Platypus Dissolved Air Flotation (DAF) Test Accessories

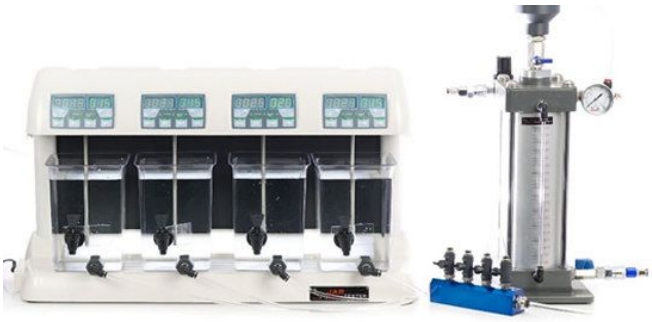
Dissolved air flotation (DAF) is an alternative water clarification process using micro air bubbles to attach and float flocculated particles and suspended matter, including slow settling colloids, algae, hydroxides, finely divided particulate matter and hydrocarbons to a basin's water surface.

DAF is particularly effective for low turbidity, highly coloured algae infested waters that form light flocs which are difficult to settle.

Floated matter, referred to as "float", then is accessible for ultimate removal as a high solids concentration sludge.

DAF is achieved by dissolving air within an air "Saturator" under pressure (400–800 kPa), then reducing the air saturated solution's pressure to near atmospheric levels - releasing air from the solution at the lower reaches of (typically) a flotation tank or basin.

Released air as micro-bubbles adhere to suspended matter causing it to float to the water's surface.



2L capacity DAF Saturator, distribution Manifold, 4 x 2L DAF Jars and hoseware
Assembly Part No. 4GSAT

Advantages with DAF:

- an appropriate alternative clarification process for removing difficult to settle light particles including algae, colloids and finely divided particulates
- colder water applications assist the flotation process
- less coagulant dosage and shorter flocculation times are required relative to sedimentation processes
- the DAF process operates at higher clarifier surface loadings than simple or solids contact mode sedimentation processes
- a robust process relatively tolerant of variable raw water and chemical pre-treatment conditions

Platypus DAF Test Accessories provide pilot-scale hardware to assess and identify best practice DAF treatment: - facilitates:

- evaluation of DAF process suitability and appropriate design parameters for new plant
- optimization of operational DAF plant subnatant quality outcomes
- conjunctive compatibility with Platypus and other make Jar Testers (dimensions permitting)
- a means to assess 'float' cohesion and stability
- a means to assess best saturated water 'recycle' rates
- a means to assess best Saturator operating pressures
- a tool for plant operation, cost management and QA procedures
- capacity sufficient for four concurrent flotation jar tests

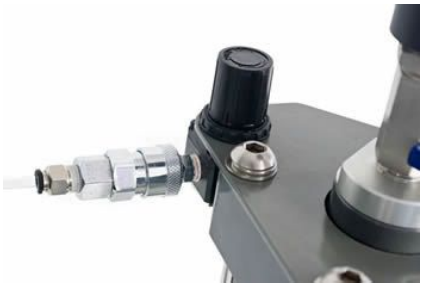
Note: a separate Jar Tester is necessary to assess precursory chemical and physical treatment immediately prior to flotation testing

Platypus DAF Jar Tester Accessories package:

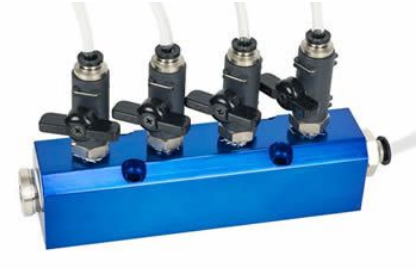
1 x 2L Saturator with level sight tube, air pressure regulator and gauge, fill facilities, air diffuser and static air bleed facility
4 x 2L Jar DAF assemblies including dispersers
1 x 4 port distribution manifold tubing with quick disconnect (air in/Saturator out) and push-in fittings

Platypus 4G Jar Tester product 4GJT depicted is additional to product bundle 4GSAT

2L DAF Jar contents under flotation with an axial flow propeller type paddle in place



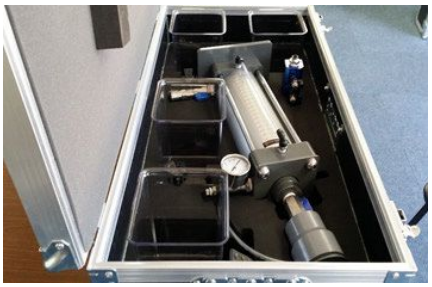
2L Saturator air pressure regulator with quick connect airline inlet fitting



4 port "recycle" air saturated water distribution manifold with quarter turn station isolators

Platypus 2L square DAF Jar with disperser and subnatant sample tap

Werther Panther Air Compressor
Compact/portable size
Whisper quiet operation
Panther P30PC sealed unit Air Compressor
Part No. 4GCOMP



Platypus DAF Test Accessories Carry Case
Internal foam cradle protection
Internally recessed retractable handle
Twin core fluted PP walls
Heavy duty wheels
Part No. 4GSATCC

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