

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): 75" (1,905 mm) x 35" (889 mm) x 92" (2,237 mm)
 Weight: 2,000 lbs (907 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/ 110A (104 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 109.4 kg/d (241.2 ppd) @ 10% Concentration, 123.8 kg/d (272.9 ppd) @ 8% concentration
Ozone Output (PSA): up to 92.2 kg/d (203.3 ppd) @ 10% concentration, 100.8 kg/d (222.2 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: ~23 gpm
 Cooling Load: ~10.2 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

- 45 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

Ozone: Simplified

Footprint Overview

