



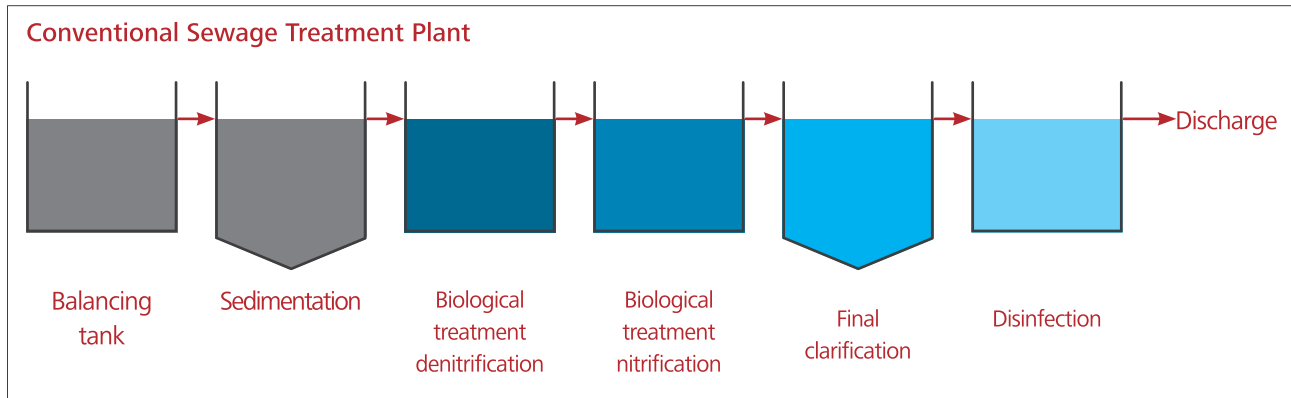
*Full solution
for 20 – 220 m³/day*

MBBR Sewage Treatment Container Plant

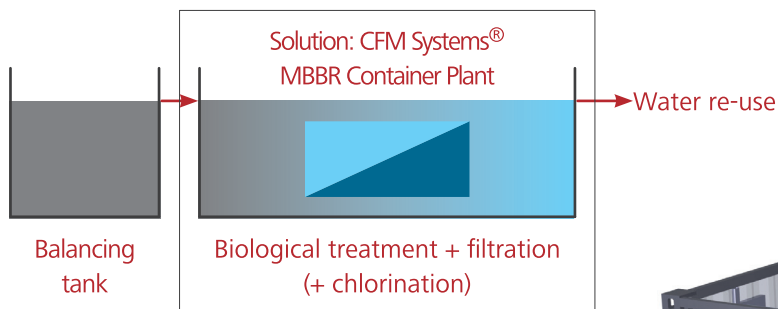
- Treatment plant for 400 to 1000 population equivalents
- Unique combination: MBBR with Ceramic Flat Membranes
- Compact plug & play container
- Decentralized mobile solution
- Chlorination for additional disinfection

Our solution – Your benefits

The mobile **CFM Systems® MBBR Container Plant** features a biological sewage treatment (MBBR-technology) with a subsequent membrane filtration completely assembled within an ISO Container – a unique combination offering a vast range of applications as it can replace conventional sewage treatment plants.



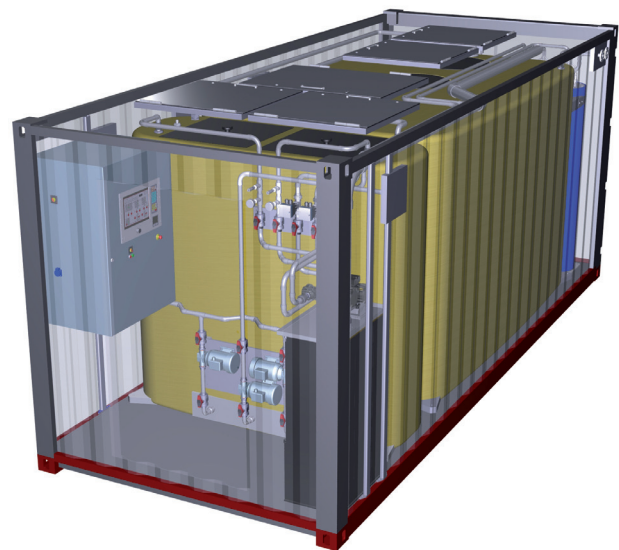
Separation by sedimentation: long-lasting process – big tanks!



Separation by filtration/chlorination: fast and compact!

Small towns and villages that are not connected to the municipal sewer system can use **CFM Systems® MBBR Container Plant** to clean the sewage of their population thereby saving capital investments in a new or an additional sewer system. Our system produces a near potable water quality and thus guarantees the safe re-use of all the treated water. The MBBR Container Plant can clean the sewage of up to 1000 population equivalents (PE) while consuming little energy. Of course, chlorination can be integrated as a final process step for additional water disinfection.

Our solution perfectly fits the needs of small municipalities as well as small companies, hotels and holiday resorts, which intend to treat their wastewater independent remote sewage treatment plants and also want to recycle it completely. The combination of Ceramic Flat Membranes with the MBBR technology also offers the advantage to handle changing wastewater capacities by switching over to a "holiday-mode". Therefore vacation time and off-season have no negative influence on the biological process. In contrast, conventional systems always need a



minimum of wastewater to prevent the microorganisms from eating each other. The modular/mobile concept even allows to expand the capacity as well as to change the location later on. Moreover, the **CFM Systems® MBBR Container Plant** is very fast ready to use and can easily be monitored and controlled via the internet.

Technical Description

Technical Data CFM Systems® MBBR Container Plant			
Membrane pore size:	200 nm		
Biological System:	MBBR + CFM (+ Chlorination)		
Temperature:	10°C – 45°C		
Design biological parameters:	Influent greywater	Influent blackwater	Effluent
BOD ₅ [mg/L]	150	300	< 5
COD [mg/L]	300	600	< 50
Total N [mg/L]	15	30	< 10
TSS [mg/L]	100	200	none
P [mg/L]	5	10	< 5
Cleaning with:	Detergents (in-situ/on-air)		
Capacity blackwater:	20 – 120 m³/d		
Capacity greywater:	50 – 220 m³/d		
Power supply:	3 phases, 400V		
Power consumption:	0,5 kWh per m³ cleaned water		

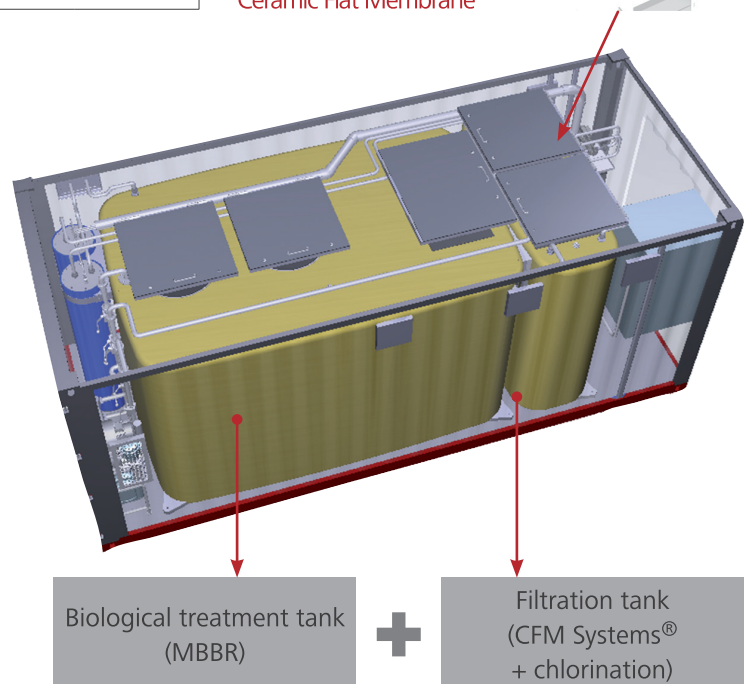


ISO Container including:

- Biological treatment tanks
- Carrier material for MBBR system
- Lamella separator
- Filtration tank
- CFM Systems® filtration units
- PLC system with touch screen
- Internet monitoring and controlling
- Additional: chlorination system

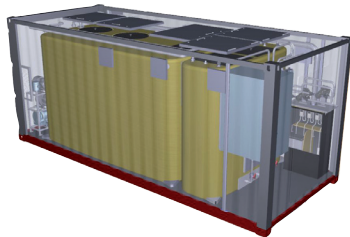
Required Civil Works:

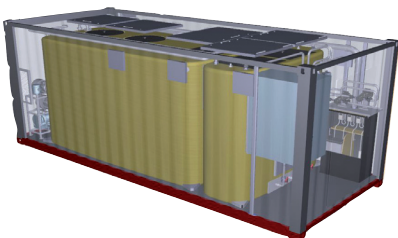
- Foundation for container
- Connection to sewage system (septic tank)
- Water storage tanks (optional)
- Power supply

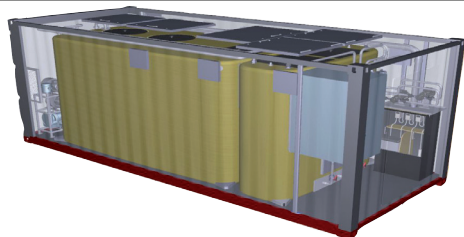


THE CERAMIC MAKES THE DIFFERENCE

Product Program

	CFM Systems® MBBR Container Plant ISO 20'		
	S Size	Population equivalent:	400
		Membrane surface:	64 m²
		Capacity blackwater:	20 – 50 m³/d
		Capacity greywater:	50 – 100 m³/d
Order-No.: FF110320			

	CFM Systems® MBBR Container Plant ISO 40'		
	M Size	Population equivalent:	700
		Membrane surface:	128 m²
		Capacity blackwater:	50 – 80 m³/d
		Capacity greywater:	100 – 180 m³/d
Order-No.: FF110340			

	CFM Systems® MBBR Container Plant ISO 45' HC		
	L Size	Population equivalent:	1000
		Membrane surface:	192 m²
		Capacity blackwater:	80 – 120 m³/d
		Capacity greywater:	180 – 220 m³/d
Order-No.: FF110345			

Your local contact