

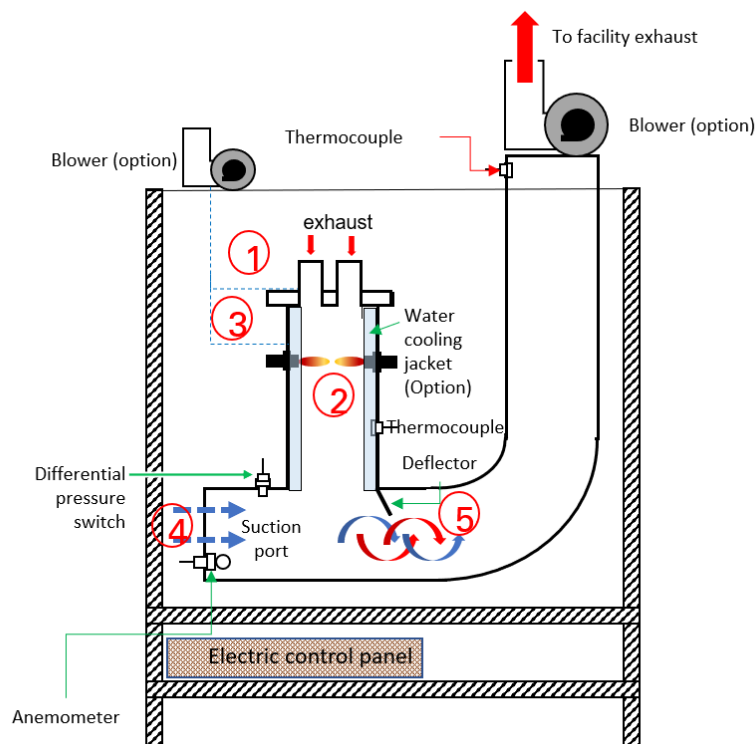
Guardian G91

COMBUSTION ABATEMENT

The Guardian series is the industry standard for reliable, thermal oxidation and combustion of process gases.

Guardian systems are designed to thermally oxidize spent process gases using active flame oxidation. The effluent gases pass through a wall of flame in the main chamber, guaranteeing ignition of flammable and pyrophoric process gas by-products.

Over 2,000 installations worldwide have proven the Guardian series is safe and effective at treating flammable gases from process effluents and gas cabinet vent lines. Instantaneous shutoff of fuel and igniters eliminates a potential ignition source from upstream gas flows. With no moving parts, maintenance intervals are extended with MTBF measured in years. Guardian technology is a proven effective solution for thermal



APPLICATION

- Polysilicon
- CVD
- Pyrophoric/flammable gas combustion
- Gas cabinet vent purge

CONFIGURATIONS

- Floor-mount

ADVANTAGES

- Small footprint
- Low cost of ownership
- No electrically heated elements for immediate cooldown
- Flame flashback prevention system for safe, reliable operation
- Natural gas fueled
- Low maintenance requirement
- MTBF measured in years
- SEMI S2 compliance
- CE marked

Specifications

OPERATING PARAMETERS

Process Gas Capacity per System	800 slm (28.25 scfm)
Exhaust Air Flow	22 – 57 m ³ /min (800 – 2,000 scfm)
Fuel Consumption Methane, CH ₄ Hydrogen, H ₂ (Option)	22 – 38 slm (0.8 – 1.3 scfm) 25 slm (0.9 scfm)
Power Consumption	600 W
Clean Dry Air, CDA	80 - 120 slm (2.8 – 4.2 scfm)
Nitrogen, N ₂ (only used with optional Flashback Arrestor)	100 slm (3.5 scfm)

FACILITIES REQUIREMENTS

Connections Process Inlet Process Exhaust	1 – 4 Inlets (KF-40)
Fuel Supply Methane, CH ₄ Hydrogen, H ₂ (Option)	0.5 psi (34.5 bar) 1/2" compression fitting 35 psi (241 kPa) 1/4" compression fitting
Compressed Gas Nitrogen, N ₂ (Flashback Arrestor Option) Clean Dry Air, CDA	80 – 100 psig (5.5 – 6.7 bar) 1/4" compression fitting 80 psig (5.5 bar) 1/4" compression fitting
Electrical Supply	120 VAC, 50/60 Hz, 6A
Overall Dimensions	46.70" W x 22.61" D x 77.63" H (1186 mm W x 574.40 mm D x 1971.74 mm H)
Clearance	Front 23.62 (600mm) Left 23.62 (600mm) Right 15.75 in (400 mm) Top 12 in (305 mm)
Weight	882 lbs (400 kg)

- (1) Airflow dependent on application for balancing cooling, inert load and particle evacuation.
- (2) Nitrogen consumed only when activated.

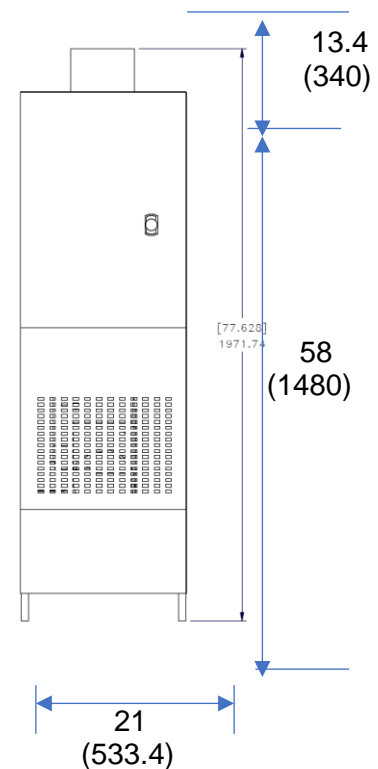
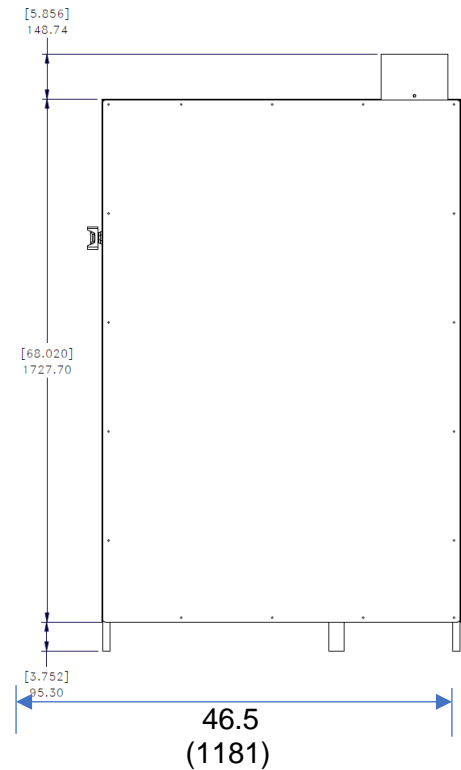
COMMUNICATION AND INTERLOCKS

- 15-pin, D-sub female pin connector
- Ethernet

OPTIONAL

- Flashback Arrestor (FBA)
- Simple Remote Panel (SRP)
- KF Purge Adapter Kit
- 220 VAC/50 Hz Power
- Hydrogen fuel

Product Dimension



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