

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 ATS24, ATS32, ATS44, 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/ NH_3) or better. However, they can also be used for stand-alone tertiary nitrification to produce very low levels of ammonia in the effluent.

ATS44A SAF Unit



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)
Tank Connections	INLET – 1 No. 6" Stainless Steel Flange, drilled to BS4504 PN16
	OUTLET – 1 No. 8" Stainless Steel Flange, Drilled to BS4504 PN16
	DRAIN – 4 No. 3" Stainless Steel Flange, Drilled to BS4504 PN16
	AIR INLET – 1 No. 3" Stainless Steel Flange, Drilled to BS4504 PN16
Walkway – Cantilevered (Optional Extra)	Galvanised Mild Steel cantilevered walkway, complete with access stairs and mesh infill panels
Tank Layout	4 cells arranged in series
Effluent Flow	Flow is from base of cell diagonally across to top of cell before entering the next cell.
Aeration Diffuser Manifold	4 No. removable Stainless Steel manifolds, each consisting of 19 diffusers
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
SAF Working volume of tank at TWL (m³)	55.1m³ total working volume
DRY Weight	7,400 kg
OPERATIONAL Weight	62,400 kg
Height	3.6m (Inlet Invert @ 3.25m)
Free Board	297mm
Length	8.4m (not including pipework brackets)
Width	2.1m (Internal); 2.106m (External)
Media Volume	44m³
Media Type	Diagonal Structure
	150m²/m³ Specific Surface Area or 240 m²/m³ Specific Surface Area
Control Cabinet	Client Specified
Control Cabinet Colour	Client Specified
Control Panel* (*Optional Extra)	To be determined by client specification
SAF Blower	Depends on site requirements

