Sorvall BP 8 and 16
Blood Banking Centrifuges

Proven productivity, built around you

ThermoFisher
SCIENTIFIC

Proven productivity, built around you

Introducing the Thermo Scientific™ Sorvall™ BP 8 and 16 Centrifuges designed for flexible, large capacity blood banking.

Thermo Scientific large capacity centrifuges have a proven track record for reliability and productivity in blood processing centers. Now the enhanced capacity of 16 x 500 mL blood bags and user-friendly design of the Sorvall BP 8 and 16 blood banking centrifuges make working with large volumes easier and more convenient using the protocols you've already validated and in compliance with global standards. Enhanced ergonomics and compact design combined with the quick set-up of traceable, reproducible runs makes this the centrifuge of choice for simplified blood processing productivity.

Enhanced ergonomics with push-button convenience
Thermo Scientific™ Auto-Door™ automatic centrifuge door opening and closing

Simplified operation and space-saving design
Thermo Scientific™ Auto-Lid™ instant rotor opening and closing with lid storage

Quick run set-up and standardization
Glove-friendly Thermo Scientific™ Centri-Touch™ interface with Thermo Scientific™ Centri-Cross™ function to convert your existing protocols

Improved capacity to maximize productivity
Unique 16 x 500 mL blood bag capacity

Latest global safety and compliance standards
Certified by UL and CE
Meets MDD CE Requirements
Listed with US FDA

Proven productivity, built around you

Combining more than 60 years of **application expertise with innovation** designed to improve your productivity.

High-throughput sample processing with the flexibility to match your current and future needs from 6, 8, 12 or 16 x 500 mL blood bags per run and designed to achieve reproducible results with the Thermo Scientific™ Accumulated Centrifugal Effect (ACE™) function, automatically adjusting run time to account for variations in acceleration.

Built-in safety and efficiency
- Compact design, automatic front-to-back centrifuge door opening and closing with Auto-Door and Auto-Lid rotor lid opening and storage optimize everyday centrifuge use, while standard power supply eliminates the need for expensive hardwiring

- Immediate rotor detection and programming with Thermo Scientific™ Auto-ID Instant Rotor Identification that saves time and protects the integrity of your samples

- Centri-Touch interface with bright, highly visible and glove-friendly display simplifies run set-up, further enhanced with access controls such as user login with password protection and Centri-Cross protocol conversion

- Real-time run monitoring and control with Thermo Scientific™ Centri-Vue™ Application

- Designed to assist with GMP/GLP compliance with Thermo Scientific™ Centri-Track™ on-board run logging of user, run conditions and error messages and optional Thermo Scientific™ Centri-Log™ Plus data collection software

Blood banking, built around you

Sorvall BP Blood Banking Centrifuges are available in two models, offering the flexibility to select higher capacity rotors or match existing workflows, with a choice of 4 Thermo Scientific™ HAEMAFlex™ Rotors.

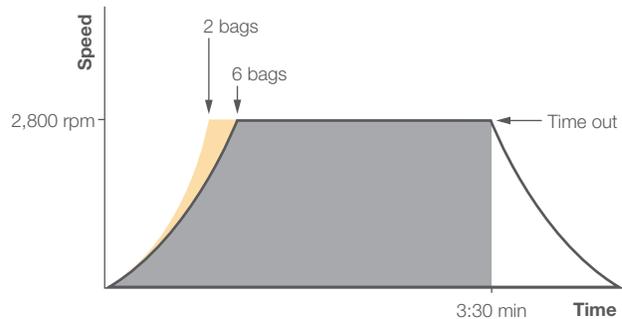| Expand individual bucket capacity	Maximize total blood bags per spin
For regular- to medium-throughput blood processing needs, select the Sorvall BP 8 centrifuge providing 6 x 550 mL blood bag capacity and, utilizing the same bucket system, is upgradeable to 8 x 550 mL bags	For high-throughput blood processing needs, choose the Sorvall BP 16 centrifuge with 12 x 500 mL capacity and is upgradeable to 16 x 500 mL blood bags with the same bucket selections

Description	HAEMAFlex 6	HAEMAFlex 8	HAEMAFlex 12	HAEMAFlex 16
Cat. No.	75003861	75003881	75003862	75003882
Rotor capacity (places x volume, mL)	6 x 550 mL	8 x 550 mL	12 x 500 mL	16 x 500 mL
Maximum speed (rpm)	5,000 rpm	4,600 rpm	4,700 rpm	3,900 rpm
Maximum RCF (x g)	7,295 x g	7,144 x g	7,187 x g	5,374 x g

Ergonomics and safety, built around you

- Effortless loading and unloading with optimal working height of 930 mm

- Meets MDD CE requirements and listed with US FDA, with latest global safety standards including UL and CE, without the need to bolt down the instrument to the floor, greatly simplifying installation and flexibility to relocate within a facility

- Designed for run-to-run reproducibility

  – ACE function automatically adjusts the centrifuge run time to compensate for variations in acceleration due to full or partial rotor loading (see Figure 1.)

  – Automatically neutralize up to 125 g loading imbalance with Thermo Scientific™ DuraFlex™ Drive Technology

  – In slow start/stop mode, select from 11 acceleration and 12 deceleration profiles, including profiles loaded from another Thermo Scientific large capacity centrifuge, to customize results for maximum yields with minimum re-suspension

- With the press of a button, Auto-Door automatically and completely opens or closes the centrifuge door, with hands-free Auto-Lid rotor lid storage on the centrifuge door

- Auto-ID instant rotor identification improves ease-of-use

- Thermo Scientific™ Eco-Spin™ Windshielded Rotors provide energy savings up to 64% when compared with non-windshielded rotors[1] (see Figure 2.)

[1] Based on an engineering evaluation of windshielded and non-windshielded designs of the same rotor body.

Results without the ACE integrator function

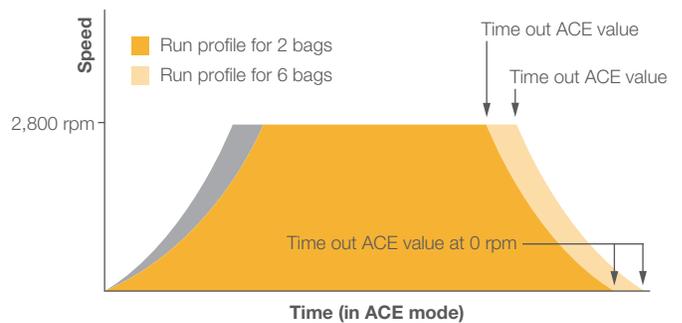**Results with the ACE integrator function**

Figure 1. In a typical first centrifugation step, a two-bag rotor load attains set speed faster than a six-bag load. Since both loads will time out at the set time of 3:30 minutes, different g-forces are achieved during the run. By using the ACE integrator function, the time for 2 bags would be changed to 3:00 minutes to obtain the same overall g-force for both loads. With an ACE value and speed set at the start of a run, times were adjusted to achieve the same overall g-force regardless of the rotor load.
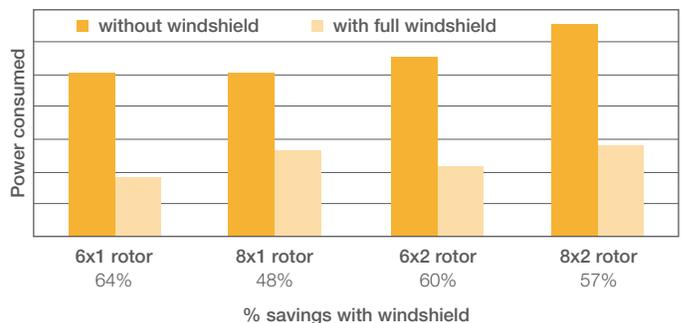

Figure 2. Power consumption of Thermo Scientific windshielded rotors as compared with non-windshielded designs of the same rotor body.
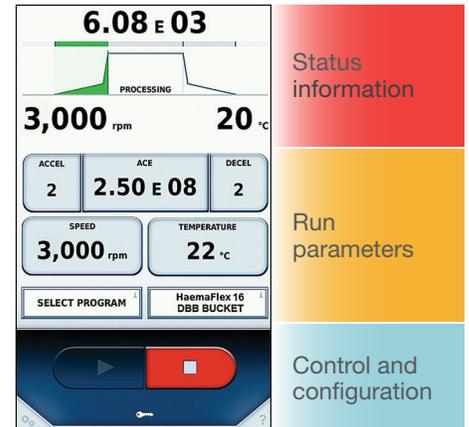
Operation,
built around you

Large, bright, interactive Centri-Touch interface for all centrifuge functions and durable for use run after run, year after year

• Glove- and detergent-friendly

• Simple and quick run set-up with ACE function, Speed, Time, Temp, plus Pre-Temp and Accel and Decel ramps

• Convenient virtual touchscreen keyboard for direct input of program parameters

• Highly visible backlit display of set and actual run conditions, including rpm, g-force, and the rotor in operation, enlarged during the run for clear visibility — even from across the lab

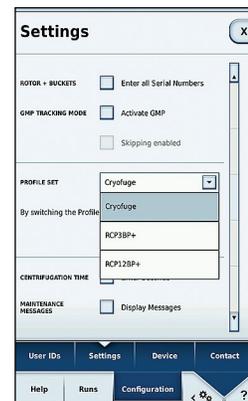• Real-time connection with Centri-Vue application to monitor protocols on your smart device

Easily set current parameters and monitor centrifuge status

Simple, quick run set-up and monitoring
Plus powerful functions are just one touch away:

• Quick recall of up to 120 programs with alpha-numeric naming to minimize time between runs and for quick run start by routine users

• User access control and security with optional password protection, ideal for multi-user environments

• Multilingual instructions on programming, run conditions, alerts and service messages

• Protocol conversion from another Thermo Scientific centrifuge model with Centri-Cross function

• Integrated rotor calculator for simplifying protocol modifications and transfers

• Help screens and in-use training with on-board tutorial videos and a quick-start manual

Emulate protocols from other centrifuges with Centri-Cross function

• Centri-Track on-board run logging of user, run conditions and error messages

• Thermo Scientific™ Cycle-Log™ rotor bucket cycle log monitors bucket life for added safety
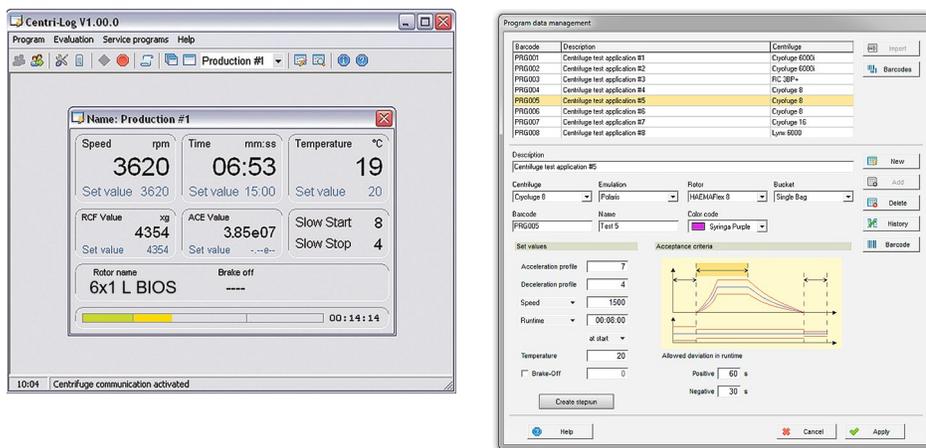
Data collection, built around you

- On-board Centri-Track run logs, downloadable via USB port or real-time via Ethernet

- Centri-Log Plus data collection software: Protocol tracking solution to enable lifecycle management of processed samples, equipment optimization and compliance with standard operating procedures. Connect and track multiple centrifuges on the same network.

  – Improve traceability with documentation of processes, including continual monitoring of speed, time and temperature with alarm messages in case of protocol deviation

  – Ability to check run parameters against procedures in PC database

  – Connection to central database through customized export file

Connection built around you

Our Centri-Vue application provides real-time connection with your Sorvall BP 8 and 16 blood banking centrifuges. With your smart device, check your run status or if a centrifuge is available from across the campus, building or lab.

- Determine status at-a-glance of 1 or up to 100 centrifuges

- Monitor your run

  – Replicate instrument main screen on your smart device

  – Know when your run is complete

  – Check for diagnostic errors affecting your run

- Establish secure centrifuge connection for start and stop control

Download Centri-Vue application for instant remote monitoring and control, available for both iOS™ and Android™, and stay connected.

Ordering information

Data collection options	Data transfer via USB	Data transfer via Ethernet	Device management via Centri-Log Plus software
With Barcode Sample Tracking	Centri-Track via USB[2]	Centri-Track via Ethernet[2]	Centri-Log Plus Software[2] Cat. No. 75007742
	Sample Tracking Kit[3] Cat. No. 75007740	Sample Tracking Kit[3] Cat. No. 75007740	Sample Tracking Kit[3] Cat. No. 75007740
		Network Access Kit Cat. No. 75007741	Network Access Kit Cat. No. 75007741
Without Sample Tracking	Run Log	Network Access Kit Cat. No. 75007741	Not Available

[2] GMP-mode must be enabled.
[3] Sample tracking kit contains barcode scanner, holder and cable.

Compliance, built around you

Full GMP/GLP traceability and compliance

• Two logging modes and optional external monitoring and control

• Simplified quality control and record keeping

• Electronic signatures for runs with user log-in and password protection

• Latest global safety and compliance standards:

  – UL Listed

  – CE Marked for Medical Devices Directive 93/42/EEC

  – US FDA Listed

  – RoHS Compliant

  – WEEE Compliant

  – EN 61010-1 3rd Edition

  – IEC 61010-2-020 3rd Edition

  – IEC 61010-2-101 3rd Edition

  – EN 61326-1 Class B

  – EN 61326-2-6

  – EN 62304

  – EN 62366

  – EN ISO 14971

  – EN ISO 13485

Additional options available

• Heavy-duty with stainless steel front plate, top plate and side panels

• Water/air-cooling configuration, complete with containment skirt (Figure 3.)
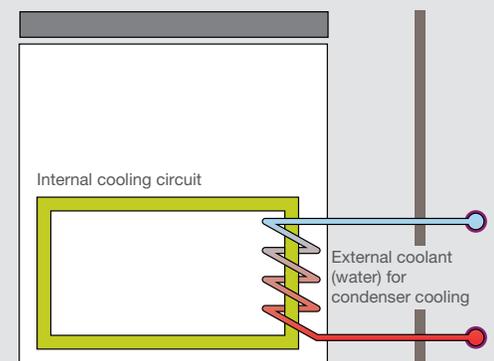

Internal cooling circuit

External coolant (water) for condenser cooling

Figure 3. External cooling options.

Rotor specifications

Cat. No.		Description	Rotor capacity (places x volume, mL)	Maximum speed (rpm)	Maximum RCF (x g)
Rotors					
75003861		HAEMAFlex 6 Swinging Bucket Rotor	6 x 550 mL blood bags (6 x 1000 mL)[4]	5,000	7,295
75003881		HAEMAFlex 8 Swinging Bucket Rotor	8 x 550 mL blood bags (8 x 1000 mL)[4]	4,600	7,144
Rotor buckets and adapters (sets of 2)[5]					
75003834		Oval Single Blood Bag Bucket		5,000	7,127
75003837		450–550 mL Quad or Quint Blood Bag Adapter	6 or 8 x 550 mL		
75003838		400–450 mL Double or Triple Blood Bag Adapter	6 or 8 x 450 mL		
75003839		250 mL Platelet-rich Plasma or Buffy Coat Bag Adapter	6 or 8 x 250 mL		
75003841		400–450 mL Single or Double Blood Bag Adapter	12 or 16 x 450 mL		
75003835		Single Blood Bag Bucket with Filter Pack		5,000	7,211
75003842		450–550 mL Triple, Quad or Quint Blood Bag with Additive Solution Adapter	6 or 8 x 550 mL		
75003859		Filter Holder			
75003836		Single Blood Bag Round Bucket		5,000	7,295
75003857		450–500 mL Triple or Quad Blood Bag Adapter	6 or 8 x 500 mL		
75003858		450 mL Single or Double Blood Bag Adapter	6 or 8 x 450 mL		

[4] Blood bag volume includes satellites and filters; total bucket volume is approximately 1000 mL.
[5] Order three sets of rotor buckets and adapters for use with the HAEMAFlex 6 rotor and four sets for use with the HAEMAFlex 8 rotor.

Rotor specifications, cont.

Cat. No.		Description	Rotor capacity (places x volume, mL)	Maximum speed (rpm)	Maximum RCF (x g)
Rotors					
75003862		HAEMAFlex 12 Swinging Bucket Rotor	12 x 500 mL blood bags (12 x 1000 mL)[4]	4,700	7,187
75003882		HAEMAFlex 16 Swinging Bucket Rotor	16 x 500 mL blood bags (16 x 1000 mL)[4]	3,900	5,374
Rotor buckets and adapters (sets of 2)[5]					
75003846		Double Blood Bag Bucket		4,700	7,187
75003851		Double Quint Blood Bag Adapter for XXL size (110 x 88 mm)	12 or 16 x 500 mL		
75003852		Double Quint Blood Bag Adapter for XL size (110 x 76 mm)	12 or 16 x 500 mL		
75003853		Double Quint Blood Bag Adapter for M size (110 x 57 mm)	12 or 16 x 450 mL		
75003855		Hook Adapter for Cord Blood Separations, for use with M size Adapters	12 or 16 x 300 mL		1,328
75003868		Hook Adapter for Cord Blood Separations, for use with XXL size Adapters	12 or 16 x 300 mL		1,328
Rotor accessories					
75003833		Liner Stand for Single Blood Bag Adapters (set of 2)			
75003832		Liner Stand for Double Blood Bag Adapters (set of 2)			
75003843		Blood Bag Spacer (set of 12)			
75006681		Rubber Volume Compensation Plates (set of 12)			
75005759		Rubber Balancing Plates (set of 4)			
75003866		Dummy Weights			

[4] Blood bag volume includes satellites and filters; total bucket volume is approximately 1000 mL.
[5] Order three sets of rotor buckets and adapters for use with the HAEMAFlex 12 rotor and four sets for use with the HAEMAFlex 16 rotor.

Centrifuge specifications

Specifications	Sorvall BP 8 Centrifuge	Sorvall BP 16 Centrifuge
Capacities	6 x 550 mL and 8 x 550 mL blood bags	12 x 500 mL and 16 x 500 mL blood bags
Maximum speed	5,000 rpm	4,700 rpm
Maximum RCF	7,295 x g	7,187 x g
Drive system	DuraFlex high torque brushless drive technology	DuraFlex high torque brushless drive technology
Imbalance tolerance	125 g in opposite loads	125 g in opposite loads
Accumulated centrifugal effect (ACE) integrator	Yes	Yes
Green technology	Refrigeration off when door opens; Eco-Spin windshielded rotors	Refrigeration off when door opens; Eco-Spin windshielded rotors
Control	Centri-Touch touchscreen interface	Centri-Touch touchscreen interface
Accel/decel profiles and existing protocol emulation	11 accel, 12 decel, multiple emulation profiles	11 accel, 12 decel, multiple emulation profiles
Modes	At start, at speed, time start	At start, at speed, time start
Step-runs	Yes, 30 profile/speed/time triplets, up to 3 steps each	Yes, 30 profile/speed/time triplets, up to 3 steps each
Maintenance tracking log	Yes	Yes
Protocol traceability	Yes, built-in Centri-Track run logging	Yes, built-in Centri-Track run logging
Performance range	Speed 300–5,000 rpm; RCF 26-7,295 x g	Speed 300–4,700 rpm; RCF 29-7,187 x g
Run time	99 hours 59 min 59 sec (1 second increment)	99 hours 59 min 59 sec (1 second increment)
Pre-cooling function	Yes	Yes
Temperature set range	–20 to 40°C, adjustable to 1°C	–20 to 40°C, adjustable to 1°C
Other functions	Multilingual selection, on-board training videos, user logging, user lock-out, automatic door opening, automatic rotor ID, on screen-display for imbalance, over temperature, stainless steel chamber, guidance display for error messages	
Dimensions (H x W x D)	1015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in)	1015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in)
Weight	230V: 475 kg/1047.2 lbs; 400V: 495 kg/1091.3 lbs	230V: 475 kg/1047.2 lbs; 230V Water Cooled: 479 kg/1056 lbs; 400V: 495 kg/1091.3 lbs
Heat output	< 2 kW	< 2 kW
Power consumption	< 5,400 VA	< 5,400 VA
Certifications	UL, CE, MDD, FDA listed	UL, CE, MDD, FDA listed
Standards	EN 61010-1 3rd Edition, IEC 61010-2-020 3rd Edition, IEC 61010-2-101 3rd Edition, EN 61326-1 Class B, EN 61326-2-6, EN 62304, EN 62366, EN ISO 14971, EN ISO 13485	
Warranty	2 yrs unit, 5 yrs power-train (motor shaft and drive), 5 yrs refrigeration	2 yrs unit, 5 yrs power-train (motor shaft and drive), 5 yrs refrigeration

Ordering information

Description	Cat. No.
Centrifuges	
Sorvall BP 8 centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007681
Sorvall BP 8 centrifuge, 380, 400, 415 V ±10%, 50 Hz, 3-phase	75007689
Sorvall BP 16 centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007683
Sorvall BP 16 centrifuge, 380, 400, 415 V ±10%, 50 Hz, 3-phase	75007695
Additional options	
Sorvall BP 8 Heavy Duty Water Cooled centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007662
Sorvall BP 8 Heavy Duty centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007684
Sorvall BP 16 Heavy Duty Water Cooled centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007661
Sorvall BP 16 Heavy Duty centrifuge, 200, 208, 220, 230, 240 V ±10%, 50/60 Hz, Single phase	75007682
Sorvall BP 16 Heavy Duty centrifuge, 380, 400, 415 V ±10%, 50 Hz, 3-phase	75007688
Power plugs[4]	
IEC60309 32A-6h-3-pin blue, 200–250 V	20190357
NEMA 6-30P 30 A-6h, 200–250 V	20190358
IEC60309 32A-6h 5-pin red, 230–400 V	20190359
IEC60309 16A-6h 5 pin red (3P+N+PE), 380/400 V	20190360
3x AWG10 NEMA L6-30P/CEE	20190364
Accessories	
Drain Box (600 x 400 x 50 mm)	75007730

[4]Centrifuges will include power plug most common for country of order. Please indicate alternate power plug requirements at time of order.

Find out more at **thermofisher.com/bloodbankcentrifuges**

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