

Your Partner in Laboratory

MSE

Harrier and Harrier R

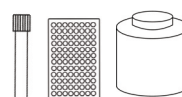
Medium capacity refrigerated benchtop centrifuge



BETATEK INC.
Instrumentation Superbly Supported
L'instrumentation à son meilleur

654 Petrolia Road,
Toronto, ON M3J 2W3

Tel: (416) 736-6166
Toll-Free: (800) 387 3570
Fax: (416) 736-9346



800 ml
48 tubes
4 micro plates



18 000 rpm



28 890 x g



MSE
Rue du Vieux Bourg
49340 Nuailly
FRANCE



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info@mse-sas.fr



DECADES OF CENTRIFUGE
INTELLIGENCE

FEATURES

- Precooling functions (Harrier R)
- LCD display and modern programming system
- Smooth and easy clean surface
- Continuous operation mode
- Simplified and exhaustive display** (pre set and current values)
- 99 programs** : programming of multi-segment
- PULSE and HOLD mode
- Delayed start function
- Changing of parameters during run
- 10 languages** (EN, EN, ES, IT, PT, DE, RU, SE, FR)
- Selected functions blocking password protection
- Stainless steel chamber
- Wide range of rotors with auto identification**



SWING OUT ROTOR SYSTEMS

MSE Reference	Description	Max. RPM	Max. RCF	Max. Capacity	Buckets	MSE4232	MSE4237	MSE4238	MSE4635
MSE2336C	Microtiter swing-outrotor (max 8 MTP or 2 DWP) (with 2 hangers MSE3337)	4 500	2 626	8 MTP or 2 DWP					
MSE2502C	Microtiter swing-outrotor (max 6 MTP or 2 DWP) (with 2 hangers MSE3358)	3 000	1 036	6 MTP or 2 DWP	MSE3358				
MSE2503C	Cyto rotor (with 4 hangers MSE3657)	500	769		MSE3357				
MSE2633C	Swing-outrotor 4 x 40 ml for CPT tube (with bucket MSE3634 and lid MSE7236)	3 200	1 809	4 x 40 ml	MSE3634	X	X	X	X
MSE2503C	Cyto rotor (with 4 hangers MSE3657)	500	769		MSE3357				
MSE2633C	Swing-outrotor 4 x 40 ml for CPT tube (with bucket MSE3634 and lid MSE7236)	3 200	1 809	4 x 40 ml	MSE3634				

SWING OUT ROTOR SYSTEMS

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		Swing-out rotor 4 x 200 ml																											
MSE Reference	Buckets	MSE4075	MSE4094	MSE4123	MSE4133	MSE4135	MSE4140	MSE4157	MSE4159	MSE4160	MSE4161	MSE4162	MSE4164	MSE4232	MSE4237	MSE4238	MSE4239	MSE4240C	MSE4241C	MSE4243C	MSE4245	MSE4247	MSE4248	MSE4277	MSE4492	MSE4497	MSE4498	MSE4500	MSE4501
MSE1995	MSE3093		x				x																						
	MSE3095				x																								
	MSE3096		x				x																						
	MSE3488			x				x	x	x	x	x	x										x		x	x	x	x	x
	MSE3489C			x				x	x	x	x	x	x										x		x	x	x	x	x
	MSE3644	x													x	x	x	x	x	x	x	x		x					

ANGLE ROTOR SYSTEMS

MSE Cat. No	Description	Max. RPM	Max. RCF
MSE2351	Hematocrite rotor for 24 capillaries	13000	16816
MSE1250	Angle rotor 12 x 2/1.5ml with Hermetically Sealed Lid (angle 45°)	15000	16854
MSE1261C/A	Angle rotor 24 x 15/10ml (angle 30°) (with bucket MSE3131)	5 000	3 997
MSE1261C/B	Angle rotor 24 x 10 ml (angle 30°) (with bucket MSE3132)	5 000	3 997
MSE1262C/A	Angle rotor 10 x 50 ml for Falcon tubes (angle 30°) (with bucket MSE3329)	5 500	4 498
MSE1262C/B	Angle rotor 10 x 50 ml for Falcon tubes (angle 30°) (with bucket MSE3327)	5 500	4 498
MSE1264C/A	Angle rotor 8 x 50 ml for Falcon tubes (angle 30°) (with bucket MSE3329)	5 500	4 227
MSE1264C/B	Angle rotor 8 x 50 ml for Falcon tubes (angle 30°) (with bucket MSE3327)	5 500	4 227
MSE1324	Angle rotor 8 x 30 ml for Nalgene tubes with Hermetically Sealed Lid (angle 30°)	12000	14 006
MSE1507C/A	Angle rotor 36 x 15/10ml (angle 30°) (with bucket MSE3131)	5 000	3 997
MSE1507C/B	Angle rotor 36 x 10 ml (angle 30°) (with bucket MSE3132)	5 000	3 997
MSE1508	Angle rotor 6 x 50 ml for Falcon tubes with Hermetically Sealed Lid (angle 30°)	10000	10 733
MSE1509	Angle rotor 6 x 30 ml for Nalgene tubes with Hermetically Sealed Lid (angle 30°)	15 000	19 621
MSE1510	Angle rotor 12 x 10 ml (O17 x 77 mm) with Hermetically Sealed Lid (angle 30°)	15 000	21 382
MSE1512	Angle rotor 24 x 2/1.5ml with Hermetically Sealed Lid (angle 45°)	15 000	20 879
MSE1513	Angle rotor 36 x 2/1.5ml with Hermetically Sealed Lid (angle 45°)	14 000	18 188
MSE1517	Angle rotor 10 x 15 ml for Falcon tubes with Hermetically Sealed Lid (angle 30°)	10 000	10 733
MSE1518	Angle rotor 12 x 10 ml (O17 x 109 mm) with Hermetically Sealed Lid (angle 30°)	12 000	15 133
MSE1520	Angle rotor 6 x 50 ml for Nalgene tubes with Hermetically Sealed Lid (angle 30°)	12 000	
MSE1552C/A	Angle rotor 30 x 15/10ml (angle 30°) (with bucket MSE3131)	4 500	3 011
MSE1552C/B	Angle rotor 30 x 10 ml (angle 30°) (with bucket MSE3132)	4 500	2 875
MSE1554C	Angle rotor 8 x BABCOCK bottle (GERBER 5406) (angle 40°) (with bucket MSE3555 and Adaptor MSE4505)	2 000	733
MSE1636	Angle rotor 12 x 8 x 0.2 ml for PCR strips with Hermetically Sealed Lid (angle 45°)	14 000	20 817
MSE1637C	Angle rotor 6 x 85 ml for Nalgene tubes (angle 35°) (with bucket MSE3638)	7 000	6 081
MSE1769C	Angle rotor 4 x 100 ml (angle 30°) (with bucket MSE3770)	6 300	5 014
MSE1791C/A	Angle rotor 12 x 15/10ml (angle 30°) (with bucket MSE3131)	5 500	3 686
MSE1791C/B	Angle rotor 12 x 10 ml (angle 30°) (with bucket MSE3132)	5 500	3 686
MSE1792C/A	Angle rotor 8 x 15/10ml (angle 30°) (with bucket MSE3131)	6 000	4 226
MSE1792C/B	Angle rotor 8 x 10 ml (angle 30°) (with bucket MSE3132)	6 000	3 783
MSE1794C	Angle rotor 12 x 30/25ml (angle 30°) (with bucket MSE3380)	5 500	4 058
MSE1797C	Angle rotor 6 x 50 ml (angle 30°) (with bucket MSE3327)	6 000	4 427
MSE1811	Angle rotor 24 x 2 ml for filter tubes/spin columns with Hermetically Sealed Lid (angle 45°)	15 000	21 382
MSE1995	Angle rotor 12 x 5 ml Eppendorf tubes with Hermetically Sealed Lid (angle 45°)	15 000	21 382

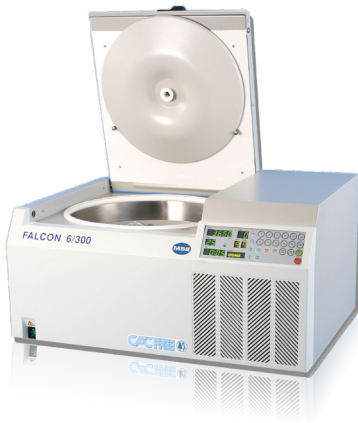
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ACCESSORIES

MSE Cat. No	Description	Dimension
MSE4067	Round Adaptor for blood collection 7 x 7÷11ml tubes	7 x Φ16.5 mm
MSE4071	Round Adaptor for round-bottom 5 x 10 ml Nalgene and 5 x 13/14ml Sarstedt tubes	5 x Φ17 mm
MSE4072	Round Adaptor for round-bottom 10 x 1,5/2ml Eppendorf tubes	10 x Φ11 mm
MSE4074	Round Adaptor for round-bottom 30 ml Nalgene tube	1 x Φ25.8 mm
MSE4075	Round Adaptor for 15 ml Falcon tube	1 x Φ16.9 mm
MSE4077	Round Adaptor without bottom for skirted, conical-bottom 50 ml Greiner tube	1 x Φ30 mm
MSE4077C	Round Adaptor for 50 ml Falcon® tube and 50 ml Nalgene tube (MSE3251 bucket) or for 50ml Nalgene tube (MSE3252C bucket) with rubber pad MSE4239	1 x Φ30 mm
MSE4078	Round carrier for 15ml Falcon® tube	1 x Φ17 mm
MSE4079	Round Adaptor for round-bottom glass 50 ml tube	1 x Φ35.5 mm
MSE4080	Round Adaptor for round-bottom 7 ml tubes	12 x Φ58 mm
MSE4086	Round Adaptor for round-bottom 15 ml Nalgene tube	1 x Φ17 mm
MSE4087	Round Adaptor for round-bottom 5 ml tube	1 x Φ14 mm
MSE4094	Round Adaptor for round-bottom 5 ml tube	1 x Φ13 mm
MSE4098	Round Adaptor for round-bottom 5 ml tube	1 x Φ13 mm
MSE4101	Round Adaptor for 4 x 50 ml Falcon tubes	4 x Φ30 mm
MSE4102	Round Adaptor for 3 x 50ml Falcon tubes	3 x Φ30 mm
MSE4122	Round Adaptor for round-bottom 28/30ml Nalgene tube	1 x Φ25.8 mm
MSE4123	Round Adaptor for round-bottom 50 ml tube	1 x Φ35.2 mm
MSE4124	Round Adaptor for round-bottom 10 ml and S-Monovette 7.5 ml tube	1 x Φ17 x 86 mm
MSE4133	Round Adaptor without bottom	1 x Φ13.3 mm
MSE4135	Round Adaptor without bottom for 0.5 ml tube	1 x Φ8 mm
MSE4140	Round Adaptor for round-bottom 15 ml Falcon tube	1 x Φ16.9 mm
MSE4151C/A	Round Adaptor for round-bottom glass 100 ml tube with rubber pad MSE4239	1 x Φ45 mm
MSE4151C/B	Round Adaptor for round-bottom PP 100 ml tube with rubber pad 14196	1 x Φ45 mm
MSE4157	Round Adaptor for blood collection 7 x 1,6÷7ml tubes	7 x Φ13.5 mm
MSE4159	Round Adaptor short for blood collection 7 x 7÷11ml tubes	7 x Φ17.1 mm
MSE4160	Round Adaptor short for blood collection 7 x 1,6÷7ml tubes	7 x Φ13.5 mm
MSE4161	Round Adaptor for blood collection 7 x 7÷11ml tubes	7 x Φ17.1 mm
MSE4162	Round Adaptor for round-bottom 5 x 10 ml Nalgene® tubes	5 x Φ16.7 mm
MSE4164	Round Adaptor for 50 ml Falcon® tube	1 x Φ30 mm
MSE4177	Round Adaptor for conical-bottom 0.4 ml tube	1 x Φ5.8 mm
MSE4184	Round Adaptor for round-bottom 0.2 ml tube	1 x Φ6.2 mm
MSE4232	Round Adaptor for round-bottom 5 x 7/5ml tubes	5 x Φ12.5 mm
MSE4237	Round Adaptor for blood collection 4 x 1,6÷7ml tubes	4 x Φ13.1 mm
MSE4238	Round Adaptor for blood collection 4 x 7÷11ml tubes	4 x Φ16.5 mm
MSE4239	Rubber pad under 100/50/30/25ml glass tube	-
MSE4240C	Round Adaptor for 50 ml Falcon tube or Nalgene tube with rubber pad MSE4239	1 x Φ30 mm
MSE4241C	Round Adaptor for conical-bottom 30/25ml tube with rubber pad MSE4239	1 x Φ25.5 mm

MSE Cat. No	Description	Dimension
MSE4243C	Round Adaptor for round-bottom or conical-bottom 50 ml tube with rubber pad MSE4239	1 x Φ 35.5 mm
MSE4245	Round Adaptor for round-bottom 5 x 1.5/2ml Eppendorf tubes	5 x Φ 11 mm
MSE4247	PP pad under 100 ml PP tube	–
MSE4248	Round Adaptor for round-bottom 100 ml tube	1 x Φ 46 mm
MSE4275	Round Adaptor for round-bottom or skirted, conical-bottom 30 ml Sterilin tube	1 x Φ 25.8 mm
MSE4277	Round Adaptor for skirted, conical-bottom 50 ml Greiner tube	1 x Φ 30 mm
MSE4299	Round Adaptor without bottom for 28 ml Nalgene tube	1 x Φ 25.6 mm
MSE4306	Round Adaptor without bottom for 7 ml tube	1 x Φ 13 mm
MSE4307	Round Adaptor without bottom for 15 ml Nalgene tube	1 x Φ 17 mm
MSE4240C	Round Adaptor for 50 ml Falcon tube or Nalgene tube with rubber pad MSE4239	1 x Φ 30 mm
MSE4241C	Round Adaptor for conical-bottom 30/25ml tube with rubber pad MSE4239	1 x Φ 25.5 mm
MSE4243C	Round Adaptor for round-bottom or conical-bottom 50 ml tube with rubber pad MSE4239	1 x Φ 35.5 mm
MSE4301C/A	Round Adaptor with MSE4226 Pad (PP) under 250 ml flat-bottom bottle	1 x Φ 61.5 mm
MSE4301C/B	Round Adaptor with MSE4068 Pad (PP) under 250 ml round-bottom bottle	1 x Φ 61.5 mm
MSE4361	Round Adaptor for 100 ml tube	1 x Φ 45 mm
MSE4362	Round Adaptor for skirted, conical-bottom 2 x 50 ml Greiner tubes	2 x Φ 30 mm
MSE4363	Round Adaptor for round-bottom glass 3 x 50 ml tubes	3 x Φ 36 mm
MSE4364	Round Adaptor for blood collection 19 x 4÷7ml tubes	19 x Φ 13.1 mm
MSE4365	Round Adaptor for blood collection 19 x 1,6÷4ml tubes	19 x Φ 13.1 mm
MSE4366	Round Adaptor for 8 x 15 ml Falcon tubes	8 x Φ 16.9 mm
MSE4366C	Round Adaptor for 8 x 5 ml Eppendorf snap cap closing or screw cap closing tube	8 x Φ 16.9 mm
MSE4367	Round Adaptor for blood collection 15 x 7÷11ml tubes	15 x Φ 17 mm
MSE4368	Round Adaptor for 7 x 15 ml Falcon tubes	7 x Φ 16.9 mm
MSE4368C	Round Adaptor for 7 x 5 ml Eppendorf snap cap closing or screw cap closing tube	7 x Φ 16.9 mm
MSE4369	Round Adaptor for 26 x 1,6÷5ml S-Monovette tubes	26 x Φ 12.2 mm
MSE4370	Round Adaptor for skirted, conical-bottom 3x30 ml Sterilin tubes or round-bottom 7 x 28/30ml Nalgene tubes	7 x Φ 26 mm
MSE4371	Round Adaptor for round-bottom 12 x 15/10ml Nalgene tubes	12 x Φ 17 mm
MSE4372	Round Adaptor for round-bottom 4 x 50 ml Nalgene tubes	Φ 4 x 30 mm
MSE4373	Round Adaptor for round-bottom 18 x 2/1,5ml Eppendorf tubes	18 x Φ 11 mm
MSE4374	Round Adaptor for 200 ml flat-bottom bottle	1 x Φ 57 mm
MSE4376	Round Adaptor for blood collection 17 x 1,6÷7ml tubes	17 x Φ 13.1 mm
MSE4492	Round Adaptor for round-bottom 12 x 7 ml tube	1 x Φ 12.3 mm
MSE4497	Round Adaptor for round-bottom 12 x 5 ml tubes	12 x Φ 12.5 mm
MSE4498	Round Adaptor for round-bottom 12 x 1,4 ml S-Monovette® tubes	12 x Φ 9 mm
MSE4500	Round Adaptor for blood collection 4 x 7÷11ml tubes	4 x Φ 17.1 mm
MSE4501	Round Adaptor for round-bottom 8 x 2/1,5ml Eppendorf® tubes	8 x Φ 11 mm
MSE4635	Round Adaptor for round-bottom 4 x 8 ml CPT tubes	4 x Φ 16 mm
MSE4906	Round Adaptor for 50 ml Falcon tube	1 x Φ 30 mm
MSE4907	Round Adaptor for 15 ml Falcon tube	1 x Φ 16.9 mm
MSE4919C/A	Round Adaptor used with MSE4140 Adaptor for 5 ml Eppendorf snap cap or screw cap tube	–
MSE4919C/B	Round Adaptor used with MSE4140 Adaptor for 5 ml Eppendorf snap cap or screw cap tube	–

OUR RANGE OF BENCHTOP CENTRIFUGES



FALCON



refrigerated version

FALCON R

This benchtop centrifuge with a capacity of 3 liters can be adapted to different applications, thanks to its wide range of adapters it can centrifuge all sizes of tubes and bottles. With the same machine you can centrifuge up to 148 tubes of 5ml, 4 bottles of 750 ml, or a mixture of tubes or bottles. It allows low and medium speed centrifugation and is available in refrigerated and ventilated versions. A dedicated trolley is available to move your Falcon effortlessly.

OUR RANGE OF MICROCENTRIFUGES



MICRO CENTAUR R

One of the smallest microcentrifuges with the cooling option on the market. Ease of use, functionality and wide possibilities of centrifuge control ensure its rich spectrum of application possibilities, as well as versatility of use in many industries. The possibility to set the temperature of $+4^{\circ}\text{C}$ in less than 6 minutes works, among others, during requiring clinical examinations in medical, scientific, biochemical or veterinary laboratories.



MICRO CENTAUR

Small centrifuge, ventilated, table laboratory centrifuge, intended for basic applications and sample preparation. With minimal dimensions it provides the ease of use, allowing for quick and accurate separation of various liquid. It was designed specifically for the needs of small medical laboratories and veterinary clinics or cabinets, in which you can often centrifuge from one to several tubes at the same time. Only dedicated for 1.5/2ml and capillaries tubes and pcr strips.



HAWK



HAWK R

refrigerated version

With its wide range of rotors and accessories this centrifuge enables proper preparation of the sample for both routine medical and veterinary tests, launch of various therapies including in regenerative medicine or using different systems to acquire PRP, as well as to perform other research including scientific, clinical research, research in cosmetology and many others.



KESTREL

The Kestrel is a small compact non-refrigerated benchtop centrifuge capable of spinning 6 blood tubes at over $3000 \times g$. Reliable, compact and easy to use, the Kestrel centrifuge is the perfect addition to any medical environment where a small number of blood tubes need to be processed quickly and efficiently.

More than 80 years in the centrifuge industry

WARRANTY : 24 months of warranty +extended warranty

CUSTOMER ORIENTED: Immediate assistance to any inquires and claims

QUALITY : MSE products comply with all applicable safety regulations and are compliant with IVD. MSE manufactures according to the best quality management systems, including ISO 9001 and ISO 13485



Technical Data

	Harrier	Harrier R
Height (mm)	380 mm	380 mm
Width (mm)	443 mm	443 mm
Depth (mm)	545 mm	695 mm
Weight (kg) 230V/120V	41,8 kg/45 kg	71,8 kg
Maximum capacity	1000ml	1000 ml
Maximum speed : swing out rotor	5000 rpm	5000 rpm
Maximum RCF : swing out rotor	4724 x g	4724 x g
Maximum speed : angle rotor	16000 rpm	18000 rpm
Maximum RCF : angle rotor	24270 x g	30065 x g
Timer	1 second to 99 hours, 59 minutes, 1s step, or continuous	
Noise output	<65 dB	<65 dB
Number of acceleration rates	10	10
Number of brake rates	10	10
Number of programs	100	100
Min. acceleration time	4 s	4 s
Min. braking time	5 s	5 s
Display	Digital Green Led	Digital Green Led
Motor	Brushless induction	Brushless induction
Temperature control range	air cooled	-20°C to +40°C
Power	600 W	980 W
Power supply	230V, 6.3A, single phase, 50/60Hz 110V, 10A, single phase, 50/60Hz	230V, 10A, single phase, 50/60Hz 110V, 16A, single phase, 60Hz
Catalogue number	230V, 50/60Hz MSB080.CX2.5 110V, 50/60Hz MSB080.CX2.1	230V, 50/60Hz MSB080.CR2.5 110V, 60Hz MSB080.CR2.1

All MSE centrifuges comply with the latest European safety and environmental standards.
Our centrifuges are also fully RoHS compliant.

