RENA™ Kitchen Solutions
High-performance ozone system for cleaning kitchen exhaust

RENA is our most powerful system solution. It is developed for commercial kitchens and restaurants with one large or several hoods. Components are mounted on a stainless steel plate placed adjacent to the kitchen or further away in another room.

Safety is high. Ozone production shuts down if something out of the ordinary occurs. The system is remotely monitored and we get alarms directly to our Service Center and can fix and restart the system.

Ozone treatment brings many benefits. When the grease deposits in the kitchen duct are reduced, the fire risk is reduced. With lower risk of fire, less expensive materials than stainless steel may be used in the ducts. The odor decreases considerably in the air discharged into the environment. When grease in the exhaust air is reduced, the energy in the air can be recovered. The cost for heating premises is reduced by up to 70% when the energy is recovered.

RENA Kitchen Solutions has very low operating cost and the maintenance need is minimal. The raw material (ambient air) is free. Nothing needs to be purchased, transported or managed. You avoid moving parts, mechanical cleaning, fillings, waste and residues.

Ozone purification is an efficient and reliable method to treat exhaust ducts in commercial kitchens and restaurants. This has been discovered by thousands of property owners, municipalities, commercial kitchens and restaurants worldwide.

Capacity Adapted to the grease load and airflow. Delivery Short delivery time. Installation Normally a day. Service Agreement Premium Remote monitoring from our Service Center and lifetime product warranty.

[Diagram of RENA™ Kitchen Solutions system components: High-performance ozone generator - producing ozone, Ozone detector - for maximum safety, Information sign, Oxygen generator - feeding the ozone generator with dry, pure oxygen produced from ambient air, Oxygen in, Liquid coolant in, Liquid coolant out, Controller - contains control electronics, visual indicators and remote monitoring (optional), Ozone out - (via distributor).]
Choose a high-performance ozone system.

One is enough. Find the right model here.

Three things characterize our RENA high-performance ozone system compared to air fed ozone systems. First, RENA is fed with dry, pure oxygen - not plain ambient air containing moisture. Second, RENA is cooled with liquid - not plain ambient air containing moisture. Third, ozone production is very efficient and reliable thanks to the oxygen supply from the separate oxygen generator and the liquid cooling.

With RENA, you get the treatment capacity you need day after day, year after year - in contrast to air-fed or air-cooled ozone systems which lose treatment capacity over time without frequent maintenance.

Do you have large air flow, high grease load and several hoods? No problem, one single RENA system treats large air flows even when the flow is divided on several air streams.

No matter which model you choose the system is delivered complete. Installation normally takes no more than one day - and maintenance requirements are very low.

A single RENA system can treat both small and large air flows in the kitchen ventilation - up to 12,000 L/s (43,000 m³/h) at medium grease load.

RENA is therefore suitable for both small and large restaurants regardless of the grease load and air flow.

RENA is also the right choice for properties with several adjacent kitchens - such as food courts.

The ozone is distributed easily and flexibly to multiple kitchens and air ducts without intervention in the ventilation system.

Ozone concentration is seamlessly adjustable and can be controlled individually for each hood and kitchen. RENA systems can be easily upgraded.

If the kitchen will be expanded with more frying surfaces and needs more purification capability, we just change the ozone producing component in the cabinet.

The Service agreement Premium includes remote monitoring and lifetime warranty. The need for maintenance is very low and the response time is short.

Select model on the next page
Airflow and cooking determines the model

As you can see in the graph our RENA systems handles air flows from 500 to 12,000 L/s (1,800 to 43,000 m³/h). It is far more than our own air-fed systems in the FTX series. Almost regardless of the kitchen ventilation airflow and how many hoods to be purified, one RENA system is enough. The high purification capacity come from the fact that RENA produces far more ozone than air-fed ozone systems. The treatment capacity needed also depends on the food being cooked in the kitchen. Higher grease load requires more treatment capacity. For very small restaurants with airflows up to 2,500 m³/h (700 L/s) air-fed ozone systems can be used. For flows over 2,500 m³/h RENA oxygen-fed ozone systems is the best choice.

RENA is efficient, reliable and requires minimal maintenance. In addition, RENA does not produce large amounts of nitrogen oxides (NOx) or build ups of nitric acids as air-fed ozone systems do.

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<th>2000</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
<th>6000</th>
<th>7000</th>
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<td>7200</td>
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<td>18000</td>
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* EN16282: “To safe-guard against NOx and HNO₃ build-up in the extract air, an oxygen-fed ozone generator will be used for a total extract flow exceeding 2500 m³/h.”
Our RENA solutions are fed with dry pure oxygen and cooled with liquid. It is a very efficient and reliable technology to produce ozone. Day after day, year after year, purification capacity is constant. Ozone production is infinitely adjustable and easy to change if required.

A single RENA system is capable of producing enough ozone for multiple hoods, large airflows and high grease loads. RENA is available in seven models for different air flows. The ozone system components are mounted on a stainless steel plate simplifying installation.

**TECHNICAL SPECIFICATION**

**Ozone production**
- Concentration up to: 240 g/Nm³
- Distribution: The amount of ozone can be distributed individually for each hood

**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: 2.5 to 15 l / min depending on model

**Cooling**
- Quality: Liquid coolant
- Pressure in: 2-4 bar g (29 - 58 psig)
- Temperature: 5 - 12° C (41 to 53.6° F)
- Flow: 0.5 to 6 l / min depending on the model

**Electrical properties**
- Voltage: 230 VAC, 50 Hz, single phase
- Effect: Between 0.5 - 2.1 kW depending on the model
- Fuse: 10 A slow
- Optional: With cooling: 16 A slow

**Connections**
- O₂ in: 8 mm push-in
- O₃ out: 8 mm pipe connection
- Liquid coolant in: 8 mm push-in
- Liquid coolant out: 8 mm push-in

**Control unit O₃Eye**
- Alarm outputs: 5
- Control inputs: 3
- Possibility to connect up to three sensors
- Adjustable ozone distribution to different fans/kitchens with distributor
- Visual alarm indicators
- Built-in safety switch
- Remote control and monitoring (optional)
- 4-20 mA analog control input (optional)
- Data logging (optional)

**Sensor**
- Adjusted according to local regulations for ozone in working place
- Turns off the RENA system and alert our Service Center

**Ozone system**
- Size horizontal (H x W x D): 970 x 750 x 265 mm
- Size vertical (H x W x D): 695 x 1100 x 265 mm
- IP Class: 64
- Sound level: 49 dBA

**Oxygen generator**
- Concentrator
- Compressor

**Kitchen ventilation duct**
- Intake ambient air
- Liquid coolant
- Contaminated air

**Kitchen hood**
- Pressure guard
- Sensor
- Communication unit
- Control unit (PLC)

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RENA Kitchen Solutions - specifications

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RENA Kitchen Solutions

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About Ozonetech

Ozonetech is an award-winning greentech company that has offered premium products for air and water treatment since 1993.

Our unique technology and extensive expertise has made us a rapidly growing global company with installations on six continents. All development and manufacturing is located in Sweden. In addition, we have in-house specialists for consultation, planning, installation and service.

As a Center of Excellence within air and water treatment, we also collaborate in international efforts to develop global standards for purification solutions.

At Ozonetech, we have a strong incentive to reduce energy consumption, health risks and the impact on the environment. Our current solutions provide a multitude of benefits in the processing and food industry, real estate, commercial kitchens as well as in the retail market.

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