

Centrisart<sup>®</sup> Centrifuges  
The Ultimate Speed. Maximum Reliability.



# The Right Solution for Every Application. The Centrisart® Centrifuge Family.

Thanks to this customized range of centrifuges, you can always find the right model for all common applications.

The Sartorius laboratory centrifuge portfolio ranges from very compact and space-saving micro-centrifuges to universally applicable benchtop centrifuges with a total capacity of up to 1600 ml. The top-of-the-line model is a high-speed centrifuge with speeds of up to 26,000 rpm, which is of course actively cooled accordingly.

One thing that is common to all Sartorius centrifuges is high product quality: The devices operate at the highest speeds and yet they run extremely quietly and with low vibration levels. In addition, the Centrisart® models are extremely easy-to-operate and comply with the GS safety standards. At the same time, their compact design guarantees more space on your laboratory benchtop.

**Excellent**  
Superior temperature uniformity

**Flexible**  
Many rotors and accessories

**Smart**  
One knob control

**Convenient**  
Largest displays in the market

**Silent**  
Low-noise operation

**Reliable**  
Accurate sample cooling  
at highest speed

**Safe**  
Rotor detection and  
imbalance control

**Clear**  
Process library with program  
preview (G-26C)

## Your Centrisart® Benefits at a Glance:

1.

### Outstanding User-friendliness

- Extremely quiet with low vibration levels during operation
- Convenient loading and unloading due to low level of centrifuges
- Easy operation thanks to intuitive menu and easy-to-read display
- Customized acceleration and deceleration profiles can be stored

2.

### High Product Quality and Safety

- Automatic rotor detection prevents mix-ups and the imbalance control prevents starting with samples exhibiting deviating weights
- Rotor life cycle monitoring, thus no risk of rotor breakage
- Electronic device cover locking
- All models available with GS certificate and BIOSAFE rotors and buckets

3.

### Models with Cooling Option for Precise Temperature Control

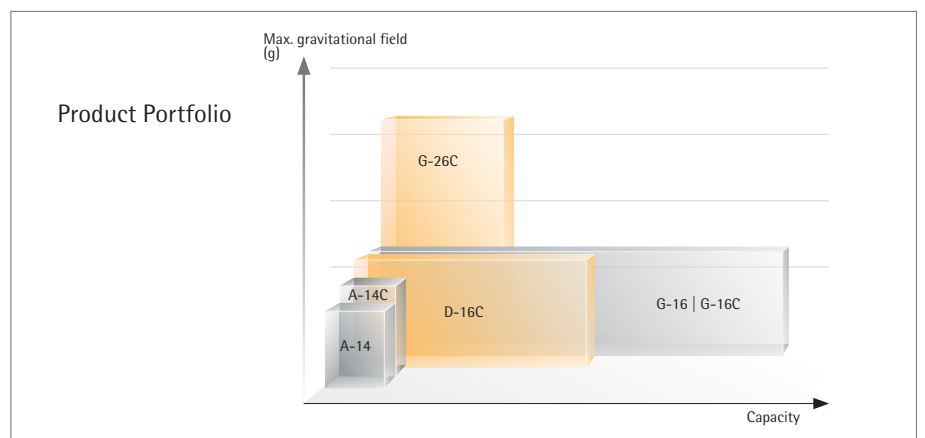
- Fast and accurate cooling of your sample thanks to active compressor cooling
- Guaranteed 4 °C cooling even at maximum speed and capacity utilization
- Optimal protection of the sample before heating



4.

Environmentally Friendly

- Low energy consumption
- Use of recyclable materials
- CFC-free coolant
- Low-maintenance and brushless induction motors prevent particulate emissions



## Centrisart® A-14 and A-14C

Our Centrisart® A-14 and A-14C microcentrifuges are space-saving, powerful and feature an extremely compact footprint. The A1C rotor is specially designed for our Vivaspin® 500 ultrafiltration unit, but it can also be operated with conventional 1.5 and 2 ml reaction vials. It supports applications for concentrating samples, e.g. antibody solutions, sample deionization or buffer adjustment, as well as the removal of contaminants with small or very large molecular weights.

The powerful compressor cooling of the Centrisart® A-14C ensures fast and accurate cooling of the sample and reliably protects it from heat.

### Application Examples:

- Applications in molecular biology such as DNA, RNA and protein isolation
- Ultrafiltration to PCR



## Technical Specifications

	Centrisart® A-14	Centrisart® A-14C
Max. speed rpm	14,800	15,000
Max. capacity	24 × 2 ml	24 × 2 ml
Max. gravitational field	16,162 g	16,602 g
Min. speed rpm	200	200
Display	LCD, 50 × 37 mm	LCD, 65 × 47 mm
Motor	Maintenance-free, brushless drive motor	Maintenance-free, brushless drive motor
Temperature range	-	- 10°C to + 40°C
Temperature increments	-	Adjustable in increments of 1°C
Quick cooling	-	Guaranteed 4° C at max. speed
Coolant	-	CFC-free (R134a)
Timer	10 sec. – 99 min., short run   continuous run	10 sec. – 99 min., short run   continuous run
Lid-lock release	Motorized locked lid, automatic lid-lock release	Motorized locked lid, automatic lid-lock release
Lid	Inspection window for independent speed measurement	Inspection window for independent speed measurement
Rotor	Fixed angle rotor	Fixed angle rotor
Programs	-	10
Acceleration curves	2	2
Deceleration curves	2	2
Dimensions (W × D × H)	212 × 266 × 176 mm	273 × 515 × 236 mm
Height with open lid	310 mm	404 mm
Weight	6 kg	19 kg
Noise level at max. speed	53 dB	53 dB

## Centrifuges

Order number	Description	
A-14-X	Centrisart® A-14 centrifuge	X = 1EU (for 220–240 V), 1US (for 100–120 V)
A-14C-X	Centrisart® A-14C refrigerated centrifuge	
A-14-X-SET	Set Centrisart® A-14 centrifuge incl. rotor YCSR-A1C	
A-14C-X-SET	Set Centrisart® A-14C refrigerated centrifuge incl. rotor YCSR-A1C	

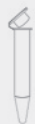
## Accessories






Order number	Description
YCSR-A2B	Fixed angle rotor for 24 × 1.5   2.0 ml conical reaction tubes, incl. polysulfone lid YCSM-A1B (not available for A-14-1US)
YCSR-A1C	Fixed angle rotor made of polypropylene for 12 × 1.5   2.0 ml conical reaction tubes or 12 × Vivaspin® 500, incl. polysulfone lid YCSM-A1C
YCSA-1	Adapter for 0.25   0.4 ml reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-2	Adapter for 0.5   0.75 ml reaction tubes Ø 7.9   10 × 28   31 mm for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YSCA-4	Adapter for 0.2 ml PCR reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.

## A-14 Rotors









YCSR-A2B



Capacity (ml)	0.2	0.25	0.4	0.5	0.75	1.5	2.0
Tube $\varnothing \times L$ (mm)	6 $\times$ 18	6 $\times$ 30	6 $\times$ 45	8 $\times$ 30	8 $\times$ 45	11 $\times$ 38	11 $\times$ 38
Vivaspin®   Vivacell®	-	-	-	-	-	-	-
Adaptor No.	YCSA-4	YCSA-1	YCSA-1	YCSA-2	YCSA-2	-	-
							
Boring $\varnothing \times L$ (mm)	11.1 $\times$ 38.5						
No. of tubes	24						
Max. rpm	14,800 (A-14), 15,000 (A-14C)						
Max. RCF	16,163 (A-14), 16,602 (A-14C)						
Rmax (mm)	66						





Capacity (ml)	0.2	0.25	0.4	0.5	0.75	1.5	2.0
Tube $\varnothing \times L$ (mm)	6 $\times$ 18	6 $\times$ 30	6 $\times$ 45	8 $\times$ 30	8 $\times$ 45	11 $\times$ 38	11 $\times$ 38
Vivaspin®   Vivacell®	-	-	-	-	-	-	12 $\times$ 1 Vivaspin® 500
							
Adaptor No.	YCSA-4	YCSA-1	YCSA-1	YCSA-2	YCSA-2	-	-
							
Boring $\varnothing \times L$ (mm)	11.1 $\times$ 38.5						
No. of tubes	12						
Max. rpm	14,800 (A-14), 14,800 (A-14C)						
Max. RCF	15,183 (A-14), 15,596 (A-14C)						
Rmax (mm)	62						



## Centrisart® D-16C

The Centrisart® D-16C universal benchtop centrifuge with medium capacity and cooling is very versatile in the lab. The maximum speed of  $15,300 \text{ min}^{-1}$  also allows for applications in molecular biology.

In its low-speed range, the Centrisart® D-16C is appropriate for gentle handling of cells or sensitive samples. The gradual deceleration curves ensure gentle deceleration and keep the sample from being churned up. This gentle function can also be beneficial when microtiter plates are used.

Thanks to the use of adapters, the Centrisart® D-16C is also perfectly suited for high-throughput applications with spin kits utilizing 1.5 ml | 2 ml vessels.

### Application Examples:

- Low-speed applications requiring gentle handling of cells | sensitive samples
- Tissue and cell processing
- High-throughput DNA isolation
- Ultrafiltration
- Microtiter plates





## Technical Specifications

Centrisart® D-16C	
Max. speed rpm	15,300
Max. capacity	4 × 100 ml
Max. gravitational field	21,460 g
Min. speed rpm	100, low speeds also possible
Temperature range	-10°C bis +40°C
Temperature increments	Adjustable in increments of 1°C
Quick cooling	Quick cool program, guaranteed 4°C at max. speed; rotor cooling even possible during downtimes
Coolant	CFC-free (R134a)
Display	LCD, 113 × 36 mm
Control panel	Easy, 1-knob intuitive operation plus 3 backlit keys
Motor	Maintenance-free, brushless drive motor
Lid-lock release	Motorized locked lid, automatic lid-lock release
Lid	Inspection window for independent speed measurement, easy-to-open lid port
Rotor	Rotor detection for fixed angle rotors, swinging rotors
Rotor chamber	Stainless-steel
Imbalance safety mechanism	Automated imbalance control
Timer	10 sec. – 99 min., short run   continuous run
Programs	50
Acceleration curves	10
Deceleration curves	10
Rotor safety	Automatic detection, cycle counting of the rotors
Dimensions (W × D × H)	550 × 570 × 310 mm
Height with open lid	705 mm
Weight of Rotor	60 kg
Noise level at max. speed	< 65 dB

## Centrifuges

Order number	Description
D-16C-X	Centrisart® D-16C refrigerated centrifuge X = 1EU (for 220 – 240 V), 1US (for 100 – 120 V), 1JP (for 100 V)

## Accessories

Order number	Description
YCSR-A9B	Fixed angle rotor for 6 × 50 ml conical culture tubes, incl. hermetically sealing aluminium lid
YCSA-5	Adapter for 1 conical culture tube 15 ml for rotor YCSR-A9B, 1 set = 2 pcs.
YCSR-A4B	Fixed angle rotor for 24 × 1.5   2.0 ml conical reaction tubes, incl. hermetically sealing aluminium lid
YCSA-1	Adapter for 0.25   0.4 ml reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-2	Adapter for 0.5   0.75 ml reaction tubes Ø 7.9   10 × 28   31 mm for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-4	Adapter for 0.2 ml PCR reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSR-S5B	Complete set – Swing-out rotor, 2 place, for microtiter plates, including 2 buckets YCSA-S5B for microtiter plates. Max. plate height 56 mm; max. load per bucket 335 g
YCSR-S1B	Swing-out rotor, 4 place, for bucket YCSB-B9B
YCSB-B9B	Round bucket for adapters YCSA-R0B – YCSA-RDB, sealable with lid YCSM-B9B, 1 set = 2 pcs.
YSCA-R9B	Adapter for YCSB-B9B for 1 conical culture tube 50 ml, 1 set = 2 pcs.
YSCA-R0B	Adapter for YCSB-B9B for 2 conical culture tubes 15 ml, lid max. Ø 23 mm, 1 set = 2 pcs.
YSCA-RAB	Adapter for YCSB-B9B for 4 conical reaction tubes 1.5 2.0 ml, max. Ø 11 mm, 1 set = 2 pcs.
YCSA-RCB	Adapter for YCSB-B9B for 3 conical reaction tubes 5.0 ml, 1 set = 2 pcs.
YSCA-RBB	Adapter for YCSB-B9B for 1 flat bottom culture tube 30 ml, Ø 25   31 × 65 - 95 mm, 1 set = 2 pcs.
YCSA-RDB	Rubber cushion for YCSB-B9B for 100 ml glas tube, 1 set = 2 pcs.
YSCM-B9B	Round polysulfone sealing cap for round bucket YCSB-B9B, clear, 1 set = 2 pcs.
YCST-D16C	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors, dimensions: W × D × H = 600 × 550 × 497 mm

## D-16C Rotors



YCSR-A4B



Capacity (ml)	0.2	0.25	0.4	0.5	0.75	1.5	2.0
Tube $\varnothing \times L$ (mm)	6 $\times$ 18	6 $\times$ 30	6 $\times$ 45	8 $\times$ 30	8 $\times$ 45	11 $\times$ 38	11 $\times$ 38
Vivaspin®   Vivacell®	-	-	-	-	-	-	12 $\times$ 1 Vivaspin® 500



Adaptor No.	YCSA-4	YCSA-1	YCSA-1	YCSA-2	YCSA-2	-	-
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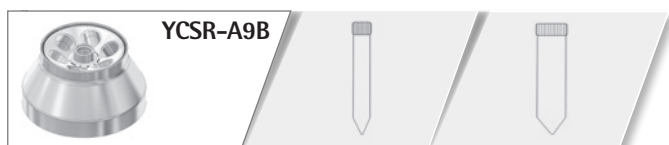


Boring $\varnothing \times L$ (mm)	11.1 $\times$ 38.5
No. of tubes	24
Max. rpm	15,300
Max. RCF	21,460
Rmax (mm)	82





Capacity (ml)	1.5	2.0	5.0	15	30	50	100
Tube $\varnothing \times L$ (mm)	11 $\times$ 38	11 $\times$ 38	17 $\times$ 60	17 $\times$ 120	31 $\times$ 95	29 $\times$ 115	44 $\times$ 100
Vivaspin®   Vivacell®	-	4 $\times$ 4 Vivaspin® 500	-	4 $\times$ 2 Vivaspin® 2 Vivaspin® Turbo 4 Vivaspin® 6	-	4 $\times$ 1 Vivaspin® Turbo 15 Vivaspin® 20	-
Adaptor No.	YCSA-RAB	YCSA-RAB	YCSA-RCB	YCSA-R0B	YCSA-RBB	YCSA-R9B	YCSA-RDB
No. of tubes	4 $\times$ 4	4 $\times$ 4	4 $\times$ 3	4 $\times$ 2	4 $\times$ 1	4 $\times$ 1	4 $\times$ 1
Max. rpm				5,000			
Max. RCF				3,969			
Rmax (mm)				142			



Capacity (ml)	15	50
Tube $\varnothing \times L$ (mm)	17 $\times$ 120	29 $\times$ 115
Vivaspin®   Vivacell®	6 $\times$ 1 Vivaspin® 2 Vivaspin® Turbo 4 Vivaspin® 6	6 $\times$ 1 Vivaspin® Turbo 15 Vivaspin® 20
Adaptor No.	YCSA-5	-
Boring $\varnothing \times L$ (mm)		29.5 $\times$ 100
No. of tubes		6
Max. rpm		12,000
Max. RCF		25,294
Rmax (mm)		95



Capacity (ml)	Microplates
Plates W $\times$ L (mm)	122 $\times$ 86
Adaptor No.	-
Bucket W $\times$ D $\times$ H (mm)	129 $\times$ 86 $\times$ 56
No. of plates	6
Max. rpm	3,000
Max. RCF	1,218
Rmax (mm)	121

## Centrisart® G-16 and Centrisart® G-16C

These two benchtop centrifuges were specially developed for high-capacity applications. Thanks to the variety of rotor options, nearly all vessel types can be used for low to high throughput.

Their high capacity makes both centrifuges genuine all-rounders. They can be used for almost any application. Their large program memory gives you the option of storing and retrieving several programs at any time. Their gradual deceleration curves ensure gentle deceleration and keep samples from being churned up. This is particularly advantageous, for example, when using microtiter plates.

The powerful compressor cooling of the Centrisart® G-16C ensures fast and accurate cooling of samples and reliably protects them from heat.

### Application Examples Centrisart® G-16:

- Phase separation of solutions
- Milk or lipoprotein assays
- PCR
- Separation of nanomaterials

### Application Examples Centrisart® G-16C:

- Cell harvesting in cell culture or fermentation applications
- Protein isolation and purification
- Ultrafiltration
- Molecular biology
- PCR
- Food technology



## Technical Specifications

	Centrisart® G-16	Centrisart® G-16C
Max. speed rpm	15,300	15,300
Max. capacity	4 × 400 ml	4 × 400 ml
Max. gravitational field	21,460 g	21,460 g
Min. speed rpm	200	100
Temperature range	–	-10°C to +40°C
Temperature increments	–	Adjustable in increments of 1°C
Quick cooling	–	Quick cool program, guaranteed 4°C at max. speed; rotor cooling even possible during downtimes
Coolant	–	CFC-free (R134a)
Display	LCD, 113 × 36 mm	LCD, 113 × 36 mm
Control panel	Easy, 1-knob intuitive operation plus 3 backlit keys	Easy, 1-knob intuitive operation plus 3 backlit keys
Motor	Maintenance-free, brushless drive motor	Maintenance-free, brushless drive motor
Lid-lock release	Electromechanical locked lid, automatic lid-lock release	Electromechanical locked lid, automatic lid-lock release
Lid	Inspection window for independent speed measurement, easy-to-open lid port	Inspection window for independent speed measurement, easy-to-open lid port
Rotor	Rotor detection for fixed angle-   swinging rotors	Rotor detection for fixed angle-   swinging rotors
Rotor chamber	Stainless-steel	Stainless-steel
Imbalance safety mechanism	Automated imbalance control	Automated imbalance control
Programs	50	50
Acceleration curves	10	10
Deceleration curves	10	10
Rotor safety	Automatic detection, cycle counting of the rotors	Automatic detection, cycle counting of the rotors
Dimensions (W × D × H)	460 × 600 × 355 mm	630 × 600 × 355 mm
Height with open lid	770 mm	785 mm
Weight	48kg	78kg
Noise level at max. speed	<57 dB	<57 dB

## Centrifuges

Order number	Description
G-16-X	Centrisart® G-16 centrifuge
G-16C-X	Centrisart® G-16C refrigerated

X = 1EU (for 220 – 240 V), 1US (for 100 – 120 V), 1JP (for 100 V)

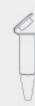
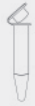
## Accessories

Order number	Description
YCSR-A5B	Fixed angle rotor for 6 × 50 ml round bottom culture tubes (∅ 28.8 × 107 mm), incl. hermetically sealing aluminium lid
YCSR-A6B	Fixed angle rotor for 24 × 1.5   2.0 ml conical reaction tubes, incl. hermetically sealing aluminium lid
YCSA-1	Adapter for 0.25   0.4 ml reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-2	Adapter for 0.5   0.75 ml reaction tubes ∅ 7.9   10 × 28   31 mm for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-4	Adapter for 0.2 ml PCR reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSR-A7B	Fixed angle rotor for 4 × 80   85 ml round bottom culture tubes (∅ 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A8B	Fixed angle rotor for 6 × 85 ml round bottom culture tubes (∅ 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A0B	Fixed angle rotor for 6 × 50 ml conical culture tubes, incl. hermetically sealing aluminium lid
YCSA-5	Adapter for 1 conical culture tube 15 ml for rotor YCSR-A9B and YCSR-A0B, 1 set = 2 pcs.
YCSR-S6B	Complete set – Swing-out rotor, 2 place, for microtiter plates, including 2 buckets YCSA-S6B for microtiter plates and lids YCSM-B1C. Max. plate height 55 mm; max. load per bucket 290 g
YCSR-S2B	Swing-out rotor, 4 place, for buckets YCSB-B8B
YCSB-B8B	Round bucket for adapters YCSA-C2B – YCSA-C8B, sealable with lid YCSM-B8B (max. tube length 110 mm), 1 set = 2 pcs.
YCSA-C2B	Adapter for YCSB-B8B for 10 conical reaction tubes 5.0 ml, 1 set = 2 pcs.
YCSA-C3B	Adapter for YCSB-B8B for 5 conical culture tubes 15 ml, lid max. ∅ 23 mm, 1 set = 2 pcs.
YCSA-C4B	Adapter for YCSB-B8B for 3 conical culture tubes 50 ml, 1 set = 2 pcs.
YCSA-C5B	Adapter for YCSB-B8B for 1 flat bottom bottle 250 ml, max. ∅ 61.5 × 90 – 125 mm, 1 set = 2 pcs.
YCSA-C6B	Adapter for YCSB-B8B for 20 conical reaction tubes 1.5   2.0 ml, max. ∅ 11 mm, 1 set = 2 pcs.
YCSA-C7B	Adapter for YCSB-B8B for 9 conical culture tubes 15 ml, lid max. ∅ 23 mm, 1 set = 2 pcs. (not usable with cap YCSM-B8B)
YCSA-C8B	Adapter for YCSB-B8B for 4 conical culture tubes 50 ml, 1 set = 2 pcs. (not usable with cap YCSM-B8B)
YCSM-B8B	Round polysulfone sealing cap for round bucket YCSB-B8B, biosafe, clear, 1 set = 2 pcs.
YCST-G16C	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors (W × D × H = 650 × 647 × 497 mm)
YCST-G16	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors (W × D × H = 490 × 684 × 515 mm)

## G-16 Rotors








YCSR-A6B



Capacity (ml)	0.2	0.25	0.4	0.5	0.75	1.5	2.0
Tube $\varnothing \times L$ (mm)	6 $\times$ 18	6 $\times$ 30	6 $\times$ 45	8 $\times$ 30	8 $\times$ 45	11 $\times$ 38	11 $\times$ 38
Vivaspin®   Vivacell®	-	-	-	-	-	-	12 $\times$ 1 Vivaspin® 500



Adaptor No.	YCSA-4	YCSA-1	YCSA-1	YCSA-2	YCSA-2	-	-	
								
Boring $\varnothing \times L$ (mm)	11.1 $\times$ 38.5							
No. of tubes	24							
Max. rpm	15,300							
Max. RCF	21,460							
Rmax (mm)	82							



YCSR-A5B



Capacity (ml)	50
Tube $\varnothing \times L$ (mm)	28.8 $\times$ 107
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	29 $\times$ 98
No. of tubes	6
Max. rpm	10,000 (G-16) 11,000 (G-16C)
Max. RCF	9,391 (G-16) 11,363 (G-16C)
Rmax (mm)	84



YCSR-A7B



Capacity (ml)	85
Tube $\varnothing \times L$ (mm)	38 $\times$ 112
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	38.3 $\times$ 99
No. of tubes	4
Max. rpm	10,000
Max. RCF	10,174
Rmax (mm)	91

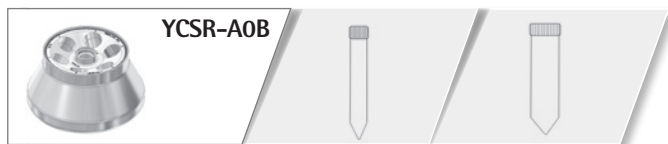


YCSR-A8B



Capacity (ml)	85
Tube $\varnothing \times L$ (mm)	38 $\times$ 112
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	38.3 $\times$ 99
No. of tubes	6
Max. rpm	8,000
Max. RCF	7,012
Rmax (mm)	98





Capacity (ml)	15	50
Tube Ø × L (mm)	17 × 120	29 × 115
Vivaspin®   Vivacell®	6 × 1 Vivaspin® 2 Vivaspin Turbo® 4 Vivaspin® 6	6 × 1 Vivaspin® Turbo 15 Vivaspin® 20



Adaptor No.	YCSA-5	-
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Boring Ø × L (mm)	29.5 × 100	29.5 × 101.5
No. of tubes		6
Max. rpm	9,000 (G-16), 9,500 (G-16C)	
Max. RCF	8,422 (G-16), 9,384 (G-16C)	
Rmax (mm)		93



Capacity (ml)	Microplates
Plates W × L (mm)	122 × 86
Adaptor No.	-
Bucket W × D × H	129 × 89 × 55 mm
No. of tubes	8
Max. rpm	4,200 (G-16), 4,500 (G-16C)
Max. RCF	3,392 (G-16), 3,894 (G-16C)
Rmax (mm)	133

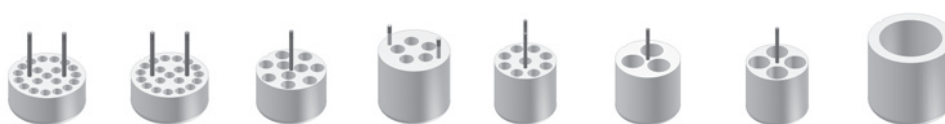


Capacity (ml)	1.5	2.0	5.0	15	15	50	50	250	400
Tube Ø × L (mm)	11 × 38	11 × 38	17 × 60	17 × 120	17 × 120	29 × 115	29 × 115	61.5 × 90 – 125	85 × 118

Vivaspin®   Vivacell®	-	4 × 20 Vivaspin® 500	-	4 × 5 Vivaspin® 2 Vivaspin® Turbo 4 Vivaspin® 6	4 × 9 Vivaspin® 2 Vivaspin® Turbo 4 Vivaspin® 6	4 × 3 Vivaspin® Turbo 15 Vivaspin® 20	4 × 4 Vivaspin® Turbo 15 Vivaspin® 20	4 × 1 Vivacell® 70 Vivacell® 100	-
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Adaptor No.	YCSA-C6B	YCSA-C6B	YCSA-C2B	YCSA-C3B	YCSA-C7B	YCSA-C4B	YCSA-C8B	YCSA-C5B	-
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No. of tubes	4 × 20	4 × 20	4 × 10	4 × 5	4 × 9	4 × 3	4 × 4	4 × 1	4 × 1
Max. rpm	4,200 (G-16), 4,500 (G-16C)								
Max. RCF	3,392 (G-16), 3,894 (G-16C)								
Rmax (mm)	172								

## Centrisart® G-26C

The high-speed refrigerated Centrisart® G-26C achieves a gravitational field of up to 62,000 g and approaches the level of ultracentrifuges in this regard. That makes it ideally suited for high-speed applications.

Thanks to the variety of rotor options, nearly all vessel types can be used for low to high throughput. Even applications in cell culture or microbiology sectors can be carried out with this centrifuge.

### Application Examples:

- Virus isolation
- Isolation of organelles or membranes
- Precipitation of proteins
- Purification in molecular biology
- Ultrafiltration



## Technical Specifications

Centrisart® G-26C	
Max. speed rpm	26,000
Max. capacity	6 × 85 ml
Max. gravitational field	61,973 g
Min. speed rpm	100
Temperature range	- 20°C to + 40°C
Temperature increments	Adjustable in increments of 1°C
Quick cooling	Quick cool program, rotor cooling even possible during downtimes
Coolant	CFC-free (R404a)
Display	LCD, 116 × 87 mm
Control panel	Easy, 1-knob intuitive operation plus 3 backlit keys
Motor	Maintenance-free, brushless drive motor
Signal	Acoustic signal, can be switched off, configurable signal length
Lid-lock release	Motorized locked lid, automatic lid-lock release
Lid	Inspection window for independent speed measurement, easy-to-open lid port
Rotor	Rotor detection for fixed angle rotors, swinging rotors
Rotor chamber	Stainless-steel
Imbalance safety mechanism	Automated imbalance control
Timer	10 sec. – 99 min., short run   continuous run
Programs	60
Acceleration curves	10, linear, quadratic, user-definable
Deceleration curves	10, linear, quadratic, user-definable
Rotor safety	Automatic detection, cycle counting of the rotors
Dimensions (W × D × H)	570 × 616 × 460 mm
Height with open lid	890 mm
Weight	100 kg
Noise level at max. speed	<63 dB

## Centrifuges

Order number	Description
G-26C-X	Centrisart® G-26C high-speed refrigerated centrifuge X = 1EU (for 220 – 240 V), 1US-2P (for 208 V, 2 phases), 1US-3P (for 240 V, 3 phases), 1JP-2P (for 200 V, 2 phases)

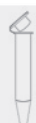
## Accessories

Order number	Description
YCSR-A5B	Fixed angle rotor for 6 × 50 ml round bottom culture tubes (∅ 28.8 × 107 mm), incl. hermetically sealing aluminium lid
YCSR-A6B	Fixed angle rotor for 24 × 1.5   2.0 ml conical reaction tubes, incl. hermetically sealing aluminium lid
YCSA-1	Adapter for 0.25   0.4 ml reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-2	Adapter for 0.5   0.75 ml reaction tubes ∅ 7.9   10 × 28   31 mm for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-4	Adapter for 0.2 ml PCR reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-3	Adapter for > 20.000 g for 1.5 ml reaction tubes in rotor YCSR-A6B, 1 set = 2 pcs.
YCSR-A7B	Fixed angle rotor for 4 × 80   85 ml round bottom culture tubes (∅ 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A8B	Fixed angle rotor for 6 × 85 ml round bottom culture tubes (∅ 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A0B	Fixed angle rotor for 6 × 50 ml conical culture tubes, incl. hermetically sealing aluminium lid
YCSA-5	Adapter for 1 conical culture tube 15 ml for rotor YCSR-A9B and YCSR-A0B, 1 set = 2 pcs.
YCSR-S3B	Swing-out rotor, 4 place, for bucket YCSB-B9B
YCSB-B9B	Round bucket for adapters YCSA-R0B – YCSA-RDB, sealable with lid YCSM-B9B, 1 set = 2 pcs.
YCSA-R9B	Adapter for YCSB-B9B for 1 conical culture tube 50 ml, 1 set = 2 pcs.
YCSA-R0B	Adapter for YCSB-B9B for 2 conical culture tubes 15 ml, lid max. ∅ 23 mm, 1 set = 2 pcs.
YCSA-RAB	Adapter for YCSB-B9B for 4 conical reaction tubes 1.5   2.0 ml, max. ∅ 11 mm, 1 set = 2 pcs.
YCSA-RBB	Adapter for YCSB-B9B for 1 flat bottom culture tube 30 ml, ∅ 25   31 × 65 – 95 mm, 1 set = 2 pcs.
YCSA-RCB	Adapter for YCSB-B9B for 3 conical reaction tubes 5.0 ml, 1 set = 2 pcs.
YCSA-RDB	Rubber cushion for YCSB-B9B for 100 ml glass tube, 1 set = 2 pcs.
YCSM-B9B	Round polysulfone sealing cap for round bucket YCSB-B9B, clear, 1 set = 2 pcs.
YCST-G26C	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors (W × D × H = 570 × 616 × 481 mm)

## G-26 Rotors



YCSR-A6B



Capacity (ml)	0.2	0.25	0.4	0.5	0.75	1.5	2.0
Tube $\varnothing \times L$ (mm)	6 $\times$ 18	6 $\times$ 30	6 $\times$ 45	8 $\times$ 30	8 $\times$ 45	11 $\times$ 38	11 $\times$ 38
Vivaspin®   Vivacell®	-	-	-	-	-	-	12 $\times$ 1 Vivaspin® 500



Adaptor No.	YCSA-4	YCSA-1	YCSA-1	YCSA-2	YCSA-2	YCSA-3	-
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Boring $\varnothing \times L$ (mm)	11.1 $\times$ 38.5
No. of tubes	24
Max. rpm	26,000
Max. RCF	61,973
Rmax (mm)	82





Capacity (ml)	50
Tube $\varnothing \times L$ (mm)	28.8 $\times$ 107
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	29 $\times$ 98
No. of tubes	6
Max. rpm	21,000
Max. RCF	41,415
Rmax (mm)	84



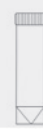
Capacity (ml)	85
Tube $\varnothing \times L$ (mm)	38 $\times$ 112
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	38.3 $\times$ 99
No. of tubes	4
Max. rpm	20,000
Max. RCF	40,695
Rmax (mm)	91












Capacity (ml)	85
Tube $\varnothing \times L$ (mm)	38 $\times$ 112
Vivaspin®   Vivacell®	-
Adaptor No.	-
Boring $\varnothing \times L$ (mm)	38.3 $\times$ 99
No. of tubes	6
Max. rpm	15,500
Max. RCF	26,323
Rmax (mm)	98

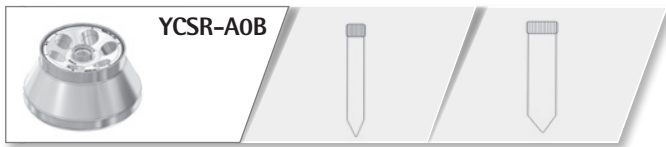


**YCSR-S3B**



Capacity (ml)	1.5	2.0	5.0	15	30	50
Tube Ø × L (mm)	11 × 38	11 × 38	17 × 60	17 × 120	25   31 × 65 – 95 mm	29 × 115
Vivaspin®   Vivacell®	-	4 × 4 Vivaspin® 500	-	4 × 2 Vivaspin® 2 Vivaspin Turbo® 4 Vivaspin® 6	-	4 × 1 Vivaspin® Turbo 15 Vivaspin® 20
						
Adaptor No.	YCSA-RAB	YCSA-RAB	YCSA-RCB	YCSA-R0B	YCSA-RBB	YCSA-R9B
						
No. of tubes	4 × 4	4 × 4	4 × 3	4 × 2	4 × 1	4 × 1
Max. rpm				5,000		
Max. RCF				3,969		
Rmax (mm)				142		





Capacity (ml)	15	50
Tube $\varnothing \times L$ (mm)	17 $\times$ 120	29 $\times$ 115
Vivaspin®   Vivacell®	6 $\times$ 1 Vivaspin® 2 Vivaspin® Turbo 4 Vivaspin® 6	6 $\times$ 1 Vivaspin® Turbo 15 Vivaspin® 20



Adaptor No.	YCSA-5	-
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Boring $\varnothing \times L$ (mm)	29.5 $\times$ 100	29.5 $\times$ 101.5
No. of tubes		6
Max. rpm		14,000
Max. RCF		20,379
Rmax (mm)		93



## Application Matrix

	Applications	A-14	A-14C	D-16C
<b>Protein Analysis</b>	Ultrafiltration		■	■
	Isolation   purification		■	■
	Precipitation		■	■
	Desalination   removal		■	■
	Fractionation		■	■
	Density gradients			■
	Immunoprecipitation		■	■
	Binding studies		■	■
	Lipoprotein treatment	■	■	■
<b>Virus</b>	Isolation			■
	Precipitation			
	PEG precipitation		■	■
	Density gradient			■
<b>Bacteria   Yeast</b>	Pelleting		■	■
	Cell harvesting		■	■
<b>Mammalian Cells</b>	Soft pelleting		■	■
	Cell culture harvest		■	■
<b>Cell Biology</b>	Organelle isolation			
	Membranes			
	Cytosol			■
	Cell pelleting   washing			■
	Tissue   cell treatment			■
<b>Genetic Analysis</b>	DNA	■	■	■
	RNA	■	■	■
	Plasmid DNA	■	■	■
	PCR   sequencing	■	■	■
<b>Food Technology</b>	Soluble   solid components			■
	Precipitation			■
	Phase extraction			■
<b>Bioprocess Technology</b>	Cell harvesting			
<b>Materials Science</b>	Material separation			■

G-16	G-16C	G-26C
	■	■
	■	■
	■	■
	■	■
	■	■
	■	■
	■	■
	■	■
■	■	■
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■	■	■



# Pipettes and Tips for Effortless and Accurate Pipetting

Produce reliable pipetting results effortlessly and enjoy your work. Our Picus® NxT electronic pipettes, as well as the mechanical pipette Tacta®, offer excellent usability, exceptional ergonomics and high reliability of results – especially when used with Sartorius pipette tips.



**Picus® NxT Electronic Pipettes**  
Ergonomic, Efficient & Safe

Order Code	Channels	Volume Range (µl)
LH-745021	1	0,2-10
LH-745041	1	5-120
LH-745061	1	10-300
LH-745081	1	50-1000
LH-745101	1	100-5000
LH-745111	1	500-10000
LH-745321	8	0,2-10
LH-745341	8	5-120
LH-745361	8	10-300
LH-745391	8	50-1200
LH-745421	12	0,2-10
LH-745441	12	5-120
LH-745461	12	10-300
LH-745491	12	50-1200

All pipettes are supplied with a universal charger (EU, UK, US, JPN, KOR, AUS, and CHN plugs)



**Tacta® Mechanical Pipettes**  
Perfectly Balanced

Order Code	Channels	Volume Range (µl)
LH-729010	1	0,1-3
LH-729020	1	0,5-10
LH-729030	1	2-20
LH-729050	1	10-100
LH-729060	1	20-200
LH-729070	1	100-1000
LH-729080	1	500-5000
LH-729090	1	1000-10000
LH-729120	8	0,5-10
LH-729130	8	5-100
LH-729140	8	30-300
LH-729220	12	0,5-10
LH-729230	12	5-100
LH-729240	12	30-300



## Optifit Tips Standard Tips for Various Needs

Optifit tips are an excellent choice for various laboratories and pipetting tasks with their wide packaging and purity options. The Optifit tips are packed in single tray racks, refill towers, single refill packs, and bulk packages. Optifit tips are available DNase, RNase and endotoxin free, as well as e-beam pre-sterilized

Order Code		Volume Range (µl)
790010	●	0,1-10
783210 Extended	●	0,1-10
790200	●	0,5-200
790350	●	5-350
791000	●	10-1000
791200	●	50-1200
791210 Extended	●	50-1200
780304	●	100-5000

All tips in Single Tray racks are certified free of RNase, DNase and endotoxins. A unit of Single Tray racks contains 10 × 96 tips.

Order codes for other packaging and purity options can be found from the Liquid Handling section of [www.sartorius.com](http://www.sartorius.com).



# Centrifugal Protein Concentration with Vivaspin<sup>®</sup>

Take advantage of our membrane-based ultrafiltration products. They guarantee extremely high processing speeds, easy handling and optimal sample recovery - even for diluted samples.

The Vivaspin<sup>®</sup> ultrafiltration units feature a wide range of volume capacities and MWCOs. This makes them the ideal solution for all sample concentration and buffer exchange applications. Thanks to their exclusive vertical membrane design, they achieve the ultimate flow rates and sample recoveries. The patented "dead-stop" technology allows direct sample recovery without additional centrifugation.



## Typical Applications:

- Concentration of biological samples containing antigens, antibodies or enzymes
- Concentration of diluted protein samples of chromatography eluates
- Deionization or diafiltration | buffer exchange
- Sample concentration for crystallization and NMR spectroscopy
- Separation of particularly small or large contaminants

## Your Benefits at a Glance:

- Large vertical membrane for rapid filtration and minimal blockage
- Integrated dead-stop reservoir prevents samples from being concentrated to the point of drying out
- Materials with low binding characteristics ensure maximum recovery
- Direct sample recovery without re-centrifugation guarantees fast and easy handling
- Wide range of capacities from 0.5 to 20 mL for high-volume flexibility
- Wide MWCO range from 2 kDa to 0.2  $\mu\text{m}$  for greater MWCO flexibility



## Ordering Information

### Vivaspin® – PES Membrane

MWCO				3 kDa	5 kDa	10 kDa	30 kDa	50 kDa
Product	Volume	Dead-stop vol.	Quantity	Order No.	Order No.	Order No.	Order No.	Order No.
Vivaspin® 500	0.5 ml	5 µl	25	VS0191	VS0111	VS0101	VS0121	VS0131
			100	VS0192	VS0112	VS0102	VS0122	VS0132
Vivaspin® 2	2 ml	8 µl	25	VS0291	VS0211	VS0201	VS0221	VS0231
			100	VS0292	VS0212	VS0202	VS0222	VS0232
Vivaspin® Turbo 4	4 ml	30 µl	25	VS04T91	VS04T11	VS04T01	VS04T21	VS04T31
			100	VS04T92	VS04T12	VS04T02	VS04T22	VS04T32
Vivaspin® 6	6 ml	30 µl	25	VS0691	VS0611	VS0601	VS0621	VS0631
			100	VS0692	VS0612	VS0602	VS0622	VS0632
Vivaspin® Turbo 15	15 ml	100 µl	12	VS15T91	VS15T11	VS15T01	VS15T21	VS15T31
			48	VS15T92	VS15T12	VS15T02	VS15T22	VS15T32
Vivaspin® 20	20 ml	50 µl	12	VS2091	VS2011	VS2001	VS2021	VS2031
			48	VS2092	VS2012	VS2002	VS2022	VS2032

MWCO				100 kDa	300 kDa	1,000 kDa	0.2 µm	
Product	Volume	Dead-stop vol.	Quantity	Order No.	Order No.	Order No.	Order No.	Sample Packs
Vivaspin® 500	0.5 ml	5 µl	25	VS0141	VS0151	VS0161	VS0171	VS01S1 (5 × 5)*
			100	VS0142	VS0152	VS0162	VS0172	
Vivaspin® 2	2 ml	8 µl	25	VS0241	VS0251	VS0261	VS0271	VS02S1 (5 × 5)*
			100	VS0242	VS0252	VS0262	VS0272	
Vivaspin® Turbo 4	4 ml	30 µl	25	VS04T41				
			100	VS04T42				
Vivaspin® 6	6 ml	30 µl	25	VS0641	VS0651	VS0661	VS0671	VS06S1 (5 × 5)*
			100	VS0642	VS0652	VS0662	VS0672	
Vivaspin® Turbo 15	15 ml	100 µl	12	VS15T41				
			48	VS15T42				
Vivaspin® 20	20 ml	50 µl	12	VS2041	VS2051	VS2061	VS2071	VS20S1 (6 × 2)**
			48	VS2042	VS2052	VS2062	VS2072	

### Vivaspin® – Hydrosart® Membrane

MWCO				2 kDa	5 kDa	10 kDa	30 kDa
Product	Volume	Dead-stop vol.	Quantity	Order No.	Order No.	Order No.	Order No.
Vivaspin® 2	2 ml	8 µl	25	VS02H91	VS02H11	VS02H01	VS02H21
			100	VS02H92	VS02H12	VS02H02	VS02H22
Vivaspin® 15R	15 ml	30 µl	12	VS15RH91	VS15RH11	VS15RH01	VS15RH21
			48	VS15RH92	VS15RH12	VS15RH02	VS15RH22

### Vivaspin® – CTA-Membrane

MWCO				5 kDa	10 kDa	20 kDa
Product	Volume	Dead-stop vol.	Quantity	Order No.	Order No.	Order No.
Vivaspin® 2	2 ml	8 µl	25	VS02U1	VS02V1	VS02X1
			100	VS02U2	VS02V2	VS02X2

### Vivaspin® Additional Devices

Product Description	Qty per Box	Order No.
Vivaspin® 20 – Diafiltration cups	12	VSA005

\* 5 of each 5 kDa, 10 kDa, 30 kDa, 50 kDa, 100 kDa

\*\* 2 of each 5 kDa, 10 kDa, 30 kDa, 50 kDa, 100 kDa, 0,2µm

# Fast and Gentle Concentration with Vivaspin® Turbo 4 and Vivaspin® Turbo 15

Vertical twin membranes and their smooth, sleek interior design enable the two filters to achieve lightning-fast concentration and almost 100% recovery of your valuable samples. The integrated dead-stop reservoir prevents the concentrate from being centrifuged to the point of drying out. Pipette-friendly access allows the highly concentrated sample to be recovered easily.

## Typical Applications:

- Sample concentration of proteins, viruses, nanoparticles and macromolecules
- Deionization | dialysis
- Buffer exchange

## Your Benefits at a Glance:

- Smooth, sleek interior design with large, vertical twin membrane for fast, 100-fold sample concentration
- High recovery of more than 95 percent
- Polystyrene housing with high chemical compatibility for pH values of 1-14
- PES membranes for high flow rates
- Compatible with swinging and fixed angle rotors
- Pipette-friendly, dead-stop reservoir for reliable sample concentration and easy recovery
- Volume graduation for easy reading | monitoring of the concentrate volume



## Technical Specifications

Materials	Vivaspin® Turbo 4	Vivaspin® Turbo 15
Body	Styrene butadiene copolymer	Styrene butadiene copolymer
Filtrate vessel	Polypropylene	Polypropylene
Concentrator cap	Polypropylene	Polypropylene
Membrane	Polyethersulfone (PES)	Polyethersulfone (PES)

### Dimensions

Total length (concentrator insert)	75.5 mm	77 mm
Total length (in tube with cap)	122.5 mm	118 mm
Diameter (concentrator insert)	14.6 mm	27 mm
Active membrane area	3.2 cm <sup>2</sup>	7.2 cm <sup>2</sup>
Hold up volume of membrane	<10 µl	<10 µl
Dead stop volume in swing out	40 µl	100 µl
Dead stop volume in fixed angle	30 µl	60 µl

### Concentrator capacity

Swing bucket rotor	4 ml	15 ml
Fixed angle rotor (25°)	4 ml	9 ml

### Maximum speed 3 kDa – 50 kDa

Swing bucket rotor	4,000 × g	4,000 × g
Fixed Angle rotor (25°)	7,500 × g	4,000 × g

### Maximum speed 100 kDa

Swing bucket rotor	3,000 × g	3,000 × g
Fixed Angle rotor (25°)	5,000 × g	3,000 × g

### Sterilization

ETO or 70 % EtOH	ETO or 70 % EtOH
------------------	------------------

### Removal of endotoxins [Depyrogenization]

Flushing with 1N NaOH	Flushing with 1N NaOH
-----------------------	-----------------------

## Ordering Information

### Vivaspin® Turbo 4

Cut off	Quantity	Order no.
3,000 MWCO	25	VS04T91
3,000 MWCO	100	VS04T92
5,000 MWCO	25	VS04T11
5,000 MWCO	100	VS04T12
10,000 MWCO	25	VS04T01
10,000 MWCO	100	VS04T02
30,000 MWCO	25	VS04T21
30,000 MWCO	100	VS04T22
50,000 MWCO	25	VS04T31
50,000 MWCO	100	VS04T32
100,000 MWCO	25	VS04T41
100,000 MWCO	100	VS04T42

### Vivaspin® Turbo 15

Cut off	Quantity	Order no.
3,000 MWCO	12	VS15T91
3,000 MWCO	48	VS15T92
5,000 MWCO	12	VS15T11
5,000 MWCO	48	VS15T12
10,000 MWCO	12	VS15T01
10,000 MWCO	48	VS15T02
30,000 MWCO	12	VS15T21
30,000 MWCO	48	VS15T22
50,000 MWCO	12	VS15T31
50,000 MWCO	48	VS15T32
100,000 MWCO	12	VS15T41
100,000 MWCO	48	VS15T42

Vivaspin® Turbo 4 and 15 centrifugal concentrators, disposable ultrafiltration units, for processing sample volumes of 2 – 4 ml and 15 ml, Polyethersulfone UF membrane.

# Sartorius Services

Our mission is your productivity. From installation throughout the entire product lifecycle - our global service is focused on maximizing the reliability and availability of your centrifuge. Our comprehensive range of services for a broad portfolio of laboratory equipment not only meets the common industry standards, but is focused on your specific requirements at all times.

## Your Service Benefits at a Glance:

1.

### The Ultimate Efficiency

- Our professional service ensures that your centrifuges always operate at full capacity without any ifs or buts.
- Get the most out of your equipment with our individualized on-site adjustments.

2.

### Problem-free Operation

- Annual maintenance of centrifuges is highly recommended to ensure a safe working environment.
- Regular maintenance ensures that your centrifuges work optimally and trouble-free.
- Unnecessary downtimes are reduced.

3.

### Qualified Users

- The basis for safe and efficient work, in addition to high-quality equipment, is reliably trained laboratory staff. As part of the device installation and qualification (IQ | OQ) process, your laboratory staff are familiarized with the centrifuges and trained in their use.



### Installation

- Our regularly trained service technicians ensure that your equipment is ready to use properly from the outset – without compromises. Your employees will be trained on the equipment during installation.

	Order No.
A-14 and A-14C	84ICM06
G-16	84ICM07
D-16C and G-16C	84ICM08
G-26C	84ICM09

### Device Qualification (IQ | OQ)

- Device qualification is often a prerequisite to using your equipment in a regulated environment. The documentation fulfills the requirements of GLP | GMP and FDA specifications.

	Order No.
A-14 and A-14C	84QAM06
G-16	84QAM07
D-16C and G-16C	84QAM08
G-26C	84QAM09

### Calibration

- You can document the quality of your centrifuges' performance data by creating calibration certificates during preventive maintenance.

	Order No.
Temperature Calibration	84CUME*
Speed   Time Calibration	84CUMD*

\*Valid for all Models.

### Preventive Maintenance

- Regular maintenance ensures reliable and trouble-free operation and maximizes the life of the device. As part of the maintenance work, all technical specifications such as temperature accuracy, speed and run times are checked against the manufacturer's specifications.

	Order No.
A-14 and A-14C	84MBM06
G-16	84MBM07
D-16C and G-16C	84MBM08
G-26C	84MBM09



**Suministros LPS S. de R.L. de C.V.**  
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Fracc. Industrial El Fénix, Col. El Retablo  
Santiago de Querétaro, C.P. 76154

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**www.suministroslps.com**

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Desde 1994