

BioCompact® A Series

The affordable small wastewater treatment system



Description

The BioCompact® A units are wastewater treatment systems designed to handle sewage from populations of up to 200 people, depending on the model (models A4- A200). They are scaled-down versions of the activated sludge process used by state-of-the-art large municipal wastewater treatment plants. The BioCompact® A series models are cylindrical tanks designed for in-ground installation. The main body of the tank is below ground, and has a hinged lid with an access manhole (diameter of 1.5 m for all models), at ground level. The installed and levelled unit is supported and surrounded by backfill sand. As an in-ground installation, the BioCompact® A units typically do not require insulation against heat or cold, depending on climate conditions. The wastewater flow is by gravity, but certain topography conditions may require external pumps.

The outside of the BioCompact® A units has a thick bitumen coating that protects against ground water corrosion, and also from any incidental damage from the backfill material during installation. For ease of handling during transport, the bitumen layer is covered with a thin coating of lime chalk, hence the white colour of the outside.

In an extended community, several BioCompact® A units can be strategically placed in order to meet the total wastewater treatment needs of the residents.

The BioCompact® units are simple, relatively maintenance-free and operate under the ControLogic™ system that allows instantaneous, automatic monitoring of the unit's performance. The ControLogic™ electronic monitoring device provides instant access to BioCompact® performance data allowing spot checks of treatment efficiency, pH balance, aeration efficiencies and temperature readings.

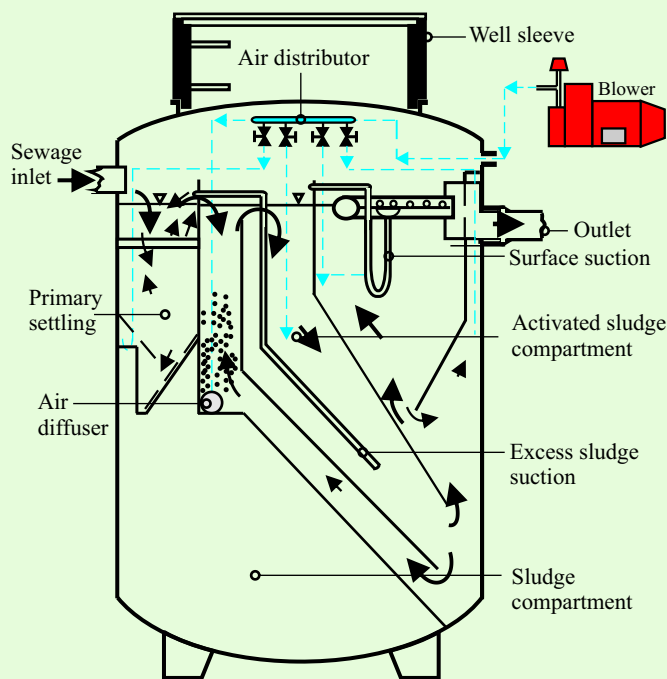
Unique Features

- The ControLogic™ system provides automated monitoring of the operation.
- The aeration requirement is electronically determined, and, power consumption depends on the actual load on the system.
- Durable steel construction.
- Modularity allows growth with the community.
- Low maintenance expenses the blower is the only moving part.
- Superior treatment quality.
- Optional automatic effluent disinfection.

Applications

The BioCompact® A Series is the affordable, small wastewater treatment system of choice for townships, smaller communities, isolated hotels, lakeshore properties and resorts, and new developments. Modular scale-up is immediate, avoiding large, up-front investment for future community growth.

BioCompact® A Series



Ordering Information

B	C	A		<< ORDER NUMBER
		A		A Series
		0	4	4 person capacity
		0	8	8 person capacity
		1	2	12 person capacity
		1	6	16 person capacity
		2	4	24 person capacity
		3	2	32 person capacity
		4	0	40 person capacity
		5	3	53 person capacity
		7	5	75 person capacity
		0	1	100 person capacity
		0	2	200 person capacity
			0	no effluent disinfection
			1	effluent UV disinfection
			2	hypochlorite disinfection
			3	chlorine dioxide disinfection
			0	electronic controls
			1	performance recording
			2	remote monitoring
			3	satellite uplink / downlink

PLEASE NOTE: Small wastewater treatment plants often discharge into natural wetlands, i.e. into an environment that regularly has a much higher bacteria concentration than the treated effluent. In these cases, the "routine disinfection" is often unnecessary expense, and actually harms the natural wetland into which the effluent is discharged.

Dimensions

Type	d (m)	h (m)
A04	1.60	2.05
A08	1.60	3.16
A12	2.00	3.38
A16	2.50	3.04
A24	2.50	3.62
A32	2.50	3.61
A40	2.90	3.96
A53	2.90	4.40
A75	3.20	4.96
A100 I*	2.91	3.96
A100 II*	3.20	4.96
A200 I*	2.91	3.96
A200 II*	3.20	4.96

* Please note that the A100 and the A200 consists of two tanks, shown above as I and II

Performance

The design of the unit is based on the widely accepted strict German environmental standard ATV - A122. The quality of the treated effluent is comparable to other state-of-the-art, municipal wastewater treatment plants, including nitrification and denitrification.

Installation

The unit is placed on a compacted, levelled sand bed at the bottom of the excavated hole. After connecting the BioCompact® to the influent and effluent pipes, and to electrical power, the system is ready for operation.

The aeration blower should be located in very close proximity to the unit, and installed in a small protective box, or an adjacent building. The control box should also be located in a place which is easily accessible, in order to verify on a regular basis that the green light is on, indicating that the system is operating satisfactorily.

Lifetime

The BioCompact® A units are exceptionally well designed, built, and surface-treated, allowing a lifetime expectancy of more than 20 years.

Maintenance

Ordinary maintenance includes a bimonthly check of the concentration of activated sludge, a monthly check for verification of proper operation of sensors and their cleaning. Non-degradable items, such as fibrous materials, plastic, rubber items, etc., sand, and the digested excess sludge accumulate over time and must be removed from time to time. The frequency of discarding this waste depends largely on the influent wastewater quality, and thus on the habits of the population connected to the treatment system.

BioCompact®

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