

ATAC SAF

Specifications



The ATAC range of SAF units are scalable, modular, aerobic biological treatment systems that are available for capital purchase or hire.

The standard ATAC SAF units range from ATS8 to ATS55; however, bespoke SAFs can be designed and manufactured depending on specific requirements. SAFs can provide treatment for a range of populations and loadings. These units can be installed above or below ground, providing flexibility in their configuration to suit site requirements. ATAC SAF units utilise a series of individual cells through which the wastewater flows to maximise retention time. Each cell contains rigid block media with a high specific surface area, promoting the growth of biomass. Fine bubble diffusers provide even air distribution and maximum oxygen transfer efficiency to each cell. This process allows the SAF to effectively remove contaminants from the wastewater, producing clean effluent.

The operational processes of our SAF units are designed for robustness, reliability, and minimal operator involvement. The wastewater enters the first cell of the SAF unit and flows through the biomass media. The biomass feeds on the organic matter present in the wastewater, reducing the levels of BOD (Biochemical Oxygen Demand) and other contaminants. The clean effluent then exits at the surface of the final cell. SAF units are equipped with manual air control valves under the access hatches, allowing for easy operation and accurate process trimming to optimise performance.

The SAF units can provide secondary biological treatment after settlement to a 30/20/5 consent (Suspended Solids/BOD/NH₃) or better. However, they can also be used for stand-alone tertiary nitrification to produce very low levels of ammonia in the effluent.

SAF Specifications



Tank Material	304 Stainless Steel
Tank Construction	Fully Welded Construction – tank designed to be structurally capable of being fully self supporting above ground with any combination of the 4 treatment cells being full/empty.
Tank Colour	Self Colour or Painted (Standard Colour = 12-B-29)
Walkway – Cantilevered (Optional Extra)	Galvanised Mild Steel cantilevered walkway, complete with access stairs and mesh infill panels
Aeration Control	Each Cell has an air control diaphragm valve located on top of the unit adjacent to corresponding access hatch (valve is located inside access hatch to prevent tampering) – allowing operators to adjust and view aeration at the same time, ensuring even air distribution to each cell
Control Cabinet	Client Specified
Control Cabinet Colour	Client Specified
Control Panel (Optional)	To be determined by client specification
SAF Blower	Depends on site requirements

	ATS8A	ATS11A	ATS18A	ATS24A	ATS32A	ATS33A	ATS44A	ATS55A
Cell Width	1.8 m	2.1 m	2.1 m	1.8 m	1.8 m	2.1 m	2.1 m	2.1 m
Cell Depth	1.8 m	2.1 m	2.1 m	1.8 m	1.8 m	2.1 m	2.1 m	2.1 m
Media Height	2.55 m	2.55 m	2.1 m	2.55 m	2.55 m	2.55 m	2.55 m	2.55 m
Cell Qty	1	1	2	3	4	3	4	5
Total Media Vol	8.03 m ³	11.01 m ³	18.14 m ³	24.09 m ³	32.13 m ³	33.05 m ³	44.06 m ³	55.08 m ³
Unit Weight Dry			3 500 kg	4 600 kg	5 600 kg	6 000 kg	7 400 kg	9 100 kg
Unit Weight Operational			27 100 kg	34 900 kg	46 400 kg	46 400 kg	57 900 kg	77 900 kg
Flange Size								
Inlet	6"	6"	6"	6"	6"	6"	6"	6"
Outlet	6"	6"	6"	6"	6"	6"	8"	8"
Air	3"	3"	3"	3"	3"	3"	3"	3"
De-Sludge	3"	3"	3"	3"	3"	3"	3"	3"
Saff Length				5.412 m	7.215 m	6.312 m	8.415 m	10.518 m
Dead Load N			50 788 N	67 689 N	82 404 N	88 290 N	108 891 N	133 907 N
Live Load N			311 872 N	401 279 N	540 335 N	535 038 N	668 797 N	911 153 N
Inlet I.L			2.922 m	3.372 m	3.372 m	3.372 m	3.372 m	3.372 m
Outlet I.L			2.797 m	3.247 m	3.252 m	3.247 m	3.252 m	3.252 m

Other sizes can be built on request.

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