BioCompact® K250

The affordable small wastewater treatment system

Description

The BioCompact® K250 unit is a wastewater treatment system designed to handle sewage from populations of up to 250 people. The K250 is a scaled-down version of the activated sludge process used by state-of-the-art large municipal wastewater treatment plants. It is an above-ground installation that can be insulated against heat or cold, depending on climate conditions. The wastewater flow is by gravity, but certain topography conditions may require external pumps.

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.

The BioCompact® K wastewater treatment systems have been installed extensively throughout the former East Germany since the early 1990's.

Unique Features

- The ControLogic™ system provides complete, automated monitoring of the operation via the Internet.
- 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 few moving parts that may be subject to failure.
- Superior treatment quality.
- Optional automatic effluent disinfection.

Applications

The BioCompact® K Series is the affordable, small wastewater treatment system of choice for townships, smaller communities, hotel or hospital complexes, prisons outside of urban boundaries, lakeshore properties and resorts, and new developments, and temporary applications, such as military action, or regional emergencies. Modular scale-up is immediate, avoiding large, up-front investment for future community growth.

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.

BioCompact® systems have been in residential and commercial use in Europe since the late 1970's, and many went into the former East Germany to serve as efficient municipal systems after the re-unification of the country.

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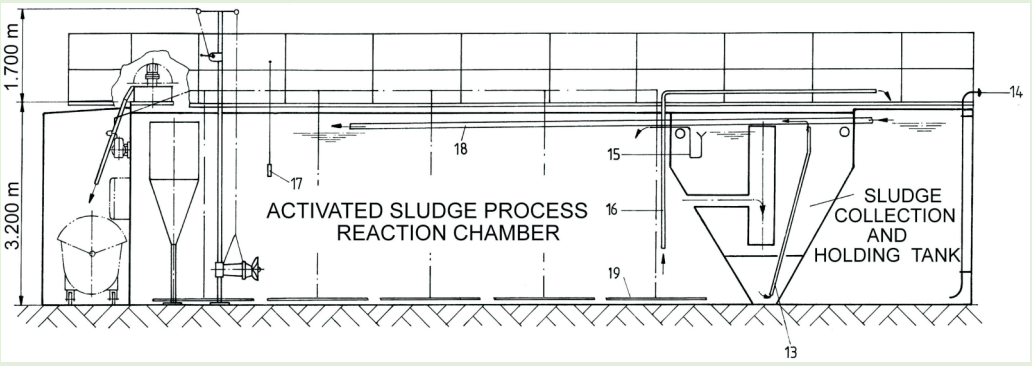
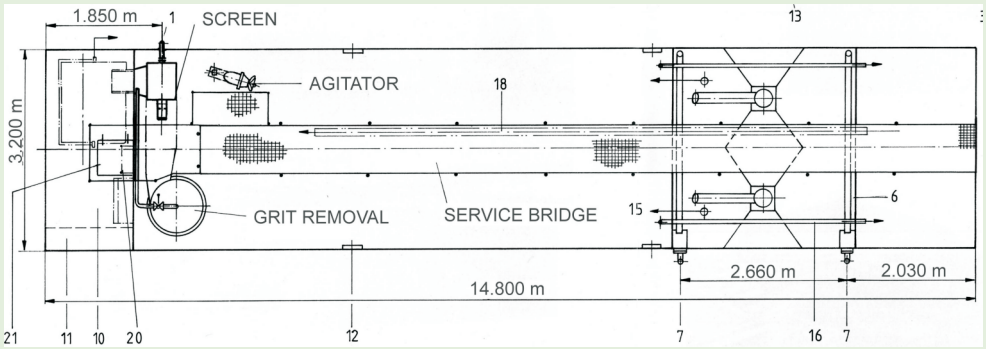
Technical Data





Legend:
1. Sewage inlet
2. Pipe connection
3. Lift station
4. Container for screening
5. Blower
6. Effluent collection pipe
7. Effluent pipe
8. Ball valve
9. Control system
10. Equipment room
11. Shell
12. Lugs
13. Return activated sludge
14. Waste activated sludge
15. Floating sludge skimmer
16. WAS suction line
17. Electrochemical sensor
18. Clarifier overflow pipe
19. Aerator
20. Ladder
21. Manhole
22. Mixer lift

B	C	K	2	5	
		K			
			2	5	
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<< ORDER NUMBER
BioCompact K
250 person capacity
no effluent disinfection
effluent UV disinfection
hypochlorite disinfection
chlorine dioxide disinfection
electronic controls
performance recording
remote monitoring
satellite uplink / downlink

Installation
The unit is placed on a compacted, levelled sand or gravel bed, although a concrete slab is better suited in certain applications. After connecting the BioCompact® to the influent and effluent pipes, and to electrical power, the system is ready for operation.

Lifetime
The BioCompact® K250 is 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. The collected screenings of items, such as fibrous materials, plastic, rubber items, etc., must be removed. Similarly, the collected sand and the digested excess sludge must be removed. 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 Ltd.
976 Elgin Ave.
Winnipeg, MB R3E 1B4
Phone +1 (204) 488-1538 Fax +1 (204) 488-1566
Internet http://www.biocompact.com