

Ozone: Simplified

Specifications & Requirements

**Enclosure**

Sealed NEMA 12 with Integral Cooler *Optional: NEMA 4X with Integral Cooler*
 Minimum Clearance: Front/Back/Right 36 in (915 mm) / Left 18 in (457.5 mm)
 Dimensions (LxDxH): 75" (1,905 mm) x 35" (889 mm) x 92" (2,237 mm)
 Weight: 1,700 lbs (771 kg)

Facility Connection Requirements

Oxygen Inlet: 3/4" Tube
 Ozone Outlet: 3/4" Tube
 Cooling Water Supply (CWS) & Return (CWR): 1" 316L SS, Class 150 Flange
 Electrical Service: 230 VAC/3ph/50-60Hz/ 110A (79 FLA)
 Compressed Air Feed: 1/4" Push Lock Fitting

Ozone Output

Ozone Output (LOX): up to 91.2 kg/d (201.1 ppd) @ 10% concentration, 103.2 kg/d (227.5 ppd) @ 8% concentration.
Ozone Output (PSA): up to 76.8 kg/d (169.3 ppd) @ 10% concentration, 84 kg/d (185.2 ppd) @ 8% concentration.
 Outlet Pressure: 20 psig *Optional: up to 25 psig*

Oxygen Requirements

PSA, VSA, VPSA or LOX O₂ Acceptable
 Oxygen Requirement at 10% concentration: 116.5 slpm per kgO₃ (52.9 slpm per lbO₃)
 Liquid Oxygen (LOX) Feed: Dew Point: <-80C (-112F)
 PSA/VSA Oxygen Feed: oxygen concentration ≥ 93%
 Max 0.1 µm Filter Inlet (Upon request)
 N₂ Feed NOT required.

Cooling Water Requirements

Type: Closed-Loop Chilled Water
 Fluid: Food Grade Glycol-Water Blend (30/70 blend, not included)
 Typical Required Cooling Water Flow: ~20 gpm
 Cooling Load: ~8.5 Ton

Controls & Communication

Schneider Electric Modicon M251 PLC Controller
 15" RedLion[™] Color Touch Screen HMI
 Remote Access: Ethernet/IP/Webserver Interface. Ethernet Switch Provided.
Optional: Cellular Modem (Cell Service Not Included)
 Uninterruptible Power Supply

Controls Routines

All Routines Available at Fixed or Variable O₃ % BW
 Automatic: PID ORP (mv) or PID DO₃ (ppm)
 Manual: Fixed Output (ppd or kg/h) or Full Manual

Accessories & Instrumentation

- 30 kVA Step Down Transformer
- Enclosure Ambient O₃ Analyzer
- Enclosure Ambient Temperature Transmitter
- O₂ Inlet Mass Flowmeter & Manual Rotameter
- O₂ Inlet Temperature Transmitter
- O₂ Inlet Pressure Transmitter
- O₃ Outlet Pressure Transmitter
- O₃ High Concentration Analyzer
- Inlet/Outlet Cooling Water Temperature

Compliance & Certifications

- UL 508A Listed, CSA, CE

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Footprint Overview

