



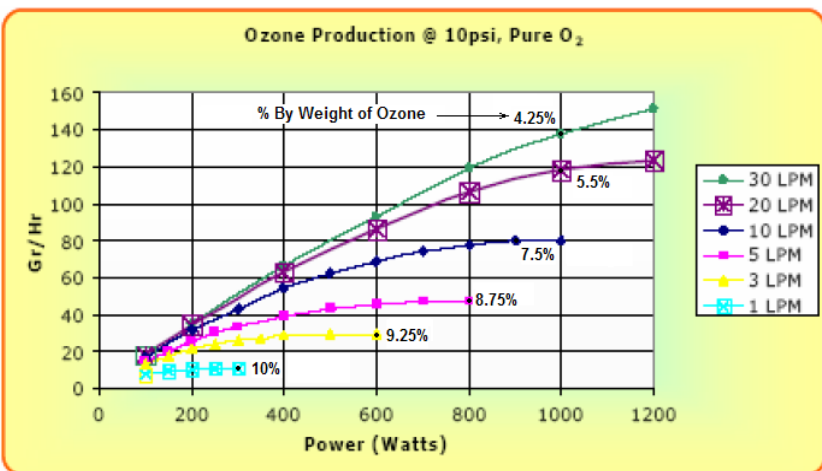
PB400 & PB600 grams/hr



Plasma Block® Corona Discharge Air & Water Cooled
 Guardian manufactures standard and custom configurations in numerous ozone markets. Our engineering team is ready to provide the best solution. Smaller systems to 10 grams/hr



Specifications	PB400Q3	PB450CL1	PB600Q5-AC
System Control	Guardian Smart Relay	PLC	Guardian Smart Relay
Number of Generators	Three UL Classified	One UL Classified	Five UL Classified
Ozone Output g/hr*	400 g/hr (21 lbs/day)	450 g/hr (24 lbs/day)	600 g/hr (32 lbs/day)
Power Requirements	240V, 30A	240V, 20A	240V, 40A
Oxygen Feed Gas	10 LPM to 90 LPM	10 LPM to 115 LPM	15 LPM to 150 LPM
UL508A Enclosure	NEMA12 Powder Coat	NEMA12 Powder Coat	NEMA12 Powder Coat
Cooling Water Requirements	None-Air Cooled	2-4 gpm ~ 65° F	Air Cooled with A/C
Pressure Range	5 to 100 psi	5 to 100 psi	5 to 100 psi
Dimensions	6.25"x37.4"x19"	47.25"x32"x19"	75.3"x98.7"x28"
Weight	~375 lbs	~400 lbs	~1200 lbs
OPTIONS	PB400CQ3	PB450CL1	PB600Q5-AC
Programmable Logic Control	Yes	Included	Yes
Oxygen Feed Gas Protection	Included	Included	Included
Multiple Zone Output	2 to 16	2 to 16	2 to 16
UL508	Included	Included	Included
Sensor Display	Rosemount, ATI	Rosemount, ATI	Automation Direct
Sensor Signal Control	0 to 10 volt, 0 to 20 mA	0 to 10 volt, 0 to 20 mA	0 to 10 volt, 0 to 20 mA
Backflow Device	Optional Integral	Optional Integral	Optional Integral
Vacuum Auto Shutdown	Yes	Yes	Yes
Air Conditioned Enclosure	Yes	Not Required	Yes
NEMA4X Wash Down	Yes	Yes	Yes
Integrated Custom Systems	Ozone Injection, Degas, Pump, Ambient Ozone Monitoring, Backflow Prevent		
Operating Conditions 32 to 102 Degrees F			



*Ozone production will vary depending on oxygen feed gas flow rates.

Curve Based on Style "Q" Cooled Cell

Plasma Block® configurations for water and air cooled cells are available for all Custom PLC models.

Optional Water Cooled Cells Available

Guardian has smaller enclosures for air cooled cells 10 g/hr to 60 g/hr.

Custom Enclosures and Software

Guardian Manufacturing Inc.
 2971-A Oxbow Circle
 Cocoa, FL 32926

www.guardianmfg.com

321-631-4580 ext. 304

321-631-4517 fax



Ethernet or Internet monitoring is available on all PLC models.

REMOTE MONITORING TECHNOLOGY



GUARDIAN
Manufacturing



**Models to 600 grams/hr Air & Liquid Cooling
Plasma Block® Corona Discharge Generators**

PB240CQ2 PLC Air Cooled Plasma Block® 15 lbs/day

Guardian is committed to the highest quality in all of our products. Guardian is a registered ISO-9001:2000 company. We are listed to build UL-508A. Plasma Block technology® is becoming the most sought after ozone generating protocol. We can design to your specifications or supply one of our off-the-shelf systems. Guardian is supporting OEM ozone companies in several markets.

Guardian-----"We are changing everything"

PB400Q3 Smart Relay Air Cooled Plasma Block® 22 lbs/day

Plasma Block® Technology Advantage

- Integrated Guardian Engineering
- Ultra High 23K Hertz for Silent Operation
- Onboard Oxygen Monitoring Protection
- High Voltage is Safely Contained
- Efficient Air Cooled Reaction Chambers
- No Glass Tube Dielectrics to Break or Fail
- Auto feed-gas startup and shutdown
- PLC Integrated Control Option w/full Alarm History
- PDM or Pulse Density Modulating 100:1 turn down
- PID Linear Precise Control
- Operating Pressure Range 6 to 100 psi
- Factory Support and Service
- Swagelok® Stainless Steel & Orbital Welded Tubing
- Ⓢ UL508A and UL Classified Generator
- Heavy Industrial Bullet Proof Design

Micro Channel™ Aluminum/Ceramic Cell

No stainless steel; Therefore, no ferric chromate contamination
Micro Channel™ Technology for precise ozone control

PB450L1 Water Cooled Plasma Block® 24 lbs/day

No Exposed High Voltage

High voltage is safely contained in the plasma block chamber. Other designs have high voltage exposed which can cause dangerous flash over and fire. This is not possible with the Plasma Block®.

Maintenance

The Plasma Block® cells are maintenance free. Cells can last for 10 years. Required maintenance is only performed on the oxygen feed gas system. Cell replacement is simplified with limited training and no special tools.

Oxygen Feed Gas

All Plasma Block® cells require the use of oxygen feed gas and are designed to the full efficiencies utilized by 90% to 95% oxygen

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