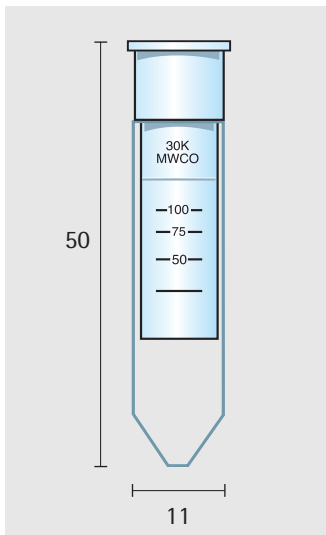


Vivaspin 500



100 µl to 500 µl samples

Vivaspin 500 µl centrifugal filter units offer a simple, one step procedure for sample preparation. They can effectively be used in a fixed angle rotors accepting 2.2 ml centrifuge tubes.

The patented vertical membrane design and thin channel filtration chamber (US 5,647,990), minimises membrane fouling and provides high speed concentrations, even with particle laden solutions.

Technical specifications Vivaspin 500

Concentrator capacity	Swing bucket rotor	do not use
	Fixed angle rotor	500 µl
Dimensions	Total length	50 mm
	Width	11 mm
	Active membrane area	0.5 cm ²
	Hold-up volume, membrane and support	< 5 µl
	Dead stop volume	5 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polypropylene
	Concentrator cap	Polycarbonate
	Membrane	Polyethersulfone

Equipment required Vivaspin 500

Centrifuge	Rotor type	Fixed angle
	Minimum rotor angle	40°
	Rotor cavity	To fit 2.2 ml (11 mm) conical bottom tubes
	Maximum speed	15,000 g
Concentrate recovery	Pipette type	Fixed or variable volume
	Recommended tip	Thin gel loader type

Performance characteristics

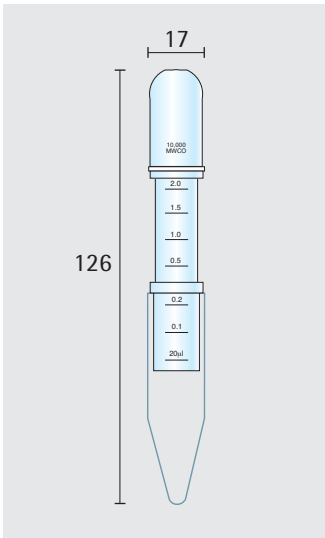
	Time to concentrate up to 30x [min.] at 20°C and solute recovery %	
Rotor	Fixed angle	
Centrifugal force	12,000 g	
Start volume	500 µl	
	Min.	Rec.
Aprotinin 0.25 mg/ml (6,500 MW) 3,000 MWCO PES	30	96 %
BSA 1.0 mg/ml (66,000 MW) 5,000 MWCO PES	15	96 %
10,000 MWCO PES	5	96 %
30,000 MWCO PES	5	95 %
IgG 0.25 mg/ml (160,000 MW) 30,000 MWCO PES	10	96 %
50,000 MWCO PES	10	96 %
100,000 MWCO PES	10	96 %

Ordering information

Vivaspin 500 Polyethersulfone	Pack size	Prod. no.
3,000 MWCO	25	VS0191
3,000 MWCO	100	VS0192
5,000 MWCO	25	VS0111
5,000 MWCO	100	VS0112
10,000 MWCO	25	VS0101
10,000 MWCO	100	VS0102
30,000 MWCO	25	VS0121
30,000 MWCO	100	VS0122
50,000 MWCO	25	VS0131
50,000 MWCO	100	VS0132
100,000 MWCO	25	VS0141
100,000 MWCO	100	VS0142
300,000 MWCO	25	VS0151
300,000 MWCO	100	VS0152
1,000,000 MWCO	25	VS0161
1,000,000 MWCO	100	VS0162
0.2 µm	25	VS0171
0.2 µm	100	VS0172
Starter pack (5 of each 5 k, 10 k, 30 k, 50 k, 100 k)	25	VS01S1

Vivaspin 2

Choice of membranes



0.4–2 ml samples

The Vivaspin 2 bridges the gap between the 500 µl and 4 ml centrifugal concentrators. This device combines the speed of the classic Vivaspin products with low internal surface and membrane area for superior recoveries from very dilute solutions.

Available with a choice of PES, Cellulose Triacetate and Hydrosart® membranes, Vivaspin 2 offers the highest flexibility for process optimisation.

Also unique to the Vivaspin 2, is the choice of directly pipetting the concentrate from the dead stop pocket built into the bottom of the concentrator, or alternatively reverse spinning into the concentrate recovery cap which can then be sealed for storage. Both methods result in near total concentrate recoveries.

Technical specifications Vivaspin 2

Concentrator capacity	Swing bucket rotor	3 ml
	Fixed angle rotor	2 ml
Dimensions	Total length	126 mm
	Width	17 mm
	Active membrane area	1.2 cm ²
	Hold-up volume of membrane	<10 µl
	Dead stop volume	8 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Membrane	PES, CTA, HY

Equipment required Vivaspin 2

Centrifuge

Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g	12,000 g*

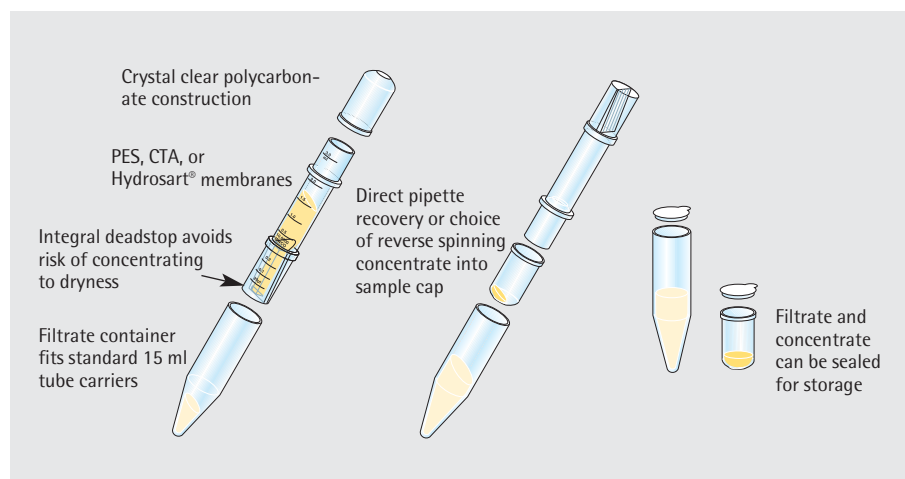
Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

* Please note, devices with membrane MWCO >100 kDa need to be processed at lower g forces. See data sheets for details.

Performance characteristics

	Time to concentrate up to 30x [min.] at 20°C and solute recovery %	
Rotor	Fixed angle	
Centrifugal force	5,000 g	
Start volume	2 ml	
	Min.	Rec.
Aprotinin 0.25 mg/ml (6,500 MW)		
3,000 MWCO PES	50	96 %
BSA 1.0 mg/ml (66,000 MW)		
5,000 MWCO PES	12	98 %
5,000 MWCO CTA	50	96 %
5,000 MWCO Hydrosart	22	98 %
10,000 MWCO PES	8	98 %
10,000 MWCO CTA	10	96 %
10,000 MWCO Hydrosart	12	98 %
20,000 MWCO CTA	5	96 %
30,000 MWCO PES	8	97 %
30,000 MWCO Hydrosart	5	97 %
IgG 0.25 mg/ml (160,000 MW)		
20,000 MWCO CTA	6	97 %
30,000 MWCO PES	10	96 %
50,000 MWCO PES	10	96 %
100,000 MWCO PES	8	95 %



Ordering information

Vivaspin 2 Polyethersulfone	Pack size	Prod. no.
3,000 MWCO	25	VS0291
3,000 MWCO	100	VS0292
5,000 MWCO	25	VS0211
5,000 MWCO	100	VS0212
10,000 MWCO	25	VS0201
10,000 MWCO	100	VS0202
30,000 MWCO	25	VS0221
30,000 MWCO	100	VS0222
50,000 MWCO	25	VS0231
50,000 MWCO	100	VS0232
100,000 MWCO	25	VS0241
100,000 MWCO	100	VS0242
300,000 MWCO	25	VS0251
300,000 MWCO	100	VS0252
1,000,000 MWCO	25	VS0261
1,000,000 MWCO	100	VS0262
0.2 µm	25	VS0271
0.2 µm	100	VS0272
Starter pack (5 of each 5 k, 10 k, 30 k, 50 k, 100 k)	25	VS02S1

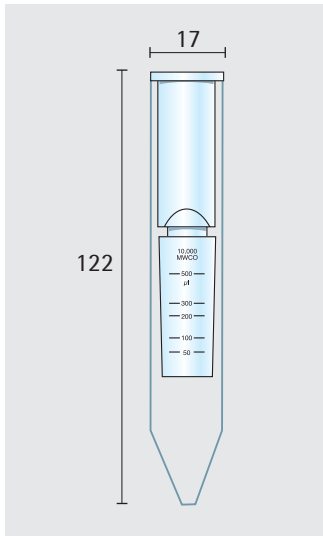
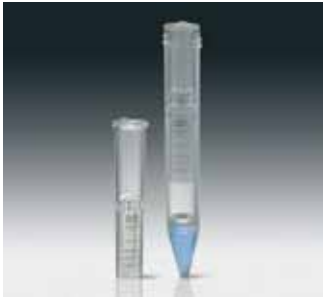
Vivaspin 2 Cellulose triacetate	Pack size	Prod. no.
5,000 MWCO	25	VS02U1
5,000 MWCO	100	VS02U2
10,000 MWCO	25	VS02V1
10,000 MWCO	100	VS02V2
20,000 MWCO	25	VS02X1
20,000 MWCO	100	VS02X2

Vivaspin 2 Hydrosart	Pack size	Prod. no.
2,000 MWCO	25	VS02H91
2,000 MWCO	100	VS02H92
5,000 MWCO	25	VS02H11
5,000 MWCO	100	VS02H12
10,000 MWCO	25	VS02H01
10,000 MWCO	100	VS02H02
30,000 MWCO	25	VS02H21
30,000 MWCO	100	VS02H22

Ordering Tips

- Choose a membrane pore size at least 50% smaller than the size of the molecule to be retained.
- Usually choose Polyethersulfone membranes for fastest concentrations.
- Usually choose Cellulose Triacetate for Protein Removal | Ultrafiltrate recovery.
- Usually choose Hydrosart® membranes for highest recovery with Ig fractions.

Vivaspin 4



1–4 ml samples

Vivaspin 4 ml concentrators are disposable ultrafiltration devices for the concentration of biological samples. Maximum initial sample volumes range from 1 ml to 4 ml. They can be effectively used in either swing bucket or fixed angle rotors accepting 15 ml centrifuge tubes.

The patented vertical membrane design and thin channel filtration chamber (US 5,647,990) minimises membrane fouling and provides high speed concentrations, even with particle laden solutions.

Vivaspin 4 is available with the high flux polyethersulfone membrane range which is recommended for most solutions.

Technical specifications Vivaspin 4

Concentrator capacity	Swing bucket rotor	4 ml
	Fixed angle rotor	4 ml
Dimensions	Total length	122 mm
	Width	17 mm
	Active membrane area	2.0 cm ²
	Hold-up volume of membrane	< 10 µl
	Dead stop volume	20 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polypropylene
	Concentrator cap	Polycarbonate
	Membrane	Polyethersulfone

Equipment required Vivaspin 4

Centrifuge

Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g	10,000 g*

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

* Please note, devices with membrane MWCO >100 kDa need to be processed at lower g forces. See data sheets for details.

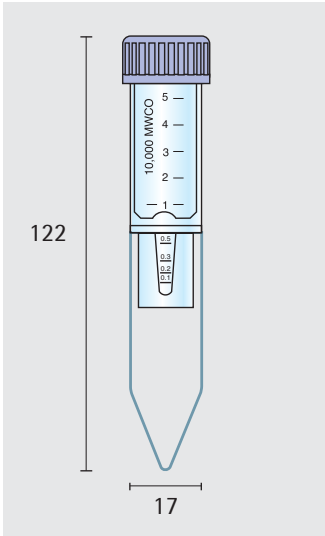
Performance characteristics

	Time to concentrate up to 30x [min.] at 20°C and solute recovery %	
Rotor	Fixed angle	
Centrifugal force	5,000 g	
Start volume	4 ml	
	Min.	Rec.
BSA 1.0 mg/ml (66,000 MW)		
5,000 MWCO PES	15	96%
10,000 MWCO PES	10	96%
30,000 MWCO PES	10	95%
IgG 0.25 mg/ml (160,000 MW)		
30,000 MWCO PES	10	95%
50,000 MWCO PES	10	95%
100,000 MWCO PES	10	95%

Ordering information

Vivaspin 4 Polyethersulfone	Pack size	Prod. no.
5,000 MWCO	25	VS0413
5,000 MWCO	100	VS0414
10,000 MWCO	25	VS0403
10,000 MWCO	100	VS0404
30,000 MWCO	25	VS0423
30,000 MWCO	100	VS0424
50,000 MWCO	25	VS0433
50,000 MWCO	100	VS0434
100,000 MWCO	25	VS0443
100,000 MWCO	100	VS0444
0.2 µm	25	VS0473
0.2 µm	100	VS0474
Starter pack (5 of each 5 k, 10 k, 30 k, 50 k, 100 k)	25	VS04S3

Vivaspin 6



2–6 ml samples

Vivaspin 6 ml concentrators have been developed to offer increased volume flexibility and performance.

Vivaspin 6 can process an impressive 6 ml in either swing bucket or fixed angle rotors accepting standard 15 ml conical bottom test tubes.

The Vivaspin 6 features twin vertical membranes for unparalleled filtration speeds and 100x plus concentrations. Remaining volume is easy to read off the printed scale on the side of the concentrator and the modified dead stop pocket further simplifies direct pipette recovery of the final concentrate.

Technical specifications Vivaspin 6

Concentrator capacity	Swing bucket rotor	6 ml
	Fixed angle rotor	6 ml
Dimensions	Total length	122 mm
	Width	17 mm
	Active membrane area	2.5 cm ²
	Hold-up volume of membrane	<10 µl
	Dead stop volume	30 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polypropylene
	Membrane	Polyethersulfone

Equipment required Vivaspin 6

Centrifuge		
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g	10,000 g*
Concentrate recovery		
Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

* Please note, devices with membrane MWCO >100 kDa need to be processed at lower g forces. See data sheets for details.

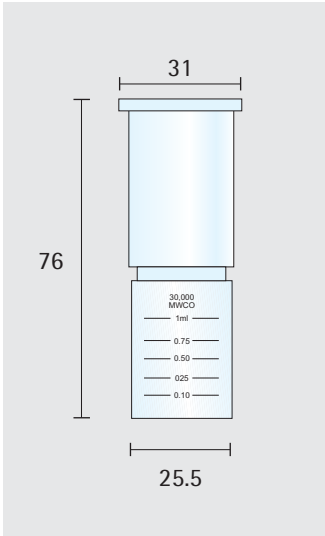
Performance characteristics

	Time to concentrate up to 30x [min.] at 20°C and solute recovery %			
	Swing bucket		25° Fixed angle	
Rotor				
Centrifugal force	3,000 g		7,500 g	
Start volume	6 ml		6 ml	
	Min.	Rec.	Min.	Rec.
Cytochrome c 0.25 mg/ml (12,400 MW)				
5,000 MWCO PES	–	–	90	97 %
BSA 1.0 mg/ml (66,000 MW)				
5,000 MWCO PES	20	98 %	12	98 %
10,000 MWCO PES	13	98 %	10	98 %
30,000 MWCO PES	12	98 %	9	97 %
IgG 0.25 mg/ml (160,000 MW)				
30,000 MWCO PES	18	96 %	15	95 %
50,000 MWCO PES	17	96 %	14	95 %
100,000 MWCO PES	15	91 %	12	91 %
Latex beads 0.004 % in DMEM +10 % FCS (0.055 µm)				
300,000 MWCO PES	–	–	25	99 %
Latex beads 0.004 % in DMEM +10 % FCS (0.24 µm)				
1,000,000 MWCO PES	–	–	4	99 %
Yeast 1.0 mg/ml (<i>S. Cerevisiae</i>)				
0.2 µm PES	4	97 %	3	97 %

Ordering information

Vivaspin 6 Polyethersulfone	Pack size	Prod. no.
3,000 MWCO	25	VS0691
3,000 MWCO	100	VS0692
5,000 MWCO	25	VS0611
5,000 MWCO	100	VS0612
10,000 MWCO	25	VS0601
10,000 MWCO	100	VS0602
30,000 MWCO	25	VS0621
30,000 MWCO	100	VS0622
50,000 MWCO	25	VS0631
50,000 MWCO	100	VS0632
100,000 MWCO	25	VS0641
100,000 MWCO	100	VS0642
300,000 MWCO	25	VS0651
300,000 MWCO	100	VS0652
1,000,000 MWCO	25	VS0661
1,000,000 MWCO	100	VS0662
0.2 µm	25	VS0671
0.2 µm	100	VS0672
Starter pack (5 of each 5 k, 10 k, 30 k, 50 k, 100 k)	25	VS06S1

Vivaspin 15



2–15 ml samples

The Vivaspin 15 concentrator is a disposable ultrafiltration device for use in swing bucket centrifuges accommodating 50 ml tubes. Vivaspin 15 is used for the concentration of biological samples in the 2–15 ml range. The innovative design (US Patent no. 5,647,990, second patent pending), simplicity, speed and exceptional concentrate recoveries are the main features of the concentrator.

In a single spin, 15 ml solutions can be concentrated up to 300x. Samples can be typically concentrated in 10–30 minutes with macromolecular recoveries in excess of 95%. The longitudinal membrane location and adjacent thin channel, provide optimum cross flow conditions even for particle laden solutions, the centrifugal force pulling particles and solids away from the membrane to the bottom of the device. Macromolecules collect in an impermeable 50 µl concentrate pocket integrally moulded below the membrane surface, thereby eliminating the risk of filtration to dryness.

Technical specifications Vivaspin 15

Concentrator capacity	Swing bucket rotor	15 ml
	Fixed angle rotor	8 ml
Dimensions	Total length	76 mm
	Width	25.5 mm
	Active membrane area	4 cm ²
	Hold up volume of membrane	<20 µl
	Dead stop volume	50 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polypropylene
	Concentrator cap	Polycarbonate
	Membrane	Polyethersulfone

Equipment required Vivaspin 15

Centrifuge		
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 50 ml (17 mm) conical bottom tubes	To fit 50 ml (17 mm) conical bottom tubes
Maximum speed	3,000 g*	3,000 g
Concentrate recovery		
Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

* Please note, devices with membrane MWCO >100 kDa need to be processed at lower g forces. See data sheets for details.

Performance characteristics

	Time to concentrate up to 30x [min.] at 20°C and solute recovery %	
Rotor	Fixed angle	
Centrifugal force	2,000 g	
Start volume	15 ml	
	Min.	Rec.
BSA 1 mg/ml (66,000 MW)		
5,000 MWCO	40	97%
10,000 MWCO	25	97%
30,000 MWCO	25	96%
50,000 MWCO	25	96%
100,000 MWCO	15	70%
Cytochrome c 0.25 mg/ml (12,400 MW)		
5,000 MWCO	55	97%
10,000 MWCO	45	95%
30,000 MWCO	45	59%
50,000 MWCO	45	40%
100,000 MWCO	20	16%
IgG 0.25 mg/ml (160,000 MW)		
30,000 MWCO	30	94%
50,000 MWCO	30	94%
100,000 MWCO	30	90%
Yeast 1.0 mg/ml (<i>S. Cerevisiae</i>)		
100,000 MWCO	15	98%
0.2 µm PES	7	95%

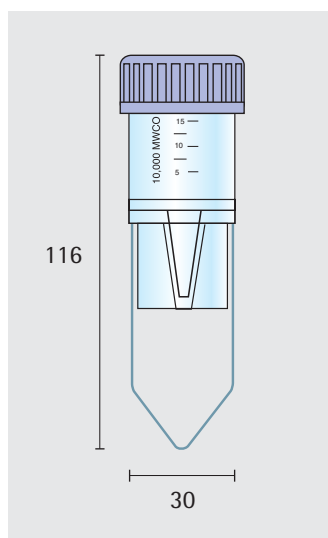
Ordering information – Requires 50 ml centrifuge tubes

Vivaspin 15 Polyethersulfone	Pack size	Prod.no.
5,000 MWCO	10	VS1511
5,000 MWCO	40	VS1512
10,000 MWCO	10	VS1501
10,000 MWCO	40	VS1502
30,000 MWCO	10	VS1521
30,000 MWCO	40	VS1522
50,000 MWCO	10	VS1531
50,000 MWCO	40	VS1532
100,000 MWCO	10	VS1541
100,000 MWCO	40	VS1542
0.2 µm	10	VS1571
0.2 µm	40	VS1572
Starter pack (2 of each 5 k, 10 k, 30 k, 50 k, 100 k)	10	VS15S1

Accessories

Conical bottom 50 ml tubes and lids	100	VSA001
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Vivaspin 15R



2–15 ml samples

Vivaspin 15R is the latest member of the Vivaspin product family with all the unique features of Sartorius Stedim Biotech concentrators including a patented vertical membrane and a dead stop. Vivaspin 15R is targeting the volume segment 2 to 15 ml with a modified regenerated cellulose membrane; Hydrosart®. This membrane is ideal where extremely high recovery with very low adsorption is needed, for example in applications such as desalting and concentration of Ig fractions.

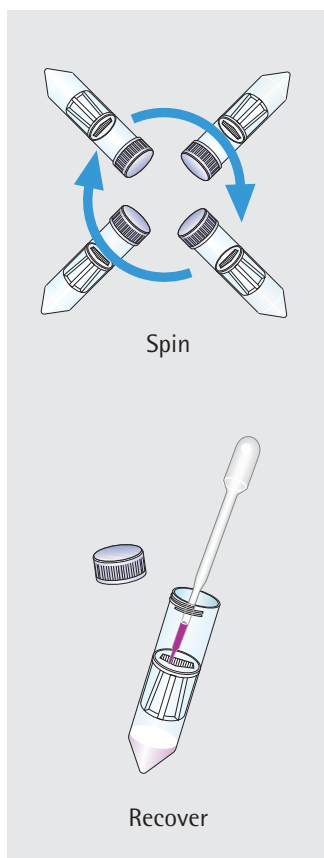
- Ultimate recovery at low adsorption (95–98%)
- Extremely short concentration time (30x in 15 min.)
- Convenient application protocol with easy handling
- Easy scale-up to Vivaflow 200 with Hydrosart® membrane for volumes up to 5 litres
- Very small hold up volume (< 20 µl)

Technical specifications Vivaspin 15R

Concentrator capacity	Swing bucket rotor	15 ml
	Fixed angle rotor	12.5 ml
Dimensions	Total length	116 mm
	Width	30 mm
	Active membrane area	3.9 cm ²
	Hold up volume membrane	< 20 µl
	Dead stop volume	30 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polypropylene
	Concentrator cap	Polycarbonate
	Membrane	Hydrosart

Equipment required Vivaspin 15R

Centrifuge		
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 50 ml (30 mm) conical bottom tubes	To fit 50 ml (30 mm) conical bottom tubes
Maximum speed	3,000 g	6,000 g
Concentrate recovery		
Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type



Performance characteristics

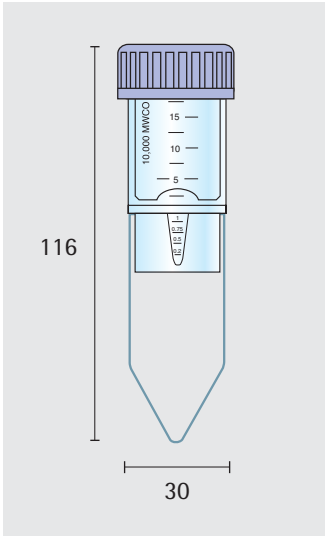
Rotor	Time to concentrate up to 30x [min.] at 20°C and solute recovery %			
	Swing bucket	25° Fixed angle		
Centrifugal force	3,000 g	6,000 g		
Start volume	15 ml	12.5 ml		
	Min.	Rec.	Min.	Rec.
Aprotinin 0.1 mg/ml* (6,500 MW) 5,000 MWCO	47	95%	45	95%
Cytochrome c 0.25 mg/ml* (12,400 MW) 5,000 MWCO	45	96%	45	96%
10,000 MWCO	25	94%	18	94%
α-chymotrypsin 0.25 mg/ml* (25,000 MW) 5,000 MWCO	50	98%	45	98%
10,000 MWCO	25	98%	18	98%
Ovalbumin 1.0 mg/ml* (45,000 MW) 10,000 MWCO	20	98%	14	98%
30,000 MWCO	15	94%	12	94%
BSA 1.0 mg/ml* (66,000 MW) 30,000 MWCO	18	98%	15	98%
IgG 0.1 mg/ml*in DMEM (160,000 MW) 30,000 MWCO	30	98%	25	96%

* proteins other than IgG made up in 50 mM potassium phosphate, 150 mM sodium chloride, pH 7.4

Ordering information

Vivaspin 15R Hydrosart	Pack size	Prod. no.
2,000 MWCO	12	VS15RH91
2,000 MWCO	48	VS15RH92
5,000 MWCO	12	VS15RH11
5,000 MWCO	48	VS15RH12
10,000 MWCO	12	VS15RH01
10,000 MWCO	48	VS15RH02
30,000 MWCO	12	VS15RH21
30,000 MWCO	48	VS15RH22

Vivaspin 20



5–20 ml samples

Vivaspin 20 ml centrifugal concentrators have been developed to offer increased volume flexibility and performance.

Vivaspin 20 handles up to 20 ml in swing bucket centrifuges and 14 ml in 25° fixed angle rotors accepting 50 ml centrifuge tubes.

Featuring twin vertical membranes for unparalleled filtration speeds the Vivaspin 20 can achieve 100x plus concentrations.

Remaining volume is easy to read off the printed scale on the side of the concentrator and the modified dead stop pocket further simplifies direct pipette recovery of the final concentrate.

More process flexibility

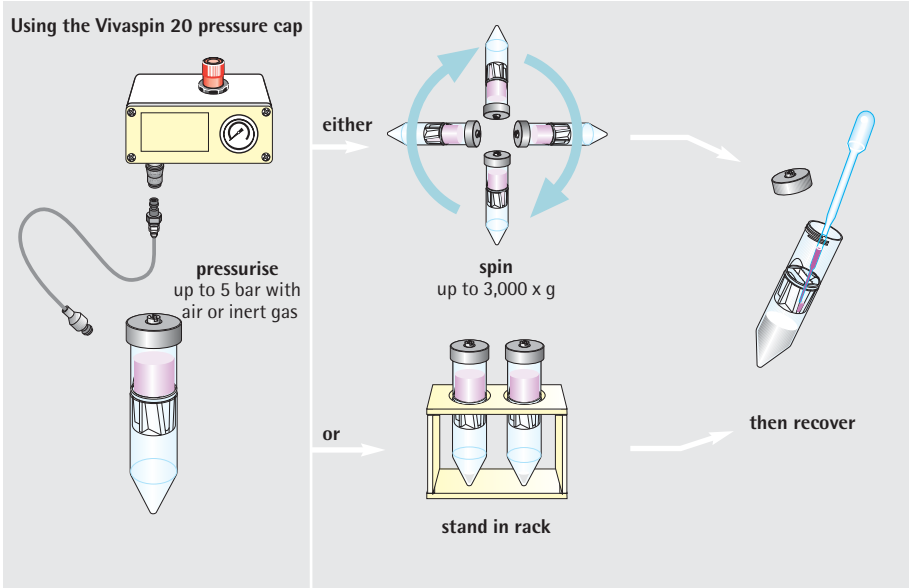
Vivaspin 20 is available with unique accessories and operating methods that are designed to provide more process flexibility and further time saving.

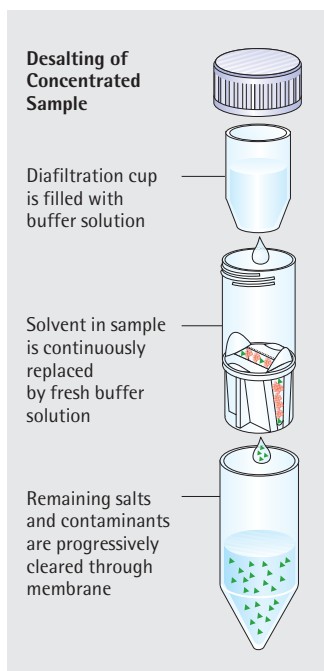
Gas pressure filtration

When an appropriate centrifuge is unavailable, or for single sample processing, Vivaspin 20 can be filled with up to 15 ml and then pressurised for bench top concentration. For even faster processing, gas pressure can be combined with centrifugal force. "Pressure-fugation" is particularly suitable for difficult or viscous samples such as serum, or when using a low process temperature which reduces filtration speed, and generally when minimum process time is essential.

Technical specifications Vivaspin 20

Concentrator capacity	Swing bucket rotor	20 ml
	Fixed angle rotor	14 ml
	With pressure head	15 ml
Dimensions	Total length	116 mm
		125 mm with pressure head
	Width	30 mm
	Active membrane area	6.0 cm ²
	Hold up volume of membrane	< 20 µl
Materials of construction	Dead stop volume	50 µl
	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polypropylene
	Pressure head	Acetal aluminium
	Membrane	Polyethersulfone





One step desalting

In this procedure following concentration, a diafiltration cup is filled with buffer and then spun one time to achieve 98% salt removal. This compares to the need for two spins to achieve the same result with the traditional refill and re-spin procedure.

The improved performance is due to the constant washing action of the buffer solution in the diafiltration cup as it replaces solvent and salts as they pass through the ultrafiltration membrane.

Equipment required Vivaspin 20

Centrifuge

Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 50 ml (30 mm) conical bottom tubes	To fit 50 ml (30 mm) conical bottom tubes
Maximum speed	5,000 g*	8,000 g*

Optional pressure accessories

Air pressure controller (APC) complete with pressure gauge, regulator, over-pressure safety valve, female connector to Sartorius Stedim Biotech pressure products and 1 m extension line (4 mm pneumatic tubing) with male and female connectors and 1 m of 6 mm inlet tubing	Prod no. VCA002
Charge valve	Prod. no. VCA005
VS20 pressure head	Prod. no. VCA200

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

* Please note, devices with membrane MWCO >100 kDa need to be processed at lower g forces. See data sheets for details.

Performance characteristics

Time to concentrate up to 30x [min.] at 20°C and solute recovery %								
Mode	Centrifuge		Centrifuge		Bench top		Press-fuge	
Rotor	Swing bucket		25° Fixed angle		Pressure		Swing bucket	
Centrifugal speed pressure	3,000 g		6,000 g		4 bar		3,000 g + 4 bar	
Start volume	20 ml		14 ml		10 ml		10 ml	
	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.
Cytochrome c 0.25 mg/ml (12,400 MW)								
3,000 MWCO PES	110	97 %	180	96 %	60	96 %	–	–
BSA 1.0 mg/ml (66,000 MW)								
5,000 MWCO PES	23	99 %	29	99 %	50	98 %	14	98 %
10,000 MWCO PES	16	98 %	17	98 %	32	97 %	8	97 %
30,000 MWCO PES	13	98 %	15	98 %	32	97 %	8	97 %
IgG 0.25 mg/ml (160,000 MW)								
30,000 MWCO PES	27	97 %	20	95 %	46	94 %	13	97 %
50,000 MWCO PES	27	96 %	22	95 %	46	93 %	13	96 %
100,000 MWCO PES	25	91 %	20	90 %	42	88 %	12	94 %
Latex beads 0.004 % in DMEM +10 % FCS (0.055 µm)								
300,000 MWCO PES	20	99 %	35	99 %	10	99 %	–	–
Latex beads 0.004 % in DMEM +10 % FCS (0.24 µm)								
1,000,000 MWCO PES	4	99 %	12	99 %	4	99 %	–	–
Yeast 1.0 mg/ml (S. Cerevisiae)								
0.2 µm PES	15	95 %	5	95 %	20	95 %	2	95 %

Ordering information

Vivaspin 20 Polyethersulfone	Pack size	Prod. no.
3,000 MWCO	12	VS2091
3,000 MWCO	48	VS2092
5,000 MWCO	12	VS2011
5,000 MWCO	48	VS2012
10,000 MWCO	12	VS2001
10,000 MWCO	48	VS2002
30,000 MWCO	12	VS2021
30,000 MWCO	48	VS2022
50,000 MWCO	12	VS2031
50,000 MWCO	48	VS2032
100,000 MWCO	12	VS2041
100,000 MWCO	48	VS2042
300,000 MWCO	12	VS2051
300,000 MWCO	48	VS2052
1,000,000 MWCO	12	VS2061
1,000,000 MWCO	48	VS2062
0.2 µm	12	VS2071
0.2 µm	48	VS2072
Starter pack (2 of each 5 k, 10 k, 30 k, 50 k, 100 k, 0.2 µm)	12	VS20S1

Vivaspin 20 accessories

Air pressure controller (APC)	1	VCA002
Charge valve for pressure head	1	VCA005
Diafiltration cups	12	VSA005
Female connector	1	VCA010
Male connector	1	VCA011
4 mm OD pneumatic tube (3 m)	1	VCA012
Vivaspin 20 pressure head	1	VCA200