Heraeus

HIGH THROUGHPUT CENTRIFUGATION
HERAEUS® MULTIFUGE® 3

Multi-talented centrifuges for highest sample throughput

Kendro®
Quality Products – Lifetime Care

PURE PROCESSING

Insist on more
The trend is clear: today's laboratory work increasingly requires processing more samples, regardless of the application. The Multifuge® 3's maintenance-free, brushless induction drive offers state of the art technology and power, spinning more tubes, at higher RCF's, more rapidly than competitive instruments. Add the capability to process three litres of sample in a single run and you've got pure processing power – right at your fingertips!

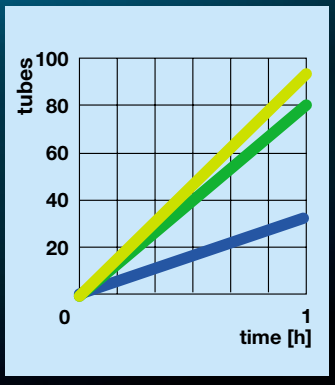
For every application
Thanks to the versatile range of rotors available, this general purpose centrifuge is sought after for many applications. Whether your interest is in bio-technology or pharmaceutical research, microbiology, clinical testing, environment or industry, the Multifuge® 3 meets your needs.

Designed with you in mind
Every user has unique requirements, individualized tasks and a different work focus. Designed for practical use, tailor-made for all requirements, whether you need a tabletop or trolley solution, refrigerated or air-cooled, rotary switch control or soft touch keypad, the Multifuge® 3 offers you the choice. Thanks to the modular instrument design, the Multifuge® 3 is perfectly adaptable to all needs regardless of location, use or type of application.

POWER

Safety for you and your sample
Of course the Multifuge® 3 also fulfills all requirements for safety, which are important for samples, users and environment. The SMARTspin™ Imbalance Detection System provides optimum run stability for all rotors at all speeds and allows for eye balancing of sample tubes. Automatic rotor recognition offers reliable protection against incorrect parameter settings, and ensures reproducible run conditions. Finally, the Multifuge® 3 offers independently tested rotors which comply with international guidelines for aerosol containment of bacteria and virus particles.

Time is money
Economically sensible: the combination of shortest processing times available in a general purpose centrifuge and high capacity; the Multifuge® 3 saves you valuable work time. Achieve centrifugation times which are three times faster than in conventional general purpose centrifuges.



Significant reduction of run time

	Max. RCF	Run time[1)]	Tubes per run	Tube throughput per h	Time required for centrifugation of 240 tubes
Conventional general purpose centrifuge	3,200	20 min	12	36	6 h 40 min
"High Throughput" Multifuge® 3-R + swinging bucket rotor	4,500	14 min	20	80	2 h 48 min
"High Throughput" Multifuge® 3-R + BIOshield® Rotor	6,900	10 min	16	96	2 h 30 min

[1)] Example for a centrifugation run incl. stopping time

WHO OFFERS MORE?

SMARTspin™ thinks for you
The patented Imbalance Detection System, SMARTspin™, is a plus. It provides optimum run stability for all rotors at all speeds and allows for eye balancing of sample tubes. The imbalance detection system will bring the rotor automatically to a stop when excessive imbalance exists, for example, during excessive sample loss. Reliable imbalance detection designed for each individual rotor means that accidental bumping of the centrifuge does not result in a shut down.

Wonderfully convenient
All this performance doesn't require a lot of space – the Multifuge® 3 features an extremely low working height of 31.6 cm (12.4 inch). The benefit? Easier loading and unloading of samples and checking your sample results.

Everything in sight
At a glance: the ergonomically designed operating panel is optimally angled so that displays can be read easily, even at a distance.

QUIKset®
Specially developed for changing needs in research: The Rotary Switch Control offers fast setting of parameters, RCF programmability, and Soft Brake selection.

Quite gentle
The Soft-Touch Lid Lock ensures safe operation with an easy-open/close mechanism. The lid can be opened and closed effortlessly with just one hand.

Refrigerated…
The refrigerated Multifuge® 3-R offers precise temperature control to meet the demands of high speed, low temperature protocols.

…or non-refrigerated
If your application calls for room temperature, then the air-cooled Multifuge® 3 is the right choice for you.

EASYset
The EASYset Soft Touch Keypad offers a 4 program memory for standard runs, RCF programmability, Pretemp function for fast pre-cooling, 9 braking and acceleration profiles with a continuous, easy-to-clean surface. This is greatly appreciated in daily routine and ideal for simply saving the settings for standard runs.

Short on space?
Thanks to modular trolleys, the Multifuge® 3 can be used either as a space-saving kneewell instrument or as a portable tabletop instrument at an ergonomic user height.

VERSATILITY FOR CHANGING NEEDS

TTH-750 SWINGING BUCKET ROTOR

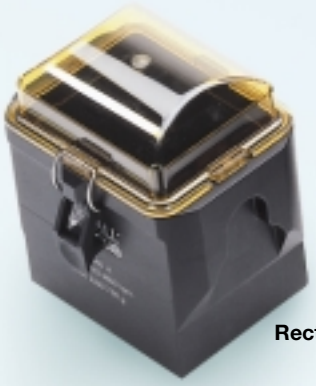
For all purposes and uses
The Multifuge® 3 with its wide range of rotor designs provides the versatility for changing needs, covering all applications in the realm of modern research. Specifically designed for high throughput microplate processing

- Accepts 16 standard microplates or 8 deepwell plates.
- HIGHplate® Rotor spins DNA and RNA filter plates to 85 mm in height.

Versatility of the TTH-750 swinging bucket rotor
Process 3 litres of sample in the round buckets or use the multiple carriers to achieve the highest capacity of blood collection tubes. This rotor also offers high *g* forces for tissue culture, virological tests, diagnostics and more.

- 4 x 750 ml round buckets for larger volume processing or for many tubes – naturally with aerosol-tight sealing covers.
- 4 x 250 ml rectangular buckets with matching adapters for routine clinical work, also featuring aerosol-tight sealing covers.
- 4 x 250 ml tissue culture buckets accommodate a wide variety of conical tissue culture tubes up to 250ml with no additional adapters needed!
- 4 x 4 microplate carriers for processing up to 16 standard microplates or 8 deepwell plates. Unique metal handles make loading and unloading very simple and easy.

Easy handling of microplates



Rectangular bucket

TTH-750 swinging bucket rotor with round buckets

Microplate carrier

250 ml tissue culture bucket

WINDSHIELDED ROTORS

NEW, POWERFUL, SAFE:

THE BIOSHIELD® ROTOR

This biocontainment tested, aerosol-tight windshielded rotor is the next generation of our tried and tested sealed rotors. Its unique low running noise level and high sample throughput at 4 x 250 ml capacity set a new standard for processing. Offering the highest speeds in the industry, the BIOshield® Rotor processes more tubes per hour than competitive rotors. Independently tested, the BIOshield® Rotor provides safe operating conditions and is proven to protect users from bacteria and virus particles in accordance with international guidelines. In the event of contamination, the rotor is fully autoclavable.

The advantages at a glance

Advantage	Use
Unrivalled high RCF up to 6,960 x *g*	Shortens run times. Extension of field of application.
4 x 250 ml rectangular buckets for tubes up to 120 mm length	High capacity per run, e.g. 36 x 15 ml conical cell culture tubes or 80 x 7 ml blood collection tubes.
Certified aerosol tight[1] – with one turn of the hand	Safe centrifugation of infectious samples. The rotor can be removed in the closed state.
Can be autoclaved	Sterile working conditions and biologically safe decontamination offer sample and user protection.
Transparent rotor cover	Tube breakage can be recognized before the rotor is opened.

[1] tested by TÜV GmbH, Hamburg, Germany

Comparison of Sealed Rotor and BIOshield® Rotor

Differentiating characteristics	Use
Aluminum suspension gear	The solid metallic bucket guarantees a longer life-span.
Increased out-of-balance stability	Simply eye ball balance for a fast rotor loading. The windshield is not damaged by unbalanced loading.
250 ml rectangular bucket	The sample throughput is increased by centrifugation of larger volumes or a high number of tubes.
Adapter Type D	The enlarged format versus Type A can take up more tubes.

MICROPLATE PROCESSING WITHOUT COMPROMISE.

THE HIGHPLATE® ROTOR

The HIGHplate® Rotor is our latest innovation and has been designed especially for centrifugation of filter plate formats, as well as biocontainment of standard and deepwell microplates. It offers a maximum acceleration of 5,890 x g and a capacity of up to 10 standard microplates or 2 DNA/RNA filter plates. Ready in a jiffy: with a single turn the aerosol-tight rotor cover can be attached or removed. A solid piece of technology with convincing advantages.

YOUR APPLICATION AND THE MULTIFUGE® 3 – A PERFECT MATCH

System integration
With an extensive array of accessories for the Multifuge® 3, Kendro offers everything you need for the perfect separation. All from one manufacturer, system integrated for the highest level of quality; fully developed down to the smallest detail.

High Throughput Blood Sample Processing
The multiple carriers for the TTH-750 swinging bucket rotor definitely makes your working routine easier – especially for daily centrifugation of many blood sample tubes – without the need for an adapter. Simply ideal: the optimal positioning of the bucket cavities permits complete filling even with tubes which have oversized caps or are labelled.

Tailor made Tissue Culture Processing
All types of tissue culture tubes can now be used – even large size tubes which previously could only be centrifuged with special buckets and adapters due to the container dimensions. Our new tissue culture buckets accommodate conical tissue culture tubes with volumes up to 250 ml – all without additional adapters!

Formula PEI
For the new BIOshield® and HIGHplate® rotors Kendro has introduced a new material for aerosol-tight sealing bucket and rotor covers: polyetherimide (PEI). This material has excellent thermal properties and a high chemical resistance compared to other materials such as polycarbonate. Durable under high temperature, and improved chemical resistance to cleaning agents such as alcohols, chloroforms, acetones, and formaldehydes, PEI offers protection for you and your sample.

Tissue culture buckets vs. round buckets

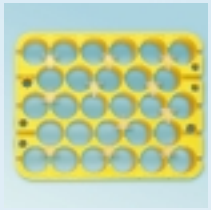
	Volume	250 ml tissue cell culture bucket		750 ml round bucket		
	mm	capacity	plus Kendro adapter	capacity	plus Kendro adapter	plus tube manufacturer's adapter
	15	on request		12	75008137	—
	50	on request		5	75006533	—
Falcon®	175	1	● (incl. bucket)	1	75008144	●
	225	1	● (incl. bucket)	1	75008144	●
Nalgene®	175	1	—	1	75008144	●
Nunc™	200	1	—	1	75008144	●
Corning®	250	do not fit in this bucket		do not fit in this bucket		—
Corning®	500	do not fit in this bucket		1	—	●

— no adapter required ● adapter required

TTH-750 swinging bucket rotor with 250 ml tissue culture buckets

FLEXIBILITY WITHOUT LIMITS

Adapters for all applications
Regardless of which adapter you need – the choice at Kendro is infinite. Offering a wide range of adapters for round buckets (Type C) and rectangular buckets (Type D) in the world renowned Centri-Lab® System – of course with the easily recognizable colour coding. Good to know: each adapter is made of extra strong polymer material, for autoclavability and chemical resistance.



Tube decanting speciality adapters
Kendro offers you a practical solution for decanting frequently used volume sizes, 7 ml and 15 ml, making everyday use easier and saving valuable time.

One adapter does it all
Our modular adapters stack onto the base to accommodate a variety of tube lengths.

From an economic point of view
Do you want to continue to use your adapter system from the previous Megafuge® series? The Multifuge® 3 has been designed to accommodate the most popular Megafuge® series adapters.

FIXED ANGLE ROTORS

Microliter Rotor
- 22,000 x *g* for 24 samples
- independently tested and certified for aerosol biocontainment
- autoclavable

HFA15.94 fixed angle rotor (6 x 94 ml)
- 16,260 x *g*
- includes adapters for tubes in superspeed applications
- 26° angle

High*conic*® Rotor
- 10,000 x *g* for conical 50 ml and high-speed vessels
- flat 45° angle for sedimentation at the bottom of the tube
- made of a special alloy, independently tested and certified for aerosol biocontainment
- autoclavable

TECHNICAL DATA / ORDER INFORMATION

TECHNICAL DATA MULTIFUGE® 3/3-R

Drive		brushless induction drive	
Control		microprocessor controlled EASYset (Soft Touch Keypad) or QUIKset® (Rotary Switch Control)	
Speed range	rpm	300 – 15,000, adjustable in 100 rpm increments (QUIKset®) or in 10 rpm increments (EASYset)	
Max. RCF	*g*	21,890	
Max. capacity		4 x 750 ml or 4 x 4 microplates	
Accel./decel. profiles		9/9 (3 S/3 S-R), brake on/off + soft brake (QUIKset®)	
Program memory		4 + 1 pretemp program (EASYset)	
Run time		0 – 9 h 59 min, hold	
Temperatur range	°C	-9 to +40 (3 L-R/3 S-R), CFC-free refrigerant	
Functions		RCF-preselection, Quick-run, automatic rotor recognition and imbalance detection	
Imbalance recognition		electronic, speed and rotor dependent	
Design		galvanised steel chassis with armoured chamber	
Safety		Lid lock and lid interlock (two automatic lid locks)	
Dimensions (H x W x D)			
3 S/3 L	mm (inch)	362 x 551 x 666 (14.3 x 21.7 x 26.2)	working height: 316 (12.4)
3 S-R/3 L-R	mm (inch)	362 x 733 x 666 (14.3 x 28.9 x 26.2)	working height: 316 (12.4)
Weight			
3 S/3 L	kg (lb)	89 (196)	
3 S-R/3L-R	kg (lb)	131 (288)	
Power consumption			
3 S/3 L	W	1,150	
3 S-R/3 L-R	W	1,550	
Test standards		Designed and tested in accordance with EN 61 010-1, EN 61 010-2-020, EN 50 081-1, EN 50 082-1	

BUCKETS AND CARRIERS SPECIFICATIONS FOR TTH-750 SWINGING BUCKET ROTOR

Order number 75006445

Bucket type		**Round bucket**	**Rectangular bucket**
Order number		**75006441**	**75006446**
Biocontainment lids (pair)	**Order No.**	**75006421**	**75006448**
Max. bucket capacity	ml	1 x 750	1 x 250
Max. rotor capacity	ml	4 x 750	4 x 250
Max. speed non-refrigerated/refrigerated	rpm	4,350/4,600	4,350/4,600
Max. RCF non-refrigerated/refrigerated	*g*	4,080/4,570	4,020/4,500
Min. temp. at max. speed refr. version	°C	4	6
Max. radius	cm	19.2	19.0
Max. length of tube	mm	s. adapter table	s. adapter table
Max. tube Ø	mm	s. adapter table	s. adapter table
Centri-Lab®	type	C	D

All buckets are autoclavable at 121°C.

ORDER INFORMATION

Model	Description	Order No.
Multifuge® with EASYset (Soft Touch Keypad)		
Multifuge® 3 S	non-refrigerated, 230 V, 50/60 Hz, without accessories	**75004361**
Multifuge® 3 S-R	refrigerated, 230 V, 50/60 Hz, without accessories	**75004371**
Multifuge® with QUIKset® (Rotary Switch Control)		
Multifuge® 3 L	non-refrigerated, 230 V, 50/60 Hz, without accessories	**75004360**
Multifuge® 3 L-R	refrigerated, 230 V, 50/60 Hz, without accessories	**75004370**

ACCESSORIES (TROLLEYS)

Model	Dimensions (H x W x D) mm (inch)	Order No.
Safety cart »ergonomic« for Multifuge® 3 S, 3 L	600 x 550 x 665 (23.6 x 21.7 x 26.2)	**76000077**
Safety cart »under bench« for Multifuge® 3 S, 3 L	290 x 550 x 665 (11.4 x 21.7 x 26.2)	**76000078**
Safety cart »ergonomic« for Multifuge® 3 S-R, 3 L-R	600 x 750 x 665 (23.6 x 29.5 x 26.2)	**76000075**
Safety cart »under bench« for Multifuge® 3 S-R, 3 L-R	290 x 750 x 665 (11.4 x 29.5 x 26.2)	**76000076**

Microplate carrier	**250 ml Tissue culture bucket**	**Multiple carrier**	**Multiple carrier**
75006449	**75006497**	**75006470**	**75006471**
N / A	**N / A**	**N / A**	**N / A**
4 plates	1 x 250 conical	25 x 5/7	20 x 10/15
4 x 4 plates	4 x 250 conical	100 x 5/7	80 x 10/15
4,350/4,600	4,350/4,600	4,350/4,600	4,350/4,600
3,360/3,760	4,510/5,040	3,790/4,240	4,060/4,540
2	2	2	5
15.9	21.3	17.9	19.2
60 (plate height)	170	120	140
127 x 85	61	14	17
—	For conical tissue culture tubes only [1] no adapters required	For higher capacity of blood collection tubes (Vacutainer tubes) no adapters required	For higher capacity of blood collection tubes (Vacutainer tubes) no adapters required

[1] (e. g. 175, 225 ml Falcon®, 175 ml Nalgene®, 200 ml Nunc™, 250 ml Corning®)

ACCESSORIES FOR TTH-750 SWINGING BUCKET ROTOR WITH ROUND BUCKETS 75006441 (CENTRI-LAB®-ADAPTER TYPE C)

Tube volume	**ml**	**1,5/2**	**7**	**7**	**14/15**	**15**	**15**	**15**
No. of tubes per adapter	pieces	48	35	19	12	12	17	19
No. of tubes per rotor	pieces	192	140	76	48	48	68	76
Type of tube[1)]		ML	DIN	Blood coll.	FL	Con.	Blood coll.	DIN
Max. length of tube*	mm	50	125	125	125	123	125	125
Max. tube Ø	mm	11	12.8	13.5	18.3	16.5	17	17
Max. cap Ø	mm	13	14	18.5	21.5	23.5	20	18.5
Color of adapters		black	yellow	light grey	brown	olive brown	white	red
Order No. stand.-tube[2)]	**(7500xxxx)**	**1163[a)]**	**9001[b)]**	**—**	**03244 03243[c)]**	**2858[d)]**	**—**	**9003[b)]**
Order No. adapter	**(7500xxxx)**	**8132**	**8133**	**8134**	**6494**	**8137**	**8136**	**8135**
Shape of adapter[6)]		F/K	F/R	F/R	F/R	F/C	F/R	F/R

[1)]Type of tube: ML = microlitre tube; DIN = borosilicate glass with DIN dimensions; Blood coll.= blood collection tube; FL = flanged tube; Con. = Conical tissue culture tube; Misc. = miscellaneous; Round = round bottom glass

[2)] Description of standard tubes: [a)] microtubes; [b)] borosilicate glass tubes with dimensions in accordance with DIN; [c)] Order no. 780xxxxx, polypropylene or polycarbonate flanged tube; [d)] screw-capped conical tissure culture tube; [e)] polypropylene bottle with screw cap

* Max. tube length when aerosol-tight lid is used.

ACCESSORIES FOR TTH-750 SWINGING BUCKET ROTOR WITH RECTANGULAR BUCKET 75006446 OR BIOSHIELD® ROTOR 75006435 (CENTRI-LAB®-ADAPTER TYPE D)

Tube volume	**ml**	**1.5/2**	**7**	**7**	**14/15**	**15**	**15**	**25**
No. of tubes per adapter	pieces	56	28	20	9	9	16	6
No. of tubes per rotor	pieces	224	112	80	36	36	64	24
Type of tube[1)]		ML	DIN	Blood coll.	FL	Con.	DIN, Blood coll.	DIN
Max. length of tube*	mm	50	117	117	117	120	117	117
Max. tube Ø	mm	11	12.8	14	18.3	16.5	17	25
Max. cap Ø	mm	13	14	17.5	25	24	19	28
Color of adapters		black	yellow	light grey	brown	olive brown	red	orange
Order No. stand.-tube[2)]	**(7500xxxx)**	**1163[a)]**	**9001[b)]**	**—**	**03244 03243[c)]**	**2858[d)]**	**—**	**9003[b)]**
Order No. adapter	**(7500xxxx)**	**6452**	**6453**	**6454**	**6492**	**6456**	**6455**	**6457**
Shape of adapter[4)]		F/C	F/R	F/R	F/R	F/C	F/R	F/R

[1)] Type of tube: ML = microlitre tube; DIN = borosilicate glass with DIN dimensions; Blood coll. = blood collection tube; FL = flanged tube; Con. = conical tissue culture tube; Misc. = miscellaneous; Round = round bottom glass; Univ. = universal container

[2)] Description of standard tubes: [a)] microtubes; [b)] borosilicate glass tubes with dimensions in accordance with DIN; [c)] Order no. 780xxxxx, polypropylene or polycarbonate flanged tube; [d)] screw-capped conical tissure culture tube; [e)] polypropylene bottle with screw cap

[3)] Order No: 7600xxxx

[4)] F = flat; C = conical; R = round

* Max. tube length when aerosol-tight lid is used.

25	45/50	50	50	100	150/180	175/200/225	250	500	750	Customer tube
7	7	5	4	2	1	1	1	1	1	variable
28	28	20	16	8	4	4	4	4	4	variable
DIN	Round	Con.	DIN	DIN	DIN/Misc.	Con.	Misc.	Misc.	Bottle	Misc.
125	125	123	125	125	132/128	140	140	136	136	136
25	29.5	29.5	34.5	45	56.5	62	62	100	100	85
31	31	35.5	39	47.5	56.5	75	75	100	100	100
orange	ultramarine-blue	light green	green	blue	blue-grey	white	white	—	—	white
9006[b]	**03147** **03146**[c]	**2844**[d]	**9005**[b]	**9007**[b]	**1132**[b], [3] **3026**[e], [3]	—	—	**8148**[e]	**6443**[e]	—
8138	**6493**	**6533**	**8140**	**8142**	**6498**[4]	**8144**[5]	**8144**	—	—	**15655**
F/R	F/R	F/C	F/R	F/R	F/R	F[2]	F	F	F	F/C/R and others

[3] Order No. 7600xxxx
[4] rubber pad is to be used for tube #1132 and removed for # 3026
[5] If conical bottle is used, an additional conical adapter (pad) should be purchased from tube manufacturer.
[6] F=flat; C=conical; R=round

25/50	45/50	50	50	100	150/180	250
4	4	4	3	1	1	1
16	16	16	12	4	1	4
Univ.	Round	Con.	DIN	DIN	DIN/Misc.	Bottle
117	117	120	117	120	125	125
25.5	29.5	29.5	34.5	45	56.6	62
32	35	35.5	38	66	66	63
blue-green	ultramarine blue	light green	green	blue	grey-blue	black
—	**03147** **03146**[c]	**2844**[d]	**9005**[b]	**9007**[b]	**1132**[b], [3] **3026**[e], [3]	**7894**[e]
6459	**6491**	**6461**	**6460**	**6462**	**6463**	**6465**
F/R	F/R	F/C	F/R	F/R	F/R	F

Which adapter fits which rotor?

In order to use Centri-Lab® Adapter type A (from Megafuge® line) in rectangular bucket 75006446 or BIOshield® Rotor 75006435: Centri-Lab®-Adapter type D adapter 76006467 is required.

rotor/bucket	Swinging bucket rotor with 750 ml round bucket	Swinging bucket rotor with 250 ml rectangular bucket	BIOshield® rotor
adapter type	C	D	D
compatibility with Megafuge® adapter type	C	A + 76006467	A + 76006467
	Megafuge® 2.0/3.0, Varifuge 3.0	Megafuge® 1.0/2.0/3.0 Varifuge 3.0	Megafuge® 1.0/2.0/3.0 Varifuge 3.0

SPECIFICATIONS FOR FIXED ANGLE ROTORS

Rotor		Microliter rotor[1]	High*conic*® Rotor	Fixed angle rotor HFA 15.94
Order No.		**75003332**	**75003057**	**75003334**
Max. rotor capacity	ml	24 x 1.5/2	6 x 50	6 x 94
Max. speed (non-refrigerated / refrigerated)	rpm	- /15,000	8,500/8,500	10,500/12,000
Max. RCF (non-refrigerated / refrigerated)	x *g*	- /21,890	10,020/10,020	12,450/16,260
Min. temp. at max. speed	°C	4	4	4
Min. / max. radius	cm	5.9/8.7	6.0/12.4	6.3/10.1
Angle		45°	45°	26°
Weight	kg (lb)	1.6/3.5	2.8/6.2	5.5/12.1
Biocontainment		biocontainment approved, autoclavable	biocontainment approved, autoclavable	biocontainment approved

[1] only for refrigerated version

ADAPTER FOR FIXED ANGLE ROTORS

Rotor	High*conic*® Rotor 6 x 50 ml			
Order No.	**75003057**			
Volume	**Ø (mm)**	**Length (mm)**	**No. per rotor**	**Order No. Adapter**
4 x 1.5 ml	11	58	24	**76002905**
4 x 3.5 ml	11	103	24	**75003091**
2 x 6.5 ml	13	115	12	**75003092**
2 x 12 ml	16	96	12	**75003093**
1 x 16 ml	18	124	6	**76002906**
1 x 38 ml	25	112	6	**75003094**
1 x 50 ml	29	118	6	**75003014**
1 x 15 ml conical	16.5	120	6	**75003095**
1 x 50 ml conical [1]	30	117	6	**75003096**
1 x 94 ml	—	—	—	—
Replacement sealing rings, 2 pairs, incl. lubricant	—	—	—	**75003423**

[1] included with rotor

Rotor	Fixed angle rotor HFA 15.94 (6 x 94 ml)			
Order No.	**75003334**			
Volume	**Ø (mm)**	**Length (mm)**	**No. per rotor**	**Order No. Adapter**
4 x 1.5 ml	11	51	24	**76002905**
4 x 3.5 ml	11	91	24	**75003091**
2 x 6.5 ml	13	108	12	**75003092**
2 x 12 ml	16	89	12	**75003093**
1 x 16 ml	18	114	6	**76002906**
1 x 38 ml	25	104	6	**75003094**
1 x 50 ml	29	114	6	**75003014**
1 x 15 ml conical	—	—	—	—
1 x 50 ml conical	—	—	—	—
1 x 94 ml	38	114	1	**w/o adapter**

SPECIFICATIONS FOR WINDSHIELDED ROTORS

Rotor		BIOshield® Rotor	HIGHplate® Rotor
Order No.		**75006435**	**75006444**
Biocontainment lid		incl.	incl.
Max. rotor capacity	ml	4 x 250	2 x 1 filterplate (85 mm)
Max. speed (non-refrigerated / refrigerated)	rpm	5,350/5,850	5,350/5,650
Max. RCF (non-refrigerated / refrigerated)	g	5,820/6,960	5,220/5,820
Min. temp. at max. speed	°C	4	2
Max. radius	cm	18.2	16.3
Centri-Lab®-Adapter	type	D	—
Autoclavable		yes	no

ADAPTERSET FOR MICROLITRE ROTOR 75003332

Adapterset with 24 reducer sleeves	No. per package	Color	Order No.
for 0.5/0.6 ml microlitre tubes	24	turquois	**76003758**
for 0.25/0.4 ml microlitre tubes	24	red	**76003759**
for 0.2 ml PCR-tubes	24	grey	**76003750**

CYTO ACCESSORIES

for swinging bucket rotor TTH-750 with rectangular buckets 75006446 or BIOshield® rotor 75006435

Type	Description	Order No.
100 micro tubes	0.75 ml with 0.5 mm opening in bottom	**75001153**
100 micro tubes	1.5 ml with 0.5 mm opening in bottom	**75001152**
Lid	for working without micro-tubes	**76003422**
Cyto container	with 2 cylindrical bores for approx. 1.5 ml sample volumes	**75003415**
Cyto container	with 2 conical bores for approx. 3.0 ml sample volumes	**75003416**
100 filter cards	for cyto container 75003415	**76003424**
100 filter cards	for cyto container 75003416	**76003425**
Clip carrier	for holding a cyto container and a slide	**75003414**
Support insert	for using cyto accessories with buckets 75006446 and BIOshield® Rotor 75006435	**76006466**

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- repairs
- exchange of spare parts

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