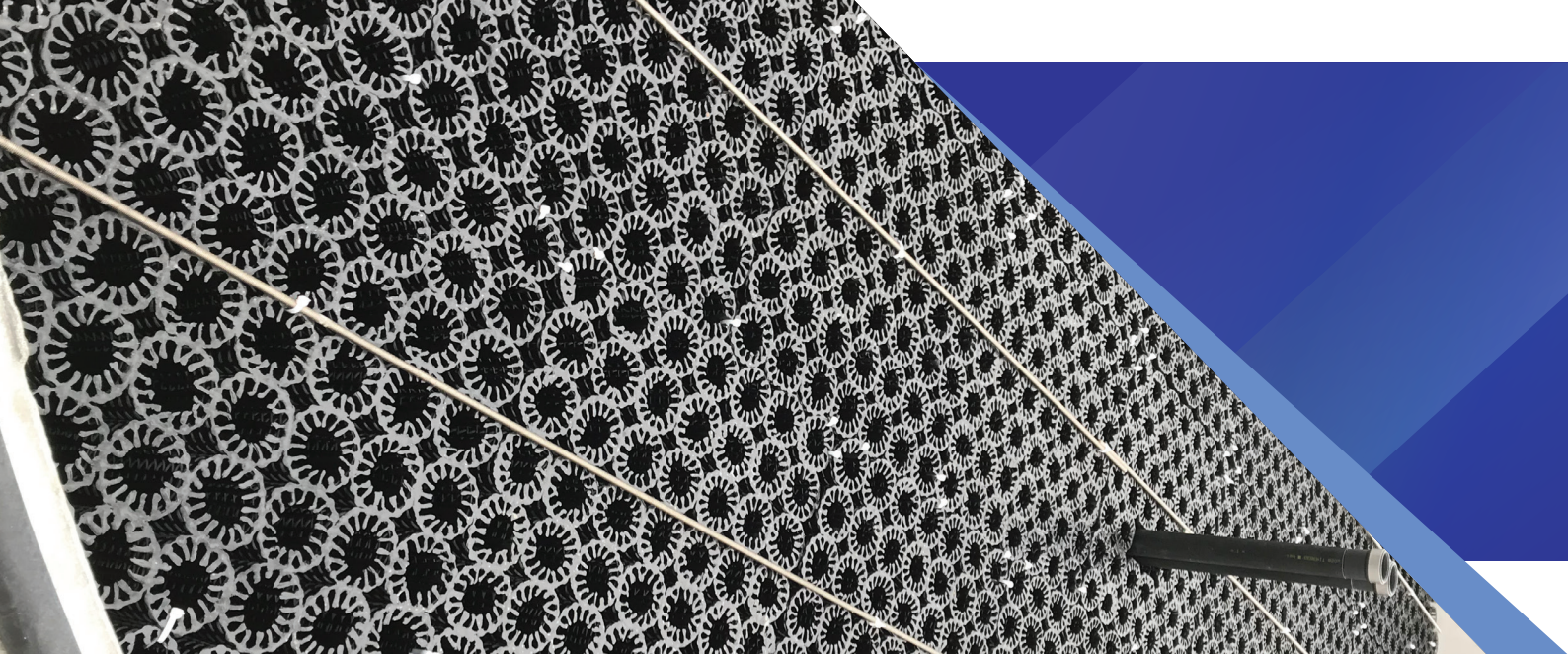


**FBBR**  
Fixed bed  
biological  
reactor



**High-rate biological treatment  
for industrial and municipal  
wastewater**





## FBBR has lower OPEX than other technologies

*Cascaded biological wastewater treatment with fixed bed technology*

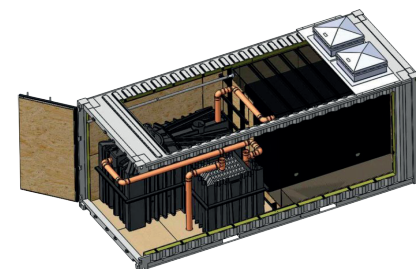
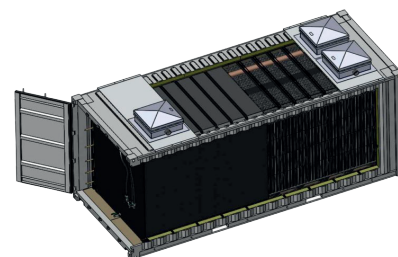
## Flexible solutions for any application

### Industrial Wastewater

FBBR modules can be used as a standalone treatment step for industrial wastewater. This is due to the high-rate biological treatment capacity and the ability to handle high pollution loads. FBBR can also be used in conjunction with other treatment steps including dissolved air flotation.

### Municipal Wastewater

FBBR is a highly efficient process step for cleaning municipal wastewater from housing, hotels, tourist developments etc. Automatic operation combined with low OPEX makes it a cost-effective solution. Different configurations mean that any effluent standard can be achieved.



**1** **Containerised**  
*Plug and play solutions in containerised modules for above ground installation.*

**2** **In plastic tanks**  
*Modules in plastic tanks for above or below ground installation.*

**3** **In concrete tanks**  
*FBBR in concrete tanks or equipment kits for installation in site-built tanks.*

## Advantages

### Low Cost



*Lower OPEX compared to other biological processes*

### Modular

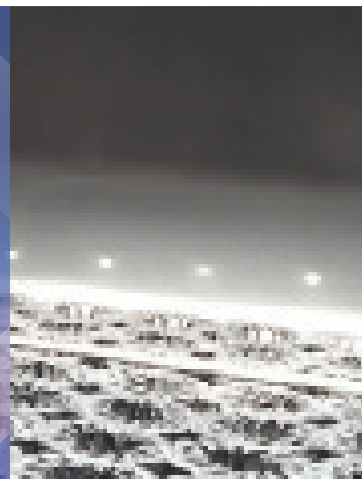


*Completely flexible modular solutions*

### Reliable



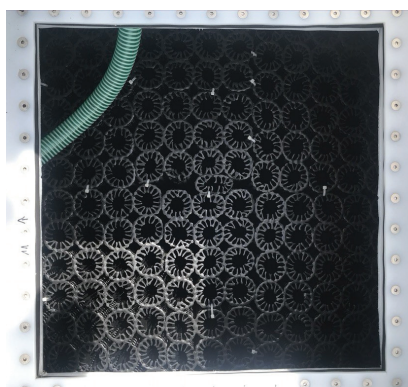
*100% process guarantees with every system sold*





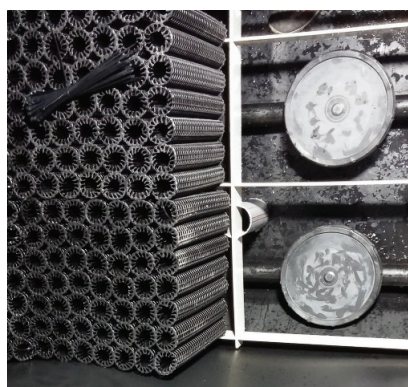
FBBR is the best choice for reliable,  
low cost advanced biological  
wastewater treatment

## Reference Projects



### Libya - Worker Camps

Multiple containerised FBBR systems for cleaning wastewater from worker camps at oil drilling sites in Africa for the National Oil Company.



### UK - Motorway Services

Biological wastewater treatment of highly polluted wastewater from toilets and catering at motorway service stations across the UK for Applegreen PLC.



### Germany - Dairy







Advanced biological treatment of highly polluted wastewater from Denree, a producer of organic milk.

## Special Features

*Our solutions stand out from competitors due to a number of unique selling points. Visit our website to read about them in more detail.*

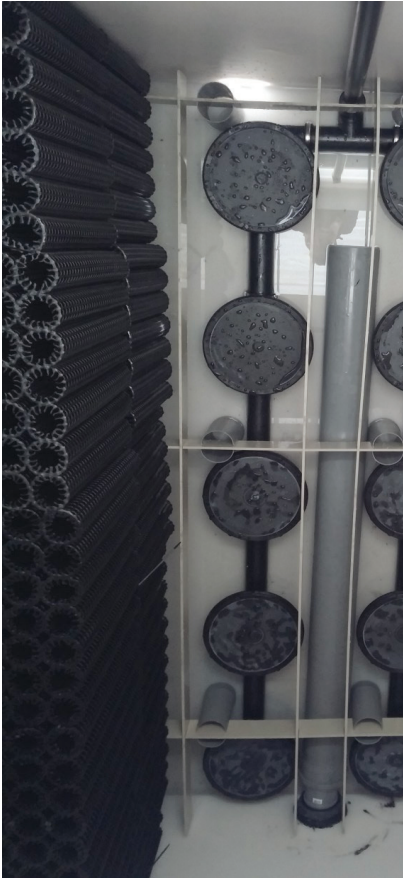


FBBR process is independently verified and certified by an independent test facility:

-  Designed in strict accordance with DWA design guidelines
-  No chemicals required for operation
-  Lower electricity usage than other biological process technologies
-  Ability to handle underload and overload
-  Designed to meet the effluent standards in any country or region
-  Complies with all EU standards and all equipment is CE marked







## PPU Umwelttechnik GMBH

PPU Umwelttechnik GMBH is a technology company based in Bavaria, Germany. We develop unique wastewater treatment processes, including physical, biological, chemical, filtration and oxidation steps. We offer products, and complete tailor made solutions for any industrial/municipal application. We manufacture all of our products and solutions at our factory in Bavaria.

## ClearFox®

*ClearFox® is the brand name for the range of products and solutions manufactured by PPU. ClearFox® products are exported all over the world. Systems are currently installed and operating in Africa, Europe, Middle East, Russia/CIS and Asia. The ClearFox® brand is globally recognised as a specialist provider of solutions for wastewater treatment*

## Contact Us

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