

Ozone: Simplified

Specifications & Requirements

**Enclosure**

Sealed NEMA 12 with Integral Cooler **Optional: NEMA 4X**
 Minimum Clearance: Front/Back/Right 36 in (915 mm) / Left 18 in (457.5 mm)
 Dimensions (LxDxH): 111" (2,820 mm) x 35" (889 mm) x 103" (2,616 mm)
 Weight: ~5,100 lb. (2,313 kg)

Facility Connection Requirements

Oxygen Inlet: 1-1/2" 316 SS, Class 150 Flange
 Ozone Outlet: 1-1/2" 316 SS, Class 150 Flange
 Cooling Water Supply (CWS) & Return (CWR): 2" 316L SS, Class 150 Flange
 Electrical Service: 208VAC/3PH/60Hz/400A (327 FLA) – (480/600/400 VAC -> 208VAC Stepdown Transformer provided by Pinnacle – See below).
 Compressed Air Feed: 1/4" Push Lock Fitting (~1 cfm)

Ozone Output

Ozone Output (LOX): up to 328.3 kg/d (723.8 ppd) @ 10% concentration, 371.5 kg/d (819.0 ppd) @ 8% concentration.

Ozone Output (PSA): up to 276.5 kg/d (609.6 ppd) @ 10% concentration, 302.4 kg/d (666.7 ppd) @ 8% concentration.

Outlet Pressure: Up to 25 psig

Oxygen Requirements

PSA, VSA, VPSA or LOX

O₂ Requirement: 116.55 slpm/Kg-O₃ (52.87 slpm/lb-O₃) at 10% operating concentration.

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: ~68 gpm

Cooling Load: ~33.0 Ton

Controls & Communication

PLC: Allen Bradley CompactLogix **Optional: Schneider and Siemens.**

HMI: Allen Bradley PanelView Color 15" **Optional: Schneider and Siemens.**

Remote Access: Ethernet/IP/Webserver Interface. Ethernet Switch Provided.

Uninterruptible Power Supply

Controls Routines

Routines: 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

- 225 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

