

Biokube Mars 3000 factsheet april. 2010 hbl.

Biokube Mars 3000:

Biokube Mars is designed for installation after a standard septic tank. The Mars has an internal pump well and a technical box. The total system, pre settling tank and the Biokube Mars is normally installed in less than one day.

All components are designed, and produced in non corrosive materials.

The system is built up in Poly-ethylene and PVC-pipes. This makes the system corrosion proof and resistant to the harsh physical conditions of sewage.

Functionality.

The waste water gravitates into the pump well in the bottom of the Mars. From the pump well the water is lifted into the first cleaning chamber, by a submerged pump. In 2-4 steps the sewage is treated biologically (fixed film technology) by bacteria living on submerged filter blocks with a very large surface (type Bioblock 100 and 200 m²/m³).

Aeration comes from diffusers placed under the filter blocks. The filter blocks in the cleaning chambers, are separated from the clarification chambers by a wall. The clarification chamber allows for the biological sludge to settle.

The settled sludge from the clarification chambers is returned to the pre settlement tank by 2-4 air lift pumps. The air lift pumps are automatically activated at certain intervals.

Controlbox.

The BioKube Control box is an Elcanic-III automatic micro processor.

Power supply.

The system needs phase standard 220 volt /50 Hz. (110 v/50 Hz). The cable to the system is 5 core standard 2,5 mm². This cable also transfers the alarm signals to the alarm unit placed inside or outside the plant.

2006/42/EC, Machine directive.

2006/95/EC, Low Voltage Directive

2004/108/EC (EMC Directive)

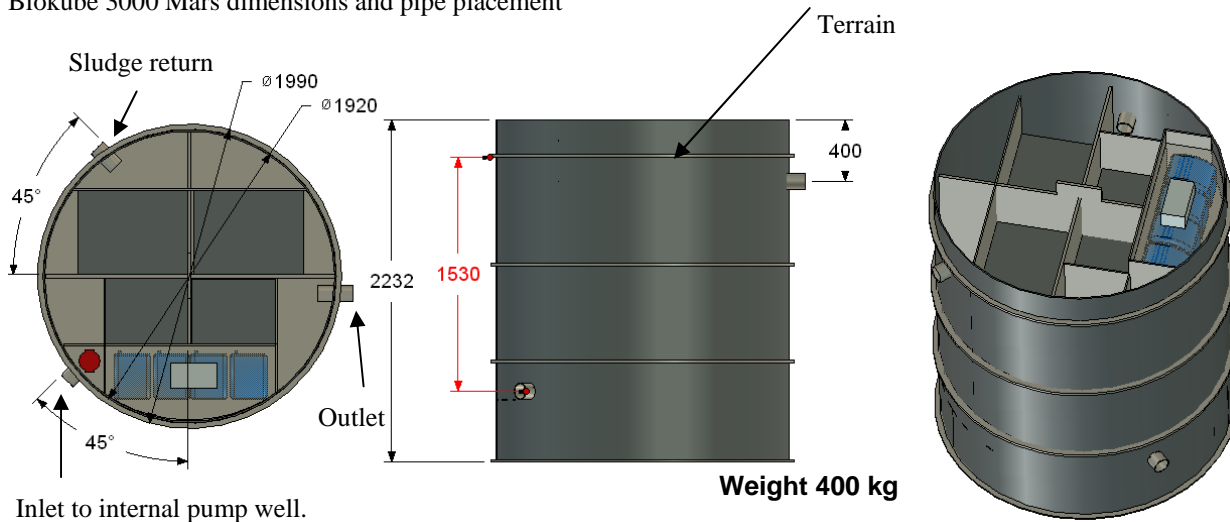
EN 12566 – 3 Small wastewater treatment systems.

EN 292-1, EN 292-2, EN ISO 12100-1 and -2, EN ISO 13849-1,

EN ISO 14121-1:2007, EN 60 204-1, EN 61000-6-4: 2002,

Component	Material.
Tank	Polyethylene UV-stabilized
Cover	Polyethylene UV-stabilized
Pipes	PVC
Diffusores	EPDM and polypropylene.

Biokube 3000 Mars dimensions and pipe placement



The BioKube Mars performance. The capacity is based on household waste water load BODmax: 400 mg/liter.						
Mars model	Water load/day	BOD5	NH4	Power supply	Power consumption	Internal Pump well size,
Mars 3000 - 4K	6000 litre	< 10 mg/litre	< 5 mg/litre	220 volt	5500 kwh/year	1200 litre
Mars 3000 - 3K	4500 litre	< 10 mg/litre	< 5 mg/litre	220 volt	3950 kwh/year	1200 litre
Mars 3000 - 2K	3000 litre	< 10 mg/litre	< 5 mg/litre	220 volt	2700 kwh/year	1200 litre
Mars 3000 - 4K	7500 litre	< 25 mg/litre		220 volt	5500 kwh/year	1200 litre
Mars 3000 - 3K	6000 litre	< 25 mg/litre		220 volt	3950 kwh/year	1200 litre
Mars 3000 - 2K	4500 litre	< 25 mg/litre		220 volt	2700 kwh/year	1200 litre

The BioKube Mars components.								
Mars model	Blower 1	Blower 2	Blower 3	Blower 4	Inlet pump	Magnet valves.	Biokube Control box	Outlet and Sludge return pipe DN.
Mars 3000 4K	Airmac 150	Airmac 150	Airmac 150	Airmac 150	RV 32	SMC/	Elcanic E-III	110 mm
Mars 3000 3K	Airmac 150	Airmac 150	Airmac 150		RV 32	Mivalent		
Mars 3000 2K	Airmac 150	Airmac 150			RV 32			