

WE
BRING
WATER
TO
LIFE

- Manufacture of Silicon Carbide (SiC) ceramic membranes (MF/UF)
- Proven technology, supplied >250 installations worldwide
- Supply OEMs & System integrators

- Drinking water & Wastewater treatment, sold in 70 countries
- Supplied for 500,000,000 liter/day treatment
- Owned by OVIVO Water Group

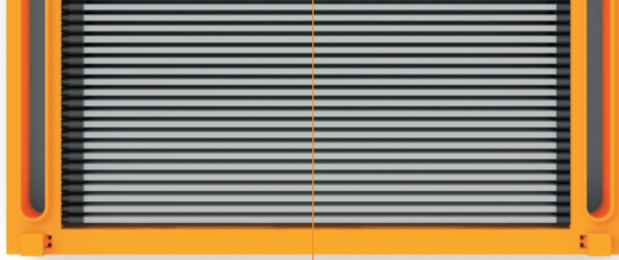
WE
BRING
WATER
TO
LIFE

ABOUT CEMBRANE

Cembrane is the worlds largest producer of Silicon Carbide (SiC) membranes for OEMs & System integrators within water & wastewater treatment.

We produce out of our facilities in Denmark and enable safe drinking water and responsible wastewater treatment in more than 70 countries.

Our patented SiC membrane technology, provides several advantages against more commonly used organic and in-organic membranes. The team behind Cembrane consists of the pioneers of Silicon Carbide membranes as well as experts with a long experience in Silicon Carbide processing. Learn more by exploring the content of our website.



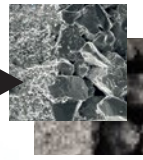
CEMBRANE SIC TECHNOLOGY



SILICON CARBIDE (SiC) POWDER
Mixed into paste & extruded



SUBSTRATE
Extrusion fired @ $>2,200$ °C to bond SiC grains



MEMBRANE LAYER
Applied to substrate



SiC ceramic plate
SiC flat sheet membrane

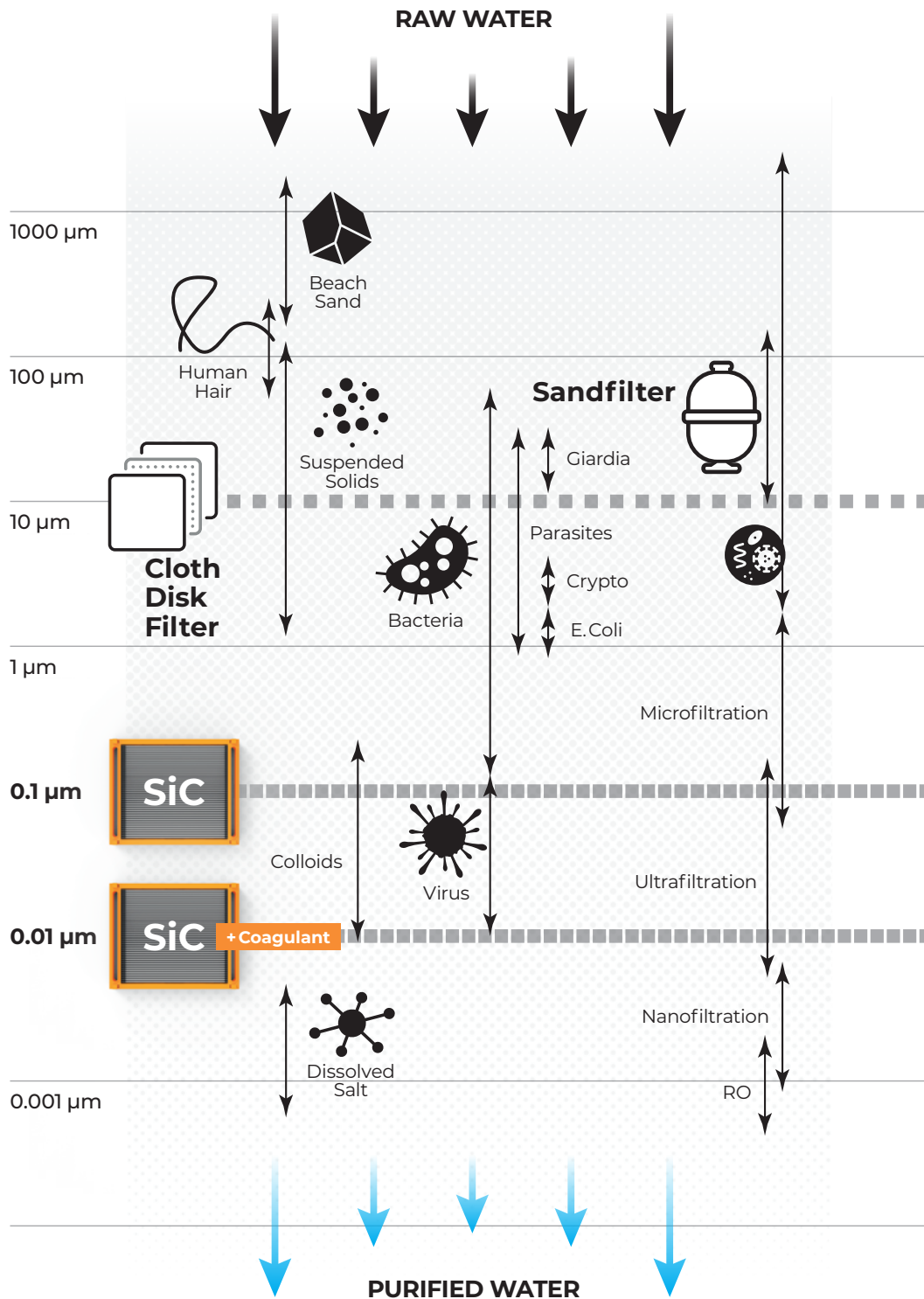


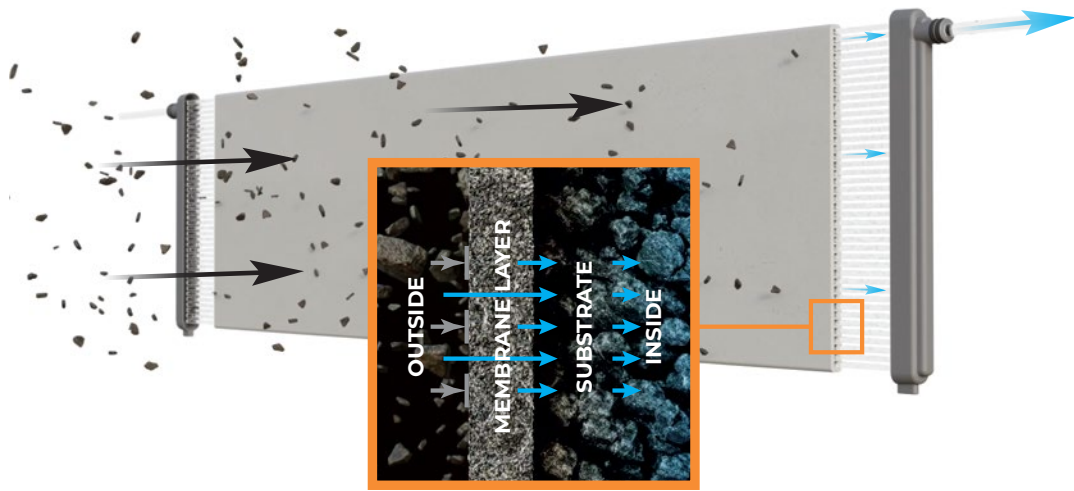
Certified to
NSF/ANSI 61



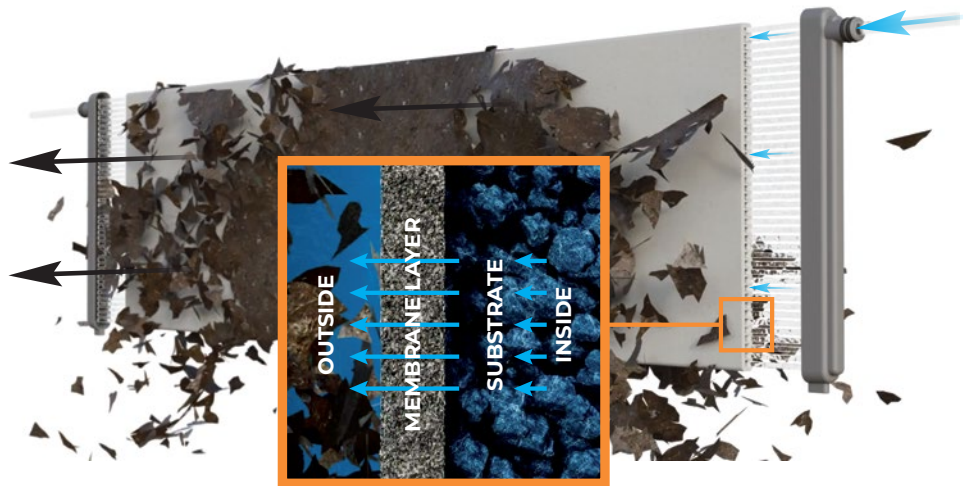
VALUE PROPOSITIONS

- Loves water repels oil
- High chemical tolerance
- No permeability decline
- No more fiber breakage
- Handles solids up to 50,000 mg/l
- Simple flow sheet

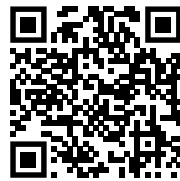




FILTRATION MODE

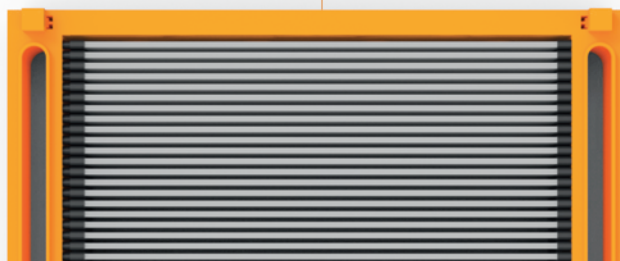


BACKWASH MODE



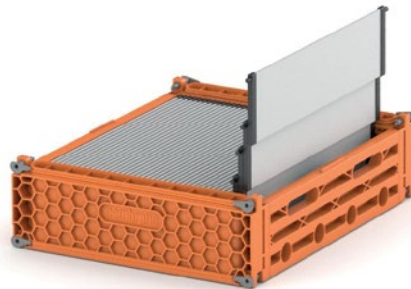
OPERATIONAL CAPABILITIES

Solids loading tolerance (TSS)	1 ppm - 50,000 ppm
Temperature	2-60 °C
Abrasive media in feed water	No limitations
Chemical tolerance	pH 2-13
Fat, Oil & Grease tolerance	Up to 400 ppm
Intermittent operation & dry storage	Allowed
Operational flux rate	1-1000 LMH





SIC CERAMIC FS MEMBRANE



SINGLE MODULE



RACKS & TOWERS



STACK OF MODULES TOWERS

Product
FUNCTIONALITY



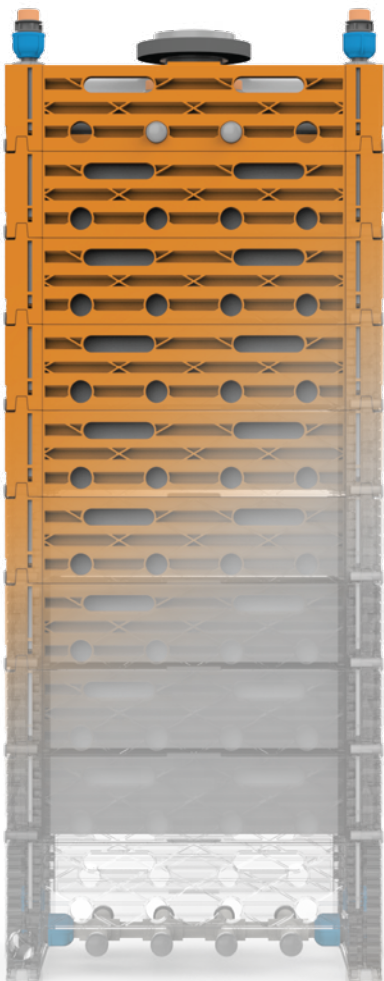
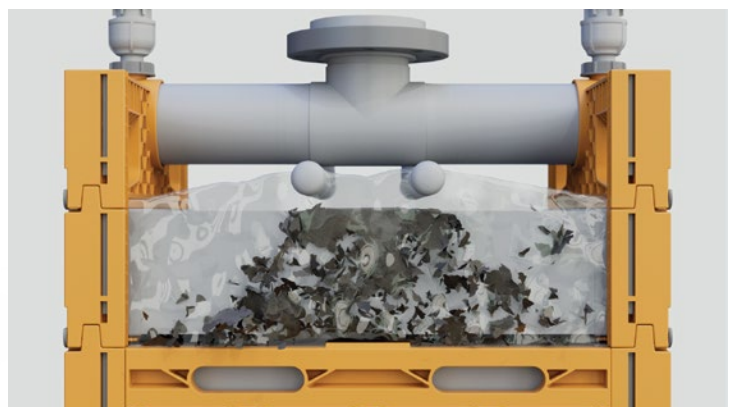
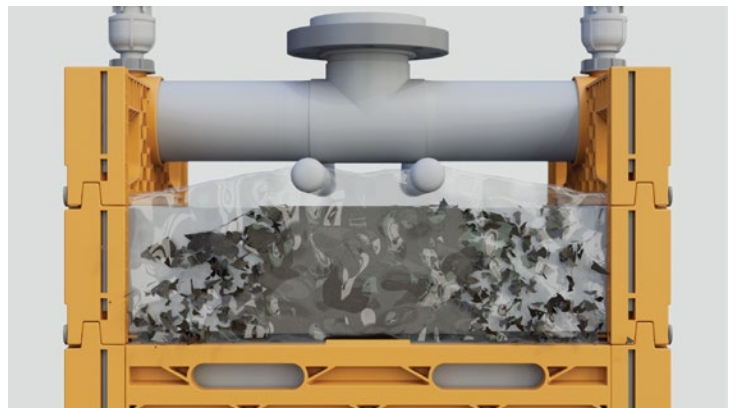
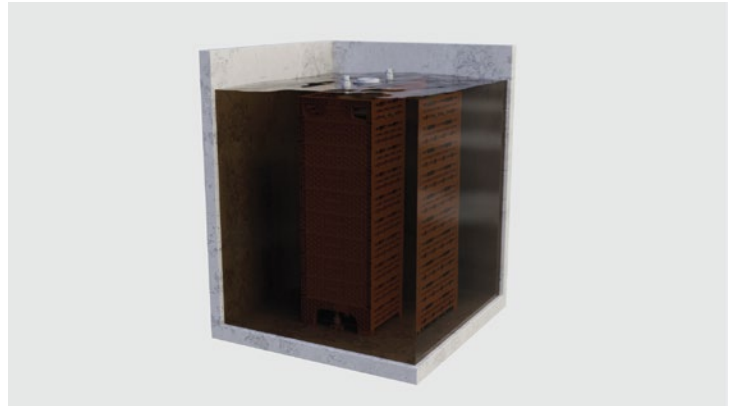
Product
FEATURES



SPRINKLER CLEANING OPTION

SPRAY WITH PERMEATE WATER & CHEMICAL SPRAY

- Perform chemical spray clean using 97% reduced chemical amount compared to a conventional CIP.
- Keep permeate side free from hazardous chemicals.
- Mechanical removal of debris, sludge & cake layer.





CERAMIC MEMBRANE OVERVIEW

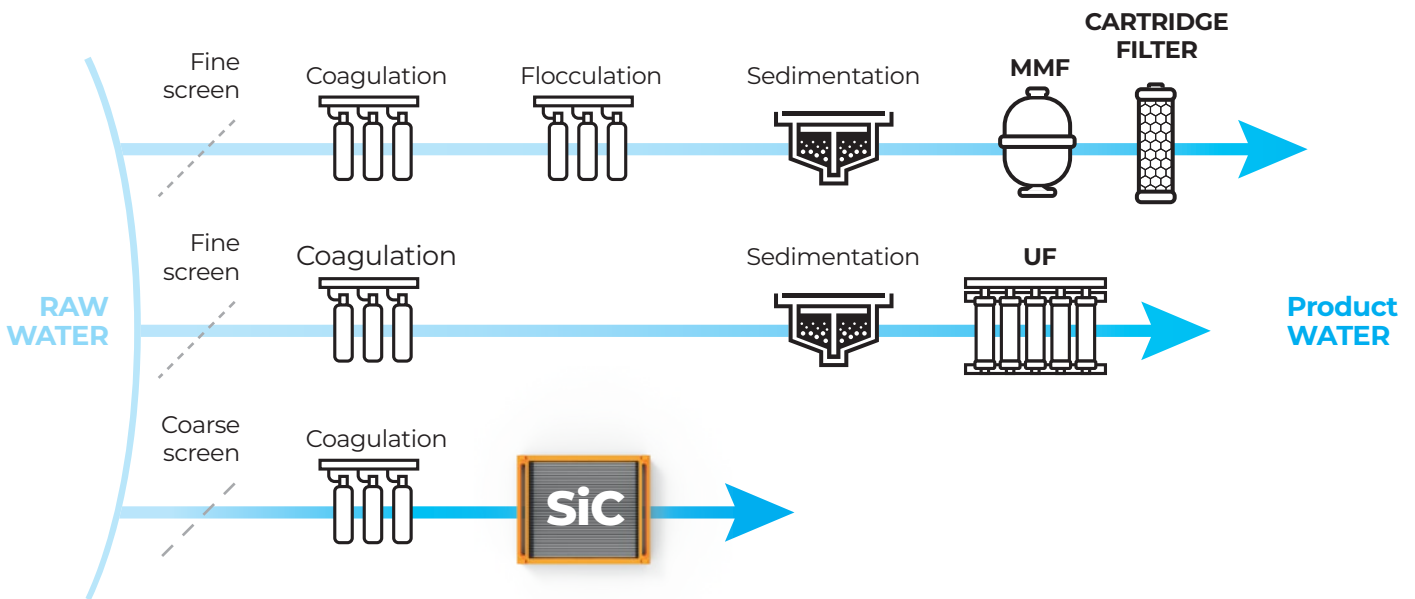
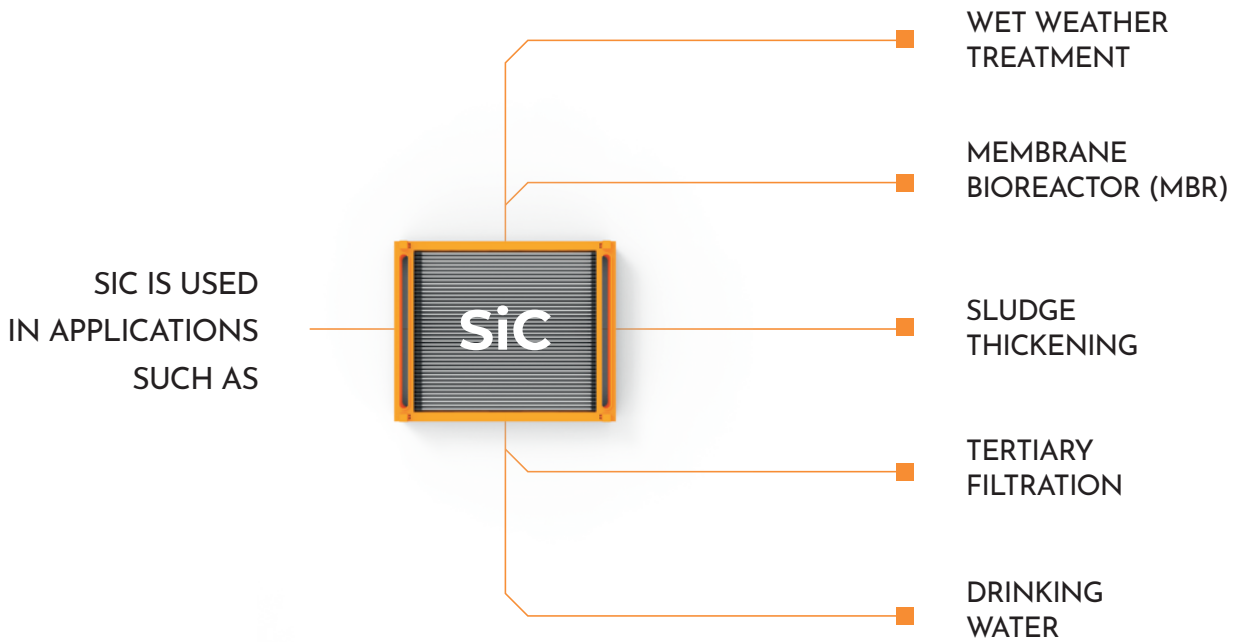
	←—————→			
	Lowest permeability			Highest permeability
	Al_2O_3	TiO_2	ZrO_2	SiC
Hydrophilicity	+	++	++++	+++++
Permeability	++	++	+++	+++++
Fouling potential	+++++	++++	++	+
Chemical resistance	+++	+++	++++	+++++
Mechanical strenght	++++	++++	+++++	+++++

Bilal, Et al. Ceramic membrane technology for water and wastewater treatment: A critical review of performance, full-scale applications, membrane fouling and prospects. Chemical engineering Journal. 2021.

Lowest + Highest +++++



APPLICATIONS



■ Simplified flow sheet

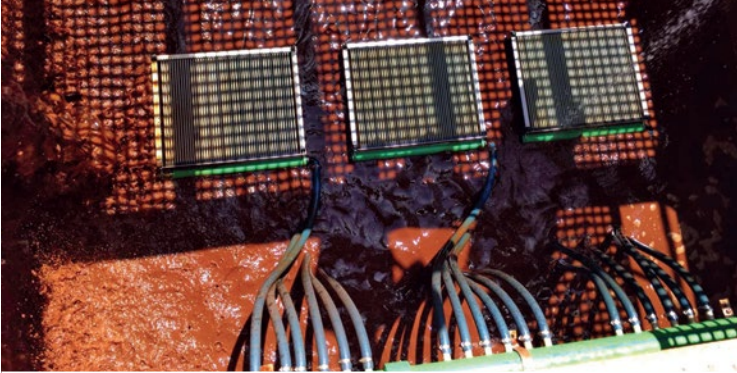
■ 97-99% recovery

■ Long stable life

■ Established technology already supplying millions with clean water

cembrane

clean water for life



**SIMPLIFY
YOUR
FLOW SHEET**



**LOVES
WATER**

REPELS OIL



**HIGH
POROSITY**

*REDUCES
FOULING*



**EXTREMELY
DURABLE**

*MEMBRANE
MATERIAL*

CLEAN WATER FOR LIFE



NEW PROCESS

OPPORTUNITIES



CHEMICALLY INERT

MISSION, VISION & VALUES

Cembrane was founded with a mission to transform ceramic membranes from a niche technology to the preferred technology for drinking- and wastewaters by making membrane treatment simple and economical!

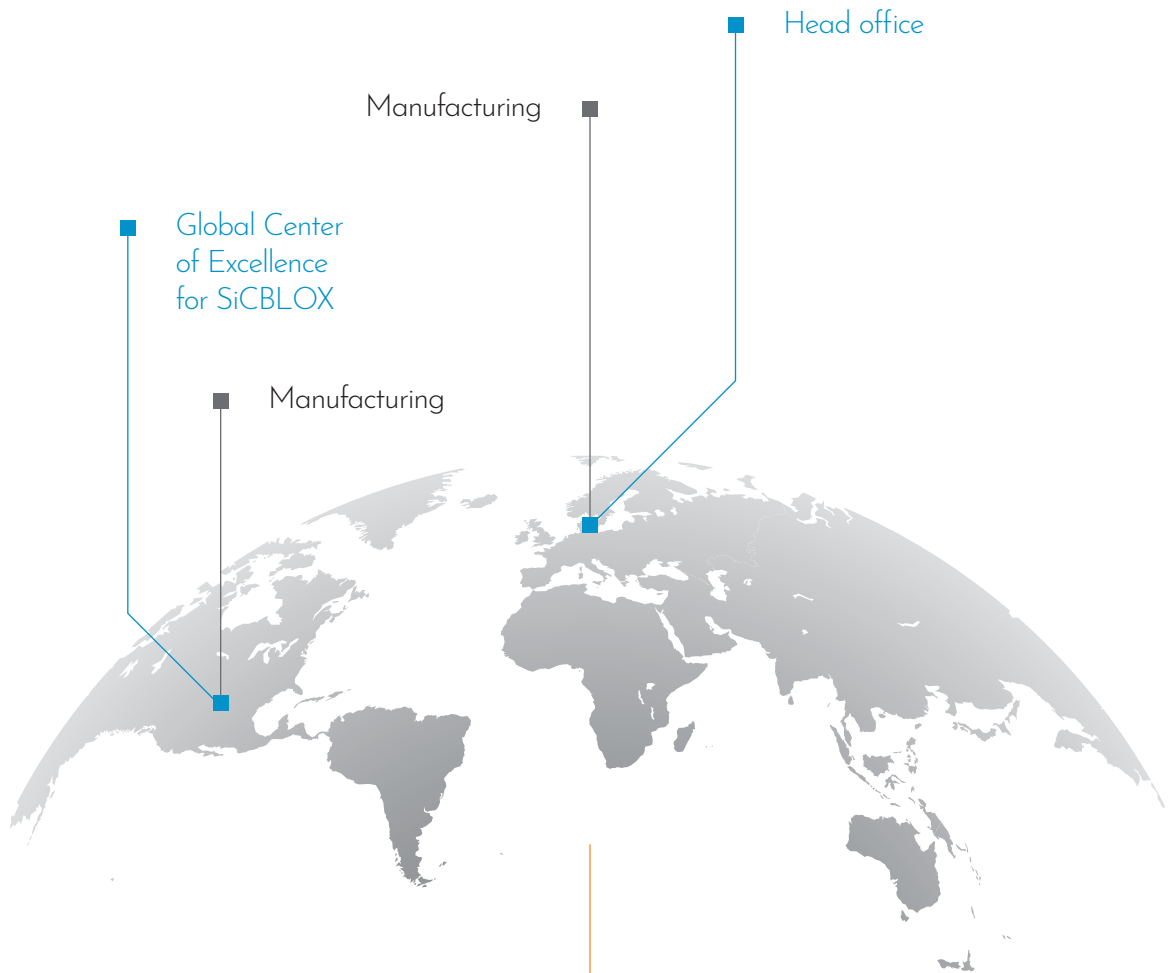
By pushing the boundaries of flux rate, reliable and cost-effective water treatment through innovation within SiC membrane technology and securing a cost-effective global availability.

Thereby providing the world's growing population with access to clean and safe water. Our slogan "clean water for life" reflects this vision.



cembrane

clean water for life



www.Cembrane.com  sales@cembrane.com

CONTACT INFORMATION