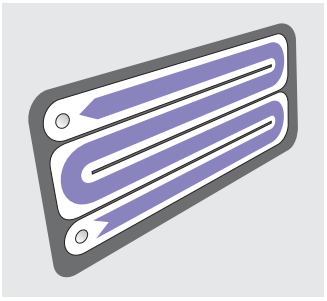
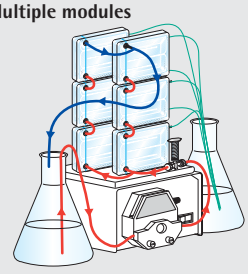
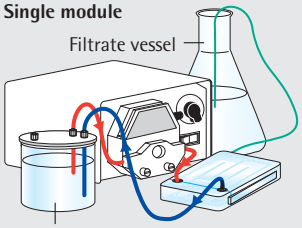
Vivaflow 50



Multiple modules



Single module



100 ml to 5 litres and more
The novel Vivaflow 50 system (patents pending) provides a standard of ease of use, performance, flexibility and economy which is unrivalled by any laboratory or pilot scale filtration system on the market.

Unique features
- Thin channel flip-flow recirculation path provides high cross flow velocities with minimum pump requirements.
- No need for pressure holders.
- Crystal clear for simple control of remaining hold up and membrane status.
- Unique Interlocking modules with series connectors for easy scale up.
- Disposable.

Unique performance
- A single 50 cm² module will typically reduce 500 ml to less than 15 ml in under 50 minutes.
- Less than 10 ml minimum system recirculation for highest concentrations.
- Less than 500 µl non recoverable hold up volume.
- Near total recoveries achievable with a single 10 ml rinse.

Unique "flip-flow" thin channel flow path results in high turbulence and linear velocity for exceptional flux even at high concentrations

Technical specifications Vivaflow 50

Dimensions	Overall L | H | W	107 | 84 | 25 mm
	Channel W | H	15 mm | 0.3 mm
	Active membrane area	50 cm²
	Hold up volume (module)	1.5 ml
	Minimum recirculation volume	< 10 ml
	Non recoverable hold-up	< 0.5 ml
Operating conditions	Pump flow	200-400 ml/min
	Maximum pressure	3 bar (45 psi)
	Maximum temperature	60˚C
Materials of construction	Main housing	Polycarbonate
	Flow channel	TPX (PMP)
	Membrane support	TPX (PMP)
	Seals and O rings	Silicone
	Pressure indicator	Polypropylene, SS spring
	Flow restrictor	Polypropylene
	Fittings	Nylon
	Tubing	PVC (medical grade)

Performance characteristics

	Time to concentrate up to 20x [min.] at 3 bar inlet pressure, 20˚C			
	Single device 250 ml start volume	**Three devices 1 L start volume**	**Solute recovery % Direct**	**10 ml rinse**
BSA 1.0 mg/ml (66,000 MW)				
5,000 MWCO PES	34	49	96 %	> 99 %
10,000 MWCO PES	22	32	94 %	> 99 %
10,000 MWCO RC	38	55	96 %	> 99 %
30,000 MWCO PES	22	32	92 %	99 %
50,000 MWCO PES	20	29	92 %	98 %
γ Globulins 1.0 mg/ml (160,000 MW)				
100,000 MWCO PES	43	62	92 %	98 %
100,000 MWCO RC	40	58	92 %	98 %
Yeast 1.0 mg/ml (S.Cerevisiae)				
0.2 µm PES	33	47	92 %	98 %

Ordering information

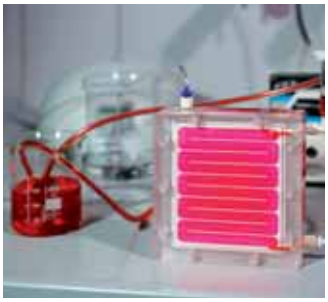
Vivaflow 50 modules include filtrate tube, size 16 peristaltic tubing, flow restrictor and fittings	Pack size	Prod. no.
3,000 MWCO PES	2	VF05P9
5,000 MWCO PES	2	VF05P1
10,000 MWCO PES	2	VF05P0
30,000 MWCO PES	2	VF05P2
50,000 MWCO PES	2	VF05P3
100,000 MWCO PES	2	VF05P4
0.2 µm PES	2	VF05P7
10,000 MWCO RC	2	VF05C0
100,000 MWCO RC	2	VF05C4

Vivaflow 50 complete system comprises:		
Pump (240 V), Easy load pump head (size 16), tubing, 500 ml sample | diafiltration reservoir, module stand, pressure indicator, T connectors, series interconnectors	1	VFS502
Pump (115 V), Easy load pump head (size 16), tubing, 500 ml sample | diafiltration reservoir, module stand, pressure indicator, T connectors, series interconnectors	1	VFS504

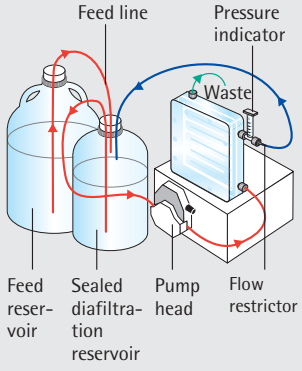
Vivaflow 50 PVC tubing and fittings	
Size 16 PVC pump tubing (3 metres, 3.2 × 1.6 mm)	VFA004
Flow restrictor set (2 × 0.4, 0.6, 0.8 mm)	VFA009
T connectors for running 2 stacks (2 pieces)	VFA030
Series interconnectors (6 pieces)	VFA031
Female luer fittings (10 pieces)	VFA032
VF50 tubing Kit (2 × 1 m size 16 PVC tubing with inlet fittings, 2 × 50 cm size 16 PVC tubing with 0.6 mm flow restrictors, 1 × series interconnector)	VFA034
Flow restrictor 0.6 mm (6 pieces)	VFA035

VivaFlow 50 accessories	
Masterflex economy drive variable speed peristaltic pump (240V)	VFP001
Masterflex economy drive variable speed peristaltic pump (115V)	VFP002
500 ml sample and | or diafiltration reservoir	VFA006
Masterflex easy load pump head – size 16	VFA012
Vivaflow 50 stand	VFA016
Pressure indicator (1-3 bar)	VFA020

Vivaflow 200
New membranes



Vivaflow 200 set-up for diafiltration



0.5 to 5 litres and more
Concentrate 250 ml to under 20 ml in just a few minutes or concentrate one litre 50 times in less than 30 minutes. Alternatively, use two Vivaflow 200's in parallel and concentrate 5 litres in under 75 minutes.

Near total sample recoveries can be expected with most solutions.

The economical standard package comes complete with tubing, pressure indicator, flow restrictor and high pressure pump tubing. All you need is a peristaltic pump capable of handling 6.4 mm OD (size 16) tubing. Should your pump head require larger tubing, link your own peristaltic tube up to the standard product, using the interconnector provided.

Two modules in parallel will concentrate 5 litres in under 75 minutes

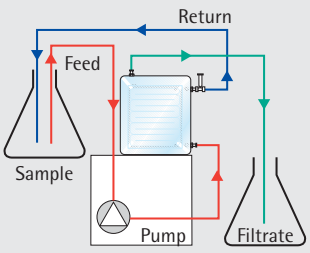
Technical specifications Vivaflow 200

Dimensions	Overall L | H | W	126 | 138 | 38 mm
	Channel W | H	10 mm | 0.4 mm
	Active membrane area	200 cm^2
	Hold up volume (module)	5.3 ml
	Min. recirculation volume	< 20 ml
	Non recoverable hold-up	< 2 ml
Materials of construction	Main housing	Acrylic
	Flow channel	Acrylic
	Membrane support	Polypropylene
	Seals and O rings	Silicone
	Pressure indicator	Polypropylene, SS spring
	Flow restrictor	Polypropylene
	Fittings	Nylon
	Tubing	PVC (medical grade)
Operating conditions	Pump flow	200-400 ml/min
	Maximum pressure	4 bar (60 psi)
	Maximum temperature	60˚C

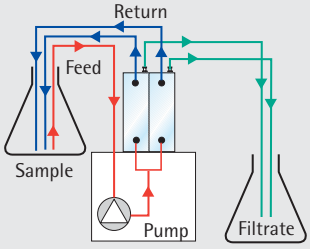
Performance characteristics

	Time to concentrate up to 20x [min.] at 3 bar inlet pressure, 20˚C			
	1 litre start volume	**Average flux ml/min**	**Recovery % direct**	**25 ml rinse**
BSA 1.0 mg/ml (66,000 MW)				
5,000 MWCO PES	29	33	98 %	> 99 %
5,000 MWCO Hydrosart	70	14	98 %	> 99 %
10,000 MWCO PES	23	41	96 %	> 99 %
10,000 MWCO RC	42	23	97 %	> 99 %
10,000 MWCO Hydrosart	35	27	98 %	> 99 %
30,000 MWCO PES	25	38	96 %	99 %
30,000 MWCO Hydrosart	20	48	96 %	> 99 %
50,000 MWCO PES	22	43	96 %	98 %
γ Globulins 1.0 mg/ml (average 160,000 MW)				
100,000 MWCO PES	54	18	96 %	99 %
100,000 MWCO RC	45	21	96 %	99 %
Yeast 1.0 mg/ml (S. Cerevisiae)				
0.2 µm PES	11	86	92 %	98 %
Dilute solute concentration, start volume 1 litre at 3 bar, 10,000 MWCO PES				
BSA 0.001 mg/ml	18	52	90 %	98 %
BSA 0.01 mg/ml	20	47	92 %	98 %
BSA 0.1 mg/ml	21	45	94 %	99 %
Start volume 5 litres (two VF200 in parallel at 3 bar) 10,000 MWCO PES				
BSA 1.0 mg/ml (66,000 MW)	67	70	97 %	> 99 %

Operation – Single Module



Operation – Two Modules



Ordering information

Vivaflow 200 modules include pressure indicator, flow restrictor and size 16 pvc peristaltic tubing and fittings	Pack size	Prod. no.
5,000 MWCO PES	1	VF20P1
10,000 MWCO PES	1	VF20P0
30,000 MWCO PES	1	VF20P2
50,000 MWCO PES	1	VF20P3
100,000 MWCO PES	1	VF20P4
0.2 µm PES	1	VF20P7
10,000 MWCO RC	1	VF20C0
100,000 MWCO RC	1	VF20C4
5,000 MWCO Hydrosart	1	VF20H1
10,000 MWCO Hydrosart	1	VF20H0
30,000 MWCO Hydrosart	1	VF20H2

Vivaflow 200 complete system comprises:

Pump (240 V), Easy load pump head (size 16), tubing, 500 ml sample | diafiltration reservoir	1	VFS202
Pump (115 V), Easy load pump head (size 16), tubing, 500 ml sample | diafiltration reservoir	1	VFS204

Vivaflow 200 accessories

Masterflex economy drive variable speed peristaltic pump (240 V)	VFP001
Masterflex economy drive variable speed peristaltic pump (115 V)	VFP002
500 ml sample and | or diafiltration reservoir	VFA006
Masterflex easy load pump head – size 16	VFA012
Masterflex easy load pump head – size 15	VFA013

Vivaflow 200 tubing and fittings

Size 15 pvc pump tubing and Luer fittings (3 m, 4.8 × 2.6 mm))	VFA003
Size 16 pvc pump tubing and Luer fittings (3 m, 3.2 × 1.6 mm))	VFA004
Y connector (size 15 to 2 × size 16)	VFA005
Flow restrictor set (2 × 0.4, 0.6, 0.8 mm)	VFA009
Female luer fittings size 16 (10 pieces)	VFA032
Flow restrictors 0.6 mm (6 pieces)	VFA035
Female luer fittings size 15 (10 pieces)	VFA036