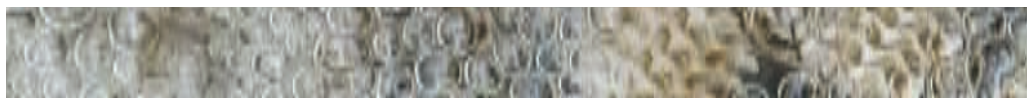




Integrated Wastewater Treatment System for Food & Beverage Applications

Water Technologies

SIEMENS





In a time when resources are stretched, limits are tightening and new ones are being imposed, maintaining compliance has never been tougher. Siemens Water Technologies introduces a pre-engineered AGAR® Moving Bed Bioreactor (MBBR) wastewater treatment system. This pre-engineered system is the latest in fixed film technology where suspended biomass carriers are designed to create a large surface area for biofilm growth. Benefits include an enhanced biological wastewater treatment process without increasing the plant footprint.

These systems are aimed at addressing the needs of manufacturers in the Food and Beverage sector facing the rigorous environmental challenges of today.

This integrated wastewater treatment system offers a robust, well proven technology that will exceed client expectations. The design, manufacture and installation are entirely self-performed, ensuring that our consistent high standards are maintained.

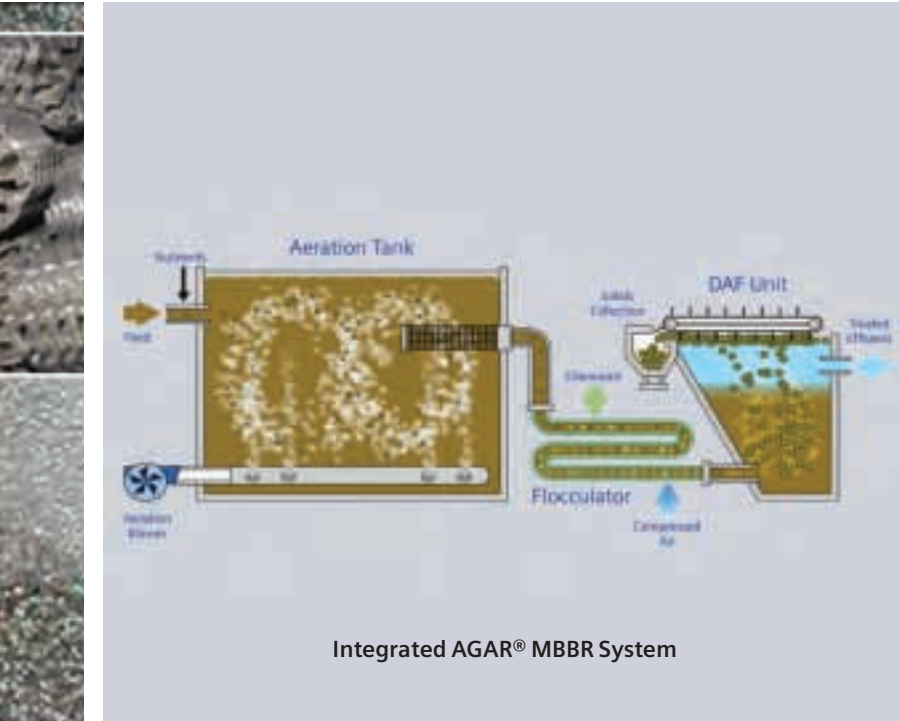
Designed for average daily organic loads ranging from 500 pounds per day up to 20,000 pounds per day, the systems are designed to provide an average of 75% to 85% organic removal - typically suitable for pretreat discharge standards.

To address client's needs for fast track delivery, these pre-engineered systems ensure that installation and site work is kept to a minimum, providing one of the most cost effective treatment systems and approaches available on the market today. This approach enables individual companies to select the pre-engineered plant size that will most closely meet their needs.

Fully automated, the systems require minimum operator attention and can be interfaced with SCADA packages allowing remote monitoring capability.

AGAR® MBBR System Benefits vs. Conventional Systems

- Compact footprint
- Expandable
- Durable non-clogging media
- Stable process
- Lower sludge volume with DAF clarifier
- Lower power consumption
- Ease of operation

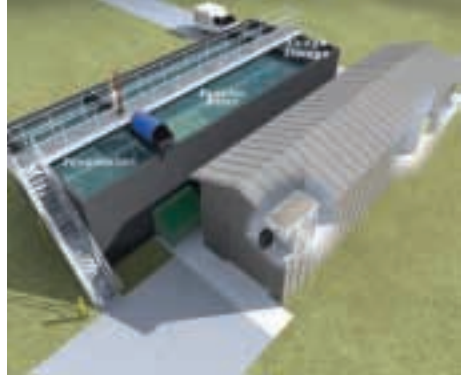


- The AGAR® MBBR Integrated System Includes the following:
- Externally Fed Rotary Drum Screen
 - Integrated tank system including: influent equalization (EQ), MBBR process and aerated sludge holding
 - Chemical Feed Equipment
 - Coarse Bubble Aeration System
 - Aeration Blowers
 - Influent EQ to MBBR transfer pumps
 - DAF to sludge holding transfer pumps
 - MBBR Process Equipment including media and retention screens
 - Dissolved Air Flotation (DAF) Clarifier / Thickener
 - PLC based control panel with motor starters
 - 1 Trip / 3 Days start-up and operator training

Factory preassembled units are available in 4 standard sizes as shown below.

Model No.	Influent BOD	Tank Dimensions	Tank Volume	Blower (HP)
PL-500	500 #/day	10' x 16' x 10' SWD	1,600 ft ³	1 – 20 HP
PL-1000	1,000 #/day	10' x 32' x 10' SWD	3,200 ft ³	1 – 40 HP
PL-1500	1,500 #/day	10' x 48' x 10' SWD	4,800 ft ³	2 – 30 HP
PL-2000	2,000 #/day	10' x 55' x 10' SWD	6,050 ft ³	2 – 40 HP

* Piping and electrical hook-ups are required during on-site installation



Alternatively, field-erected units are available in 4 standard sizes as shown below:

Model No.	Influent BOD	Tank Dimensions	Tank Volume	Blower (HP)
FL-5K	5,000 #/day	27' dia x 22' SWD	11,800 ft ³	2 – 75 HP
FL-10K	10,000 #/day	38' dia x 22' SWD	23,500 ft ³	3 – 100 HP
FL-15K	15,000 #/day	45' dia x 22' SWD	35,000 ft ³	3 – 150 HP
FL-20K	20,000 #/day	53' dia x 22' SWD	47,000 ft ³	4 – 150 HP



AGAR is a trademark of AqWise-Wise Water Treatment Technologies Ltd

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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