

DAF-FPAC

The flagship high-load water treatment equipment thanks to its powerful air flotation system.

DESCRIPTION

The FPAC flotation equipment is a large surface flotation clarification and cross-flow separation system between sludge and water. The system has been designed to treat wastewater flows with a very high load of suspended solids and other contaminants, which require a large flotation surface to retain the separated sludge (up to 40 kg of dry matter can be treated per m²).

SIGMADAF technology is used to separate oils, fats, suspended solids and flocculated matter, which do not have sufficient flotation capacity or when oil-solids emulsions (with high density) require air flotation to improve the separation process.

The use of microbubble technology (30–50 microns) increases the separation efficiency. The smaller the bubble, the better it can adhere to the particles, enhancing the efficiency of the system.



UNIQUE SYSTEM CHARACTERISTICS

The SIGMADAF FPAC equipment is a high-performance, high-quality system with differentiated features. It includes a single motion separator that rotates against the hydraulic current helping to minimise the distance the floated sludge travels and eliminating solids carry-over in the effluent. This solution creates a sludge with a dry solids content 3 to 4 times higher than a conventional system. The result is a reduction in the need and size of any future treatment, such as dewatering or drying, which consequently reduces operating costs.

Heavy sludge settled at the bottom of the system is retained and partially concentrated by the shaftless conveyor system. This allows the operator to control the concentration of sediments and reduce sediment accumulation. The residual sludge is conveyed to the central discharge point and removed through an automatic pneumatic valve. This discharge cycle has a self-cleaning effect, which allows any particles adhering to the walls of the system to be released and removed with the rest of the waste.

The system is equipped with a saturator-manifold, a recirculation pump and a control panel as standard to regulate the air supply to the aeration module and the sediment discharge valve.

MAIN CHARACTERISTICS

- Treatment of wastewater with a large load of suspended solids and other contaminants.
- Compact system.
- Unique dewatering and sludge removal system, producing large sludge concentrate.
- Efficient laminar flow system.
- Low maintenance and easy to operate.
- Customisable.



TYPE	HYDRAULIC CAPACITY (m ³ /hr)	FLOTATION FREE AREA (m ²)	LENGTH A (mm)	WIDTH B (mm)	HEIGHT C (mm)	SKIMMER - POWER H Kw	RECIRCULATION PUMP I (m ³ /hr)	RECIRCULATION PUMP - POWER I Kw	SCREW - POWER J Kw	EMPTY WEIGHT Kg	FULL WEIGHT Kg
FPAC 03	3	1,2	2300	1625	1400	0,37	0,75	5,5	NA	450	1250
FPAC 05	5	1,5	2300	1900	1400	0,37	1,25	5,5	NA	510	1500
FPAC 10	10	2,4	3150	2000	1500	0,37	2,50	5,5	NA	1200	3200
FPAC 15	15	4,2	4000	2200	1500	0,37	3,75	5,5	NA	1500	4500
FPAC 20	20	6,6	5000	2400	2300	0,37	5,00	7,5	0,37	2100	10100
FPAC 25	25	8,0	5500	2400	2300	0,37	6,25	7,5	0,37	2200	11200
FPAC 30	30	10,0	6500	2400	2300	0,37	7,50	7,5	0,37	2400	13400
FPAC 40	40	11,0	7000	2400	2300	0,55	10,00	7,5	0,37	2500	14500
FPAC 50	50	13,0	8000	2400	2300	0,55	12,50	11,0	0,37	2700	16700
FPAC 60	60	15,0	9000	2400	2300	0,55	15,00	11,0	0,37	2900	18400
FPAC 70	70	17,0	10000	2400	2300	0,55	17,50	11,0	0,37	3400	21500
FPAC 80	80	19,0	11000	2400	2300	0,55	20,00	11,0	0,37	4000	24100
FPAC 90	90	21,0	12000	2400	2300	0,55	22,50	11,0	0,37	4300	26600
FPAC 100	100	24,0	9500	3400	2300	0,55	25,00	15,0	0,37	4600	29300
FPAC 120	120	28,0	11000	3400	2300	0,55	30,00	15,0	0,37	4750	34250
FPAC 140	140	32,5	12500	3400	2300	0,55	35,00	15,0	0,37	5200	39200
FPAC 160	160	36,0	14000	3400	2300	0,55	40,00	15,0	0,37	5600	44250
FPAC 200	200	46,0	17000	3400	2300	0,55	50,00	15,0	0,37	6200	53200

