

# BIOKUBE



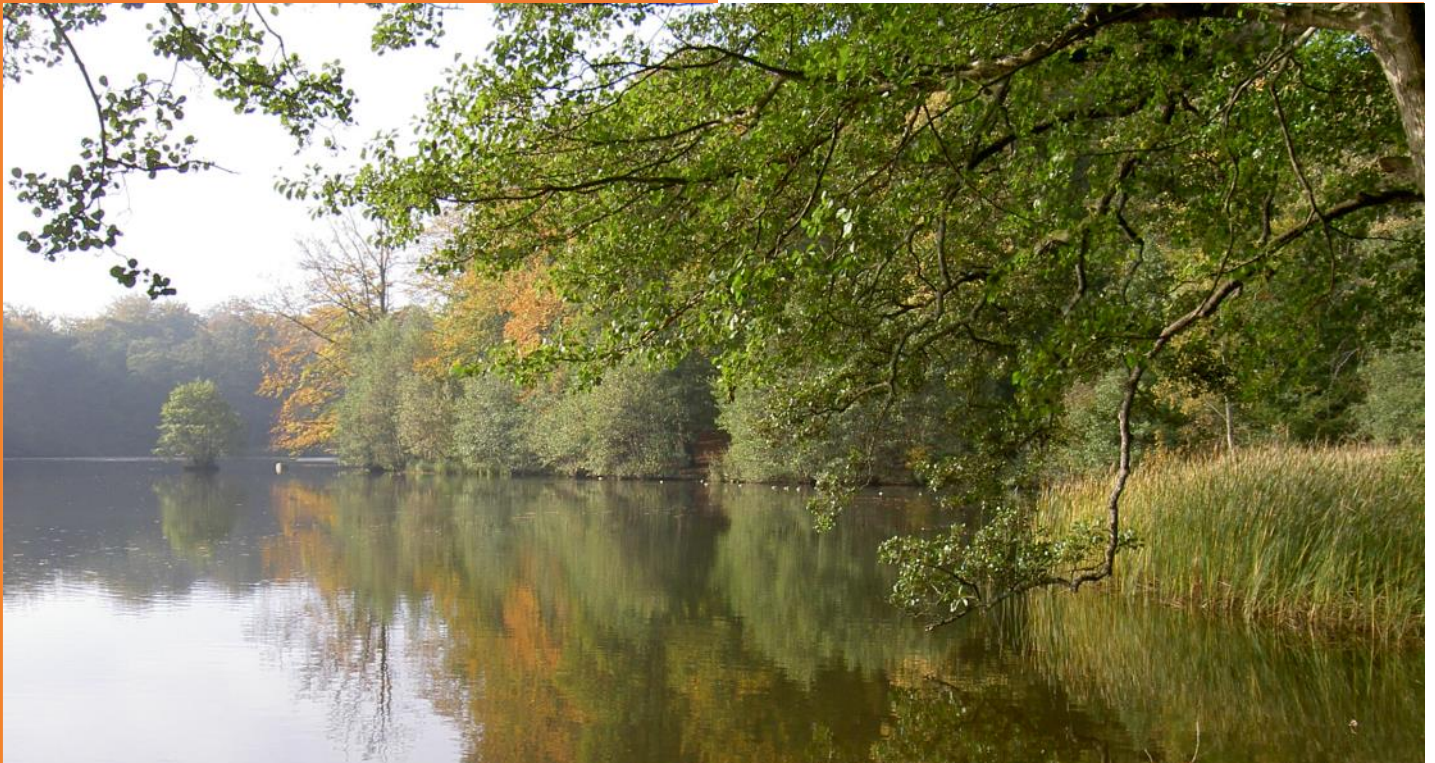
## For Hotels & Resorts

Wastewater Treatment | Reuse of treated wastewater



Patented Danish Technology for Hotels & Resorts  
More than 5000 global references





## *Danish environmental technology on a global scene*



*Erik Schmidt Taarnhøj  
Director of Export & Technology  
BioKube A/S*

BioKube is a Danish company dedicated to provide high quality wastewater treatment solutions meeting the highest and complex requirements demanded by today's international hotel and resort industry.

### **Next generation water treatment**

BioKube is not only offering odorless, low footprint treatment solutions, but is leading the industry to a greener more sustainable tomorrow with a deep focus on re-using treated wastewater. Hence, in BioKube we see treated wastewater as a valuable asset that can add true value to your business.

### **Allows various re-use opportunities**

BioKube's technology can help you optimize your Hotel's operating costs significantly, by facilitating huge saving on your fresh water bill. Treated wastewater can replace the use of freshwater for example: irrigation, toilet flushing and cooling towers...

### **At BioKube we keep our promises**

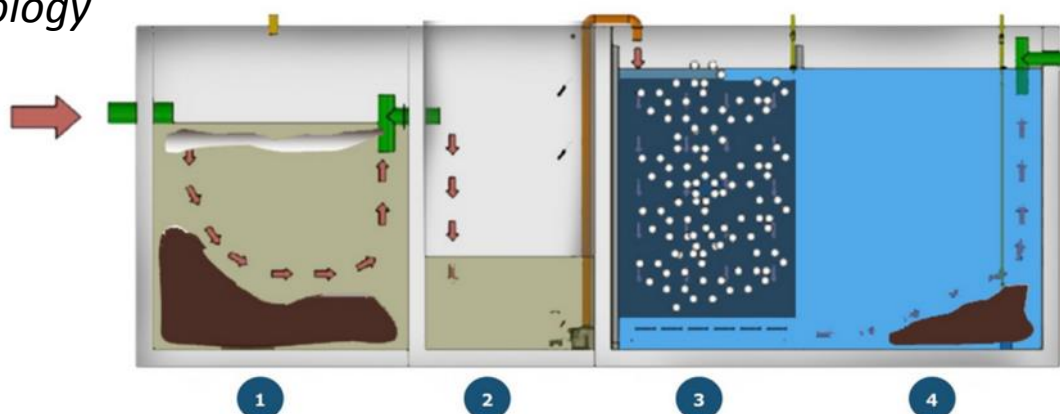
An investment in the right wastewater system is a vital and crucial decision for a hotel. History shows that not only the well being of the hotel's guests, but also the hotel's image and brand can suffer from wrong decisions regarding wastewater treatment. That is why I strongly recommend you to partner with BioKube. We work closely with you not only in the design phase and implantation phase but also in the years after start-up through our well-reputed international O&M support.

### **Meet another BioKube customer**

BioKube's true value proposition is however our long reference list of satisfied customers. I hereby urge you to call BioKube today and arrange a meeting with one of our customers to see an installed BioKube system and talk to the customer. That will speak for itself!



## Technology



#	Name of step	Description of step
1	Septic Tank	The raw wastewater gravitates to the septic tank in which the settlable suspended solids are settled pre-pairing the waste water for further treatment
2	Buffer Tank	The external pump well evens out fluctuating volumes of wastewater from the source ensuring constant batches of wastewater to the treating microorganisms.
3	Biozone	In the biozone microorganisms perform degradation of the organic load in the incoming wastewater to the required levels. The chamber consists of submerged bubble diffuser aerated filters
4	Clarifier	In the clarifier, biosludge – the by-product from the biological treatment process – is settled and recirculated to the (1) septic tank by means of air lift pumps. This ensures less suspended solids in the outlet and continuous bio-sludge removal.

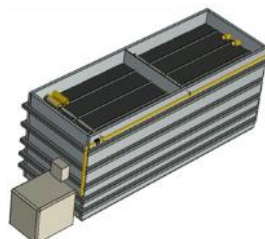
## Products

All BioKube products are based on the same technology and can all be applied for hotels and resorts. The extensive product portfolio will secure an "out-of-sight" experience also at your hotel. Below are shown the three most typical products installed at hotels and resorts.



### Jupiter

Packaged STP designed for garden installations. Minimal visual impact is achieved as the system is installed under ground. The installation can be beautified with grass, flowers or stone fences.



### Jupiter A.G.

Packaged STP designed for "out-of-sight" installations. System is placed above ground in basement, back yard, utility section, storage room, janitor tool room, etc.



### BioReactor

Packaged STP designed for concrete insertion under ground which allows for use of space for parking lot, pavement, outdoor activities, etc.



*Treated wastewater is a valuable asset and can be re-used. BioKube has more than 15 years experience in designing treatment systems for water reuse. BioKube can design systems for the following purposes:*



## 1 **Irrigation**

Irrigation is one of the most typical applications for treated wastewater. Typically, lawns and flower beds are watered with purified wastewater with large cost savings potentials on hotels' freshwater bills.



## 2 **Floor & Car Washing**

Hotels & Resorts have a constant need for water to clean and wash floors as well as outdoor terrasse areas. Furthermore, the task of keeping hotels' car fleet clean requires large amounts of fresh water, which can easily be replaced with treated wastewater.



## 3 **Toilet Flushing**

Redistributing treated wastewater back to the toilets for flushing is an increasingly popular means of cutting costs on hotels' water bills. The treated flushing water is completely safe, clear and odorless.



## 4 **Cooling Towers**

For many hotels - especially in hot climates - cooling towers for airconditioning form a major part of hotels' total water consumption. Reusing treated wastewater for this purpose is therefore an obvious and beneficiary choice. Our biological treatment plant coupled with MMF & BWRO will provide you re-spected savings.





## Reference Case: English Point Marina - Kenya

This Jupiter plant was installed during Construction of the prestigious luxury hotel English Point Marina in Mombassa Kenya: [www.englishpointmarina.com](http://www.englishpointmarina.com). The plant is situated in the basement of the hotel, and was placed prior to construction and finishing of the upper floor levels.

### Treated wastewater reused

The hotel reuses the wastewater for irrigation of the hotels lawn and plant premises and for toilet flushing.

Reference Name	English Point Marina
Product Type	4 x Jupiter 75
Country	Kenya
Application	Luxury Beach Hotel
Client	English Point Marina
Capacity [M <sup>3</sup> /day]	260
Year of Installation	2014



*“Since the treatment plant was installed we have been extremely satisfied not least from the benefits we have by being able to use the treated sewerage water for the flushing of our toilets as well as keeping our compound clean and our flowers and plants green and healthy at all time.”*

*Alnoor Kanji, Director English Point Marina*



MARINA

ENGLISHPOINT

Ref: EP/2015/093

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**TO WHOM IT MAY CONCERN**

We at English Point Marina, Mombasa, Kenya have had a sewerage treatment plant from the Danish company BioKube A/S installed at our premises since December 2014. The treatment plant has been designed to treat 250 m<sup>3</sup> of sewerage water every day.

The space we had available for this treatment plant was very limited so the solution from BioKube was to install the treatment unit in the basement. The installed treatment plant has given no nuisance neither from bad odor nor from noise.

Since the treatment plant was installed we have been extremely satisfied not least from the benefits we have by being able to use the treated sewerage water for the flushing of our toilets as well as keeping our compound clean and our flowers and plants green and healthy at all time.

Yours faithfully,  
**PEARL BEACH HOTELS LTD.**



**ALNOOR KANJI**

P.O.Box 90521, Mombasa, Kenya

T: +254 41 2221992 F: +254 41 2313259

E: [info@englishpointmarina.com](mailto:info@englishpointmarina.com) [www.englishpointmarina.com](http://www.englishpointmarina.com)

MARINA HOTEL APARTMENTS MANAGEMENT SPA GYM RESTAURANT WATERSPORTS



## *Glebozek Vine Resort & Spa - Poland*



Reference Name	Glebozek Vine Resort & Spa
Product Type	Jupiter 75 – 3 chamber system
Country	Poland
Application	Luxury Hotel & Resort
Client	Glebozek Vine Resort & Spa
Capacity [M <sup>3</sup> /day]	100
Year of Installation	2006

## *Krotiri Beach Resort - Greece*



Reference Name	Krotiri Beach Resort
Product Type	2 x Jupiter 75
Country	Greece
Application	Island Hotel
Client	Hotel Krotiri
Capacity [M <sup>3</sup> /day]	80
Year of Installation	2007

## Ramada Resort - Tanzania



Reference Name	Ramada Resort
Product Type	2 x Jupiter 75
Country	Tanzania
Application	Luxury Beach Hotel
Client	Ramada Resort
Capacity [M <sup>3</sup> /day]	100
Year of Installation	2013



Countries with BioKube representation. BioKube has more than 5000 systems installed worldwide in 50 countries. For additional references please see BioKube's international reference list at [www.biokube.com](http://www.biokube.com)

## BIOKUBE

Centervej Syd 5 - DK 4733 - DENMARK  
Tel (+45) 55 98 98 00 - Fax (+45) 99 98 98 00  
[www.BioKube.com](http://www.BioKube.com) - [mail@biokube.dk](mailto:mail@biokube.dk)



### Your local BioKube distributor