

PURAC DISSOLVED AIR FLOTATION



Superior separation of suspended solid

Developed and refined since 1950s, the Purac Dissolved Air Flotation technique is an effective and rapid method for separation of particles from water and wastewater.

- Guaranteed performance
- Low investment
- Compact design

PURAC DAF CLASSIC

Dissolved Air Flotation (DAF)

Water flowing into the DAF tank is injected with a high-pressure air/water solution, derived from recycling some 10% of the plant flow through an air/water saturation system. Regulation of pressure release valves causes the pressure of the recycled water to suddenly drop. This pressure change creates micro-bubbles that attach to the flocculated material and rapidly carry it to the surface, forming a stable floating sludge.

Sludge Removal

Surface sludge is removed by a chain-driven flight scraper into a trough from where it is transported to storage.



Chain-driven flight scraper for surface sludge removal.

Applications

Purac DAF Classic system is a widely used particle separation solution in waterworks, industrial and municipal wastewater treatment, for sludge thickening, as well as for treatment of industrial effluents in the food, pulp, and paper industries.

Effective

Removal of suspended solids is excellent, typically >95%.

Compact

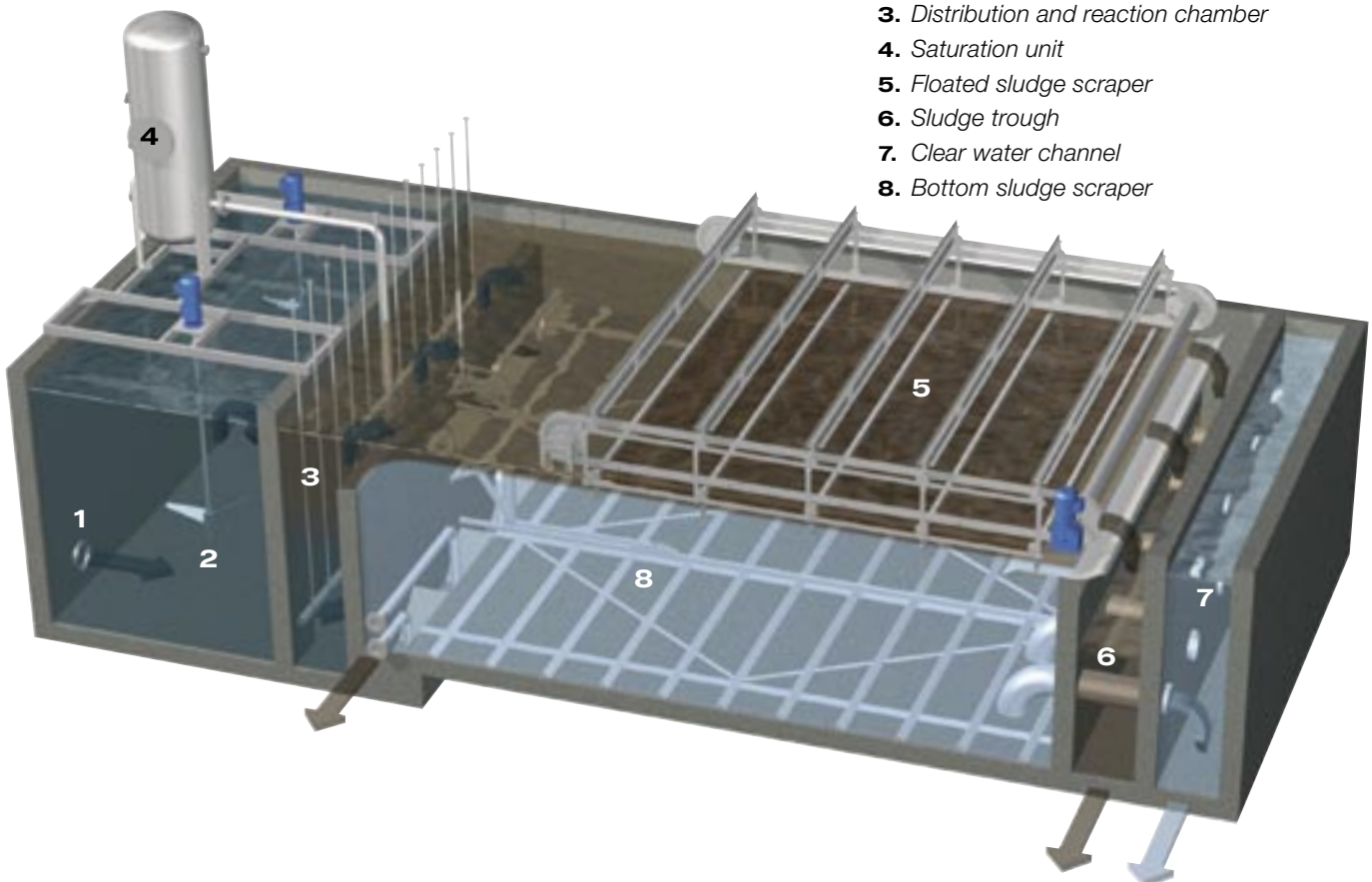
A hydraulic load of up to 15 m/h can be processed in environments with space limitations.

Robust

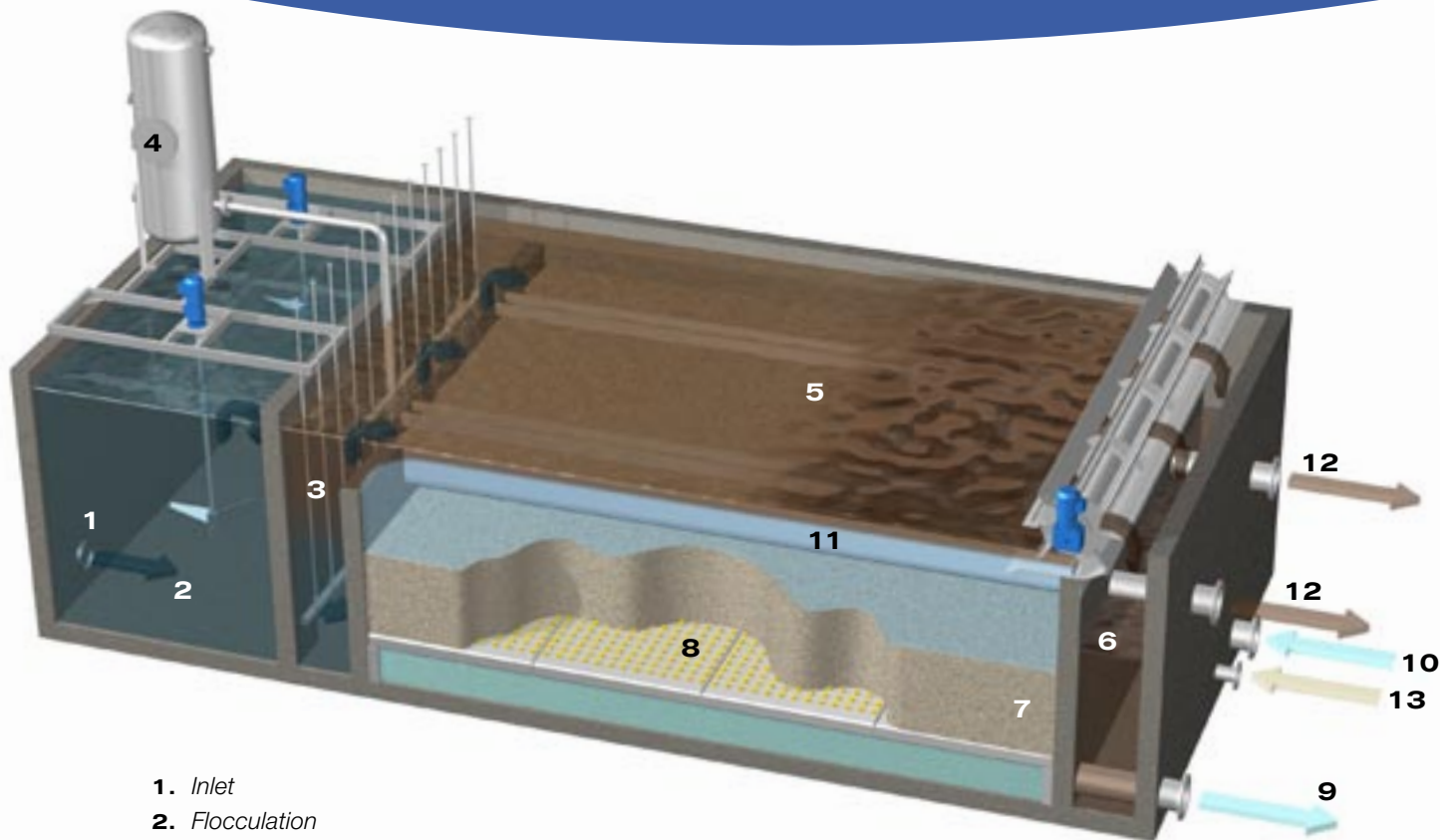
Wide variations in flow and solid loadings can be easily handled.

Low Sludge Volume

The floating sludge has a high dry solids content (3-6%). There is no need for further sludge thickening.



PURAC FLOFILTER



1. Inlet
2. Flocculation
3. Distribution and reaction chamber
4. Saturation unit
5. Floated sludge scraper
6. Sludge trough
7. Filter media
8. Filter bottom with nozzles
9. Clear water outlet
10. Backwash water inlet
11. Dirty backwash water channel
12. Dirty backwash water outlet
13. Backwash air inlet

Purac Flofilter™

Combined flotation and filtration

After flocculation/DAF, the water gravitates through the filter bed, which removes the remaining contaminants to the required level. The Purac Flofilter is an established, well-proven technique for treatment of surface waters, operating as a constant level filter with an outlet-modulating valve during this phase.

Flofilter is a compact and efficient plant as it combines flotation and filtration in one treatment basin. In addition to this two-stage processing, Flofilter offers other major advantages: rapid start-up, shut down and response; low volume output of sludge; excellent algae removal; and low backwash consumption (2–3%) of feed flow rate based on one wash per day.

Filter backwashing can be initiated by a timer or loss of head. Conventional air scour water wash techniques are employed for filter washing.



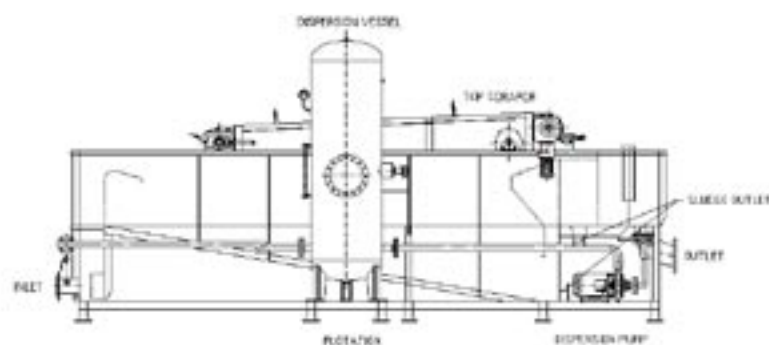
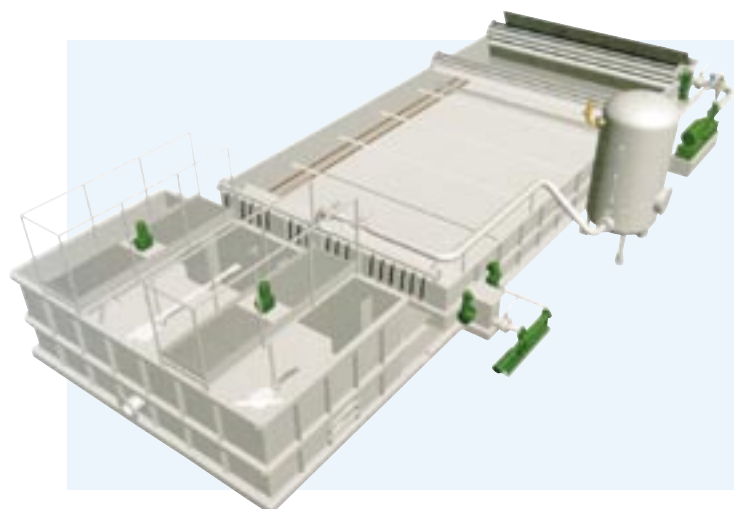
Flofilters under backwash and in operation.

FLOOTEK DAF UNITS

Standard units, capacities in m³/h

Model	Size	Capacity
SFC	2	6-14
SFC	3	9-21
SFC	4,5	14-32
SFC	6,5	20-46
SFC	9	27-63
SFC	12	36-84
SFC	16	48-112
SFB	20	60-140
SFB	25	75-175
SFB	30	90-210
SFB	35	105-245
SFB	40	120-280
SFB	45	135-315
SFB	50	150-350
SFB	55	165-385
SFB	60	180-420
SFB	65	195-455
SFB	70	210-490
SFB	75	225-525
SFB	80	240-560
SFBD	90	270-630
SFBD	100	300-700
SFBD	110	330-770
SFBD	120	360-840
SFBD	130	390-910
SFBD	140	420-980
SFBD	150	450-1050
SFBD	160	480-1120

Under the brand Flootek, Purac undertakes delivery of ready-made skid mounted DAF units of stainless/acid-proof steel that are prepared for swift and simple plug-in installation. The units are widely used for wastewater treatment, mainly within the food industry, oil refineries, pulp and paper mills, and metal finishing.



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Please contact us for more information about the Purac proven process and improved leading edge technologies.

Purac is a part of Läckebý Water Group, an independent, privately-owned Swedish Group, which offers contracting, products, and servicing for water treatment and biogas production. We are established on three continents and have to date completed contracts in 67 countries worldwide. With sales of around USD 70 million, Läckebý Water Group is a leading company in its field.

