



A member of the



Group



SUPERFLOT™

DISSOLVED GAS TECHNOLOGIES

SUPERFLOT™ technologies offer efficient removal of solids at every stage of an industrial wastewater treatment facility. As a stand-alone system or as a part of overall wastewater treatment plant, GWE SUPERFLOT™ units are highly effective in the removal of fats, oils, and grease (FOG) from industrial wastewater streams, solids separation and as tertiary effluent treatment.

GLOBAL WATER & ENERGY (GWE), a member of the Global Water Engineering Group of Companies, is a solutions provider to the global marketplace for industrial wastewater treatment, water reuse and green energy production. To that end, GWE offers state-of-the-art technologies to assist industries and private owners in their efforts to grow, while reducing their operational costs.

SOLUTIONS FOR CLEAN WATER & GREEN ENERGY

GLOBAL WATER & ENERGY

SUPERFLOT™ - AIR

DISSOLVED AIR FLOTATION SYSTEM

The SUPERFLOT™ - AIR separates easily floatable contaminants, such as suspended solids, algae, and fats, oils and grease (FOG) from wastewater via the principle of Dissolved Air Flotation (DAF). The impurities are forced to float by a curtain of fine air bubbles that are injected into the unit.

These microbubbles are created by dissolving air under pressure within a clean, recycled stream of SUPERFLOT™ - AIR effluent, and adding it to the bottom of the vessel containing the water or wastewater to be treated. After injection, the pressure reduction within the vessel results in the formation of fine air bubbles, which quickly rise to the water surface, capturing and carrying impurities with them.

GWE's SUPERFLOT™ - AIR can be used for the pretreatment of wastewaters via solids and fats, oils, and grease (FOG) removal, or for biomass separation after an aerobic treatment process.

WHY CHOOSE THE SUPERFLOT™ – AIR?

- It has a smaller footprint in comparison with gravity clarification
- Delivers consistent, reliable operation and superior removal efficiencies
- Can reduce the required process volumes and footprint of aerobic treatment systems
- Highly effective even when filamentous sludge is present
- Sludge disposal costs are reduced due to a higher solids concentration in the separated sludge

FIGURE 1. AN EXAMPLE OF A FLOW SCHEME WITH THE SUPERFLOT™ - AIR

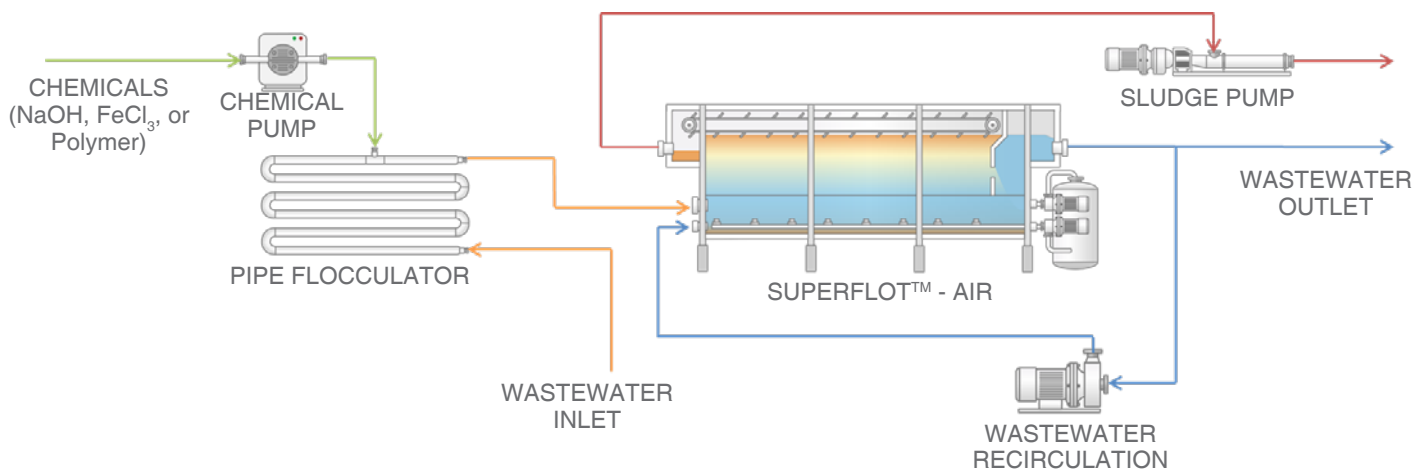


TABLE 1. GWE SUPERFLOT™ MODELS*

FLOTATION AREA		WIDTH (A)		LENGTH (B)		HEIGHT (H)	
m ²	ft ²	mm	ft	mm	ft	mm	ft
1.6	17.2	1,400	4.6	2,900	9.5	1,350	4.4
2.9	31.2	1,900	6.2	3,700	12.1	2,050	6.7
4.7	50.6	1,900	6.2	4,900	16.1	2,050	6.7
7	75.3	2,400	7.9	5,300	17.4	2,220	7.3
11	118.4	2,400	7.9	7,300	24	2,220	7.3
15	161.5	2,400	7.9	9,300	30.5	2,220	7.3
19	204.5	2,400	7.9	11,300	37.1	2,220	7.3
29	312.2	3,400	11.2	11,300	37.1	2,520	8.3
35	376.7	3,400	11.2	13,300	43.6	2,520	8.3
41	441.3	3,400	11.2	15,300	50.2	2,520	8.3
47	505.9	3,400	11.2	17,300	56.8	2,520	8.3
62	667.4	4,400	14.4	17,300	56.8	2,950	9.7

* Complete model type includes the following: 1. Sludge type: P – Primary, S – Secondary, T – Tertiary; 2. Type: D- dissolved air, B – dissolved biogas; 3. Flotation surface - dm²; 4. Saturation type: T – the tank type saturation, P - the pipe type saturation, S – side pump saturation; 5. Solids removal at the bottom: V – Valve, A – Auger; 6. Sludge discharge: C – compartment, S – slide; 7. Plate pack: O – open, Pxx – surface in place of xx.

GLOBAL WATER & ENERGY

SUPERFLOT™ - BIOGAS

DISSOLVED BIOGAS FLOTATION SYSTEM

The GWE SUPERFLOT™ - BIOGAS system is designed for the highly-efficient separation of biomass from the effluent of an anaerobic treatment system. Within the unit, this separation is performed via a Dissolved Biogas Flotation (DBF) process.

As a part of our FLOTAMET™ anaerobic treatment system, the SUPERFLOT™ - BIOGAS achieves outstanding results in many applications where alternative separation technologies are ineffective or expensive to implement and operate. Depending on the inlet wastewater characteristics, and required effluent quality, the SUPERFLOT™ - BIOGAS system may be employed alone or with additional separation equipment, to ensure all goals are met.

The SUPERFLOT™ – BIOGAS can be employed for solids separation at new or existing anaerobic treatment systems to improve their performance

WHY CHOOSE THE SUPERFLOT™ – BIOGAS?

- Can reduce the required process volume and footprint of anaerobic treatment systems
- More efficient and effective than other anaerobic solids separation techniques
- Completely sealed construction - no biogas release to the atmosphere and odor-free operation
- The high solids concentration of the separated sludge reduces disposal costs of any excess anaerobic biomass

FIGURE 2. AN EXAMPLE OF A FLOW SCHEME WITH A SUPERFLOT™ - BIOGAS UNIT AS A PART OF AN ANAEROBIC TREATMENT SYSTEM

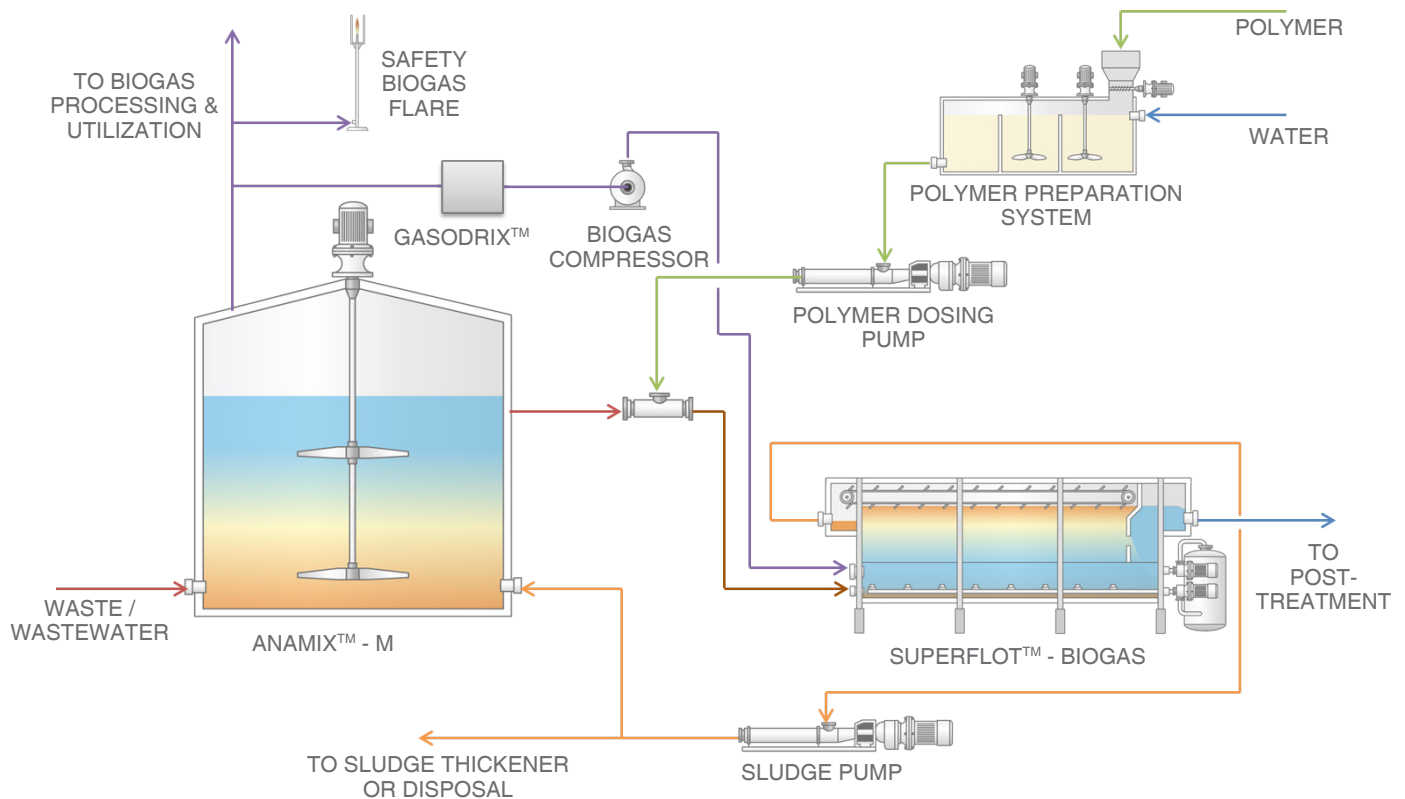


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29	312.2	3,400	11.2	11,300	37.1	2,520	8.3
35	376.7	3,400	11.2	13,300	43.6	2,520	8.3
41	441.3	3,400	11.2	15,300	50.2	2,520	8.3
47	505.9	3,400	11.2	17,300	56.8	2,520	8.3
62	667.4	4,400	14.4	17,300	56.8	2,950	9.7

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