°
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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	45999
Rotor Holding Fixture	45266
Lubricant	61556
Vacuum Grease	65937
Instruction Manual	45735

Accessories:

Description	Cat. No.
Rotor Stand	45357
Cover Opener	45173
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919

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.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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 ²
									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	50	Ultracrimp Plugs and Caps
									Closure	45808	1	Rotor Cap
									Accessory	03922	2	Tube Rack
									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	25	PP Sealing Assembly
10.0	6.8	PP Thick-Walled Tube ⁴	03929	50	8	45,000	173,942	16 x 80	Closure	03613	25	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	50	8	27,500	64,960	16 x 71	–	–	–	–

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

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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.

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	8 x 13.5 mL
Maximum Speed	55,000 rpm
Tube Dimensions Ø x L	16 x 78 mm
Angle	35°
K Factor	55.6
Net Weight	1.9 kg/4.2 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	259,839 xg	76.9 mm
Average	196,991 xg	58.3 mm
Minimum	133,805 xg	39.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S55-A Rotor Package includes:

Description	Cat. No.
S55-A Rotor	45979
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)	45999
Rotor Holding Fixture	45266
Lubricant	61556
Vacuum Grease	65937
Instruction Manual	45735

Accessories:

Description	Cat. No.
Rotor Stand	45357
Cover Opener	S203944
Ultracrimp/Clearcrimp Sealing Tool	03920
Crimp Gauge Replacement	03919

*This rotor model has been replaced by the Thermo Scientific S58-A rotor.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
13.5	12.7	PA Re-Seal Tube	45809	50	8	55,000	259,839	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	55,000	259,839	16 x 76	Closure	Included	50	Ultracrimp Plugs and Caps
									Closure	45808	1	Rotor Cap
									Accessory	03922	2	Tube Rack
									Tool	03920	1	Ultracrimp Sealing Tool
10.0	9.1	PC Thick-Walled Tube ²	03020	25	8	55,000	259,839	16 x 80	Closure	03613	25	PP Sealing Assembly
10.0	6.8	PP Thick-Walled Tube ³	03929	50	8	45,000	173,942	16 x 80	Closure	03613	25	PP Sealing Assembly
10.0	6.8	PC Thick-Walled Tube	03237	50	8	55,000	259,839	16 x 71	–	–	–	–
10.0	6.8	PA Thick-Walled Tube	03238	50	8	27,500	64,960	16 x 71	–	–	–	–

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

² Rated to 50,000 rpm when partially filled.

³ Rated to 21,000 rpm when partially filled

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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	60.7
Net Weight	2.0 kg/4.4 lbs
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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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 ²
									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	PA 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	–	–	–	–

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

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	12 x 1.5 mL
Maximum Speed	45,000 rpm
Tube Dimensions Ø x L	11 x 42 mm
Angle	45°
K Factor	66.6
Net Weight	0.8 kg/1.8 lbs
Warranty	5 years

	RCF	RADIUS
Maximum	124,858 xg	55.2 mm
Average	99,072 xg	43.8 mm
Minimum	73,286 xg	32.4 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S45-A Rotor Package includes:

Description	Cat. No.
S45-A Rotor	45592
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)	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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	1.5	High Performance Microtube	314352H01	100	12	45,000	124,858	11 x 42	-	-	-	-

*This rotor model has been replaced by the Thermo Scientific S55-A2 rotor.

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
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

ROTOR AND ACCESSORIES ORDERING INFORMATION

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)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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	PA 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	–	–	–	–

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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	275,458 xg	91.2 mm
Average	197,230 xg	65.3 mm
Minimum	119,002 xg	39.4 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

S52-ST Rotor Package Includes:

Description	Cat. No.
S52-ST Rotor ¹	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
Noryl Replacement Floating Support Caps (qty. 6)	314358
Tube Removal Tool	12826
Cone-Top 13 mm x 32 mm Tube Vise	45537
Conical Adapter Removal Tool	75000480
Spare Buckets (qty. 4)	46107

¹ Rotor compatible only with Thermo Scientific Sorvall MTX-150, MX Series, Discovery M120 SE and Discovery M150 SE micro-ultracentrifuges.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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 Tool	75000468 75000480	1 1	Conical Adapter Conical Adapter Removal Tool
3.5	3.4	PET Ultracone Tube	75000519	50	4	52,000	275,458	13 x 48	Adapter Tool	75000468 75000480	1 1	Conical Adapter Conical Adapter Removal Tool
3.5	3.1	PA Cone-Top Tube	75000456	50	4	52,000	275,458	13 x 32	Closure Closure Tool Tool Tool	75000457 45307 45308 45309 45537	1 10 1 1 1	13 mm Noryl Crown Stainless Steel Plug Wrench Tube Removal Tool Tube Vise
2.0	2.0	PA Cone-Top Tube	75000458	50	4	52,000	275,458	13 x 25	Closure Closure Tool Tool Tool	75000457 45307 45308 45309 45537	1 10 1 1 1	13 mm Noryl Crown Stainless Steel Plug Wrench Tube Removal Tool Tube Vise

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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	76.6
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

ROTOR AND ACCESSORIES ORDERING INFORMATION

S50-ST Rotor Package includes:

Description	Cat. No.
S50-ST Rotor ¹	45541
PA Thin-Walled Tubes (qty. 1 pkg. of 50)	S309146A
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)	46107

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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	S309146A	50	4	50,000	252,721	16 x 52	–	–	–	–

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

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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

ROTOR AND ACCESSORIES ORDERING INFORMATION

S120-VT Rotor Package includes:

Description	Cat. No.
S120-VT Rotor	45593
PA Re-Seal Tubes (qty. 2 pkg. of 50)	45246
Crowns (qty. 8)	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

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & 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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Superspeed Centrifuge Rotors

Rotor	Max. Speed (rpm)	Max. RCF (xg) ¹	K Factor ²	Capacity: Places x Volume (mL)
Fixed Angle				
Fiberlite F21-8x50y	21,000	52,400	669	8 x 50
Fiberlite F21-48x1.5	21,000	43,500/ 40,500 ³	221/ 288 ³	48 x 1.5
Fiberlite F20-6x100	20,000	43,900	864	6 x 100
Fiberlite F18-12x50	18,000	46,100	682	12 x 50
Fiberlite F14-6x250y	14,000	30,100	1,690	6 x 250
Fiberlite F13-14x50cy	13,000	29,000	916	14 x 50
Fiberlite F12-6x500y LEX	12,000	24,500	2,302	6 x 500
Fiberlite F10-6x500y	10,000	17,700	3,413	6 x 500
Fiberlite F10-4x1000y LEX	9,500	16,900	4,358	4 x 1000
Fiberlite F9-4x1000y	9,000	15,241	5,950	4 x 1000
Fiberlite F8-6x1000y	8,500	15,900	5,096	6 x 1000
SE-12	26,000	70,450	335	12 x 14
SA-300	25,000	67,509	573	6 x 50
F22/Micro	22,000	55,140	190	30 x 1.5
F-20/Micro	20,000	51,427	187	32 x 1.5
SS-34	20,500	50,228	714	8 x 50
SM-24	20,500	51,965/ 42,717 ³	434/ 591 ³	24 x 16
SA-800	20,500	49,054	560	8 x 100
SA-512	19,500	48,930/ 41,749 ³	394/ 492 ³	32 x 16
SA-600	17,000	41,837	747	12 x 50
SLA-1500	15,000	34,155	1,475	6 x 250
SLA-3000	12,000	24,336	2,364	6 x 500
Swinging Bucket				
SH-80	20,000	45,395	400	8 x 10
HB-6	13,000	20,010	1,765	6 x 50
HS-4	7,500	10,836	3,912	4 x 250
SH-3000	4,700	4,575	8,138	4 x 750

¹ RCF calculated for maximum rotor radius.

² K factor calculated assuming maximum volume in a sealed tube.

³ Outer row value/inner row value.


Superspeed Rotors

Thermo Scientific Fiberlite F21-8x50y Rotor

F21-8x50y




ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	8 x 50 mL
Maximum Speed	21,000 rpm
Tube Dimensions Ø x L	29 x 115 mm
Angle	34°
K Factor	669.0
Net Weight	4.49 kg/9.9 lbs
Warranty	15 years
Certifications¹	

	RCF	RADIUS
Maximum	52,400 xg	106.0 mm
Minimum	16,299 xg	33.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		BECKMAN®
		SORVALL RC-6 Plus/Evolution RC/ RC-6/RC-5/RC-26/RC-2 Series	JOUAN KR22i Series	J2 Series
Fiberlite F21-8x50y	Cat. No.	46923	096-084052	096-084019
	Max. Speed	20,000 rpm	20,000 rpm	21,000 rpm
	Max. RCF	47,500 xg	47,500 xg	52,400 xg
	Sample Containment ²	 ELC	ELC	ELC

Fiberlite F21-8x50y Rotor Package includes:

		099-084018	099-084052	099-084019
	Rotor Lid Assembly			
	O-ring Refresher Kit ³	021-084018	021-084052	021-084019

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	46.0	Nalgene® PC Oak Ridge Tube	3138-0050	50	8	20,000	52,400	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	8	20,000	52,400	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	8	20,000	52,400	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	8	20,000	52,400	29 x 108	Closure	Included	10	ETFE Screw Cap
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	8	20,000	52,400	26 x 102	Closure Adapter	Included 010-0167	50 2	PP Sealing 1 place/adaptor

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Certifications vary by rotor model.

² Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

³ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	8	20,000	52,400	26 x 102	Closure Adapter	Included 010-0167	50 2	PP Sealing 1 place/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	8	20,000	52,400	26 x 102	Closure Adapter	Included 010-0167	50 2	PP Sealing 1 place/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	8	20,000	52,400	26 x 102	Closure Adapter	Included 010-0167	10 2	ETFE Screw Cap 1 place/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	8	20,000	52,400	18 x 107	Closure Adapter	Included 010-0382	50 2	PP Sealing 1 place/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	8	20,000	52,400	18 x 107	Closure Adapter	Included 010-0382	50 2	PP Sealing 1 place/adapter
15.0	–	Corning® Disposable Conical Tube ⁴	–	–	8	–	–	–	Adapter	010-1123	2	1 place/adapter
15.0	–	BD Falcon® Disposable Conical Tube ⁴	–	–	8	–	–	–	Adapter	010-1123	2	1 place/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	8	20,000	52,400	16 x 82	Closure Adapter	Included 010-1306	50 2	PP Sealing 1 place/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	8	20,000	52,400	16 x 82	Closure Adapter	Included 010-1306	50 2	PP Sealing 1 place/adapter
10.0	–	Vacutainer® Tube ⁴	–	–	8	–	–	16 x 100	Adapter	010-1068	2	1 place/adapter
3.0	–	Vacutainer Tube ⁴	–	–	8	–	–	10 x 64	Adapter	010-1128	2	1 place/adapter
1.0	–	Microtainer® Tube ⁴	–	–	24	–	–	8 x 48	Adapter	010-1127	2	3 places/adapter

⁴Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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For more information, please visit
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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	48 x 1.5 mL
Maximum Speed	21,000 rpm
Tube Dimensions Ø x L	11 x 40 mm
Angle	45°
K Factor	221.0
Net Weight	3.81 kg/8.4 lbs
Warranty	15 years

	RCF	RADIUS
Maximum	43,500 xg	97.0 mm
Minimum	31,610 xg	64.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL C-6 Plus/Evolution RC/ RC-5/RC-26/RC-2 Series	JOUAN KR22i
Fiberlite F21-48x1.5	Cat. No.	096-484020	096-484025
	Max. Speed	20,000 rpm	18,000 rpm
	Max. RCF	43,500 xg	34,100 xg
Fiberlite F21-48x1.5 Rotor Package includes:			
	Rotor Lid Assembly	099-484020	099-484025
	O-ring Refresher Kit ¹	021-484020	021-484025

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	1.5	Polyallomer Microtube	314352H01	100	48	20,000	43,500	11 x 40	Closure	Included	–	Snap-on Seal

¹ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz. FiberClene Lab Cleaner (017-0024).

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (North America) or HKKS308102E (Europe and Asia Pacific).

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Thermo Scientific Fiberlite F20-6x100 Rotor

F20-6x100



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 100 mL
Maximum Speed	20,000 rpm
Tube Dimensions Ø x L	38 x 106 mm
Angle	25°
K Factor	864.0
Net Weight	4.63 kg/10.2 lbs
Warranty	15 years

	RCF	RADIUS
Maximum	43,900 xg	98.0 mm
Minimum	11,200 xg	25.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus/ RC-5/RC-26/RC-2 Series	SORVALL Evolution RC	JOUAN KR22i
Fiberlite F20-6x100	Cat. No.	096-064025	096-064025	096-064026
	Max. Speed	20,000 rpm	18,000 rpm	18,000 rpm
	Max. RCF	43,900 xg	35,600 xg	35,600 xg

Fiberlite F20-6x100 Rotor Package includes:

	Rotor Lid Assembly	099-064025	099-064026
	O-ring Refresher Kit ¹	021-064025	021-064026

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
85.0	81.0	Nalgene® PC Oak Ridge Tube	3118-0085	100	6	20,000	43,900	38 x 106	Closure	Included	100	PP Screw Top
80.0	73.0	PC Oak Ridge Tube	010-0515	6	6	17,000	31,400	38 x 109	Closure	Included	6	PP Sealing
80.0	76.0	PPCO Oak Ridge Tube	010-1280	6	6	17,000	31,400	38 x 109	Closure	Included	6	PP Sealing
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	6	20,000	43,900	29 x 108	Closure	Included	50	PP Sealing
									Adapter	010-1194	2	1 place/adaptor
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	6	20,000	43,900	29 x 108	Closure	Included	50	PP Sealing
									Adapter	010-1194	2	1 place/adaptor
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	6	20,000	43,900	29 x 108	Closure	Included	50	PP Sealing
									Adapter	010-1194	2	1 place/adaptor
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	6	20,000	43,900	29 x 108	Closure	Included	10	ETFE Screw Cap
									Adapter	010-1194	2	1 place/adaptor

¹ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	6	20,000	43,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1273	2	1 place/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Screw Top Tube	3139-0030	50	6	20,000	43,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1273	2	1 place/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	6	20,000	43,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1273	2	1 place/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	6	20,000	43,900	26 x 102	Closure Adapter	Included	10	ETFE Screw Cap
										010-1273	2	1 place/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	6	20,000	43,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1272	2	1 place/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	6	20,000	43,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1272	2	1 place/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	6	20,000	43,900	16 x 82	Closure Adapter	Included	50	PP Sealing
										010-1310	2	1 place/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	6	20,000	43,900	16 x 82	Closure Adapter	Included	50	PP Sealing
										010-1310	2	1 place/adapter
10.0	–	Vacutainer® Tube ²	–	–	6	–	–	16 x 100	Adapter	010-1274	2	1 place/adapter
3.0	–	Vacutainer Tube ²	–	–	18	–	–	10 x 64	Adapter	010-1126	2	3 places/adapter
1.0	–	Microtainer® Tube ²	–	–	36	–	–	8 x 48	Adapter	010-1125	2	6 places/adapter

² Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Thermo Scientific Fiberlite F18-12x50 Rotor

F18-12x50




ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	12 x 50 mL
Maximum Speed	18,000 rpm
Tube Dimensions Ø x L	29 x 115 mm
Angle	34°
K Factor	682.0
Net Weight	6.62 kg/14.6 lbs
Warranty	15 years
Certifications¹	

	RCF	RADIUS
Maximum	46,100 xg	127.0 mm
Minimum	19,232 xg	53.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		BECKMAN®
		SORVALL RC-6 Plus/Evolution RC/ RC-6/RC-5/RC-26/RC-2 Series	JOUAN KR22i Series	J2 Series/ Avanti Series
Fiberlite F18-12x50	Cat. No.	096-124022	096-124034	096-124032
	Max. Speed	16,500 rpm	16,500 rpm	17,000 rpm
	Max. RCF	38,700 xg	38,700 xg	41,100 xg
	Sample Containment ²	 ELC	ELC	ELC

Fiberlite F18-12x50 Rotor Package includes:

Rotor Lid Assembly	099-124022	099-124034	099-124032
O-ring Refresher Kit ³	021-124022	021-124034	021-124032

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	46.0	Nalgene® PC Oak Ridge Tube	3138-0050	50	12	18,000	46,100	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	12	18,000	46,100	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	12	18,000	46,100	29 x 115	Closure	Included	50	PP Sealing
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	12	18,000	46,100	29 x 108	Closure	Included	10	ETFE Screw Cap
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	12	18,000	46,100	26 x 102	Closure Adapter	Included	50 2	PP Sealing 1 place/adaptor

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Certifications vary by rotor model.

² Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

³ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	12	18,000	46,100	26 x 102	Closure	Included	50	PP Sealing
									Adapter	010-0167	2	1 place/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	12	18,000	46,100	26 x 102	Closure	Included	50	PP Sealing
									Adapter	010-0167	2	1 place/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	12	18,000	46,100	26 x 102	Closure	Included	10	ETFE Screw Cap
									Adapter	010-0167	2	1 place/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	12	18,000	46,100	18 x 107	Closure	Included	50	PP Sealing
									Adapter	010-0382	2	1 place/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	12	18,000	46,100	18 x 107	Closure	Included	50	PP Sealing
									Adapter	010-0382	2	1 place/adapter
15.0	-	Corning® Disposable Conical Tube ⁴	-	-	12	-	-	-	Closure	Included	-	PP Sealing
									Adapter	010-1123	2	1 place/adapter
15.0	-	BD Falcon® Disposable Conical Tube ⁴	-	-	12	-	-	-	Adapter	010-1123	2	1 place/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	12	18,000	46,100	16 x 82	Closure	Included	50	PP Sealing
									Adapter	010-1306	2	1 place/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	12	18,000	46,100	16 x 82	Closure	Included	50	PP Sealing
									Adapter	010-1306	2	1 place/adapter
10.0	-	Vacutainer® Tube ⁴	-	-	12	-	-	16 x 100	Adapter	010-1068	2	1 place/adapter
3.0	-	Vacutainer Tube ⁴	-	-	12	-	-	10 x 64	Adapter	010-1128	2	1 place/adapter
1.0	1.0	Microtainer® Tube ⁴	-	-	36	-	-	8 x 48	Adapter	010-1127	2	3 places/adapter

⁴Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Superspeed Rotors

Thermo Scientific Fiberlite F14-6x250y Rotor

F14-6x250y




ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 250 mL
Maximum Speed	14,000 rpm
Tube Dimensions Ø x L	62 x 135 mm
Angle	23°
K Factor	1690.0
Net Weight	7.03 kg/15.5 lbs
Warranty	15 years
Certifications¹	

	RCF	RADIUS
Maximum	30,100 xg	137.0 mm
Minimum	8,122 xg	37.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		BECKMAN®	HITACHI®
		SORVALL RC-6 Plus/Evolution RC/ RC-6/RC-5/RC-26/RC-2 Series	JOUAN KR22i Series	J2 Series/ Avanti Series	CR21/22 Series
Fiberlite F14-6x250y	Cat. No.	78500	096-062128	096-062107	096-062132
	Max. Speed	14,000 rpm	14,000 rpm	14,000 rpm	13,000 rpm
	Max. RCF	30,100 xg	30,100 xg	30,100 xg	26,000 xg
	Sample Containment ²	 ELC	ELC	ELC	ELC

Fiberlite F14-6x250y Rotor Package includes:

	THERMO SCIENTIFIC	BECKMAN®	HITACHI®
Rotor Lid Assembly	099-062034	099-062128	099-062132
O-ring Refresher Kit ³	022-062034	021-062128	021-062132

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	250.0	Nalgene® PPCO Oak Ridge Bottle	3141-0250	36	6	14,000	30,100	61 x 124	Closure	Included	36	PP Sealing
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	14,000	30,100	61 x 124	Closure	Included	36	PP Sealing
85.0	81.0	Nalgene PC Oak Ridge Tube	3118-0085	100	6	14,000	30,100	38 x 106	Closure	Included	100	PP Screw Top
									Adapter	010-1119	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	6	14,000	30,100	38 x 109	Closure	Included	6	PP Sealing
									Adapter	010-1119	2	1 place/adapter
80.0	76.0	PPCO Oak Ridge Tube	010-1280	6	6	14,000	30,100	38 x 109	Closure	Included	6	PP Sealing
									Adapter	010-1119	2	1 place/adapter

¹ Certifications vary by rotor model.

² Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

³ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	6	9,000	12,400	30 x 115	Closure Adapter	Included 010-0136	25 2	PP Sealing 1 place/adapter
50.0	—	Corning® Disposable Conical Tube ⁴	—	—	6	9,000	12,400	—	Adapter	010-0136	2	1 place/adapter
50.0	—	BD Falcon® Disposable Conical Tube ⁴	—	—	6	9,000	12,400	—	Adapter	010-0136	2	1 place/adapter
50.0	46.0	Nalgene PC Oak Ridge Screw Top Tube	3138-0050	50	6	14,000	30,100	29 x 108	Closure Adapter	Included 010-0138	50 2	PP Sealing 1 place/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	6	14,000	30,100	29 x 108	Closure Adapter	Included 010-0138	50 2	PP Sealing 1 place/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	8	14,000	30,100	29 x 108	Closure Adapter	Included 010-0138	50 2	PP Sealing 1 place/adapter
50.0	46.0	Nalgene FEP Oak Ridge Screw Top Tube	3114-0050	10	6	14,000	30,100	29 x 108	Closure Adapter	Included 010-0138	10 2	ETFE Screw Cap 1 place/adapter
30.0	30.0	Nalgene PC Oak Ridge Screw Top Tube	3138-0030	50	12	14,000	30,100	26 x 102	Closure Adapter	Included 010-1072	50 2	PP Sealing 2 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Screw Top Tube	3139-0030	50	12	14,000	30,100	26 x 102	Closure Adapter	Included 010-1072	50 2	PP Sealing 2 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	12	14,000	30,100	26 x 102	Closure Adapter	Included 010-1072	50 2	PP Sealing 2 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	12	14,000	30,100	26 x 102	Closure Adapter	Included 010-1072	10 2	ETFE Screw Cap 2 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	30	14,000	30,100	18 x 107	Closure Adapter	Included 010-1074	50 2	PP Sealing 5 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	30	14,000	30,100	18 x 107	Closure Adapter	Included 010-1074	50 2	PP Sealing 5 places/adapter
15.0	—	Corning Disposable Conical Tube ⁴	—	—	30	—	—	—	Adapter	010-1073	2	5 places/adapter
15.0	—	BD Falcon Disposable Conical Tube ⁴	—	—	30	—	—	—	Adapter	010-1073	2	5 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	42	14,000	30,100	16 x 100	Closure Adapter	Included 010-1309	50 2	PP Sealing 7 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	42	14,000	30,100	16 x 100	Closure Adapter	Included 010-1309	50 2	PP Sealing 7 places/adapter
10.0	—	Vacutainer® Tube ⁴	—	—	42	—	—	16 x 100	Adapter	010-1117	2	7 places/adapter
3.0	—	Vacutainer Tube ⁴	—	—	60	—	—	10 x 64	Adapter	010-1138	2	7 places/adapter

⁴ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Thermo
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Superspeed Rotors

Thermo Scientific Fiberlite F13-14x50cy Rotor

F13-14x50cy




ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	14 x 50 mL
Maximum Speed	13,000 rpm
Tube Dimensions Ø x L	29 x 115 mm
Angle	34°
K Factor	916.0
Net Weight	7.03 kg/15.5 lbs
Warranty	15 years
Certifications¹	

	RCF	RADIUS
Maximum	29,000 xg	153.0 mm
Minimum	15,710 xg	83.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

	THERMO SCIENTIFIC		BECKMAN®	HITACHI®
	SORVALL RC-6 Plus/Evolution RC/ RC-6/RC-5/RC-26/RC-2 Series	JOUAN KR22i Series	J2 Series/ Avanti Series	CR21/22 Series
Fiberlite F13-14x50cy Cat. No.	46922	096-145014	096-145011	096-145015
Max. Speed	13,000 rpm	13,000 rpm	14,000 rpm	13,000 rpm
Max. RCF	29,000 xg	29,000 xg	33,600 xg	29,000 xg
Sample Containment ²	 ELC	ELC	ELC	ELC

Fiberlite F13-14x50cy Rotor Package includes:

Rotor Lid Assembly	099-145001	099-145014	099-145011	099-145015
O-ring Refresher Kit ³	021-145001	021-145014	021-145011	021-145015

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	14	13,000	29,000	30 x 115	Closure	Included	25	PP Sealing
50.0	–	Corning® Disposable Conical Tube ⁴	–	–	14	13,000	29,000	–	–	–	–	–
50.0	–	BD Falcon® Disposable Conical Tube ⁴	–	–	14	13,000	29,000	–	–	–	–	–
50.0	–	Millipore Amicon® Filtration Tube ⁴	–	–	14	5,000	4,300	–	–	–	–	–
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	14	13,000	29,000	29 x 108	Closure Adapter	Included 010-0377	50 2	PP Sealing 1 place/adaptor

¹ Certifications vary by rotor model.

² Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

³ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

⁴ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	14	13,000	29,000	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-0377	2	1 place/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	14	13,000	29,000	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-0377	2	1 place/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	14	13,000	29,000	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-0377	2	1 place/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	14	13,000	29,000	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1147	2	1 place/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	14	13,000	29,000	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1147	2	1 place/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	14	13,000	29,000	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1147	2	1 place/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	50	14	13,000	29,000	26 x 102	Closure Adapter	Included	50	ETFE Screw Cap
										010-1147	2	1 place/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	14	13,000	29,000	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-0376	2	1 place/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	14	13,000	29,000	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-0376	2	1 place/adapter
15.0	–	Corning Disposable Conical Tube ⁴	–	–	14	13,000	29,000	–	Adapter	010-0378	2	1 place/adapter
15.0	–	BD Falcon Disposable Conical Tube ⁴	–	–	14	–	–	–	Adapter	010-0378	2	1 place/adapter
15.0	–	Millipore Amicon Filtration Devices ⁴	–	–	14	5,400	4,300	–	Adapter	010-1340	2	1 place/adapter
15.0	15.0	Nunc EZ Flip™ Conical Tube	362694	–	14	13,000	29,000	–	Adapter	010-1340	2	1 place/adapter
15.0	15.0	Nunc Conical Tube	366036	25	14	9,000	13,400	17 x 120	Closure Adapter	Included	25	PP Sealing
										010-1340	2	1 place/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	10	14	13,000	29,000	16 x 100	Closure Adapter	Included	10	PP Sealing
										010-1311	2	1 place/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	10	14	13,000	29,000	16 x 100	Closure Adapter	Included	10	PP Sealing
										010-1311	2	1 place/adapter
10.0	–	Vacutainer® Tube ⁴	–	–	14	–	–	16 x 100	Adapter	010-1124	2	1 place/adapter

⁴ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Superspeed Rotors

Thermo Scientific Fiberlite F12-6x500 LEX Rotor

F12-6x500 LEX



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 500 mL
Maximum Speed	12,000 rpm
Tube Dimensions Ø x L	70 x 160 mm
Angle	20°
K Factor	2,305
Net Weight	8.61 kg/19 lbs
Warranty	15 years
Certifications ¹	

	RCF	RADIUS
Maximum	24,515 xg	152.0 mm
Minimum	6,612 xg	41.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

THERMO SCIENTIFIC
SORVALL RC-6 Plus/Evolution RC Series

Fiberlite F12-6x500 LEX	Cat. No.	
		096-062185
	Max. Speed	12,000 rpm
	Max. RCF	24,515 xg
	Sample Containment ¹	 ELC

Fiberlite F12-6x500 LEX Rotor Package includes:

Rotor Lid Assembly	099-062185
O-ring Refresher Kit ²	021-062185

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	450.0	Nalgene® PPCO Oak Ridge Bottle	3141-0500	24	6	12,000	24,500	70 x 160	Closure	Included	24	PP Sealing
500.0	450.0	Nalgene PC Oak Ridge Bottle	3140-0500	24	6	12,000	24,500	70 x 160	Closure	Included	24	PP Sealing
250.0	—	Corning® Disposable Conical Bottle ³	—	—	6	—	—	—	Adapter	010-1135	2	1 place/adapter
250.0	250.0	Nalgene PPCO Oak Ridge Bottle	3141-0250	36	6	12,000	22,260	61 x 133	Closure	Included	36	PP Sealing
									Adapter	010-0151	1	1 place/adapter
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	12,000	22,260	61 x 135	Closure	Included	36	PP Sealing
									Adapter	010-0151	36	1 place/adapter
175.0	—	Nalgene PPCO Conical Wide-Mouth Bottle	3143-0175	36	6	—	—	61 x 144	Closure	Included	36	PP Sealing
									Adapter	010-0152	2	1 place/adapter

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
175.0	—	Nalgene PC Conical Wide-Mouth Bottle	3144-0175	36	6	—	—	61 x 144	Closure Adapter	Included 010-0152	36 2	PP Sealing 1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	6	12,000	19,190	38 x 109	Closure Adapter	Included 010-1114	6 2	PP Sealing 1 place/adapter
80.0	76.0	PPCO Oak Ridge Tube	010-1280	6	6	12,000	19,190	38 x 109	Closure Adapter	Included 010-1114	25 2	PP Screw Top 1 place/adapter
85.0	81.0	PC Oak Ridge Tube	3118-0085	100	6	12,000	19,190	38 x 109	Closure Adapter	Included 010-1114	6 2	PP Sealing 1 place/adapter
50.0	—	Nunc™ Disposable Conical Tube	334959	25	6	—	—	30 x 115	Closure Adapter	Included 010-1102	25 2	PP Sealing 1 place/adapter
50.0	—	Corning Disposable Conical Tube ³	—	—	6	—	—	—	Adapter	010-1102	2	1 place/adapter
50.0	—	BD Falcon® Disposable Conical Tube ³	—	—	6	—	—	—	Adapter	010-1102	2	1 place/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	12	12,000	22,580	29 x 108	Closure Adapter	Included 010-1112	50 2	PP Sealing 2 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	12	12,000	22,580	29 x 108	Closure Adapter	Included 010-1112	50 2	PP Sealing 2 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	12	12,000	22,580	29 x 108	Closure Adapter	Included 010-1112	50 2	PP Sealing 2 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	12	12,000	22,580	29 x 108	Closure Adapter	Included 010-1112	10 2	ETFE Screw Cap 2 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	18	12,000	20,640	26 x 102	Closure Adapter	Included 010-1115	50 2	PP Sealing 3 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	18	12,000	20,640	26 x 102	Closure Adapter	Included 010-1115	50 2	PP Sealing 3 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	18	12,000	20,640	26 x 102	Closure Adapter	Included 010-1115	50 2	PP Sealing 3 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	18	12,000	20,640	26 x 102	Closure Adapter	Included 010-1115	10 2	ETFE Screw Cap 3 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	36	12,000	20,640	18 x 107	Closure Adapter	Included 010-1105	50 2	PP Sealing 14 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	36	12,000	20,640	18 x 107	Closure Adapter	Included 010-1105	50 2	PP Sealing 14 places/adapter
15.0	15.0	Corning Disposable Conical Tube ³	—	—	36	—	—	—	Adapter	010-1099	2	12 places/adapter
15.0	15.0	BD Falcon Disposable Conical Tube ³	—	—	36	—	—	—	Adapter	010-1099	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	42	12,000	20,640	16 x 100	Closure Adapter	Included 010-1308	50 2	PP Sealing 7 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	42	12,000	20,640	16 x 100	Closure Adapter	Included 010-1308	50 2	PP Sealing 7 places/adapter
10.0	—	Vacutainer® Tube ³	—	—	42	—	—	16 x 100	Adapter	010-1103	2	7 places/adapter
3.0	—	Vacutainer® Tube ³	—	—	84	—	—	10 x 64	Adapter	010-1137	2	14 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to May 2011 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Superspeed Rotors

Thermo Scientific Fiberlite F10-6x500y Rotor

F10-6x500y



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 500 mL
Maximum Speed	10,000 rpm
Tube Dimensions Ø x L	70 x 160 mm
Angle	23°
K Factor	3413.0
Net Weight	12.7 kg/28 lbs
Warranty	15 years

	RCF	RADIUS
Maximum	17,700 xg	158.0 mm
Minimum	4,592 xg	41.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		BECKMAN®	HITACHI®
		SORVALL RC-6 Plus/Evolution RC/ RC-6/RC-5/RC-26/RC-2 Series	JOUAN KR22i Series	J2 Series/ Avanti Series	CR21/22 Series
Fiberlite F10-6x500y	Cat. No.	78510	096-062126	096-062114	096-062133
	Max. Speed	10,000 rpm	10,000 rpm	10,000 rpm	9,000 rpm
	Max. RCF	17,700 xg	17,700 xg	17,700 xg	14,300 xg
	Sample Containment ¹	ELC	ELC	ELC	

Fiberlite F10-6x500y Rotor Package includes:

	Rotor Lid Assembly	099-062053	096-062126	099-062114	099-062133
	O-ring Refresher Kit ²	021-062053	021-062126	021-062114	021-062133

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	450.0	Nalgene® PPCO Oak Ridge Bottle	3141-0500	24	6	10,000	17,700	70 x 160	Closure	Included	24	PP Sealing
500.0	450.0	Nalgene PC Oak Ridge Bottle	3140-0500	24	6	10,000	17,700	70 x 160	Closure	Included	24	PP Sealing
250.0	—	Corning® Disposable Conical Tube ³	—	—	6	10,000	17,700	—	Adapter	010-1135	2	1 place/adapter
250.0	250.0	Nalgene PPCO Oak Ridge Bottle	3141-0250	36	6	10,000	17,700	61 x 133	Closure Adapter	Included 010-0151	36 2	PP Sealing 1 place/adapter
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	10,000	17,700	61 x 135	Closure Adapter	Included 010-0151	36 2	PP Sealing 1 place/adapter

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Tube	3143-0175	36	6	10,000	17,700	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-0152	2	1 place/adapter
175.0	175.0	Nalgene PC Conical Wide-Mouth Tube	3144-0175	36	6	10,000	17,700	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-0152	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	6	10,000	17,700	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1114	2	1 place/adapter
80.0	76.0	PPCO Oak Ridge Tube	010-1280	6	6	10,000	17,700	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1114	2	1 place/adapter
85.0	81.0	Nalgene PC Oak Ridge Tube	3118-0085	100	6	10,000	17,700	38 x 109	Closure Adapter	Included	100	PP Screw Top
										010-1114	2	1 place/adapter
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	6	9,000	14,300	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-1102	2	1 place/adapter
50.0	–	Corning Disposable Conical Tube ³	–	–	6	9,000	14,300	–	Adapter	010-1102	2	1 place/adapter
50.0	–	BD Falcon® Disposable Conical Tube ³	–	–	6	9,000	14,300	–	Adapter	010-1102	2	1 place/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	12	10,000	17,700	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1112	2	2 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	12	10,000	17,700	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1112	2	2 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	12	10,000	17,700	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1112	2	2 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	12	10,000	17,700	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-1112	2	2 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	18	10,000	17,700	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1115	2	3 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	18	10,000	17,700	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1115	2	3 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	18	10,000	17,700	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1115	2	3 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	50	18	10,000	17,700	26 x 102	Closure Adapter	Included	50	ETFE Screw Cap
										010-1115	2	3 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	42	10,000	17,700	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1105	2	7 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	42	10,000	17,700	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1105	2	7 places/adapter
15.0	–	Corning Disposable Conical Tube ³	–	–	36	–	–	–	Adapter	010-1099	2	6 places/adapter
15.0	–	BD Falcon Disposable Conical Tube ³	–	–	36	–	–	–	Adapter	010-1099	2	6 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	42	10,000	17,700	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1308	2	7 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	42	10,000	17,700	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1308	2	7 places/adapter
10.0	–	Vacutainer® Tube ³	–	–	42	–	–	16 x 100	Adapter	010-1103	2	7 places/adapter
3.0	–	Vacutainer Tube ³	–	–	84	–	–	10 x 64	Adapter	010-1137	2	14 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Superspeed Rotors

Thermo Scientific Fiberlite F10-4x1000 LEX Rotor

F10-4x1000 LEX





ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	4 x 1000 mL
Maximum Speed	9,500 rpm
Tube Dimensions Ø x L	98 x 195 mm
Angle	20°
K Factor	5,330
Net Weight	9.88 kg/21.8 lbs
Warranty	15 years
Certifications¹	

	RCF	RADIUS
Maximum	16,880 xg	167.0 mm
Minimum	3,087 xg	25.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-6 Plus	SORVALL Evolution RC Series
Fiberlite F10-4x1000 LEX	Cat. No.	096-041053	096-041053
	Max. Speed	9,500 rpm	9,000 rpm
	Max. RCF	16,880 xg	15,150 xg
	Sample Containment ¹	 ELC	 ELC


Fiberlite F10-4x1000 LEX Rotor Package includes:

	Rotor Lid Assembly	099-041053	099-041053
	O-ring Refresher Kit ²	021-041053	021-041053

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PP Oak Ridge Bottle	3141-1002	2	4	9,500	16,900	98 x 195	Closure	Included	2	PP Sealing
1000.0	1000.0	Nalgene PC Oak Ridge Bottle	3140-1002	2	4	9,500	16,900	98 x 195	Closure	Included	2	PP Sealing
500.0	450.0	Nalgene PPCO Oak Ridge Bottle	3141-0500	24	4	9,500	15,450	70 x 160	Closure Adapter	Included 010-0145	24 2	PP Sealing 1 place/adaptor
500.0	450.0	Nalgene PC Oak Ridge Bottle	3140-0500	24	4	9,500	15,450	70 x 160	Closure Adapter	Included 010-0145	24 1	PP Sealing 1 place/adaptor
250.0	250.0	Corning® Disposable Conical Tube ³	—	—	4	9,000	13,850	—	Adapter	010-1196	2	1 place/adaptor
250.0	250.0	Nalgene PPCO Oak Ridge Bottle	3141-0250	36	4	9,500	15,000	61 x 133	Closure Adapter	Included 010-0150	36 2	PP Sealing 1 place/adaptor

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.  denotes biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	4	9,500	15,000	61 x 135	Closure Adapter	Included	36	PP Sealing
										010-0150	2	1 place/adapter
175.0	—	Nalgene PPCO Conical Wide-Mouth Bottle	3143-0175	36	4	9,500	12,940	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
175.0	—	Nalgene PC Conical Wide-Mouth Tube	3144-0175	36	4	9,500	12,940	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
85.0	81.0	Nalgene PC Oak Ridge Tube	3118-0085	100	12	9,500	15,870	38 x 109	Closure Adapter	Included	100	PP Sealing
										010-1093	2	3 places/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	12	9,500	15,870	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
80.0	76.0	PP Oak Ridge Tube	010-1280	6	12	9,500	15,870	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
50.0	—	Nunc™ Disposable Conical Tube	334959	25	20	—	—	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-0180	2	5 places/adapter
50.0	—	Corning Disposable Conical Tube ³	—	—	20	—	—	—	Adapter	010-0180	2	5 places/adapter
50.0	—	BD Falcon® Disposable Conical Tube ³	—	—	20	—	—	—	Adapter	010-0180	2	5 places/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	28	9,500	14,880	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1091	2	7 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	28	9,500	14,880	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1091	2	7 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	28	9,500	14,880	29 x 108	Closure Adapter	Included	50	PP Sealing
										010-1091	2	7 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	28	9,500	14,880	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-1091	2	7 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	28	9,500	14,860	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	28	9,500	14,860	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	28	9,500	14,860	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	28	9,500	14,860	26 x 102	Closure Adapter	Included	10	ETFE Screw Cap
										010-1095	2	7 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	60	9,500	14,860	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	15 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	60	9,500	14,860	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	15 places/adapter
15.0	—	Corning Disposable Conical Tube ³	—	—	48	—	—	—	Adapter	010-1079	2	12 places/adapter
15.0	—	BD Falcon Disposable Conical Tube ³	—	—	48	—	—	—	Adapter	010-1079	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	72	9,500	—	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	72	9,500	—	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	—	Vacutainer® Tube ³	—	—	72	—	—	16 x 100	Adapter	010-1085	2	18 places/adapter
3.0	—	Vacutainer® Tube ³	—	—	120	—	—	10 x 64	Adapter	010-1131	2	30 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to May 2011 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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Thermo Scientific Fiberlite F9-4x1000y Rotor

F9-4x1000y



ROTOR SPECIFICATIONS

Type	Fixed Angle	
Material	Carbon Fiber Composite	
Capacity	4 x 1000 mL	
Maximum Speed	9,000 rpm	
Tube Dimensions Ø x L	98 x 95 mm	
Angle	22°	
K Factor	5,950	
Net Weight	14.29 kg/31.5 lbs	
Warranty	15 years	
	RCF	RADIUS
Maximum	15,241 xg	168 mm
Minimum	2,268 xg	25 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC				BECKMAN®	HITACHI®
		SORVALL RC-6 Plus/Evolution RC Series	SORVALL RC-6/RC-5/ RC-26/RC-2	JOUAN KR22i	JOUAN KR25i	J2 Series	CR21/22 Series
Fiberlite F9-4x1000y	Cat. No.	76981	76981	096-041042	096-041041	096-041032	096-041043
	Max. Speed	8,000/9,000 rpm	7,000 rpm	9,000 rpm	9,000 rpm	9,000 rpm	9,000 rpm
	Max. RCF	12,042/15,241 xg	9,220 xg	15,241 xg	15,241 xg	15,241 xg	15,241 xg

Fiberlite F9-4x1000y Rotor Package includes:

	Rotor Lid Assembly	099-041004	099-041004	099-041042	099-041041	099-041032	099-041043
	O-ring Refresher Kit ¹	021-041004	021-041004	021-041042	021-041041	021-041032	021-041043

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PPCO Oak Ridge Bottle	3141-1002	2	4	9,000	15,241	98 x 195	Closure	Included	2	PP Sealing
1000.0	1000.0	Nalgene PC Oak Ridge Bottle	3140-1002	2	4	9,000	15,241	98 x 195	Closure	Included	2	PP Sealing
500.0	450.0	Nalgene PPCO Oak Ridge Bottle	3141-0500	24	4	9,000	15,241	70 x 160	Closure Adapter	Included 010-0145	24 2	PP Sealing 1 place/adaptor
500.0	450.0	Nalgene PC Oak Ridge Bottle	3140-0500	24	4	9,000	15,241	70 x 160	Closure Adapter	Included 010-0145	24 2	PP Sealing 1 place/adaptor
250.0	—	Corning® Disposable Conical Tube ²	—	—	4	9,000	—	—	Adapter	010-1096	2	1 place/adaptor
250.0	250.0	Nalgene PPCO Oak Ridge Bottle	3141-0250	36	4	9,000	15,241	61 x 133	Closure Adapter	Included 010-0150	— 2	PP Sealing 1 place/adaptor
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	4	9,000	15,241	61 x 135	Closure Adapter	Included 010-0150	36 2	PP Sealing 1 place/adaptor

¹ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

² Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Tube	3143-0175	36	4	9,000	15,241	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
175.0	175.0	Nalgene PC Conical Wide-Mouth Tube	3144-0175	36	4	9,000	15,241	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	12	9,000	15,241	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 place/adapter
80.0	76.0	PPCO Oak Ridge Tube	010-1280	6	12	9,000	15,241	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 place/adapter
85.0	81.0	Nalgene PC Oak Ridge Tube	3118-0085	100	12	9,000	15,241	38 x 109	Closure Adapter	Included	100	PP Screw Top
										010-1093	2	3 place/adapter
50.0	50.0	Nunc™ Disposable Conical Tube ²	334959	25	20	9,000	15,241	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-0180	2	5 places/adapter
50.0	–	Corning Disposable Conical Tube ²	–	–	20	9,000	15,241	–	Adapter	010-0180	2	5 places/adapter
50.0	–	BD Falcon® Disposable Conical Tube ²	–	–	20	9,000	15,241	–	Adapter	010-0180	2	5 places/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	24	9,000	15,241	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	24	9,000	15,241	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	24	9,000	15,241	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-1091	2	6 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	28	9,000	15,241	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	28	9,000	15,241	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	28	9,000	15,241	26 x 102	Closure Adapter	Included	10	ETFE Screw Cap
										010-1095	2	7 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	56	9,000	15,241	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	56	9,000	15,241	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
15.0	–	Corning Disposable Conical Tube ²	–	–	48	–	–	–	Adapter	010-1079	2	12 places/adapter
15.0	–	BD Falcon Disposable Conical Tube ²	–	–	48	–	–	–	Adapter	010-1079	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	72	9,000	15,241	16 x 82	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	72	9,000	15,241	16 x 82	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	–	Vacutainer® Tube ²	–	–	72	–	–	16 x 100	Adapter	010-1085	2	18 places/adapter
3.0	–	Vacutainer Tube ²	–	–	120	–	–	10 x 64	Adapter	010-1131	2	30 places/adapter

¹ Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

² Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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For more information, please visit
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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 1000 mL
Maximum Speed	8,500 rpm
Tube Dimensions Ø x L	98 x 195 mm
Angle	20°
K Factor	5096.0
Net Weight	17.6 kg/38.8 lbs
Warranty	15 years

	RCF	RADIUS
Maximum	15,900 xg	196.0 mm
Minimum	4,369 xg	54.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

THERMO SCIENTIFIC
SORVALL Evolution RC Series

Fiberlite F8-6x1000y	Cat. No.	
		76641
	Max. Speed	8,500 rpm
	Max. RCF	15,900 xg
	Sample Containment ¹	ELC

Fiberlite F8-6x1000y Rotor Package includes:

Rotor Lid Assembly	099-061108
O-ring Refresher Kit ²	021-061108

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PPCO Oak Ridge Bottle	3141-1002	2	6	8,500	15,900	98 x 195	Closure	Included	2	PP Sealing
1000.0	1000.0	Nalgene PC Oak Ridge Bottle	3140-1002	2	6	8,500	15,900	98 x 195	Closure	Included	2	PP Sealing
500.0	450.0	Nalgene PPCO Oak Ridge Bottle	3141-0500	24	6	8,500	15,900	70 x 160	Closure Adapter	Included 010-0145	24 1	PP Sealing 1 place/adaptor
500.0	450.0	Nalgene PC Oak Ridge Bottle	3140-0500	24	6	8,500	15,900	70 x 160	Closure Adapter	Included 010-0145	24 1	PP Sealing 1 place/adaptor
250.0	—	Corning® Disposable Conical Tube ³	—	—	6	8,500	15,900	—	Adapter	010-1196	2	1 place/adaptor
250.0	250.0	Nalgene PPCO Oak Ridge Bottle	3141-0250	36	6	8,500	15,900	61 x 133	Closure Adapter	Included 010-0150	36 2	PP Sealing 1 place/adaptor

PERFECT FIT: FREE SET OF NALGENE PRODUCTS INCLUDED WITH ROTOR PURCHASE

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	8,500	15,900	61 x 135	Closure Adapter	Included	36	PP Sealing
										010-0150	2	1 place/adapter
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Tube	3143-0175	36	6	8,500	15,900	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
175.0	175.0	Nalgene PC Conical Wide-Mouth Tube	3144-0175	36	6	8,500	15,900	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	6	8,500	15,900	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
80.0	61.0	PPCO Oak Ridge Tube	010-1280	6	18	8,500	15,900	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
85.0	81.0	Nalgene PC Oak Ridge Tube	3118-0085	100	18	8,500	15,900	38 x 109	Closure Adapter	Included	100	PP Screw Top
										010-1093	2	3 places/adapter
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	18	8,500	15,900	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-0180	2	5 places/adapter
50.0	–	Corning Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	–	BD Falcon® Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	30	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	36	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	36	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	36	8,500	15,900	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-1091	2	6 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	42	8,500	15,900	26 x 102	Closure Adapter	Included	10	ETFE Screw Cap
										010-1095	2	7 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	84	8,500	15,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	84	8,500	15,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
15.0	–	Corning Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
15.0	–	BD Falcon Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	108	8,500	15,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	108	8,500	15,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	–	Vacutainer® Tube ³	–	–	108	–	–	16 x 100	Adapter	010-1085	2	18 places/adapter
3.0	–	Vacutainer® Tube ³	–	–	180	–	–	16 x 100	Adapter	010-1131	2	30 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

Note: Thermo Scientific Sorvall RC-6 Plus centrifuges manufactured prior to March 2009 may require software upgrade 314295G01 (NA) or HKKS308102E (Europe and Asia Pacific).

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	12 x 14 mL
Maximum Speed	26,000 rpm
Tube Dimensions Ø x L	18 x 75 mm
Angle	40°
K Factor	335
Net Weight	4.1 kg /9.0 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	70,450 xg	93.3 mm
Minimum	38,291 xg	38.1 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SE-12	Max. Speed	22,000 rpm	26,000 rpm	21,000 rpm
	Max. RCF	50,486 xg	70,450 xg	45,959 xg

SE-12 Rotor Package includes:

Description	Cat. No.
SE-12 Rotor	27004
Rotor Cover Assembly	27002
Cover O-ring	61720
Rotor Extractor	01031
Instruction Manual	28505

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
14.0	11.0	PP Flanged Tube	03247	50	12	26,000	70,450	18 x 75	Closure	03269	50	PP Snap-on
14.0	11.0	PC Flanged Tube	03246	50	12	26,000	70,450	18 x 75	Closure	03269	50	PP Snap-on
5.0	5.0	GL Pyrex® Tube	03102	50	12	5,000	2,605	12 x 75	Adapter	00379	1	1 place/adaptor

¹ Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	6 x 50 mL
Maximum Speed	25,000 rpm
Tube Dimensions Ø x L	29 x 108 mm
Angle	34°
K Factor	573
Net Weight	5.58 kg/12.3 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	67,509 xg	96.7 mm
Minimum	16,406 xg	23.5 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION


		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC	SORVALL RC-5 Plus Series
SA-300	Max. Speed	22,000 rpm	25,000 rpm	20,500 rpm
	Max. RCF	52,326 xg	67,510 xg	45,393 xg

SA-300 Rotor Package includes:

Description	Cat. No.
SA-300 Rotor	18100
Rotor Cover Assembly	18122
Cover O-ring	91245
Rotor Extractor	01031
Instruction Manual	28505
Lubricant	76003500
Vacuum Grease	70006692

Accessories:

Description	Cat. No.
Ultracrimp Sealing Tool and Crimp Gauge	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03538
Retaining Ring Pliers	65614

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	50.0	PA Ultracrimp Tube	03528	25	6	25,000	67,509	29 x 108	Closure	Included	25	Plugs and Aluminum Caps
									Accessory	03538	1	Rotor Cap
									Accessory	03529	1	Tube Racks
									Accessory	03920	1	Sealing Tool
50.0	43.0	Nalgene® PC Oak Ridge Tube	3138-0050	50	6	21,500	49,929	29 x 108	Closure	Included	50	PP Sealing
50.0	43.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	6	21,500	49,929	29 x 107	Closure	Included	50	PP Sealing
50.0	46.0	FEP Oak Ridge Tube	3114-0050	10	6	21,500	49,929	29 x 108	Closure	Included	10	FEP Screw Top
50.0	37.0	PP Flanged Tube	03147	25	6	25,000	67,509	29 x 102	Closure	03268	25	PP Snap-on
50.0	36.0	PC Flanged Tube	03146	25	6	25,000	67,509	29 x 102	Closure	03268	25	PP Snap-on
50.0	46.0	PA Flanged Tube	03139	25	6	25,000	67,509	28 x 104	—	—	—	—
50.0	50.0	SS Flanged Tube	00517	1	6	24,000	62,216	28 x 101	Closure Tool	00518 01014	1 1	SS Sealing Wrench
30.0	28.0	PC Oak Ridge Tube	314348	25	6	25,000	67,509	25 x 94	Closure	314347	1	Aluminum Sealing
									Adapter	00419	1	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
30.0	28.0	PP Oak Ridge Tube	314349	25	6	25,000	67,509	25 x 94	Closure	314347	1	Aluminum Sealing
									Adapter	00419	1	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
30.0	—	Glass Tube	—	6	6	—	—	24 x 106	Adapter	00368	1	Optional Caps
16.0	13.0	PP Flanged Tube	03244	50	6	20,500	45,393	18 x 100	Closure	03299	50	PP Snap-On
									Adapter	00382	1	1 place/adapter
16.0	14.0	PC Flanged Tube	03243	50	6	24,000	62,216	18 x 100	Closure	03269	50	PP Snap-On
									Adapter	00382	1	1 place/adapter
15.0	—	Glass Tube	—	6	6	11,000	13,070	18 x 102	Adapter	00363	1	1 place/adapter
12.0	12.0	GL Pyrex Tube	03109	50	6	5,000	2,700	18 x 102	Adapter	00363	1	1 place/adapter
12.0	10.0	PP Flanged Tube	03116	50	6	20,500	45,393	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00402	1	1 place/adapter
12.0	11.0	PC Flanged Tube	03115	50	6	24,000	62,216	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00402	1	1 place/adapter
10.0	9.1	PP Oak Ridge Tube ²	03929	50	6	25,000	67,509	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	6	25,000	67,509	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
10.0	9.0	PA Thin-Walled Tube	03124	50	12	24,000	62,216	13 x 100	Adapter	00473	1	2 places/adapter
7.0	6.0	PC Flanged Tube	03120	50	12	24,000	62,216	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	2 places/adapter
7.0	6.0	PP Flanged Tube	03121	50	12	20,500	45,393	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	2 places/adapter
4.0	3.0	PP Flanged Tube	03105	50	12	20,500	45,393	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	2 places/adapter
4.0	3.0	PP Flanged Tube	03104	50	12	24,000	62,216	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	2 places/adapter
3.0	3.0	GL Pyrex® Tube	03100	50	12	5,000	2,700	10 x 75	Adapter	00364	1	2 places/adapter
1.5	1.5	Conical Microtube	314352H01	100	12	25,000	67,509	11 x 40	Adapter	00381	1	2 places/adapter
1.5	—	Conical Microtube	—	—	—	25,000	67,509	11 x 42	Adapter	00381	1	2 places/adapter

² Rated to 21,000 rpm when partially filled.

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ROTOR SPECIFICATIONS

Type	Fixed Angle	
Material	Aluminum	
Capacity	30 x 1.5 mL	
Maximum Speed	22,000 rpm	
Tube Dimensions Ø x L	11 x 42 mm	
Angle	45°	
K Factor	190	
Net Weight	3.3 kg/7.3 lbs	
Warranty	10 years	
	RCF	RADIUS
Maximum	55,140 xg	102.1 mm
Minimum	38,385 xg	71.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-6 Plus Series	SORVALL Evolution RC
F-22/Micro	Max. Speed	22,000 rpm	20,000 rpm
	Max. RCF	55,193 xg	55,193 xg

F-22/Micro Rotor Package includes:

Description	Cat. No.
F-22/Micro Rotor	46921
O-ring Kit	S309075A

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	1.5	Conical Microtube	314352H01	100	30	22,000	55,193	11 x 40	–	–	–	–
1.5	–	Conical Microtube	–	–	30	22,000	55,193	11 x 42	–	–	–	–
0.5	–	Conical Microtube	–	–	30	22,000	55,193	7 x 32	Adapter	27055	6	1 place/adaptor
0.4	–	Conical Microtube	–	–	30	22,000	55,193	7 x 29	Adapter	27057	6	1 place/adaptor
0.25	–	Conical Microtube	–	–	30	22,000	55,193	6 x 24	Adapter	27056	6	1 place/adaptor

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Thermo Scientific F-20/Micro Rotor

F-20/Micro

See Thermo Scientific Fiberlite
Carbon Fiber Rotor Equivalent
Go to: Fiberlite F21-48x1.5



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	32 x 1.5 mL
Maximum Speed	20,000 rpm
Tube Dimensions Ø x L	11 x 38 mm
Angle	45°
K Factor	187
Net Weight	4.8 kg/10.6 lbs
Warranty	10 years
Certifications ¹	

	RCF	RADIUS
Maximum	51,427 xg	115.1 mm
Minimum	38,291 xg	85.7 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION


		SORVALL RC-6 Plus Series	THERMO SCIENTIFIC SORVALL Evolution RC	SORVALL RC-5 Plus Series
F-20/Micro	Max. Speed	20,000 rpm	20,000 rpm	20,000 rpm
	Max. RCF	51,427 xg	51,427 xg	51,427 xg

F-20/Micro Rotor Package includes:

Description	Cat. No.
F-20/Micro Rotor	27038
Vacuum Grease	76003500
Lubricant	70006692
Rotor Cover Assembly	27042
Rotor Cover O-ring (qty. 6)	90840
Locking Knob O-ring (qty. 6)	67745
Centerhole O-ring (qty. 6)	67908
Retaining Ring Pliers	65614
Rotor Extractor	01031
Instruction Manual	27037

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	1.5	Conical Microtube	314352H01	100	32	20,000	51,427	11 x 40	–	–	–	–
1.5	–	Conical Microtube	–	–	32	20,000	51,427	11 x 42	–	–	–	–
0.5	–	Conical Microtube	–	–	32	20,000	51,427	7 x 32	Adapter	27055	6	1 place/adaptor
0.4	–	Conical Microtube	–	–	32	20,000	51,427	7 x 29	Adapter	27057	6	1 place/adaptor
0.25	–	Conical Microtube	–	–	32	20,000	51,427	6 x 34	Adapter	27056	6	1 place/adaptor

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

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Thermo Scientific SS-34 Rotor

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F21-8x50y](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	8 x 50 mL
Maximum Speed	20,500 rpm ¹
Tube Dimensions Ø x L	29 x 108 mm
Angle	34°
K Factor	714
Net Weight	6.8 kg/15.0 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	50,228 xg	107.0 mm
Minimum	15,350 xg	32.7 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION


		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SS-34	Max. Speed	20,000 rpm	20,500 rpm	20,000 rpm
	Max. RCF	47,808 xg	50,230 xg	47,808 xg

SS-34 Rotor Package includes:

Description	Cat. No.
SS-34 Rotor	28020
Vacuum Grease	76003500
Lubricant	70006692
Rotor Cover Assembly	28018
Cover O-ring	60188
Rotor Extractor	01031
Instruction Manual	28505

Accessories:

Description	Cat. No.
O-ring	60189
Ultracrimp Sealing Tool and Crimp Gauge	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03538
Locking Nut	13017

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	50.0	PA Ultracrimp Tube	03528	25	8	20,500	50,228	29 x 108	Closure	Included	25	Plugs and Aluminum Caps
									Accessory	03538	1	Rotor Cap
									Accessory	03529	2	Tube Racks
									Accessory	03920	1	Crimp Sealing Tool
50.0	37.0	PP Flanged Tube	03147	25	8	20,500	50,228	29 x 102	Closure	03268	25	PP Snap-on
50.0	36.0	PC Flanged Tube	03146	25	8	20,500	50,228	29 x 102	Closure	03268	25	PP Snap-on
50.0	46.0	PA Thin-Walled Tube	03139	25	8	20,500	50,228	28 x 104	—	—	—	—
50.0	46.0	Nalgene® FEP Oak Ridge Tube	3114-0050	10	8	20,500	50,228	28 x 108	Closure	Included	10	FEP Sealing
50.0	43.0	Nalgene PC Oak Ridge Style Tube	3138-0050	50	8	20,500	50,228	29 x 107	Closure	Included	50	PP Sealing
50.0	43.0	Nalgene PPCO Oak Ridge Style Tube	3139-0050	50	8	20,500	50,228	29 x 107	Closure	Included	50	PP Sealing
50.0	50.0	SS Flanged Tube	00517	1	8	20,500	50,228	28 x 101	Closure	00518	1	Stainless Steel Sealing Wrench
									Tool	01014	1	
30.0	28.0	Nalgene PC Oak Ridge Tube	3138-0030	50	8	20,500	50,228	26 x 102	Closure Adapter	Included 00419	50 1	PP Sealing 1 place/adapter
30.0	28.0	Nalgene PP Oak Ridge Tube	3139-0030	50	8	20,500	50,228	26 x 102	Closure Adapter	Included 00419	50 1	PP Sealing 1 place/adapter
30.0	—	Glass Tube	—	—	8	—	—	24 x 106	Adapter	00368	1	Optional Caps
16.0	13.0	PP Flanged Tube	03244	50	8	20,500	50,228	18 x 100	Closure	03299	50	HDPE Sealing
									Adapter	00382	1	1 place/adapter
16.0	14.0	PC Flanged Tube	03243	50	8	20,500	50,228	18 x 100	Closure	03269	50	HDPE Sealing
									Adapter	00382	1	1 place/adapter
12.0	12.0	GL Pyrex® Tube	03109	50	8	5,000	2,988	18 x 102	Adapter	00363	1	1 place/adapter
12.0	10.0	PP Flanged Tube	03116	50	8	20,500	50,228	16 x 100	Closure	03266	50	PP Snap on
									Adapter	00402	1	1 place/adapter
12.0	11.0	PC Flanged Tube	03115	50	8	20,500	50,228	16 x 100	Closure	03266	50	PP Snap on
									Adapter	00402	1	1 place/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	8	20,500	50,228	16 x 80	Closure	03279	25	PP Snap on
									Adapter	00425	1	1 place/adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	8	20,500	50,228	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
10.0	9.0	PA Thin-Walled Tube	03124	50	8	20,500	50,228	13 x 100	Adapter	00473	1	1 place/adapter
7.0	6.0	PC Flanged Tube	03120	50	8	20,500	50,228	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	1 place/adapter
7.0	6.0	PP Flanged Tube	03121	50	8	20,500	50,228	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	1 place/adapter
4.0	3.0	PP Flanged Tube	03105	50	8	20,500	50,228	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	1 place/adapter
4.0	3.0	PC Flanged Tubes	03104	50	16	20,500	50,228	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	2 places/adapter
3.0	3.0	GL Pyrex Tubes	03100	50	16	5,000	50,228	10 x 75	Adapter	00364	1	2 places/adapter
1.5	1.5	Conical Microtube	314352H01	100	16	20,500	50,228	11 x 40	Adapter	00381	1	2 places/adapter
1.5	1.5	Conical Microtube	—	—	16	20,500	50,228	11 x 42	Adapter	00381	1	2 places/adapter
1.0	1.0	CAB (Cellulose Acetate Butyrate)Tube	03103	50	32	20,500	50,228	7 x 50	Adapter	00408	1	4 places/adapter

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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	24 x 16 mL
Maximum Speed	20,500 rpm
Tube Dimensions Ø x L	18 x 102 mm
Angle	28°
K Factor	434 (Outer); 591 (Inner)
Net Weight	7.7 kg /17.0 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	51,965 xg (Outer) 42,717 xg (Inner)	110.7 mm (Outer) 91.0 mm (Inner)
Minimum	25,525 xg (Outer) 16,007 xg (Inner)	53.8 mm (Outer) 34.1 mm (Inner)

ROTOR AND ACCESSORIES ORDERING INFORMATION

		SORVALL RC-6 Plus Series	THERMO SCIENTIFIC SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SM-24	Max. Speed	20,000 rpm	20,500 rpm	20,000 rpm
	Max. RCF	49,461 xg	51,970 xg	49,461 xg

SM-24 Rotor Package includes:

Description	Cat. No.
SM-24 Rotor	29017
Cover Assembly	29016
Vacuum Grease	76003500
Lubricant	70006692
Instruction Manual	28505

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
16.0	13.0	PP Flanged Tube	03244	50	24	20,500	51,965	18 x 100	Closure	03299	50	PP Snap-on
16.0	14.0	PC Flanged Tube	03243	50	24	20,500	51,965	18 x 100	Closure	03269	50	PP Snap-on
7.0	6.0	PC Flanged Tube	03120	50	24	20,500	51,965	13 x 100	Closure	03265	50	PP Snap-on
									Adapter	00416	1	1 place/adaptor
7.0	6.0	PP Flanged Tube	03121	50	24	20,500	51,965	13 x 100	Closure	03265	50	PP Snap-on
									Adapter	00416	1	1 place/adaptor

¹ Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
5.0	5.0	Pyrex® Tube	03102	50	24	5,000	3,091	12 x 75	Adapter	00376	1	1 place/adapter
3.0	3.0	Pyrex Tube	03100	50	24	5,000	3,091	10 x 75	Adapter	00374	1	1 place/adapter
1.5	1.5	Conical Microtube	314352H01	100	24	20,500	51,965	11 x 40	Adapter	00376	1	1 place/adapter

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Thermo Scientific SA-800 Rotor

SA-800

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: Fiberlite F20-6x100



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	8 x 100 mL
Maximum Speed	20,500 rpm
Tube Dimensions Ø x L	38 x 105 mm
Angle	20°
K Factor	560
Net Weight	6.8 kg/15.0 lbs
Warranty	10 years

	RCF	RADIUS
Maximum	49,054 xg	104.5 mm
Minimum	19,340 xg	41.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC	SORVALL RC-5 Plus Series
SA-800	Max. Speed	19,500 rpm	20,500 rpm	19,500 rpm
	Max. RCF	42,138 xg	49,054 xg	2,138 xg

SA-800 Rotor Package includes:

Description	Cat. No.
SA-800 Rotor	76940
Rotor Manual	76941
Rotor Extractor	76942
Rotor Cover Assembly	76948
Cover O-ring (qty. 2)	20290483
Cover Locking Knob O-ring (qty. 2)	20290468
Vacuum Grease	76003500

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
94.0	70.0	PPCO Thick-Walled Tube	76002872	1	8	20,500	49,054	38 x 105	Closure	75001568	1	Sealing Cap
94.0	70.0	PC Screw Cap Tube	75002829	1	8	20,500	49,054	38 x 105	Closure	75001540	1	Sealing Cap
94.0	70.0	PC Screw Cap Tube	75002810	1	8	20,500	49,054	38 x 105	Closure	75001568	1	Sealing Cap
85.0	81.0	Nalgene® PC Oak Ridge Tube	3118-0085	100	8	20,500	49,054	29 x 114	Closure	Included	100	PP Sealing Cap
50.0	37.0	PP Flanged Tube	03147	25	8	20,500	49,054	29 x 102	Closure Adapter	03268 75003102	25 1	PP Snap-on 1 place/adaptor
50.0	36.0	PC Flanged Tube	03146	25	8	20,500	49,054	29 x 102	Closure Adapter	03268 75003102	25 1	PP Snap-on 1 place/adaptor
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	8	20,500	49,054	29 x 108	Closure Adapter	Included 75003102	10 1	FEP Sealing 1 place/adaptor

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	43.0	Nalgene PC Oak Ridge Tube	3138-0050	50	8	20,500	49,054	29 x 107	Closure	Included	50	PP Sealing
									Adapter	75003102	1	1 place/adapter
50.0	43.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	8	20,500	49,054	29 x 107	Closure	Included	50	PP Sealing
									Adapter	75003102	1	1 place/adapter
30.0	28.0	PC Oak Ridge Tube	314348	25	8	20,500	49,054	25 x 94	Closure	314347	1	Aluminum Sealing Assembly
									Adapter	00419	1	1 place/adapter
									Adapter	75003102	–	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
30.0	28.0	PP Oak Ridge Tube	314349	25	8	20,500	49,054	25 x 94	Closure	314347	1	Aluminum Sealing Assembly
									Adapter	00419	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
30.0	28.0	PPCO Tube	75002951	10	8	20,500	49,054	18 x 100	Closure	75002957	10	PP Stopper
									Adapter	75003102	1	1 place/adapter
16.0	14.0	PC Flanged Tube	03243	50	8	20,500	49,054	18 x 100	Closure	03269	50	PP Snap-on
									Adapter	00382	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
12.0	12.0	GL Pyrex® Tube	03109	50	8	5,000	2,918	18 x 102	Adapter	00382	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
12.0	11.0	PC Flanged Tube	03115	50	8	20,500	49,054	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00402	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	8	20,500	49,054	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	8	20,500	49,054	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
7.0	6.0	PC Flanged Tube	03120	50	8	20,500	49,054	13 x 100	Closure	03265	50	PP Snap-on
									Adapter	00473	1	1 place/adapter
									Adapter	75003102	1	1 place/adapter
4.0	3.0	PC Flanged Tube	03104	50	16	20,500	49,054	11 x 75	Closure	03264	50	PP Snap-on
									Adapter	00381	1	2 places/adapter
									Adapter	75003102	1	1 place/adapter
3.0	3.0	GL Pyrex Tube	03100	50	16	5,000	49,054	10 x 75	Adapter	00364	1	2 places/adapter
									Adapter	75003102	1	1 place/adapter
1.0	1.0	CAB (Cellulose Acetate Butyrate) Tube	03103	50	32	20,500	49,054	7 x 50	Adapter	75003102	1	4 places/adapter


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ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	32 x 16 mL
Maximum Speed	19,500 rpm
Tube Dimensions Ø x L	18 x 100 mm
Angle	23°
K Factor	394 (Outer) 492 (Inner)
Net Weight	7.3 kg/16.0 lbs
Warranty	10 years
Certifications¹	

	RCF (xg)	RADIUS (mm)
Maximum	48,930 (Outer)	115.2 (Outer)
	41,749 (Inner)	98.4 (Inner)
Minimum	27,056 (Outer)	63.7 (Outer)
	19,963 (Inner)	47.0 (Inner)

ROTOR AND ACCESSORIES ORDERING INFORMATION


		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC	SORVALL RC-5 Plus Series
SA-512	Max. Speed	18,500 rpm	19,500 rpm	18,500 rpm
	Max. RCF	44,040 xg	48,930 xg	44,040 xg

SA-512 Rotor Package includes:

Description	Cat. No.
SA-512 Rotor	76950
Rotor Manual	76941
Rotor Extractor	76942
Cover O-ring (qty. 2)	20290484
Cover Locking Knob O-ring (qty. 2)	20290486
Vacuum Grease	76003500

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
16.0	12.0	PA Polyallomer Tube	75002951	10	32	19,500	48,930	18 x 100	Closure	75002957	10	PP Stopper
16.0	12.0	PC Flanged Tube	03243	50	32	19,500	48,930	18 x 100	Closure	03269	50	PP Snap-on
7.0	4.0	PC Flanged Tube	03120	50	32	19,500	48,930	13 x 100	Closure	03265	50	PP Snap-on
									Adapter	00416	1	1 place/adaptor
5.0	3.0	GL Pyrex® Tube	03102	50	32	5,000	3,200	12 x 75	Adapter	00376	1	1 place/adaptor
3.0	1.5	GL Pyrex Tube	03100	50	32	5,000	3,200	10 x 75	Adapter	00374	1	1 place/adaptor
1.5	1.5	Conical Microtube	314352H01	100	32	19,500	48,930	11 x 40	Adapter	00376	1	1 place/adaptor
–	1.5	Conical Microtube	76001148	500	32	19,500	48,930	11 x 38	–	–	–	–

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

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Thermo Scientific SA-600 Rotor

SA-600

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F18-12x50](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	12 x 50 mL
Maximum Speed	17,000 rpm
Tube Dimensions Ø x L	29 x 108 mm
Angle	34°
K Factor	747
Net Weight	10.1 kg/22.3 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	41,837 xg	129.6 mm
Minimum	17,819 xg	55.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SA-600	Max. Speed	16,500 rpm	17,000 rpm	16,500 rpm
	Max. RCF	39,412 xg	41,837 xg	39,412 xg

SA-600 Rotor Package includes:

Description	Cat. No.
SA-600 Rotor	28500
Rotor Cover Assembly	12291
Cover O-ring	60810
Rotor Extractor	01031
Instruction Manual	28505

Accessories:

Description	Cat. No.
Ultracrimp Sealing Tool and Crimp Gauge	03920
Crimp Gauge Replacement	03919
Extra Plugs and Caps	03999
Rotor Cap	03538

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	50.0	PA Ultracrimp Tube	03528	25	12	17,000	41,837	29 x 108	Closure	Included	25	Plugs and Aluminum Caps
									Accessory	03538	1	Rotor Cap
									Accessory	03529	1	Tube Racks
									Accessory	03920	1	Crimp Sealing Tool
50.0	37.0	PP Flanged Tube	03147	25	12	17,000	41,837	29 x 102	Closure	03268	1	PP Snap-on
50.0	36.0	PC Flanged Tube	03146	25	12	17,000	41,837	29 x 102	Closure	03268	1	PP Snap-on
50.0	46.0	PA Thin-Walled Tube	03139	25	12	17,000	41,837	28 x 104	—	—	—	—
50.0	46.0	FEP Oak Ridge Tube	3114-0050	10	12	17,000	41,837	29 x 108	Closure	Included	10	FEP Sealing
50.0	42.0	Nalgene® PPCO Oak Ridge Tube	3139-0050	50	12	17,000	41,837	29 x 107	Closure	Included	50	PP Sealing
50.0	43.0	Nalgene PC Oak Ridge Tube	3138-0050	50	12	17,000	41,837	29 x 108	Closure	Included	50	PP Sealing
50.0	50.0	SS Flanged Tube	00517	1	12	17,000	41,837	28 x 101	Closure	00518	1	SS Sealing
									Tool	01014	1	Wrench
30.0	28.0	PC Oak Ridge Tube	314348	25	12	17,000	41,837	25 x 94	Closure	314347	1	Aluminum Sealing Assembly
									Adapter	00419	1	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
30.0	28.0	PP Oak Ridge Tube	314349	25	12	17,000	41,837	25 x 94	Closure	314347	1	Aluminum Sealing Assembly
									Adapter	00419	1	1 place/adapter
									Tool	314353	1	Tube Extractor Tool
16.0	13.0	PP Flanged Tube	03244	50	12	17,000	41,837	18 x 100	Closure	03299	50	PP Snap-On
									Adapter	00382	1	1 place/adapter
16.0	14.0	PC Flanged Tube	03243	50	12	17,000	41,837	18 x 100	Closure	03269	1	PP Snap-On
									Adapter	00382	1	1 place/adapter
12.0	12.0	GL Pyrex® Tube	03109	50	12	5,000	3,619	18 x 102	Adapter	00363	1	1 place/adapter
12.0	10.0	PP Flanged Tube	03116	50	12	17,000	41,837	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00402	1	1 place/adapter
12.0	11.0	PC Flanged Tube	03115	50	12	17,000	41,837	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00402	1	1 place/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	12	17,000	41,837	16 x 83	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
10.0	9.1	PC Oak Ridge Tube	03020	25	12	17,000	41,837	16 x 83	Closure	03279	25	PP Sealing
									Adapter	00425	1	1 place/adapter
7.0	6.0	PC Flanged Tube	03120	50	12	17,000	41,837	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	1 place/adapter
7.0	6.0	PP Flanged Tube	03121	50	12	17,000	41,837	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00473	1	1 place/adapter
4.0	3.0	PP Flanged Tube	03105	50	12	17,000	41,837	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	1 place/adapter
4.0	3.0	PC Flanged Tube	03104	50	12	17,000	41,837	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00381	1	2 places/adapter
3.0	3.0	GL Pyrex Tube	03100	50	24	5,000	3,619	10 x 75	Adapter	00364	1	2 places/adapter
1.5	1.5	Conical Microtube	—	—	24	17,000	41,837	11 x 42	Adapter	00381	1	2 places/adapter
1.5	1.5	Conical Microtube	314352H01	100	24	17,000	41,837	11 x 41	Adapter	00381	1	2 places/adapter
1.0	1.0	CAB (Cellulose Acetate Butyrate) Tube	03103	50	48	17,000	41,837	7 x 50	Adapter	00408	1	4 places/adapter

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Thermo Scientific SLA-1500 Rotor

SLA-1500

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F14-6x250y](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	6 x 250 mL
Maximum Speed	15,000 rpm
Tube Dimensions Ø x L	60 x 53 mm
Angle	23°
K Factor	1475.0 ¹
Net Weight	9.5 kg/21.0 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	34,155 xg	135.9 mm
Minimum	9,198 xg	36.6 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SLA-1500	Max. Speed	14,500 rpm	15,000 rpm	14,500 rpm
	Max. RCF	31,916 xg	34,160 xg	31,916 xg

SLA-1500 Rotor Package includes:

Description	Cat. No.
SLA-1500 Rotor	08412
Vacuum Grease	76003500
Rotor Cover Assembly	11466
Lubricant	70006692
Rotor Extraction Tool	01047
Instruction Manual	11463
Rotor Cover O-ring (qty. 6)	92233
Retaining Ring Pliers	65614
Locking Knob O-ring (qty. 6)	90442
Center Hold O-ring (qty. 6)	92231

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	250.0	Nalgene® PP Oak Ridge Bottle	3141-0250	36	6	13,500	27,666	61 x 133	Closure	Included	36	PP Sealing
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	13,500	27,666	62 x 135	Closure	Included	36	PP Sealing

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	280.0	PP Dry-Spin Bottle	03069	12	6	13,000	25,654	61 x 146	Closure	Included	12	PP Sealing
									Closure ³	03545	24	Replacement O-rings
									Closure ³	06841	12	Replacement PP Sealing Lids
250.0	270.0	PC Dry-Spin Bottle	03098	12	6	13,000	25,654	61 x 146	Closure	Included	12	PP Sealing
									Closure ³	03545	24	Replacement O-rings
									Closure ³	06841	12	Replacement PP Sealing Lids
150.0	144.0	PC Thick-Walled Tube	03143	25	6	13,000	25,654	45 x 132	Adapter	00458	1	1 place/adapter
100.0	100.0	GL Pyrex® Tube	03230	1	6	3,000	1,366	44 x 137	Closure Adapter	Included 00371	1	PP Non-Sealing 1 places/adapter
50.0	50.0	Nunc™ PP Conical Tissue Culture Tube	334959	25	6	5,750	5,019	30 x 155	Closure Adapter	Included 03072	25	HDPE Sealing 1 place/adapter
15.0	—	15ml Tissue Culture Tube	—	—	30	—	—	17 x 20	Adapter	00456	1	5 places/adapter
14.0	11.0	PC Flanged Tube	03246	50	30	15,000	34,155	18 x 75	Closure Adapter	03269 00456	50	PP Snap-on 5 places/adapter
14.0	11.0	PP Flanged Tube	03247	50	30	15,000	34,155	18 x 75	Closure Adapter	03269 00456	50	PP Snap-on 5 places/adapter
12.0	10.0	PP Flanged Tube	03116	50	42	15,000	34,155	16 x 100	Closure Adapter	03266 00389	50	PP Non-Sealing 7 places/adapter
12.0	11.0	PC Flanged Tube	03115	50	42	15,000	34,155	16 x 100	Closure Adapter	03266 00389	25	PP Non-Sealing 7 places/adapter
10.0	—	GL Pyrex Tube	—	—	30	—	—	13 x 100	Adapter ⁴	00369 00456	1	1 place/adapter 5 places/adapter
5.0	5.0	GL Pyrex Tube	03102	50	72	5,000	3,795	12 x 75	Adapter	00388	1	12 places/adapter
4.0	—	GL Standard Glass Tube	—	—	72	—	—	10 x 75	Adapter	00388	1	12 places/adapter
4.0	3.0	PP Flanged Tube	03105	50	72	15,000	34,155	11 x 75	Closure Adapter	03264 00388	50	PP Snap-on 12 places/adapter
4.0	3.0	PC Flanged Tube	03104	50	72	15,000	34,155	11 x 75	Closure Adapter	03264 00388	50	PP Snap-on 12 places/adapter
3.0	3.0	GL Pyrex Tube	03100	50	30	5,000	3,795	10 x 75	Adapter ⁴	00370 00456	1	1 place/adapter 5 places/adapter

³ Replacement parts. Not required for use.

⁴ Both adapters must be used together.

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Thermo Scientific SLA-3000 Rotor

SLA-3000

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to: [Fiberlite F10-6x500y](#)



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	6 x 500 mL
Maximum Speed	12,000 rpm
Tube Dimensions Ø x L	70 x 190 mm
Angle	23°
K Factor	2364
Net Weight	14.4 kg/31.75 lbs
Warranty	10 years
Certifications¹	

	RCF	RADIUS
Maximum	24,336 xg	151.3 mm
Minimum	6,337 xg	39.4 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION


		SORVALL RC-6 Plus Series	THERMO SCIENTIFIC SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SLA-3000	Max. Speed	11,000 rpm	12,000 rpm	11,000 rpm
	Max. RCF	20,450 xg	24,340 xg	20,450 xg

SLA-3000 Rotor Package includes:

Description	Cat. No.
SLA-3000 Rotor	07149
Rotor Cover Assembly	24512
Vacuum Grease	76003500
Lubricant	70006692
Rotor Extraction Tool	01047
Instruction Manual	11463
Rotor Cover O-ring (qty. 6)	92232
Retaining Ring Pliers	65614
Locking Knob O-ring (qty. 6)	90442
Center Hold O-ring (qty. 6)	92231

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	450.0	Nalgene® PC Oak Ridge Bottle	3140-0500	24	6	9,000	13,689	70 x 160	Closure	Included	24	PP Sealing
500.0	450.0	Nalgene PP Oak Ridge Bottle	3141-0500	24	6	9,000	13,689	70 x 160	Closure	Included	24	PP Sealing

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	480.0	PP Dry-Spin Bottle	06829	6	6	9,000	13,689	70 x 190	Closure	Included	6	PP Sealing
									Closure ²	03545	24	Replacement O-rings
									Closure ²	06841	12	Replacement PP Sealing Lids
250.0	270.0	PC Dry-Spin Bottle	03098	12	6	12,000	24,336	61 x 146	Closure	Included	12	PP Sealing
									Closure ²	03545	24	Replacement O-rings
									Closure ²	06841	12	Replacement PP Sealing Lids
									Adapter	41002	1	1 place/adapter
250.0	280.0	PP Dry-Spin Bottle	03069	12	6	10,000	16,900	61 x 146	Closure	Included	12	PP Sealing
									Closure ²	03545	24	Replacement O-rings
									Closure ²	06841	12	Replacement PP Sealing Lids
									Adapter	41002	1	1 place/adapter
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	6	12,000	24,336	61 x 135	Closure	Included	36	PP Sealing
									Adapter	41002	1	1 places/adapter
250.0	250.0	Nalgene PP Oak Ridge Bottle	3141-0250	36	6	12,000	24,336	61 x 133	Closure	Included	36	PP Sealing
									Adapter	41002	1	1 place/adapter
100.0	100.0	GL Pyrex [®] Tube	03230	1	6	3,000	1,521	44 x 137	Closure	Included	1	PP Non-Sealing
									Adapter	00371 ³	1	1 place adapter
									Adapter	41002 ³	1	1 place adapter
50.0	50.0	Nunc™ PP Conical Tissue Culture Tube	334959	25	6	5,450	5,020	30 x 55	Closure	Included	25	HDPE Sealing
									Adapter	03072	1	1 place/adapter
									Adapter	410022	1	1 place/adapter

² Replacement parts. Not required for use.

³ Both adapters must be used together.

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ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Aluminum Rotor Body, Titanium Buckets	
Capacity	8 x 10 mL	
Maximum Speed	20,000 rpm	
Tube Dimensions Ø x L	18.5 x 50 mm	
Angle	90°	
K Factor	400	
Net Weight	4.5 kg/9.9 lbs	
Warranty	10 years	
	RCF	RADIUS
Maximum	45,395 xg	101.6 mm
Minimum	24,127 xg	54.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
SH-80	Max. Speed	20,000 rpm	20,000 rpm	20,000 rpm
	Max. RCF	45,395 xg	45,395 xg	45,395 xg

SH-80 Rotor Package includes:

Description	Cat. No.
SH-80 Rotor	08296
Titanium Bucket Assembly (qty. 8)	08308
Bucket Caps (qty. 8)	08311
Rotor Extractor	01031
Rotor Cleaning Kit	12259
O-rings (qty. 16)	08312
Vacuum Grease	76003500
Instruction Manual	08297

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
10	11	PA Thin-Walled Tube	03968	50	10	20,000	45,935	18 x 50	–	–	–	–

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ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Aluminum	
Capacity	6 x 50 mL	
Maximum Speed	13,000 rpm	
Tube Dimensions Ø x L	29 x 104 mm	
Angle	90°	
K Factor	1765	
Net Weight	4.67 kg/10.3 lbs	
Warranty	10 years	
Certifications¹		
	RCF	RADIUS
Maximum	20,010 xg	146.3 mm
Minimum	11,855 xg	45.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC		
		SORVALL RC-6 Plus Series	SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
HB-6	Max. Speed	13,000 rpm	13,000 rpm	13,000 rpm
	Max. RCF	27,617 xg	27,617 xg	27,617 xg

HB-6 Rotor Package includes:

Description	Cat. No.
HB-6 Rotor	11860
Rotor Cover Assembly	11848
Bucket Cover Assembly	11851
Bucket Cover O-rings (qty. 6)	64667
Titanium Bucket Assemblies (qty. 6)	11862
Rotor Extractor	09033
Rotor Cleaning Kit	12259
Instruction Manual	11859
Vacuum Grease	76003500
Lubricant	70006692

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	43.0	Nalgene® PC Oak Ridge Tube	3118-0050	100	6	13,000	27,617	29 x 107	Closure	Included	100	PP Screw Top
50.0	43.0	Nalgene PPCO Oak Ridge Tube	3119-0050	100	6	13,000	27,617	29 x 107	Closure	Included	100	PP Screw Top
50.0	43.0	Nalgene PC Oak Ridge Tube	3138-0050	50	6	13,000	27,617	29 x 107	Closure	Included	50	PP Sealing

¹ Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	43.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	6	13,000	27,617	29 x 107	Closure	Included	50	PP Sealing
50.0	46.0	PP Flanged Tube	03147	25	6	13,000	27,617	29 x 102	Closure	03268	25	PP Snap-on
50.0	48.0	PC Flanged Tube	03146	25	6	13,000	27,617	29 x 102	Closure	03268	25	PP Snap-on
50.0	56.0	PA Thin-Walled Tube	03139	25	6	13,000	27,617	28 x 104	—	—	—	—
50.0	41.0	PP Oak Ridge Tube	03530	25	6	13,000	27,617	28 x 103	Closure	03535	25	PP Sealing
50.0	54.0	Stainless Steel Tube	00579	1	6	11,400	21,200	28 x 101	Closure Tool	00518 01014	1 1	SS Sealing Sealing Wrench
16.0	16.0	PP Flanged Tube	03244	50	6	13,000	27,617	18 x 100	Closure Adapter	03299 00382	50 1	PP Snap-on 1 place/adapter
16.0	17.0	PC Flanged Tube	03243	50	6	13,000	27,617	18 x 100	Closure Adapter	03269 00382	50 1	PP Snap-on 1 place/adapter
12.0	14.0	Pyrex® Tube	03109	50	6	5,000	4,085	18 x 102	Adapter	00363	1	1 place/adapter
12.0	12.0	PP Flanged Tube	03116	50	6	13,000	27,617	16 x 100	Closure Adapter	03266 00402	50 1	PP Snap-on 1 place/adapter
12.0	12.0	PC Flanged Tube	03115	50	6	13,000	27,617	16 x 100	Closure Adapter	03266 00402	50 1	PP Snap-on 1 place/adapter
10.0	—	Pyrex Graduated Conical Tube	—	—	6	5,000	4,085	18 x 100	Adapter	00367	1	1 place/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	6	13,000	27,617	16 x 83	Closure Closure Adapter	03279 03924 00425	25 25 1	PP Sealing PP Screw Top 1 place/adapter
10.0	9.7	PC Oak Ridge Tube	03020	50	6	13,000	27,617	16 x 83	Closure Closure Adapter	03279 03924 00425	25 25 1	PP Sealing PP Screw Top 1 place/adapter
7.0	7.0	PC Flanged Tube	03120	50	6	13,000	27,617	13 x 100	Closure Adapter	03265 00473	50 1	PP Snap-on 1 place/adapter
7.0	7.0	PP Flanged Tube	03121	50	6	13,000	27,617	13 x 100	Closure Adapter	03265 00473	50 1	PP Snap-on 1 place/adapter
4.0	4.0	PP Flanged Tube	03105	50	12	13,000	27,617	11 x 75	Closure Adapter	03264 00473	50 1	PP Snap-on 1 place/adapter
4.0	4.0	PC Flanged Tube	03104	50	12	13,000	27,617	11 x 75	Closure Adapter	03264 00381	50 1	PP Snap-on 2 places/adapter
3.0	3.0	Pyrex Tube	03100	50	12	5,000	4,085	10 x 75	Adapter	00364	1	2 places/adapter
1.5	1.5	Conical Microtube	314352H01	100	12	13,000	27,617	11 x 40	Adapter	00381	2	2 places/adapter
1.0	1.0	Cellulose (Acetate Butyrate) Tube	03103	50	24	13,000	27,617	7 x 50	Adapter	00408	1	4 places/adapter

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	4 x 250 mL
Maximum Speed	7,500 rpm
Tube Dimensions Ø x L	70.7 x 130.8 ¹ mm
Angle	90°
K Factor	3912.0
Net Weight	10.8 kg/23.8 lbs
Warranty	7 years

	RCF	RADIUS
Maximum	10,836 xg	172.3 mm
Average	7,681 xg	122.5 mm
Minimum	4,536 xg	72.2 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		SORVALL RC-6 Plus Series	THERMO SCIENTIFIC SORVALL Evolution RC Series	SORVALL RC-5 Plus Series
HS-4	Max. Speed	7,500 rpm	7,500 rpm	7,000 rpm
	Max. RCF	10,836 xg	10,836 xg	9,430 xg

HS-4 Rotor Package includes:

Description	Cat. No.
HS-4 Rotor	38018
Rotor Cover Assembly	38011
Rotor Extractor	01047
Instruction Manual	38028

Accessories:

Description	Cat. No.
Rotor Buckets (qty. 4) ²	00479
4-Place Carrier for 50 mL Tubes (qty. 1)	00480
3-Place Carrier for Conical Tubes (qty. 1)	00481
24-Place Carrier for 5 mL Tubes (qty. 1)	00482

LABWARE ORDERING INFORMATION (250 mL Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	200.0	PA Oak Ridge Bottle ³	314250H01	4	4	7,500	108,258	60 x 120	Closure	314249H01	1	Sealing Lids
250.0	250.0	Nalgene® PP Oak Ridge Bottle	3141-0250	36	4	7,500	108,258	61 x 135	Closure	Included	36	PP Sealing Lids
250.0	250.0	Nalgene PC Oak Ridge Bottle	3140-0250	36	4	7,500	10,826	61 x 135	Closure	Included	36	PP Sealing Lids
15.0	15.0	PP Round Bottom Tube	—	—	20	7,500	108,258	18 x 120	Adapter	00456	1	5 places/adapter

¹ Maximum tube dimension will vary depending on bucket/carrier.² Carriers and buckets must be ordered separately.³ Bottles must be run at full capacity.

LABWARE ORDERING INFORMATION (250 mL Round Bucket) CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
12.0	12.0	PP Flanged Tube	03116	50	28	7,500	10,826	16 x 100	Closure Adapter	03266 00389	50 1	PP Snap-on Lids 7 places/adapter
12.0	12.0	PC Flanged Tube	03115	50	28	7,500	10,826	16 x 100	Closure Adapter	03266 00389	50 1	PP Snap-on Lids 7 places/adapter
5.0	6.0	Pyrex® Tube	03102	50	48	5,000	4,811	12 x 75	Adapter	00388	1	12 places/adapter
4.0	4.0	PP Flanged Tube	03105	50	48	7,500	10,826	11 x 75	Closure Adapter	03264 00388	50 1	PP Snap-on Lids 12 places/adapter
4.0	4.0	PC Flanged Tube	03104	50	48	7,500	10,826	11 x 75	Closure Adapter	03264 00388	50 1	PP Snap-on Lids 12 places/adapter
4.0	—	Standard Glass Tube	—	—	48	—	—	10 x 75	Adapter	00388	1	12 places/adapter
3.0	3.0	Pyrex Tube	03100	50	20	5,000	4,811	10 x 75	Adapter Adapter	00370 00456	1 1	1 place/adapter 5 places/adapter

LABWARE ORDERING INFORMATION CONTINUED (4-Place Carrier for 50 mL Tubes)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	46.0	PP Flanged Tube	03147	25	16	7,500	10,826	29 x 102	Closure	03268	25	PP Snap-on Lids
50.0	46.0	PC Flanged Tube	03146	25	16	7,500	10,826	29 x 102	Closure	03268	25	PP Snap-on Lids
50.0	56.0	PA Thin-Walled Tube	03139	25	16	7,500	10,826	28 x 104	—	—	—	—
50.0	41.0	PP Oak Ridge Tube	03530	25	16	7,500	10,826	28 x 103	Closure Closure	03535 03926	25 25	PP Sealing Lids PP Non-Sealing Lids
50.0	50.0	Nalgene PP Oak Ridge Tube	3139-0050	50	16	7,500	10,826	29 x 114	Closure	Included	50	PP Sealing Lids
50.0	50.0	Nalgene PC Oak Ridge Tube	3138-0050	50	16	7,500	10,826	29 x 115	Closure	Included	50	PP Sealing Lids
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	16	7,500	10,826	29 x 107	Closure	Included	10	FEP Sealing Lids
50.0	50.0	Nalgene PP Oak Ridge Tube	3119-0050	100	16	7,500	10,826	29 x 107	Closure	Included	100	PP Screw Top Non-Sealing Lids
50.0	50.0	Nalgene PC Oak Ridge Tube	3118-0050	100	16	7,500	10,826	29 x 107	Closure	Included	100	PP Screw Top Non-Sealing Lids
50.0	—	Stainless Steel Flanged Tube	00517	1	16	7,500	10,826	28 x 101	Closure Tool	00518 01014	1 1	Stainless Steel Sealing Lid Sealing Wrench
50.0	—	Stainless Steel Tube	00579	1	16	7,500	10,826	28 x 101	Closure Tool	00518 01014	1 1	Stainless Steel Sealing Lid Sealing Wrench
30.0	23.0	PP Oak Ridge Tube	314349	25	16	7,500	10,826	25 x 94	Closure Tool Adapter	314347 314353 00419	1 1 1	Aluminum Sealing Cap Tube Removal Tool 1 place/adapter
30.0	23.0	PC Oak Ridge Tube ⁴	314348	25	16	7,500	10,826	25 x 94	Closure Tool Adapter	314347 314353 00419	1 1 1	Aluminum Sealing Cap Tube Removal Tool 1 place/adapter
16.0	16.0	PP Flanged Tube	03244	50	16	7,500	10,826	18 x 100	Closure Adapter	03299 00382	50 1	PP Snap-on Lids 1 place/adapter
16.0	17.0	PC Flanged Tube	03243	50	16	7,500	10,826	18 x 100	Closure Adapter	03299 00382	50 1	PP Snap-on Lids 1 place/adapter
15.0	—	PP Round Bottom Tube	—	—	16	—	—	18 x 120	Adapter	00363	1	1 place/adapter
12.0	14.0	Pyrex Tube	03109	50	16	5,000	4,811	18 x 102	Adapter	00363	1	1 place/adapter
12.0	12.0	PP Flanged Tube	03116	50	16	7,500	10,826	16 x 100	Closure Adapter	03266 00402	50 1	PP Snap-on Lids 1 place/adapter
12.0	12.0	PC Flanged Tube	03115	50	16	7,500	10,826	16 x 100	Closure Adapter	03266 00402	50 1	PP Snap-on Lids 1 place/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	16	7,500	10,826	16 x 83	Closure Adapter	03279 00425	25 1	PP Sealing Lids 1 place/adapter

⁴ Tubes must be run at full capacity.

LABWARE ORDERING INFORMATION (4-Place Carrier for 50 mL Tubes) CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
10.0	9.7	PC Oak Ridge Tube	03020	25	16	7,500	10,826	16 x 83	Closure	03279	25	PP Sealing Lids
									Adapter	00425	1	1 place/adapter
10.0	—	Pyrex Tube	—	—	16	—	—	13 x 100	Adapter	00363	1	1 place/adapter
7.0	7.0	PC Flanged Tube	03120	50	16	7,500	10,826	13 x 100	Closure	03265	50	PP Snap-on Lids
									Adapter	00473	1	1 place/adapter
7.0	7.0	PP Flanged Tube	03121	50	16	7,500	10,826	13 x 100	Closure	03265	50	PP Snap-on Lids
									Adapter	00473	1	1 place/adapter
4.0	4.0	PP Flanged Tube	03105	50	32	7,500	10,826	11 x 75	Closure	03264	50	PP Snap-on Lids
									Adapter	00381	1	2 places/adapter
4.0	4.0	PC Flanged Tube	03104	50	32	7,500	10,826	11 x 75	Closure	03264	50	PP Snap-on Lids
									Adapter	00381	1	2 places/adapter
3.0	3.0	Pyrex Tube	03100	50	20	5,000	48,115	10 x 75	Adapter	00364	1	2 places/adapter
1.5	1.5	Conical Microtube	314352H01	100	32	7,500	10,826	11 x 40	Adapter	00381	1	2 places/adapter
1.5	—	Microtube	—	—	32	—	—	—	Adapter	00381	1	2 places/adapter

LABWARE ORDERING INFORMATION CONTINUED (3-Place Carrier for Conical Tubes)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	—	Conical Tissue Culture Tube	—	—	12	—	—	43 x 123	—	—	—	—
15.0	—	Conical Tissue Culture Tube	—	—	12	—	—	17 x 120	Adapter	11148	1	1 place/adapter

LABWARE ORDERING INFORMATION CONTINUED (24-Place Carrier for 5 mL Tubes)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
5.0	6.0	Pyrex Tube	03102	50	96	5,000	48,115	12 x 75	—	—	—	—


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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Aluminum
Capacity	4 x 750 mL
Maximum Speed	4,700 rpm
Tube Dimensions Ø x L	98 x 135 mm
Angle	90°
K Factor	8,138
Net Weight	6.0 kg/13.2 lbs
Warranty	10 years
Certifications¹	

RCF RADIUS

Maximum	4,575 xg (Buckets)	185.4 mm (Buckets)
	3,706 xg ² (Microplate Carriers)	150.2 mm (Microplate Carriers)
Minimum	3,411 xg (Buckets)	91.1 mm (Buckets)

ROTOR AND ACCESSORIES ORDERING INFORMATION

SH-3000 Rotor Package includes:

Description	Cat. No.
SH-3000 Rotor	11796
750 mL Buckets (qty. 2)	11788
Rotor Extractor	01031
Instruction Manual	11782

Accessories:

Description	Cat. No.
Microplate Carriers (qty. 2)	11779
Sealing Covers for 750 mL Buckets ³	11776
Sealing Cover O-rings (qty. 6)	12995

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
750.0	750.0	PP Bottle	75003699	12	4	4,700	4,575	98 x 135	Closure	Included	12	PP Sealing
500.0	—	Conical Tissue Culture Bottle	—	—	4	—	—	96 x 146	Adapter	Available from bottle manufacturer	1	1 place/adapter
250.0	250.0	PP Oak Ridge Bottle	3141-0250	36	4	4,700	4,575	61 x 133	Closure Adapter	Included 01092	36 1	PP Sealing 1 place/adapter
250.0	250.0	PC Oak Ridge Bottle	3140-0250	36	4	4,700	4,575	62 x 135	Closure Adapter	Included 01092	36 1	PP Sealing 1 place/adapter

¹  Biocontainment certification by the Public Health Laboratory Service, Centre for Applied Microbiological Research, Porton Down, UK, shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

² Maximum g-force rating of microplate varies depending upon manufacturer. Verify correct maximum speed/g-force before use.

³ The rotor/cover assembly has been tested for microbiological containment by PHLS-CAMR-Porton Down. Suitable for use with materials up to ACDP category 3. Seal integrity may be affected by improper use or maintenance.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	280.0	PP Dry-Spin Bottle	03069	12	4	4,700	4,575	61 x 146	Closure	Included	4	PP Sealing
									Closure	06841	12	Replacement Caps
									Closure	03545	24	Replacement O-Rings
250.0	270.0	PC Dry-Spin Bottle	03098	12	4	4,700	4,575	61 x 146	Adapter	01092	1	1 place/adapter
									Closure	Included	4	PP Sealing
									Adapter	01092	1	1 place/adapter
									Closure ⁴	06841	12	Replacement Caps
200.0	200.0	Nunc Tissue Culture Conical Bottle	03094	4	4	4,700	4,575	60 x 135	Closure	Included	4	PP Non Sealing
									Adapter	—	1	1 place/adapter
									Adapter	03095	1	1 place/adapter
									Closure ⁴	03545	24	Replacement O-Rings
175.0	175.0	PP Conical Culture Bottle	3143-0175	36	4	4,700	4,575	62 x 144	Closure	Included	36	PP Sealing
									Adapter	DS3126-0175	1	1 place/adapter
175.0	175.0	PC Conical Culture Bottle	3144-0175	36	4	4,700	4,575	62 x 144	Closure	Included	36	PP Sealing
									Adapter	DS3126-0175	1	1 place/adapter
175.0	175.0	PS Sterile Conical Culture Bottle	3145-0175	12	4	4,700	4,575	62 x 144	Closure	Included	4	PP Sealing
									Adapter	01092	1	1 place/adapter
									Adapter	DS3126-0175	1	1 place/adapter
150.0	144.0	PC Thick-Walled Tube	03143	25	4	4,700	4,575	45 x 132	Adapter	01092	1	1 place/adapter
									Adapter	00458	1	1 place/adapter
100.0	100.0	GL Pyrex® Tube	03230	1	4	3,000	1,864	44 x 137	Closure	Included	—	PP Non-Sealing
									Adapter ⁵	00371	1	1 place/adapter
									Adapter ⁵	01092	1	1 place/adapter
50.0	—	Conical Tissue	—	—	12	—	—	30 x 115	Adapter ⁶	00436	1	5 places/adapter
									Adapter ⁶	00445	1	3 places/adapter
50.0	37.0	PP Flanged Tube	03147	25	20	4,000	3,313	29 x 102	Closure	03268	25	PP Snap-on
									Adapter	00894	1	5 places/adapter Non-Sealing
50.0	36.0	PC Flanged Tube	03146	25	20	4,000	3,313	29 x 102	Closure	03268	25	PP Snap-on
									Adapter	00894	1	5 places/adapter
50.0	46.0	PA Thin-Walled Tube	03139	25	20	4,700	4,575	28 x 104	Adapter	00894	1	5 places/adapter
									Closure	Included	10	FEP Sealing
50.0	46.0	FEP Oak Ridge Tube	3114-0050	10	20	4,700	4,575	29 x 107	Adapter	00894	1	5 places/adapter
									Closure	Included	100	PP Non-Sealing
50.0	50.0	PP Oak Ridge Tube	3119-0050	100	20	4,700	4,575	29 x 107	Adapter	00894	1	5 places/adapter
									Closure	Included	100	PP Non-Sealing
50.0	50.0	PC Oak Ridge Tube	3118-0050	100	20	4,700	4,575	61 x 146	Adapter	00894	1	5 places/adapter
									Closure	Included	50	PP Sealing
50.0	43.0	PC Nalgene Oak Ridge Tube	3138-0050	50	20	4,700	4,575	29 x 107	Closure	Included	50	PP Sealing
									Closure	Included	50	PP Sealing
50.0	50.0	SS Flanged Tube	00517	1	20	4,700	4,575	28 x 101	Closure	00518	1	Stainless Steel Sealing
									Adapter	00894	1	5 places/adapter
									Tool	01014	1	Wrench
16.0	13.0	PP Flanged Tube	03244	50	48	4,700	—	18 x 100	Closure	03299	50	PP Snap-On
									Adapter	00892	1	12 places/adapter
16.0	14.0	PC Flanged Tube	03243	50	48	4,700	—	18 x 100	Closure	03299	50	PP Snap-On
									Adapter	00892	1	12 places/adapter
15.0	—	Conical Tissue Culture Tube	—	—	32	—	—	17 x 120	Adapter	00447	1	8 places/adapter
									Adapter	00385	1	18 places/adapter
14.0	11.0	PP Flanged Tube	03247	50	20	4,700	4,575	18 x 75	Closure	03269	50	PP Snap-On
									Adapter	00894	1	5 places/adapter
									Adapter	00382 ⁷	1	—

⁴ Replacement part. Not required for use.⁵ Both adapters must be used together.⁶ Both adapters will accommodate skirted and standard conical tissue culture tubes. With sealed covers, use adapter cat. no. 00445.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
14.0	11.0	PC Flanged Tube	03246	50	48	4,700	4,575	18 x 75	Closure	03269	50	PP Snap-On
									Adapter	00892	1	12 places/adapter
12.0	12.0	GL Pyrex Tube	03109	50	20	4,700	4,575	18x102	Adapter	00894	1	5 places/adapter
										00382	5	—
12.0	10.0	PP Flanged Tube	03116	50	72	4,700	4,575	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00385	1	18 places/adapter
12.0	11.0	PC Flanged Tube	03115	50	72	4,700	4,575	16 x 100	Closure	03266	50	PP Nonsealing
									Adapter	00385	1	18 places/adapter
10.0	—	Blood Collection Tube	—	—	72	—	—	16 x 100	Adapter	00385	1	18 places/adapter
10.0	9.1	PP Oak Ridge Tube	03929	50	20	4,700	4,575	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00894	1	5 places/adapter
										00402	5	—
10.0	9.1	PP Oak Ridge Tube	03020	25	20	4,700	4,575	16 x 80	Closure	03279	25	PP Sealing
									Adapter	00894	1	5 places/adapter
										00402	5	—
10.0	—	Blood Collection Tube	—	—	88	—	—	13 x 100	Adapter	00384	1	22 places/adapter
7.0	6.0	PP Flanged Tube	03121	50	88	4,700	4,575	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00384	1	22 places/adapter
7.0	6.0	PC Flanged Tube	03120	50	88	4,700	4,575	13 x 100	Closure	03265	50	PP Snap-On
									Adapter	00384	1	22 places/adapter
5.0	—	GL Standard Tube	—	—	132	—	—	12 x 75	Adapter	00857	1	33 places/adapter
5.0	—	Blood Collection Tube	—	—	132	—	—	13 x 75	Adapter	00857	1	33 places/adapter
5.0	5.0	GL Pyrex Tube	03102	50	132	4,700	4,575	12 x 75	Adapter	00857	1	33 places/adapter
4.0	—	GL Standard Glass Tube	—	—	132	—	—	10 x 75	Adapter	00857	1	33 places/adapter
4.0	3.0	PP Flanged Tube	03105	50	132	4,700	4,575	11 x 75	Closure	03264	50	PP Snap-On
									Adapter	00857	1	33 places/adapter
4.0	3.0	PC Flanged Tube	03104	50	132	4,700	4,575	10 x 75	Adapter	00857	1	33 places/adapter
3.0	3.0	GL Pyrex Tube	03100	50	132	4,700	4,575	10 x 75	Adapter	00857	1	33 places/adapter
1.5	1.5	High Speed Conical Microtube	314352H01	100	8	4,700	4,575	11 x 40	Adapter ⁵	00857	1	33 places/adapter
									Adapter ⁵	04871	1	33 places/adapter
—	—	Microplate (3 standard or 1 deepwell)	—	—	12	N/A	—	85 x 127; 60 mm Max height	Adapter	11779	2	Carrier for Microplates

⁵ Both adapters must be used together.

⁷ Must use with adapter cat. no. 00894. Order one for each place.

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Large Capacity Centrifuge Rotors

Rotor	Max. Speed (rpm)	Max. RCF (xg) ¹	K Factor ²	Capacity: Places x Volume (mL)
Swinging Bucket				
H-12000 Blood Processing	4,700	7,340	8,117	12 x 550
H-12000 Bio-Processing	4,700	7,340	8,117	6 x 2,000
H-6000A	5,000	7,277	7,823	6 x 1,000
HBB-6	5,000	7,129	8,248	6 x 1,000
HLR-6	5,000	7,205	8,355	6 x 550
Windshielded for Heraeus® Cryofuge 6000i/8500i	4,020/ 5,050 ³	5,312	10,279	6 x 1,000/ 12 x 550 ⁴
LH-4000W	4,400	5,350	13,847	4 x 1,000/ 8 x 550 ⁴
LH-4000	4,400	5,350	13,487	4 x 1,000/ 4 x 550 ⁴
BIOShield	5,850	6,963	n/a	4 x 250
HIGHPlate Windshielded	5,650	5,889	n/a	20 standard, 2 deepwell microplates
Diagnostik Rack	3,500	2,550	n/a	— ⁵
RP6 Windshielded	4,250/ 3,800 ³	5,735/ 4,535 ⁵	15,997	6 x 1,000/ 12 x 550 ⁴
RC6 Windshielded	4,900/ 4,300 ³	7,301/ 5,623 ⁵	10,339/ 13,426 ⁶	6 x 1,000/ 12 x 550 ⁴
RP4 Windshielded	4,250/ 4,000 ³	5,513/ 4,883 ⁵	12,994/ 14,669 ⁶	4 x 1,000/ 8 x 550 ⁴
RHK4B Diagnostic	3,300	2,300	20,274	360 x 1.5
Fiberlite H3-LV	3,200	1,940	n/a	2 x 500
Fixed Angle				
Fiberlite F8-6x1000y	8,500	15,900	5,096	6 x 1,000
Fiberlite F6-6x1000y	6,000	7,900	9,060	6 x 1,000
Fiberlite F10-6x250y	10,000	15,320	926	6 x 250
HIGHConic	8,500	10,020	2,545	6 x 50

¹ RCF calculated for maximum rotor radius.

² K factor calculated assuming maximum volume in a sealed tube.

³ Maximum speed with Heraeus Cryofuge 6000i; Heraeus Cryofuge 8500i centrifuges.

⁴ Value for bottle/blood bag.

⁵ Varies per microplate rack.

⁶ Value for rotor with/without lid.



ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Stainless Steel Rotor Body; Aluminum Bucket	
Capacity	12 x 500 mL	
Maximum Speed	4,700 rpm	
Bucket Dimensions W x L x D	114.5 x 177.5 x 152.4 mm	
Angle	90°	
K Factor	8,117	
Net Weight	47.8 kg/105.4 lb	
Warranty	7 years	
	RCF	RADIUS
Maximum	7,340 xg	297.2 mm
Average	5,472 xg	221.8 mm
Minimum	3,610 xg	146.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-12 Series
H-12000 Blood Processing	Max. Speed	4,700 rpm
	Max. RCF	7,340 xg

H-12000 Blood Processing Rotor Package includes:

Description	Cat. No.
H-12000 Blood Processing Rotor	77050
Stainless Steel Rotor Body	77025
Aluminum Rotor Bucket (qty. 6)	77023
Rotor Cover Assembly	77038
Rotor Windshield	77048
Rotor Locking Stud	11238
Balancing Disc (qty. 6)	00335
Speed Decal	11009
Lubricating Grease	61556
Cleaning Pad	66309
Instruction Manual	77039

Accessories:

Description	Cat. No.
Cover for Adapters (qty. 1)	77033
Adapter Rack (qty. 1)	77064
Adapter Rack (qty. 6)	77065

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0 -500.0		Triple/Quad Blood Bag w/ additive	—	—	12	—	—	—	Adapter	77030	1	2 places/adapter for Blood Bag Liner
450.0 -500.0		Triple/Quad Blood Bag w/o additive	—	—	12	—	—	—	Adapter	77032	1	2 places/adapter for Blood Bag Liner
400.0 -450.0		Double/Triple Blood Bag w/ additive	—	—	12	—	—	—	Adapter	77032	1	2 places/adapter for Blood Bag Liner
250.0 -300.0		Platelet Rich Plasma or Buffy Coat ¹	—	—	12	—	—	—	Adapter	77031	1	4 places/adapter for Blood Bag Liner
50.0	—	Conical Tube	—	—	60	4,000	4,613	—	Adapter ¹	75007055	1	10 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
15.0	—	Conical Tube	—	—	132	4,000	4,613	—	Adapter ¹	75007056	1	22 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
10.0	—	Blood Collection Tube	—	—	222	4,000	4,613	16 x 100	Adapter ¹	75007057	1	37 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
7.0	—	Vacutainer® Tube	—	—	324	—	—	13 x 100	Adapter	ME080001	1	54 places/adapter
7.0	—	Greiner® Tube	—	—	324	—	—	13 x 100	Adapter	ME060001	1	54 places/adapter
7.0	—	Blood Collection Tube	—	—	294	4,000	4,613	13 x 100	Adapter ¹	75007058	1	49 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
5.0	—	Vacutainer Tube	—	—	324	—	—	13 x 75	Adapter	ME080001	1	54 places/adapter
5.0	—	Greiner Tube	—	—	324	—	—	13 x 75	Adapter	ME060001	1	54 places/adapter
5.0	—	Blood Collection Tube	—	—	294	4,000	4,613	13 x 75	Adapter ¹	75007058	1	49 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter

¹ Both adapters must be used together. Note: BIOLink adapter is only rated to 4,000 rpm/4,613 xg. Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Stainless Steel Rotor Body; Aluminum Bucket
Capacity	6 x 2000 mL
Maximum Speed	4,700 rpm
Bucket Dimensions W x L x D	114.5 x 177.5 x 152.4 mm
Angle	90°
K Factor	8,117
Net Weight	47.8 kg/105.4 lb
Warranty	7 years

	RCF	RADIUS
Maximum	7,340 xg	297.2 mm
Average	5,472 xg	221.8 mm
Minimum	3,610 xg	146.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-12 Series
H-12000 BioProcessing	Max. Speed	4,700 rpm
	Max. RCF	7,340 xg

H-12000 Rotor Package includes:

Description	Cat. No.
H-12000 BioProcessing Rotor	77080
Stainless Steel Rotor Body	77025
Aluminum Rotor Bucket (qty. 6)	77023
Rotor Cover Assembly	77038
Rotor Windshield	77082
Rotor Locking Stud	11238
Balancing Disc (qty. 6)	00335
Speed Decal	11009
Support Bridges for 2L Bio-bottle (Supplied qty. 6)	75007686
Lubricating Grease	61556
Cleaning Pad	66309
Instruction Manual	77083

Accessories:

Description	Cat. No.
Adapter Rack (qty. 1)	77064
Adapter Rack (qty. 6)	77065
Support Bridges for 2L Bio-bottle (qty. 2)	75007686

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
2000.0	2400.0	Nalgene® PP Bio-Bottle	3120-2002	2	6	4,700	7,340	–	Closure	Included	2	PP Sealing Lid and O-ring
									–	Included	–	Support Bridges
1000.0	1000.0	Nalgene PPCO Bottle	3120-1000	16	6	4,700	7,340	97.5 x 184.5	Closure	Included	16	Screw Top
									Adapter	77074	1	1 place/adapter
1000.0	1000.0	Nalgene PC Bottle	3122-1000	16	6	4,700	7,340	97.6 x 188.4	Closure	Included	16	Screw Top
									Adapter	77074	1	1 place/adapter
50.0	–	Conical Tube	—	–	60	4,000	4,613	29 x 119	Adapter ¹	75007055	1	10 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
15.0	–	Conical Tube	—	–	132	4,000	4,613	19 x 119	Adapter ¹	75007056	1	22 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
10.0	–	Blood Collection Tube	—	–	222	4,000	4,613	16 x 100	Adapter ¹	75007057	1	37 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
7.0	–	Vacutainer® Tube	—	–	324	–	–	13 x 100	Adapter	ME080001	1	54 places/adapter
7.0	–	Greiner® Tube	—	–	324	–	–	13 x 100	Adapter	ME060001	1	54 places/adapter
7.0	–	Blood Collection Tube	—	–	294	4,000	4,613	13 x 100	Adapter ¹	75007058	1	49 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter
5.0	–	Vacutainer Tube	—	–	324	–	–	13 x 75	Adapter	ME080001	1	54 places/adapter
5.0	–	Greiner Tube	—	–	324	–	–	13 x 75	Adapter	ME060001	1	54 places/adapter
5.0	–	Blood Collection Tube	—	–	294	4,000	4,613	13 x 75	Adapter ¹	75007058	1	49 places/adapter
									Adapter ¹	75007065	1	BIOLink Adapter

¹ Both adapters must be used together. Note: BIOLink adapter is only rated to 4,000 rpm/4,613 xg. Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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Large Capacity Rotors


Thermo Scientific H-6000A Rotor

H-6000A

See Thermo Scientific Fiberlite Carbon Fiber Rotor Equivalent
Go to Fiberlite F8-6x1000y



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Stainless Steel Rotor Body; Aluminum Bucket
Capacity (Bucket)	6 x 1000 mL
Capacity (Blood Bag Systems)	6
Capacity (Microplate)	18 Standard, 6 Deepwell
Maximum Speed	5,000 rpm
Bucket Dimensions Ø x L	98 x 175
Microplate Dimensions W x L	85 x 127
Angle	90°
K Factor	7,823
Net Weight	27.4 kg/ 60.4 lb
Warranty	7 years
Certifications	

	RCF	RADIUS
Maximum (Bucket)	7,277 xg	260.6 mm
Minimum (Bucket)	3,359 xg	120.3 mm
Maximum (Microplate Carrier)	5,186 xg	185.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-3 Series
H-6000A	Max. Speed	5,000 rpm
	Max. RCF	7,277 xg

H-6000A Rotor Package includes:

Description	Cat. No.
H-6000A Rotor	11250
Anodized Aluminum Rotor Bucket (qty. 6)	44040
Rotor Cover Assembly	11237
Rotor Cover	11232
Rotor Locking Stud	11238
Balancing Disc (qty. 6)	00335
Speed Decal	11009
Loctite Sealing Adhesive	65811
Instruction Manual	11243

Accessories:

Description	Cat. No.
Sealing Lids (qty. 2) ¹	11776
O-rings for Sealing Lid (qty. 6)	12995
Microplate Carrier (qty. 2)	11267
Rotor Extractor	11445
Replacement Windshield	11273
Conversion Kit for HBB-6 Replacement Buckets {Includes HBB-6 buckets (11758, qty. 6), Instruction Manual (11243), Balancing Disc (00335, qty. 6)}	11758

¹ When used with lid, sealed buckets offers biocontainment protection certified by Porton Down.

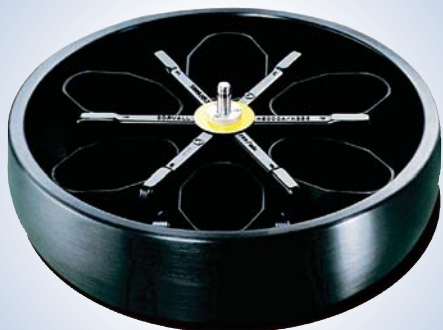
LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PPCO Bottle	3120-1000	16	6	5,000	7,277	97.5 x 184.5	Closure	Included	16	Screw Top
1000.0	1000.0	Nalgene PC Bottle	3122-1000	16	6	5,000	7,277	97.6 x 188.4	Closure	Included	16	Screw Top
500.0	450.0	Nalgene PC Bottle	3122-0500	24	6	5,000	7,277	69.5 x 170	Closure	Included	24	Sealing Cap
									Adapter	00444	1	1 place/adapter
									Adapter	00511	1	Adapter
500.0	450.0	Nalgene PPCO Bottle	3120-0500	24	6	5,000	7,277	69.5 x 170	Closure	Included	24	Sealing Cap
									Adapter	00444	1	1 place/adapter
									Adapter	00511	1	Adapter
450.0-500.0	—	Triple/Quad Blood Bag	—	—	6	—	—	—	Adapter	00512	1	For Blood Bag Liner
450.0	—	Single/Double Blood Bag	—	—	6	—	—	—	Adapter	00511	1	For Blood Bag Liner
250.0	—	Nalgene PPCO Bottle	3120-0250	36	6	5,000	7,277	60.7 x 133.4	Closure	Included	36	Sealing Cap
									Adapter	01092	1	1 place/adapter
250.0	—	Nalgene PC Bottle	3122-0250	36	6	5,000	7,277	61.5 x 135.1	Closure	Included	36	Sealing Cap
									Adapter	01092	1	1 place/adapter
250.0	—	Conical Bottle	—	—	6	—	—	—	Adapter	01092	1	1 place/adapter
									Adapter	03095	1	For 250 ml Conical
200.0	200.0	Nunc™ Conical Bottle	03094	4	6	4,900	6,990	60 x 135	Closure	Included	4	Sealing Cap
									Adapter	01092	1	1 place/adapter
									Adapter	03095	1	For 250 ml Conical
50.0	—	Conical Tube (Unsealed Bucket)	—	—	30	—	—	—	Adapter	00436	1	5 places/adapter For Skirted Conical Tube
50.0	—	Conical Tube (Sealed Bucket)	—	—	18	—	—	—	Adapter	00445	1	3 places/adapter For Skirted Conical Tube
16.0	16.0	PP Flanged Tube	03244	50	72	5,000	7,277	18 x 100	Closure	03299	50	PP Snap-On Lid
									Adapter	00892	1	12 places/adapter
16.0	17.0	PP Flanged Tube	03243	50	72	5,000	7,277	18 x 100	Closure	03269	50	PP Snap-On Lid
									Adapter	00892	1	12 places/adapter
15.0	—	Conical Tube	—	—	48	—	—	19 x 119	Adapter	00447	1	8 places/adapter
15.0	—	Conical Urinalysis Tube	—	—	72	—	—	19 x 119	Adapter	00892	1	12 places/adapter
15.0	—	Round Bottom Tube	—	—	108	—	—	16 x 127	Adapter	00385	1	18 places/adapter
12.0	12.0	PP Flanged Tube	03116	50	108	5,000	7,277	16 x 100	Closure	03266	50	PP Snap-On Lid
									Adapter	00385	1	18 places/adapter
12.0	12.0	PC Flanged Tube	03115	50	108	5,000	7,277	16 x 100	Closure	03266	50	PP Snap-On Lid
									Adapter	00385	1	18 places/adapter
10.0	—	Blood Collection Tube	—	—	108	—	—	16 x 100	Adapter	00385	1	18 places/adapter
10.0	9.1	PP Oak Ridge Bottle	03929	50	30	5,000	7,277	16 x 83	Closure	03279	25	PP Sealing Cap
									Adapter	00894	1	5 places/adapter
									Adapter	00402	5	Adapter
10.0	9.1	PC Oak Ridge Bottle	03020	25	30	5,000	7,277	16 x 83	Closure	03279	25	PP Sealing Cap
									Adapter	00894	1	5 places/adapter
									Adapter	00402	5	Adapter
7.0	—	Blood Collection Tube	—	—	132	—	—	13 x 100	Adapter	00384	1	22 places/adapter
7.0	—	Greiner® Tube	—	—	138	—	—	13 x 100	Adapter	75003797	6	23 places/adapter
5.0	—	Blood Collection Tube	—	—	198	—	—	13 x 75	Adapter	00857	1	33 places/adapter
5.0	—	Greiner Tube	—	—	138	—	—	13 x 75	Adapter	75003797	6	23 places/adapter
1.5	—	Microtube	—	—	198	—	—	11 x 50	Adapter	04871	1	33 places/adapter
									Adapter	00857	1	33 places/adapter

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Stainless Steel Rotor Body; Aluminum Bucket
Capacity (Bucket)	6 x 1000 mL
Capacity (Blood Bag Systems)	6
Capacity (Microplate)	18 Standard, 6 Deepwell
Maximum Speed	5,000 rpm
Bucket Dimensions W x L x D	90 x 133 x 140 mm
Microplate Dimensions W x L	85 x 127 mm
Angle	90°
K Factor	8,248
Net Weight	28 kg/61.7 lb
Warranty	7 years

	RCF	RADIUS
Maximum (Bucket)	7,129 xg	255.3 mm
Minimum (Bucket)	3,156 xg	130.0 mm
Maximum (Microplate Carrier)	5,186 xg	185.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-3 Series
HBB-6	Max. Speed	5,000 rpm
	Max. RCF	7,129 xg

HBB-6 Rotor Package includes:

Description	Cat. No.
HBB-6 Rotor	11753
Anodized Aluminum Rotor Bucket (qty. 6)	11758
Rotor Cover Assembly	11237
Rotor Locking Tool	11246
Rotor Locking Stud	11238
Balancing Disc (qty. 6)	00335
Speed Decal	11009
Loctite Sealing Adhesive	65811
Instruction Manual	11243

Accessories:

Description	Cat. No.
Anodized Aluminum Rotor Bucket (qty. 2)	11754
Microplate Carrier (qty. 2)	11267
Rotor Extractor	11445
Replacement Windshield	11273
Conversion Kit for HBB-6 Replacement Buckets {Includes HBB-6 buckets (11758, qty. 6), Instruction Manual (11243), Balancing Disc (00335, qty. 6)}	11758

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0-550.0	–	Quad Blood Bag (no adsol)	–	–	6	–	–	–	Adapter	01094	1	For Blood Bag Liner
450.0-550.0	–	Quad/Quint Blood Bag	–	–	6	–	–	–	Adapter	01098	1	For Blood Bag Liner
400.0-450.0	–	Double/Triple Blood Bag	–	–	6	–	–	–	Adapter	01094	1	For Blood Bag Liner
400.0-450.0	–	Single/Double Blood Bag	–	–	12	–	–	–	Adapter	11751	1	For Multiplace Blood Bag Liner
250.0-300.0	–	Platelet Rich Plasma or Buffy Coat ¹	–	–	12	–	–	–	Adapter	11756	1	For Multiplace Blood Bag Liner

¹ Blood bag fit will depend on manufacturer and volume. Follow manufacturer loading and packing instructions.

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Stainless Steel Rotor Body; Aluminum Bucket
Capacity (Bucket)	6 x 550 mL
Capacity (Microplate)	18 Standard, 6 Deepwell
Maximum Speed	5,000 rpm
Bucket Dimensions W x L x D	96 x 126 x 145 mm
Microplate Dimensions W x L	85 x 127 mm
Angle	90°
K Factor	8,355
Net Weight	31 kg/68.3 lb
Warranty	7 years

	RCF	RADIUS
Maximum (Bucket)	7,205 xg	258 mm
Minimum (Bucket)	3,156 xg	113 mm
Maximum (Microplate Carrier)	5,186 xg	185.3 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-3 Series
HLR-6	Max. Speed	5,000 rpm
	Max. RCF	7,205 xg

HLR-6 Rotor Package includes:

Description	Cat. No.
HLR-6 Rotor	11350
Anodized Aluminum Rotor Bucket with Pall Filter Holder (Supplied qty. 6)	11351
Rotor Cover Assembly	11237
Rotor Locking Tool	11246
Rotor Locking Stud	11238
Balancing Disc (qty. 6)	00335
Speed Decal	11009
Loctite Sealing Adhesive	65811
Instruction Manual	11243

Accessories:

Description	Cat. No.
Anodized Aluminum Rotor Bucket (qty. 2)	11351
Microplate Carrier (qty. 2)	11267
Rotor Extractor	11445
Replacement Windshield	11273
HLR-6 Conversion Kit	11355
{Includes HLR-6 bucket and filter holder (11351, qty. 6); Instruction Manual (11243); Balancing Disc (00335, qty. 6)}	

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0-550.0	–	Triple/Quad/Quint Blood Bag with additive	–	–	6	5,000	7,205	–	Adapter	11358	1	For Blood Bag Liner
400.0-450.0	–	Triple/Quad Blood Bag	–	–	6	5,000	7,205	–	Adapter	11358	1	For Blood Bag Liner
									Adapter	11365	4	For Blood Bag Insert
250.0-300.0	–	Platelet Rich Plasma or Buffy Coat ¹	–	–	12	5,000	7,205	–	Adapter	11756	1	For Blood Bag Liner

¹ Blood bag fit will depend on manufacturer and volume. Follow manufacturer loading and packing instructions.

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Thermo Scientific Windshielded Swinging Bucket Rotor for Thermo Scientific Heraeus Cryofuge 6000i/8500i (75006606)

75006606



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Bottle)	6 x 1000 mL
Capacity (Blood Bag)	12 x 550 mL
Maximum Speed	4,020 rpm; 5,050 rpm ¹
Angle	90°
K Factor	10,279 ²
Net Weight	42.2 kg/93 lb ²
Warranty	2 years

	RCF	RADIUS
	Heraeus® Cryofuge 6000i; 8500i	
Maximum (Double Blood Bag)	5,312 xg; 5,312 xg ²	297.0 mm
Minimum (Double Blood Bag)	2,773 xg; 2,773 xg ²	
Maximum (Round)	6,010 xg; 8,525 xg ²	299.0 mm
Minimum (Round)	4,248 xg; 4,248 xg ²	
Maximum (Double Rectangular)	4,984 xg; 7,070 xg ²	248.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

Windshielded Swinging Bucket Rotor Package includes:

Description	Cat. No.
Windshielded Swinging Bucket Rotor for Heraeus Cryofuge 6000i/8500i Centrifuge (included with each centrifuge)	75006606

Accessories:

Description	Cat. No.
Double Blood Bag Bucket	75007617
Rubber Volume Compensation Plates for Double Blood Bag Bucket (qty. 12)	75006681
Rubber Balancing Plates for Double Blood Bag Bucket (qty. 4)	75005759
Hook Adapters for Cord Blood Separations for Double Blood Bag Bucket and Adapter 76007677 ³	75015638
Round Bucket	75008165
Aerosol Tight Sealing Cap for Round Bucket	75008081
Double Rectangular Bucket	76008078

LABWARE ORDERING INFORMATION (Double Blood Bag Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm) ¹	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	—	Quint, Quad, Triple Blood Bag with in-line filters and filter holder "XXL"	—	—	12	—	—	—	Adapter	76007677	6	For Blood Bag Liner
450.0-500.0	—	Quad, Triple Blood Bag "XL"	—	—	12	—	—	—	Adapter	76007657	6	For Blood Bag Liner

¹ Maximum speed with Heraeus Cryofuge 6000i; Heraeus Cryofuge 8500i centrifuges.

² With double blood bag bucket.

³ Maximum RCF with hook adapters is 1,328 xg.

LABWARE ORDERING INFORMATION (Double Blood Bag Bucket - Continued)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm) ¹	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0	—	Triple Blood Bag "L"	—	—	12	—	—	—	Adapter	76007647	6	For Blood Bag Liner
450.0	—	Double Blood Bag "M"	—	—	12	—	—	—	Adapter	76007667	6	For Blood Bag Liner

LABWARE ORDERING INFORMATION (Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm) ¹	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	—	Single, Double, Triple Blood Bag	—	1	6	4,240/5,050	6,010/8,525	—	Closure Adapter	Included 75006639	6 1	For Blood Bag Liner 1 place/adapter
1000.0	—	PP Bottle with Screw Cap, Graduated	75006613	1	6	4,240/5,051	6,010/8,526	100 x 190	Closure	Included	1	Screw Top
1000.0	—	Nalgene® PPCO Bottle	3120-1000	16	6	4,240/5,051	6,010/8,526	98 x 185	Closure	Included	16	Screw Top
1000.0	—	Nalgene PC Bottle	3120-1000	16	6	4,240/5,051	6,010/8,526	98 x 185	Closure	Included	16	Screw Top
750.0	—	PP Bottle with Screw Cap	75008149	1	6	4,240/5,052	6,010/8,527	100 x 148	Closure	Included	6	Screw Top
650.0	—	Standard Tube	75001158	6	6	4,240/5,053	6,010/8,528	84 x 195 ⁵	Closure Adapter	Included 75006637 ⁴	6 1	Screw Top 1 place/adapter
500.0	—	Nalgene PPCO Bottle	3120-0500	24	6	4,240/5,053	6,010/8,528	74 x 170	Closure Adapter	Included 75008145	6 1	Screw Top 1 place/adapter
500.0	—	Nalgene PC Bottle	3122-0500	24	6	4,240/5,053	6,010/8,528	70 x 170	Closure Adapter	Included 75008145	6 1	Screw Top 1 place/adapter
250.0	—	Conical Bottle	—	—	6	—	—	61.5 x 190	Adapter	75008147	1	1 place/adapter
250.0	—	Nalgene PPCO Bottle	3120-0250	36	6	4,240/5,053	6,010/8,528	62.5 x 190	Closure Adapter	Included 75008144	6 1	Screw Top 1 place/adapter
250.0	—	Nalgene PC Bottle	3122-0250	36	6	4,240/5,053	6,010/8,528	62.5 x 190	Closure Adapter	Included 75008144	6 1	Screw Top 1 place/adapter
250.0	—	Borosilicate Round Bottom Tube	76001135	1	6	—	—	59 x 190	Adapter ⁶	75006649	1	1 place/adapter
100.0	—	Standard Bosilicate Tube	76009007	10	12	—	—	45 x 177	Adapter	75008142	1	2 places/adapter
50.0	—	Conical Tube	—	—	42	—	—	29 x 177	Adapter	11210826	1	7 places/adapter
50.0	—	Standard Bosilicate Tube	76009005	10	24	—	—	35 x 177	Adapter	75008140	1	4 places/adapter
25.0	—	Standard Bosilicate Tube	76009006	50	42	—	—	25 x 177	Adapter	75008138	1	7 places/adapter
15.0	—	Conical Tube	—	—	72	—	—	17 x 177	Adapter	75008137	1	12 places/adapter
15.0	—	Blood Collection Tube	—	—	102	—	—	17 x 177	Adapter	75008136	1	17 places/adapter
15.0	—	Standard Bosilicate Tube	76009003	100	114	—	—	17 x 177	Adapter	75008135	1	19 places/adapter
7.0	—	Blood Collection Tube	—	—	114	—	—	14 x 162	Adapter	11210822	1	19 places/adapter
7.0	—	Standard Bosilicate Tube	76009001	100	210	—	—	13 x 177	Adapter	75008133	1	35 places/adapter
1.5/2.0	—	Microtube	—	—	288	—	—	11 x 50	Adapter	75008132	1	48 places/adapter

LABWARE ORDERING INFORMATION (Double Rectangular Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm) ¹	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
150.0	—	Borosilicate Round Bottom Tube	76001132	1	12	—	—	55 x 120	Adapter	75005326	1	1 place/adapter
100.0	—	Standard Bosilicate Tube	76009007	10	12	—	—	45 x 120	Adapter	75005325	1	1 place/adapter
50.0	—	Universal Container	—	—	24	—	—	29.5 x 120	Adapter	75005389	1	2 places/adapter
50.0	—	Conical Tube	—	—	36	—	—	29 x 117	Adapter	75002261	1	6 places/adapter
50.0	—	Conical Tube	—	—	24	—	—	29.5 x 120	Adapter	75005386	1	2 places/adapter

¹ Maximum speed with Heraeus Cryofuge 6000i/Heraeus Cryofuge 8500i centrifuges.⁴ Pad required (75001913).⁵ Use only without cap (75008081).⁶ Pad required (75001808).

LABWARE ORDERING INFORMATION (Double Rectangular Bucket - Continued)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm) ¹	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	—	Standard Bosilicate Tube	76009005	10	24	—	—	35 x 130	Adapter	75005324	1	2 places/adapter
25.0	—	Universal Container	—	—	48	—	—	25.5 x 120	Adapter	75005391	1	4 places/adapter
25.0	—	Standard Bosilicate Tube	76009006	50	60	—	—	25 x 100	Adapter	75005323	1	5 places/adapter
15.0	—	Conical Tube	—	—	72	—	—	17 x 121	Adapter	75005387	1	6 places/adapter
15.0	—	Blood Collection Tube	—	—	132	—	—	17 x 109	Adapter	75005327	1	11 places/adapter
15.0	—	Standard Bosilicate Tube	76009003	100	144	—	—	17 x 111	Adapter	75005322	1	12 places/adapter
7.0	—	Blood Collection Tube	—	—	144	—	—	14 x 110	Adapter	75005330	1	12 places/adapter
7.0	—	Standard Bosilicate Tube	76009001	100	240	—	—	13 x 110	Adapter	75005321	1	20 places/adapter
1.5	—	Microtube	—	—	480	—	—	11 x 45	Adapter	75005335	1	40 places/adapter

¹ Maximum speed with Heraeus Cryofuge 6000i/Heraeus Cryofuge 8500i centrifuges.


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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Bottle)	4 x 1000 mL
Capacity (Blood Bag)	8 x 550 mL
Maximum Speed	4,400 rpm
Angle	90°
K Factor (Double Blood Bag)	10,885
K Factor (Round)	13,847
K Factor (DoubleSpin)	8,244
Warranty	2 years
Certifications	

	RCF	RADIUS
Maximum (Double Blood Bag)	5,480 xg	253.0 mm
Minimum (Double Blood Bag)	2,379 xg	110.0 mm
Maximum (Round)	5,350 xg	247.0 mm
Minimum (Round)	1,903 xg	88.0 mm
Maximum (DoubleSpin)	4,650 xg	215.0 mm
Minimum (DoubleSpin)	2,487 xg	115.0mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
LH-4000W	Max. Speed	4,400 rpm	4,400 rpm
	Max. RCF	5,480 xg	5,480 xg

LH-4000W Rotor Package includes:

Description	Cat. No.
LH-4000W Rotor	75006476
Windshield	20057930
Windshield Lid	20057931

Accessories:

Description	Cat. No.
Double Blood Bag Bucket	75006436
Round Bucket	75006477
Biocontainment Lid ¹ for Round Bucket (qty. 2)	75006421
Taring Plates: Black Rubber, 2 of 35 g and 2 of 65 g	75005759
Taring Sticks: 4 of 6 g and 15 g	75007645
Volume Adjustment Plates (qty. 12)	75006681
DoubleSpin™ Bucket	75006478
Biocontainment Lid ¹ for DoubleSpin Bucket (qty. 2)	75006479
Microplate Adapter for DoubleSpin Bucket (qty. 1)	75006486

¹ When used with lids, sealed buckets offers biocontainment protection certified by Porton Down.

LABWARE ORDERING INFORMATION (Double Blood Bag Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	–	Quint, Quad, Triple Blood Bag with in-line filters and filter holder	–	–	8	–	–	–	Adapter	76007677	6	For Blood Bag Liner
450.0-500.0	–	Quad, Triple Blood Bag "XL"	–	–	8	–	–	–	Adapter	76007657	6	For Blood Bag Liner
450.0	–	Triple Blood Bag "L"	–	–	8	–	–	–	Adapter	76007647	6	For Blood Bag Liner
450.0	–	Double Blood Bag "M"	–	–	8	–	–	–	Adapter	76007667	6	For Blood Bag Liner

LABWARE ORDERING INFORMATION (Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
400.0-500.0	–	Quad Blood Bag "L/M"	–	–	4	–	–	–	Adapter	75006496	2	For Blood Bag Liner
250.0	–	Blood Bag	–	–	4	–	–	–	Adapter	75006485	2	For Blood Bag Liner
1000.0	–	Nalgene® PPCO Bottle	3120-1000	16	4	4,400	5,350	98 x 185	Closure	Included	16	Screw Top
1000.0	–	Nalgene PC Bottle	3122-1000	16	4	4,400	5,350	98 x 185	Closure	Included	16	Screw Top
500.0	–	Conical Bottle	–	–	4	–	–	96 x 190	Adapter	75006438	1	1 place/adapter
500.0	–	Nalgene PPCO Bottle	3120-0500	24	4	–	4,800	74 x 170	Closure	Included	24	Screw Top
									Adapter	75008145	1	1 place/adapter
500.0	–	Nalgene PC Bottle	3122-0500	24	4	4,400	5,350	70 x 170	Closure	Included	24	Screw Top
									Adapter	75008145	1	1 place/adapter
250.0	–	Conical Bottle	–	–	4	–	–	61 x 170	Adapter	75008147	1	1 place/adapter
250.0	–	Nalgene PPCO Oak Ridge Bottle	3120-0250	36	4	4,400	5,350	62 x 145	Adapter	75008144	1	1 place/adapter
250.0	–	Nalgene PC Oak Ridge Bottle	3122-0250	36	4	4,400	5,350	62 x 145	Adapter	75008144	1	1 place/adapter
175.0-225.0	–	Conical Bottle	–	–	4	–	–	62 x 145	Adapter	75008144	1	1 place/adapter
									Adapter	03095	1	1 place/adapter
50.0	–	Conical Tube	–	–	28	–	–	29 x 177	Adapter	11210826	1	7 places/adapter
50.0	–	Skirted Conical Tube	–	–	20	–	–	29 x 177	Adapter	75006533	1	5 places/adapter
15.0	–	Conical Tube	–	–	48	–	–	19 x 177	Adapter	75008137	1	12 places/adapter
15.0	–	Standard Tube	–	–	76	–	–	17 x 177	Adapter	75008135	1	19 places/adapter
10.0-15.0	–	Blood Collection Tube	–	–	68	–	–	17 x 177	Adapter	75008136	1	17 places/adapter
10.0	–	Blood Collection Tube	–	–	84	–	–	16 x 177	Adapter	11210821	4	21 places/adapter
5.0-7.0	–	Blood Collection Tube	–	–	108	–	–	13 x 177	Adapter	11210822	4	27 places/adapter
7.0	–	Standard Tube	–	–	140	–	–	13 x 177	Adapter	75008133	1	35 places/adapter
1.5-2.0	–	Microtube	–	–	192	–	–	11 x 50	Adapter	75008132	1	48 places/adapter

LABWARE ORDERING INFORMATION (DoubleSpin Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	–	Conical Tube	–	–	32	–	–	29 x 140	Adapter ²	75006461	1	4 places/adapter
50.0	–	Conical Tube	–	–	32	–	–	29 x 140	Adapter ²	75006491	1	4 places/adapter
15.0	–	Conical Tube	–	–	72	–	–	19 x 150	Adapter ²	75006456	1	9 places/adapter
15.0	–	Conical Tube	–	–	96	–	–	19 x 150	Adapter	75006468	1	24 places/adapter
10.0-15.0	–	Blood Collection Tube	–	–	128	–	–	17 x 147	Adapter ²	75008136	1	16 places/adapter
5.0-7.0	–	Blood Collection Tube	–	–	160	–	–	13 x 150	Adapter ²	75006454	1	20 places/adapter
7.0	–	Standard Tube	–	–	224	–	–	13 x 151	Adapter ²	75006453	1	28 places/adapter
1.5-2.0	–	Microtube	–	–	448	–	–	11 x 50	Adapter ²	75006452	1	56 places/adapter
–	–	Standard Microplate	–	–	32	–	–	–	Adapter	75006486	1	Microplate Carrier

² Must order 2 adapters per bucket.


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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Bottle)	4 x 1000 mL
Capacity (Blood Bag)	4 x 550 mL
Maximum Speed	4,400 rpm
Angle	90°
K Factor (Round)	13,487
K Factor (DoubleSpin)	8,244
Warranty	2 years
Certifications	

	RCF	RADIUS
Maximum (Round)	5,346 xg	247.0 mm
Minimum (Round)	1,903 xg	88.0 mm
Maximum (DoubleSpin)	4,654 xg	215.0 mm
Minimum (DoubleSpin)	2,487 xg	115.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
LH-4000	Max. Speed	4,400 rpm	4,400 rpm
	Max. RCF	5,346 xg	5,346 xg

LH-4000 Rotor Package includes:

Description	Cat. No.
LH-4000 Rotor ¹	75006475

Accessories:

Description	Cat. No.
Round Bucket	75006477
Biocontainment Lid ² for Round Bucket (qty. 2)	75006421
Taring Plates: Black Rubber, 2 of 35 g and 2 of 65 g	75005759
Taring Sticks: 4 of 6 g and 15 g	75007645
Volume Adjustment Plates (qty. 12)	75006681
DoubleSpin™ Bucket	75006478
Biocontainment Lid ² for DoubleSpin Bucket (qty. 2)	75006479
Microplate Adapter for DoubleSpin Bucket (qty. 1)	75006486

¹ Rotor can only be used with 230V Heraeus Cryofuge centrifuge models.

² When used with lids, sealed buckets offers biocontainment protection certified by Porton Down.

LABWARE ORDERING INFORMATION (Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
400.0-500.0	—	Quad Blood Bag "L/M"	—	—	4	—	—	—	Adapter	75006496	2	For Blood Bag Liner
250.0	—	Blood Bag	—	—	4	—	—	—	Adapter	75006485	1	For Blood Bag Liner
1000.0	—	Nalgene® PPCO Bottle	3120-1000	16	4	4,400	5,350	98 x 185	Closure	Included	16	Screw Top
1000.0	—	Nalgene PC Bottle	3122-1000	16	4	4,400	5,350	98 x 185	Closure	Included	16	Screw Top
500.0	—	Conical Bottle	—	—	4	4,400	5,350	96 x 190	Adapter	75006438	1	1 place/adapter
500.0	—	Nalgene PPCO Bottle	3120-0500	24	4	—	4,800	74 x 170	Closure	Included	24	Screw Top
									Adapter	75008145	1	1 place/adapter
500.0	—	Nalgene PC Bottle	3122-0500	24	4	4,400	5,350	70 x 170	Closure	Included	24	Screw Top
									Adapter	75008145	1	1 place/adapter
250.0	—	Conical Bottle	—	—	4	—	—	61 x 170	Adapter	75008147	1	1 place/adapter
250.0	—	Nalgene PPCO Oak Ridge Bottle	3120-0250	36	4	4,400	5,350	62 x 145	Adapter	75008144	1	1 place/adapter
250.0	—	Nalgene PC Oak Ridge Bottle	3122-0250	36	4	4,400	5,350	62 x 145	Adapter	75008144	1	1 place/adapter
175.0-225.0	—	Conical Bottle	—	—	4	—	—	62 x 145	Adapter	75008144	1	1 place/adapter
									Adapter	03095	1	1 place/adapter
50.0	—	Conical Tube	—	—	28	—	—	29 x 177	Adapter	11210826	4	7 places/adapter
50.0	—	Skirted Conical Tube	—	—	20	—	—	29 x 177	Adapter	75006533	1	5 places/adapter
15.0	—	Conical Tube	—	—	48	—	—	19 x 177	Adapter	75008137	1	12 places/adapter
15.0	—	Standard Tube	—	—	76	—	—	17 x 177	Adapter	75008135	1	19 places/adapter
10.0-15.0	—	Blood Collection Tube	—	—	68	—	—	17 x 177	Adapter	75008136	1	17 places/adapter
10.0	—	Blood Collection Tube	—	—	84	—	—	16 x 177	Adapter	11210821	4	21 places/adapter
5.0-7.0	—	Blood Collection Tube	—	—	108	—	—	13 x 177	Adapter	11210822	4	27 places/adapter
7.0	—	Standard Tube	—	—	140	—	—	13 x 177	Adapter	75008133	1	35 places/adapter
1.5-2.0	—	Microtube	—	—	192	—	—	11 x 50	Adapter	75008132	1	48 places/adapter

LABWARE ORDERING INFORMATION (DoubleSpin Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	—	Conical Tube	—	—	32	—	—	29 x 140	Adapter ³	75006461	1	4 place/adapter
15.0	—	Conical Tube	—	—	72	—	—	19 x 150	Adapter ³	75006456	1	9 place/adapter
10.0-15.0	—	Blood Collection Tube	—	—	128	—	—	17 x 147	Adapter ³	75008136	1	16 place/adapter
5.0-7.0	—	Blood Collection Tube	—	—	160	—	—	13 x 150	Adapter ³	75006454	1	20 place/adapter
7.0	—	Standard Tube	—	—	224	—	—	13 x 151	Adapter ³	75006453	1	28 place/adapter
1.5-2.0	—	Microtube	—	—	448	—	—	11 x 50	Adapter ³	75006452	1	56 place/adapter
—	—	Standard Microplate	—	—	32	—	—	—	Adapter	75006486	1	Microplate Carrier

³ Must order 2 adapters per bucket.

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Large Capacity Rotors

Thermo Scientific BIOShield Rotor

BIOShield



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity	4 x 250 mL
Maximum Speed	5,850 rpm
Angle	90°
Warranty	2 years
Certifications	

	RCF	RADIUS
Maximum	6,963 xg	182.0 mm
Minimum	5,275 xg	138.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
BIOShield	Max. Speed	5,850 rpm	5,850 rpm
	Max. RCF	6,963 xg	6,963 xg

BIOShield Rotor Package includes:

Description	Cat. No.
BIOShield® Rotor	75006435
Rotor Cross Windshield	70057470
Rotor Windshield	20057472
Aluminum Rotor Bucket (qty. 4)	70057471
Rotor Lid	20056832
Grease	70006692
Lubricant	76003500
Instruction Manual	50073893

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	–	Conical Tube	–	–	16	–	–	29 x 119	Adapter	75006461	1	4 places/adapter
50.0	–	Round Bottom Tube	–	–	16	–	–	29 x 119	Adapter	75006491	1	4 places/adapter
15.0	–	Conical Tube	–	–	36	–	–	19 x 119	Adapter	75006456	1	9 places/adapter
10.0-15.0	–	Blood Collection Tube	–	–	64	–	–	17 x 117	Adapter	75006455	1	16 places/adapter
5.0-7.0	–	Blood Collection Tube	–	–	80	–	–	13 x 117	Adapter	75006454	1	20 places/adapter
7.0	–	Standard Tube	–	–	117	–	–	13 x 117	Adapter	75006453	1	28 places/adapter
1.5-2.0	–	Microtube	–	–	224	–	–	11 x 50	Adapter	75006452	1	56 places/adapter

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Large Capacity Rotors

Thermo Scientific HIGHPlate Windshielded Rotor

HIGHPlate Windshielded



ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Rotor Body Stainless Steel; Bucket Aluminum	
Capacity (Microplate)	10 Standard, 2 Deepwell	
Maximum Speed	5,650 rpm	
Angle	90°	
Warranty	2 years	
	RCF	RADIUS
Maximum	5,889 xg	165.0 mm
Minimum	3,744 xg	105.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
HIGHPlate Windshielded	Max. Speed	5,650 rpm	5,650 rpm
	Max. RCF	5,889 xg	5,889 xg

HIGHPlate Windshielded Rotor Package includes:

Description	Cat. No.
HIGHPlate® Windshielded Rotor	75006444
Rotor Cross Windshield	70057470
Windshield	20057472
Buckets (qty. 4)	70057471
Rotor Lid	20056832
Grease	70006692
Lubricant	76003500
Instruction Manual	50073893

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
–	–	Standard Microplate ¹	–	–	10	5,650	5,889	Max. height 20 mm	–	–	–	–
–	–	Deepwell Microplate ¹	–	–	2	5,650	5,889	Max. height 83 mm	–	–	–	–

¹ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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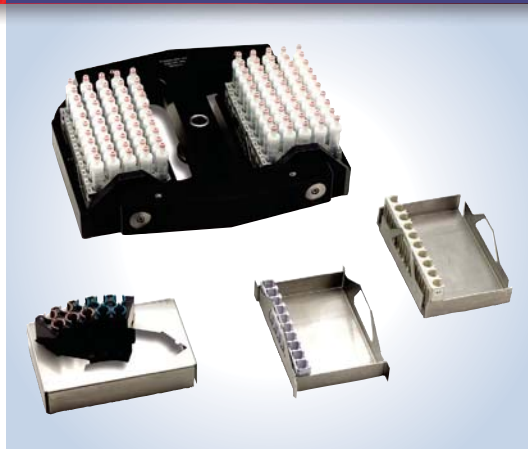
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Large Capacity Rotors

Thermo Scientific Diagnostik Rack Rotor

Diagnostik Rack



ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Microplate)	Varies per rack
Maximum Speed	3,500 rpm
Angle	90°
Warranty	2 years

	RCF	RADIUS
Maximum	2,550 xg	186.0 mm
Minimum	1,929 xg	141.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
Diagnostik Rack	Max. Speed	3,500 rpm	3,500 rpm
	Max. RCF	2,550 xg	2,550 xg

Diagnostik Rack Rotor Package includes:

Description	Cat. No.
Diagnostik™ Rack Rotor	75006480
Rotor Body	70060333
Diagnostik Rotor Bucket (qty. 2)	70060335
Grease	70006692

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims LxW (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
–	–	Hitachi® Tube	–	–	100	–	–	118 x 20	Adapter	75006416	2	Tube Tray
–	–	Olympus® Tube	–	–	120	–	–	117 x 20	Adapter	75006417	2	Tube Tray
–	–	Sysmex® Tube	–	–	120	–	–	200 x 25	Adapter	75006418	2	Tube Tray
–	–	Dade-Behring® Tube	–	–	40	–	–	–	Adapter	75006419	2	Tube Tray

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Bottle)	6 x 1000 mL
Capacity (Blood Bag)	12 x 550 mL
Capacity (Microplate)	48 Standard, 18 Deepwell ¹
Maximum Speed	4,250 rpm; 3,800 rpm ²
Bucket Dimensions W x L x D (Round)	148.5 x 117 x 146 mm
Bucket Dimensions W x L x D (Rectangular)	148 x 153 x 115 mm
Bucket Dimensions W x L x D (Oval)	148.5 x 121 x 200 mm
Angle	90°
K Factor (Round)	15,997
K Factor (Rectangular)	8,757
K Factor (Oval)	13,426
Warranty	7 years
Certifications ³	

	RCF	RADIUS
Maximum (Round)	5,735 xg; 4,535 xg ²	284.0 mm
Minimum (Round)	2,302 xg; 1,840 xg ²	114.0 mm
Maximum (Rectangular)	5,392 xg; 4,310 xg ²	267.0 mm
Minimum (Rectangular)	3,271 xg; 2,615 xg ²	162.0 mm
Maximum (Oval)	5,674 xg; 4,536 xg ²	281.0 mm
Minimum (Oval)	2,644 xg; 2,114 xg ²	131.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC Sorvall HT6, KR4i Series
RP6 Windshielded	Max. Speed	4,250 rpm
	Max. RCF	5,735 xg

RP6 Windshielded Rotor Package includes:

Description	Cat. No.
RP6 Windshielded Rotor	11178252
Lubricant	76003500
Instruction Manual	50114404

Accessories:

Description	Cat. No.
RP6 Windshield Rotor Lid	11178119
Sealed Round Bucket ³ (qty. 6)	11178135
Replacement Sealing Lid for Round Bucket ³ (qty. 1)	25144058
Unsealed Round Buckets (qty. 1)	11178136
Sealed Rectangular Buckets ³ (qty. 6)	11178140
Replacement Sealing Lid for Rectangular Bucket ³ (qty. 1)	11178216
Unsealed Rectangular Buckets (qty. 1)	11178138
Oval Blood Bag Buckets (qty. 6)	11178155

¹ Accommodates 18 half-deepwell or 12 standard deepwell microplates² Without lid.³ When used with lid, sealed buckets offers biocontainment protection certified by Porton Down.

LABWARE ORDERING INFORMATION (Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1,000.0	—	Nalgene® PPCO Bottle	3120-1000	16	6	4,250	5,735	98 x 185	Closure Adapter	Included	16	Screw Top
										11178203	1	1 place/adapter
1,000.0	—	Nalgene PC Bottle	3122-1000	16	6	4,250	5,735	98 x 185	Closure Adapter	Included	16	Screw Top
										11178203	1	1 place/adapter
500.0	—	Nalgene PPCO Bottle	3120-0500	24	6	—	4,800	69.5 x 170	Closure Adapter	Included	24	Screw Top
										11178312	6	Adapter
500.0	—	Nalgene PC Bottle	3122-0500	24	6	4,250	5,735	69.5 x 170	Closure Adapter	Included	24	Screw Top
										11178312	6	Adapter
450.0-550.0	—	Quad/Triple Blood Bag	—	—	6	—	—	—	Adapter	11178203	1	For Blood Bag Liner
450.0-550.0	—	Double Blood Bag	—	—	6	—	—	—	Adapter	11178108	1	For Blood Bag Liner
250.0	—	Conical Bottle	—	—	6	—	—	62 x 128	Adapter	11178313	6	1 place/adapter
250.0	—	Nalgene PPCO Oak Ridge Bottle	3120-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
250.0	—	Nalgene PC Bottle	3122-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
50.0	—	Conical Tube	—	—	30	—	—	30 x 115	Adapter	11178308	6	5 places/adapter
20.0	—	Standard Tube	—	—	72	—	—	22.2 x 148	Adapter	11178306	1	12 places/adapter
15.0	—	Conical Tube	—	—	72	—	—	17 x 122	Adapter	11178304	6	12 places/adapter
10.0-15.0	—	Blood Collection Tube	—	—	114	—	—	17 x 150	Adapter	11178212	6	19 places/adapter
5.0-7.0	—	Blood Collection Tube	—	—	120	—	—	13.5 x 150	Adapter	11178211	6	20 places/adapter
6.0	—	Standard Tube	—	—	180	—	—	13.5 x 107	Adapter	11178210	1	30 places/adapter
3.0-5.0	—	Standard Tube	—	—	222	—	—	12.5 x 107	Adapter	11178208	1	37 places/adapter

LABWARE ORDERING INFORMATION (Rectangular Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	—	Oak Ridge Bottle	—	—	12	—	—	63 x 125	Adapter ⁴	11175356	4	1 place/adapter
250.0	—	Nalgene PPCO Oak Ridge Bottle	3120-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
250.0	—	Nalgene PC Bottle	3122-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
50.0	—	Conical Tube	—	—	36	—	—	30 x 117	Adapter ⁴	11175354	4	3 places/adapter
50.0	—	Round Bottom Tube	—	—	30	—	—	30.5 x 122	Adapter ⁴	11175353	4	4 places/adapter
20.0	—	Standard Tube	—	—	96	—	—	22.2 x 116	Adapter ⁴	11175351	4	8 places/adapter
15.0	—	Conical Tube	—	—	84	—	—	18 x 122	Adapter ⁴	11175348	4	7 places/adapter
15.0	—	Blood Collection Tube	—	—	84	—	—	16.5 x 127	Adapter ⁴	11175349	4	7 places/adapter
12.0	—	Flat Bottom Tube	—	—	84	—	—	18 x 122	Adapter ⁴	11175358	4	7 places/adapter
10.0	—	Blood Collection Tube	—	—	144	—	—	16.5 x 112	Adapter ⁴	11175346	4	12 places/adapter
5.0-10.0	—	Standard Tube	—	—	144	—	—	17.5 x 112	Adapter ⁴	11175347	4	12 places/adapter
5.0-7.0	—	Blood Collection Tube	—	—	216	—	—	13.5 x 107	Adapter ⁴	11175345	4	18 places/adapter
6.0	—	Standard Tube	—	—	240	—	—	13.5 x 107	Adapter ⁴	11175344	4	20 places/adapter
5.0	—	Standard Tube	—	—	312	—	—	12.7 x 107	Adapter ⁴	11175343	4	26 places/adapter
1.5	—	Conical Microtube	—	—	240	—	—	11 x 35	Adapter ⁴	11175341	4	20 places/adapter
—	—	Standard Microplate	—	—	48	—	—	127 x 85	Carrier	11178190	1	Microplate Carrier
—	—	Deepwell Microplate	—	—	18 ¹	—	—	—	Carrier	11178190	1	Microplate Carrier

¹ Accommodates 18 half-deepwell or 12 standard deepwell microplates⁴ 2 adapters required per bucket.

LABWARE ORDERING INFORMATION (Oval Blood Bag Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0-500.0	–	Quin/Quad Blood Bag with 1 partition	–	–	12	–	–	–	Adapter	11178156	1	For Blood Bag Liner
450.0-500.0	–	Quin/Quad Blood Bag without partition	–	–	12	–	–	–	Adapter	11178157	1	For Blood Bag Liner
200.0	–	Blood Bag without partition	–	–	24	–	–	–	Adapter	11178195	1	4 places/adapter For Blood Bag Liner


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ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Rotor Body Stainless Steel; Bucket Aluminum	
Capacity (Bottle)	6 x 1000 mL	
Capacity (Blood Bag)	12 x 550 mL	
Maximum Speed	4,900 rpm; 4,300 rpm ¹	
Bucket Dimensions W x L x D	148.5 x 117 x 146 mm	
Angle	90°	
K Factor	10,339; 13,426 ¹	
Warranty	7 years	
Certifications		
	RCF	RADIUS
Maximum	7,301 xg; 5,623 xg ¹	272.0 mm
Minimum	2,737 xg; 2,108 xg ¹	102.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC KR4i Series
RC6 Windshielded	Max. Speed	4,300 rpm
	Max. RCF	5,623 xg

RC6 Windshielded Rotor Package includes:

Description	Cat. No.
RC6 Windshielded Rotor	11178254
Lubricant	76003500
Instruction Manual	50114404

Accessories:

Description	Cat. No.
RC6 Windshielded Rotor Lid ²	11178111
Sealed ³ Round Bucket (qty. 6)	11178135
Replacement Sealing Lid ² for Round Bucket (qty. 1)	25144058
Round Bucket (qty. 6)	11178136

LABWARE ORDERING INFORMATION (Round Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	-	Nalgene® PPCO Bottle	3120-1000	16	6	4,250	5,735	98 x 185	Closure	Included	16	Screw Top
									Adapter	11178203	1	1 place/adaptor
1000.0	-	Nalgene PC Bottle	3122-1000	16	6	4,250	5,735	98 x 185	Closure	Included	16	Screw Top
									Adapter	11178203	1	1 place/adaptor
500.0	-	Nalgene PPCO Bottle	3120-0500	24	6	4,250	7,535	74 x 170	Closure	Included	24	Screw Top
									Adapter	11178312	6	Adapter

¹ Without lid.² When used with lid, sealed buckets offers biocontainment protection certified by Porton Down.

LABWARE ORDERING INFORMATION (Round Bucket) CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	—	Nalgene PC Bottle	3122-0500	24	6	4,250	5,735	70 x 170	Closure Adapter	Included	24	Screw Top Adapter
450.0-500.0	—	Quad/Triple Blood Bag	—	—	6	—	—	—	Adapter	11178203	1	For Blood Bag Liner
450.0-500.0	—	Double Blood Bag	—	—	6	—	—	—	Adapter	11178108	1	For Blood Bag Liner
250.0	—	Conical Bottle	—	—	6	—	—	61 x 170	Adapter	11178313	6	1 place/adapter
250.0	—	Nalgene PPCO Bottle	3120-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
250.0	—	Nalgene PC Bottle	3122-0250	36	6	4,250	5,735	63 x 160	Adapter	11178311	6	1 place/adapter
250.0	—	Oak Ridge Bottle	—	—	6	—	—	63 x 160	Adapter	11178311	6	1 place/adapter
50.0	—	Conical Tube	—	—	30	4,250	5,735	30 x 115	Adapter	11178308	6	5 places/adapter
20.0	—	Standard Tube	—	—	72	4,250	5,735	22.2 x 148	Adapter	11178306	1	12 places/adapter
15.0	—	Conical Tube	—	—	72	4,250	5,735	17 x 122	Adapter	11178304	6	12 places/adapter
10.0-15.0	—	Blood Collection Tube	—	—	114	—	—	17 x 150	Adapter	11178212	6	19 places/adapter
5.0-7.0	—	Blood Collection Tube	—	—	120	—	—	13.5 x 150	Adapter	11178211	6	20 places/adapter
6.0	—	Standard Tube	—	—	180	—	—	13.5 x 107	Adapter	11178210	1	30 places/adapter
3.0-5.0	—	Standard Tube	—	—	222	—	—	12.5 x 107	Adapter	11178208	1	37 places/adapter

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Rotor Body Stainless Steel; Bucket Aluminum
Capacity (Bottle)	4 x 1000 mL
Capacity (Blood Bag)	8 x 550 mL
Maximum Speed	4,250 rpm; 4,000 rpm ¹
Bucket Dimensions W x L x D (Rectangular)	159 x 170 x 155 mm
Angle	90°
K Factor (Round)	12,994; 14,669 ¹
K Factor (Rectangular)	11,628; 13,127 ¹
Warranty	7 years

	RCF	RADIUS
Maximum (Round)	5,513 xg; 4,883 xg ¹	273.0 mm
Minimum (Round)	2,180 xg; 1,931 xg ¹	108.0 mm
Maximum (Rectangular)	5,372 xg; 4,758 xg ¹	266.0 mm
Minimum (Rectangular)	2,342 xg; 2,075 xg ¹	116.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

THERMO SCIENTIFIC
KR4i Series

RP4 Windshielded	Max. Speed	4,250 rpm
	Max. RCF	5,372 xg

RP4 Windshielded Rotor Package includes:

Description	Cat. No.
RP4 Windshielded Rotor	11178250
Lubricant	76003500
Instruction Manual	50114404

Accessories:

Description	Cat. No.
RP4 Windshielded Rotor Lid	11178073
Round Bucket (qty. 4)	11178143
Rectangular Bucket (qty. 4)	11178108

LABWARE ORDERING INFORMATION (Rectangular Bucket)

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
450.0-500.0	—	Quin/Quad Blood Bag with 1 partition	—	—	8	4,250	5,372	—	Adapter	11178158	1	For Blood Bag Liner
450.0-500.0	—	Quin/Quad Blood Bag without partition	—	—	8	4,250	5,372	—	Adapter	11178159	1	For Blood Bag Liner
400.0-500.0	—	Quin/Quad Blood Bag with filter in line	—	—	8	4,250	5,372	—	Adapter	11178170	1	For Blood Bag Liner

¹ Without lid.

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Large Capacity Rotors

Thermo Scientific RHK4B Rotor

RHK4B



ROTOR SPECIFICATIONS

Type	Swinging Bucket	
Material	Aluminum	
Capacity	360 x 1.5 mL	
Maximum Speed	3,300 rpm	
Bucket Dimensions W x L x D	334 x 186 x 129 mm	
Angle	90°	
K Factor	20,274	
Warranty	7 years	
	RCF	RADIUS
Maximum	2,300 xg	189.0 mm
Minimum	961 xg	79.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC Sorvall HT6, KR4i Series
RHK4B	Max. Speed	3,300 rpm
	Max. RCF	2,300 xg

RHK4B Rotor Package includes:

Description	Cat. No.
RHK4B Rotor	11178255
Lubricant	76003500
Instruction Manual	50114404

Accessories:

Description	Cat. No.
RIA Rectangular Buckets (qty. 2)	11174023

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1.5	–	LKB Rack (set of 2 x 15)	–	–	360	3,300	2,300	11.5 x 35	Adapter	11178801	2	Tray for use with LKB Racks
55.0	–	11 x 50 mm Tube	–	–	66	3,300	2,300	31 x 110	Adapter	11179472	2	Nylon Insert

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ROTOR SPECIFICATIONS

Type	Swinging Bucket
Material	Carbon Fiber Composite
Capacity	2 x 500 mL
Maximum Speed	3,200 rpm
Tube Dimensions (mm)	96 x 146
Angle	90°
Net Weight	9.25 kg (4.31 lbs.)
Warranty	15 years

	RCF	RADIUS
Maximum	1,940 xg	189.0 mm
Minimum	344 xg	84.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-3 Series	BECKMAN® J6 Series
Fiberlite H3-LV	Cat. No.	096-028016	096-028015
	Max. Speed	3,200 rpm	3,200 rpm
	Max. RCF	1,940 xg	1,940 xg

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
500.0	—	Corning® Disposable Conical Tube ¹	—	—	2	3,200	1,940	96 x 146	Adapter	018-029023	2	1 place/adapter
250.0	—	Corning Disposable Conical Tube ¹	—	—	4	3,200	1,940	—	Adapter	018-029024	2	1 place/adapter
50.0	—	Nunc™ Disposable Conical Tube	334959	25	20	3,200	1,940	30 x 115	Closure	Included	25	PP Sealing
50.0	—	Corning Disposable Conical Tube ¹	—	—	20	3,200	1,940	—	Adapter	018-029019	2	10 places/adapter
50.0	—	BD Falcon® Disposable Conical Tube ¹	—	—	20	3,200	1,940	—	Adapter	018-029019	2	10 places/adapter
15.0	—	Nunc Conical Tube	366036	4	40	3,200	1,940	17 x 120	Closure	Included	50	PP Sealing
15.0	—	Corning Disposable Conical Tube ¹	—	—	40	3,200	1,940	—	Adapter	018-029018	2	20 places/adapter
15.0	—	BD Falcon Disposable Conical Tube ¹	—	—	40	3,200	1,940	—	Adapter	018-029018	2	20 places/adapter
10.0	—	Vacutainer® Tube ¹	—	—	72	—	—	16 x 100	Adapter	018-029017	2	36 places/adapter
7.0	—	Vacutainer Tube ¹	—	—	72	—	—	—	Adapter	018-029025	2	36 places/adapter
3.0	—	Vacutainer Tube ¹	—	—	60	—	—	—	Adapter	018-029028	2	30 places/adapter

¹ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
–	–	Standard Microplate	–	–	28	3,200	1,940	10 x 62	Adapter	018-029031	2	14 places/adapter
–	–	Deepwell Microplate	–	–	8	3,200	1,940	–	Adapter	018-029031	2	4 places/adapter
–	–	Promega® Slicprep™ 96 Device ¹	–	–	4	–	–	–	Adapter	018-029032	2	2 places/adapter

¹ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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Large Capacity Rotors

Thermo Scientific Fiberlite F8-6x1000y Rotor

F8-6x1000y



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 1000 mL
Maximum Speed	8,500 rpm
Bucket Dimensions (mm)	98 x 195
Angle	20°
K Factor	5,096
Net Weight	17.6 kg (38.8 lbs.)
Warranty	15 years
	RCF
Maximum	15,900 xg
Minimum	4,369 xg
	RADIUS
Maximum	196.0 mm
Minimum	54.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-BIOS
Fiberlite F8-6x1000y	Cat. No.	096-061137
	Max. Speed	8,500 rpm
	Max. RCF	15,900 xg
	Sample Containment ¹	ELC
Fiberlite F8-6x1000y Rotor Package includes:		
	Rotor Lid Assembly	099-061137
	O-ring Refresher Kit ²	021-061137

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PPCO Bottle	3141-1002	2	6	8,500	15,900	98 x 195	Closure	Included	2	PP Sealing
1000.0	1000.0	Nalgene PC Bottle	3140-1002	2	6	8,500	15,900	98 x 195	Closure	Included	2	PP Sealing
500.0	450.0	Nalgene PPCO Bottle	3141-0500	24	6	8,500	15,900	70 x 160	Closure	Included	24	PP Sealing
500.0	450.0	Nalgene PC Bottle	3140-0500	24	6	8,500	15,900	70 x 160	Adapter	010-0145	2	1 place/adaptor
500.0	450.0	Nalgene PC Bottle	3140-0500	24	6	8,500	15,900	70 x 160	Closure	Included	24	PP Sealing
500.0	450.0	Nalgene PC Bottle	3140-0500	24	6	8,500	15,900	70 x 160	Adapter	010-0145	2	1 place/adaptor
250.0	—	Corning® Disposable Conical Bottle ³	—	—	6	8,500	15,900	—	Adapter	010-1196	2	1 place/adaptor
250.0	250.0	Nalgene PPCO Bottle	3141-0250	36	6	8,500	15,900	61 x 133	Closure	Included	36	PP Sealing
250.0	250.0	Nalgene PPCO Bottle	3141-0250	36	6	8,500	15,900	61 x 133	Adapter	010-0150	2	1 place/adaptor
250.0	250.0	Nalgene PC Bottle	3140-0250	36	6	8,500	15,900	61 x 133	Closure	Included	36	PP Sealing
250.0	250.0	Nalgene PC Bottle	3140-0250	36	6	8,500	15,900	61 x 133	Adapter	010-0150	2	1 place/adaptor
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Bottle	3143-0175	36	6	8,500	15,900	61 x 144	Closure	Included	36	PP Sealing
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Bottle	3143-0175	36	6	8,500	15,900	61 x 144	Adapter	010-1132	2	1 place/adaptor

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
175.0	175.0	Nalgene PC Conical Wide-Mouth Bottle	3144-0175	36	6	8,500	15,900	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	18	8,500	15,900	38 x 109	Closure Adapter	Included	36	PP Sealing
										010-1093	2	3 places/adapter
80.0	76.0	PP Oak Ridge Tube	010-1280	6	18	8,500	15,900	38 x 109	Closure Adapter	Included	36	PP Sealing
										010-1093	2	3 places/adapter
85.0	81.0	PC Oak Ridge Tube	3118-0085	100	18	8,500	15,900	38 x 109	Closure Adapter	Included	100	PP Sealing
										010-1093	2	3 places/adapter
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	30	8,500	15,900	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-0180	2	5 places/adapter
50.0	–	Corning Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	–	BD Falcon® Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	36	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	36	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	36	8,500	15,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	36	8,500	15,900	29 x 115	Closure Adapter	Included	10	ETFE Screw Cap
										010-1091	2	6 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	42	8,500	15,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	42	8,500	15,900	26 x 102	Closure Adapter	Included	10	ETFE Screw Cap
										010-1095	2	7 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	84	8,500	15,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	84	8,500	15,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
15.0	–	Corning Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
15.0	–	BD Falcon Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	108	8,500	15,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	108	8,500	15,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	–	Vacutainer® Tube ³	–	–	108	–	–	16 x 100	Adapter	010-1085	2	18 places/adapter
3.0	–	Vacutainer Tube ³	–	–	180	–	–	10 x 64	Adapter	010-1131	2	30 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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Large Capacity Rotors

Thermo Scientific Fiberlite F6-6x1000y Rotor

F6-6x1000y



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 1000 mL
Maximum Speed	6,000 rpm
Tube Dimensions (mm)	98 x 195
Angle	20°
K Factor	9,060
Net Weight	17.6 kg (38.8 lbs.)
Warranty	15 years
	RCF
Maximum	7,900 xg
Minimum	2,177 xg
	RADIUS
Maximum	196.0 mm
Minimum	54.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC SORVALL RC-3 Series*	BECKMAN® J6 Series
Fiberlite F6-6x1000y	Cat. No.	78560	096-061010
	Max. Speed	6,000 rpm	6,000 rpm
	Max. RCF	7,900 xg	7,900 xg
	Sample Containment ¹	ELC	ELC

Fiberlite F6-6x1000y Rotor Package includes:

	Rotor Lid Assembly	099-061011	099-061010
	O-ring Refresher Kit ²	021-061011	021-061010

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
1000.0	1000.0	Nalgene® PPCO Bottle	3141-1002	2	6	6,000	7,900	98 x 195	Closure	Included	2	PP Sealing
1000.0	1000.0	Nalgene PC Bottle	3140-1002	2	6	6,000	7,900	98 x 195	Closure	Included	2	PP Sealing
500.0	450.0	Nalgene PPCO Bottle	3141-0500	24	6	6,000	7,900	70 x 160	Closure	Included	24	PP Sealing
									Adapter	010-0145	2	1 place/adapter
500.0	450.0	Nalgene PC Bottle	3140-0500	24	6	6,000	7,900	70 x 160	Closure	Included	24	PP Sealing
									Adapter	010-0145	2	1 place/adapter
250.0	—	Corning® Disposable Conical Bottle ³	—	—	6	6,000	—	—	Adapter	010-1196	2	1 place/adapter
250.0	250.0	Nalgene PPCO Bottle	3141-0250	36	6	6,000	7,900	61 x 133	Closure	Included	36	PP Sealing
									Adapter	010-0150	2	1 place/adapter
250.0	250.0	Nalgene PC Bottle	3140-0250	36	6	6,000	7,900	61 x 135	Closure	Included	36	PP Sealing
									Adapter	010-0150	2	1 place/adapter

* Rotor may not be available for all centrifuge models.

¹ Sample containment may vary by rotor. ELC denotes Enhanced Liquid Containment.

² Includes 5 O-rings, 3 O-ring Grease Packets and 4 oz FiberClene Lab Cleaner (017-0024).

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

LABWARE ORDERING INFORMATION CONTINUED

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Bottle	3143-0175	36	6	6,000	7,900	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
175.0	175.0	Nalgene PPCO Conical Wide-Mouth Bottle	3144-0175	36	6	6,000	7,900	61 x 144	Closure Adapter	Included	36	PP Sealing
										010-1132	2	1 place/adapter
80.0	73.0	PC Oak Ridge Tube	010-0515	6	18	6,000	7,900	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
80.0	76.0	PP Oak Ridge Tube	010-1280	6	18	6,000	7,900	38 x 109	Closure Adapter	Included	6	PP Sealing
										010-1093	2	3 places/adapter
85.0	81.0	PC Oak Ridge Tube	3118-0085	100	18	6,000	7,900	38 x 109	Closure Adapter	Included	100	PP Sealing
										010-1093	2	3 places/adapter
50.0	50.0	Nunc™ Disposable Conical Tube	334959	25	30	6,000	7,900	30 x 115	Closure Adapter	Included	25	PP Sealing
										010-0180	2	5 places/adapter
50.0	–	Corning Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	–	BD Falcon® Disposable Conical Tube ³	–	–	30	–	–	–	Adapter	010-0180	2	5 places/adapter
50.0	46.0	Nalgene PC Oak Ridge Tube	3138-0050	50	36	6,000	7,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PPCO Oak Ridge Tube	3139-0050	50	36	6,000	7,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene PSF Oak Ridge Tube	3137-0050	50	36	6,000	7,900	29 x 115	Closure Adapter	Included	50	PP Sealing
										010-1091	2	6 places/adapter
50.0	46.0	Nalgene FEP Oak Ridge Tube	3114-0050	10	36	6,000	7,900	29 x 108	Closure Adapter	Included	10	ETFE Screw Cap
										010-1091	2	6 places/adapter
30.0	30.0	Nalgene PC Oak Ridge Tube	3138-0030	50	42	6,000	7,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PPCO Oak Ridge Tube	3139-0030	50	42	6,000	7,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene PSF Oak Ridge Tube	3137-0030	50	42	6,000	7,900	26 x 102	Closure Adapter	Included	50	PP Sealing
										010-1095	2	7 places/adapter
30.0	30.0	Nalgene FEP Oak Ridge Tube	3114-0030	10	42	6,000	7,900	26 x 102	Closure Adapter	Included	10	PP Sealing
										010-1095	2	7 places/adapter
16.0	16.0	Nalgene PC Oak Ridge Tube	3139-0016	50	84	6,000	7,900	18 x 107	Closure Adapter	Included	50	ETFE Screw Cap
										010-1087	2	14 places/adapter
16.0	16.0	Nalgene PPCO Oak Ridge Tube	3138-0016	50	84	6,000	7,900	18 x 107	Closure Adapter	Included	50	PP Sealing
										010-1087	2	14 places/adapter
15.0	–	Corning Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
15.0	–	BD Falcon Disposable Conical Tube ³	–	–	72	–	–	–	Adapter	010-1079	2	12 places/adapter
10.0	8.0	Nalgene PPCO Oak Ridge Tube	3139-0010	50	108	6,000	7,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	8.0	Nalgene PC Oak Ridge Tube	3138-0010	50	108	6,000	7,900	16 x 100	Closure Adapter	Included	50	PP Sealing
										010-1307	2	18 places/adapter
10.0	–	Vacutainer® Tube ³	–	–	108	–	–	16 x 100	Adapter	010-1085	2	18 places/adapter
3.0	–	Vacutainer Tube ³	–	–	180	–	–	16 x 100	Adapter	010-1131	2	30 places/adapter

³ Performance depends upon tube brand. Contact your sales representative for recommended tube manufacturers and further information.

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www.thermoscientific.com/rotors

Thermo
 SCIENTIFIC

Large Capacity Rotors

Thermo Scientific Fiberlite F10-6x250y Rotor

Fiberlite F10-6x250y



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Carbon Fiber Composite
Capacity	6 x 250 mL
Maximum Speed	10,000 rpm
Angle	23°
K Factor	926
Warranty	15 years

	RCF	RADIUS
Maximum	15,344 xg	137.0 mm
Minimum	4,144 xg	37.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
Fiberlite F10-6x250y	Cat. No.	75006483	75006483
	Max. Speed	10,000 rpm	10,000 rpm
	Max. RCF	15,344 xg	15,344 xg

Fiberlite F10-6x250y Rotor Package includes:

	Rotor Lid Assembly	099-062175	099-062175
	O-ring Refresher Kit	021-062175	021-062175

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
250.0	250.0	Nalgene PPCO Bottle	3141-0250	36	6	10,000	15,320	61 x 133	Closure	Included	36	PP Sealing
250.0	250.0	Nalgene PC Bottle	3140-0250	36	6	10,000	15,320	61 x 133	Closure	Included	36	PP Sealing
175.0-225.0	—	Conical Bottle	—	—	6	—	—	62 x 130	Adapter	03095	1	1 place/adapter
50.0	—	Conical Bottle	—	—	6	—	—	29 x 119	Adapter	03072	1	1 place/adapter
30.0	—	Round Bottom Tube	—	—	18	—	—	24 x 105	Adapter	00449	1	3 places/adapter
15.0	—	Round Bottom Tube	—	—	30	—	—	19 x 119	Adapter	00456	1	5 places/adapter
10.0	—	Round Bottom Tube	—	—	42	—	—	16 x 100	Adapter	00389	1	7 places/adapter
5.0	—	Round Bottom Tube	—	—	72	—	—	12 x 75	Adapter	00388	1	12 places/adapter
3.0	—	Round Bottom Tube	—	—	30	—	—	10 x 75	Adapter	00370	1	1 place/adapter
									Adapter	00456	1	5 places/adapter

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For more information, please visit
www.thermoscientific.com/rotors

Thermo
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Part of Thermo Fisher Scientific

Large Capacity Rotors

Thermo Scientific HIGHConic Rotor

HIGHConic



ROTOR SPECIFICATIONS

Type	Fixed Angle
Material	Aluminum
Capacity	6 x 50 mL
Maximum Speed	8,500 rpm
Angle	45°
K Factor	2,545
Warranty	2 years
Certifications	

	RCF	RADIUS
Maximum	10,016 xg	124.0 mm
Minimum	4,842 xg	60.0 mm

ROTOR AND ACCESSORIES ORDERING INFORMATION

		THERMO SCIENTIFIC	
		SORVALL RC-4 Series	HERAEUS Cryofuge 5500i/Multifuge 4
Highconic	Max. Speed	8,500 rpm	8,500 rpm
	Max. RCF	10,016 xg	10,016 xg

Highconic Rotor Package includes:

Description	Cat. No.
HIGHConic® Rotor	75003057
Rotor Body	70056227
Rotor Lid	70060411
HIGHConic Adapter (qty. 6)	75003103

LABWARE ORDERING INFORMATION

Tube Vol. (mL)	Vol. Fill (mL)	Description	Cat. No.	Qty. /Pkg.	Tubes /Rotor	Max. Speed (rpm)	Max. RCF (xg)	Dims ØxL (mm)	REQUIRED TUBE CLOSURES, ADAPTERS, TOOLS & ACCESSORIES			
									Type	Cat. No.	Qty. /Pkg.	Description
50.0	–	Conical Tube	–	–	6	–	–	29 x 119	Adapter	75003103	1	1 place/adapter
50.0	–	Round Bottom Tube	–	–	6	–	–	29 x 119	Adapter	75003102	1	1 place/adapter
38.0	–	Round Bottom Tube	–	–	6	–	–	25 x 112	Adapter	75003094	1	1 place/adapter
16.0	–	Round Bottom Tube	–	–	6	–	–	18 x 124	Adapter	76002906	1	1 place/adapter
15.0	–	Conical Tube	–	–	6	–	–	19 x 119	Adapter	75003095	1	1 place/adapter
12.0	–	Round Bottom Tube	–	–	12	–	–	16 x 96	Adapter	75003093	1	2 places/adapter
7.0	–	Standard Tube	–	–	12	–	–	13 x 117	Adapter	75003092	1	2 places/adapter
5.0	–	Blood Collection Tube	–	–	12	–	–	16 x 96	Adapter	75003093	1	2 places/adapter
3.5	–	Round Bottom Tube	–	–	24	–	–	11 x 103	Adapter	75003091	1	4 places/adapter

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Rotor Reference Information



Thermo
SCIENTIFIC

FIBERLITE
F14-6x250y
Rotor

14,000 RPM 23,100xg
MADE IN USA



Advances in Rotor Design: Carbon Fiber Rotors

Thermo Scientific Fiberlite carbon fiber rotors maximize centrifuge performance with versatility, speed and robust, corrosion-free design.

IMPROVED ERGONOMICS AND PRODUCTIVITY

► *Lightweight Design*

Metal centrifuge rotors often present a unique lifting hazard in the laboratory due to their weight and awkward shape. Lightweight Fiberlite rotors feature improved ergonomics for a safer work environment and minimize the risk of damage to centrifuge equipment.

Additionally, its lightweight properties result in faster acceleration/deceleration rates for shorter run times and decreased wear to critical centrifuge drive components.

UNEQUALLED DURABILITY AND CLEANING CONVENIENCE

► *Corrosion- and Fatigue Resistance*

Traditionally, the primary cause of rotor failure – damage to metal surfaces due to moisture, chemicals or alkaline solutions – weakens the metal rotor's structural integrity. Carbon fiber composite rotors are corrosion-resistant, eliminating this ever-present hazard, and are safe to use with most laboratory detergents and solutions, ensuring easy rotor care and maintenance.

Substantial load or stress, as a result of high rotational speeds and repeat cycles, can also threaten metal rotor structure by causing it to stretch and change in size, limiting rotor life or leading to failure. Fiberlite rotors are fatigue-resistant, eliminating this threat.



EXCEPTIONAL VALUE

▶ *15-year Warranty in All Centrifuges*

Unlike the limited lifetime of metal rotors due to potential failure risks, Fiberlite carbon fiber rotors are backed by the most comprehensive warranty coverage available.

▶ *System Compatibility*

Compatible with virtually all centrifuge brands, Fiberlite rotors enable a user to experience the benefits of carbon fiber without requiring capital investment in a new centrifuge system.

▶ *Unique Repairability*

In contrast to traditional metal rotors, Fiberlite carbon fiber rotors are repairable if damaged.

▶ *Superior Insulation*

Carbon fiber material possesses naturally insulating properties, ensuring samples are kept at a constant temperature during centrifugation.

TIME AND COST EFFICIENCIES AND WASTE REDUCTION

▶ *Complete Workflow in Disposable Conical Tubes*

- Run samples in one disposable conical tube, protecting from contamination and eliminating sample transfers and non-productive tasks, such as autoclaving.
- Reduce processing times by spinning at maximum speeds up to 30,000 xg without risk of tube damage.

SAFE WORK ENVIRONMENT

▶ *Superior Sample Containment*

- In case of tube or bottle failure, a volume of fluid is contained in a special curved annulus at the top of rotors with Enhanced Liquid Containment (ELC).
- Enhanced containment of biohazardous samples is achieved with rotors featuring Bioseal technology, certified by HPA, Porton Down, UK (formerly CAMR).

More info
CARBON FIBER
ROTORS



Cross Reference Guide: Metal to Carbon Fiber Rotors

	Thermo Scientific Fiberlite Carbon Fiber Rotor	Equivalent Thermo Scientific Metal Rotor	Equivalent Beckman Metal Rotor
ULTRACENTRIFUGE	Fiberlite F40L-8x100	A-641 T647.5	Type 45Ti
	Fiberlite F50L-8x39	A-841 T-865 SureSpin 630 (36 mL)	Type 42.1 Ti Type 55.2 Ti Type 50.2 Ti SW28
	Fiberlite F65L-6x13.5	T-865.1 T-875 T-890	Type 90 Ti
	Fiberlite F50L-24x1.5	n/a	TLA-55
SUPERSPEED	Fiberlite F8-6x1000y	n/a	n/a
	Fiberlite F9-4x1000y	n/a	JLA-9.100
	Fiberlite F10-6x500y	SLA-3000 GS-3 AK-500.11	JLA-10.500 JA-10
	Fiberlite F14-6x250y	SLA-1500 GSA AK-250.14	JLA-16.250 JA-14
	Fiberlite F20-6x100	SA-800	n/a
	Fiberlite F21-8x50y	SS-34	JA-20
	Fiberlite F13-14x50cy	SS-34 SLA-600TC	JA-12
	Fiberlite F18-12x50	SLA-600TC SA-600	JA-17
	Fiberlite F21-48x1.5/2.0	F-20/Micro	n/a
LARGE CAPACITY	Fiberlite F8-6x1000y	H-6000A	n/a
	Fiberlite H3-LV	n/a	n/a

More info
CARBON FIBER
ROTORS

Rotor Care and Maintenance

More info
ROTOR CARE

Centrifuge rotor maintenance is critical to the safety of your lab. With proper maintenance and inspection practices, prolong the life of your rotors and protect your equipment and samples, maximizing your investment.

PRE-RUN CHECKLIST

- ✓ Tubes and bottles are in good condition
- ✓ O-rings are in place
- ✓ Tubes and bottles are balanced
- ✓ Rotor lid is on
- ✓ Rotor is correctly secured to the centrifuge drive

POST-RUN CHECKLIST

- ✓ Adapters are removed
- ✓ Rotor is cleaned and dry
- ✓ Rotor is stored upside-down, in warm, dry place
- ✓ Rotor is polished regularly

REGULAR MAINTENANCE

- ✓ Keep the rotor clean and dry
- ✓ Replace worn or damaged o-rings
- ✓ Lubricate metal rotor threads and centrifuge spindle to prevent galling
- ✓ Schedule a rotor inspection

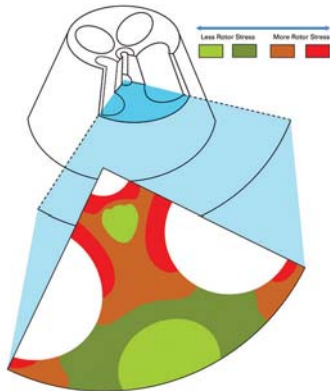
Our on-site rotor clinics provide a thorough evaluation of the safety of your rotors, including inspection for signs of wear and deterioration and a comprehensive report for each rotor. Additionally, discover good laboratory practices such as proper rotor care and handling.

DECONTAMINATION

Given the nature of samples processed in a rotor, biological or radioactive contamination is possible. For biological contamination of rotors, a 2% glutaraldehyde solution, ethylene oxide or ultraviolet radiation are the recommended methods of sterilization, while for a rotor that may be contaminated by a radioactive sample, use a solution of equal parts of 70% ethanol, 10% SDS and water.

For further details on proper maintenance or decontamination, please consult your rotor manual.

Leading Causes of Rotor Failure



▶ METAL FATIGUE AND AGE

Localized structural damage generated from repeat cycles, causing the metal structure to stretch and change in size.



▶ STRESS CORROSION

Attack on metal surfaces by moisture, chemicals, or alkaline solutions in combination with force or tensile stress from operation of the rotor at speed.



▶ DAMAGE TO ANODIZED COATINGS

Handling, friction generated at high velocity, and corrosion weakening the rotor structure.



▶ WEAR AND TEAR OF CRITICAL MECHANICAL COMPONENTS

Damage to contact points, such as threaded hubs or screws, leading to an improperly secured rotor, unsafe for operation.

▶ IMPROPER CARE AND HANDLING

Disregard of the operational specifications published in the rotor manual, resulting in misuse.

More info
ROTOR CARE

Rotor Warranty

THERMO SCIENTIFIC ROTOR WARRANTY PROTECTION

Rotors are subject to high levels of stress due to the centrifugal force created by high rotational speeds, and repeated cycles cause rotors to stretch and change in size. Depending on how close to the elastic limit the rotor is operated, and how many alternating stress cycles it experiences, these small changes may eventually become microscopic cracks. Since these tiny flaws can become exacerbated under centrifugal forces, metal rotors have a limited useful life. For maximum safety to lab personnel and equipment, rotors should be retired when their lifetime is reached.

For metal rotors, when the recommended retirement period has expired, consideration should be given to the retirement of the rotor.

THERMO SCIENTIFIC FIBERLITE ROTOR WARRANTY PROTECTION *15-year in all centrifuges*

Thermo Scientific Fiberlite carbon fiber rotors are a secure investment, backed by the most comprehensive warranty coverage¹ available.

Fiberlite composite rotors are manufactured to be direct replacements of conventional rotors. Compatible with a vast range of centrifuges, Fiberlite rotors provide the benefits of carbon fiber without requiring a capital investment in a new centrifuge system.

More info
ROTOR WARRANTY



¹Restrictions apply. Please see www.thermoscientific.com/fiberlitewarranty for complete Fiberlite rotor warranty coverage details.

Centrifuge Solutions for Biocontainment

In today's biomedical and microbiological laboratories, biosafety has never been more crucial. From new infectious disease studies to international biosecurity concerns, facilities require the utmost in protection to reduce the risk of biocontamination and laboratory-acquired infections (LAIs).

For your safety level requirement, we deliver multiple layers of protection for you and your laboratory - from our comprehensive Thermo Scientific centrifuges and accessories to our exceptional support and services.

► Centrifuges

From standard processing to superspeed applications with pathogens, Thermo Scientific centrifuges are fully equipped with industry-leading biosafety features for your application requirements, including easy to clean surfaces, user lock-out software to ensure access control for GMP-compliance, and no bolt-down design to meet CE and CSA safety standards without the need to damage the floor with restraint bolts.

► Rotors

Rotor security is central to the overall safety of your work. Choose a Thermo Scientific rotor with a wide range of safety features that have been independently tested for microbiological containment – from certified lids with Bioseal technology and enhanced liquid containment, which contains spillage in case of tube or bottle failure, to developments for cleaning convenience.

Additionally, our Thermo Scientific Rotor Safety Program ensures the safety of your workplace by preventing premature rotor failure with our on-site rotor inspection and safety clinics.

► Labware

For an extra layer of protection inside your rotor, we offer a full range of sealed tubes, as well as bottles and labware that deliver outstanding safety.

With our laboratory equipment products used throughout the world, including BSL-3 and BSL-4 facilities, our sales representatives can work with you to achieve your centrifuge biosafety needs - even after you've purchased equipment.

Biosafety Lab Requirements

BSL-1

Well-characterized agents with minimal potential hazard to lab environments, including:

Aspergillus niger

Escherichia coli

Pseudomonas fluorescens

Micrococcus luteus

BSL-2

Agents with moderate hazards to lab environments, including:

Polio Virus

H1N1 Virus

Herpes Virus

Neisseria gonorrhoeae

A standard laboratory operates at a BSL-2 level of safety.

BSL-3*

Indigenous or exotic agents with serious or potentially lethal disease if exposed or inhaled, including:

Yersinia pestis

Neisseria meningitidis

Mycobacterium tuberculosis

Bacillus anthracis

1918 Influenza strain

BSL-4

Exotic agents with high risk of aerosol-transmitted infections, including:

Hemorrhagic Fever Virus (ie, Ebola, Marburg, Crimean Congo Fever, Lassa)

*Organisms should be handled with BSL-3 practices when handling concentrated amounts or cultures of infectious materials or when there is a high potential for droplet or aerosol productions.

More info
BIOCONTAINMENT



Application Guide

ULTRACENTRIFUGE APPLICATIONS

Article Title	Rotors Featured	Topics Discussed
Separation of Lysosomes and Endosomes from Rat Liver Homogenate using Thermo Scientific Fiberlite Rotors	Fiberlite F50L-8x39 rotor	Lysosome Separation Endosome Separation Nycodenz Gradient
Purification of Glycoproteins from Bronchial Mucus Fluids	Fiberlite F65L-6x13.5 rotor	Glycoprotein Purification Isopycnic Density CsCl Gradient
Rapid Isolation of RNA by Guanidinium Thiocyanate/ Cesium Chloride Gradient Using Thermo Scientific Fiberlite Ultracentrifuge Rotors	Fiberlite F50L-8x39 rotor Fiberlite F65L-6x13.5 rotor	CsCl Gradient Isopycnic Density Gradient GTC (Guanidinium Thiocyanate)
Concentration of Retrovirus	SureSpin 630 rotor	Differential Pelleting Compass Software Antibody Pelletting
High Efficiency Differential Ultracentrifugation of Small Sample Volumes	TFT-80.2 rotor TFT-80.4 rotor	Differential Pelleting Compass Software Antibody Pelletting
Isolation of Skeletal Muscle Membrane	SureSpin 630 rotor AH-629 rotor T-865 rotor T-1250 rotor	Membrane Isolation Sucrose Gradient
Isolation of RNA by the Guanidine Thiocyanate (GTC) Method	TH-641 rotor AH-650 rotor	RNA Isolation CsCl Gradient GTC (Guanidine Thiocyanate)
Rapid, High-Volume Fractionation of Plasma Proteins	TZ-28 rotor	Lipoprotein Isolation Discontinuous Salt Gradient Zonal Ultracentrifugation
Rapid Separation of Endosomes from Lysosomes	TV-865 rotor	Endosome Lysosome Nycodenz Gradient Sucrose Gradient Ficoll Gradient Antibody Isolation
Rapid, Single-Spin Fractionation of Serum Lipoproteins by Density Gradient Ultracentrifugation	Stepsaver 65V13 rotor StepSaver 70V6 rotor TV-860 rotor	Lipoprotein Isolation Discontinuous Salt Gradient Discontinuous Sucrose Gradient Lipemia Whole Blood Serum
Separation of Lipid "Rafts" by Sucrose Gradient	AH-650 rotor	Plasma Membrane Isolation Lipid Rafts Sucrose Gradient Ficoll Gradient
Traditional Methods for CsCl Isolation of Plasmid DNA	H-6000A rotor SA-600 rotor Stepsaver 65V13 rotor TFT-80.2 rotor TFT-80.4 rotor	Plasmid DNA Isolation Chromosomal DNA Isolation DNA Kits CsCl Gradient Bacterial Pelletting

MICRO-ULTRACENTRIFUGE APPLICATIONS

Article Title	Rotors Featured	Topics Discussed
Banding of Intact Bacteriophage	S100-AT6 rotor S110-AT rotor Fiberlite F14-6x250y rotor	Phage Isolation CsCl Gradient Bacterial Pelletting
Efficient Separation of Tomato Soluble Solids	S140-AT rotor	Tomato Soluble Solids Pelletting
Isolation of Plasma Membrane from Endothelial Cells	S55-A2 rotor	Plasma Membrane Isolation Percoll Gradient

More info
COMPLETE APPLICATION NOTES

MICRO-ULTRACENTRIFUGE APPLICATIONS (continued)

Article Title	Rotors Featured	Topics Discussed
Isolation of RNA	S150-AT rotor S55-S rotor	RNA Isolation CsCl Gradient GTC (Guanidine Thiocyanate)
Plasmid DNA Separation	S150-AT rotor S120-AT2 rotor S120-VT rotor S110-AT rotor S100-AT4 rotor S100-AT6 rotor S80-AT3 rotor	DNA Isolation CsCl Gradient Cesium Trifluoroacetate
Rapid Separation of Human Serum Lipoproteins	S140-AT rotor S120-AT2 rotor S120-AT3 rotor S150-AT rotor	Lipemia Lipoprotein Isolation Differential Flotation
Separation of SRSV in 5 mL Tubes	S52-ST rotor	Virus Isolation Sucrose Gradient
Separation of Influenza Viruses Using a Fixed-Angle Rotor Designed for Micro-ultracentrifuges	Ultracentrifuges	Influenza Virus
Nanoparticle Separations	S110-AT rotor	Nanoparticles Purification Sucrose Density Gradient Ink Separation

SUPERSPEED APPLICATIONS

Article Title	Rotors Featured	Topics Discussed
Purifying DNA from Cleared Lysate	Fiberlite F8-6x1000y rotor Fiberlite F21-8x50y rotor Fiberlite F21-48x1.5/2.0 rotor Fiberlite F9-4x1000y rotor	Plasmid DNA Isolation Bacterial Pelletting CsCl Gradient
Sample Remixing During Density Gradient Separations	Fiberlite F21-8x50y rotor	Cellular Pelletting Discontinuous Sucrose Gradient Acceleration/Deceleration Profiles
DNA Preparation	Fiberlite F14-6x250y rotor SLA-1500 rotor SLA-1000 rotor	Bacterial Pelletting DNA Isolation DNA Kits
Large Scale Recombinant Protein Production	Fiberlite F9-4x1000y rotor Fiberlite F12-6x500y rotor SLA-3000 rotor	Recombinant Protein Production Bacterial Pelletting Fermentation
Large Volume Pelletting	Fiberlite F8-6x1000y rotor	Bacterial Pelletting Proteomics Protein Purification
Pelleting Bacteria	Fiberlite F8-6x1000y rotor Fiberlite F9-4x1000y rotor Fiberlite F10-6x500y rotor GS-3 rotor SLA-3000 rotor	Bacterial Pelletting
Isolation of Mitochondria	Fiberlite F21-8x50y rotor Fiberlite F8-6x1000y rotor Fiberlite F9-4x1000y rotor	Mitochondria Isolation Discontinuous Sucrose Gradient Yeast Pelletting
Pelleting Studies	Fiberlite F21-8x50y rotor	Pelleting
DNA Purification	Fiberlite F13-14x50cy rotor	Qiagen Plasmid DNA Kit DNA Isolation

LARGE CAPACITY APPLICATIONS

Article Title	Rotors Featured	Topics Discussed
Integrated Solutions for High-Throughput Bioprocessing Applications	H-12000 rotor	Whole Blood Blood Components Vaccine Production Cell Pelletting
Improving Blood Banking Protocols	H-6000A rotor HBB-6 rotor HLR-6 rotor	Whole Blood Blood Components

More info
COMPLETE APPLICATION NOTES

Basics of Centrifugation

A. Basic Concepts

A centrifuge is a device that separates particles from a solution through use of a rotor. In biology, the particles are usually cells, subcellular organelles, or large molecules, all of which are referred to here as particles.

There are two types of centrifuge procedures; one is preparative, the purpose of which is to isolate specific particles, and the other is analytical, which involves measuring physical properties of the sedimenting particles.

As a rotor spins in a centrifuge a centrifugal force is applied to each particle in the sample; the particle will then sediment at the rate that is proportional to the centrifugal force applied to it. The viscosity of the sample solution and the physical properties of the particles also affect the sedimentation rate of each particle.

At a fixed centrifugal force and liquid viscosity, the sedimentation rate of a particle is proportional to its size (molecular weight) and to the difference between the particle density and the density of the solution.

B. Basic Theory of Sedimentation

Some of the basic principles of sedimentation theory originated from Stokes' law. The following is the Stokes' law equation, derived from the settling of a sphere in a gravitational field. As the velocity of the sphere reaches a constant value, the net force of the sphere is equal to the force resisting its motion through the liquid; see equation 1. This resisting force is called the frictional or drag force.

$$\frac{1}{6} \pi d^3 (\rho_p - \rho_l) g = 3 \pi d \mu v$$

Equation 1

Where:

- v = sedimentation rate, or velocity of the sphere
- d = diameter of the sphere
- ρ_p = density of the sphere
- ρ_l = density of the liquid
- μ = viscosity of the liquid medium
- g = gravitational force

Solving for v,

$$v = \frac{d^2 (\rho_p - \rho_l)}{18 \mu} \times g$$

Equation 2

From the Stokes' law equation, we conclude:

1. The sedimentation rate of a given particle is proportional to the size of that particle.
2. The sedimentation rate is proportional to the difference between the density of the particle and the density of the liquid medium.
3. The sedimentation rate is zero when the density of the particle is equal to the density of the liquid medium.
4. The sedimentation rate decreases as the viscosity of the liquid increases.
5. The sedimentation rate increases as the gravitational force increases.

Stokes' Law refers to "1-g" sedimentation, thus equation 3 can be written as follows:

$$v = \frac{d^2 (\rho_p - \rho_l)}{18 \mu} \times g = \frac{dr}{dt} \times g (981)$$

Equation 3

Where:

dr/dt = rate of movement of the particles (cm/sec)

The sedimentation rate, v, is useful in the characterizing a particle and can be determined in the centrifuge as shown in equation 4:

$$v = \frac{dr}{dt} = s \times \omega^2 r$$

Equation 4

Where:

- s = sedimentation coefficient (expressed in seconds)*
- r = distance between the particle and the center of rotation (cm)
- ω = angular velocity (radians/sec)
- dr/dt = rate of movement of the particles (cm/sec)

The sedimentation rate per unit of centrifugal force is called the sedimentation coefficient and can be written as follows:

$$s = \frac{1}{\omega^2 r} \times \frac{dr}{dt}$$

Equation 5

Using equations 4 and 5, we can see how the sedimentation coefficient relates to molecular weight (M), as shown by Svedberg and Pedersen (1940).

$$\frac{v}{\omega^2 r} = \frac{M(1 - \bar{V}p_1)}{f}$$

Equation 6

Where:

M = Mass or molecular weight of one particle

v = $1/\rho p$

f = molar friction constant

Therefore,

$$s = \frac{M(1 - \bar{V}p)}{Nf}$$

Equation 7

Where:

N = Avogadro's number

Svedberg's equation can be now written in terms of the sedimentation and diffusion coefficient as follows:

$$\frac{s}{D} = \frac{M(1 - \bar{V}p)}{RT}$$

Equation 8

Where:

D = diffusion coefficient

R = universal gas constant

T = absolute temperature

This equation shows that the mass of a particle is proportional to its sedimentation coefficient and inversely proportional to its diffusion coefficient. For example, a sedimenting particle with a small molecular weight will have a correspondingly small sedimentation coefficient; it will therefore show a tendency to diffuse rapidly in solution of low viscosity.

The relative pelleting efficiency (sedimenting of particles to the bottom of the tube) of a rotor is expressed as its clearing factor, or K-factor. The formula for determining K-factor is as follows:

$$k = \frac{\ln(r_{\max} / r_{\min})}{\omega^2} \times \frac{10^{13}}{3600}$$

Equation 9

Where:

r_{max} = maximum radial distance measured to the bottom of the tube

r_{min} = radial distance measured to the meniscus at the top of the tube

ω = angular velocity in radians/sec (2π rpm/60, or 0.10472 x rpm)

The K-factor can be used in the following equation to estimate the time, T (in hours) required to pellet a particle to the bottom of the tube.

Note: Total run time calculated from the above formula may be longer for most metallic (aluminum and titanium) rotors although their K-factor may appear to have better sedimentation efficiency than the comparable carbon fiber rotor; however, the total calculated run times are shorter. The Kfactor is determined for the rotor at maximum speed. Acceleration and deceleration rate are not included in the derivation of the K-factor formula.

$$T = \frac{K}{S}$$

Equation 10

Where:

s = sedimentation coefficient (in Svedberg's) of the particles

The adjusted K-factor for the rotor can be calculated if the actual speed (rpm) for the run is less than the maximum speed (rpm) of the rotor using the following formula:

$$K_{\text{adjusted}} = \frac{K(\max) \times (\max \text{ speed of rotor})}{(\text{actual speed of rotor})^2}$$

Equation 11

Where:

K_{max} = Rotor the maximum speed

K_{adj} = Rotor at reduced (actual) speed

Run time can be calculated from data established in prior experiments when the K-factor and the run time of one rotor are known. For example, for rotors a and b, the formula below can be used:

$$T(a)/T(b) = K(a)/K(b)$$

Equation 12

Where:

T(a) = time to pellet in the “new” rotor

T(b) = time to pellet in the “old” rotor

K(a) = K-factor of the “new” rotor

K(b) = K-factor of the “old” rotor

In some instances the literature can supply the value of the relative centrifugal force (RCF) obtained from the centrifugation studies. The RCF value, when it is the sediment that is to be recovered, is the centrifugal force at a specific radial distance measured at the bottom of the tube (r_{max}). When it is the supernatant that is to be recovered, the radial distance is measured at the middle of the tube (average radius), or r (av). The formula for RCF is as follows:

$$RCF = \frac{r\omega^2}{g}$$

Equation 13

Where:

r_{max} or r (av) = radius (mm)

ω = angular velocity (radians/sec)

g = standard acceleration of gravity (9807 mm/s²)

After substitution equation 13 can be written as follows:

$$RCF = 1.12r \frac{(RPM)^2}{(1000)^2}$$

Equation 14

Or

$$RCF = RPM^2 \times 0.0112r/10,000$$

Equation 15

C. Simple Calculations for RCF from RPM and RPM from RCF

Some centrifuges have input displays that calculate RCF from RPM, or vice versa, when the maximum radial distance of the rotor used in the instrument is known. However, if one of these three parameters is unknown, a nomogram may be used to select the unknown RPM or RCF if the radial distance (r_{max}) is known. Run time calculations for new studies can also be determined for a different rotor if RCF (g-force) and run time are known for a previous study using a different rotor.

Calculate run time (T) for the new study from the following relationship.

$$T = \frac{a \times b}{c}$$

Equation 16

Where:

a = run time from a previous study

b = g-force of rotor for a previous study

c = g-force for the new study



Chemical Compatibility Chart

Chemical Resistance Charts

PA (Polyallomer)	SS (Stainless Steel)	TI (Titanium Alloy)	NBR (Nitrile-Butadiene)
PC (Polycarbonate)	PET (Polyethylene Terephthalate)	PPO (Polyphenylene Oxide)	NY (Nylon)
PE (Polyethylene)	AL (Aluminum Alloy)	PAL (Polyacetal) (Delerin)	SI (Silicon Rubber)
PP (Polypropylene)	CF (Carbon Fiber)	CR (Neoprene Rubber)	VI (Victon, Fluorine Rubber)

S Satisfactory	U Unsatisfactory					M Marginal					- No Test Made					
CHEMICALS	P A	P C	P E	P P	S S	P E T	A L	C F	T I	P P O	P A L	C R	N B R	N Y	S I	V I

GRADIENT MEDIUM

Cesium Acetate	S	S	S	S	M	-	M	S	S	S	S	S	S	S	S	S
Cesium Bromide	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Cesium Chloride	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Cesium Formate	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Cesium Iodide	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Cesium Sulfate	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Dextran (Sulfate)	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Ficoll-Paque	S	S	S	S	M	-	M	S	S	S	S	S	S	S	S	S
Glycerol	S	S	S	S	S	S	M	S	S	S	S	S	S	S	S	S
Metrizamide	S	S	S	S	M	-	M	S	S	S	S	S	S	S	S	S
Potassium Bromide	S	S	S	S	M	S	U	S	S	S	S	S	S	S	S	S
Rubidium Bromide	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Rubidium Chloride	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Sodium Bromide	S	S	S	S	M	S	U	S	S	S	S	S	S	S	S	S
Sodium Iodide	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Sucrose	S	S	S	S	S	S	M	S	S	S	S	S	S	S	S	S
Sucrose, Alkaline	S	U	S	S	M	U	M	S	S	S	S	S	S	S	S	S

ACIDS

Acetic Acid (5%)	S	S	S	S	M	S	S	S	S	S	M	S	M	S	S	M
Acetic Acid (60%)	S	U	M	M	U	U	S	M	S	S	U	M	M	-	M	U
Acetic Acid (glacial)	S	U	M	M	U	U	S	U	S	S	U	U	U	U	U	U
Aqua Regia	U	U	U	U	U	-	U	U	S	U	U	U	U	-	M	M
Boric Acid	S	S	S	S	S	S	U	S	S	S	U	S	S	S	S	S
Chromic Acid (10%)	S	M	S	S	U	S	U	S	S	S	U	U	U	U	M	S
Chromic Acid (50%)	M	U	S	S	U	-	U	U	S	U	U	-	-	-	-	S
Citric Acid	S	S	S	S	S	S	S	S	S	M	U	S	S	M	S	S
Formic Acid (50%)	S	M	S	S	U	S	U	M	S	S	U	S	U	U	S	U
Hydrochloric Acid (10%)	S	M	S	S	U	S	U	S	S	S	U	S	S	-	S	S
Hydrochloric Acid (35%)	S	U	S	S	U	U	U	M	M	S	U	M	M	U	U	M
Hydrofluoric Acid (10%)	S	M	S	S	U	-	U	S	U	-	U	S	U	S	-	-
Hydrofluoric Acid (50%)	M	U	S	S	U	-	U	M	U	U	U	S	U	-	U	M
Lodoacetic Acid	S	M	S	S	S	M	S	S	S	S	S	M	-	M	M	M
Lactic Acid	S	S	M	S	S	-	-	-	S	S	-	-	-	-	-	S
Mercaptoacetic Acid	M	U	U	U	S	U	U	S	S	S	S	M	-	U	U	S
Nitric Acid (10%)	S	S	S	S	M	S	M	S	S	S	U	U	U	M	M	S
Nitric Acid (50%)	S	M	M	M	M	U	M	U	S	S	U	U	U	M	U	S
Oleic Acid	S	S	S	S	U	S	S	S	S	S	U	U	-	S	M	M
Oxalic Acid	S	S	S	S	U	-	M	S	M	S	U	S	M	S	U	S
Perchloric Acid	M	U	M	M	U	U	U	U	S	S	U	-	U	U	U	S
Phosphoric Acid (10%)	S	S	S	S	M	S	U	S	U	S	U	S	S	U	U	S
Phosphoric Acid (50-85%)	M	U	S	S	M	S	U	S	U	M	U	U	S	U	U	S
Piric Acid	M	U	S	S	U	-	U	M	U	S	U	U	S	U	U	S
Stearic Acid	S	S	S	S	S	S	S	S	S	S	S	S	S	S	M	S
Sulfuric Acid (10%)	S	S	S	S	U	S	U	M	U	M	U	S	S	S	U	S
Sulfuric Acid (50%)	S	U	S	S	U	S	U	U	U	U	U	S	-	M	U	S
Sulfuric Acid (98%)	S	U	M	S	M	U	U	U	U	M	U	U	U	U	U	S
Tartaric Acid	-	-	-	-	-	-	-	S	-	-	-	S	S	-	S	-
Trichloroacetic Acid	S	M	S	S	U	U	U	S	U	S	U	U	-	U	U	U

Chemical Resistance Charts (continued)

PA (Polyallomer)	SS (Stainless Steel)	TI (Titanium Alloy)	NBR (Nitrile-Butadione)
PC (Polycarbonate)	PET (Polyethylene Terephthalate)	PPO (Polyphenylene Oxide)	NY (Nylon)
PE (Polyethylene)	AL (Aluminum Alloy)	PAL (Polyacetal) (Delerin)	SI (Silicon Rubber)
PP (Polypropylene)	CF (Carbon Fiber)	CR (Neoprene Rubber)	VI (Victon, Fluorine Rubber)

S Satisfactory	U Unsatisfactory				M Marginal				- No Test Made			
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CHEMICALS	P	P	P	P	S	P	A	C	T	P	P	C	N	N	S	V
	A	C	E	P	S	E	L	F	I	P	A	R	B	Y	I	I

SALTS

Aluminium Chloride	S	S	S	S	U	S	U	M	U	S	U	S	S	M	M	S
Ammonium Acetate	S	S	S	S	S	S	S	S	S	S	S	S	-	S	S	S
Ammonium Carbonate	S	U	S	S	S	S	S	S	S	S	S	S	U	S	S	S
Ammonium Chloride	S	-	-	-	-	-	-S	S	-	-	S	S	S	-	S	-
Ammonium Phosphate	S	M	S	S	M	-	U	S	S	S	S	S	S	S	S	S
Ammonium Sulfate	S	S	S	S	M	S	S	S	S	S	S	S	S	S	S	U
Barium Salts	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Calcium Chloride	S	M	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Calcium Hypochlorite	S	M	S	S	U	-	U	M	S	S	M	M	M	S	S	S
Ferric Chloride	M	S	S	S	U	-	U	S	S	S	M	S	S	S	S	S
Guanidine Hydrochloride	S	S	S	S	U	S	U	S	S	S	S	S	-	S	S	S
Guanidine Thiocyanate	S	-	S	S	-	U	-	-	S	-	-	-	-	-	-	-
Magnesium Chloride	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	S
Nickel Salts	S	S	S	S	S	S	M	S	S	S	S	S	-	S	S	S
Potassium Acetate	S	M	S	S	S	-	M	-	S	-	-	-	-	-	-	-
Potassium Carbonate	S	S	S	S	S	S	M	S	S	S	S	S	-	S	S	S
Potassium Chloride	S	S	S	S	U	S	U	S	S	S	S	S	-	S	S	S
Potassium Iodide	S	S	S	S	S	S	M	S	S	S	S	S	-	S	S	S
Potassium Permanganate	S	S	S	S	M	S	S	S	S	S	S	M	-	U	M	S
Silver Nitrate	S	S	S	S	M	S	U	S	S	S	S	M	-	S	U	S
Sodium Bicarbonate	-	-	-	-	-	-	-	S	-	-	S	S	S	-	S	S
Sodium Carbonate	S	S	S	S	S	S	M	S	S	S	S	S	S	S	S	S
Sodium Chloride	S	S	S	S	M	S	U	S	S	S	S	S	S	S	S	S
Sodium Dichromate	S	S	S	S	-	-	M	-	S	-	-	-	-	S	-	-
Sodium Nitrate (10%)	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U	S
Sodium Phosphate	-	-	-	-	-	-	-	S	-	-	S	S	S	-	U	S
Sodium Sulfate	S	S	S	S	M	S	U	S	S	S	S	S	-	S	S	S
Sodium Thiosulfate	-	-	-	-	-	-	-	S	-	-	S	S	S	-	S	S
Zinc Chloride	S	S	S	S	U	S	M	S	S	S	U	S	S	S	S	S
Zinc Sulfate	S	S	S	S	S	S	U	S	S	S	S	M	S	S	S	S

BASES

Ammonium Hydroxide (10%)	S	U	S	S	S	-	U	S	S	S	U	S	U	S	S	S
Ammonium Hydroxide (28%)	S	U	S	S	S	U	U	M	S	S	U	S	-	S	S	U
Aniline (10%)	U	U	U	M	S	U	S	M	S	U	S	U	U	U	S	S
Potassium Hydroxide (5%)	S	U	S	S	M	M	U	S	M	S	U	S	-	S	M	S
Potassium Hydroxide (45%)	S	U	S	U	M	U	U	S	U	S	U	S	S	U	U	M
Pyridine (50%)	M	U	S	S	U	U	U	U	U	U	M	U	U	S	S	U
Sodium Hydroxide (1%)	S	U	S	S	S	M	U	S	S	S	U	S	-	S	M	S
Sodium Hydroxide (10%)	S	U	S	S	S	M	U	S	S	S	U	S	S	S	U	S
Sodium Hydroxide (50%)	M	U	S	M	S	U	U	S	M	M	U	-	-	S	U	U

Chemical Resistance Charts (continued)

PA (Polyallomer)	SS (Stainless Steel)	TI (Titanium Alloy)	NBR (Nitrile-Butadiene)
PC (Polycarbonate)	PET (Polyethylene Terephthalate)	PPD (Polyphenylene Oxide)	NY (Nylon)
PE (Polyethylene)	AL (Aluminum Alloy)	PAL (Polyacetal) (Delerin)	SI (Silicon Rubber)
PP (Polypropylene)	CF (Carbon Fiber)	CR (Neoprene Rubber)	VI (Victon, Fluorine Rubber)

S Satisfactory	U Unsatisfactory					M Marginal					- No Test Made				
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CHEMICALS	P	P	P	P	S	P	A	C	T	P	P	C	N	N	S	V
	A	C	E	P	S	E	L	F	I	P	A	R	B	Y	I	I
						T				O	L		R			

SOLVENTS

Acetone (50%)	U	U	S	U	S	U	S	M	S	U	M	U	U	M	S	U
Amyl Alcohol	S	M	U	U	-	-	S	M	S	M	S	S	S	S	S	M
Benzene	U	U	U	U	S	U	S	U	S	U	M	U	U	S	S	S
Carbon Tetrachloride	U	U	U	U	M	U	U	U	U	U	M	U	M	S	S	S
Chloroform	U	U	U	U	S	U	U	M	U	U	M	U	U	S	S	S
Cresol	-	U	U	U	S	U	S	M	S	U	S	U	U	U	U	U
Diethyl Ether	U	U	U	U	S	U	S	U	S	U	S	U	U	S	S	U
Diethyl Ketone	U	U	U	M	M	-	S	M	S	-	M	U	M	S	S	U
Dimethyl Sulfoxide	M	U	S	S	S	U	S	S	S	S	S	U	-	S	S	U
Dimethylformamide	M	U	S	S	S	U	S	M	S	U	S	S	-	S	S	U
Ethyl Acetate	U	U	M	U	M	U	M	M	S	U	M	M	U	S	S	U
Ethyl Alcohol (50%)	S	U	S	S	S	M	S	S	S	S	M	S	-	S	S	S
Ethyl Alcohol (95%)	S	U	S	S	S	U	S	M	S	S	M	S	S	S	S	S
Ethylene Glycol	S	U	S	S	M	-	S	S	S	S	S	S	S	S	S	S
Isopropyl Alcohol	S	U	S	S	S	-	S	S	U	S	S	M	-	S	S	S
Methyl Alcohol	S	U	S	S	S	M	S	M	S	S	M	S	S	S	S	U
Methyl Ethyl Ketone	U	U	U	U	S	U	S	U	S	U	M	U	U	S	S	U
Methylene Chloride	U	U	U	U	M	U	U	S	U	U	S	U	-	M	M	M
N-Butyl Alcohol	M	M	M	S	-	-	M	M	S	M	S	S	S	S	S	S
Phenol (1%)	S	U	S	S	S	U	U	M	S	M	S	U	U	U	U	S
Toluene	U	U	U	U	S	U	S	M	U	U	M	U	U	S	S	S
Xylene	U	U	U	U	S	U	S	M	S	U	M	U	U	U	U	S

OTHERS

Culture Media	S	S	S	S	-	-	S	-	-	M	-	-	-	-	-	-
Diethylpyrocarbonate	S	U	S	S	S	U	S	S	S	U	S	S	-	S	S	S
Ethylene Oxide Vapor	S	M	S	S	S	-	S	U	S	-	-	U	U	S	S	U
Formaldehyde (40%)	S	S	S	S	M	S	M	S	S	S	S	S	S	S	S	U
Hydrogen Peroxide (3%)	S	S	S	S	S	S	S	M	S	S	M	S	U	S	U	S
Hydrogen Peroxide (5%)	S	S	S	S	S	S	S	M	U	U	U	M	U	U	U	M
Kerosene	U	U	U	U	S	U	S	S	S	U	S	U	S	S	S	S
Liquid Paraffin	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
2-Mercaptoethanol	S	M	S	S	S	U	S	M	S	S	S	U	-	S	S	S
Milk	S	S	-	-	-	-	S	-	-	M	-	-	-	-	-	-
Petroleum	M	M	U	U	U	S	-	S	S	S	S	S	S	S	S	S
Serum	S	S	-	-	-	-	S	-	-	M	-	-	-	-	-	-
Sodium Hypochlorite (5%)	S	U	M	M	S	S	M	U	S	S	U	U	M	S	S	S
Tris Buffer (neutral)	S	S	S	S	S	S	S	S	S	U	S	S	-	S	S	S
Triton X-100	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Vegetable Oils	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Urea	S	S	S	S	S	S	S	S	S	S	S	S	-	S	S	S

ACCELERATION TIME of a rotor to its maximum speed varies with the rotor, the centrifuge, and the acceleration program selected by the user.

ANGULAR VELOCITY (symbol: ω , omega) is the rotational velocity of a body about an axis, expressed in radians per second:

$$\omega = 2\text{rpm}/60, \text{ or}$$

$$\omega = 0.10472 \times \text{rpm}$$

where RPM is the speed of rotation in revolutions per minute (rpm)

AVERAGE RADIUS (symbol: r_{av}) of a rotor is the distance from the center of rotation to the midpoint of the centrifuge tube during centrifugation.

AVOGADRO'S NUMBER (symbol: N) is the number of molecules in one gram molecular weight, or one mole, of a substance. It is equal to 6.023×10^{23} .

BANDING is the redistribution and concentration of particles at their buoyant densities during isopycnic centrifugation.

BUOYANT DENSITY is the effective density of a particle, as determined by isopycnic centrifugation in a specific gradient medium.

CENTRIFUGAL FORCE (symbol: g) is exerted on a rotating body or particle, tending to pull it away from the center of rotation.

CLEARING is the removal, by sedimentation in a centrifugal field, of particles from a supernatant.

CLEARING FACTOR (symbol: K) is a constant, different for each rotor, used to compare the relative efficiency of rotors for pelleting operations:

$$K = T/S,$$

where T is the clearing time of a specified particle in hours and S is the sedimentation coefficient of that particle in Svedbergs

CLEARING TIME is the time required to sediment a particle in aqueous solution to the bottom of a centrifuge tube:

$$T = K/S,$$

where T is the clearing time in hours, K is the clearing factor for a specific rotor, and S is the sedimentation coefficient of the particle in Svedbergs

CUSHION is a layer of dense solution placed at the bottom of a centrifuge tube to prevent damage to or pelleting of particles.

DECELERATION TIME of a rotor from its maximum speed varies with the rotor, the centrifuge, and the deceleration program selected by the user.

DENSITY (symbol: ρ , rho) is the mass per unit volume of a substance, often expressed in g/ml.

DENSITY GRADIENT CENTRIFUGATION is separation performed in a supporting column of solution in which the density and solution concentration increase toward the bottom of the centrifuge tube.

DERATION of rotors, after a specified amount of use, guards against the effects of metal fatigue.

DIFFERENTIAL CENTRIFUGATION separates particles on the basis of their size. By a series of centrifugations at various speeds and times, different sized particles are sedimented and collected from an initially homogenous suspension.

DISCONTINUOUS, OR STEP, GRADIENT is one composed of layers, with abrupt changes in density and/or concentration from one layer to the next.

EQUILIBRIUM, OR ISOPYCNIC, GRADIENT CENTRIFUGATION separates particles on the basis of their buoyant densities. A gradient range is selected to encompass the densities of all particles to be banded. Equilibrium gradients may be self-generated by centrifugal force acting on a solution of uniform starting density, or they may be preformed by layering to achieve equilibrium more rapidly.

FLOATATION COEFFICIENT (symbol: s) is analogous to the sedimentation coefficient for particles that float rather than sediment. g is the symbol for the standard acceleration of gravity. Centrifugal force is also expressed in terms of g.

GRADIENT LAYERING is the process of making a preformed discontinuous gradient by means of a mechanical pump or a Pasteur pipette.

ISOKINETIC GRADIENT is one in which all particles of equal density move at a constant rate at all distances along the length of the centrifuge tube. Isokinetic gradients are convex in shape, but some linear gradients are also isokinetic (e.g., 5-20% sucrose solution used in swinging bucket rotors).

ISOPYCNIC GRADIENT CENTRIFUGATION. See EQUILIBRIUM GRADIENT CENTRIFUGATION.

K-FACTOR. See CLEARING FACTOR.

LINEAR GRADIENT is one in which a plot of density (or concentration) vs. distance along the centrifuge tube yields a straight line.

MAXIMUM RADIUS (symbol: r_{max}) of a rotor is the distance from the center of rotation to the bottom of the centrifuge tube during centrifugation.

MINIMUM RADIUS (symbol: r_{min}) of a rotor is the distance from the center of rotation to the inside (centripetal) top edge of the centrifuge tube during centrifugation.

MOLECULAR WEIGHT (symbol: M) is the sum of the atomic weights of all the atoms in a molecule.

n is the symbol for **REFRACTIVE INDEX**.

NOMINAL TUBE VOLUME is that which a centrifuge tube would hold if completely filled. The actual fill volume under operating conditions, however, will be somewhat less.

OMEGA (ω) is the symbol for **ANGULAR VELOCITY**.

OVERSPEED DISK is a ring with alternating light and dark sector-shaped stripes that is attached to the bottom of each preparative ultracentrifuge rotor. An essential part of the photoelectric overspeed detection system, it should be replaced if damaged or when the rotor is derated.

PELLETING is the process of sedimenting material to the bottom of a centrifuge tube.

PELLICLE is a film or floating layer at the top of a centrifuge tube, following centrifugation.

PREFORMED GRADIENT is one in which the gradient is created prior to centrifugation by a gradient generator or by hand layering using a Pasteur pipette.

r is the symbol for **RADIUS** of a rotor (distance from the rotor axis).

r_{av} is the symbol for the **AVERAGE RADIUS** of a rotor (distance to the middle of the tube).

r_{max} is the symbol for the **MAXIMUM RADIUS** of a rotor (distance to the bottom of the tube).

r is the symbol for the **MINIMUM RADIUS** of a rotor (distance to the meniscus at the top of the tube).

RADIUS (symbol: r) of a rotor is the distance from the center of rotation.

RATE-ZONAL CENTRIFUGATION is the separation of particles by differences in their size and sedimentation rates, using a preformed linear or discontinuous density gradient.

RCF is the symbol for **RELATIVE CENTRIFUGAL FIELD**.

REFRACTIVE INDEX (symbol: n) is the ratio of the velocity of light (at a particular wavelength) in a vacuum to that in a medium, such as water.

RELATIVE CENTRIFUGAL FIELD (symbol: **RCF**) is the ratio of a centrifugal field, at a specific speed and a specific radius, to the earth's field of gravity:

$$RCF = 1.12 r \times (RPM/1000)^2,$$

where r is the radius in millimeters and **RPM** is the speed of rotation in revolutions per minute (**rpm**)

REORIENTATION of the solution within a centrifuge tube changes its position in all fixed angle, vertical tube, and near vertical tube rotors. During centrifugation, the solution orients perpendicular to the axis of the rotor; it reorients to its original position during deceleration and at rest, when the rotor has stopped.

RESOLUTION, as applied to density gradient centrifugation, refers to the volume of gradient medium between bands or zones of separated components.

ρ (ρ) is the symbol for **DENSITY**.

ROTOR CAPACITY is the maximum volume of liquid (both sample and gradient) that a rotor can carry with all tubes full.

s is the symbol for **SEDIMENTATION COEFFICIENT**.

S_{20w} is the symbol for the **STANDARD SEDIMENTATION COEFFICIENT**.

S is the symbol for **SVEDBERG** ($1 S = 1$ Svedberg unit = 1×10^{-13} seconds).

SEDIMENTATION COEFFICIENT (symbol: s) is the sedimentation velocity per unit of centrifugal force:

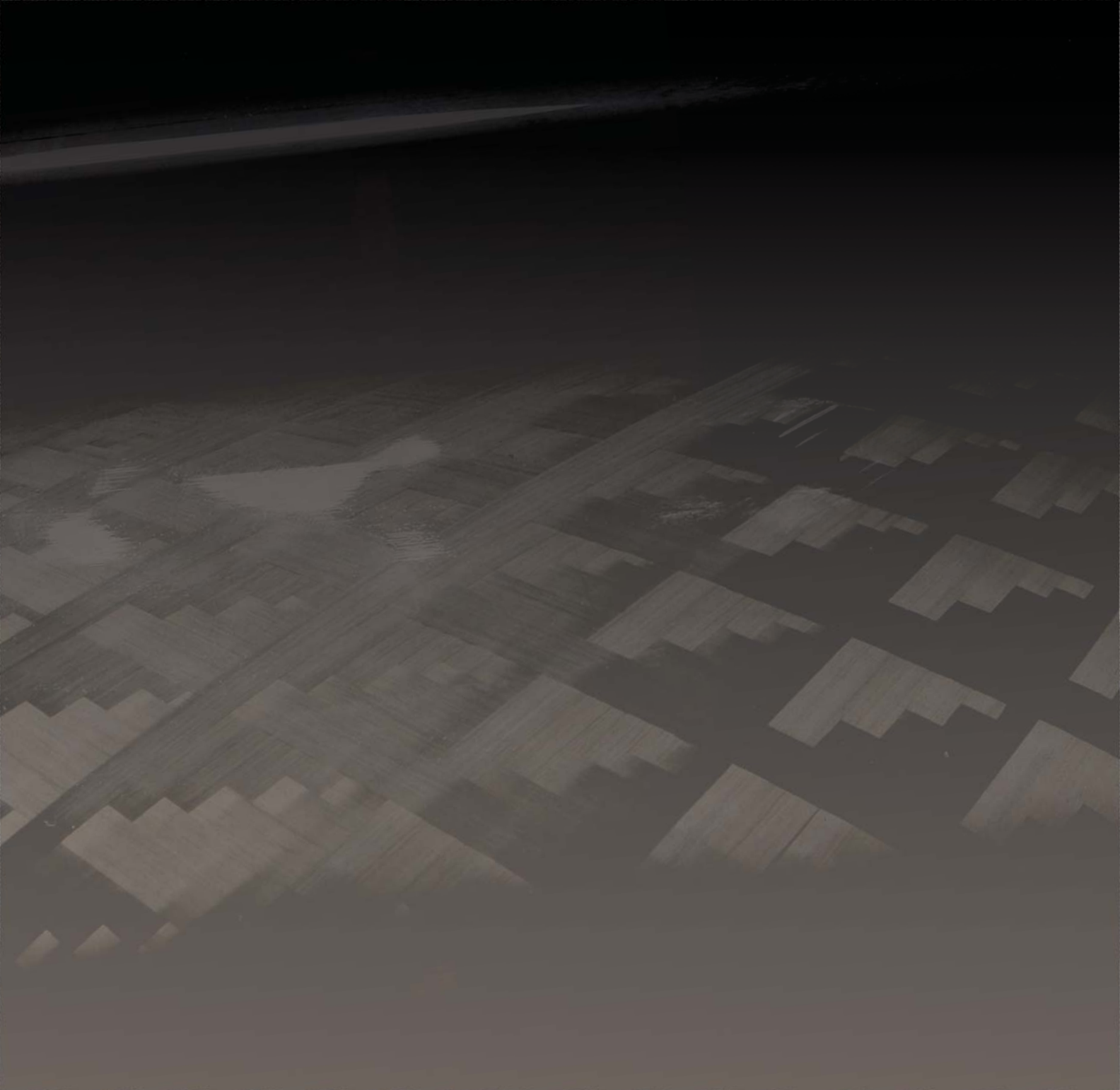
$$s = dr/dt \times 1/\omega^2 r,$$

where s is the sedimentation coefficient in seconds, r is the distance from the center of rotation (radius) in centimeters, T is the time in seconds, and ω is the angular velocity of the rotor in radians per second.

SELF-GENERATING GRADIENT is one that is generated during centrifugation by redistribution and sedimentation of an initially uniform concentration of the gradient medium and sample solution.

SHORT COLUMN METHOD is the practice of partially filling centrifuge tubes in order to reduce the sedimentation path-length, thereby reducing the run time. Short path-length tubes, such as Beckman G-max tubes, are designed to serve this purpose.

STANDARD SEDIMENTATION COEFFICIENT (symbol: **S_{20, w}**) is one corrected to sedimentation in water at 20°C.



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