

Manifold Pump

Parameter	Requirement	Criticality	a	Score	Criticality x Score	b	Score	Criticality x Score	c	Score	Criticality x Score	
Image												
Local Distributor	Available		PT Sartonet Filtrasi Indonesia			PT Elio Karsa Utama			PT. Sentra Sains Indonesia			
Brand	N/A		Sartorius			Merck Millipore			Wiggins			
Type	N/A		Microsart			EZ-Stream Membrane Filtration 3			BioVac330B			
Indent Time	N/A		3-4 months			1-2 months			8-12 weeks			
Price (Before tax, based on Quotation)	N/A		IDR 106.233.750			IDR 137.990.380			IDR 51.711.111			
Parts/component	Consist of 3 branch manifold, autoclavable filter assembly, and oil-free diaphragm vacuum pump Other component required for basic operational for bioburden testing must be included	3	Comply	1	3	Comply	1		Comply	1	3	
Vacuum Pump	Oil free transfer pump, easy to assembly with filtration system (with quick connector). Compatible with liquid sample	3	Comply	1	3	Comply	1	3	Comply	1	3	
Number of manifolds	3, no need to disassembly when autoclave	2	Comply	1	2	Comply	1	2	Comply	1	2	
Manifold capacity	100 ml	2	100 ml	1	2	100 ml	1	2	100 ml	1	2	
Material	Manifold: SS316 (autoclavable) Tubing: silicone (autoclavable) Pump: plastic (easy to clean and sanitize)	3	Comply	1	3	Comply	1	3	Comply	1	3	
Filter venting	Available	2	Available	1	2	Available	1	2	Available	1	2	
Filter compatibility	Compatible with 0,45 µm 47 mm standard filter	2	Comply	1	2	Comply	1	2	Comply	1	2	
Feet	Included, for stable placement	2	Included	1	2	Included	1	2	Included	1	2	
Tubing length	No less than 1 m	1	1 m	1	1	1 m	1	1	2 x 1 m	1	1	
Total Score			17			17			17			
Remark			Harga yang dicantumkan mencakup manifold set, vacuum pump, silicone tubing, dan membrane 0,45 um (47 mm)				Harga yang dicantumkan mencakup manifold set, vacuum pump, silicone tubing, forceps, dan membrane 0,45 um (47 mm)				Harga yang dicantumkan mencakup manifold set, vacuum pump, silicone tubing, dan membrane 0,45 um (47 mm)	
Conclusion:												
Ketiga item di atas memiliki spek yang comparable dan memenuhi kebutuhan, dengan demikian pemilihan dapat didasarkan oleh harga terendah (Wiggins)												

Dibuat oleh,

16/09/2026

Diny Lucyante
Quality Manager

Disetujui oleh,

16/09/2026

Dyah Arum M.
Site Head

Note	Criticality		
	Compliance Score		
	3	2	High
	1	1	Medium
	1	1	Low
	0	0	Meet specification
	0	0	Not meet specification

10. Vortex Mixer

Parameter	Requirement	Criticality	a	Score	Criticality x Score	b	Score	Criticality x Score	c	Score	Criticality x Score
Image											
Local Distributor	Available		PT. ITS Science Indonesia			PT. Sentra Sains Indonesia			PT. Elio Karsa Utama		
Brand	N/A		Heidolph			Wigens			ThermoFisher		
Type	N/A		Reax Top			Vortex3000			ThermoFisher digital vortex mixer		
Indent Time	N/A		+/- 3 months			Ready stock			Ready stock		
Price (Before tax, based on Quotation)	N/A		IDR 7.840.000			IDR 3.264.444			IDR 11.475.000		
Motion	Vibrating	3	Comply	1	3	Comply	0	0	Comply	1	3
Rotation speed range	Min 0-2500 rpm	2	0-2500 rpm	1	2	0-3000 rpm	0	0	0-3000 rpm	1	2
Operating mode	Touch or continuous	3	Comply	1	3	Comply	0	0	Comply	1	3
Container compatibility	Test tube	1	Comply	1	1	Comply	0	0	Comply	1	1
Operational control	Turning knob	2	Turning knob	1	2	Turning knob	0	0	Soft key with display	0	0
Total Score			11			0			9		
Remark			N/A			N/A			Overspek karena tidak diperlukan adanya speed kuantitatif dan display. Speed kuantitatif akan memerlukan maintenance tambahan (kalibrasi dan kualifikasi)		
Conclusion: User merekomendasikan Brand Wiggins karena memenuhi kebutuhan dan memiliki harga yang ekonomis serta ready stock											

Disiapkan oleh
Diny lucyante
Quality Manager

Disetujui oleh
23/05/2024
Dyah Arum M.
Site Head

Note	Criticality	3	High
		2	Medium
		1	Low
	Compliance Score	0	Meet specification
		0	Not meet specification