



RENA™ Pro

Ozone Systems

A SERIES OF STATE-OF-THE-ART SYSTEMS
FOR AIR AND WATER TREATMENT

ozonetech.
a MELLIFIQ brand

THE RENA PRO™ SERIES



DISTINGUISHING FEATURE

An oxygen-fed ozone system built with premium components perfectly integrated to enhance performance, reliability and safety.

NO PRODUCTION STOP NEEDED. JUST TURN THE KEY.

If you are looking for a sustainable way to treat air and water, take a close look into ozone.

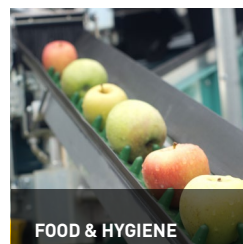
Ozone is produced on-site from the oxygen in ambient air, an abundant free-of-cost raw material. Nothing to purchase, transport and store. No handling and refills needed. No waste. No residues.

Our in-house-developed RENA Pro ozone systems also save time and money. The operation is automatic with minimal maintenance and very affordable operating cost.

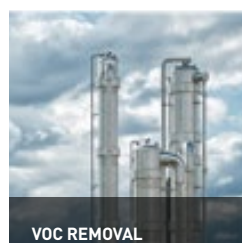
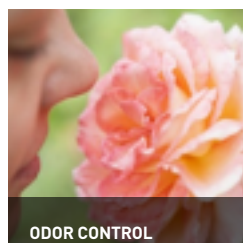
The installation takes place smoothly. No plant rebuilding or production stop needed. And you can be up and running fast. All RENA Pro systems are both turnkey and plug-and-play.

So if you are open for an alternative to UV technology, hypochlorite, thermic oxidation, biofilters and absorption solutions like scrubbers, there are real benefits that await.

INDUSTRIES



APPLICATION AREAS



RELIABLE, EASY TO HANDLE AND TOP-PERFORMING YEAR AFTER YEAR

RENA Pro is state-of-the-art. For us, this means three things. The treatment capacity is extremely high. The component quality is consistently

high in the smallest detail – which ensures long system lifetime with sustained performance. And last but not least, the system is user-friendly.



HIGH-PERFORMANCE

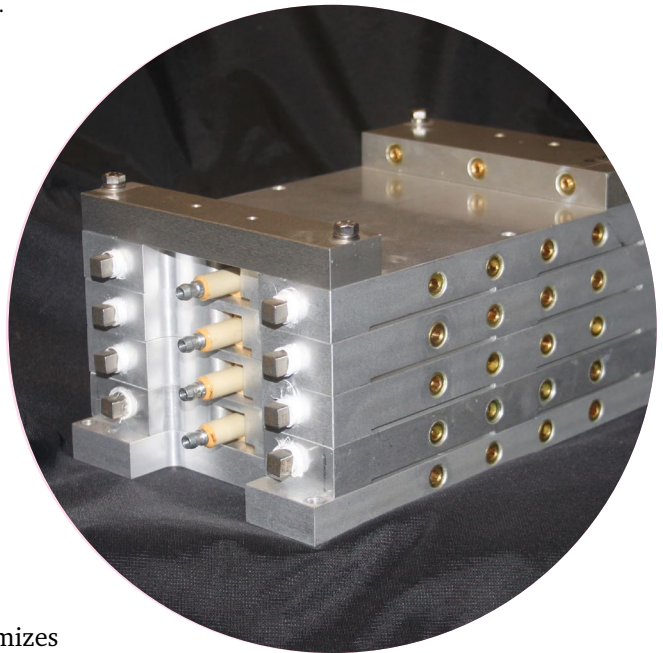
High-performance has a defined meaning: to over an extended period of time produce large quantities of pure ozone, free from impurities. This is the only way to treat large volumes of contaminated air and water with sustained results.

Small amounts of ozone in low concentrations injected in large flows or volumes will not get the job done. And the only way to achieve high-performance is to produce the ozone from dry, pure oxygen (not humid ambient air) – and to cool the ozone generator using liquid – not air.

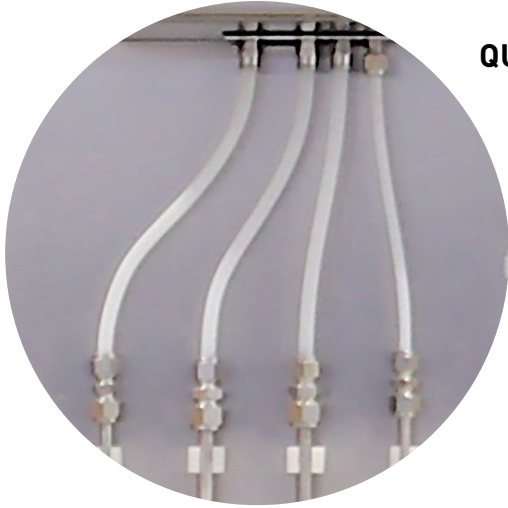
Premium ozone systems are oxygen-fed and liquid-cooled.

Our HELS™ technology has been used worldwide since 2001. It is continuously evaluated and improved. The technology produces very precise quantities of ozone. It also produces up to 30% more ozone than regular corona discharge ozone elements on the market. This is due to many reasons, among them the unique and carefully engineered ozone generating elements with less than 100 µm deviation.

High-performance ozone production also minimizes the formation of NO_x, and eliminates salts and nitric acid formation. So for both environmental and purification capacity reasons, avoid air-fed, air-cooled ozone generators for industrial applications.



In-house developed and continuously improved technology.



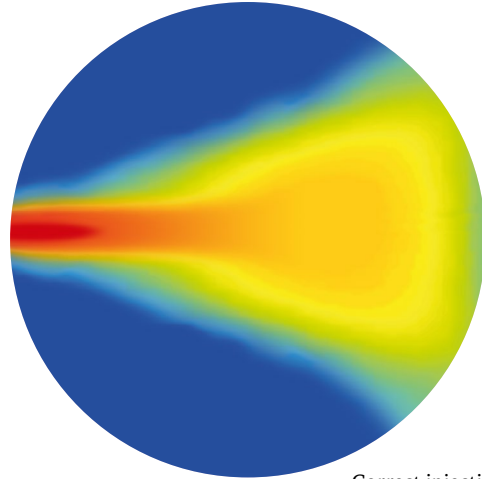
QUALITY

The RENA Pro is made of the highest quality materials. We use AISI 316L (EN 1.4404) stainless steel and Teflon tubing with highest possible chemical resistance to ensure maximum lifetime in harsh industrial environments. In the design we always choose the parts and technical constructions that perform best in the long run. All systems go through comprehensive test runs before delivery.

Designed to perform, built to last.

The precision in ozone production and dosing is fundamental for the system performance.

We use Computational Fluid Dynamics, CFD, to meet the highest purification requirements.



Correct injection point is vital.

USER FRIENDLY

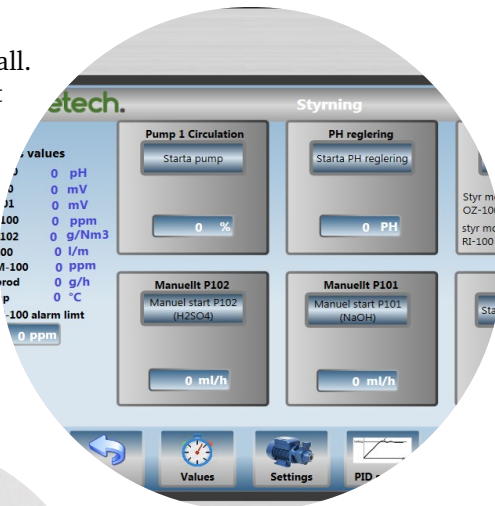
RENA Pro needs power and liquid cooling. That's all. And when in operation, the environmental impact is low since the raw material is oxygen produced on-site from ambient air. The turnkey system is delivered for easy plug-and-play installation with a footprint of half EUR pallet. The operation is automatic and controlled using a well designed HMI (option), easy to overview and monitor.

All RENA Pro systems can be equipped with remote monitoring and ozone sensors for safe use and can easily and seamlessly be integrated into industrial processes. There is no need for any adjustments in your processes.



Easy to overview and use HMI.

Sensors for safe use.



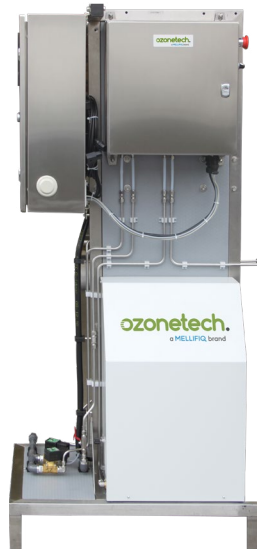
WE BUILD WHAT YOU NEED

The RENA Pro is a platform with exceptional modularity and a large variety of optional functions and systems. We offer five series of the RENA Pro categorized depending on ozone

capacity, from A to E. All systems are tailored to the needs and requirements. The sizing guides indicate the choice of RENA Pro system based on flow, load and application.



RENA Pro A-series



RENA Pro C-series



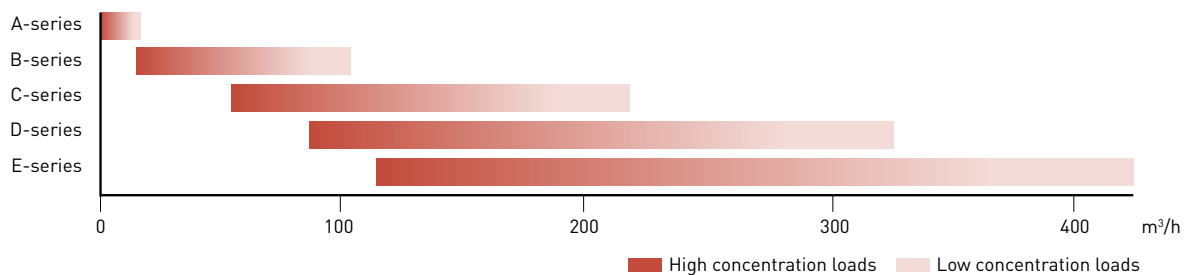
RENA Pro E-series

MAIN OPTIONS

- Closed-loop liquid cooling system
- Ozone injection system, up to five injectors
- O3Eye™ remote monitoring and control
- Automatic regulation of ozone production
- Tailor-made HMI
- Additional ozone sensors
- Venturi injection

SIZING GUIDES FOR WATER TREATMENT

WATER FLOW AND LOADS

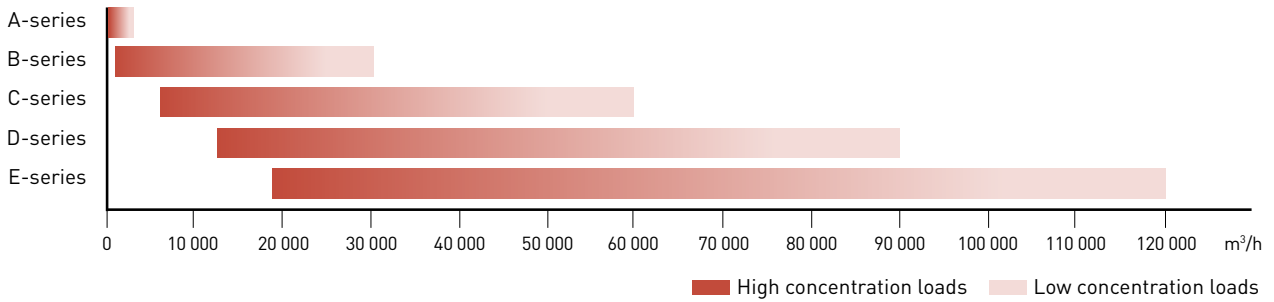


APPLICATIONS

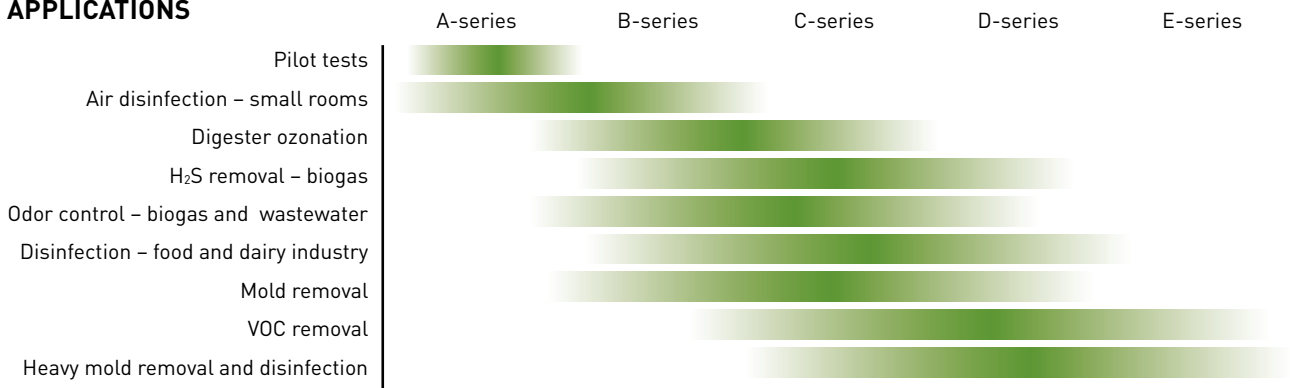
	A-series	B-series	C-series	D-series	E-series
Bottled water	✓	✓	✓	✓	✓
Clean-in-place – breweries	✓	✓	✓	✓	✓
Clean-in-place – food and dairy	✓	✓	✓	✓	✓
Disinfection – cooling towers	✓	✓	✓	✓	✓
Drinking water treatment	✓	✓	✓	✓	✓
Pharmaceutical residues treatment	✓	✓	✓	✓	✓
Disinfection – commercial swimming pools	✓	✓	✓	✓	✓
BOD & COD removal – wastewater treatment	✓	✓	✓	✓	✓

SIZING GUIDES FOR AIR TREATMENT

AIR FLOW AND LOADS



APPLICATIONS



TECHNICAL SPECIFICATIONS

Ozone production

Capacity	Up to 0.5 kg/h
Concentration	Up to 240 g/Nm ³
Distribution	Flexible

Feed gas

Oxygen	Maximum dew point of -70°C / 158°F
Pressure internal	0.8 - 1.2 bar g (11.6 - 17.4 psig)
Gas flow	0.6 to 60 l/min

Electrical properties

Voltage	230 VAC, 50/60 Hz
<i>Power consumption</i>	
A-series	0.125 - 0.5 kW
B-series	0.25 - 2.75 kW
C-series	1.5 - 3.5 kW
D-series	3.0 - 5.0 kW
E-series	4.0 - 7.0 kW

Connections

O ₂ in	A-series: 6 mm, push in B, C, D, E-series: 8 mm, push in
O ₃ out	A-series: 6 mm, compression fitting B, C, D, E-series: 8 mm, compression fitting
Liquid coolant, in	A, B-series: male G3/8" C, D, E-series: female G1/2"
Liquid coolant, out	A, B-series: male G3/8" C, D, E-series: female G1/2"

Ozone system

Size (W x D x H)	800 x 600 x 1800 mm
IP Class	64

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 Ozonotech, Nodora and Water Maid, 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.mellifiq.com

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