

Phyco-Flow™

≥600 L serpentine PBR

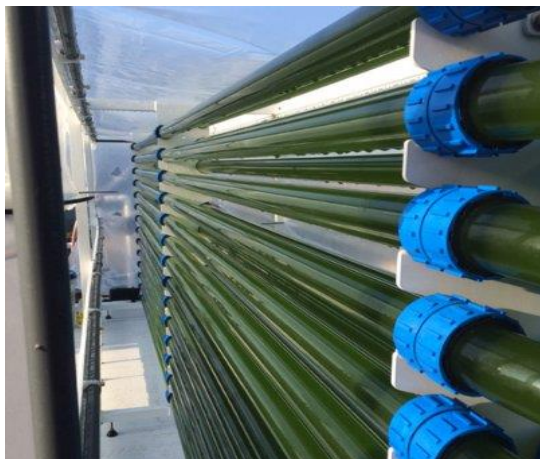


MAKING ALGAE EASY

Varicon
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Phyco-Flow™

The Phyco-Flow™ is an innovative serpentine design that scales easily to meet increased production requirements, whilst dramatically reducing labour and handling problems with a patented self-cleaning mechanism. The tubes are made from Duran™ grade borosilicate, in partnership with Schott Glass and result in a highly productive system with a superior lifespan to many competitors. Complete and integrated process control can be undertaken with an AlgaeConnect control unit.

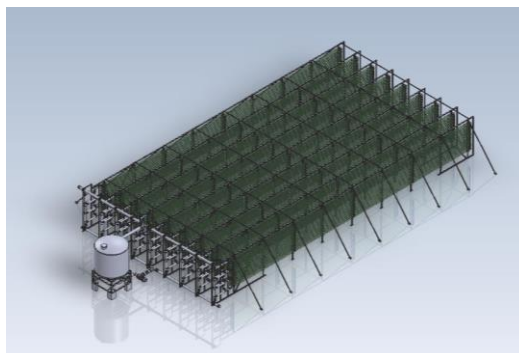


Physical Considerations¹

Volume	≥600	L
Tube no.	28	Per linear metre (14 per side)
Tube ID	61.4	mm
Tube OD	65	mm
Tube length	5.5	m
Tube volume	15.84	L
Height	~2.5	m

Example of Biological Performance²

Organism	<i>Chlorella sorokiniana</i>
Operating density	0.5-2 g L ⁻¹
Productivity	0.25-1 g L ⁻¹ d ⁻¹
Max yield	2-3 g L ⁻¹
dO ₂	≤ 400 %
Other strains tested	yes, ask for details



Engineering Performance³

Liquid velocity	0.1-1	m s ⁻¹ (max)
Reynolds number	≥10	k
Maximum light	2,500	μ E m ⁻² s ⁻¹
Temperature range	10-45	°C
Mass transfer coefficient	~0.005	s ⁻¹

¹Standard dimensions for the Phyco-Flow™ system. ²Based on third party experimentation, ask for specific operating conditions. ³Based on in-house measurement and calculation.

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