

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): 42" (1,062 mm) x 37" (933 mm) x 83" (2,107 mm)
 Weight: 1,200 lbs (545 kg)

Facility Connection Requirements

Oxygen Inlet: 3/4" Tube
 Ozone Outlet: 3/4" Tube
 Cooling Water Supply (CWS) & Return (CWR): 3/4" Tube
 Electrical Service: 208VAC/3ph/50-60Hz/ 60A (39 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 (O3)

Ozone Output (LOX): Up to 45.6 kg/d (100.5 ppd) @ 10% concentration / Up to 51.6 kg/d (113.8 ppd) @ 8% concentration
Ozone Output (PSA): Up to 38.4 kg/d (84.7 ppd) @ 10% concentration Up to 42.0 kg/d (92.6 ppd) @ 8% concentration
 Outlet Pressure: Up to 25 psig

Oxygen Requirements (O2)

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: ~12 gpm
 Cooling Load: ~4.25 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

- 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

