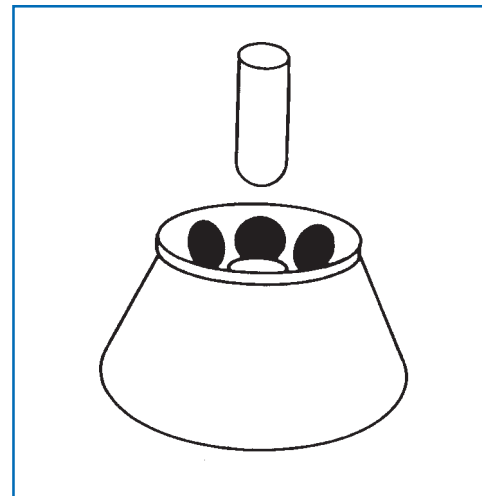


B

Part 2

SORVALL® SUPERSPEED



RC-26 Plus
RC-5C Plus
RC-5B Plus

**Rotors,
Tubes,
Bottles,
Adapters
and Accessories**

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Registered to ISO 9001 since 1993.

SORVALL® products meet or exceed stringent quality and product safety standards: CE for the European Union, and UL, cUL or CSA standards for North America.

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SORVALL® RC-26 PLUS

Superspeed Refrigerated Centrifuge

*Extended Superspeed Capability
from SORVALL®*

The SORVALL® RC-26 PLUS Superspeed refrigerated centrifuge expands the range of superspeed instruments to 26,000 rpm and 70,450 g. It provides maximum versatility, rotor selection and sample volumes.

Instrument Specifications

Max. speed	26,000 rpm
Max. RCF	70,450 g
Max. capacity	6 × 500 ml (GS-3 or SLA 3000 rotor)
Drive system	high torque, cogless, brushless DC direct drive; 2.2 kw (3hp), utilizes the SORVALL® Gyro-Action self-centering drive system
Braking system	positive action brake to 0 rpm
Refrigeration system	heavy duty hermetically sealed compressor, 1.49 kw (2 hp)
Speed range	100 to 26,000 rpm, increments of 10 rpm
Speed control accuracy	±10 rpm, 0–2,000 rpm; ±0.5% beyond 2,000 rpm
Temperature set range	–20°C to 40°C (±1°C from 2°C to 40°C)
Timer	digital; 0 to 99 hr, 59 min; or HOLD
Display	simultaneous digital readout of set and actual parameters

Electrical Requirements

208 V, 60 Hz, 30 A, single phase	Catalog # 71300
230 V, 60 Hz, 30 A, single phase	Catalog # 71301
200 V, 60 Hz, 30 A, single phase, export	Catalog # 71304
208 V, 60 Hz, 30 A, single phase, export	Catalog # 71302
230 V, 60 Hz, 30 A, single phase, export	Catalog # 71303
200 V, 50 Hz, 30 A, single phase, export	Catalog # 71307
220 V, 50 Hz, 30 A, single phase, export	Catalog # 71305
240 V, 50 Hz, 30 A, single phase, export	Catalog # 71306
220 V, 50 Hz, 30 A, polyphase, export	Catalog # 71308

Dimensions and Weight

Height, top of deck	93 cm (36.5 in)
Height, top of panel	123 cm (48.5 in)
Width	70 cm (27.5 in)
Depth	103 cm (40.5 in)
Weight	395 kg (870 lb)
Clearance	15 cm (6 in) from all sides

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SORVALL® products meet or exceed stringent quality and product safety standards: CE for the European Union, and UL, cUL or CSA standards for North America.

Features and Benefits

- **Easy to use**
 - Digital display
 - Menu driven options
 - Easy to clean chamber
- **Safe, reliable operation**
 - CFC-free
 - Programmable with keypad lock option
 - $\int \omega^2 dt$ for run-to-run reproducibility
 - RCF entered directly or calculated automatically
 - Optional panel lock prevents parameter changes during operation
 - Slow-start, slow-stop options
- **High performance**
 - Brushless DC drive
 - Delivers speeds to 26,000 rpm, RCF of 70,450 g
 - Precise temperature control
- **Versatile operation**
 - Accepts 29 rotors
 - Accommodates all SORVALL® superspeed, SUPRAspeed® and SUPER-LITE® rotors
 - Allows for a variety of sample volumes

Rotor Compatibility

Superspeed rotors:

Fixed-angle: SE-12, SA-300, SS-34, SM-24, SH-MT, F-20/MICRO, SA-600, SLA-1000, SLA-1500, SLA-3000, GSA, GS-3, SLA-600TC

Swinging-bucket: SH-80, HB-6, SH-3000, HS-4

Vertical: SV-80, SV-288

Zonal: TZ-28

Continuous-flow: SS34/KSB, TZ-28/GK

SUPRAspeed® rotors:

Fixed-angle: F-28/13, F-28/36, F-28/50, F-16/250

Swinging-bucket: S-20/17, S-20/20, S-20/36



SORVALL® RC-5C Plus and RC-5B Plus Superspeed Refrigerated Centrifuges

*Set the Standard for Superspeed
Performance and Reliability*

The SORVALL® RC-5C Plus superspeed refrigerated centrifuge is the fully-featured, microprocessor-controlled, 21,000 rpm model in the family of SORVALL® centrifuges. It combines the flexibility of microprocessor control and digital displays with the reliability, durability and convenience of a heavy-duty, direct-drive motor system.

The SORVALL® RC-5B Plus superspeed refrigerated centrifuge is the economical, easy-to-operate basic 21,000 rpm centrifuge. It couples simplicity of operation with proven, practical performance, making this rugged system the favorite of researchers around the world for more than 30 years.

Features and Benefits

- **Safe and reliable operation**
 - CFC-free refrigeration
 - Designed without belts or vacuum to minimize maintenance and ensure reliability
 - Rotor imbalance detection system
- **Versatile**
 - Can be used with all inventories of superspeed and high performance SUPRASpeed® rotors.
 - Performance enhanced by use of lightweight SORVALL® SUPER-LITE® rotors.
- **Easy to use**
 - Easy to use controls for programming run conditions
 - Simultaneous display of set and operating conditions
 - Automatic RCF for calculation and display of *g*-force
 - Automatic rate control system controls acceleration and deceleration
 - Visible, easy to understand analog displays and lamp indicators
- **High performance**
 - Improved noise suppression—50% quieter than other models
 - Efficient refrigeration and drive design, 20% less heat output

Instrument Specifications

Max. speed	21,000 rpm
Max. RCF	51,427 <i>g</i>
Max. rotor capacity	3 liters
Drive system	high torque, direct-drive DC motor 1.86 kw (2.5 hp)
Braking system	dynamic, electric brake
Refrigeration system	heavy-duty sealed compressor 1.49 kw (2 hp)
Speed control range (RC-5C Plus)	50 rpm to 21,000 rpm
Speed control range (RC-5B Plus)	500 rpm to 21,000 rpm
Speed control accuracy	±100 rpm or 1%, whichever is greater
Temperature set range	-20 to 40°C
Temperature control range (RC-5C Plus)	2°C to 40°C at max. rotor speed
Temperature control range (RC-5B Plus)	2°C to 37°C at max. rotor speed
Temperature control accuracy	±1°C of set temperature (after stabilization)
Automatic rate control (RC-5C Plus)	acceleration control to 500 rpm; deceleration control from 700 rpm
Timer (RC-5C Plus)	digital LED: 0 to 99 hr, 59 min for TIMED RUNS (displays remaining time); HOLD (displays elapsed time)
Timer (RC-5B Plus)	synchronous motor driven, 0 to 120 min in 1-min increments, or HOLD

Electrical Requirements

RC-5C Plus:

208 V, 60 Hz, 30 A	Catalog # 74500
220 V, 50 Hz, 30 A	Catalog # 74501
230 V, 60 Hz, 30 A	Catalog # 74502

RC-5B Plus:

208 V, 60 Hz, 30 A	Catalog # 74000
220 V, 50 Hz, 30 A	Catalog # 74001
230 V, 60 Hz, 30 A	Catalog # 74002

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TO ORDER, CALL 1-800-522-SPIN (7746)

ROTOR	MAXIMUM SPEED (rpm)	MAXIMUM RCF ¹	K FACTOR ²	MAXIMUM RADIUS (cm)	CAPACITY (ml)		TUBE ANGLE	APPLICATION NOTES ⁴	PAGE NO.
					PLACES × VOLUME	TOTAL			
FIXED-ANGLE									
SE-12	26,000	70,450	335	9.33	12 × 14	168	40°	Small volume; general preparative applications.	B-26
SA-300	25,000	67,509	573	9.67	6 × 50	300	34°	General preparative; high <i>g</i> force.	B-27
SS-34	20,500	50,228	714	10.70	8 × 50	400	34°	General preparative application; protein precipitation.	B-30
SM-24	20,500 20,500	51,965/ 42,717 ³	434/ 591 ³	11.07/ 9.10 ³	24 × 16	384	28°	Multiple sample preparation.	B-32
F-20/MICRO	20,000	51,427	187	11.51	32 × 1.5	48	45°	Pelleting in microtubes.	B-33
SA-600	17,000	41,837	747	12.96	12 × 50	600	34°	General preparative application; protein precipitation.	B-34
SLA-600TC	13,000	27,750	913	14.70	12 × 50	600	34°	General research, tissue culture; sample concentration, purification in centrifugal filtration devices.	B-36
SLA-1000	16,500	35,793	1,725	11.77	4 × 250	1,000	23°	General research; large volume.	B-37
GSA	13,000	27,485	2,023	14.56	6 × 250	1,500	28°	General research; large volume.	B-39
SLA-1500	15,000	34,155	1,475	13.59	6 × 250	1,500	23°	General research; large volume.	B-41
GS-3	9,000	13,689	4,203	15.13	6 × 500	3,000	20°	Large volume preparative applications; cell harvesting.	B-43
SLA-3000	12,000	24,336	2,364	15.13	6 × 500	3,000	20°	Large volume preparative applications; cell harvesting.	B-44
SH-MT	20,000	Varies with tube size			60 × 1.8	108	90°	Pelleting in microtubes; high speed.	B-46
SWINGING-BUCKET									
SH-80	20,000	45,395	400	10.16	8 × 10	80	—	Pelleting of large subcellular particles and viruses; rate zonal density gradient.	B-47
HB-6	13,000	27,617	1,765	14.63	6 × 50	300	—	Pelleting of protein precipitates and cellular debris; rate zonal isolation of cells.	B-48
HS-4 (1 PI)	7,500	10,826	3,912	17.23	4 × 250	1,000	—	General research; RIA.	B-52
SH-3000	4,700	4,575	8,138	18.54	4 × 750	3,000	—	General use, clinical and research; microplate capacity, sealed buckets available for pathogens.	B-56
VERTICAL									
SV-288	20,000	40,301	210	9.02	8 × 36	288	0°	Density gradient isolation; large virus.	B-59
SV-80	19,000	40,969	98	10.16	16 × 5	80	0°	Density gradient isolation; large virus.	B-60
ZONAL									
TZ-28	20,000	42,580	612	9.53	1 × 1,350	1,350	—	Density gradient isolation; whole cell.	B-61
CONTINUOUS-FLOW									
TZ-28/GK	19,000	38,428	678	9.53	—	1,350	—	Large volume pelleting; dilute suspensions.	B-62
SS-34/KSB	20,000	47,808	750	10.70	—	400	—	Large volume pelleting; dilute suspensions.	B-63

⁽¹⁾RCF calculated for maximum rotor radius.

⁽²⁾K Factor calculated assuming maximum allowable volume in a sealed tube.

⁽³⁾Outer row value/inner row value.

⁽⁴⁾Listed are examples of popular applications. In practice, other rotors may be selected depending on individual requirements.

CENTRIFUGES								
MAXIMUM SPEED (rpm)								
SUPERSPEED ROTORS	RC-28S	RC-26 Plus	RC-24 ³	RC-5C Plus RC-5C ³	RC-5B Plus RC-5 ³ RC-5B ³	RC-2 ³ RC-2B ³	SS-3 ³ SS-4 ³	RC-3B, ³ RC-3B PLUS, RC-3C, ³ RC-3C PLUS
SE-12	21,000	26,000	24,000	21,000	21,000	21,000	16,000	6,000 ²
SA-300	—	25,000 ¹	24,000	20,500 ¹	20,500	—	—	—
SS-34	20,000	20,500	20,500	20,000	20,000	20,000	17,000	6,000 ²
SM-24	20,000	20,500	20,500	20,000	20,000	20,000	16,000	6,000 ²
F-20/MICRO	—	20,000	20,000	20,000 ¹	20,000	20,000	—	—
SA-600	16,500	17,000	17,000	16,500	16,500	16,500	13,400	6,000 ²
SLA-600TC	—	13,000 ¹	13,000 ¹	12,500 ¹	12,500	12,500	—	—
SLA-1000	—	16,500 ¹	16,500 ¹	16,500 ¹	16,500	16,500	—	—
SLA-1500	—	15,000	15,000 ¹	14,500 ¹	14,500	14,500	—	—
SLA-3000	—	12,000	12,000 ¹	11,000 ¹	11,000	11,000	—	—
GSA	13,000	13,000	13,000	13,000	13,000	13,000	9,000	—
GS-3	9,000	9,000	9,000	9,000	9,000	9,000	—	—
SH-MT	20,000	20,000	20,000	20,000 ¹	20,000	20,000	—	—
SH-80	20,000	20,000	20,000	20,000 ¹	20,000	20,000	—	—
SH-3000/Buckets	—	4,700	4,700 ¹	4,300 ¹	4,300	—	—	—
SH-3000/Microplate Carriers	—	4,700	4,700 ¹	4,350 ¹	4,350	—	—	—
HB-6	13,000	13,000	13,000	13,000 ¹	13,000	13,000	—	—
HB-4 ⁵	13,000	13,000	13,000	13,000	13,000	13,000	9,000	6,000 ²
HS-4	7,000	7,500	7,500	7,000	7,000	7,000 ⁴	—	6,000 ²
SV-288	20,000	20,000	20,000	20,000	20,000	—	—	—
SV-80	19,000	19,000	19,000	19,000	19,000	—	—	—
TZ-28	20,000	20,000	20,000	20,000	20,000	—	—	—
TZ-28/GK	19,000	19,000	19,000	19,000	19,000	—	—	—
SS-34/KSB	20,000	20,000	20,000	20,000	20,000	20,000	—	—

⁽¹⁾May require software update kit.

⁽²⁾Requires adapter **55222**.

⁽³⁾Instrument no longer available.

⁽⁴⁾For RC-2B only.

⁽⁵⁾Rotor no longer available.

B-2

ROTORS

TUBES, BOTTLES

(Number Represents Number of Tubes per Rotor)

NOMINAL CAPACITY (ml)	MATERIAL ¹	STYLE ²	DIMENSIONS (O.D. x L mm)	CATALOG NUMBER ³	SE-12	SA-300	SS-34	SM-24	F-20/MICRO	SA-600	SLA-1000	GSA, SLA-1500	GS-3, SLA-3000	SH-WT	SH-80	HB-6	HB-4 ⁴	HS-4	SV-80	SV-288	SH-3000	SLA-600TC	
0.25	MICROTUBE	—	—	—					32					120									
0.4	MICROTUBE	—	—	—					32					120									
0.5	MICROTUBE	—	—	—					32					80									
1	CAB	T	7 x 50	03103		24	32			48						24	16	64					
1.5	MICROTUBE	—	—	—	12	12	16	24	32	24				60		12	8	32				132	
2	CAB	T	7 x 75	03235		24	32			48						24	16	64					
3	PY	T	10 x 75	03100		12	16	24		24	20	30	30			12	8	20				132	
4	PC	FL	11 x 75	03104		12	16			24	48	72	72			12	8	48				132	
4	PP	FL	11 x 75	03105		12	16			24	48	72	72			12	8	48				132	
4	—	SG	10 x 75	—							48	72	72					48				132	
5	PY	T	12 x 75	03102	12			24			48	72	72					96				132	
5	PA	TW	13 x 51	03127															16				
5	PA	UC	13 x 56	03898															16				
5	—	SG	12 x 75	—							48	72	72					96				132	
7	PP	FL	13 x 100	03121		6	8	24		12						6	4	16				88	
7	PC	FL	13 x 100	03120		6	8	24		12						6	4	16				88	
7	—	V	13 x 100	—																		88	
10	PA	TW	18 x 50	03968											8								
10	PA	TW,FL	13 x 100	03124		6	8	24		12						6	4	16				88	
10	PC	OR	16 x 83	03020		6	8			12						6	4	16				20	
10	PP	OR	16 x 83	03929		6	8			12						6	4	16				20	
10	PY	CN,G	18 x 100	—		6	8			12						6	4	16				20	
10	PY	T	13 x 100	—		6	8	24		12		30	30			6	4	48				88	
10	—	V	16 x 100	—																		72	
12	PC	FL	16 x 100	03115		6	8			12	28	42	42			6	4	28				72	
12	PP	FL	16 x 100	03116		6	8			12	28	42	42			6	4	28				72	
12	PY	T	18 x 102	03109		6	8			12						6	4	16				20	
14	PC	FL	18 x 75	03246	12						20											20	
14	PP	FL	18 x 75	03247	12						20											20	
14	PY	T	18 x 120	03111							20	30	30					20				20	
15	—	TC,CN	17 x 120	—							20	30	30					20				32	12
15	CO	T	18 x 102	03286		6	8	24		12						6	4	16				48	
15	—	UR	17 x 120	—																		32	
15	—	V	16 x 127	—																		72	
16	PC	FL	18 x 100	03243		6	8	24		12						6	4	16				48	
16	PP	FL	18 x 100	03244		6	8	24		12						6	4	16				48	
20	PA	TW	25 x 51	03288																	8		
30	CO	T	24 x 105	03163		6	8			12	12	18	18			6	4	16				12	
30	PC	OR	25 x 94	03719		6	8			12								16					
30	PP	OR	25 x 94	03718		6	8			12								16					
30	—	TC,FS	25 x 100	—																		20	

(1) MATERIAL CODES

CAB—Cellulose Acetate Butyrate
 PY—Pyrex® Glass
 PC—Polycarbonate
 PP—Polypropylene
 PS—Polysulfone
 PA—Polyallomer
 CO—Corex® Glass

(2) STYLE CODES

T—Thick-Walled
 FL—Flanged
 TW—Thin-Walled
 UC—ULTRACRIMP®
 DS—DRY-SPIN Bottle
 V—Vacutainer
 SG—Standard Glass
 OR—Oak Ridge Bottle
 CN—Conical
 G—Graduated
 TC—Tissue Culture
 B—Bottle
 UR—Urinalysis

(3) If Catalog Number is not supplied, tube/bottle is not available from SORVALL.

(4) Rotor no longer available.

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TO ORDER, CALL 1-800-522-SPIN (7746)

TUBES, BOTTLES **ROTORS**
(Number Represents Number of Tubes per Rotor)

NOMINAL CAPACITY (ml)	MATERIAL ¹	STYLE ²	DIMENSIONS (O.D. × L mm)	CATALOG NUMBER ³	SE-12	SA-300	SS-34	SM-24	F-20/MICRO	SA-600	SLA-1000	GSA/SLA-1500	GS-3/SLA-3000	SH-MT	SH-80	HB-6	HB-4 ⁴	HS-4	SV-80	SV-288	SH-3000	SLA-600TC	
33	PA	UC	25 × 90	03899																8			
35	PA	CN,OR	29 × 105	—		6	8			12	4	6	6			6	4	16			20	12	
35	PC	CN,OR	29 × 105	—		6	8			12	4	6	6			6	4	16			20	12	
36	PA	TW	25 × 87	03141																	8		
50	—	TC,CN	30 × 115	—							4	6	6					12				20	12
50	—	TC,FS	30 × 115	—																			12
50	SS	T	28 × 101	00579		6	8			12						6	4	16				20	
50	SS	FL	28 × 101	00517		6	8			12								16				20	
50	PC	OR	28 × 103	03480		6	8			12						6	4	16				20	
50	PP	OR	28 × 103	03530		6	8			12						6	4	16				20	
50	PA	TW	28 × 104	03139		6	8			12						6	4	16				20	
50	PC	FL	29 × 102	03146		6	8			12						6	4	16				20	
50	PP	FL	29 × 102	03147		6	8			12						6	4	16				20	
50	PA	UC	29 × 108	03528		6	8			12													
100	PY	B	44 × 137	03230							4	6	6									4	
125	CO	B	53 × 118	03231							4	6	6					4				4	
150	CO	B	53 × 132	03229							4	6	6									4	
150	PC	T	45 × 132	03143							4	6	6									4	
200	SS	T	61 × 124	00521								6 ⁵	6 ⁶										
200	PP	CN	60 × 135	03094																		4	
250	PA	OR	60 × 120	54477						4	6	6						4				4	
250	PC	OR	61 × 124	03939						4	6	6						4				4	
250	PP	OR	61 × 124	03937						4	6	6						4				4	
250	PP	DS	61 × 146	03069						4	6	6										4	
250	PC	DS	61 × 146	03098						4	6	6										4	
250	—	TC, CN	60 × 177	—																		4	
285	SS	B	61 × 140	00530								6 ⁵	6 ⁶										
315	SS	B	61 × 153	00522								6 ⁵	6 ⁶										
500	PC	OR	70 × 160	03944									6										
500	PP	OR	70 × 160	03943									6										
500	PP	DS	70 × 190	06829									6										
500	PP	TC	96 × 146	—																		4	
750	—	B	98 × 135	—																		4	

(1) MATERIAL CODES

CAB—Cellulose Acetate Butyrate
 PY—Pyrex® Glass
 PC—Polycarbonate
 SG—Standard Glass
 PP—Polypropylene
 PS—Polysulfone
 PA—Polyallomer
 CO—Corex® Glass

(2) STYLE CODES

T—Thick-Walled
 FL—Flanged
 TW—Thin-Walled
 UC—ULTRACRIMP®
 OR—Oak Ridge Bottle

CN—Conical
 G—Graduated
 TC—Tissue Culture
 B—Bottle
 DS—DRY-SPIN Bottle
 FS—Free Standing Conical

(3) If Catalog Number is not supplied, tube/bottle is not available from SORVALL.

(4) Rotor no longer available.

(5) Bottles fit GSA rotor only.

(6) Bottles fit GS-3 rotor only.

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B-2



SE-12¹
 Aluminum Rotor
 12-Place, 14 ml
 Tube Dimensions: 18 × 75 mm
 Fixed-Angle: 40°
 Maximum Speed: 26,000 rpm
 K Factor: 335
 Rotor Mass: 4.1 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	70,450	9.33
Min.	28,769	3.81

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SE-12	Max Speed (rpm)	21,000	26,000	24,000	21,000	21,000	21,000	16,000	6,000
	Max RCF (g)	45,959	70,450	60,028	45,959	45,959	45,959	26,679	3,752

Catalog No. 27004

Includes:
 SE-12 Rotor
 Rotor Cover Assembly **27002**
 Cover O-ring **61720**
 Rotor Extractor **01031**
 Instruction Manual **28505**

TUBES


CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
14	11	Polypropylene Flanged Tube	24,000	18 × 75	03247 (50)	03269 (50)	Polypropylene, Snap-on	—	—	
14	11	Polycarbonate Flanged Tube	24,000	18 × 75	03246 (50)	03269 (50)	Polypropylene, Snap-on	—	—	
5	5	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00379 (1)	1	
1.5	—	Microtube	—	—	—	—	—	02201 (1)	1	

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

	SA-300¹ Aluminum Rotor 6-Place, 50 ml Tube Dimensions: 29 × 108 mm Fixed-Angle: 34° Maximum Speed: 25,000 rpm K Factor: 573 Rotor Mass: 5.58 kg Autoclavable: 121°C		RCF (g)	R (cm)
		Max.	67,509	9.67
		Min.	16,406	2.35

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SA-300	Max Speed (rpm)	n/a	25,000	24,000	20,500	20,500	n/a	n/a	n/a
	Max RCF (g)	n/a	67,509	62,216	45,393	45,393	n/a	n/a	n/a

Catalog No. 18100	Accessories
Includes: SA-300 Rotor Rotor Cover Assembly 18122 Cover O-ring 91245 Rotor Extractor 01031 Instruction Manual 28505 Lubricant Grease 61556 Vacuum Grease 65937	ULTRACRIMP® Sealing Tool and Crimp Gauge 03920 Crimp Gauge Replacement 03919 ULTRACRIMP® Plugs and Caps (25 each/pkg) 03999 Rotor Cap 03538 Pliers 65614 Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814

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TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY *		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty.Pkg)	NO. OF PLACES	
50	50	Polyallomer ULTRACRIMP® Tube	24,000	29 × 108	03528 (25)	Included with Tubes	Plug and Aluminum Cap	—	—	Requires Rotor Cap 03538 Tube Racks 03529 , and ULTRACRIMP® Sealing Tool 03920 .
50	41	Polypropylene Oak Ridge Bottle	24,000	29 × 99	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	38	Polycarbonate Oak Ridge Bottle	24,000	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	37	Polypropylene Flanged Tube	24,000	29 x 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	39	Polycarbonate Flanged Tube	24,000	29 x 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	46	Polyallomer Thin-Walled Tube	24,000	28 x 104	03139 (25)	—	—	—	—	
50	50	Stainless Steel Flanged Tube	24,000	28 x 101	00517 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
50	50	Stainless Steel Tube	24,000	28 x 101	00579 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.

(continued on next page)

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Sealing Assembly replacement parts may be available. See section E for availability.

TUBES AND BOTTLES FOR SA-300 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty.Pkg)	NO. OF PLACES	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 x 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 x 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
30	28	Polycarbonate, Oak Ridge Bottle	20,500	25 x 94	03719 (25)	03276 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	28	Polypropylene Oak Ridge Bottle	20,500	25 x 94	03718 (25)	03276 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	31	Corex® Tube	10,000	24 x 105	03163 (10)	—	—	00368 (1)	1	
16	13	Polypropylene Flanged Tube	20,500	18 x 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	
16	14	Polycarbonate Flanged Tube	24,000	18 x 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	12	Corex® Tube	10,000	18 x 102	03286 (25)	—	—	00363 (1)	1	
12	12	Pyrex® Tube	5,000	18 x 102	03109 (50)	—	—	00363 (1)	1	
12	10	Polypropylene Flanged Tube	20,500	16 x 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	11	Polycarbonate Flanged Tube	24,000	16 x 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 x 100	—	—	—	00367 (1)	1	
10	10	Polypropylene Oak Ridge Bottle	20,500	16 x 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	24,000	16 x 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9	Polyallomer Thin-Walled Flanged-Tube	24,000	13 x 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 x 100	—	—	—	00366 (1)	1	

*Sealing Assembly replacement parts may be available. See section E for availability.

(continued on next page)

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TUBES AND BOTTLES FOR SA-300 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty.Pkg)	NO. OF PLACES	
7	6	Polycarbonate Flanged Tube	24,000	13 x 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	6	Polypropylene Flanged Tube	20,500	13 x 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	3	Polypropylene Flanged Tube	20,500	11 x 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	3	Polycarbonate Flanged Tube	24,000	11 x 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 x 75	03100 (50)	—	—	00364 (1)	2	
2	3	Cellulose Acetate Butyrate Tube	24,000	7 x 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	24,000	7 x 50	03103 (50)	—	—	00408 (1)	4	

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

B-2



SS-34¹
 Aluminum Rotor
 8-Place, 50 ml
 Tube Dimensions: 29 × 108 mm
 Fixed-Angle: 34°
 Maximum Speed: 20,500 rpm
 K Factor: 714
 Rotor Mass: 6.8 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	50,228	10.70
Min.	15,350	3.27

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SS-34	Max Speed (rpm)	20,000	20,500	20,500	20,000	20,000	20,000	17,000	6,000
	Max RCF (g)	47,808	50,228	50,228	47,808	47,808	47,808	34,541	4,303

Catalog No. 28020

Includes:
 SS-34 Rotor
 Rotor Cover Assembly **28018**
 Cover O-ring **60188**
 Rotor Extractor **01031**
 Instruction Manual **28505**

Accessories

ULTRACRIMP® Sealing Tool and Crimp Gauge **03920**
 Crimp Gauge Replacement **03919**
 ULTRACRIMP® Plugs and Caps, (25 each/pkg) **03999**
 Rotor Cap **03538**

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	50	Polyallomer ULTRACRIMP® Tube	20,500	29 × 108	03528 (25)	Included with Tubes	Plug and Aluminum Cap	—	—	Requires Rotor Cap 03538 , Tube Racks 03529 , and ULTRACRIMP® Sealing Tool 03920 .
50	37	Polypropylene Flanged Tube	20,500	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	39	Polycarbonate Flanged Tube	20,500	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	46	Polyallomer Thin-Walled Tube	20,500	28 × 104	03139 (25)	—	—	—	—	
50	41	Polypropylene Oak Ridge Bottle	20,500	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	38	Polycarbonate Oak Ridge Bottle	20,500	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	50	Stainless Steel Flanged Tube	20,500	28 × 101	00517 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
50	50	Stainless Steel Tube	20,500	28 × 101	00579 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .

(continued on next page)

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

TUBES, BOTTLES FOR SS-34 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
30	28	Polycarbonate Oak Ridge Bottle	20,500	25 × 94	03719 (25)	03614 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	28	Polypropylene Oak Ridge Bottle	20,500	25 × 94	03718 (25)	03614 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	31	Corex® Tube	10,000	24 × 105	03163 (10)	—	—	00368 (1)	1	
16	13	Polypropylene Flanged Tube	20,500	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	
16	14	Polycarbonate Flanged Tube	20,500	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	12	Corex® Tube	10,500	18 × 102	03286 (25)	—	—	00363 (1)	1	
12	12	Pyrex® Tube	5,000	18 × 102	03109 (50)	—	—	00363 (1)	1	
12	10	Polypropylene Flanged Tube	20,500	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	11	Polycarbonate Flanged Tube	20,500	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00367 (1)	1	
10	9.1	Polypropylene Oak Ridge Bottle	20,500	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	20,500	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9	Polyallomer Thin-Walled Flanged Tube	20,500	13 × 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00366 (1)	1	
7	6	Polycarbonate Flanged Tube	20,500	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	6	Polypropylene Flanged Tube	20,500	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	3	Polypropylene Flanged Tube	20,500	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	3	Polycarbonate Flanged Tube	20,500	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00364 (1)	2	
2	3	Cellulose Acetate Butyrate Tube	20,500	7 × 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	20,500	7 × 50	03103 (50)	—	—	00408 (1)	4	

*Sealing Assembly replacement parts may be available. See section E for availability.

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TO ORDER, CALL 1-800-522-SPIN (7746)

B-2



SM-24¹
 Aluminum Rotor
 24-Place, 16 ml
 Tube Dimensions: 18 × 102 mm
 Fixed-Angle: 28°
 Maximum Speed: 20,500 rpm
 K Factor: Outer 434, Inner 591.
 Rotor Mass: 7.7 kg
 Autoclavable: 121°C

Outer Row	RCF (g)	R (cm)
Maximum	51,965	11.07
Minimum	25,525	5.38
Inner Row	RCF (g)	R (cm)
Maximum	42,717	9.10
Minimum	16,007	3.41

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SM-24	Max Speed (rpm)	20,000	20,500	20,500	20,000	20,000	20,000	16,000	6,000
	inner Max RCF (g)	40,659	42,717	42,717	40,659	40,659	40,659	26,022	3,659
	outer Max RCF (g)	49,461	51,965	51,965	49,461	49,461	49,461	31,655	4,451

Catalog No. 29017

Includes:
 SM-24 Rotor
 Rotor Cover Assembly **29016**
 Cover O-ring **60696**
 Rotor Extractor **01031**
 Instruction Manual **28505**


TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
16	13	Polypropylene Flanged Tube	20,500	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	—	—	
16	14	Polycarbonate Flanged Tube	20,500	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	—	—	
15	12	Corex® Tube	10,500	18 × 102	03286 (25)	—	—	03667 (12)	1	
10	9	Polyallomer Thin-Walled Flanged Tube	20,500	13 × 100	03124 (50)	—	—	00373 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00373 (1)	1	
7	6	Polycarbonate Flanged Tube	20,500	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00416 (1)	1	
7	6	Polypropylene Flanged Tube	20,500	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00416 (1)	1	
5	5	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00376 (1)	1	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00374 (1)	1	
1.5	—	Microtube	—	—	—	—	—	00376 (1)	1	

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down.
 Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.
⁽²⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

	F-20/MICRO¹ Aluminum Rotor 32-Place, 1.5 ml Tube Dimensions: 11 × 38 mm Fixed-Angle: 45° Maximum Speed: 20,000 rpm K Factor: 187 Rotor Mass: 4.8 kg Autoclavable: 121°C		RCF (g)	R (cm)
		Max.	51,427	11.51
		Min.	38,291	8.57

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
F-20/MICRO	Max Speed (rpm)	n/a	20,000	20,000	20,000	20,000	20,000	n/a	n/a
	Max RCF (g)	n/a	51,427	51,427	51,427	51,427	51,427	n/a	n/a

Catalog No. 27038	Accessories
Includes: F-20/MICRO Rotor Vacuum Grease 65937 Lubricant 61556 Rotor Cover Assembly 27042 Rotor Cover O-ring (6 supplied) 90840 Locking Knob O-ring (6 supplied) 67745 Centerhole O-ring (6 supplied) 67908 Retaining Ring Pliers 65614 Rotor Extractor 01031 Instruction Manual 27037	Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814

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TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	MAX. RCF	DIMENSIONS (mm)	ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	NO. OF PLACES	
1.5	—	Microtube	See Notes	—	—	—	—	Performance depends upon tube brand. ⁴
0.5	—	Microtube	See Notes	—	27055 (6)	1	—	Performance depends upon tube brand. ⁴
0.4	—	Microtube	See Notes	—	27057 (6)	1	—	Performance depends upon tube brand. ⁴
0.25	—	Microtube	See Notes	—	27056 (6)	1	—	Performance depends upon tube brand. ⁴

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.
⁽²⁾Instrument no longer available.
⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.
⁽⁴⁾Contact your SORVALL® representative for recommended tube manufacturers.



SA-600¹
 Aluminum Rotor
 12-Place, 50 ml
 Tube Dimensions: 29 × 108 mm
 Fixed-Angle: 34°
 Maximum Speed: 17,000 rpm
 K Factor: 747
 Rotor Mass: 10.1 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	41,837	12.96
Min.	17,819	5.52

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SA-600	Max Speed (rpm)	16,500	17,000	17,000	16,500	16,500	16,500	13,400	6,000
	Max RCF (g)	39,412	41,837	41,837	39,412	39,412	39,412	25,994	5,211

Catalog No. 28500

Accessories

Includes:
 SA-600 Rotor
 Rotor Cover Assembly **12291**
 Cover O-ring **60810**
 Rotor Extractor **01031**
 Instruction Manual **28505**

ULTRACRIMP® Sealing Tool and Crimp Gauge **03920**
 Crimp Gauge Replacement **03919**
 ULTRACRIMP® Plugs and Caps (25 each/pkg) **03999**
 Rotor Cap **03538**

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	50	Polyallomer ULTRACRIMP® Tube	17,000	29 × 108	03528 (25)	Included with Tubes	Plug and Aluminum Cap	—	—	Requires Rotor Cap 03538 , Tube Racks 03529 and ULTRACRIMP® Sealing Tool 03920 .
50	37	Polypropylene Flanged Tube	17,000	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	39	Polycarbonate Flanged Tube	17,000	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	46	Polyallomer Thin-Walled Tube	17,000	28 × 104	03139 (25)	—	—	—	—	
50	41	Polypropylene Oak Ridge Bottle	17,000	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	38	Polycarbonate Oak Ridge Bottle	17,000	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	50	Stainless Steel Flanged Tube	17,000	28 × 101	00517 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
50	50	Stainless Steel Tube	17,000	28 × 101	00579 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .

⁽¹⁾This rotor cover assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

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(continued on next page)

TUBES, BOTTLES FOR SA-600 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
30	28	Polycarbonate Oak Ridge Bottle	17,000	25 × 94	03719 (25)	03614 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	28	Polypropylene Oak Ridge Bottle	17,000	25 × 94	03718 (25)	03614 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	31	Corex® Tube	10,000	24 × 105	03163 (10)	—	—	00368 (1)	1	
16	13	Polypropylene Flanged Tube	17,000	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	
16	14	Polycarbonate Flanged Tube	17,000	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	12	Corex® Tube	10,000	18 × 102	03286 (25)	—	—	00363 (1)	1	
12	12	Pyrex® Tube	5,000	18 × 102	03109 (50)	—	—	00363 (1)	1	
12	10	Polypropylene Flanged Tube	17,000	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	11	Polycarbonate Flanged Tube	17,000	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00367 (1)	1	
10	9.1	Polypropylene Oak Ridge Bottle	17,000	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	17,000	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9	Polyallomer Thin-Walled Flanged Tube	17,000	13 × 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00366 (1)	1	
7	6	Polycarbonate Flanged Tube	17,000	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	6	Polypropylene Flanged Tube	17,000	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	3	Polypropylene Flanged Tube	17,000	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	3	Polycarbonate Flanged Tube	17,000	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00364 (1)	2	
2	3	Cellulose Acetate Butyrate Tube	17,000	7 × 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	17,000	7 × 50	03103 (50)	—	—	00408 (1)	4	

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*Sealing Assembly replacement parts may be available. See section E for availability.

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TO ORDER, CALL 1-800-522-SPIN (7746)



SLA-600TC

SUPER-LITE™ Tissue Culture
 Aluminum Rotor
 12-Place, 50 ml
 Tube Dimensions: 30 × 152 mm
 Fixed Angle: 34°
 Maximum Speed: 13,000 rpm
 K Factor: 913 Rotor Mass: 9.8 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	27,750	14.70
Min.	15,083	7.99

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
SLA-600TC	Max Speed(rpm)	n/a	13,000	13,000	12,500	12,500	12,500	n/a	n/a
	Max RCF (g)	n/a	27,750	27,750	25,656	25,656	25,656	n/a	n/a

Catalog No. 74220

Includes:
 SLA-600TC Rotor
 Rotor Cover Assembly **74221**
 Vacuum Grease **65937**
 Lubricant **61556**
 Rotor Extractor **76818**

Instruction Manual **11463**
 Rotor Cover O-ring (6 supplied) **92233**
 Retaining Ring Pliers **65614**
 Locking Knob O-ring (6 supplied) **91035**
 Center Hole O-ring (6 supplied) **92231**

Accessories

Software Update Kit for RC-24² **12939**
 Software Update Kit for RC-5C² **12814**
 Software Update Kit for RC-5C Plus² **12996**
 Software Update Kit for RC-26 Plus² **71366**

TUBES AND BOTTLES


NOMINAL CAPACITY (ml)	DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	ADAPTER CAT. NO. (Qty/Pkg)	NO. OF PLACES
50	Conical Tissue Culture Tube	*	30 × 115	—	—
50	Conical Tissue Culture Tube (Freestanding)	*	30 × 115	—	—
35	Nalgene® Conical Oak Ridge Tube	*	29 × 105	74234 (6)	—
20	Filtron Macrosep Ultrafiltration Device	*	29 × 109	—	—
15	Conical Tissue Culture Tube	*	17 × 120	74232 (6)	1
15	Amicon Centriplus Ultrafiltration Device	*	29 × (variable length)	—	—
15	Amicon Centriprep Ultrafiltration Device	*	28 × 135	—	—
3.5	Filtron Microsep Ultrafiltration Device	*	17 × 99	74233 (6)	1
2	Amicon Centricon Ultrafiltration Device	*	16 × (variable length)	74232 (6)	1
2	Millipore Ultrafree-CL Ultrafiltration Device	*	17 × 65	74232 or 74233 (6)	1
1	Amicon Centrifree Ultrafiltration Device	*	17 × 95	74233 (6)	1

⁽¹⁾Instrument no longer available.

⁽²⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Maximum g-force ratings of tubes varies by manufacturer. Verify correct maximum speed/g-force before use.

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	<p>SLA-1000¹ SUPER-LITE® Aluminum Rotor 4-Place, 250 ml Tube Dimensions: 61 × 153 mm Fixed-Angle: 23° Maximum Speed: 16,500 rpm K Factor: 1725 Rotor Mass: 7.48 kg Autoclavable: 121°C</p>		RCF (g)	R (cm)
		Max.	35,793	11.77
		Min.	5,595	1.84

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SLA-1000	Max Speed (rpm)	n/a	16,500	16,500	16,500	16,500	16,500	n/a	n/a
	Max RCF (g)	n/a	35,793	35,793	35,793	35,793	35,793	n/a	n/a

Catalog No. 74200	Accessories
Includes: SLA-1000 Rotor Vacuum Grease 65937 Rotor Cover Assembly 74210 Rotor Extractor 76818	Rotor Cover O-ring (6 supplied) 91053 Retaining Ring Pliers 65614 Instruction Manual 11463 Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814

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TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY *		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty.Pkg)	NO. OF PLACES	
250	200	Polyallomer Oak Ridge Bottle	16,500	60 × 120	54477 (6)	54421 (1)	Delrin® Screw Cap	12002 (1)	1	
250	250	Polypropylene Oak Ridge Bottle	13,000	61 × 124	03937 (12)	03278 (12)	Polypropylene, Sealing	—	—	Nonsealing Cap 03927 (12/pkg) available.
250	265	Polycarbonate Oak Ridge Bottle	13,000	61 × 124	03939 (12)	03278 (12)	Polypropylene, Sealing	—	—	Nonsealing Cap 03927 (12/pkg) available.
250	280	Polypropylene DRY-SPIN Bottle	14,000	61 × 146	03069 (12)	Included with Bottle	Polypropylene, Sealing	—	—	Replacement O-ring sealing assembly 03545 (24/pkg) Replacement Caps 06841 (12/pkg).
250	270	Polycarbonate DRY-SPIN	16,500	61 × 146	03098 (12)	Included with Bottle	Polypropylene, Sealing	—	—	Replacement O-ring sealing assembly 03545 (24/pkg) Replacement Caps 06841 (12/pkg).
150	144	Polycarbonate Thick-Walled Tube	13,000	45 × 132	03143 (25)	—	—	00458 (1)	1	
150	120	Corex® Bottle	5,000	53 × 132	03229 (1)	Included with Bottle	Polypropylene, Nonsealing	00372 (1)	1	
125	100	Corex® Bottle	5,000	53 × 118	03231 (1)	Included with Bottle	Polypropylene, Nonsealing	00372 (1)	1	

(continued on next page)

⁽¹⁾This rotor/cover assembly has been tested for microbiological containment (Ref.1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Sealing Assembly replacement parts may be available. See section E for availability.


All trademarks are the property of their respective owners.

TUBES AND BOTTLES FOR SLA-1000 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty. Pkg)	NO. OF PLACES	
100	100	Pyrex® Bottle	3,000	44 × 137	03230 (1)	Included with Bottle	Polypropylene, Nonsealing	00371 (1)	1	
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	03072 (1)	1	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
30	31	Corex® Bottle	10,000	24 × 105	03163 (10)	—	—	00449 (1)	3	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00456 (1)	5	
14	14	Pyrex® Tube	5,000	18 × 120	03111 (50)	—	—	00456 (1)	5	
14	14	Polycarbonate Flanged Tube	16,500	18 × 75	03246 (50)	03269 (50)	Polypropylene, Snap-on	00456 (1)	5	
14	14	Polypropylene Flanged Tube	16,500	18 × 75	03247 (50)	03269 (50)	Polypropylene, Snap-on	00456 (1)	5	
12	10	Polypropylene Flanged Tube	16,500	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
12	11	Polycarbonate Flanged Tube	16,500	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
5	—	Standard Glass Tube	5,000	12 × 75	—	—	—	00388 (1)	12	
5	5	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00388 (1)	12	
4	—	Standard Glass Tube	5,000	10 × 75	—	—	—	00388 (1)	12	
4	3	Polypropylene Flanged Tube	16,500	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
4	3	Polycarbonate Flanged Tube	16,500	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00370 (1) 00456 (1)	1 5	Adapters 00370 and 00456 must be used together.

⁽¹⁾This rotor/cover assembly has been tested for microbiological containment (Ref.1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

*Sealing Assembly replacement parts may be available. See section E for availability.

	GSA Aluminum Rotor 6-Place, 250 ml Tube Dimensions: 61 × 153 mm Fixed-Angle: 28° Maximum Speed: 13,000 rpm K Factor: 2023 Rotor Mass: 14.9 kg Autoclavable: 121°C		RCF (g)	R (cm)
		Max.	27,485	14.56
		Min.	—	3.77

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
GSA	Max Speed (rpm)	13,000	13,000	13,000	13,000	13,000	13,000	9,000	—
	Max RCF (g)	27,485	27,485	27,485	27,485	27,485	27,485	13,173	—

Catalog No. 08136	
Includes: GSA Rotor Rotor Cover Assembly 08130 Cover O-ring 60356	Rotor Extractor 01047 Instruction Manual 28505

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TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
315	315	Stainless Steel Bottle	13,000	61 × 153	00522 (1)	00518 (1)	Stainless Steel, Sealing	—	—	Requires Wrench 01014 .
285	285	Stainless Steel Bottle	13,000	61 × 140	00530 (1)	Included with Bottle	Stainless Steel, Sealing	—	—	
250	200	Polyallomer Oak Ridge Bottle	13,000	60 × 20	54477 (6)	54421 (1)	Delrin® Screw Cap	00516 (1) 12002 (1)	1 1	
250	250	Polypropylene Oak Ridge Bottle	13,000	61 × 124	03937 (12)	03278 (12)	Polypropylene, Sealing	00516 (1)	1	Nonsealing Cap 03927 (12/pkg) available.
250	265	Polycarbonate Oak Ridge Bottle	13,000	61 × 124	03939 (12)	03278 (12)	Polypropylene, Sealing	00516 (1)	1	Nonsealing Cap 03927 (12/pkg) available.
250	280	Polypropylene DRY-SPIN	13,000	61 × 146	03069 (12)	Included with Bottle	Polypropylene, Sealing	00516 (1)	1	Replacement O-rings for sealing assembly 03545 (24/pkg). Replacement caps 06841 (12/pkg).
250	270	Polycarbonate DRY-SPIN	13,000	61 × 146	03098 (12)	Included with Bottle	Polypropylene, Sealing	00516 (1)	1	Replacement O-rings for sealing assembly 03545 (24/pkg). Replacement caps 06841 (12/pkg).
200	—	Stainless Steel Tube	13,000	61 × 124	00521 (1)	—	—	—	—	
150	144	Polycarbonate Thick-Walled Tube	13,000	45 × 132	03143 (25)	—	—	00458 (1)	1	

⁽¹⁾Instrument no longer available.

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*Sealing Assembly replacement parts may be available. See section E for availability.

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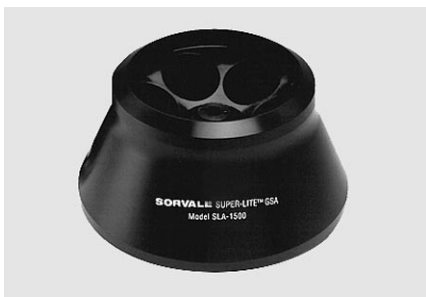
TO ORDER, CALL 1-800-522-SPIN (7746)

TUBES, BOTTLES FOR GSA (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
150	120	Corex® Bottle	5,000	53 × 132	03229 (1)	Included with Bottle	Polypropylene, Nonsealing	00372 (1)	1	
125	100	Corex® Bottle	5,000	53 × 118	03231 (1)	Included with Bottle	Polypropylene, Nonsealing	00372 (1)	1	
100	100	Pyrex® Bottle	3,000	44 × 137	03230 (1)	Included with Bottle	Polypropylene, Nonsealing	00371 (1)	1	
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	03072 (1)	1	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
30	31	Corex® Tube	10,000	24 × 105	03163 (10)	—	—	00449 (1)	3	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00456 (1)	5	
14	14	Pyrex® Tube	5,000	18 × 120	03111 (50)	—	—	00456 (1)	5	
12	10	Polypropylene Flanged Tube	13,000	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
12	11	Polycarbonate Flanged Tube	13,000	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
10	8	Pyrex® Tube	—	13 × 100	—	—	—	00369 (1) in 00456 (1)	1 5	Adapters 00369 and 00456 must be used together.
5	—	Standard Glass Tube	5,000	12 × 75	—	—	—	00388 (1)	12	
5	5	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00388 (1)	12	
4	—	Standard Glass Tube	—	10 × 75	—	—	—	00388 (1)	12	
4	3	Polypropylene Flanged Tube	13,000	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
4	3	Polycarbonate Flanged Tube	13,000	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00370 (1) in 00456 (1)	1 5	Adapters 00370 and 00456 must be used together.

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

	SLA-1500¹ SUPER-LITE® Aluminum Rotor 6-Place, 250 ml Tube Dimensions: 61 × 153 mm Fixed Angle: 23° Maximum Speed: 15,000 rpm K Factor: 1475 Rotor Mass: 9.5 kg Autoclavable: 121°C	RCF (g)	R (cm)	
		Max.	34,155	13.59
		Min.	9,198	3.66

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SLA-1500	Max Speed(rpm)	n/a	15,000	15,000	14,500	14,500	14,500	n/a	n/a
	Max RCF (g)	n/a	34,155	34,155	31,916	31,916	31,916	n/a	n/a

Catalog No. 08142	Accessories
Includes: SLA-1500 Rotor Rotor Cover Assembly 11466 Vacuum Grease 65937 Lubricant 61556 Rotor Extractor Tool 01047	Instruction Manual 11463 Rotor Cover O-ring (6 supplied) 92233 Retaining Ring Pliers 65614 Locking Knob O-ring (6 supplied) 90442 Center Hold O-ring (6 supplied) 92231
	Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814 Software Update Kit for RC-5C Plus ³ 12996

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TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
250	200	Polyallomer Oak Ridge Bottle	15,000	60 × 120	54477 (6)	54421 (1)	Delrin® Screw Cap	12002 (1)	1	
250	250	Polypropylene Oak Ridge Bottle	13,000	61 × 124	03937 (12)	03278 (12)	Polypropylene Sealing	—	—	Nonsealing Cap 03927 (12/pkg) available.
250	265	Polycarbonate Oak Ridge Bottle	13,000	61 × 124	03939 (12)	03278 (12)	Polypropylene Sealing	—	—	Nonsealing Cap 03927 (12/pkg) available.
250	270	Polypropylene DRY-SPIN Bottle	13,000	61 × 146	03069 (12)	Included with Bottle	Polypropylene Sealing	—	—	Replacement O-ring sealing assembly 03545 (24/pkg). Replacement cap 06841 (12/pkg).
250	250	Polycarbonate DRY-SPIN Bottle	15,000	61 × 146	03098 (12)	Included with Bottle	Polypropylene Sealing	—	—	Replacement O-ring sealing assembly 03545 (24/pkg). Replacement cap 06841 (12/pkg).
150	144	Polycarbonate Thick-Walled Tube	13,000	45 × 132	03143 (25)	—	—	00458 (1)	1	
150	120	Corex® Bottle	5,000	53 × 132	03229 (1)	Included with Bottle	Polypropylene Nonsealing	00372 (1)	1	
125	100	Corex® Bottle	5,000	53 × 118	03231 (1)	Included with Bottle	Polypropylene Nonsealing	00372 (1)	1	

(continued on next page)

⁽¹⁾This rotor/cover assembly has been tested for microbiological containment (Ref.1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Sealing Assembly replacement parts may be available. See section E for availability.

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TUBES, BOTTLES FOR SLA-1500 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
100	100	Pyrex® Bottle	3,000	44 × 137	03230 (1)	Included with Bottle	Polypropylene Nonsealing	00371 (1)	1	
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	03072 (1)	1	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1)	1	
30	31	Corex® Bottle	10,000	24 × 105	03163 (10)	—	—	00449 (1)	3	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00456 (1)	5	
14	14	Pyrex® Tube	5,000	18 × 120	03111 (50)	—	—	00456 (1)	5	
12	10	Polypropylene Flanged Tube	15,000	16 × 100	03116 (50)	03266 (50)	Polypropylene Nonsealing	00389 (1)	7	
12	11	Polycarbonate Flanged Tube	15,000	16 × 100	03115 (50)	03266 (50)	Polypropylene Nonsealing	00389 (1)	7	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00369 (1) 00456 (1)	1 5	Adapters 00369 and 00456 must be used together.
5	—	Standard Glass Tube	5,000	12 × 75	—	—	—	00388 (1)	12	
5	5	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00388 (1)	12	
4	—	Standard Glass Tube	5,000	10 × 75	—	—	—	00388 (1)	12	
4	3	Polypropylene Flanged Tube	15,000	11 × 75	03105 (50)	03264 (50)	Polypropylene Nonsealing	00388 (1)	12	
4	3	Polycarbonate Flanged Tube	15,000	11 × 75	03104 (50)	03264 (50)	Polypropylene Nonsealing	00388 (1)	12	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00370 (1) 00456 (1)	1 5	Adapters 00370 and 00456 must be used together.

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.



GS-3
 Aluminum
 6-Place, 500 ml
 Bottle Dimensions: 70 × 190 mm
 Fixed-Angle: 20°
 Maximum Speed: 9,000 rpm
 K Factor: 4203
 Rotor Mass: 21.2 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	13,689	15.13
Min.	3,565	3.94

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
GS-3	Max Speed (rpm)	9,000	9,000	9,000	9,000	9,000	9,000	n/a	n/a
	Max RCF (g)	13,689	13,689	13,689	13,689	13,689	13,689	n/a	n/a

Catalog No. 07017

Includes:
 GS-3 Rotor
 Rotor Cover **07025**
 Rotor Extractor Tool **01047**
 Instruction Manual **28505**

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TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
500	480	Polypropylene DRY-SPIN	9,000	70 × 190	06829 (6)	Included with Bottle	Polypropylene, Sealing	—	—	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).
500	425	Polypropylene Oak Ridge Bottle	8,000	70 × 160	03943 (6)		Polypropylene Sealing	—	—	Nonsealing Cap 03928 (12/pkg) available.
500	425	Polycarbonate Oak Ridge Bottle	9,000	70 × 160	03944 (6)		Polypropylene Sealing	—	—	Nonsealing Cap 03928 (12/pkg) available.
250	280	Polypropylene DRY-SPIN	9,000	61 × 46	03069 (12)	Included with Bottle	Polypropylene, Sealing	00516 (1) 00614 (1)	1 1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg). Adapters 00516 and 00614 must be used together.
250	270	Polycarbonate DRY-SPIN	9,000	61 × 146	03098 (12)	Included with Bottle	Polypropylene, Sealing	00516 (1) 00614 (1)	1 1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg). Adapters 00516 and 00614 must be used together.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1) 00614 (1)	1 1	Adapters 03072 and 00614 must be used together.
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1) 00614 (1)	1 1	Adapters 03072 and 00614 must be used together.
315-3	**	**	**	**	**	**	**	—	—	Additional Adapter 00614 required.

⁽¹⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

All tubes and adapters listed under GSA rotor may be used in GS-3 with additional adapter **00614. See pages B-39 and B-40 of this catalog.

All trademarks are the property of their respective owners.



SLA-3000¹
SUPER-LITE® Aluminum Rotor
 6-Place, 500 ml
 Tube Dimensions: 70 × 190 mm
 Fixed Angle: 20°
 Maximum Speed: 12,000 rpm
 K Factor: 2364
 Rotor Mass: 14.4 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	24,336	15.13
Min.	6,337	3.94

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SLA-3000	Max Speed (rpm)	n/a	12,000	12,000	11,000	11,000	11,000	n/a	n/a
	Max RCF (g)	n/a	24,336	24,336	20,449	20,449	20,449	n/a	n/a

B-2

Catalog No. 07149		Accessories
Includes: SLA-3000 Rotor Rotor Cover Assembly 24512 Vacuum Grease 65937 Lubricant 61556 Rotor Extractor Tool 01047		Instruction Manual 11463 Rotor Cover O-ring (6 supplied) 92232 Retaining Ring Pliers 65614 Locking Knob O-ring (6 supplied) 61617 Center Hold O-ring (6 supplied) 92231
		Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814 Software Update Kit for RC-5C Plus ³ 12996

TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
500	425	Polycarbonate Oak Ridge Bottle	12,000	70 × 160	03944 (6)	03280 (12) Polypropylene Sealing	—	—	Nonsealing Cap 03928 (12/pkg) available.	
500	425	Polypropylene Oak Ridge Bottle	10,000	70 × 160	03943 (6)	03280 (12) Polypropylene Sealing	—	—	Nonsealing Cap 03928 (12/pkg) available.	
500	480	Polypropylene DRY-SPIN Bottle	9,000	70 × 190	06829 (6)	Included with Bottle Polypropylene Sealing	—	—	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).	
250	270	Polycarbonate DRY-SPIN Bottle	12,000	61 × 146	03098 (12)	Included with Bottle Polypropylene Sealing	00614 (1)	1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).	
250	280	Polypropylene DRY-SPIN Bottle	10,000	61 × 146	03069 (12)	Included with Bottle Polypropylene Sealing	00614 (1)	1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).	
250	265	Polycarbonate Oak Ridge Bottle	10,000	61 × 124	03939 (12)	03278 (12) Polypropylene Sealing	00614 (1)	1	Nonsealing Cap 03927 (12/pkg) available.	
250	250	Polypropylene Oak Ridge Bottle	10,000	61 × 124	03937 (12)	03278 (12) Polypropylene Sealing	00614 (1)	1	Nonsealing Cap 03927 (12/pkg) available.	

(continued on next page)

⁽¹⁾This rotor/cover assembly has been tested for microbiological containment (Ref.1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Sealing Assembly replacement parts may be available. See section E for availability.

TUBES, BOTTLES FOR SLA-3000 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
150	100	Corex® Bottle	5,000	53 × 132	03229 (1)	Included with Bottle	Polypropylene Nonsealing	00372 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
125	100	Corex® Bottle	5,000	53 × 118	03231 (1)	Included with Bottle	Polypropylene Nonsealing	00372 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
125	100	Pyrex® Bottle	3,000	44 × 137	03230 (1)	Included with Bottle	Polypropylene Nonsealing	00371 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	03072 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	03072 (1) 00614 (1)	1 1	Adapters 00372 and 00614 must be used together.
30-3	—	**	**	**	**	**	**	—	—	Additional Adapter 00614 required.

*Sealing Assembly replacement parts may be available. See section E for availability.

All tubes and adapters listed under SLA-1500 rotor may be used in the SLA-3000 with additional adapter **00614. See pages B-41 and B-42 of this catalog.

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All trademarks are the property of their respective owners.



SH-MT

Aluminum Rotor
 60 to 120-Place, 0.25 to
 1.5 ml Microtubes
 Max. Tube Length: 12.23 cm
 Fixed-Angle: 90°
 Maximum Speed: 20,000 rpm¹
 Rotor Mass: 3.0 kg

$$RCF = 11.17 \times \text{Radius (cm)} \times (\text{rpm}/1,000)^1$$

$$\text{Radius} = 5.575 \text{ cm} + \text{Tube Length (cm)}$$

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
SH-MT	Max Speed (rpm)	20,000	20,000	20,000	20,000	20,000	20,000	n/a	n/a
	Max RCF (g)	(³)	(³)	(³)	(³)	(³)	(³)	n/a	n/a

Catalog No. 11600

Includes:
 SH-MT Rotor
 Rotor Extractor **01031**
 Wrench **09054**
 Instruction Manual **11610**

Accessories

Tube Holder Rack **11620**
 Tube Holder 1.5, 1.8 **11619**
 Tube Holder 0.5 **11618**
 Tube Holder 0.25 **11617**
 Software Update Kit for RC-5C⁴ **12814**

TUBES

NOMINAL CAPACITY (ml)	DESCRIPTION	TUBE HOLDER		NOTES
		CAT. NO. (Qty/Pkg)	NO. OF PLACES	
1.5	Microtube	11619 (2)	6	Opposing rotor compartments must contain Tube Holders with the same Order Number.
0.5	Microtube	11618 (2)	8	Opposing rotor compartments must contain Tube Holders with the same Order Number.
0.25–0.4	Microtube	11617 (2)	12	Opposing rotor compartments must contain Tube Holders with the same Order Number.

	Nominal Tube Capacity	Maximum Speed (rpm)	Maximum ⁵ RCF	Maximum Radius (cm)
Typical Specifications for Fully Loaded Rotor with Standard Microtubes	0.25 ml	10,950	11,197	8.36
	0.4 ml	8,250	7,610	10.01
	0.5 ml	13,950	18,172	8.36
	1.5 ml	13,730	19,147	9.09
	1.8 ml	11,900	14,426	9.12

⁽¹⁾Depends on size and number of tubes used, and tube manufacturer's maximum RCF specifications, see examples.

⁽²⁾Instrument no longer available.

⁽³⁾Depends on dimensions of tubes used.

⁽⁴⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

⁽⁵⁾Prior to microtube use, a recommended maximum allowable speed for the microtube must be obtained from microtube manufacturer.



SH-80
 Aluminum Rotor Body
 Titanium Buckets
 8-Place, 10 ml
 Tube Dimensions: 18.5 × 50 mm
 Swinging-Bucket
 Maximum Speed: 20,000 rpm
 K Factor: 400
 Rotor Mass: 4.5 kg

	RCF (g)	R (cm)
Max.	45,395	10.16
Min.	24,127	5.40

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
SH-80	Max Speed (rpm)	20,000	20,000	20,000	20,000	20,000	20,000	n/a	n/a
	Max RCF (g)	45,395	45,395	45,395	45,395	45,395	45,395	n/a	n/a

Catalog No. 08296	Accessories
Includes: SH-80 Rotor Bucket Assemblies, Titanium (Set of 8) 08308 Bucket Caps (8/pkg) 08311 Rotor Extractor 01031 Rotor Cleaning Kit 12259 O-rings (16/pkg) 08312 Vacuum Grease 65937 Instruction Manual 08297	Software Update Kit for RC-5C ² 12814

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TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)
NOMINAL	FILL				
10	11	Polyallomer Thin-Walled Tube	20,000	18 × 50	03968 (50)

⁽¹⁾Instrument no longer available.

⁽²⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.



HB-6¹
 Aluminum Rotor Body
 Titanium Buckets
 6-Place, 50 ml
 Tube Dimensions: 29 × 104 mm
 Swinging-Bucket
 Maximum Speed: 13,000 rpm
 K Factor: 1765
 Rotor Mass: 4.67 kg

	RCF (g)	R (cm)
Max.	27,617	14.63
Min.	8,495	4.50

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
HB-6	Max Speed (rpm)	13,000	13,000	13,000	13,000	13,000	13,000	n/a	n/a
	Max RCF (g)	27,617	27,617	27,617	27,617	27,617	27,617	n/a	n/a

Catalog No. 11860	Accessories
Includes: HB-6 Rotor Rotor Cover Assembly 11848 Bucket Cover Assembly 11851 Bucket Cover O-rings 64667 (1 pkg, 6 supplied) Bucket Assemblies, Titanium (6 supplied) 11862³ Rotor Extractor 09033 Rotor Cleaning Kit 12259 Instruction Manual 11859	Software Update Kit for RC-5C ⁴ 12814 Software Update Kit for RC-28S ⁴ Software Rev. Level 5 12926 Software Rev. Level 6 12927 Software Rev. Level 7 12932

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	46	Polypropylene Flanged Tube	13,000	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	48	Polycarbonate Flanged Tube	13,000	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	56	Polyallomer Thin-Walled Tube	13,000	28 × 104	03139 (25)	—	—	—	—	
50	41	Polypropylene Oak Ridge Bottle	13,000	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	38	Polycarbonate Oak Ridge Bottle	13,000	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	54	Stainless Steel Tube	11,400	28 × 101	00579 (1)	00518 (1)	Stainless Steel, Sealing	—	—	Requires Wrench 01014 for tube sealing.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .

(continued on next page)

⁽¹⁾This rotor bucket assembly has been tested for microbiological containment (Ref. 1) by PHLS-CAMR, Porton Down. Suitable for use with materials up to a CDP Category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

⁽²⁾Instrument no longer available.

⁽³⁾Each Bucket Assembly includes one bucket, bucket cap and O-ring.

⁽⁴⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

*Sealing Assembly replacement parts may be available. See section E for availability.

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TUBES, BOTTLES FOR HB-6 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
30	32	Corex® Tube	10,000	24 × 105	03163 (10)	—	—	00368 (1)	1	
16	16	Polypropylene Flanged Tube	13,000	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	
16	17	Polycarbonate Flanged Tube	13,000	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	17	Corex® Tube	10,000	18 × 102	03286 (25)	—	—	00363 (1)	1	
12	14	Pyrex® Tube	5,000	18 × 102	03109 (50)	—	—	00363 (1)	1	
12	12	Polypropylene Flanged Tube	13,000	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	12	Polycarbonate Flanged Tube	13,000	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00367 (1)	1	
10	9.1	Polypropylene Oak Ridge Bottle	13,000	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	13,000	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	11	Polyallomer Thin-Walled Flanged Tube	13,000	13 × 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00366 (1)	1	
7	7	Polycarbonate Flanged Tube	13,000	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	7	Polypropylene Flanged Tube	13,000	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	4	Polypropylene Flanged Tube	13,000	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	4	Polycarbonate Flanged Tube	13,000	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00364 (1)	2	
2	2	Cellulose Acetate Butyrate Tube	13,000	7 × 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	13,000	7 × 50	03103 (50)	—	—	00408 (1)	4	

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

B-2



HB-4¹
 Aluminum Rotor Body
 Titanium Buckets
 4-Place, 50 ml
 Tube Dimensions: 29 × 104 mm
 Swinging-Bucket
 Maximum Speed: 13,000 rpm
 K Factor: 1667

	RCF (g)	R (cm)
Max.	27,712	14.68
Min.	9,099	4.82

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3B Plus RC-3C ² RC-3C Plus
HB-4	Max Speed (rpm)	13,000	13,000	13,000	13,000	13,000	13,000	9,000	6,000
	Max RCF (g)	27,712	27,712	27,712	27,712	27,712	27,712	13,282	5,903

Accessories

O-ring **60810**
 Rotor Extractor **09033**
 Rotor Cleaning Kit **12259**
 Instruction Manual **09041**

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	46	Polypropylene Flanged Tube	13,000	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	48	Polycarbonate Flanged Tube	13,000	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	56	Polyallomer Thin-Walled Tube	13,000	28 × 104	03139 (25)	—	—	—	—	
50	41	Polypropylene Oak Ridge Bottle	13,000	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	
50	38	Polycarbonate Oak Ridge Bottle	13,000	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	54	Stainless Steel Tube	11,400	28 × 101	00579 (1)	00518 (1)	Stainless Steel, Sealing	—	—	Requires Wrench 01014 for tube sealing.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
30	32	Corex® Tube	10,000	24 × 105	03163 (10)	—	—	00368 (1)	1	
16	16	Polypropylene Flanged Tube	13,000	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	

⁽¹⁾Rotor no longer available. Tubes, bottles and adapters still available.

⁽²⁾Instrument no longer available.

*Sealing Assembly replacement parts may be available. See section E for availability.

(continued on next page)

TUBES, BOTTLES FOR HB-4 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
16	17	Polycarbonate Flanged Tube	13,000	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	17	Corex® Tube	10,000	18 × 102	03286 (25)	—	—	00363 (1)	1	
12	14	Pyrex® Tube	5,000	18 × 102	03109 (50)	—	—	00363 (1)	1	
12	12	Polypropylene Flanged Tube	13,000	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	12	Polycarbonate Flanged Tube	13,000	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00367 (1)	1	
10	9.1	Polypropylene Oak Ridge Bottle	13,000	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	13,000	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	11	Polyallomer Thin-Walled Flanged Tube	13,000	13 × 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00366 (1)	1	
7	7	Polycarbonate Flanged Tube	13,000	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	7	Polypropylene Flanged Tube	13,000	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	4	Polypropylene Flanged Tube	13,000	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	4	Polycarbonate Flanged Tube	13,000	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00364 (1)	2	
2	2	Cellulose Acetate Butyrate Tube	13,000	7 × 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	13,000	7 × 50	03103 (50)	—	—	00408 (1)	4	

B-2

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.



HS-4
 Aluminum Rotor
 4-Place, 250 ml
 Swinging-Bucket
 Maximum Speed: 7,500 rpm
 K Factor: 3912
 Rotor Mass: 10.8 kg

	RCF (g)	R (cm)
Max.	10,826	17.23
Min.	4,536	7.22

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
HS-4	Max Speed (rpm)	7,000	7,500	7,500	7,000	7,000	7,000	n/a	6,000
	(1pl) Max RCF (g)	9,430	10,826	10,826	9,430	9,430	9,430	n/a	6,929
	(4pl) Max RCF (g)	9,644	11,071	11,071	9,644	9,644	9,644	n/a	7,085
	(3pl) Max RCF (g)	9,343	10,725	10,725	9,343	9,343	9,343	n/a	6,864
	(24pl) Max RCF (g)	8,057	9,249	9,249	8,057	8,057	8,057	n/a	5,919

Catalog No. 38018

Notes

Includes:
 HS-4 Rotor
 Rotor Cover Assembly **38011**
 Rotor Extractor **01047**
 Rotor Cleaning Kit **12259**
 Instruction Manual **38028**

Buckets and carriers for rotor must be ordered separately.
 See following tables.

250 ml Bucket

Catalog No. **00479** (4/pkg)
 1-Place Aluminum Bucket for 3 ml to
 250 ml Tubes (62 × 100 mm)



00479

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
250	200	Polyallomer Oak Ridge Bottle	7,500	60 × 120	54477 (6)	54421 (1)	Delrin® Screw Cap	—	—	
250	250	Polypropylene Oak Ridge Bottle	7,500	61 × 124	03937 (12)	03278 (12)	Polypropylene Sealing	—	—	Nonsealing Cap 03927 (12/pkg).
250	250	Polycarbonate Oak Ridge Bottle	7,500	61 × 124	03939 (12)	03278 (12)	Polypropylene Sealing	—	—	Nonsealing Cap 03927 (12/pkg).
125	150	Corex®	5,000	53 × 118	03231 (1)	Included w/Bottle	Polypropylene, Nonsealing	00372 (1)	1	
30	32	Corex® Tube	7,500	24 × 105	03163 (10)	—	—	00449 (1)	3	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00456 (1)	5	
14	16	Pyrex® Tube	5,000	18 × 120	03111 (50)	—	—	00456 (1)	5	

⁽¹⁾Instrument no longer available.

(continued on next page)

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

TUBES, BOTTLES FOR HS-4 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOM-INAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
12	12	Polypropylene Flanged Tube	7,500	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
12	12	Polycarbonate Flanged Tube	7,500	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00389 (1)	7	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00388 (1)	12	
5	6	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	00388 (1)	12	
5	—	Standard Glass Tube	5,000	12 × 75	—	—	—	00388 (1)	12	
4	4	Polypropylene Flanged Tube	7,500	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
4	4	Polycarbonate Flanged Tube	7,500	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00388 (1)	12	
4	—	Standard Glass Tube	5,000	10 × 75	—	—	—	00388 (1)	12	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00370 (1) 00456 (1)	1 5	Adapters 00370 and 00456 must be used together.

B-2

3-Place Carrier

Catalog No. **00481** (1/pkg)
Culture Tubes



00481

TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOM-INAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	—	—	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	—	—	
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	—	—	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	11148 (1)	1	

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

TUBES, BOTTLES FOR HS-4 (continued)

4-Place Carrier

Catalog No. **00480** (1/pkg)

4-Place Aluminum Carrier for 50 ml Tubes



00480

TUBES, BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
50	46	Polypropylene Flanged Tube	7,500	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	48	Polycarbonate Flanged Tube	7,500	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	—	—	
50	56	Polyallomer Thin-Walled Tube	7,500	28 × 104	03139 (25)	—	—	—	—	
50	41	Polypropylene Oak Ridge Bottle	7,500	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	38	Polycarbonate Oak Ridge Bottle	7,500	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	—	—	Nonsealing Cap 03926 (25/pkg) available.
50	50	Stainless Steel Flanged Tube	7,500	28 × 101	00517 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
50	50	Stainless Steel Tube	7,500	28 × 101	00579 (1)	00518 (1)	Stainless Steel Sealing	—	—	Requires Wrench 01014 for tube sealing.
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	See Notes	1	Requires Nalgene® adapter 3147-0050 .
30	28	Polycarbonate Oak Ridge Bottle	7,500	25 × 94	03719 (25)	03276 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	28	Polypropylene Oak Ridge Bottle	7,500	25 × 94	03718 (25)	03276 (25)	Polypropylene, Sealing	00419 (1)	1	Nonsealing Cap 03925 (25/pkg) available.
30	32	Corex® Tube	7,500	24 × 105	03163 (10)	—	—	00368 (1)	1	
16	16	Polypropylene Flanged Tube	7,500	18 × 100	03244 (50)	03299 (50)	Polypropylene, Snap-on	00382 (1)	1	
16	17	Polycarbonate Flanged Tube	7,500	18 × 100	03243 (50)	03269 (50)	Polypropylene, Snap-on	00382 (1)	1	
15	17	Corex® Tube	7,500	18 × 102	03286 (25)	—	—	00363 (1)	1	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00363 (1)	1	
12	14	Pyrex® Tube	5,000	18 × 102	03109 (50)	—	—	00363 (1)	1	

*Sealing Assembly replacement parts may be available. See section E for availability.

(continued on next page)

TUBES, BOTTLES FOR HS-4 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
12	12	Polypropylene Flanged Tube	7,500	16 × 100	03116 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
12	12	Polycarbonate Flanged Tube	7,500	16 × 100	03115 (50)	03266 (50)	Polypropylene, Snap-on	00402 (1)	1	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00367 (1)	1	
10	9.1	Polypropylene Oak Ridge Bottle	7,500	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	7,500	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00425 (1)	1	Nonsealing Cap 03924 (25/pkg) available.
10	11	Polyallomer Thin-Walled Flanged Tube	7,500	13 × 100	03124 (50)	—	—	00473 (1)	1	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00363 (1)	1	
7	7	Polycarbonate Flanged Tube	7,500	13 × 100	03120 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
7	7	Polypropylene Flanged Tube	7,500	13 × 100	03121 (50)	03265 (50)	Polypropylene, Snap-on	00473 (1)	1	
4	4	Polypropylene Flanged Tube	7,500	11 × 75	03105 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
4	4	Polycarbonate Flanged Tube	7,500	11 × 75	03104 (50)	03264 (50)	Polypropylene, Snap-on	00381 (1)	2	
3	3	Pyrex® Tube	5,000	10 × 75	03100 (50)	—	—	00364 (1)	2	
2	2	Cellulose Acetate Butyrate Tube	7,500	7 × 75	03235 (50)	—	—	00410 (1)	4	
1.5	—	Microtube	—	—	—	—	—	00381 (1)	2	
1	1	Cellulose Acetate Butyrate Tube	7,500	7 × 50	03103 (50)	—	—	00408 (1)	4	

B-2

24-Place Carrier
 Catalog No. **00482** (1/pkg)
 24-Place Aluminum Carrier for 5 ml Tubes



00482

TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
5	6	Pyrex® Tube	5,000	12 × 75	03102 (50)	—	—	—	—	
5	—	Standard Glass Tube	—	12 × 75	—	—	—	—	—	

*Sealing Assembly replacement parts may be available. See section E for availability.

All trademarks are the property of their respective owners.

TO ORDER, CALL 1-800-522-SPIN (7746)



SH-3000
 Aluminum Rotor
 4-Place, 750 ml
 Tube Dimensions:
 98 × 135 mm
 Swinging Bucket
 Maximum Speed: 4,700 rpm
 K Factor: 8138
 Rotor Mass: 6.0 kg
 Autoclavable: 121°C

Buckets	RCF (g)	R (cm)	Speed (rpm)
Max.	4,575	18.54	4,700
Min.	2,248	9.11	
Microplate Carriers	RCF (g)	R (cm)	Speed (rpm)
Max.	3,706 ¹	15.02	4,700 ¹

		RC-28S	RC-26 Plus	RC-24 ²	RC-5C Plus RC-5C ²	RC-5B Plus RC-5B ² RC-5 ²	RC-2B ² RC-2 ²	SS-3 ² SS-4 ²	RC-3B ² RC-3C ² RC-3C Plus
SH-3000 Buckets	Max Speed (rpm)	n/a	4,700	4,700	4,700	4,700	n/a	n/a	n/a
	Max RCF (g)	n/a	4,575	4,575	4,575	4,575	n/a	n/a	n/a
SH-3000 Microplate Carriers	Max Speed (rpm)	n/a	4,700	4,700	4,350	4,350	n/a	n/a	n/a
	Max RCF (g)	n/a	3,706	3,706	3,175	3,175	n/a	n/a	n/a

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Catalog No. 11796		Accessories			Accessories		
Includes: SH-3000 Rotor 750 ml Buckets (Set of 4) 11790 Rotor Extractor 01031 Instruction Manual 11782		Microplate Carriers (Set of 2) 11779 Sealing Covers (Set of 2) for 750 ml Buckets 11776⁵ Sealing Cover O-rings (Set of 6) 12995 750 ml Buckets (Set of 2) 11788			Software Update Kit for RC-24 ³ 12939 Software Update Kit for RC-5C ³ 12814 Software Update Kit for RC-5C Plus ³ 12996 Software Update Kit for RC-26 Plus ³ 71366		

TUBES AND BOTTLES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
750	—	750 ml Bottle	—	98 × 135	—	—	—	—	Contact your SORVALL® Rep for recommended suppliers.	
500	—	Polypropylene Corning Tissue Culture Bottle, Conical	—	96 × 146	Corning P/N 431123⁴	Included with Bottle	Plug	Corning P/N 431124⁴	1	
250	200	Polyallomer Oak Ridge Bottle	4,700	60 × 120	54477 (6)	54421 (1)	Delrin® Screw Cap, Sealing	12002 (1) 01092 (1)	— 1	
250	250	Polypropylene Oak Ridge Bottle	4,700	61 × 124	03937 (12)	03278 (12)	Polypropylene Sealing	01092 (1)	1	Nonsealing Cap 03927 (12/pkg) available.
250	265	Polycarbonate Oak Ridge Bottle	4,700	61 × 124	03939 (12)	03278 (12)	Polypropylene Sealing	01092 (1)	1	Nonsealing Cap 03927 (12/pkg) available.
250	280	Polypropylene DRY-SPIN Bottle	4,700	61 × 146	03069 (12)	Included with Bottle	Polypropylene Sealing	01092 (1)	1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).
250	270	Polycarbonate DRY-SPIN Bottle	4,700	61 × 146	03098 (12)	Included with Bottle	Polypropylene Sealing	01092 (1)	1	Replacement Cap 06841 (12/pkg). Replacement O-ring sealing assembly 03545 (24/pkg).
250	—	Tissue Culture Bottle, Conical	—	60 × 177	—	—	—	11737 (1)	1	

⁽¹⁾Maximum g force rating of microplates varies depending upon manufacturer. Verify correct maximum speed/g force before use. (continued on next page)

⁽²⁾Instrument no longer available.

⁽³⁾Contact your SORVALL® representative to determine your need for a Software Update Kit.

⁽⁴⁾Available from Corning CoStar. In U.S. call 800-492-1110.

⁽⁵⁾This rotor/cover assembly has been tested for microbiological containment (Ref.1) by PHLS-CAMR, Porton Down.

Suitable for use with materials up to ACDP category 3 (Ref. 2). Seal integrity may be affected by improper use or maintenance.

* Sealing Assembly replacement parts may be available. See section E for availability.

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TUBES AND BOTTLES FOR SH-3000 (continued)

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
200	200	Nunc Tissue Culture Bottle, Conical	4,700	60 × 135	03094 (4)	Included with Bottle	Polypropylene Nonsealing	01092 (1) 03095 (1)	1 1	
150	144	Polycarbonate Thick-Walled Tube	4,700	45 × 132	03143 (25)	—	—	00458 (1) 01092 (1)	1 1	
150	120	Corex® Bottle	4,700	53 × 132	03229 (1)	Included with Bottle	Polypropylene Nonsealing	01092 (1) 00372 (1)	1 1	
125	100	Corex® Bottle	4,700	53 × 118	03231 (1)	Included with Bottle	Polypropylene Nonsealing	01092 (1) 00372 (1)	1 1	
100	100	Pyrex® Bottle	3,000	44 × 137	03230 (1)	Included with Bottle	Polypropylene Nonsealing	01092 (1) 00371 (1)	1 1	
50	—	Tissue Culture Tube, Conical	—	30 × 115	—	—	—	00436 (1) 00445 (1)	5 3	Use 00445 with sealing cover. Both adapters accommodate free standing and conical tissue culture tubes.
50	46	Polypropylene Flanged Tube	4,000	29 × 102	03147 (25)	03268 (25)	Polypropylene, Snap-on	00894 (1)	5	
50	48	Polycarbonate Flanged Tube	4,000	29 × 102	03146 (25)	03268 (25)	Polypropylene, Snap-on	00894 (1)	5	
50	56	Polyallomer Thin-Walled Tube	4,000	28 × 104	03139 (25)	—	—	00894 (1)	5	
50	41	Polypropylene Oak Ridge Bottle	4,000	28 × 103	03530 (25)	03535 (25)	Polypropylene, Sealing	00894 (1)	5	
50	38	Polycarbonate Oak Ridge Bottle	4,000	28 × 103	03480 (25)	03535 (25)	Polypropylene, Sealing	00894 (1)	5	
50	50	Stainless Steel Tube	4,000	28 × 101	00579 (1)	00518 (1)	Stainless Steel, Sealing	00894 (1)	5	Requires Wrench 01014 , for tube sealing.
50	50	Stainless Steel Flanged Tube	4,000	28 × 101	00517 (1)	00518 (1)	Stainless Steel, Sealing	00894 (1)	5	Requires Wrench 01014 , for tube sealing.
50	—	Flat-Bottomed Tube	—	29 × 100	—	—	—	00894 (1)	5	
35	—	Polyallomer Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	00436 (1)	5	
35	—	Polycarbonate Nalgene® Conical Oak Ridge Tube	—	29 × 105	—	—	—	00436 (1)	5	
30	—	Flat-Bottomed Tube	—	25 × 100	—	—	—	00894 (1)	5	
30	31	Corex® Bottle	4,700	24 × 105	03163 (10)	—	—	00449 (1) 01092 (1)	3 1	
16	16	Polypropylene Flanged Tube	4,700	18 × 100	03244 (50)	03299 (50)	Polypropylene Nonsealing	00892 (1)	12	
16	17	Polycarbonate Flanged Tube	4,700	18 × 100	03243 (50)	03299 (50)	Polypropylene Nonsealing	00892 (1)	12	
15	—	Tissue Culture Tube, Conical	—	17 × 120	—	—	—	00447 (1)	8	
15	—	Urinalysis Tube, Conical	—	17 × 120	—	—	—	00447 (1)	8	
15	—	Vacutainer Tube	—	16 × 127	—	—	—	00385 (1)	18	
15	18	Corex® Tube	4,000	18 × 102	03286 (25)	—	—	00892 (1)	12	Rubber Pads 03667 (12/pkg), recommended.

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*Sealing Assembly replacement parts may be available. See section E for availability.

(continued on next page)

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TO ORDER, CALL 1-800-522-SPIN (7746)

TUBES AND BOTTLES FOR SH-3000 (continued)


CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOM-INAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty.Pkg)	NO. OF PLACES	
14	16	Pyrex® Tube	4,000	18 × 120	03111 (50)	—	—	00894 (1)	5	
14	12	Polypropylene Flanged Tube	4,000	18 × 75	03247 (50)	03269 (50)	Polypropylene, Snap-on	00894 (1)	5	5 plastic adapters 00382 required with 00894 .
14	12	Polycarbonate Flanged Tube	4,000	18 × 75	03246 (50)	03269 (50)	Polypropylene, Snap-on	00894 (1)	5	5 plastic adapters 00382 required with 00894 .
12	14	Pyrex® Tube	4,000	18 × 102	03109 (50)	—	—	00894 (1)	5	5 rubber adapters 00363 required with 00894 .
12	10	Polypropylene Flanged Tube	4,700	16 × 100	03116 (50)	03266 (50)	Polypropylene Nonsealing	00385 (1)	18	
12	11	Polycarbonate Flanged Tube	4,700	16 × 100	03115 (50)	03266 (50)	Polypropylene Nonsealing	00385 (1)	18	
10	—	Vacutainer Tube	—	16 × 100	—	—	—	00385 (1)	18	
10	—	Pyrex® Graduated Tube, Conical	—	18 × 100	—	—	—	00894 (1)	5	5 rubber adapters 00367 required with 00894 .
10	11	Polyallomer Thin-Walled Flanged Tube	4,700	13 × 100	03124 (50)	—	—	00384 (1)	22	
10	9.1	Polypropylene Oak Ridge Bottle	4,000	16 × 83	03929 (50)	03279 (25)	Polypropylene, Sealing	00894 (1) 00402 (5)	5 1	Nonsealing Cap 03924 (25/pkg) available.
10	9.7	Polycarbonate Oak Ridge Bottle	4,000	16 × 83	03020 (25)	03279 (25)	Polypropylene, Sealing	00894 (1) 00402 (5)	5 1	Nonsealing Cap 03924 (25/pkg) available.
10	—	Glass Tube	—	13 × 100	—	—	—	00384 (1)	22	
10	—	Pyrex® Tube	—	13 × 100	—	—	—	00384 (1)	22	
7	—	Vacutainer Tube	—	13 × 100	—	—	—	00384 (1)	22	
7	7	Polypropylene Flanged Tube	4,700	13 × 100	03121 (50)	03265 (50)	Polypropylene Nonsealing	00384 (1)	22	
7	7	Polycarbonate Flanged Tube	4,700	13 × 100	03120 (50)	03265 (50)	Polypropylene Nonsealing	00384 (1)	22	
5	—	Standard Glass Tube	—	12 × 75	—	—	—	00857 (1)	33	
5	—	Vacutainer® Tube	—	13 × 75	—	—	—	00857 (1)	33	Only 14 tubes per adapter due to size of plug.
5	—	Vacutainer® Tube	—	10.25 × 103	—	—	—	00857 (1)	33	
5	5	Pyrex® Tube	4,700	12 × 75	03102 (50)	—	—	00857 (1)	33	
4	—	Standard Glass Tube	—	10 × 75	—	—	—	00857 (1)	33	
4	—	Vacutainer® Tube	—	10.25 × 82	—	—	—	00857 (1)	33	
4	4	Polypropylene Flanged Tube	4,700	11 × 75	03105 (50)	03264 (50)	Polypropylene Nonsealing	00857 (1)	33	
4	4	Polycarbonate Flanged Tube	4,700	11 × 75	03104 (50)	03264 (50)	Polypropylene Nonsealing	00857 (1)	33	
3	3	Pyrex® Tube	4,700	10 × 75	03100 (50)	—	—	00857 (1)	33	
—	—	Microplate, 3 standard or 4 Deepwell	—	—	—	—	—	See Notes	3 1	Carrier 11779 is used in place of bucket.
1.5	—	Microtubes	—	—	—	—	—	00857 (1) 04871 (1)	33 33	Adapters 00857 and 04871 must be used together.

*Sealing Assembly replacement parts may be available. See section E for availability.

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TO ORDER, CALL 1-800-522-SPIN (7746)

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	<p>SV-288 Aluminum Rotor 8-Place, 36 ml Tube Dimensions: 25 × 90 mm Vertical: 0° Maximum Speed: 20,000 rpm K Factor: 210 Rotor Mass: 8.3 kg</p>		RCF (g)	R (cm)
		Max.	40,301	9.02
		Min.	28,908	6.47

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
SV-288	Max Speed (rpm)	20,000	20,000	20,000	20,000	20,000	n/a	n/a	n/a
	Max RCF (g)	40,301	40,301	40,301	40,301	40,301	n/a	n/a	n/a

Basic Catalog No. 09203	Complete Catalog No. 09201	Accessories
Includes: SV-288 Rotor Lubricant 61556 Rotor Extractor 01031 Instruction Manual 09057	Includes Basic Catalog 09203 Plus: ULTRACRIMP® Tubes, 33 ml, Polyallomer (8 pkgs, 25/pkg) 03899 ² Rotor Cap (8 pkgs, 1/pkg) 03995 Tube Racks (1 pkg, 2/pkg) 03763 ULTRACRIMP® Tube Removal Tool 12826	ULTRACRIMP® Sealing Tool and Crimp Gauge 03920 Crimp Gauge, Replacement 03919 ULTRACRIMP® Plugs and Caps, Extra (25 each/pkg) 03999 Tool Kit for ULTRACRIMP® 12770 . Includes: Rotor Holding Fixture 52540 , Torque Wrench 52580 , Socket 52882 Cap Wrench (for Polyallomer Thin-Walled Tubes) 09054 Tube Trimmer, optional 09073 Rotor Holding Fixture 52540 ³

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TUBES

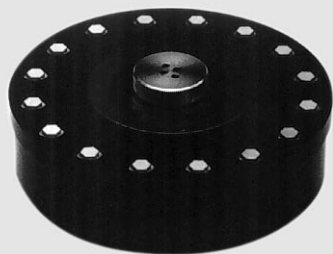
CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		ADAPTER REQ'D		NOTES
NOM-INAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	CAT. NO. (Qty/Pkg)	NO. OF PLACES	
36	33	Polyallomer Thin-Walled Tube	20,000	25 × 87	03141 (25)	09082 (1) 52482 (8)	Body Cap Plug	— —	— —	Requires Body Cap 09082 , Tube Plug 52482 , Rotor Holding Fixture 52540 , and Wrench 09054 . Tube Trimmer 09073 is optional.
33	33	Polyallomer ULTRACRIMP® Tube	20,000	25 × 90	03899 (25)	Included with Tubes	Plug and Aluminum Cap	—	—	Requires Rotor Cap 03995 , Tube Racks 03763 , ULTRACRIMP® Sealing Tool 03920 and Tool Kit 12770 .
20	17	Polyallomer Thin-Walled Tube	20,000	25 × 51	03288 (25)	09082 (1) 52482 (8)	Body Cap Plug	00421 (1)	1	Requires Body Cap 09082 , Tube Plug 52482 , Rotor Holding Fixture 52540 , and Wrench 09054 .

⁽¹⁾Instrument no longer available.

⁽²⁾Tubes supplied with equal number of plugs and caps.

⁽³⁾Included in Tool Kit **12770** for ULTRACRIMP® tubes. Must be ordered separately for use with tubes **03288** and **03141**.

*Sealing Assembly replacement parts may be available. See section E for availability.



SV-80
 Aluminum Rotor
 16-Place, 5 ml
 Tube Dimensions: 13 x 51 mm
 Vertical: 0°
 Maximum Speed: 19,000 rpm
 K Factor: 98
 Rotor Mass: 6.9 kg

	RCF (g)	R (cm)
Max.	40,969	10.16
Min.	35,646	8.84

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
SV-80	Max Speed (rpm)	19,000	19,000	19,000	19,000	19,000	n/a	n/a	n/a
	Max RCF (g)	40,969	40,969	40,969	40,969	40,969	n/a	n/a	n/a

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Basic Catalog No. 09204	Complete Catalog No. 09200	Accessories
Includes: SV-80 Rotor Lubricant 61556 Rotor Extractor 01031 Instruction Manual 09107	Includes Basic Catalog 09204 Plus: ULTRACRIMP® Tubes, 5 ml, Polyallomer (4 pkgs, 50/pkg) 03898 ² Rotor Cap (16 pkgs, 1/pkg) 03092 Tube Racks (1 pkg, 2/pkg) 03768 ULTRACRIMP® Tube Removal Tool 12826	ULTRACRIMP® Sealing Tool and Crimp Gauge 03920 Crimp Gauge, Replacement 03919 ULTRACRIMP® Plugs and Caps, Extra (25 each/pkg) 03999 Tool Kit for ULTRACRIMP® 12770 . Includes: Rotor Holding Fixture 52540 , Torque Wrench 52580 , Socket 52882 Cap Wrench (for Polyallomer Thin-Walled Tubes) 52363 Tube Trimmer, optional 52387 Rotor Holding Fixture 52540 ³

TUBES

CAPACITY (ml)		DESCRIPTION	MAX SPEED (rpm)	DIMENSIONS (mm)	TUBE CAT. NO. (Qty/Pkg)	SEALING ASSEMBLY*		NOTES
NOMINAL	FILL					CAT. NO. (Qty/Pkg)	DESCRIPTION	
5	5	Polyallomer ULTRACRIMP® Tube	19,000	13 x 56	03898 (50)	Included with Tubes	Plug and Aluminum Cap	Requires Rotor Cap 03092 , Tube Racks 03768 , and ULTRACRIMP® Sealing Tool 03920 , and Tool Kit 12770 .
5	4.4	Polyallomer Thin-Walled Tube	19,000	13 x 51	03127 (50)	09116 (1) 52522 (8)	Body Cap Plug	Requires Body Cap 09116 , Tube Plug 52522 , Rotor Holding Fixture 52540 , and Wrench 52363 .

⁽¹⁾Instrument no longer available.

⁽²⁾Tubes supplied with equal number of plugs and caps.

⁽³⁾Included in Tool Kit **12770** for ULTRACRIMP® tubes. Must be ordered separately for use with tubes **03127**.

*Sealing Assembly replacement parts may be available. See section E for availability.



TZ-28
 Titanium Rotor
 1,350 ml
 Zonal
 Maximum Speed: 20,000 rpm
 K Factor: 612
 Rotor Mass: 7.80 kg

	RCF (g)	R (cm)
Max.	42,580	9.53
Min.	16,174	3.62

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
TZ-28	Max Speed (rpm)	20,000	20,000	20,000	20,000	20,000	—	—	—
	Max RCF (g)	42,580	42,580	42,580	42,580	42,580	—	—	—

Catalog No. 52358	Required for Zonal Operation	Required for Sealed Operation
Includes: TZ-28 Rotor Core Septa 49609 O-ring for Core Septa 49609 (12 supplied) 66193 O-ring for Rotor Cover (2 supplied) 65755 Rotor Cover Wrench 49724 T-wrench 49026 Rotor Holding Fixture 52540 Sample Inject Needle 66026 Lubricant 61556 Feed Adapter 49007 O-ring for Feed Adapter 63037	Drive Adapter Conversion Kit 12344 Includes Manual 49618 Zonal Operation Kit 12343 RC-28S Tubing Support Bracket (Only necessary for update of pre-1989 zonal kit) 59637	Drive Adapter Conversion Kit 12344 Zonal Operation Kit 12343 Sealing Assembly 12273 RC-28S Tubing Support Bracket (Only necessary for update of pre-1989 zonal kit) 59637

⁽¹⁾Instrument no longer available.



TZ-28/GK System

Titanium
 1,350 ml
 Continuous Flow
 Max. Collectible Precipitate: 800 ml
 Max. Flow Rate: 600 ml/min.
 Maximum Speed: 19,000 rpm
 K Factor: 678
 Rotor Mass: 7.80 kg

	RCF (g)	R (cm)
Max.	38,428	9.53
Min.	14,597	3.62

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
TZ-28/GK	Max Speed (rpm)	19,000	19,000	19,000	19,000	19,000	n/a	n/a	n/a
	Max RCF (g)	38,428	38,428	38,428	38,428	38,428	n/a	n/a	n/a

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Catalog No. 52358	Required Accessories	Optional Accessories
Includes: TZ-28 Rotor Core Septa 49609 O-ring for Core Septa 49609 (12 supplied) 66193 O-ring for Rotor Cover (2 supplied) 65755 Rotor Cover Wrench 49724 T-wrench 49026 Rotor Holding Fixture 52540 Sample Inject Needle 66026 Lubricant 61556 Feed Adapter 49007 O-ring for Feed Adapter 63037	Drive Adapter Conversion Kit (Not Necessary if TZ-28 Zonal SUPERSPEED Already Purchased) 12344 Includes Manual 49618 Continuous Flow Distributor Adapter for Inlet-Outlet Assembly 49633 Inlet-Outlet Assembly for Distributor Adapter 49089	Bearings Kit, Replacement 12779 Syringe Assembly for Bearing Lubrication 13127 High Speed Lift Assembly 13086 RC-28S Tubing Support Bracket (Updates Kits for use in RC-28S; included with Inlet-Outlet Assembly 49089) 59633

⁽¹⁾Instrument no longer available.



SS-34/KSB System

Aluminum Rotor
 8-Place, 50 ml
 Fixed-Angle: 34°, Continuous Flow
 Max. Collectible Precipitate: 280 ml
 Max. Flow Rate: 600 ml/min.
 Maximum Speed: 20,000 rpm
 K Factor: 750
 Rotor Mass: 6.8 kg
 Autoclavable: 121°C

	RCF (g)	R (cm)
Max.	47,808	10.70
Min.	14,610	3.27

		RC-28S	RC-26 Plus	RC-24 ¹	RC-5C Plus RC-5C ¹	RC-5B Plus RC-5B ¹ RC-5 ¹	RC-2B ¹ RC-2 ¹	SS-3 ¹ SS-4 ¹	RC-3B ¹ RC-3B Plus RC-3C ¹ RC-3C Plus
SS-34/KSB	Max Speed (rpm)	20,000	20,000	20,000	20,000	20,000	20,000	n/a	n/a
	Max RCF (g)	47,808	47,808	47,808	47,808	47,808	47,808	n/a	n/a

Catalog No. 14005	Optional Accessories
Includes: Complete SS-34/KSB System Manual 14008 <u>Note: SS-34 Rotor 28020 not included.</u>	High Speed Lift Assembly: Designed to reduce or eliminate the excess foaming sometimes encountered when operating at high speeds, particularly with certain nutrient broths or ammonium sulfate solutions. 13086 Two-Channel Distributor for KSB System. Allows collection in two tubes. 13105 Four-Channel Distributor for KSB System. Allows collection in four tubes. 13109 Bearings Kit for KSB Continuous Flow System, Replacement. 12779 Tubing Support Bracket for RC-2, RC-2B, RC-5, RC-5B, RC-5C; Converts KSB-3 to KSB-R 14000 Rotor-Locking Stud 13017 Tubing Support Bracket for RC-28S 59633 (Updates previously purchased Kits for use in RC-28S; now included with KSB Kit 14005 .)

⁽¹⁾Instrument no longer available.

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SORVALL® SUPERSPEED Rotor Warranty

SORVALL® SUPERSPEED Rotors are warranted to substantially conform with the published specifications for the Product on the date of order, against defects in materials or workmanship for seven (7) years at any speed up to the maximum speed of the rotor (properly reduced for certain fluid densities, fluid gradients, tube assemblies, and adapters).

Conditions

- a. This warranty is valid for seven (7) years from the date of shipment to the original buyer by SORVALL® or an authorized SORVALL® Representative.
- b. This warranty extends only to the original buyer from SORVALL® or the original buyer from an authorized SORVALL® representative and this warranty may not be assigned or extended to a third person without the written consent of SORVALL®.
- c. This warranty covers the rotor only and SORVALL® shall not be liable for damage to accessories or ancillary supplies including but not limited to (i) tubes, (ii) tube caps, (iii) tube adapters, or (iv) tube contents.
- d. This warranty is void if the rotor is (i) operated or maintained in a manner contrary to the instructions in the manual for the rotor or centrifuge in use, (ii) used in a SORVALL® Centrifuge that has been modified without the written permission of SORVALL®, or (iii) not maintained in accordance with any handling or operating instructions supplied by SORVALL®, or which has been subjected to unusual physical or electrical stress, misuse, abuse, negligence or accidents.

- e. Should a SORVALL® Centrifuge be damaged due to failure of a rotor covered by this warranty, SORVALL® will supply, free of charge, (i) all centrifuge parts required for repair and (ii) if the centrifuge is currently covered by a SORVALL® warranty or service agreement, all labor necessary for repair of the centrifuge.

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References for Section B, Part 2.

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2. Advisory Committee on Dangerous Pathogens (1984), Categorization of pathogens according to hazard and categories of containment, HMSO, ISBN 0 11 883761 3.