

Highest level of flexibility for desalination, drinking water and ultra-pure applications







Introducing CoraLuxe Membrane filtration system

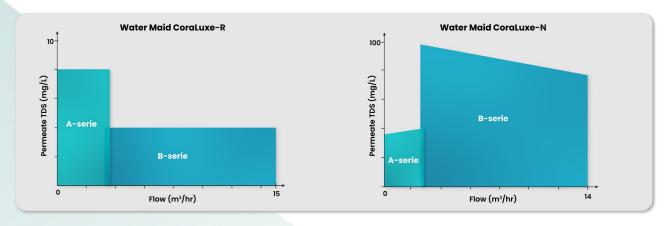
For clients with the highest expectations on treated water quality, Mellifiq is proudly offers a complete turn-key membrane filtration experience, delivering a complete range of purification systems with 99.9% contaminant removal results.

The Water Maid™ CoraLuxe range is the optimal choice for both permanent and mobile installations, adapted to operate with highest reliability in any environment. The CoraLuxe product range is equipped with all required features needed for sustainable treatment results even with highly variable water quality and is designed to seamlessly combine with both chemical free post-disinfection from Mellifiq's Ozonetech brand, pre-filtration from our Water Maid™ FlexKarb multimedia filtration systems. This makes our CoraLuxe offering a vital part for a wide range of applications and for a broad spectrum of client needs.

Perfectly tuned for regulatory compliance frameworks

The Water Maid™ CoraLuxe range is equipped to be flexible with regard to environmentally sustainable materials, long life-time, low maintenance needs and minimal energy requirements. Furthermore, Mellifiq will adapt to both regulatory demands for drinking water approvals and harsh water matrices. It is a perfect choice for a wide range of recalcitrant and challenging substances including PFAS, high levels of salinity, and micro and macro molecules including sulfates, dissolved organics, pharmaceutical residues and heavy meals.

The CoraLuxe-R and -N models are designed with complete compliance to the Urban Waste Water Treatment Directive (91/271/EEC) and EU Directive 2020/2184 for PFAS control related to the quality of water intended for human consumption.



Capacity of Water Maid CoraLuxe membrane filtration systems. Capacities refer to standard designs and may be adjusted to fit customer needs.







Design specifications

In order to deliver a system tailored for our clients' needs, the CoraLuxe systems are delivered in two distinct series to accommodate various needs pertaining to performance, specific energy use and footprint. Only highest quality membranes with high recovery rates are employed, along with integrated internal concentrate recirculation capabilities and effluent water quality monitoring. The systems can also be equipped with automated Clean-in-Place and membrane backwash functionality.

Built with corrosion-resistant materials and designed for harsh environments, the systems are engineered for durability, ensuring reliable performance even under demanding conditions.

Turn-key design and delivery

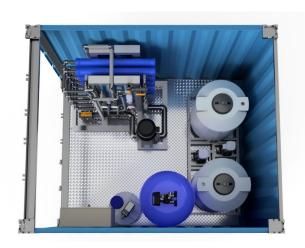
Upon delivery, all CoraLuxe-R and -N systems are mounted and undergo Factory Acceptance Test (FAT) to ensure minimal commissioning at end user.

Our mobile containerized systems are tailored for 10' or 20' design, allowing for easy transport and positioning. All systems are delivered with local automation to make the CoraLuxe range a smooth experience.

In addition to our mobile containerized systems, CoraLuxe systems are also available as skid-mounted configurations, offering a versatile and compact solution for clients with existing infrastructure or indoor installations.



CoraLuxe BCR/N-series in a 20' mobile design with double-ended access for flows up to 15 m^3/h .



CoraLuxe ACR/N-series in a 10' design with for flows up to $3 \text{ m}^3/h$.







Technical data CoraLuxe-R

CoraLuxe-R model	A-series					B-series					
	A1	A2	А3	A 4	A5	B1	В2	В3	В4	B5	
Nominal Permeate flow (m³/h)	1.2	1.8	2.6	3.2	3.6	3.5	7	10	12	15	
Concentrate recirculation (%)	80	80	80	80	80	75	50	20	0	0	
System average membrane flux (LMH)	34	34	37	37	34	29	29	28	24	25	
Specific energy (kWh/m³)	2.2	2.2	2.4	2.4	2.3	2.7	1.8	1.5	1.2	1.2	
Total permeate TDS (mg/L)	8.1	8.1	7.6	7.7	8.0	3.9	3.5	3.3	3.4	3.4	
Operational pressure (bar)	18.8	18.8	20.4	20.1	18.8	28.0	28.4	27.7	24.5	23.9	
Recovery (%)	67 70										
Number of PV	4	6	8	10	12	1	2	3	4	5	
Membrane configuration	4" 8"										
Membrane type	Polyamid thin-film composite, seawater grade										
Membrane max pressure rating (bar)	41 83										
Feet water connection	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN50	DN50	DN50	
Recirculation pump	Yes Option							Option			
CIP station	Yes, including dosing station, chemical tank										
Conductivity sensor permeate	Yes										
Feed buffer tank volume	500 L 1000 L										
Piping	PVC-U PN10 (EN 1.4307 optional)										
Automation	7" HMI with TCP and Programmable Logic Controller (PLC)										
Protection class	IP67 RAL painted (containerized), IP54 (base system)										
Dimensions containerized R-models (LxWxH, mm)	2,991 x 2,438 x 2,835 6,048 x 2,428 x 2,551							2,551			
Required footprint R-models	2,800 x 2,600 x 2,600 incl. service space 5,800 x 2,600 x 2,400 incl. service space							space			
Empty weight (kg)	4070/1770 ±10%					3360/2160 ±10%					

^{*}Nominal conditions brackish surface water SDI <5, TDS 1170 mg/L, at design temperature 15 deg C, pH 7.2, prefiltered to NTU = 0 and TSS <0.1 mg/L.

All performance data is subject to 15% performance tolerances and the end user is fully responsible for its correctness pertaining to actual feed water quality.







Technical data CoraLuxe-N

CoraLuxe-N model	A-series				B-series					
	A1	A2	А3	A4	A5	B1	B2	В3	В4	В5
Nominal Permeate flow (m³/h)	1.1	1.6	2.0	2.4	2.8	3	6	9	12	14
Concentrate recirculation (%)	80	80	80	80	80	70	50	40	25	0
System average membrane flux (LMH)	24	33	31	30	29	27	27	27	27	27
Specific energy (kWh/m³)	1.2	1.2	1.1	1.1	1.1	0.6	0.5	0.5	0.4	0.3
Total permeate TDS (mg/L)	36	37	39	40	41	98	86	81	77	76
Operational pressure (bar)	10	9.9	9.4	9.1	8.9	7.4	7.5	8.0	7.4	6.8
Recovery (%)	68 70									
Number of PV	4	6	8	10	12	1	2	3	4	5
Membrane configuration	4" 8"									
Membrane type	Polyamid thin-film composite, seawater grade									
Membrane max pressure rating (bar)		41 83								
Feet water connection	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN50	DN50	DN50
Recirculation pump	Yes Option								Option	
CIP station	Yes, including dosing station, chemical tank									
Conductivity sensor permeate	Yes									
Feed buffer tank volume	500 L 1000 L									
Piping	PVC-U PN10 (EN 1.4307 optional)									
Automation	7" HMI with TCP and Programmable Logic Controller (PLC)									
Protection class	IP67 RAL painted (containerized), IP54 (base system)									
Dimensions containerized N-models (LxWxH, mm)	2,991 x 2,438 x 2,835 6,048 x 2,428 x 2,551									
Required footprint N-models	2,800 x 2,600 x 2,600 incl. service space 5,800 x 2,600 x 2,400 incl. service space							space		
Empty weight (kg)	4070/1770 ±10% 3360/2160 ±10%						10%			

^{*}Nominal conditions brackish surface water SDI <5, TDS 1170 mg/L, at design temperature 15 deg C, pH 7.2, prefiltered to NTU = 0 and TSS <0.1 mg/L.

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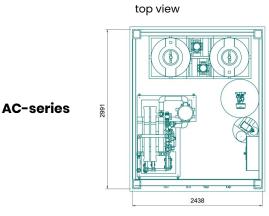
Installation footprint CoraLuxe AC-N/R and BC-N/R

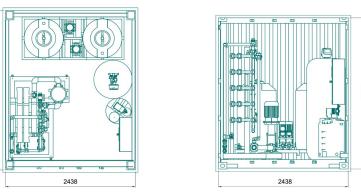
Our customers can rely on efficient space requirements, both for the A- and B-series models including C-versions (containerized).

Space requirements include all possible options such as CIP units and automation. For base systems, requirements depend on available customer spaces, and Mellifiq can adapt installation to current operations and needs.

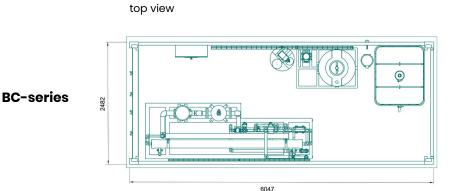
BENEFITS

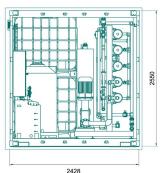
- Flexible membrane configuration
- Mobile systems
- Designed to deliver up to 99.9% dissolved solids
- Integration and Factory Acceptance Tests (FAT) by Mellifiq
- Access to complete service and maintenance organisation





front view





front view







Reliable global deliveries

Mellifiq has a proven track record in integrating purification systems as part of our EPC contracting business or stand-alone installations. With water purication systems in over 60 countries, we offer smooth and reliable support, service and commissioning across the globe.



Finished installation of Water Maid CoraLuxe B2-N system for drinking water up to 9 m³/h permeate flow.



Final mounting and FAT of Water Maid CoraLuxe AC2-N systems for groundwater purification.



About Mellifiq

Mellifiq is a multi-awarded environmental service company group, that has since the early nineties evolved into a world leading system and solution provider with multiple groundbreaking applications for industrial, municipal, and real estate clients. We supply cutting-edge technologies to manage the most sophisticated air, water, and energy challenges.

Mellifiq offers a complete range of air and water treatment technologies and solutions across multiple industries such as processing industry, energy sector, food and beverage, pharmaceutical, wastewater treatment and commercial real estate.

Mellifiq offers strong and renowned brands, such as Ozonetech, Nodora Water Maid, Saniray, Axolot and world-class engineering services combined an excellent track record of more than 40 years of innovation. We help our clients achieve the most efficient and sustainable solutions while creating the maximum value for their businesses.

With several business units across Europe, Mellifiq is headquartered in Stockholm where research and development, production, QA and certification all take place. Our unique technology and our extensive expertise have made us the Center of Excellence for the world's most complex projects, and a global player with installations on all six continents.

Everyday millions of people rely on our solutions for ventilation, disinfection, sanitation, and odor control. We are committed to raising the bar for the concept of clean and the industry standard for engineering, technical services and general contracting.

For additional information, visit our website at www.mellifig.com

