

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 94" (2,388 mm)
 Weight: 4,600 lbs (2,090 kg)

Facility Connection Requirements

Oxygen Inlet: 1-1/4" 316 SS, NPT
 Ozone Outlet: 1-1/4" 316 SS, NPT
 Cooling Water Supply (CWS) & Return (CWR): 1-1/4" 316L SS NPT
 Electrical Service: 208VAC/3PH/60Hz/ 300A (234 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 273.6 kg/d (603.2 ppd) @ 10% concentration, 309.6 kg/d (682.5 ppd) @ 8% concentration
Ozone Output (PSA): Up to 230.4 kg/d (507.9 ppd) @ 10% Concentration, 252.0 kg/d (555.6 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: ~55 gpm
 Cooling Load: ~25.0 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

- 112 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

