

OREC™ Ozone / Dry Air Ozonators O Series: Description



O Series Ozone Generator

The OREC™ O Series *Ozonator* with integrated pressure swing adsorption (PSA) air dryer technology provides dependable ozone production for small applications (1 g/hr – 4 g/hr). The O Series combines a dual action ozone reactor cell with a high frequency variable controlled power supply.

A sturdy fiberglass reinforced, wall mountable enclosure, with easy-to-use front facing control panel, houses the versatile O Series Ozone Oxygen / Dry Air (feed gas) Generator package.

Economical, durable, lightweight and compact, the O Series Ozone Oxygen / Dry Air Generator is an exceptional value. Engineered to connect to a local compressed air source, the package includes a 5 micron filter / regulator with auto drain and coalescing filter.

The O Series Ozone Oxygen / Dry Air Generator provides a source for ozone in situations and applications that were previously unrealistic due to cost, weight or size.

The ozonator reactor cell components are made from titanium and ceramic which are impervious to ozone, extending the life of the generator. These ozone generators are notably stable and the ozone gas is extremely pure since there is no deterioration of internal materials.

OREC™ Ozone / Dry Air Ozonators O Series: Technology

The OREC™ O Series *Ozonators* feature corona discharge ozone generators that produce comparatively high concentrations of ozone for the duration of a long, virtually service-free life.

The titanium-ceramic, *ultra-narrow-gap*, corona discharge reactor cell is energized by a solid state power supply, providing proportional control of ozone output. The *ultra-narrow-gap* corona discharge reactor cell equates to energy efficient and responsive ozone generation.

OREC™ has combined *ultra-narrow-gap* technology with engineered, high frequency, pulse modulated power supplies and instantaneous amplitude modulated variable control to maximize ozone output efficiency and provide precise ozone concentrations.



The O Series *Ozonators* are constructed of ozone resistant components such as titanium electrodes, ceramic dielectrics, 316 stainless steel fittings, and Teflon® tubing to ensure reliability and maintenance-free performance. The *Ozonators* are air-cooled, employing large aluminum heat sinks and high volume fans for maximum heat transfer and optimal cooling, an important factor in improving ozone output.

Each OREC™ *Ozonator* is tested in a full range of operational conditions for ozone output and performance. OREC™ is unique, on a global basis, in having received *Direct Traceability* from the National Institute of Standards and Technology (NIST) and is ISO/IEC 17025 (A2LA) certified for ozone calibration!

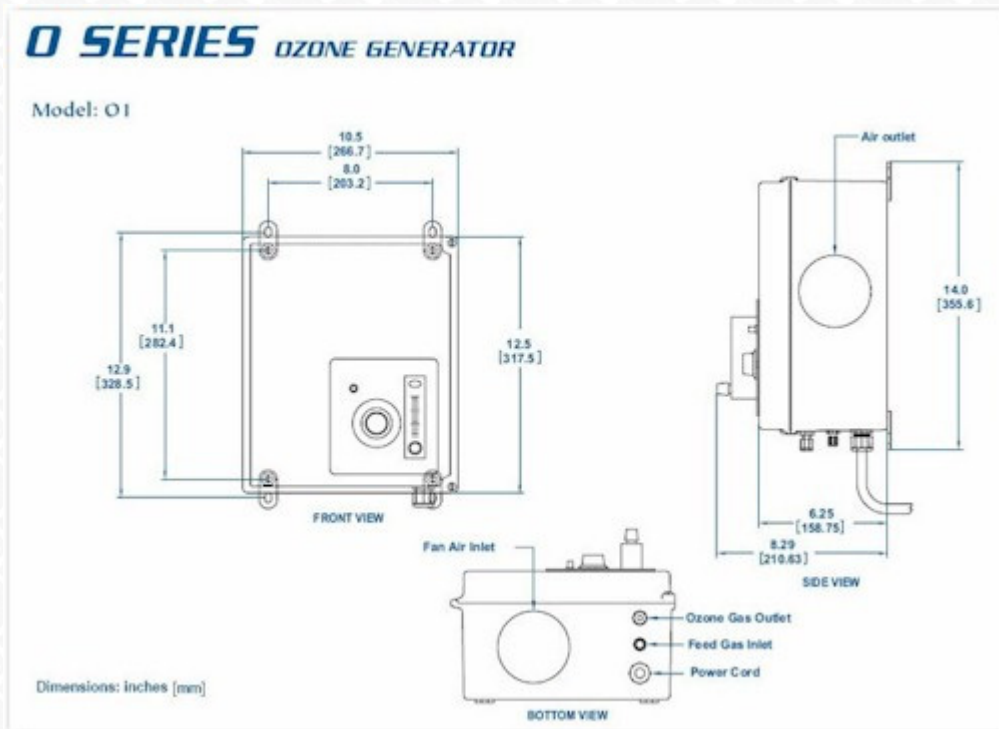
OREC™ Ozone / Dry Air Ozonators O Series: Features

- Reinforced fiberglass enclosure;
- Stainless steel hardware;
- Integrated PSA air dryer technology;
- Air cooled ceramic and titanium dual action reactor cell;
- Over temperature safety switch;
- 5 micron filter / regulator with auto drain;
- Coalescing filter.

OREC™ Ozone / Dry Air Ozonators O Series: Controls

- Variable output control: 0 – 100%;
- Inlet air pressure gauge: 0 – 100 PSI;
- Feed gas flow control: 0 – 10 SCFH;
- LED ozone indicator.

Model Number Voltage (AC):	O10001 • 115 VAC
Model Number Voltage (AC):	O10002 • 230 VAC
Ozone Production (O ₂ Feed Gas):	6 g/hr (0.3 lbs/day)
Ozone Production (Dry Air Feed Gas):	1.5 g/hr (0.075 lbs/day)
Ozone Concentration:	4% by weight
Compressed Air Requirement:	0.1 – 0.5 SCFM @ 80 – 125 PSI
Dry Air Output Dew Point:	– 100 F°
Maximum Reactor Pressure:	6 PSIG (0.4 Bar)
Feed Gas Flow Range:	7 – 10 SCFH (3.3 – 4.7 lpm)
Variable Control:	0 – 100%
Power Consumption:	180 Watts
Air Cooling:	90 SCFM (2549 lpm)
Compressed Air Inlet Connector:	0.25 inch (6.4 mm) female pipe thread NPT
Ozone Outlet Connector:	0.25 inch (6.4 mm) female pipe thread NPT
Power Requirement Model R-O10001:	115 VAC • 50/60 Hz • 1 Phase
Power Requirement Model R-O10002:	230 VAC • 50/60 Hz • 1 Phase
Power Consumption:	180 Watts
Dimensions (H x W x D):	12.5 x 10.5 x 6.25 in. (317.5 x 266.7 x 158.8 mm)
Weight:	12 lbs. (5.4 kg)



 [LARGER IMAGE](#)

National Institute of Standards & Technology
Reports of Analysis

Direct (Primary) Traceability

[NIST Report 839.03-03-155](#)
[NIST Report 839.03-05-168](#)
[NIST Report 839.03-08-004](#)
[NIST Report 839.03-09-142](#)



American Association for Laboratory Accreditation

[Instrument Calibration Certificate 1424.01](#)
[Mechanical Testing Certificate 1424.02](#)

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Index Terms: OREC™, Ozone Research Equipment Company, ozone generation, ozonator, ozone generator, ozone, ozonize, ozonate, generator, OREC, osmonics, ozone technology, dissolved gas, corona discharge, uv, ultra violet, O3, ASTM D518, ASTM D1149, ASTM D1171, ASTM D3395, ASTM D4575, ozone research, rubber cracking, ozone resistance, rubber, crack growth, weathering, rubber deterioration, surface cracking, ozone cracking, ozone measurement, rubber test, ultraviolet, rubber degradation, ozone degradation.

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