Plasma Technics, Inc.®

Plasma Block® 2018 Catalog

A complete line
Of ozone-generating
Products.

Gen1 Enhanced
Gen2
10g
20g
26g
30g
50g
60g
70g
120g
140g
150g
300g
450g

25 YEARS EXPERIENCE

c UL us LISTED

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OEM

10g & 20g @ 5% Plasma Blo$_3$ck® (Air-Cooled)

Regular Chassis Configuration

c UL us LISTED

Alternate Chassis Configuration

For added application information, see the **Plasma Block® Application Guide** manual.

Models available :

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Fully automatic tuning for constant ozone output and installation simplicity
Service simplicity due to automatic fault diagnostics
Silent, Rugged, Reliable and Cost Effective
No exposed high-voltage safety hazards
10g and 20g models in same chassis
Available with PlasmaVIEW® software (optional).

Design Features:

- **10g**, 5%, **2 lpm**, 5 psi. **20g**, 5%, **4 lpm**, 5 psi.
- Directly installable by UL 508a panel house.
- **Full-Auto** and **Semi-Auto** modes hold constant power over the entire pressure range of **5 - 100 psi**. From package to process, no setup or adjustments are required. Continuously tracks and automatically optimizes performance for changes in pressure, flow and line voltage.
- **Universal, world class product**. **Constant ozone output** and cooling: 100 – 240vac, 50/60hz, power factor .94-.99 across the entire working voltage and power range. Power supply is UL / CSA / CE approved. NO line voltage configuration jumpers – any voltage, any frequency; same unit.
- **Efficient**, compact, silent (25khz), safe, rugged, reliable, advanced – all the normal traits of a PTI product. Same precise linear control, with turn down to 1%, as with all Plasma Block® products.

- Maximum up-time , durable, commercial / industrial solution the ozone industry requires.
- Possible **cell flooding** is identified followed by shutdown and enunciation. No damage is caused to electronics, transformer and rarely the cell. Cell flushing and drying in the field is usually sufficient to restore full service.
- Extensive two tier fault enunciation **maximizes up-time** and simplifies service diagnostics. Latched fault indicators retain fault status until serviced.
- This Gen2 cell is a scaled down version of PTI's field proven 50g product which is virtually impervious to extremes in temperature, vibration and pressure. **Major savings are had due to its low energy use, low oxygen volume needs and competitive price.**
- The control electronics is accomplished via Plasma Technics® new DAT300 or 310 microcontroller based inverter board. This state of the art controller yields a simpler user interface and many new features intended to further increase up-time and **simplify installation** and troubleshooting.
- **Control connections** of the essential I/O functions are the **same** as all other Plasma Block® products.
- PDM, Voltage and Frequency potentiometers have their own jumper selection for onboard control if desired.
- Complex and thorough onboard electronic short circuit protection prevent nuisance circuit board failure due to accidental field wiring errors.
- Power and control connections are located at the rear of the product to enable integrators to construct 'plug & play' mounting.
- **Same mounting footprint and mounting hole centers** as the popular 50g Plasma Block®. The 10/20g chassis is a miniature version of the 50g unit. This means that the general location for control connections, gas in / out, cooling, etc., are the same.
- **Military grade conformal coating** eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Like all other Plasma Block® products, the feed gas supply must be either PSA concentrator or bottle feed of at **least -60°F dew point, filtered, positive-pressure oxygen.**

Configuration options :

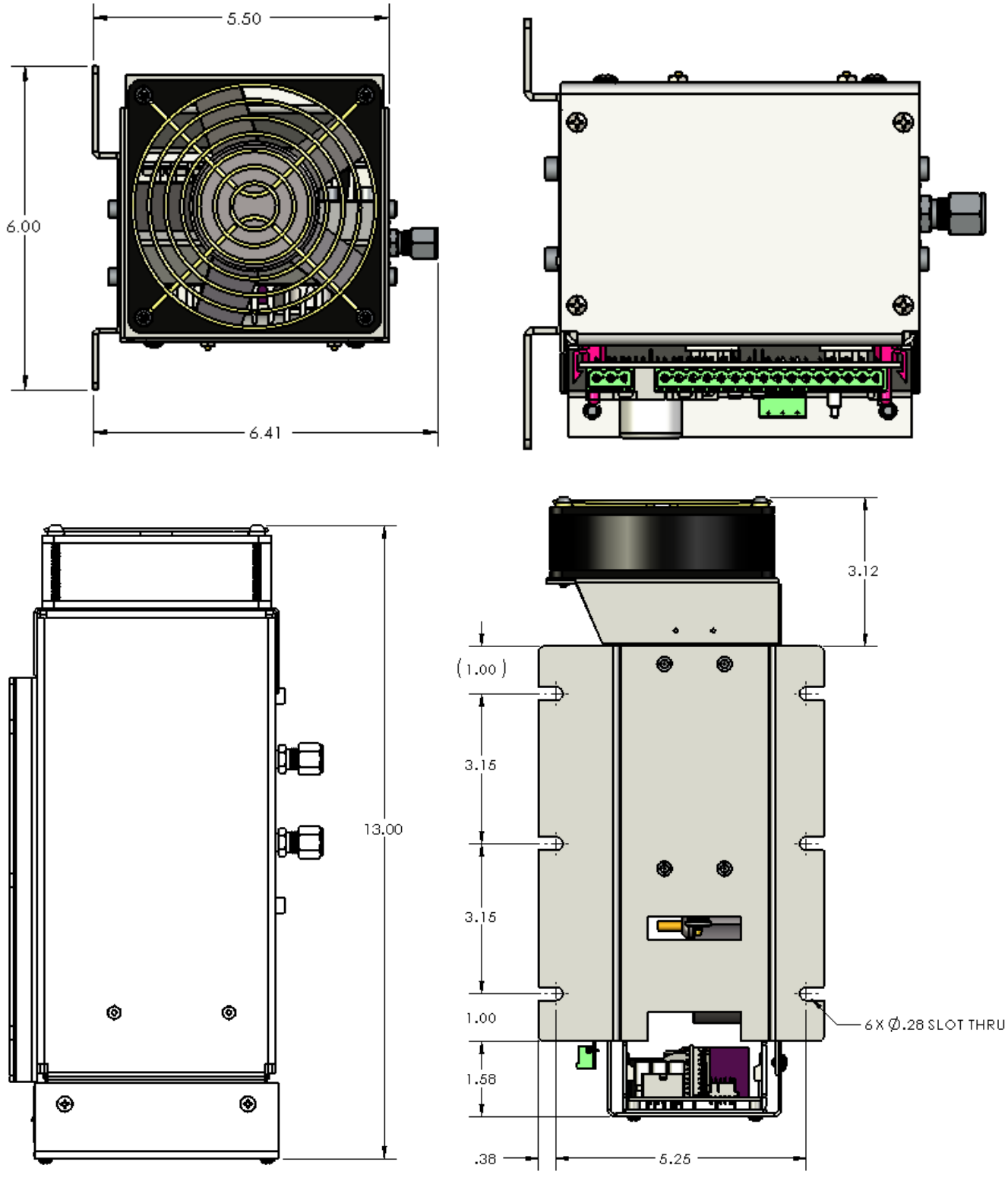
PTI will set up and tune units to the customer's desired specifications:

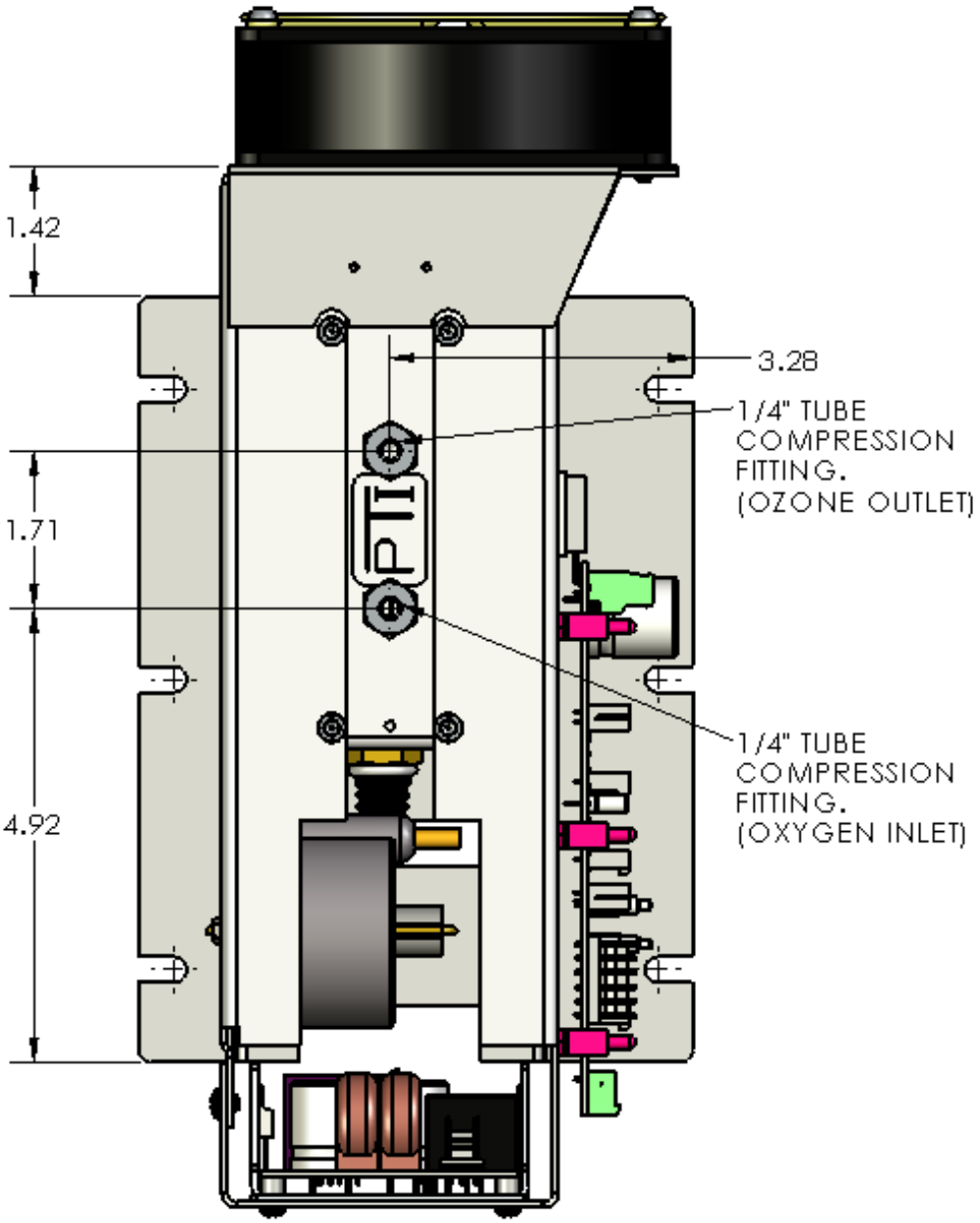
Oxygen pressure - (5 - 100 psi) [UL 5x rated]
Oxygen flow liters/minute - (.1 - 10 Lpm) or equivalent SCFH
Heat load btu/hr = 430 (10g) and 860 (20g)
Chassis (standard or alternate)
Inlet fittings (none, 1/4", other)
Outlet fittings (none, 1/4", other)

Weight Lbs (Kg) :

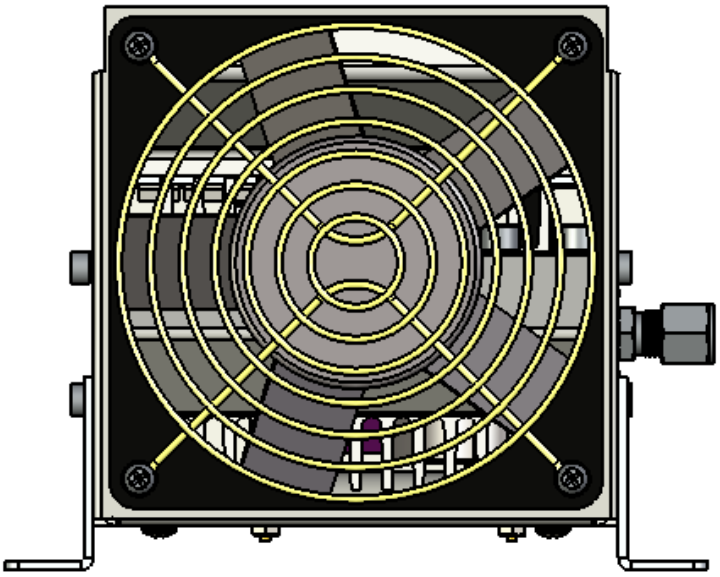
10g unit 8.45 (3.84)
20g unit 8.75 (3.97)

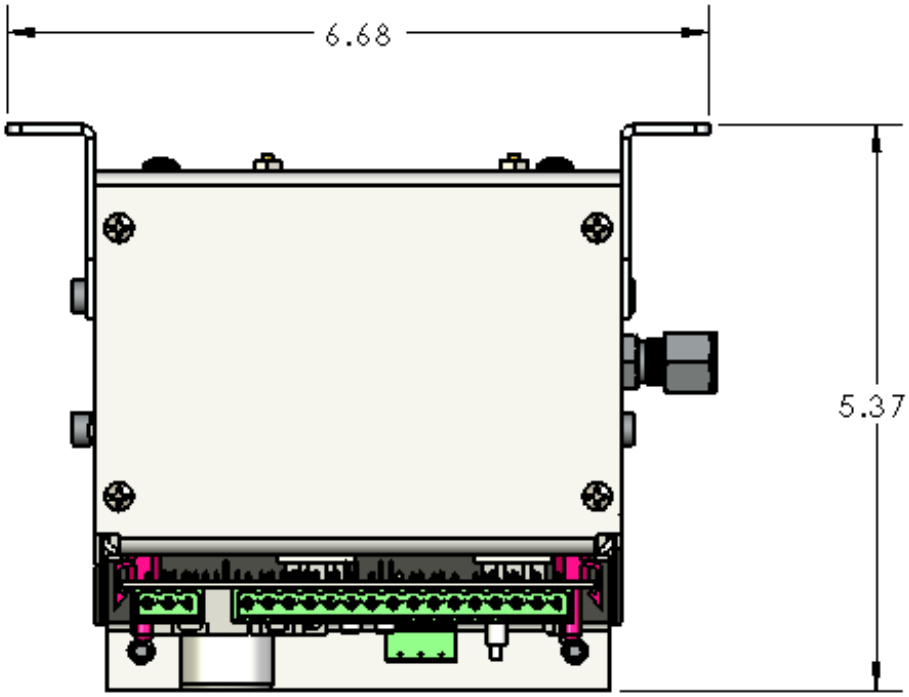
Installation Drawing Regular Mount : Inches

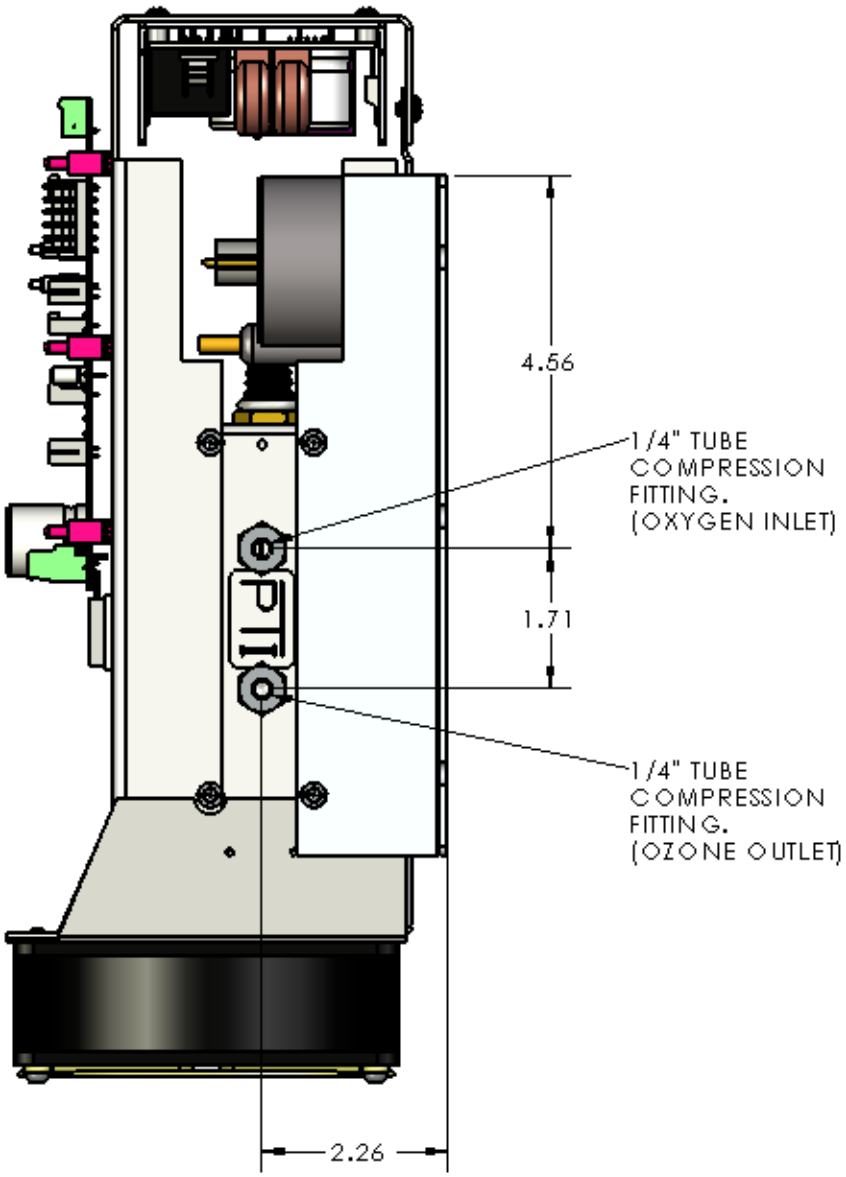


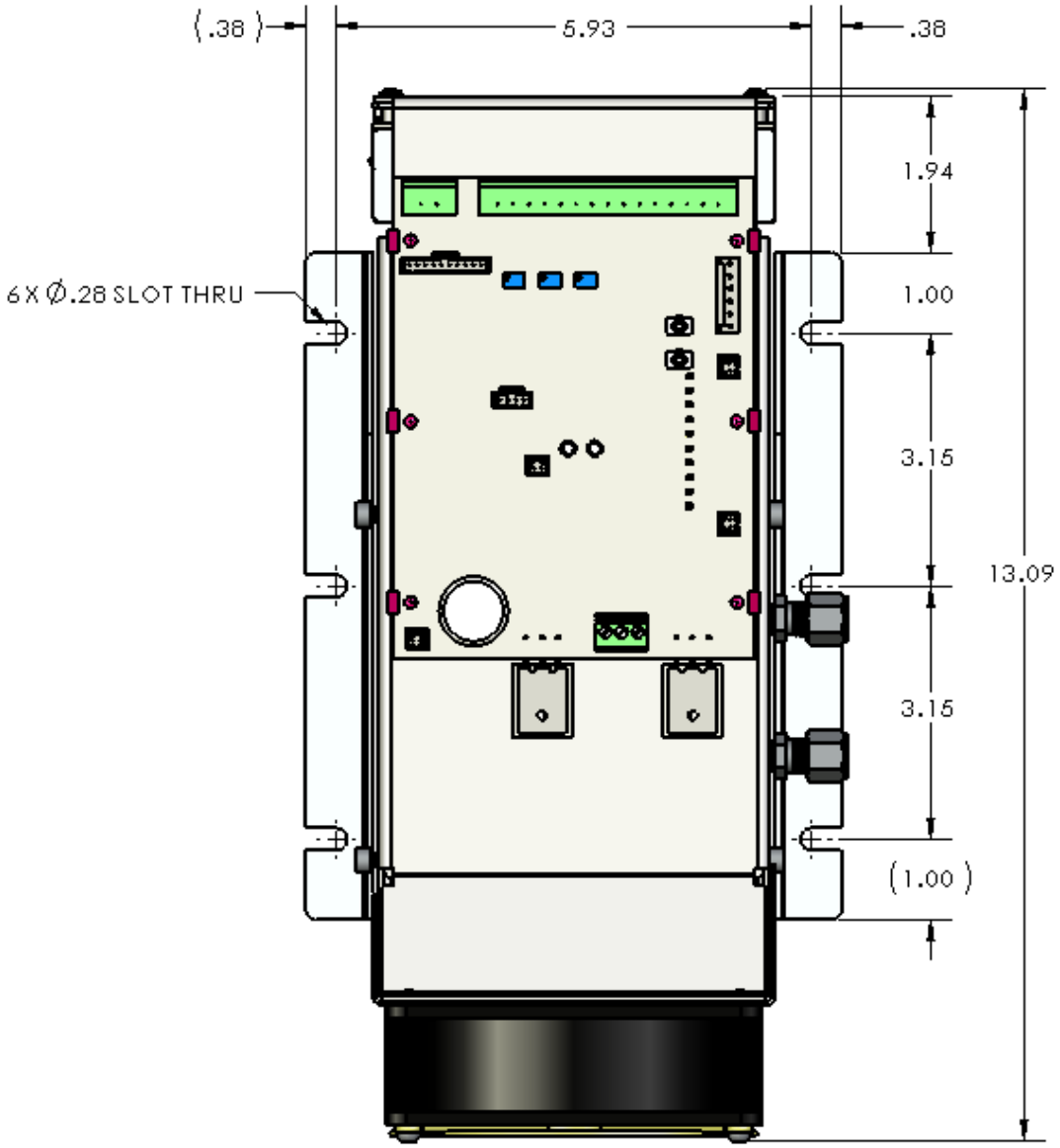

1.42
1.71
4.92
3.28
1/4" TUBE
COMPRESSION
FITTING.
(OZONE OUTLET)
1/4" TUBE
COMPRESSION
FITTING.
(OXYGEN INLET)

Installation Drawing Alternate Mount : Inches



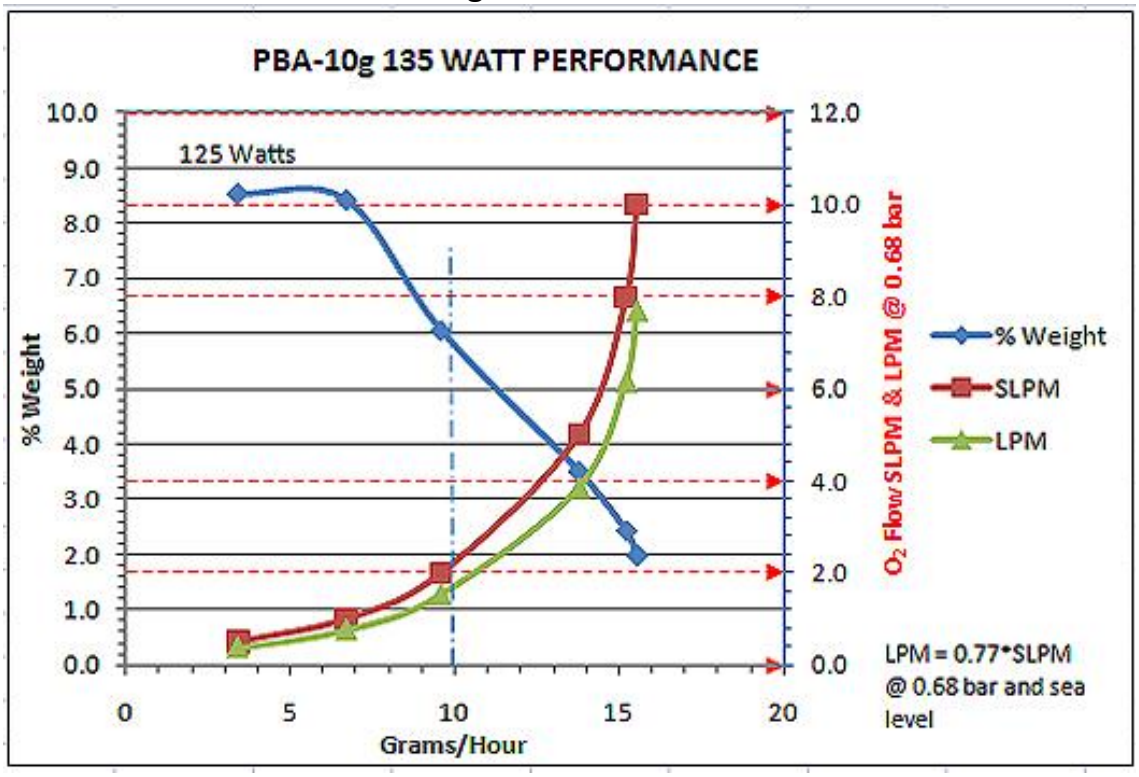


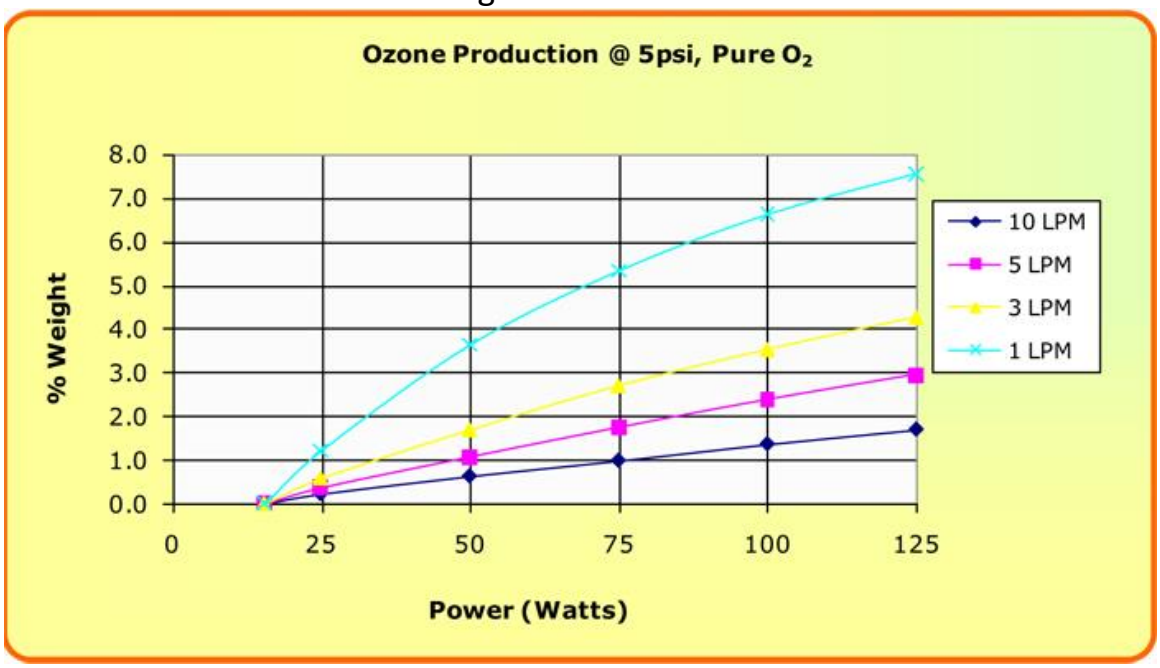

4.56
1/4" TUBE
COMPRESSION
FITTING.
(OXYGEN INLET)
1.71
1/4" TUBE
COMPRESSION
FITTING.
(OZONE OUTLET)
2.26

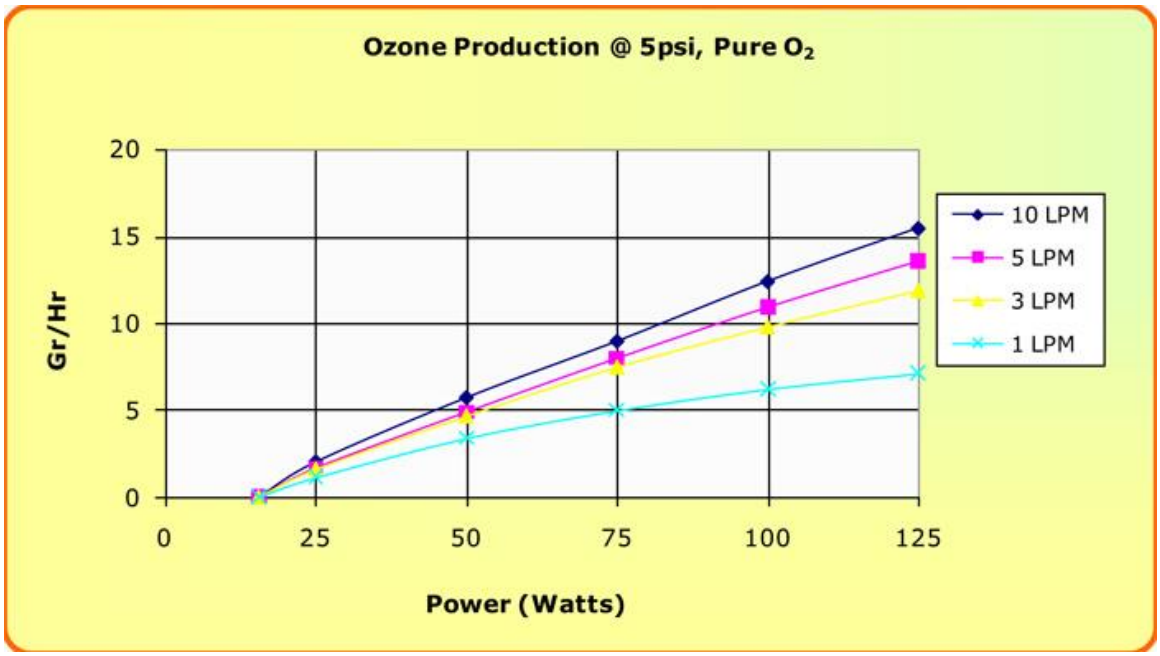

(.38)
5.93
.38
1.94
1.00
3.15
13.09
3.15
(1.00)
6 X Ø.28 SLOT THRU

Output Performance:

10g Plasma Block®

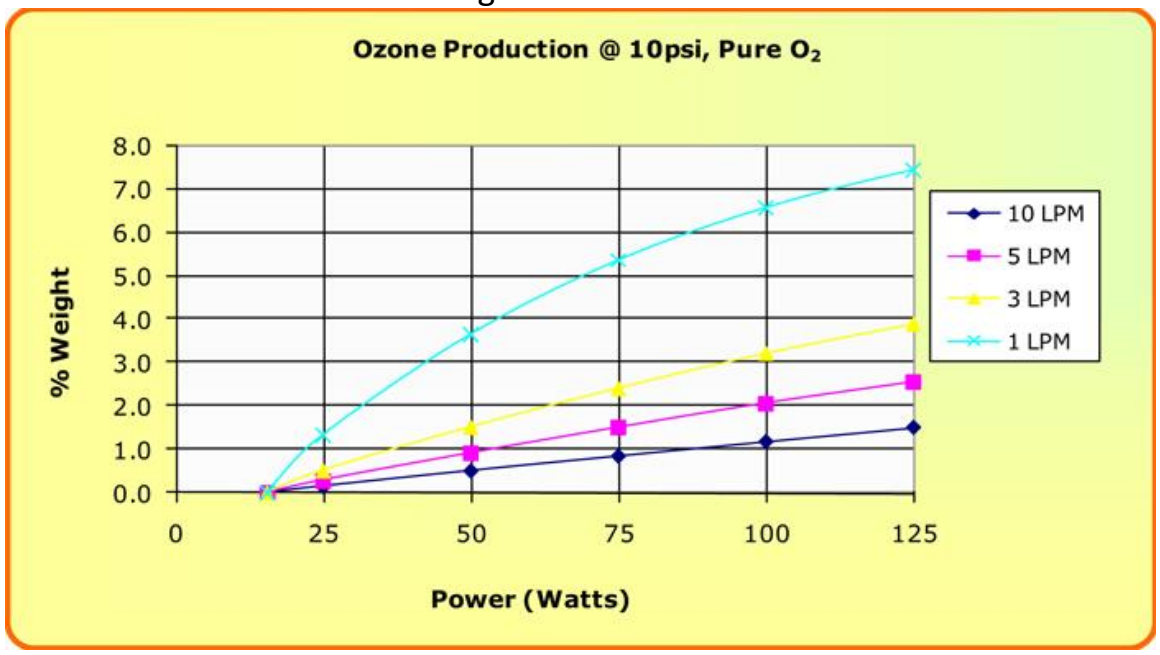


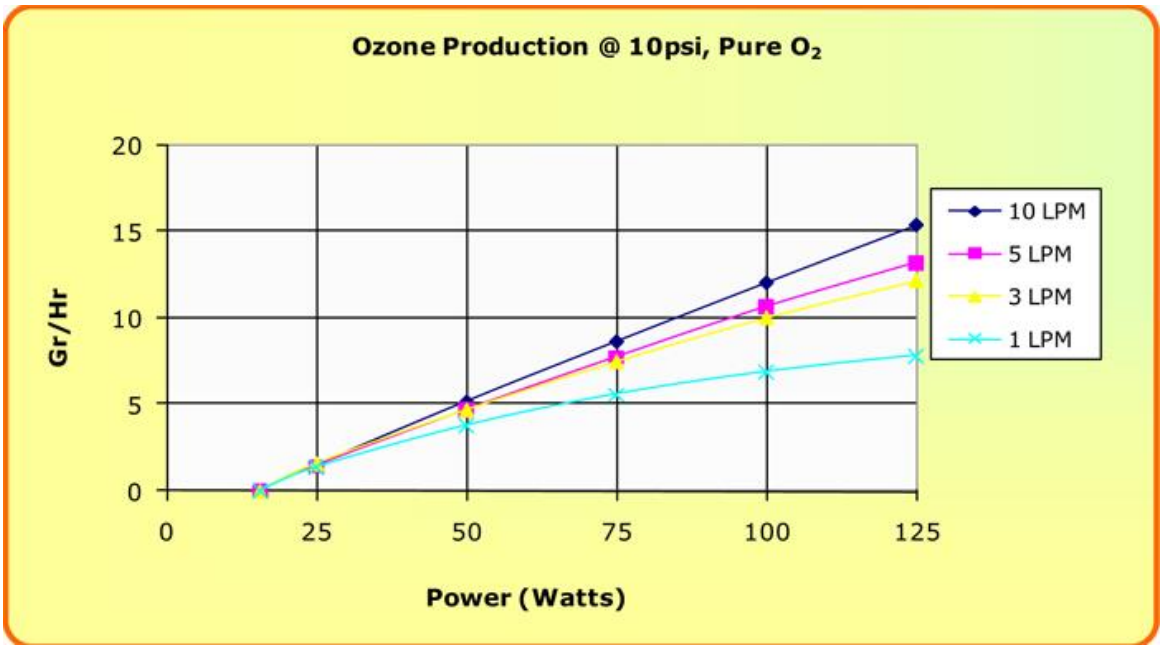




Normal factory POWER setpoint: 125 watts at FULL PDM (10vdc or 20ma)

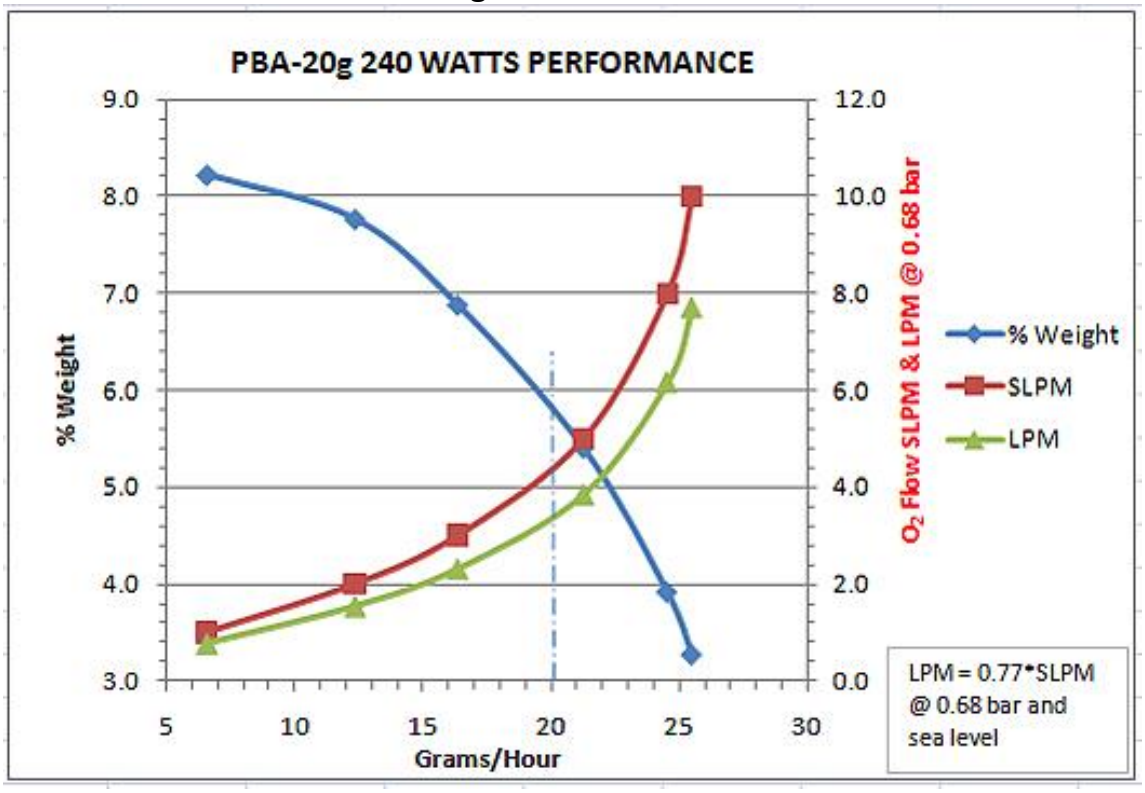
Published production-ozone output level (10gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm^3.
Flow measured in **LPM** via **uncorrected** Rotameter at inlet port. Ozone at 0 psi from side stream.
Fan and power supply burden of 17 watts is included in above chart.
Curves includes 15.5 watt power supply and dc fan quiescent load..

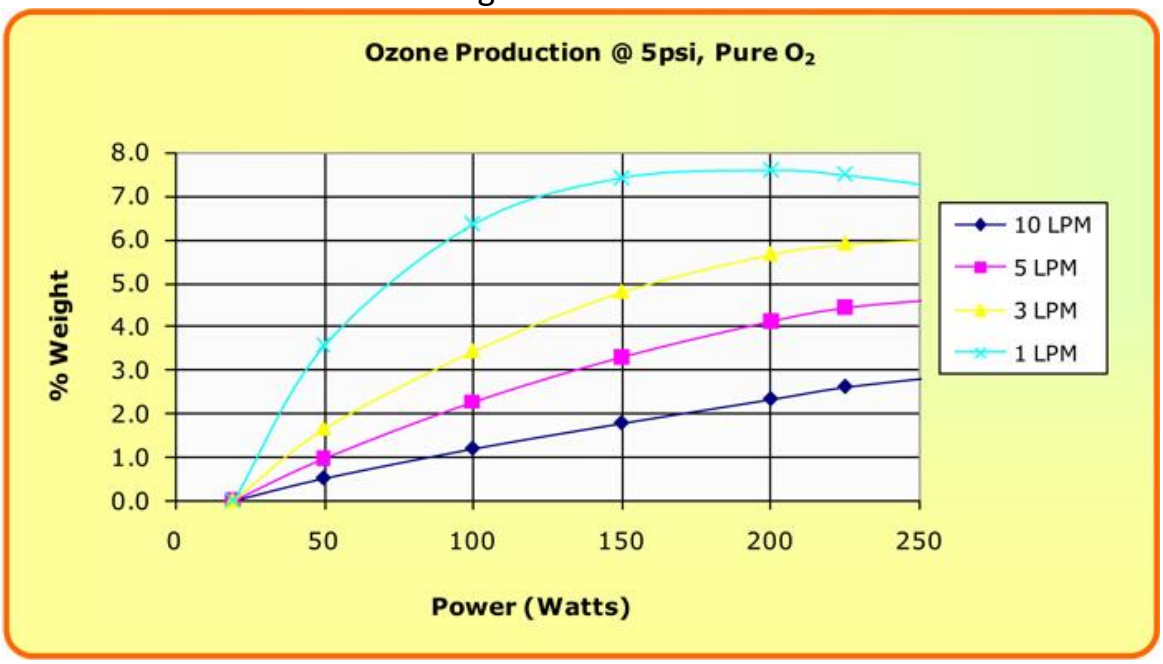


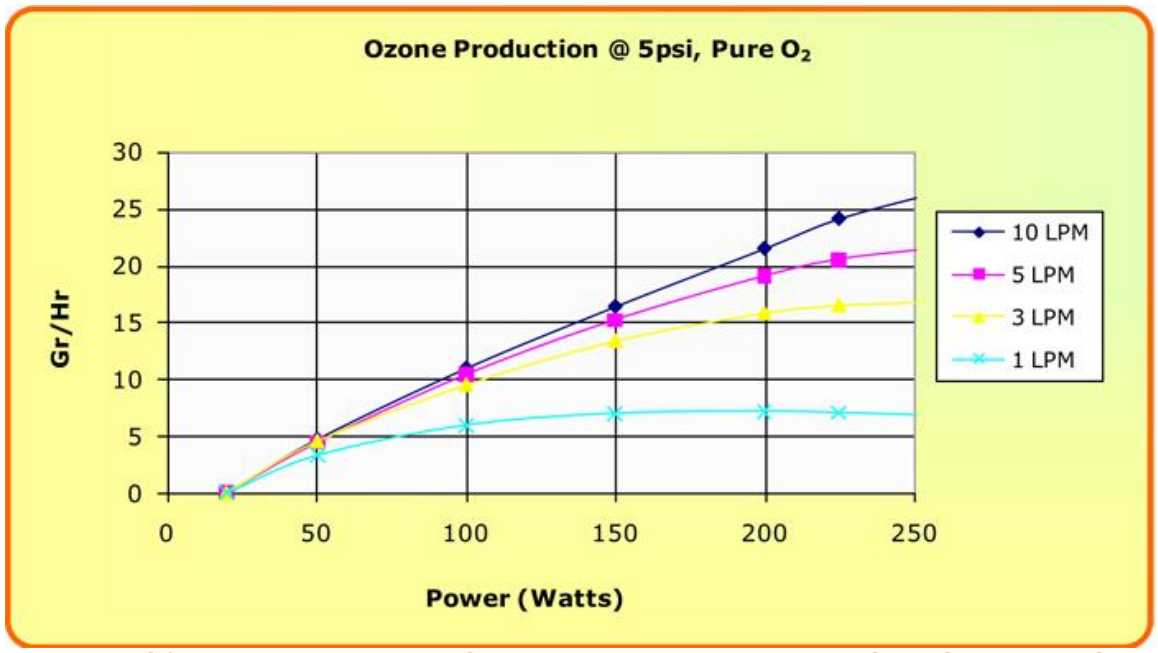


Normal factory POWER setpoint: 125 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (10gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm^3.
Flow measured in **LPM** via **uncorrected** Rotameter at inlet port. Ozone at 0 psi from side stream.
Fan and power supply burden of 17 watts is included in above chart.
Curves includes 15.5 watt power supply and dc fan quiescent load.

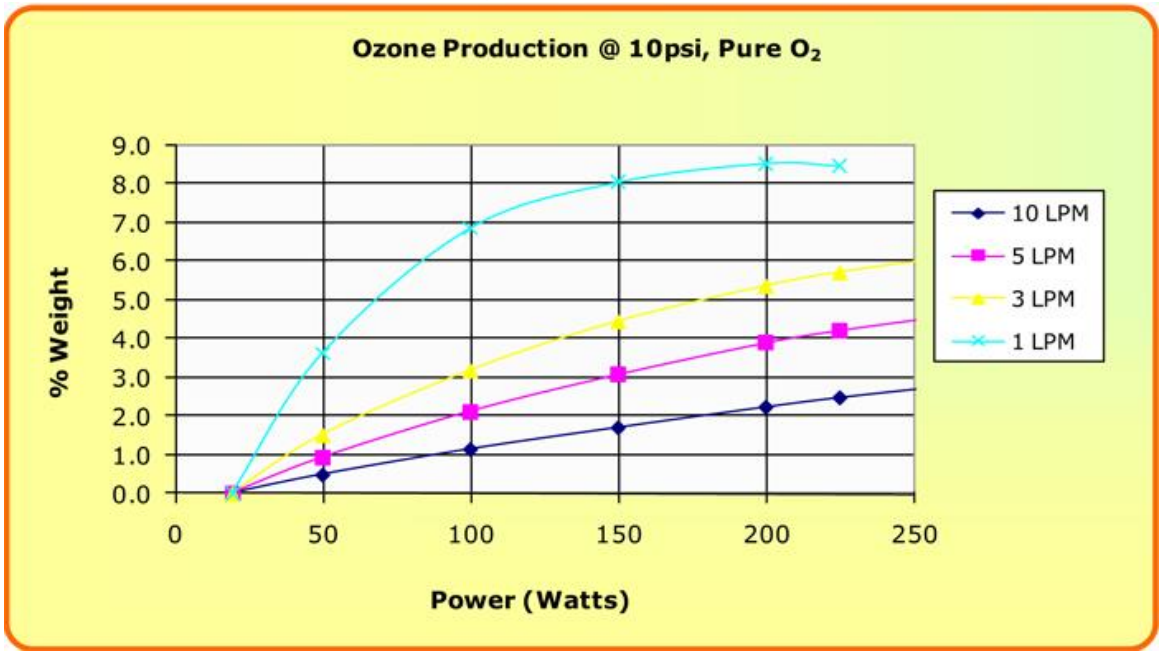

PBA-20g 240 WATTS PERFORMANCE
% Weight
O_2 Flow SLPM & LPM @ 0.68 bar
Grams/Hour
% Weight
SLPM
LPM
LPM = 0.77*SLPM
@ 0.68 bar and
sea level

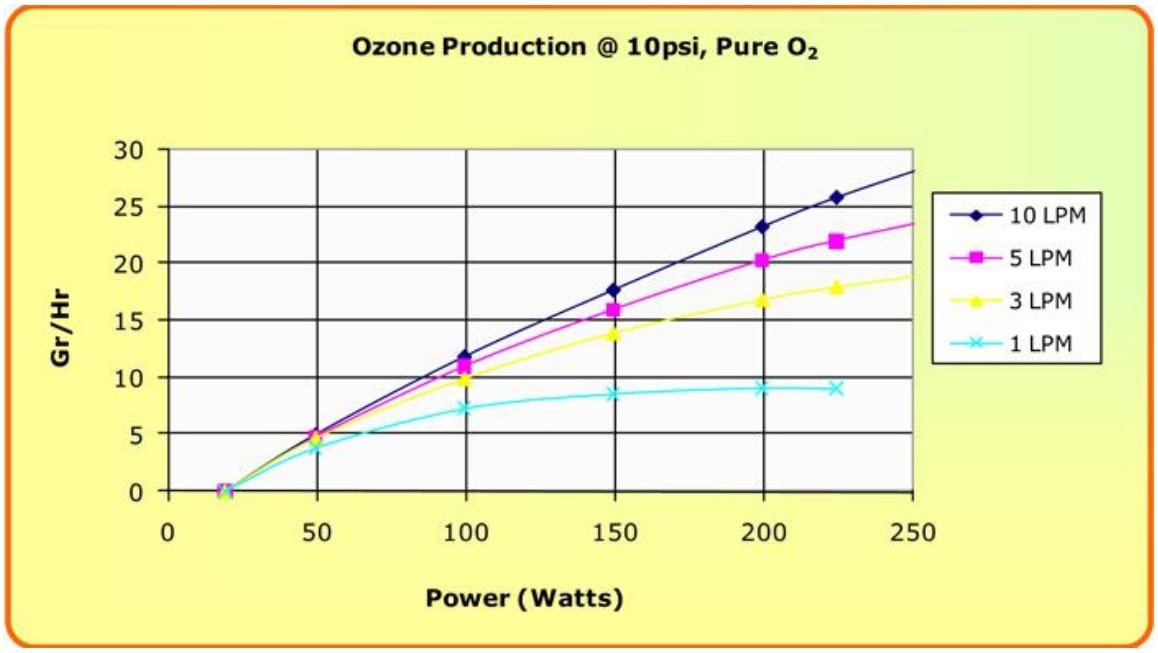




Normal factory POWER setpoint: 250 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (20gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm^3.
Flow measured in **LPM** via **uncorrected** Rotameter at inlet port. Ozone at 0 psi from sidestream.
Fan and power supply burden of 20 watts is included in above chart.
Curves includes 19.5 watt power supply and dc fan quiescent load.



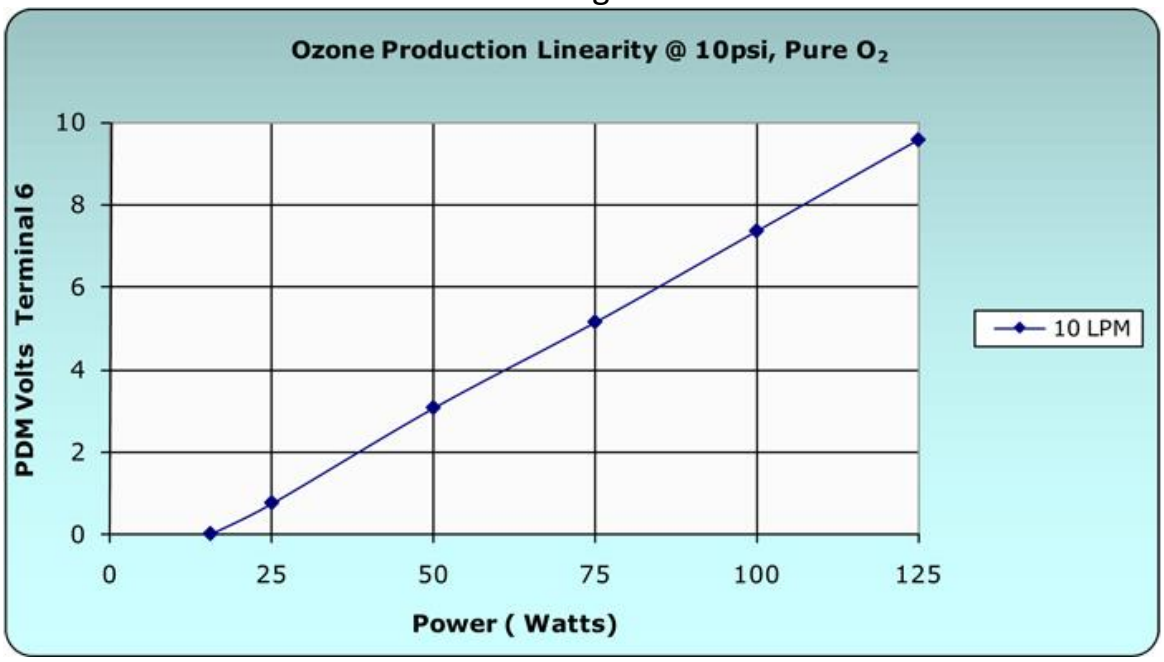


Normal factory POWER setpoint: 250 watts at FULL PDM (10vdc or 20ma)

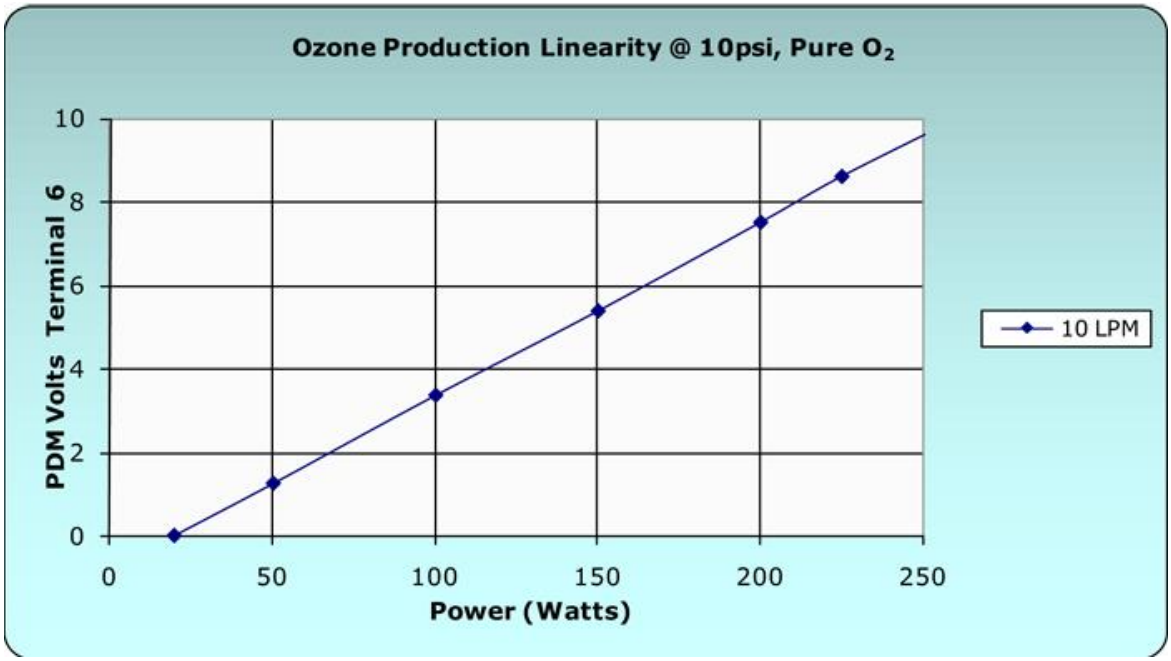
Published production-ozone output level (20gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm^3.
Flow measured in **LPM** via **uncorrected** Rotameter at inlet port. Ozone at 0 psi from sidestream.
Fan and power supply burden of 20 watts is included in above chart.
Curves includes 19.5 watt power supply and dc fan quiescent load.

Ozone Linearity vs PDM Command Signal

10g



20g



Plasma Technics, Inc.®

OEM

30g @ 5% Plasma Blo$_3$ck® (Air-Cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Models:

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Cost-effective, **Compact** and Light Weight, Ceramic, **Air-cooled** and power-**Efficient**.
1.1 lbs/day at 6.7% and 3 LPM : 1.9 lbs/day at 3.5% weight and 10 LPM (Oxygen or Concentrator)
No exposed, high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Control with **Turn-down to 1%.**
Available with PlasmaVIEW ®software (optional).

Design Features:

- **All** high voltage is safely contained completely within the Plasma Blo$_3$ck®, thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted, and **all** metal grounded.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer tightened ozone fitting. All non-metal materials are ozone rated.
- Military grade conformal coating eliminates problems associated with condensation and mold and greatly retarding damage caused by accidental ozone exposure.
- Directly installable by UL 508a panel house.
- **Micro Channel**®design results in high concentration, reduced high-voltage levels, and more efficient operation. **Requires concentrator or bottle feed of at least -60°F dew point, filtered, positive-pressure oxygen**. Materials in the gap are **ceramic and aluminum**.

- Ideal for 'over-the-road' applications. Instant-ON ozone production -- no warm-up time.
- Precision-machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures**, as well as **vacuum ride through**. Only 1 psi drop with 10 LPM flow. As with any cell, the most predictable performance occurs in the positive pressure domain. Maximum pressure 100 psi. 2.7 safety factor at 150 psi.
- Ozone level automatically controlled to ± 1% from 85 to 130vac, or 170v to 260vac, depending on the model.
- Pre-mounted, seasoned and tested package sub-system includes cell, transformer, inverter and fan. Design uses the finest quality materials and machining for maximum performance and efficiency.
- The Inverter is a reduced-power version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product.
- **23 kHz** operating frequency for **silent** operation. Line voltage 120v or 240v, 50/60hz.
- **Inlet 1/4", Outlet 1/4"; both Stainless Compression** Fittings are standard; 3/8" or 1/4" NPT on request.
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install.
- Rigorous 100% performance, as well as burn-in tests of all electricals, are conducted to ensure the highest level of product **quality, reliability and consistency**.

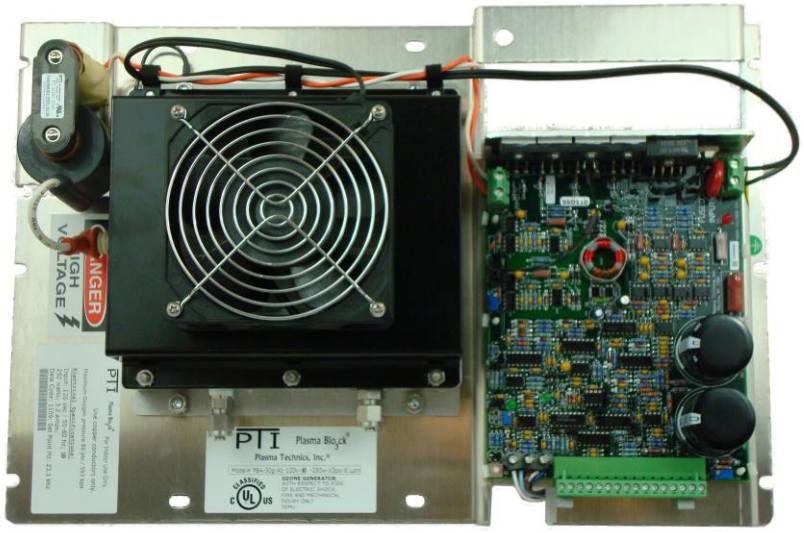
Configuration options :

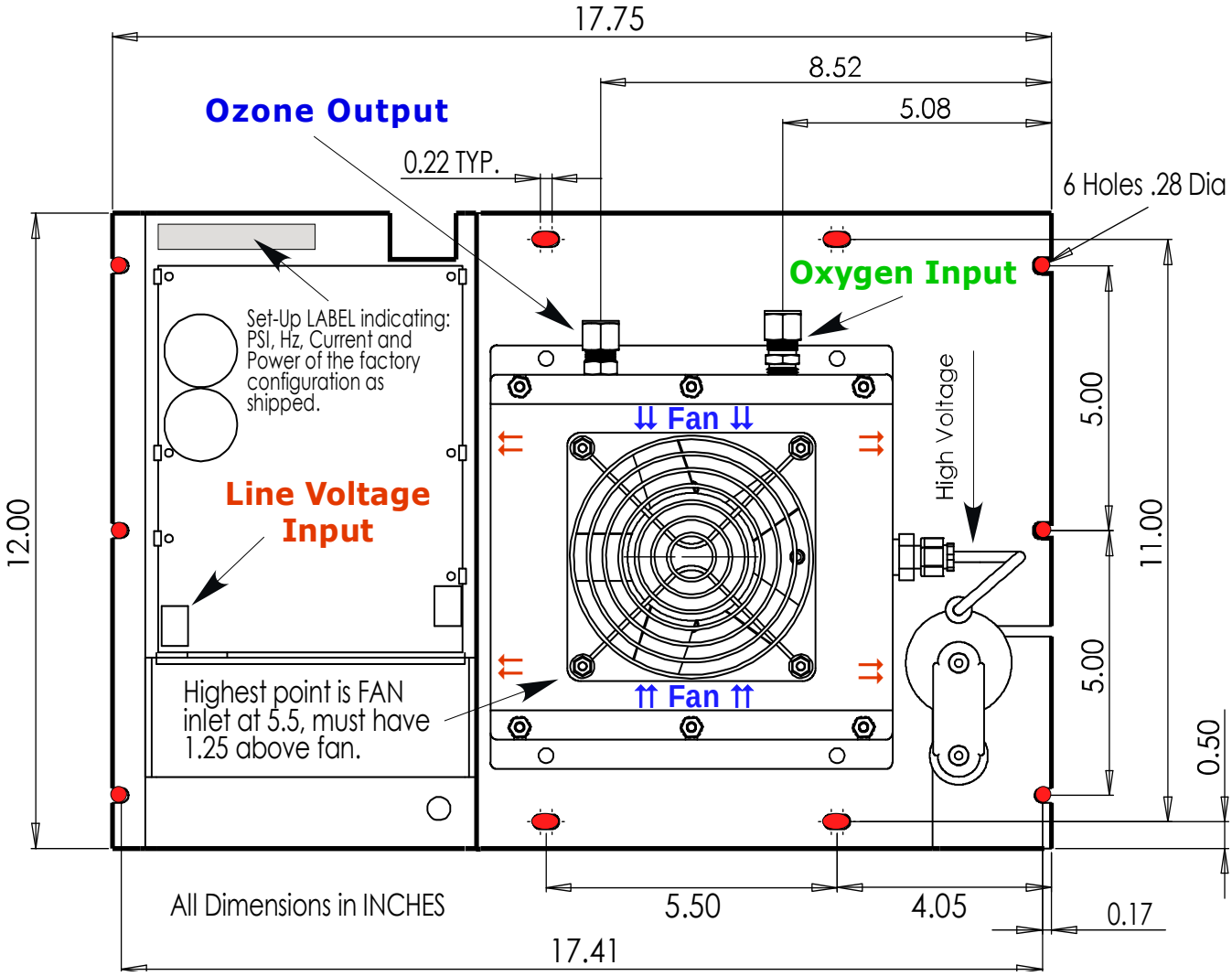
PTI will set up and tune units to the customers' desired specifications.

Oxygen pressure - (5 - 86 psi) [UL 5x rated]
Oxygen flow liters/minute - (.1 - 20 Lpm) or equivalent SCFH
Heat load btu/hr = 860
Inlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)
Outlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)

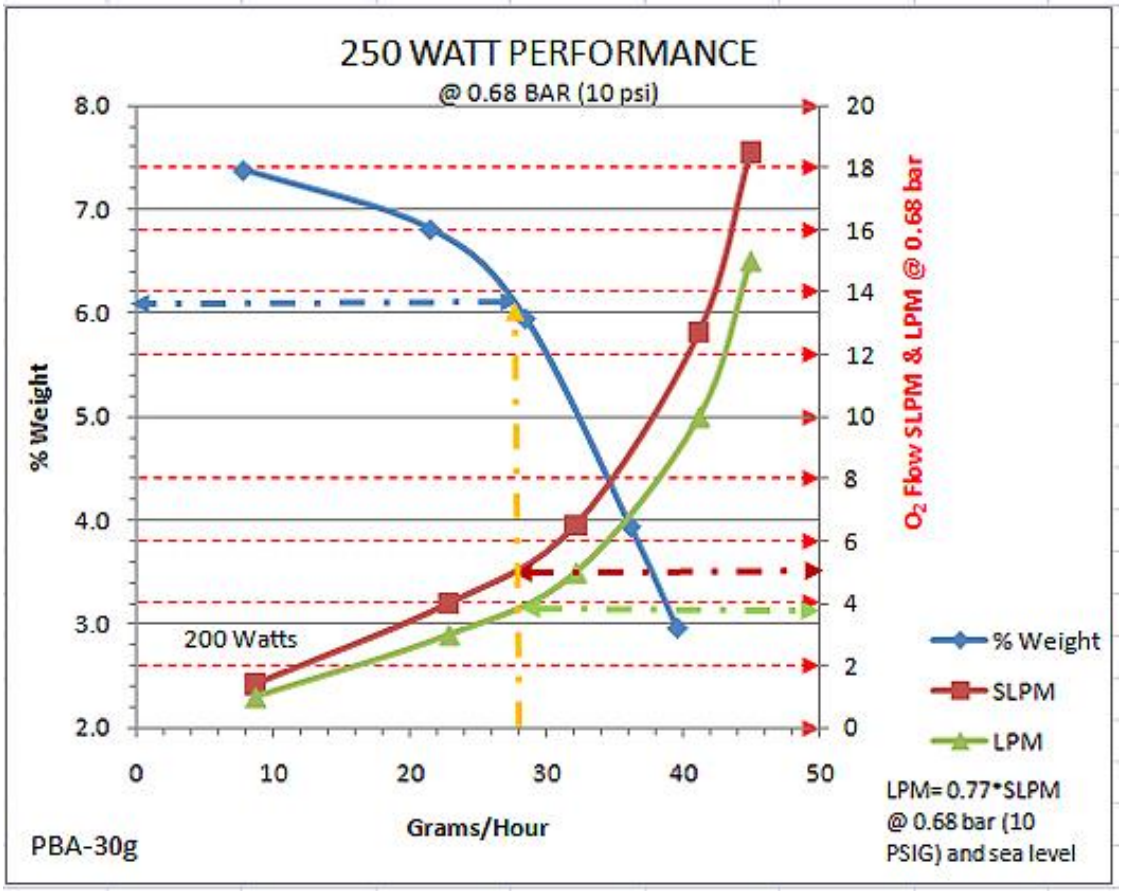
Weight Lbs (Kg) : 16.5 (7.49)

Installation Drawing: Inches



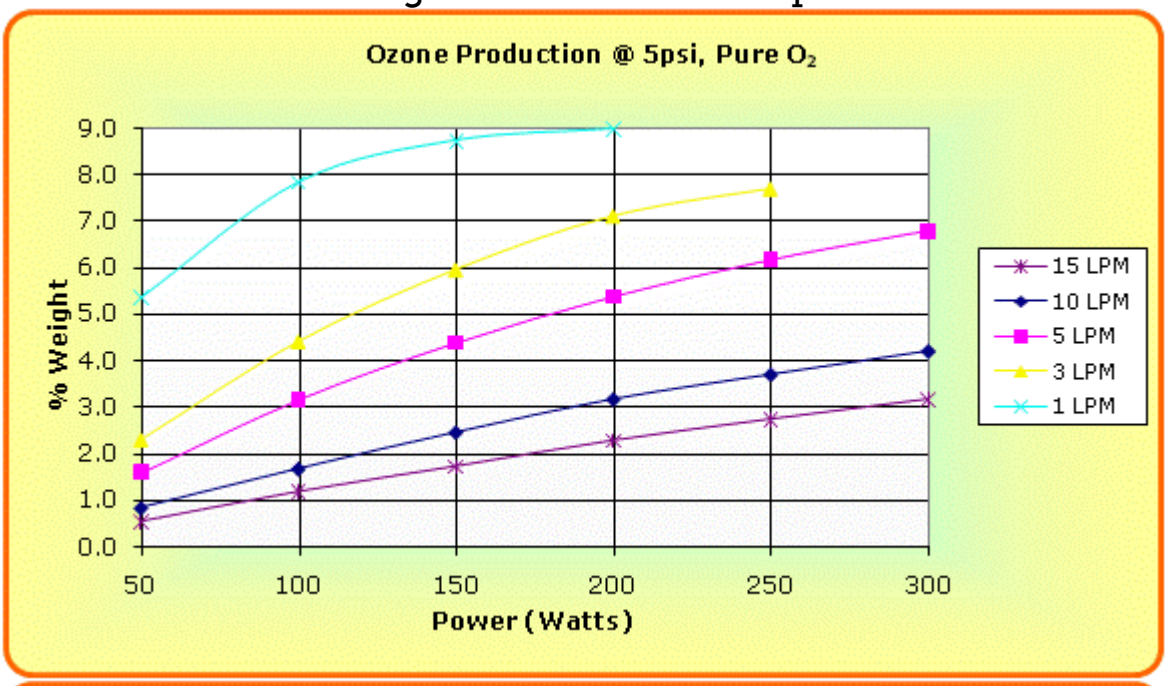


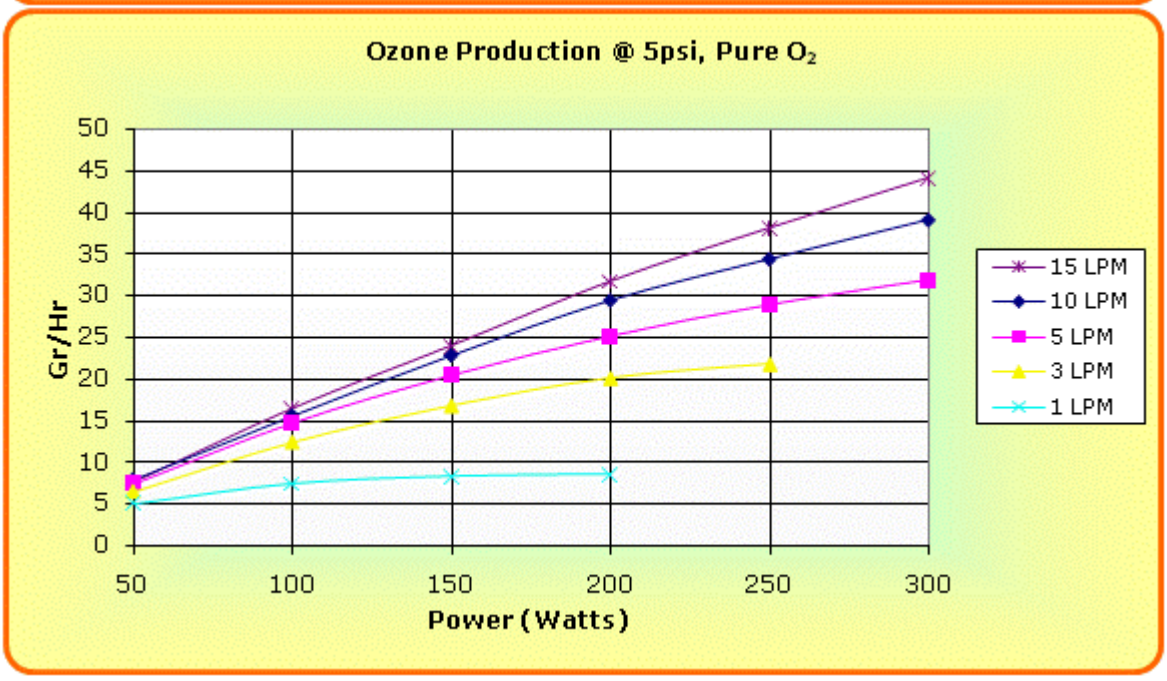
Output Performance:


250 WATT PERFORMANCE
@ 0.68 BAR (10 psi)
% Weight
O_2 Flow SLPM & LPM @ 0.68 bar
Grams/Hour
200 Watts
PBA-30g
% Weight
SLPM
LPM
LPM= 0.77*SLPM
@ 0.68 bar (10 PSIG) and sea level

Output Performance: 5 psi

% Weight vs Power Consumption





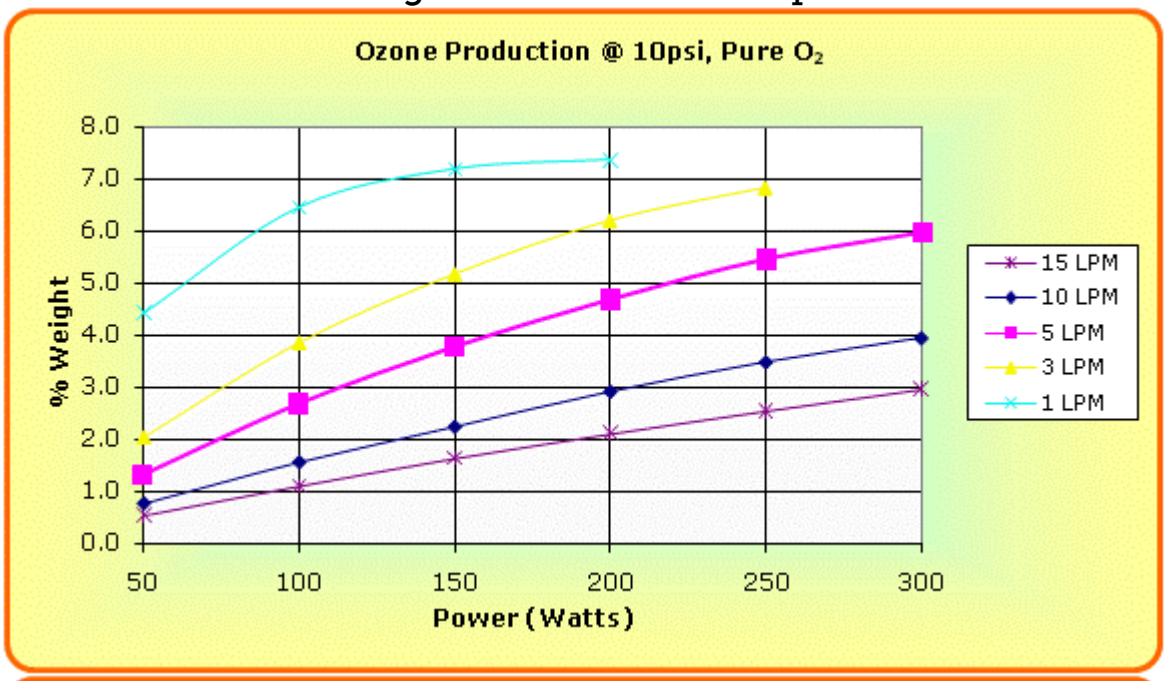
Grams / Hour vs Power Consumption

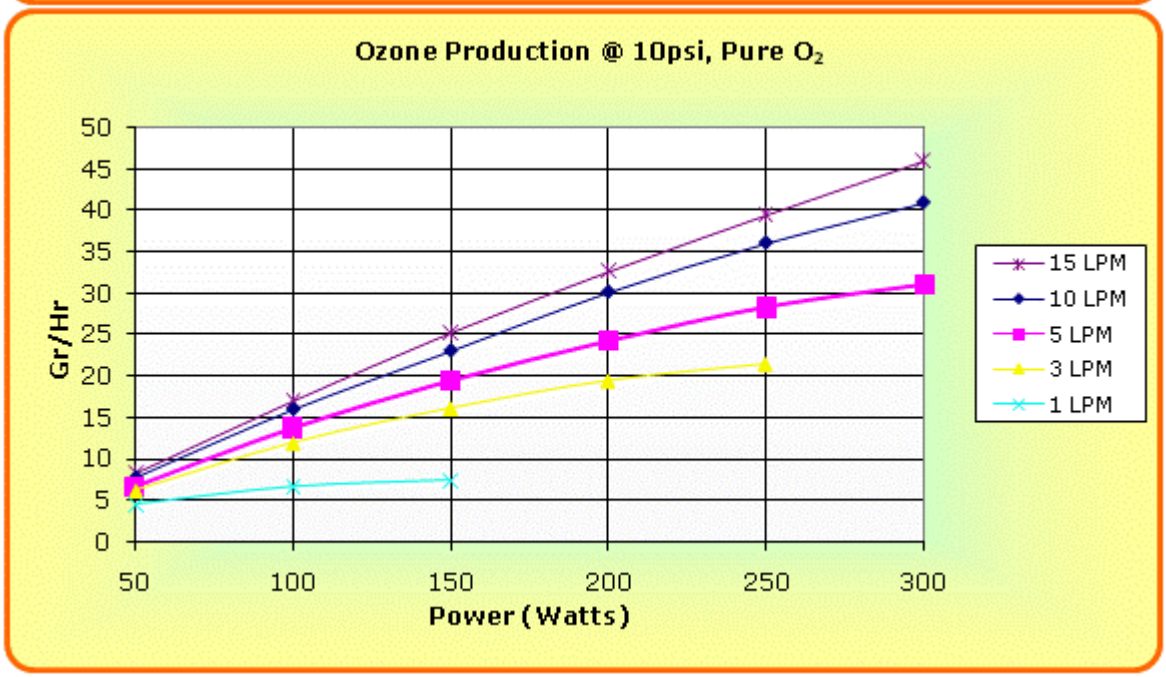
Normal factory POWER setpoint: 250 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (30gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from side-stream.

Output Performance: 10 psi

% Weight vs Power Consumption





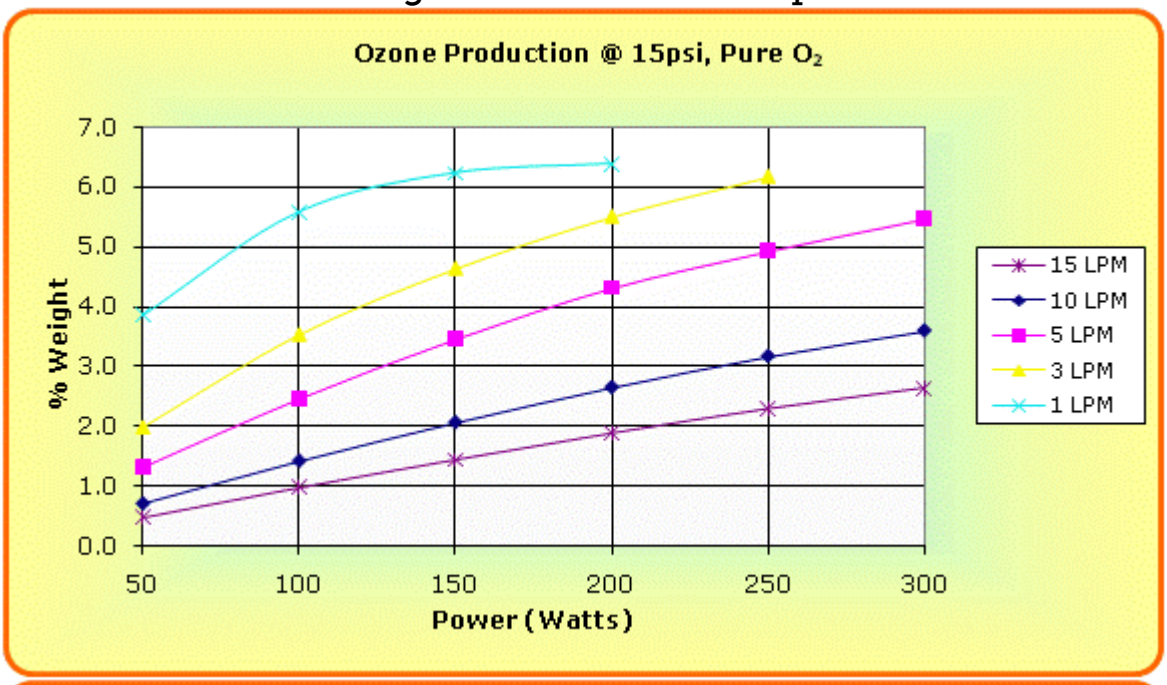
Grams / Hour vs Power Consumption

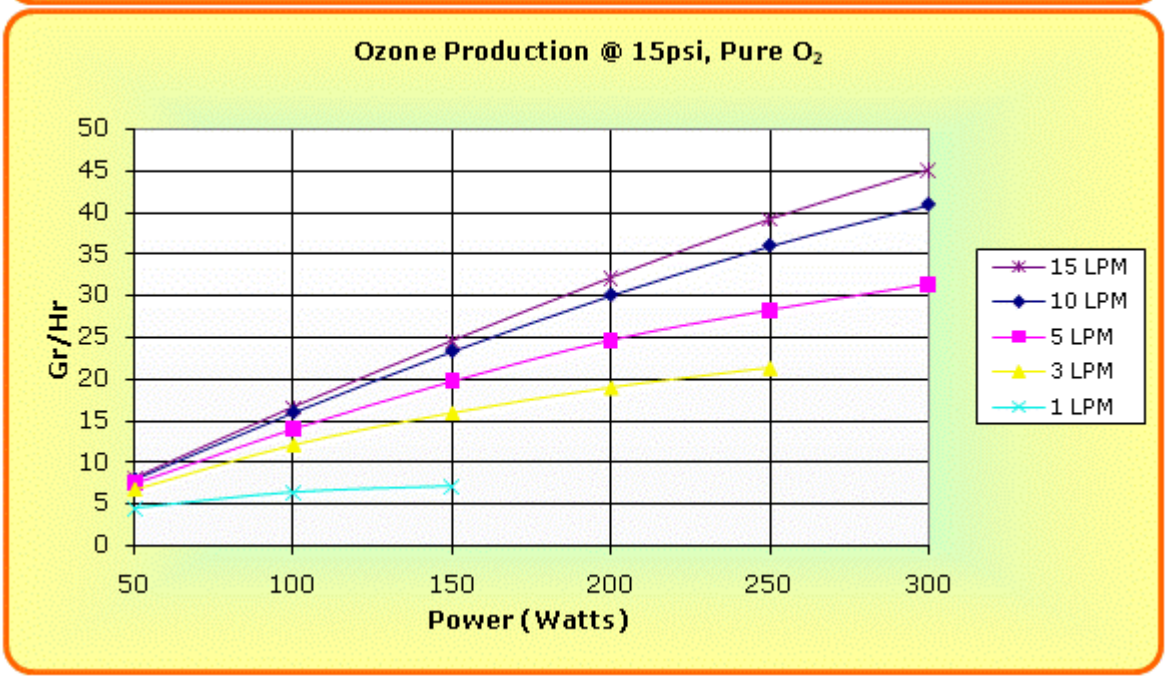
Normal factory POWER setpoint: 250 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (30gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream..

Output Performance: 15 psi

% Weight vs Power Consumption





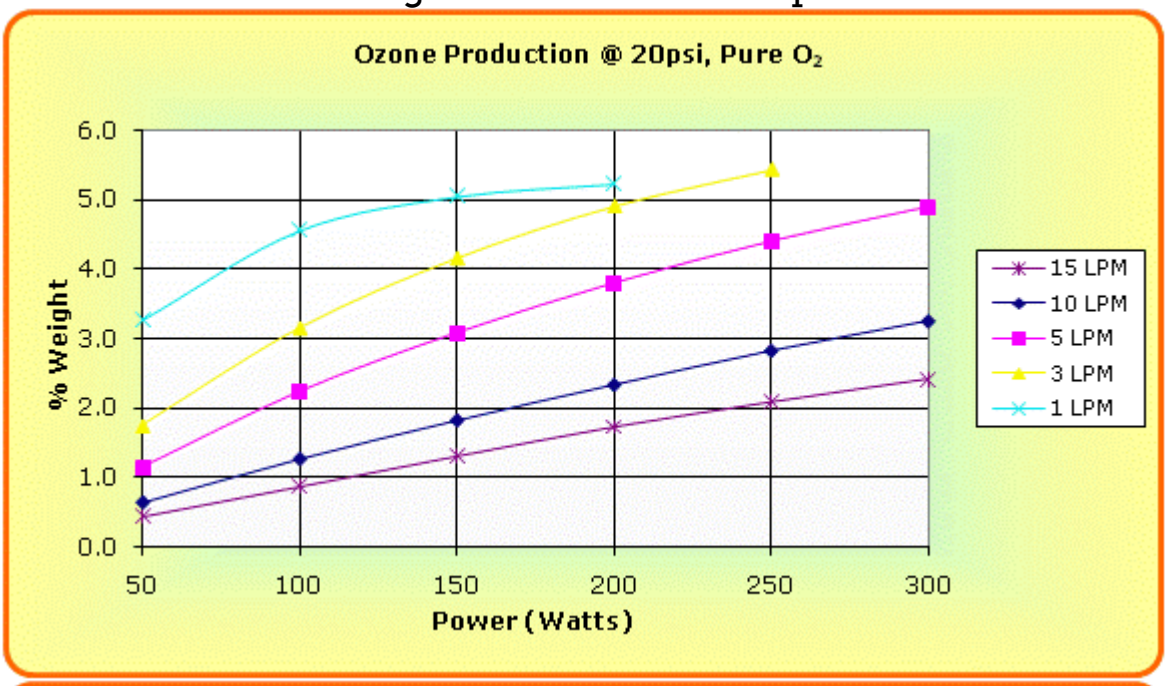
Grams / Hour vs Power Consumption

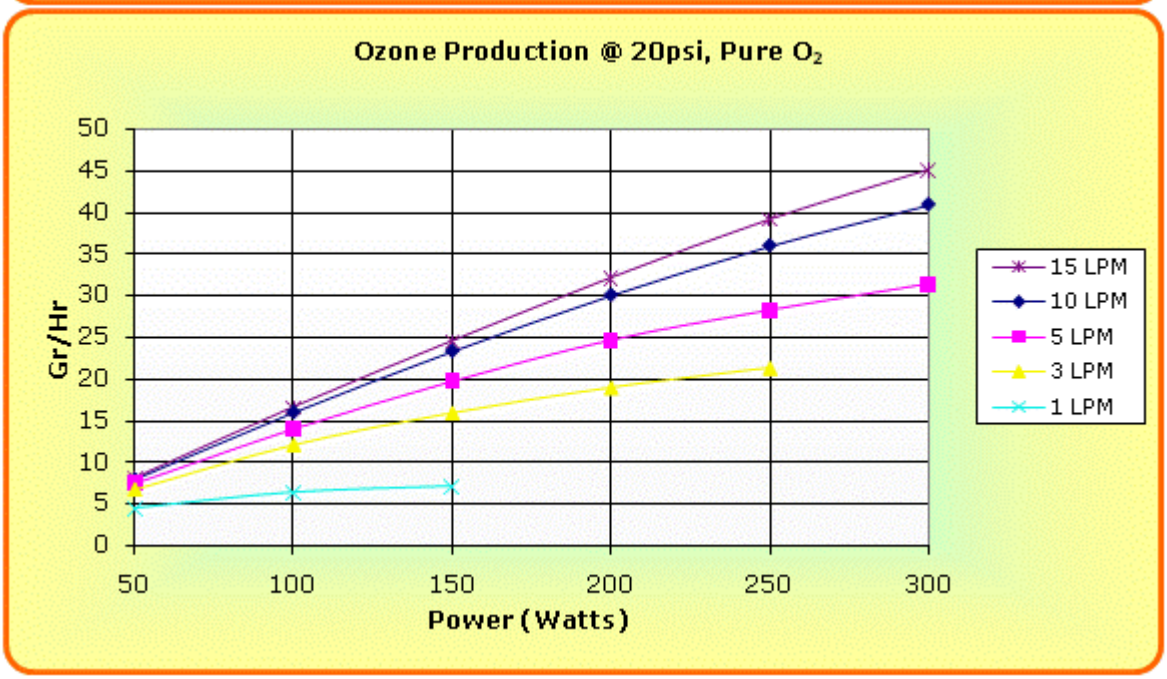
Normal factory POWER sepoint: 250 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (30gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream..

Output Performance: 20 psi

% Weight vs Power Consumption



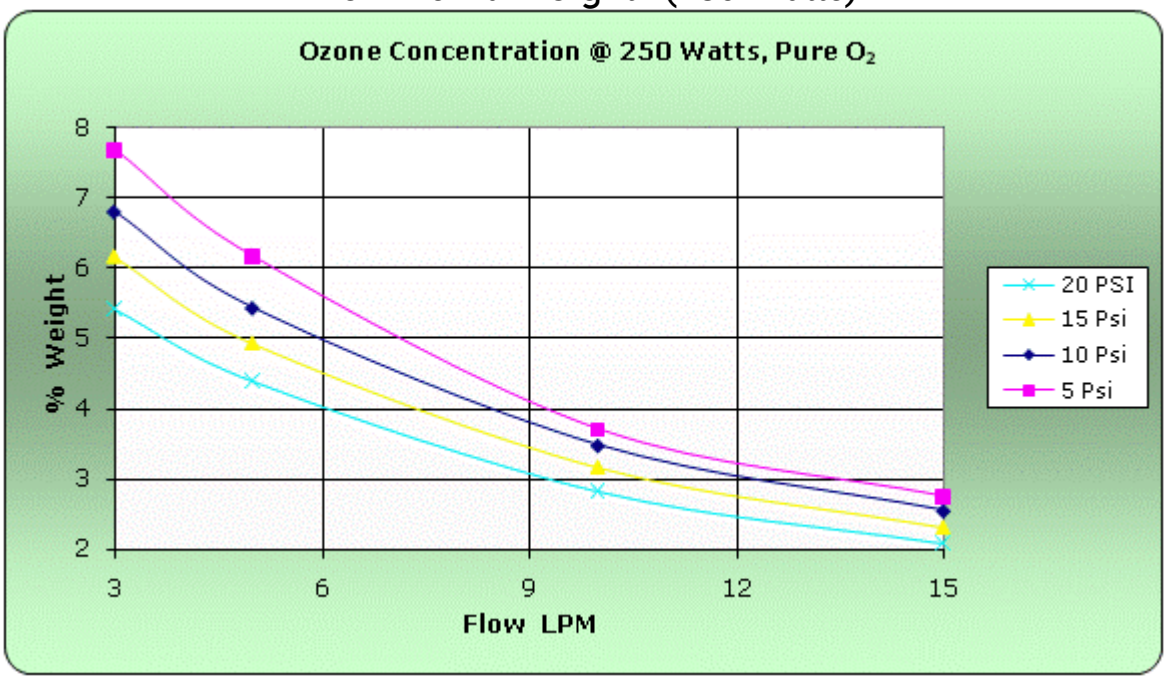


Grams / Hour vs Power Consumption

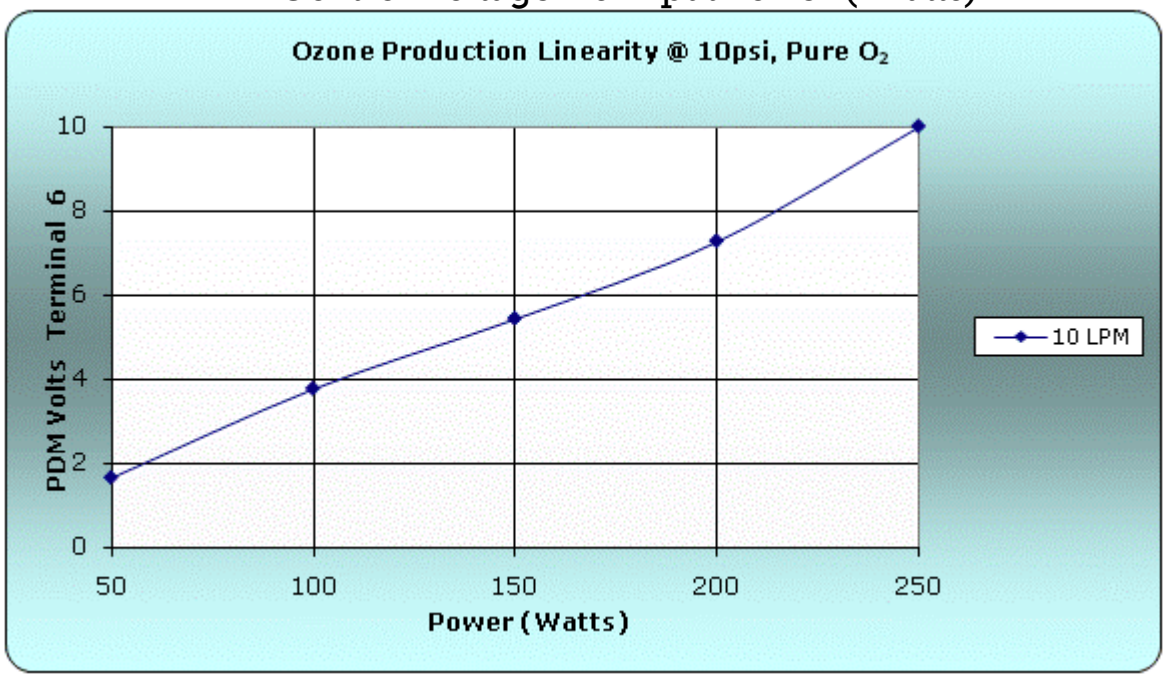
Normal factory POWER setpoint: 250 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (30gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream..

Flow vs % Weight (250 Watts)



PDM Control Voltage vs Input Power (Watts)



OEM

50g @ 5% 23g @ 8% Plasma Blo$_3$ck® (Air Cooled)

- **1.3 lbs/day at 8%** and 3 LPM : 2.4 lbs/day at 5% weight and 10 LPM (Oxygen or Concentrator) at 440 watts.
- **Precise** ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
- **Precise Control** with **Turn-down to 1%.**
- **Useful pressure range: 5 – 100 psi.**

Design Features:

- **All** high voltage is safely contained completely within the Plasma Blo$_3$ck® thereby eliminating shock hazards and dirt build up which can cause dangerous flash over. High voltage wiring is booted and **all** metal grounded.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer tightened ozone fitting. All non-metal materials are ozone rated.
- **Micro Channel**® design results in high concentration, reduced high voltage levels and more efficient operation. **Requires concentrator or bottle feed of at least -60°F dew point, filtered, positive pressure oxygen**. Materials in the gap are: **ceramic and aluminum**..
- Ideal for 'over the road' .applications. Instant ON ozone production – no warm up time.
- Precision machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures**, as well as **vacuum ride through**. Only 2 psi drop with 10 LPM. Flow. As with any cell, the most predictable performance occurs in the positive pressure domain. Sustained vacuum will damage cell.
- Ozone level automatically controlled to ± 1% from 85 to 130vac; or 170v to 260vac depending on model.
- Pre-mounted, seasoned and tested package sub-system, which includes cell, transformer, inverter and fan. Design uses the finest quality material and machining for maximum performance and efficiency.
- The Inverter is a reduced power version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product.
- **23 kHz** operating frequency for **silent** operation.
- Line voltage 120v or 240v, 50/60hz.

- **Inlet 1/4", Outlet 1/4" both Stainless Compression** are standard; 3/8" or 1/4" NPT on request.
- Pre-seasoned, calibrated and **pre-adjusted to customers individual performance needs** – ready to install.
- Rigorous 100% performance and burn-in tests of all electricals are conducted to insure the highest level of product **quality, reliability and consistency**.

Configuration options :

PTI will set up and tune units to the customers' desired specifications.

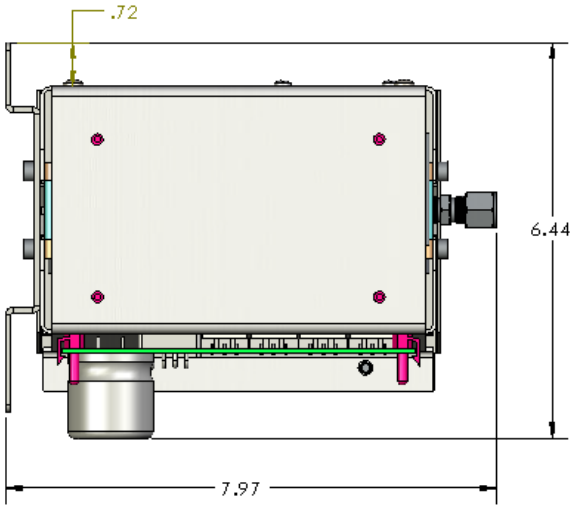
Oxygen pressure - (5 - 100 psi) [UL 5x rated]
Oxygen flow liters/minute - (**3 - 15** Lpm) or equivalent SCFH
Heat load btu/hr = 1360
Chassis (regular or alternate)
Inlet fittings (none, 1/4", 3/8", other)
Outlet fittings (none, 1/4", 3/8", other)

Weight Lbs (Kg) : 13.5 (6.22)

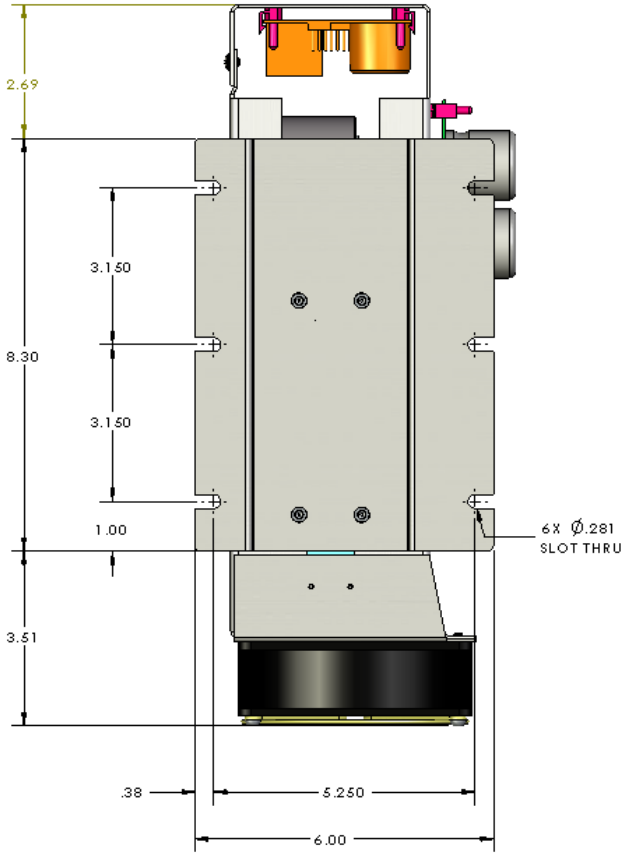
Installation Drawings, regular mount : Inches

Front view

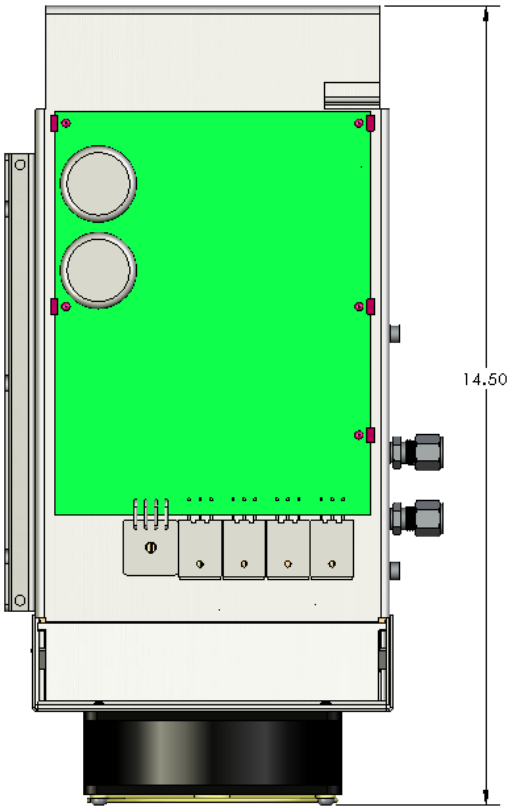
Back view



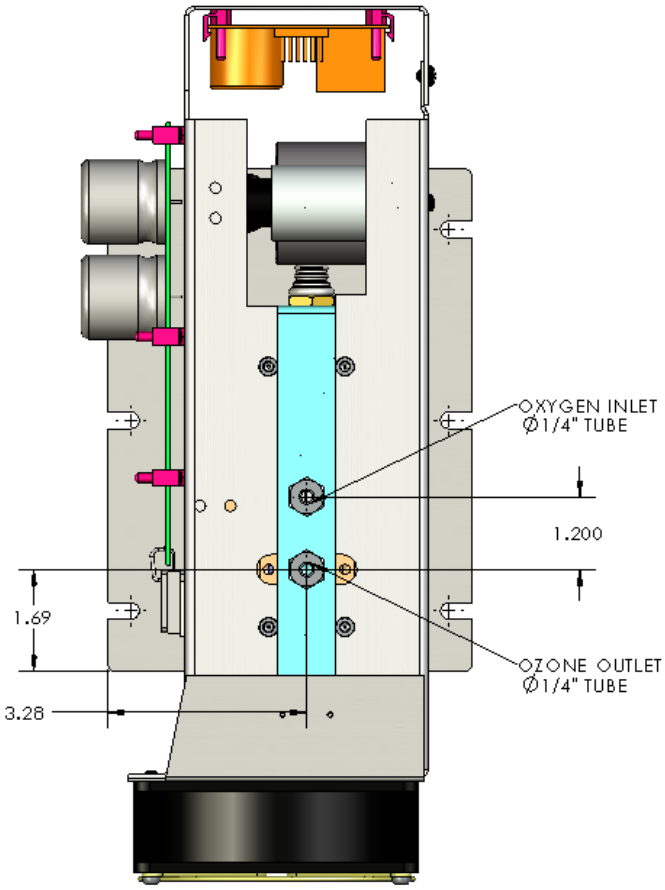
Bottom view



Side view

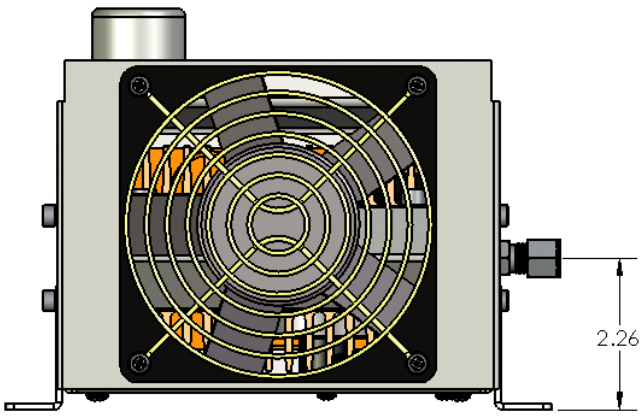


Top view

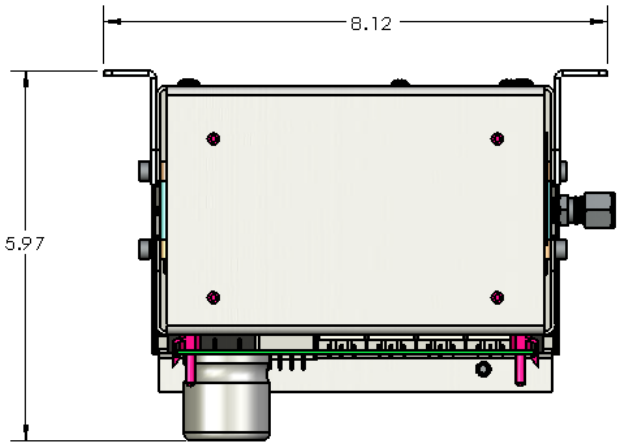


Installation Drawings, alternate mount : Inches

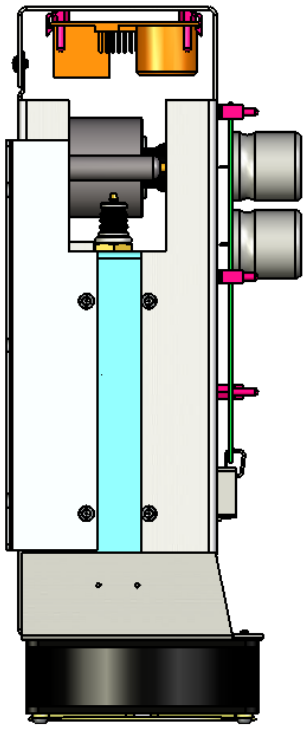
Front view



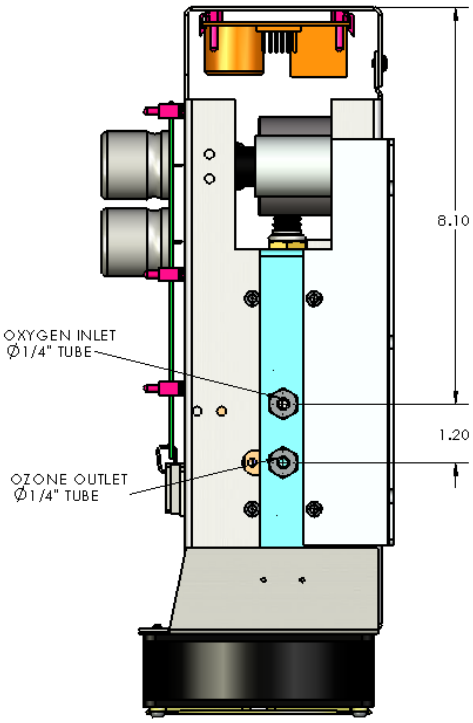
Back view



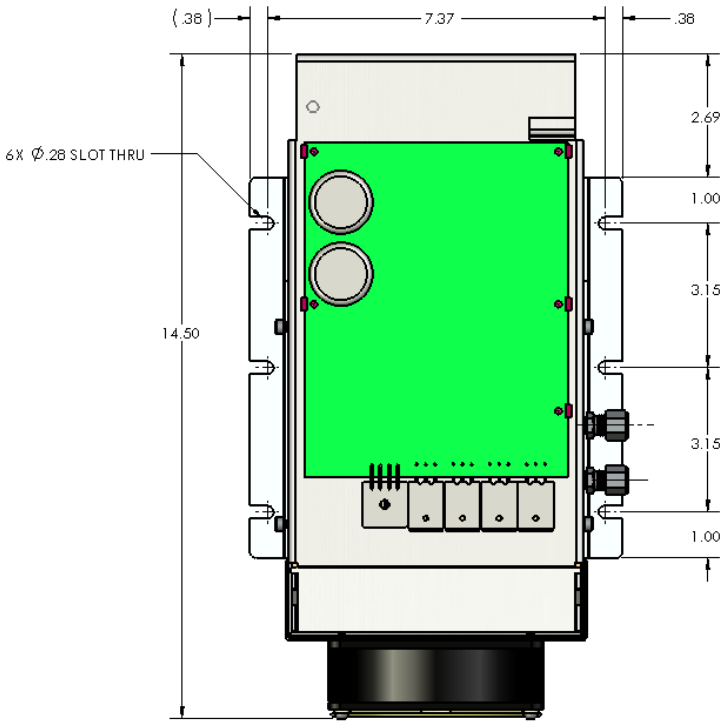
Side 1 view

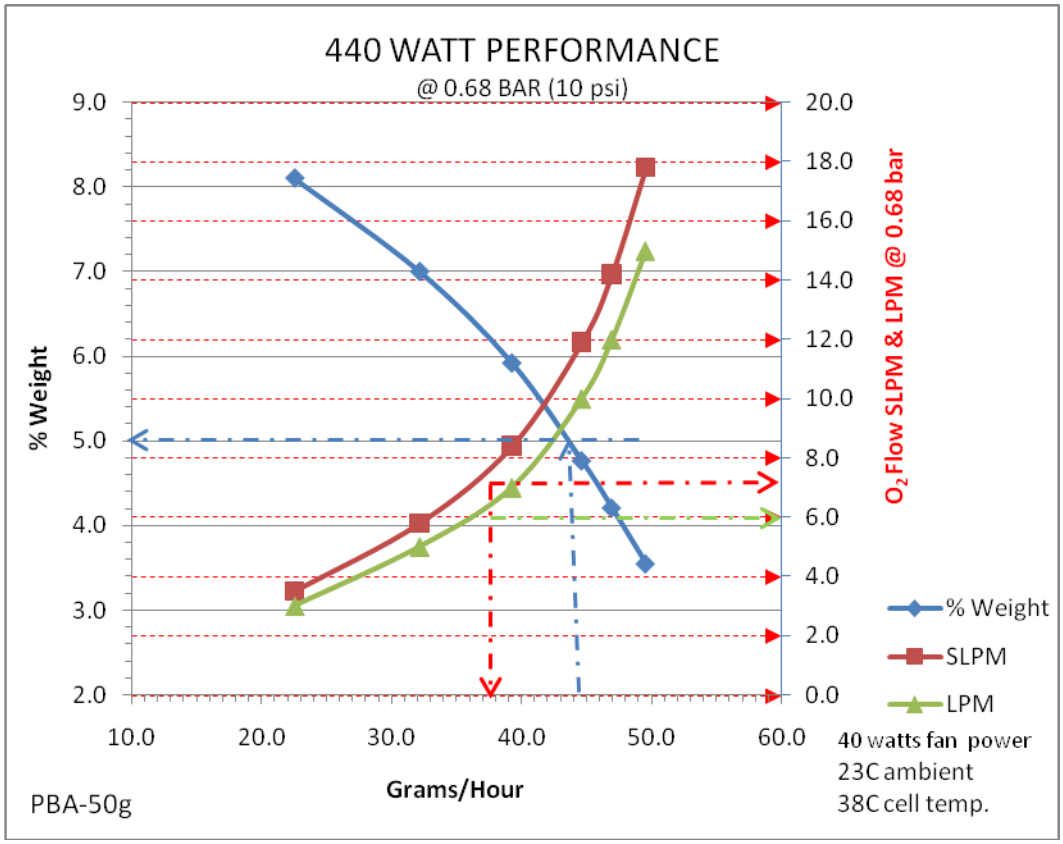


Side 2 view



Top view





Normal factory POWER set point: 440 watts at FULL PDM (10vdc or 20ma).

Published production-ozone output level (50 gr/hr) based on 5% concentration.
Tests conducted at 23C (74°F), 700' (213 M) MSL: Ozone in g/nm^3.
Flow measured in **LPM** via **uncorrected** Rotameter at inlet port.
Fan and power supply burden of 40 watts is included in above chart.

Procedure 1, Grams per hour desired at maximum power:

1. Determine the Grams/Hr desired for the chemical reaction. 45 gram/hr for this example.
2. Moving vertically from the value on the horizontal scale at 45 gr/hr, note the % weight (Blue line) on the left axis at 5 % wt for the maximum power at 45 gr/Hr.
3. At the same Grams/hr value move vertically and note both the SLPM at 10.5 SLPM (red) and indicated LPM (green) at 8.5 LPM at the recommended pressure [0.68 bar (10 psi)]on the right vertical axis.
4. If a higher % weight is desired at the Grams/Hr needed, a larger generator must be selected. A generator can always be run at a lower power than maximum with the PDM control.

Procedure 2 example, Oxygen flow of 6 LPM maximum at 0.68 bar (10 psi) on a rotameter. What is the maximum gr/hr production?

1. Start on the right vertical scale at 4 LPM rotameter reading. Move horizontally to intercept the green LPM line at 6 LPM.
2. Drop down vertically to see what gr/hr is available. It is 37 gr/Hr in this case.
3. Move vertically to intercept the red SLPM line at 7 SLPM and the blue % wt line at 6.2 % wt.

OEM

60g @ 5% Plasma Blo$_3$ck® (Air-cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Models Available:
Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Cost-effective, **Compact**, Light Weight, Ceramic, **Air-cooled** and Power-Efficient.
1.3 lbs/day at 7.7% and 3 LPM : 3.6 lbs/day at 4.2% weight and 15 LPM (Oxygen or Concentrator).
No exposed high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Control with **Turn-down to 1%.**
Useful pressure range: 5 – 100 psi. Available with **PlasmaVIEW ®** software (optional).

Design Features:

- **All** high voltage is safely contained completely within the Plasma Blo$_3$ck® thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer tightened ozone fitting. All non-metal materials are ozone rated.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Directly installable by UL 508a panel house.

- **Micro Channel**® design results in high concentration, reduced high-voltage levels and more efficient operation. **Concentrator or bottle feed of at least -60°F dew point, filtered, positive pressure oxygen is required**. Materials in the gap are: **ceramic and aluminum**.
- Ideal for 'over the road' applications. Instant ON ozone production. – No warm up time.
- Precision machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures**, as well as **vacuum ride through**. Only 1 psi drop with 10 LPM Flow. As with any cell, the most predictable performance occurs in the positive pressure domain. Maximum pressure 100 psi. 2.7 safety factor at 150 psi.
- Ozone level automatically controlled to ± 1% from 85 to 130vac; or 170v to 260vac depending on model.
- Pre-mounted, seasoned and tested package sub-system, which includes cell, transformer, inverter and fan. Design uses the finest quality material and machining for maximum performance and efficiency.
- The Inverter is a reduced power version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product.
- **23 kHz** operating frequency for **silent** operation.
- Line voltage 120v or 240v, 50/60hz.
- **Inlet 3/8", Outlet 3/8" both Stainless Compression** are standard; 1/4" or 1/4" NPT on request.
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance as well as burn-in tests of all electricals, are conducted to ensure the highest level of product quality, reliability and consistency.

Configuration options :

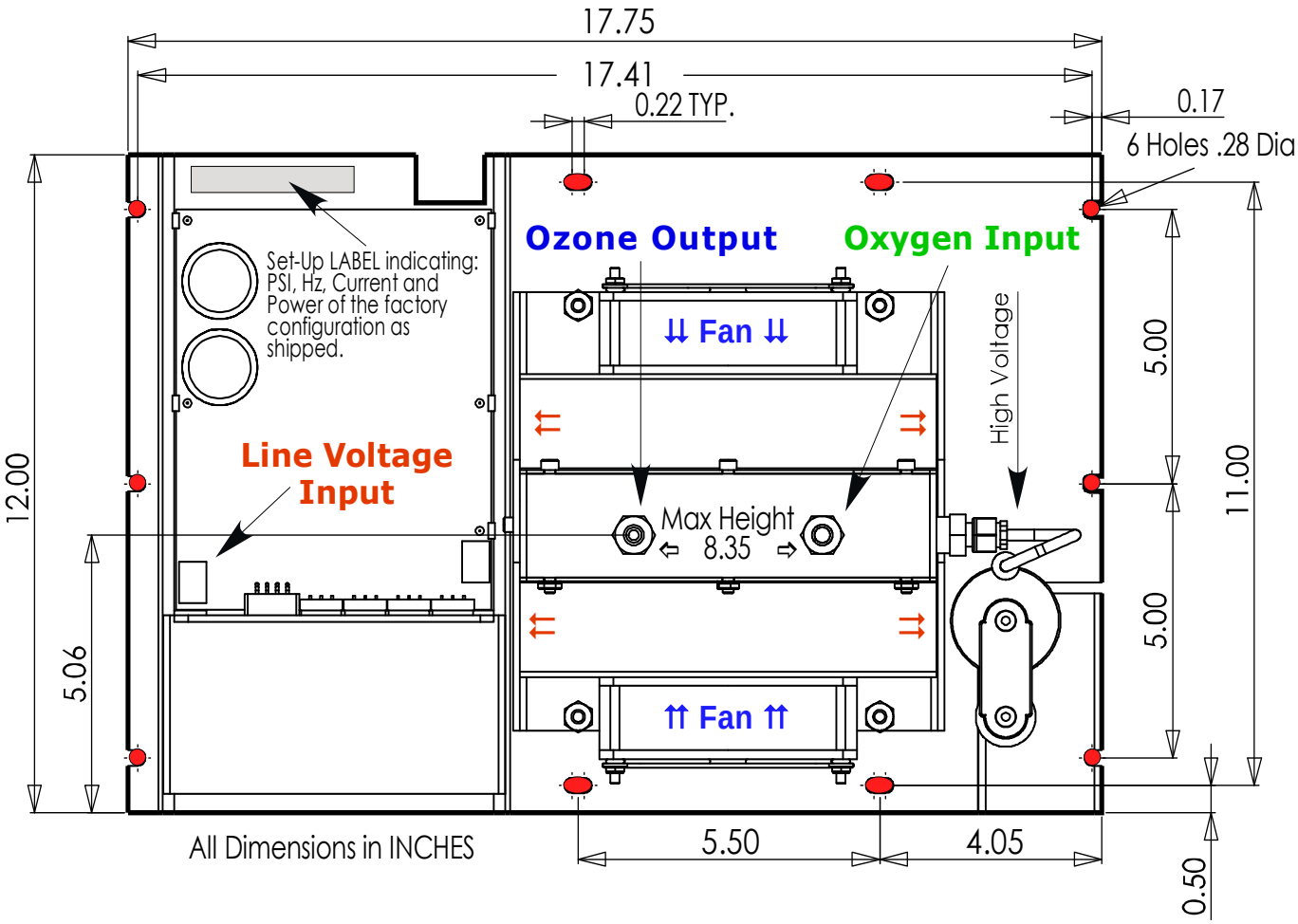
PTI will set up and tune units to the customers' desired specifications.

Oxygen pressure - (5 - 86 psi) [UL 5x rated]
Oxygen flow liters/minute - (.1 - 20 Lpm) or equivalent SCFH
Heat load btu/hr = 1700
Inlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)
Outlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)

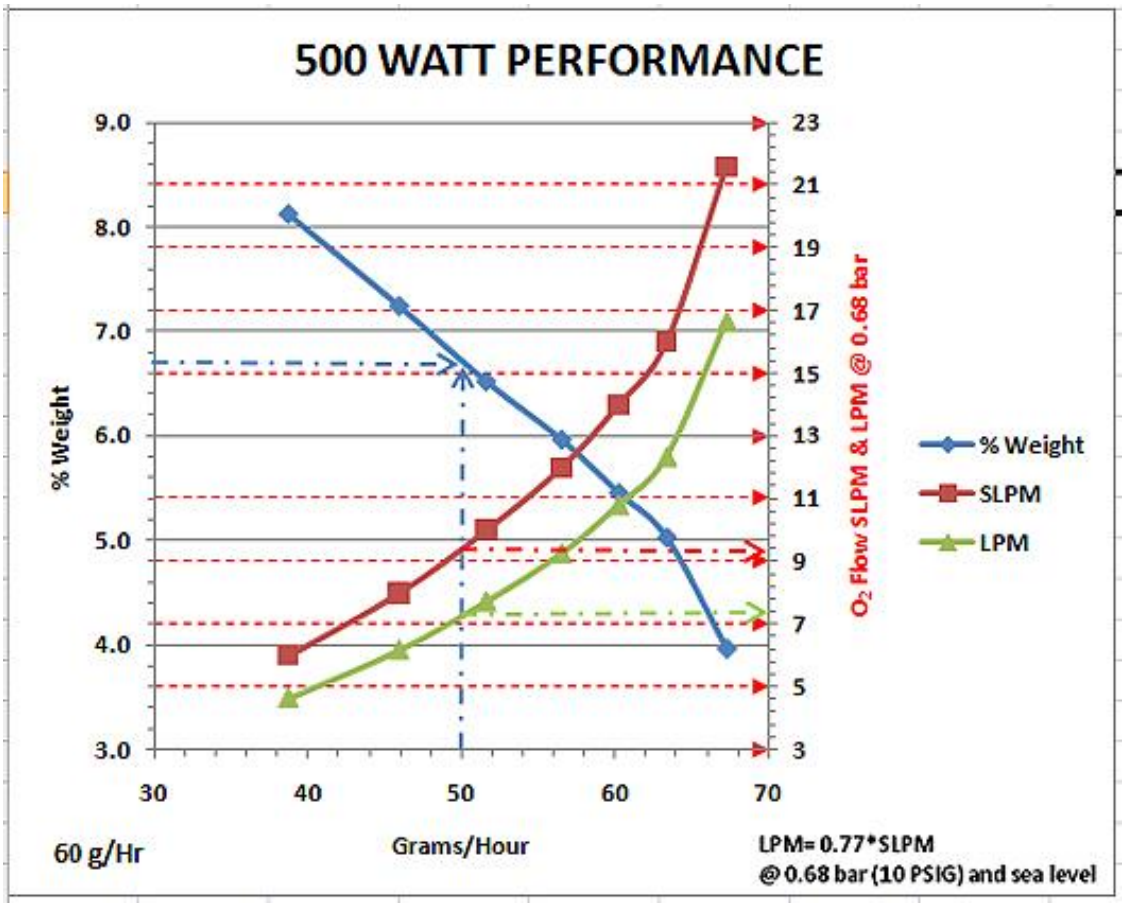
Weight Lbs (Kg) : 22.45 (10.19)

.

Installation Drawing: Inches

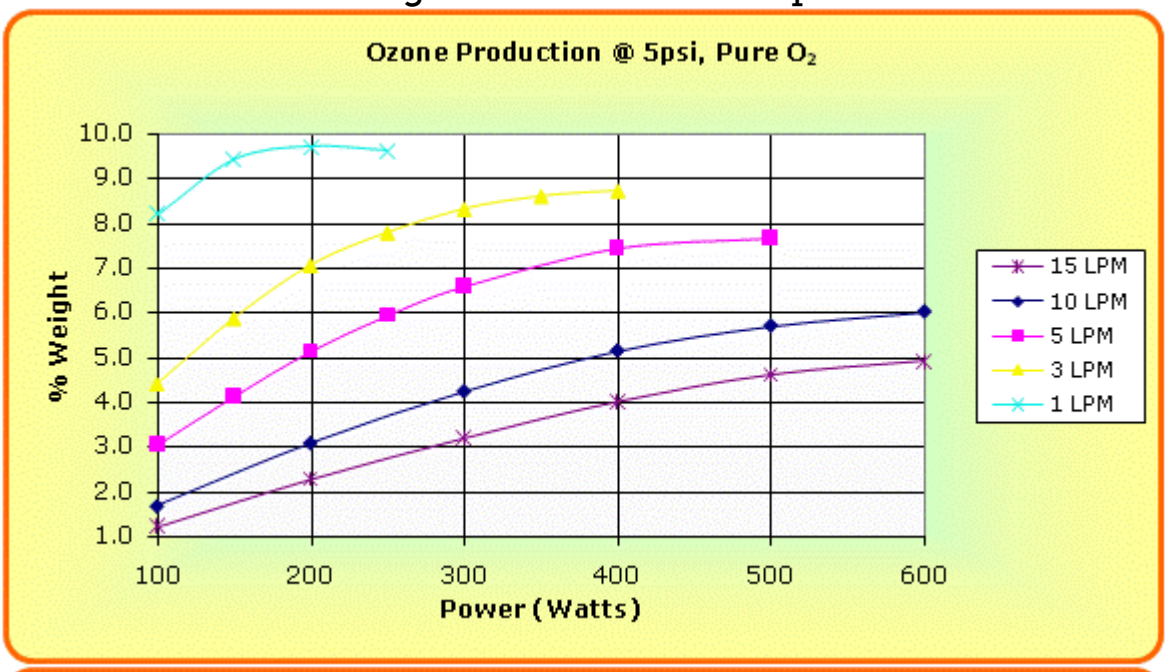


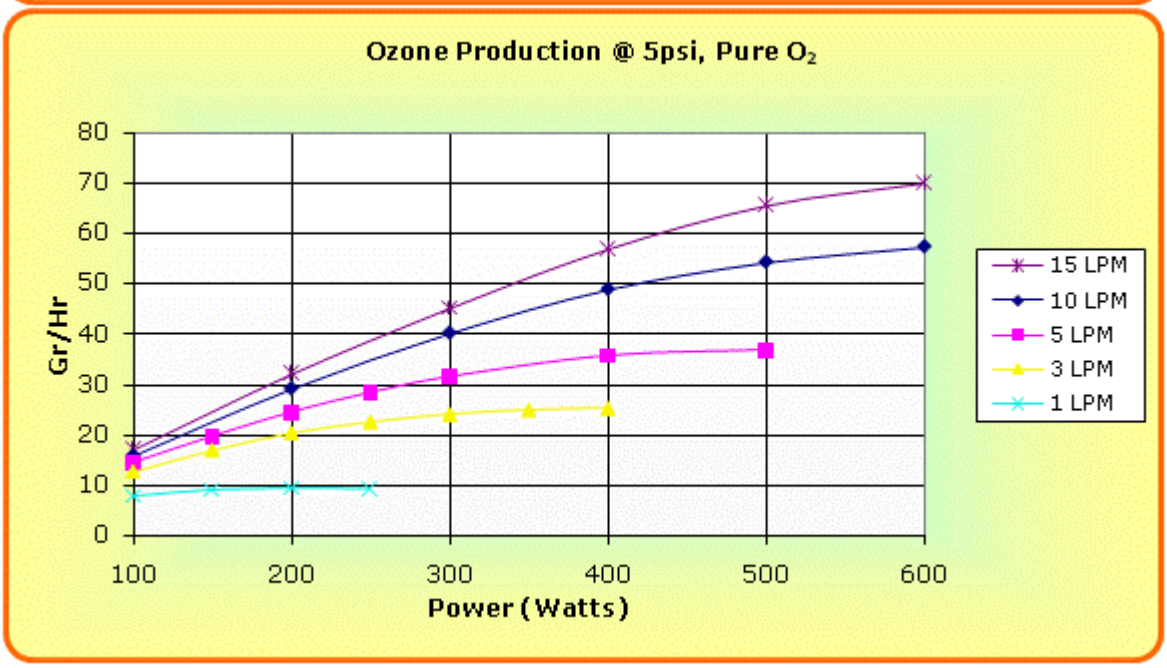
Output Performance:



Output Performance: 5 psi

% Weight vs Power Consumption





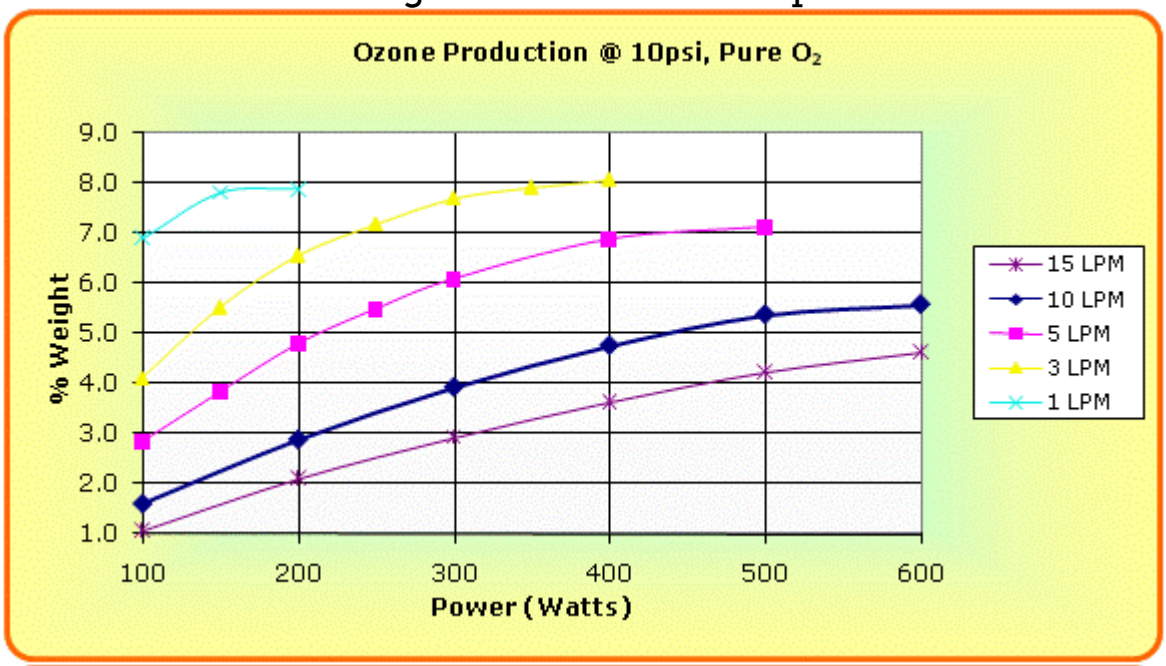
Grams / Hour vs Power Consumption

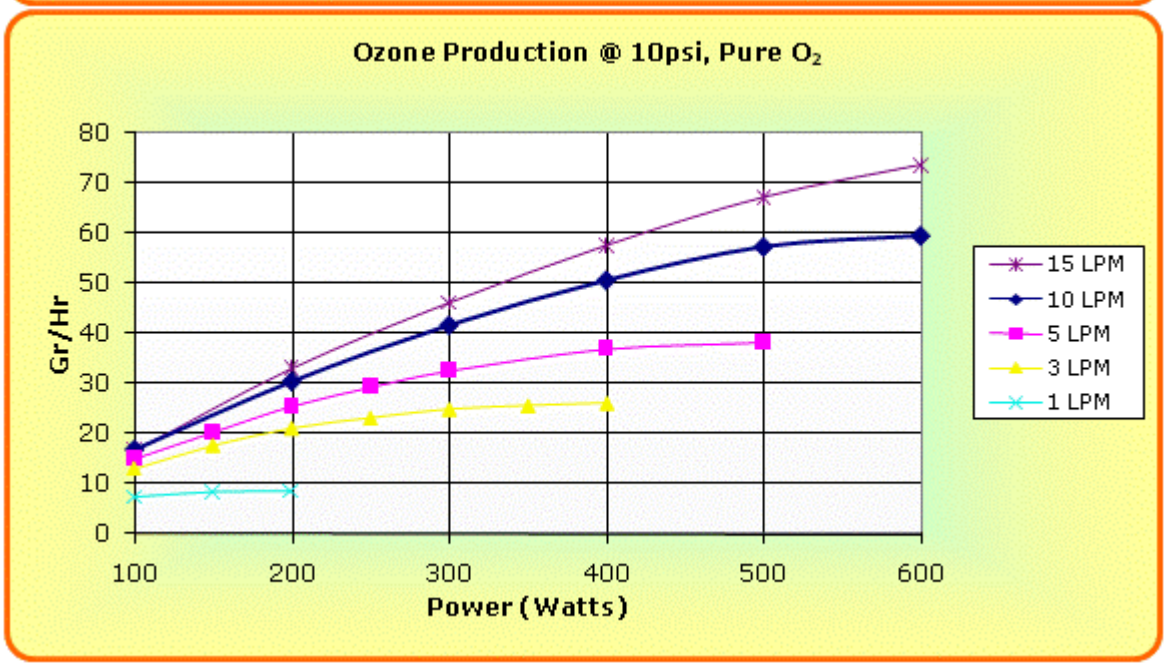
Normal factory POWER setpoint: 500 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (60gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 10 psi

% Weight vs Power Consumption





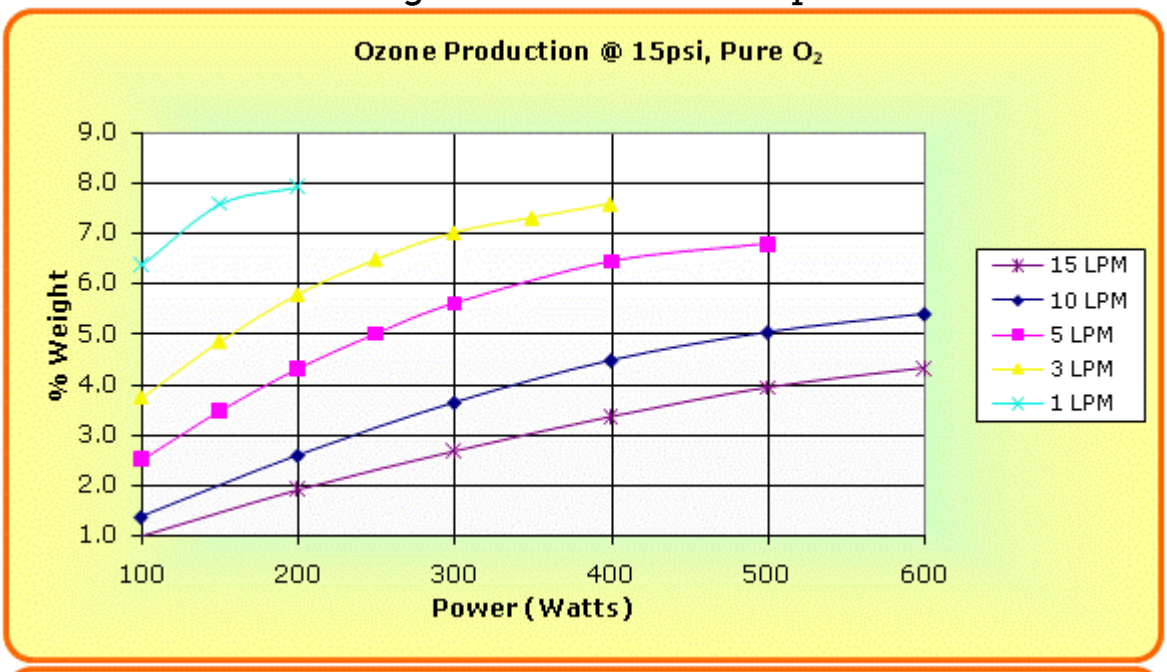
Grams / Hour vs Power Consumption

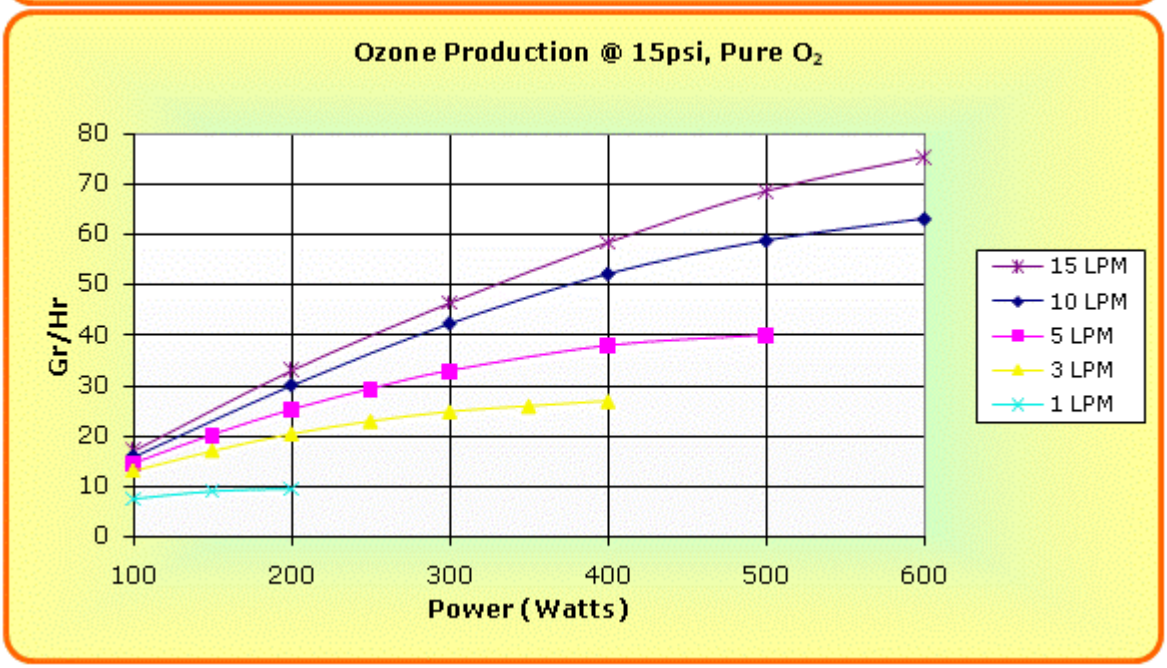
Normal factory POWER setpoint: 500 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (60gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 15 psi

% Weight vs Power Consumption





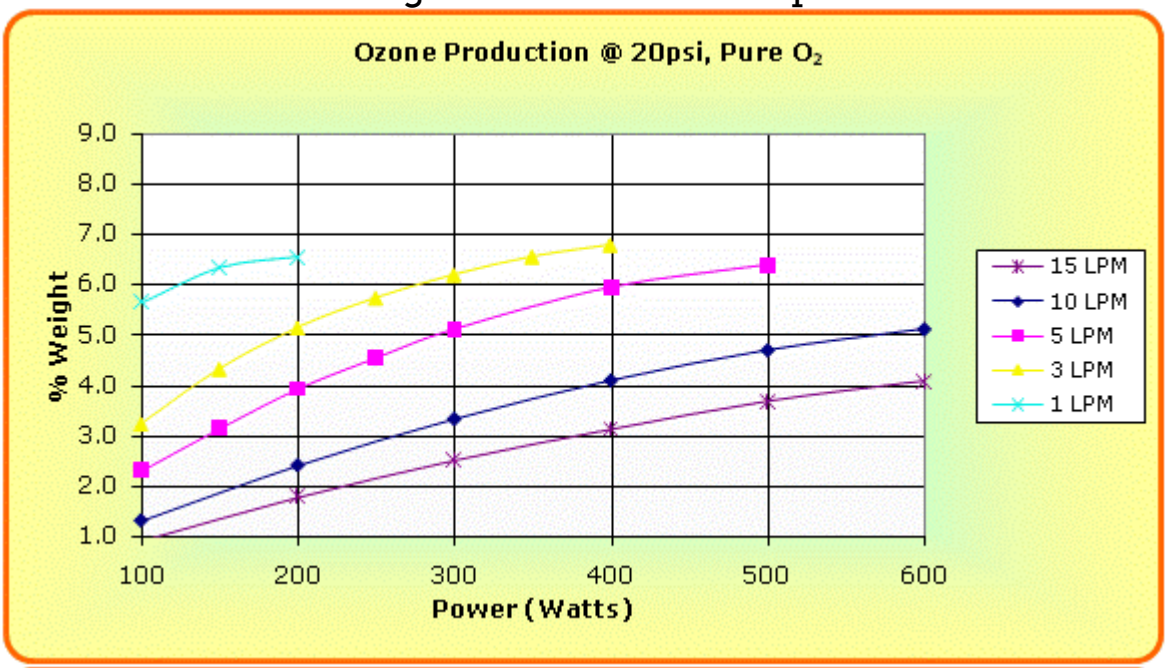
Grams / Hour vs Power Consumption

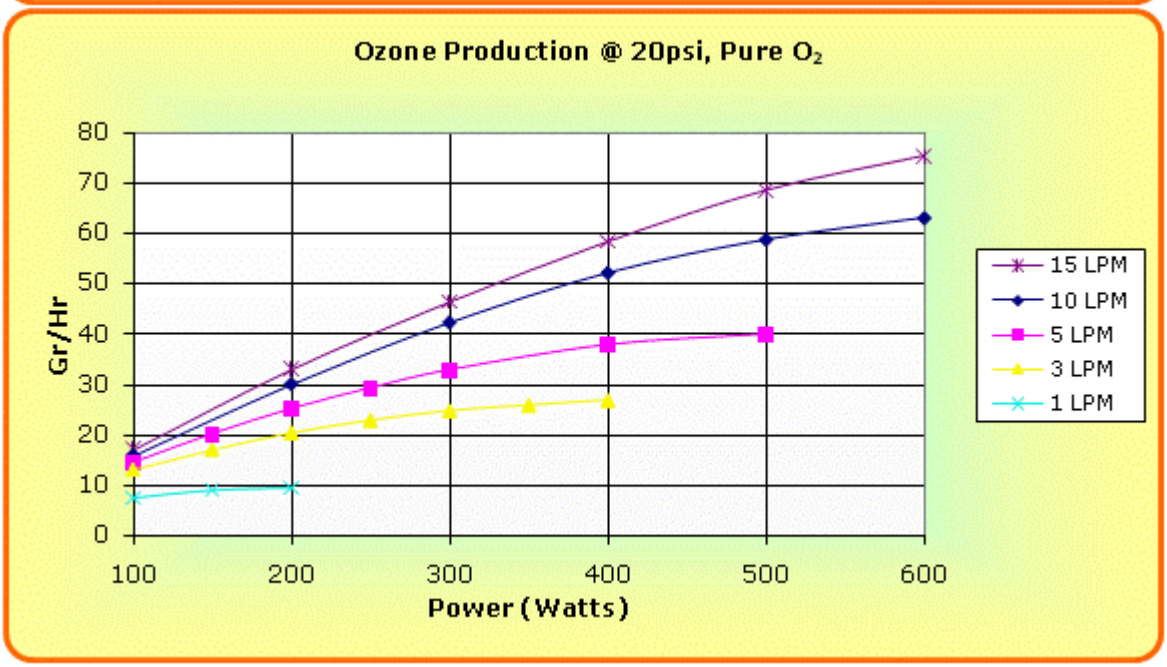
Normal factory POWER setpoint: 500 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (60gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 20 psi

% Weight vs Power Consumption



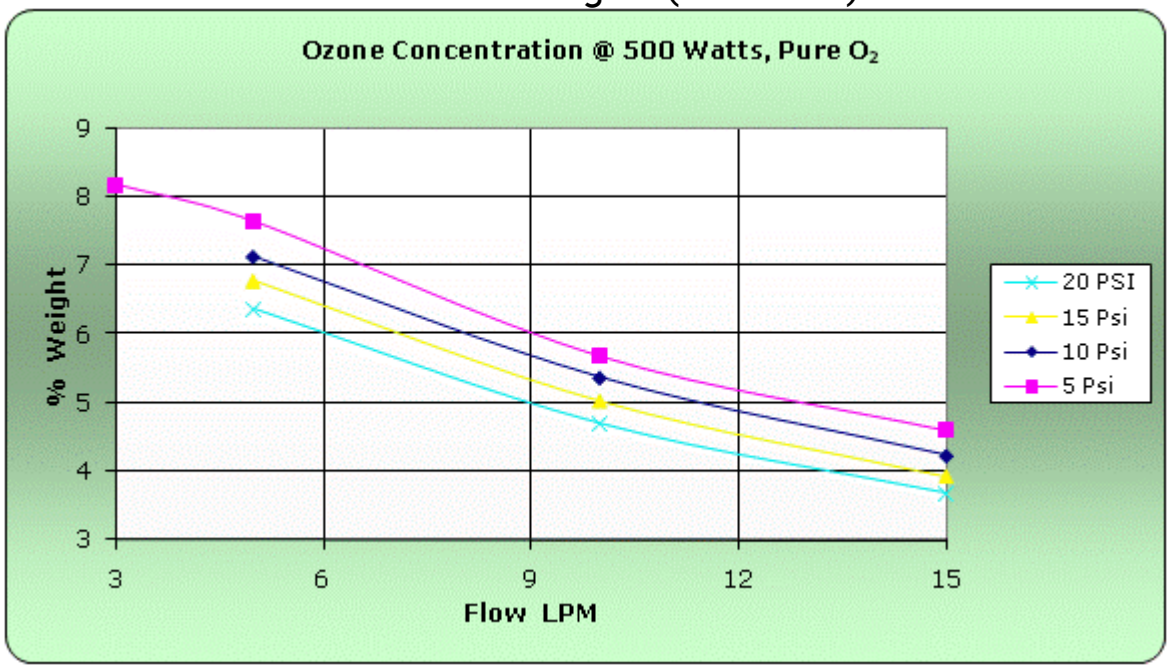


Grams / Hour vs Power Consumption

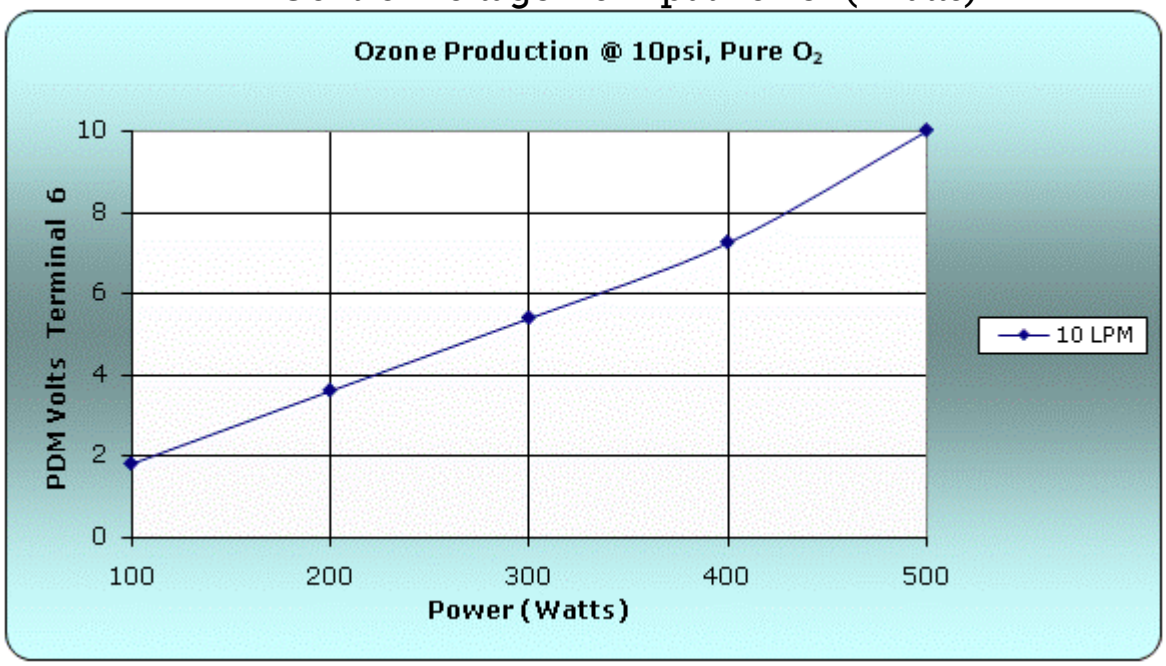
Normal factory POWER setpoint: 500 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (60gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Flow vs % Weight (500 Watts)



PDM Control Voltage vs Input Power (Watts)



OEM

70g @ 5% Plasma Blo$_3$ck® (Air-Cooled)

For added application information, see the **Plasma Block® Applications Guide** manual.

Models available :

Stand Alone

Fully automatic tuning for constant ozone output and installation simplicity
Service simplicity due to automatic fault diagnostics
Silent, Rugged, Reliable and Cost Effective
No exposed high-voltage safety hazards
Now available with PlasmaVIEW® software (optional)

Design Features:

- Wi-Fi and digital communications available as an option.
- Digital communications optional: simple and less expensive.
- **Micro Processor based,** installation simplicity and automatic tuning for constant ozone output.
- Automatic buss voltage compensation stabilizes output as power line conditions change.
- **Pulse Density Modulation (PDM),** linear power (ozone) output even at high turn-down.
- Service simplicity due to automatic fault diagnostics.
- Easy interface to PLC or computer.
- **Efficient**, compact, silent (25khz), safe, rugged, reliable, advanced – all the normal traits of a PTI product. Same precise linear control, with turn down to 1%, as with all Plasma Block® products.
- Maximum up-time , durable, commercial / industrial solution the ozone industry requires.

- Possible **cell flooding** is identified followed by shutdown and enunciation. No damage is caused to electronics, transformer and rarely the cell. Cell flushing and drying in the field is usually sufficient to restore full service.
- **Control connections** of the essential I/O functions are the **same** as all other Plasma Block® products.
- **Military grade conformal coating** eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.

Configuration options :

PTI will set up and tune units to the customer's desired specifications:

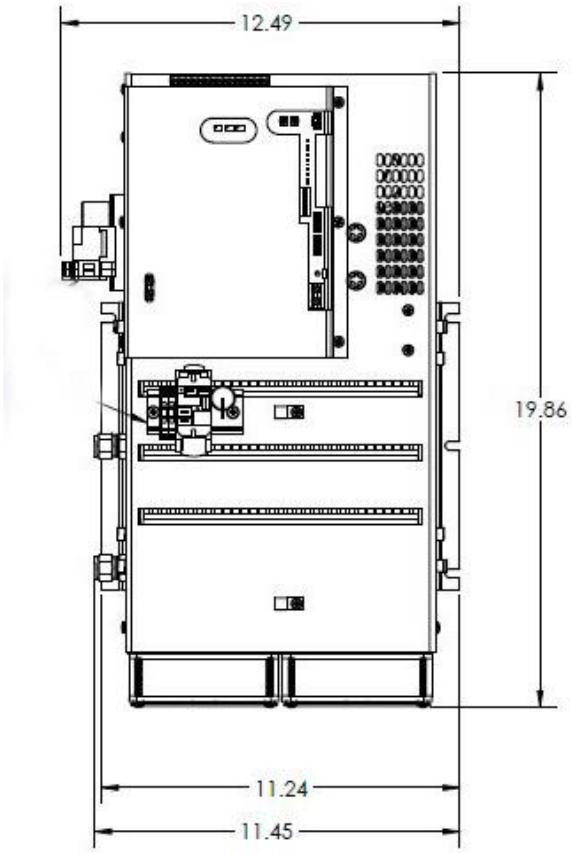
Oxygen pressure - (5 - 100 psi) [UL 5x rated]
Oxygen flow liters/minute - stats available soon.
Heat load btu/hr - stats available soon.
Chassis (rack mount or stand alone)
Inlet fittings (none, 1/4", 3/8, other)
Outlet fittings (none, 1/4",3/8 , other)

Weight Lbs (Kg) :

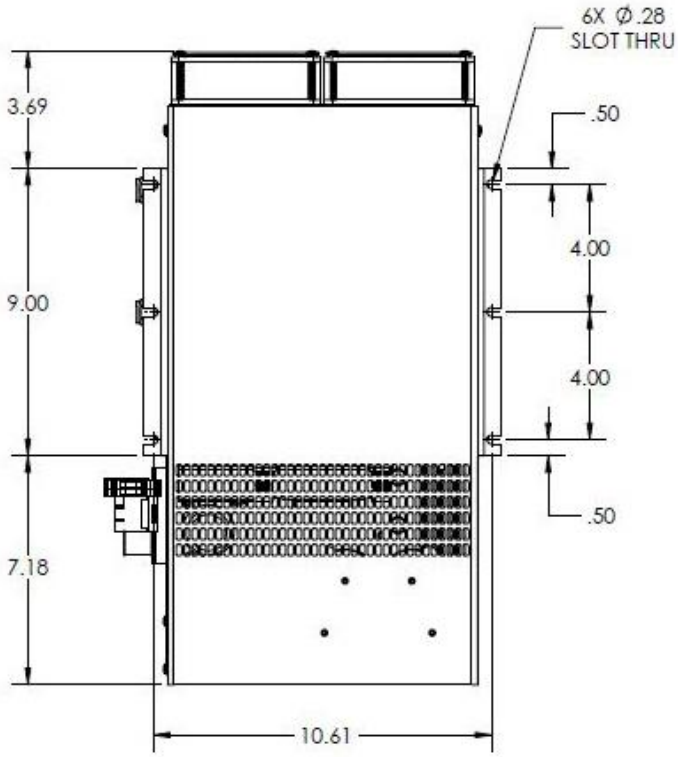
34.5 Lbs (15.68) Kg.

Installation Drawings :

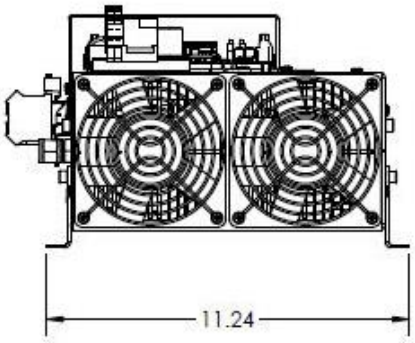
Top View



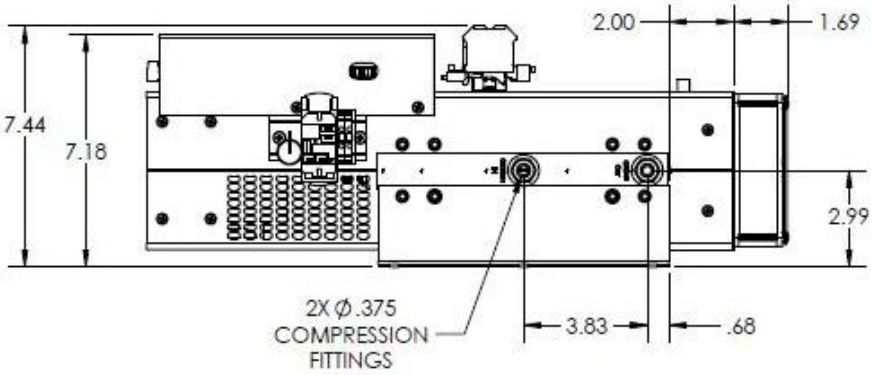
Bottom View



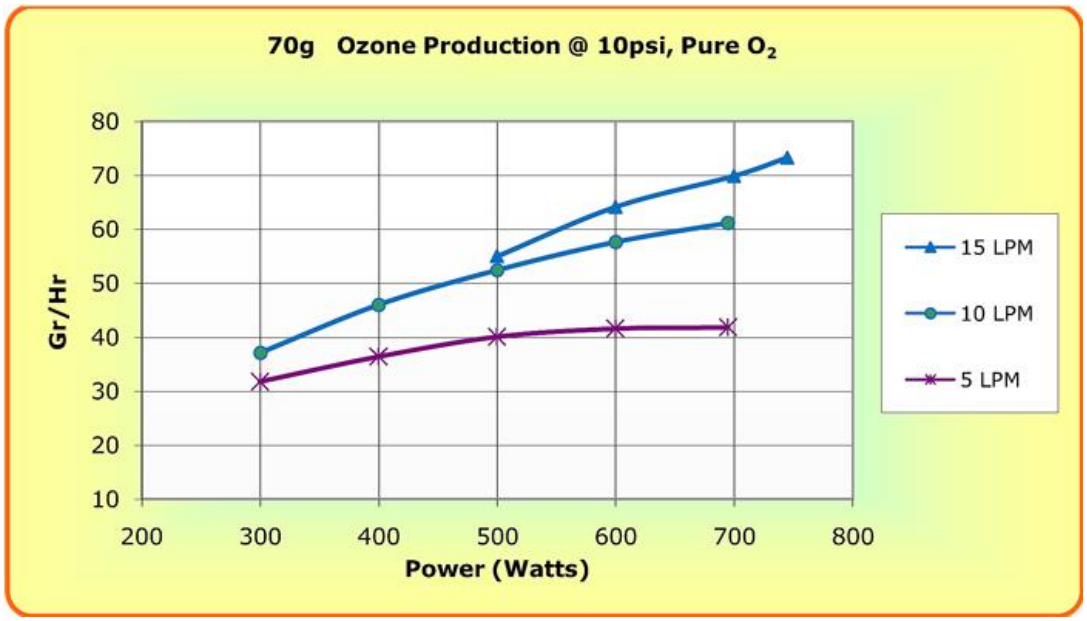
Front View

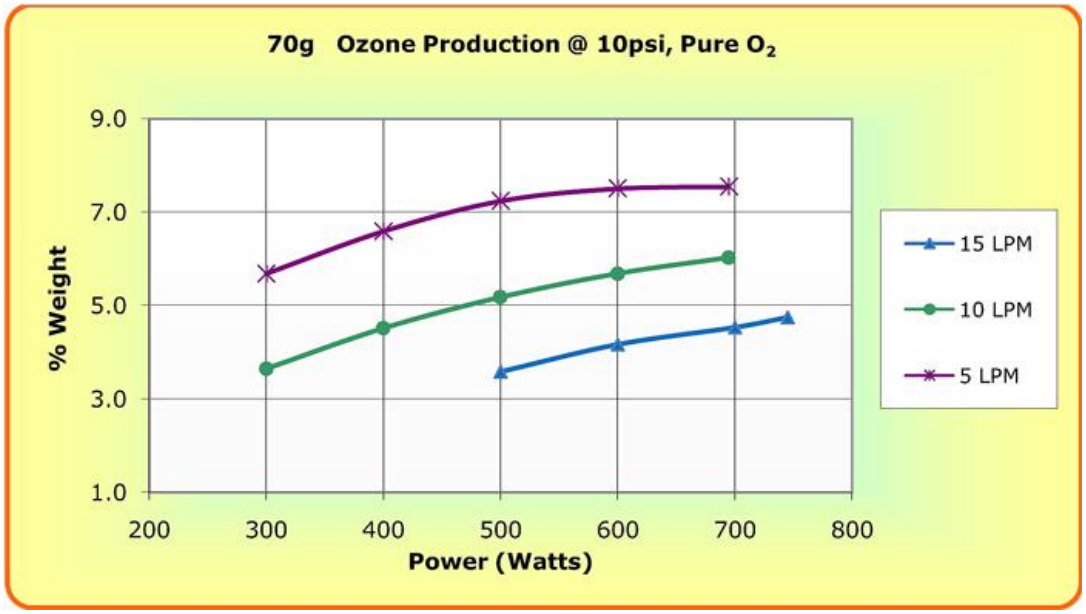


Side View



Output Performance:





OEM

120g @ 5% Plasma Blo$_3$ck® (Air-cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Models available :

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Cost-effective, **Compact,** Light Weight, Ceramic, **Air-cooled** and power-**Efficient**.
1.5 lbs/day at 9.2% and 3 LPM : 8 lbs/day at 4.7% weight and 30 LPM (Oxygen or Concentrator).
No exposed high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Linear Control with **Turn-down to 1%.**
Useful pressure range: 5 – 100 psi. Available with **PlasmaVIEW ®** software (optional).

Design Features:

- **All** high voltage is safely contained completely within the Plasma Blo$_3$ck®, thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer-tightened ozone fitting. All non-metal materials are ozone rated.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.

- Directly installable by UL 508a panel house.
- **Micro Channel**® design results in high concentration, reduced high-voltage levels, and more efficient operation. **Concentrator or bottle feed of at least -60°F dew point, filtered, positive-pressure oxygen is required**. Materials in the gap are **ceramic and aluminum**.
- Ideal for 'over-the-road' applications. Instant-ON ozone production. -- No warm up time.
- Precision-machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures**, as well as **vacuum ride through**. Only 1 psi drop with 20 LPM flow. As with any cell, the most predictable performance occurs in the positive-pressure domain. Maximum pressure 100 psi. 2.7 safety factor at 150 psi.
- Ozone level automatically controlled to ± 1% from 85 to 130vac, or 170v to 260vac, depending on model.
- Pre-mounted, seasoned and tested package sub-system, which includes cell, transformer, inverter and fan. Design uses the finest quality materials and machining for maximum performance and efficiency.
- The Inverter is a reduced-power version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product.
- **23 kHz** operating frequency for **silent** operation.
- Line voltage 240v (Standard), 50/60hz.
- **Inlet 3/8", Outlet 3/8"; both Stainless Compression Fittings** are standard; 1/4" or 1/4" NPT on request
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance and burnin tests of all electricals are conducted to ensure the highest level of product **quality, reliability and consistency**.
- Patented design.

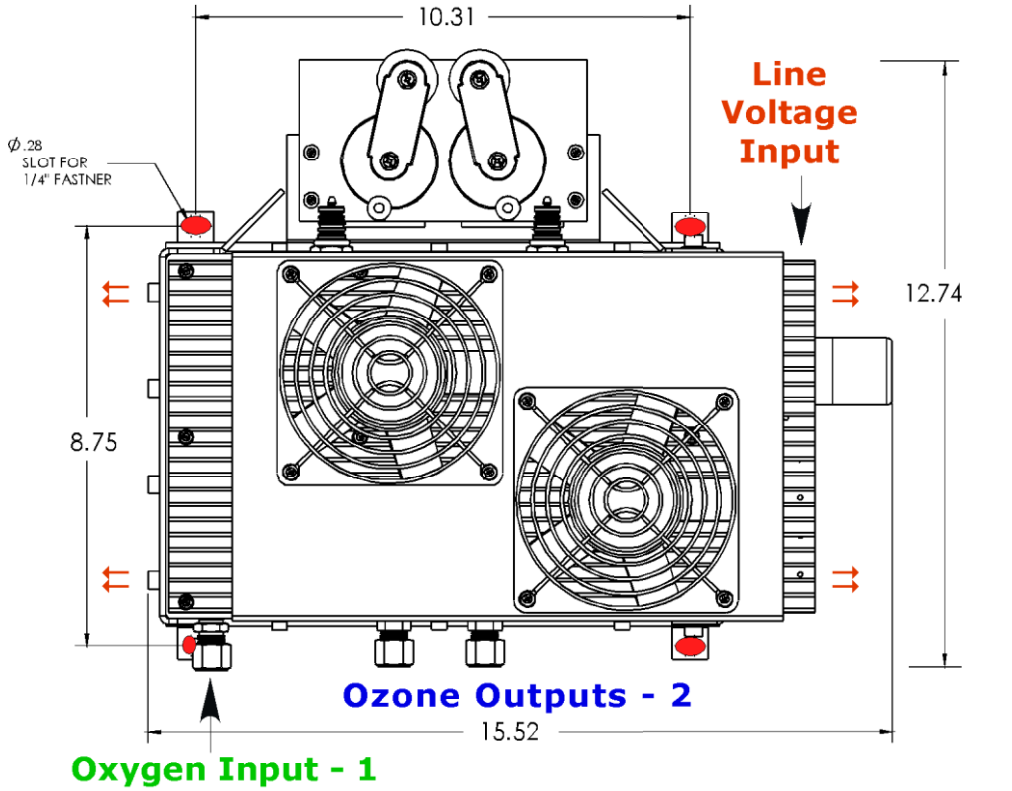
Configuration options :

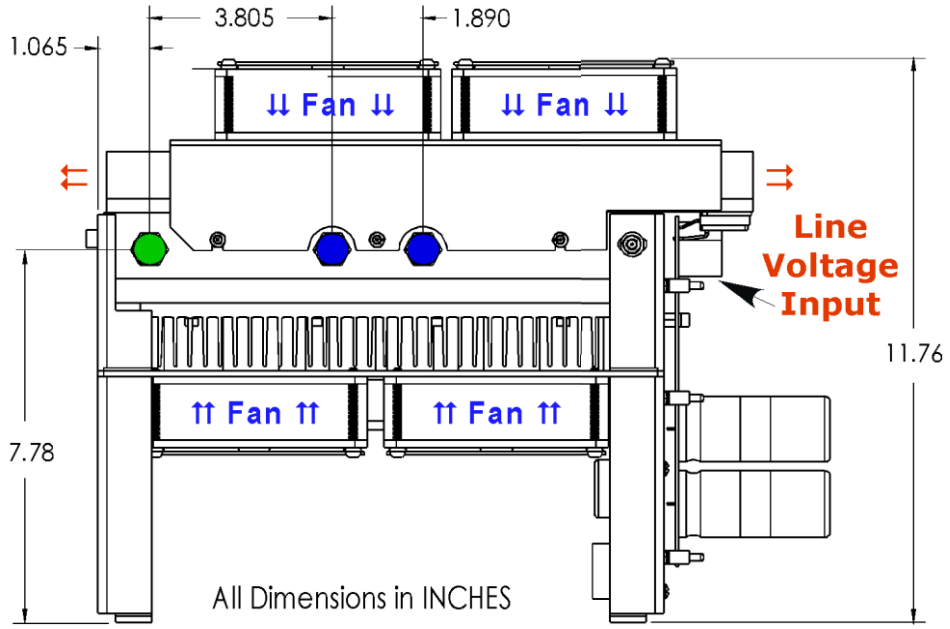
PTI will set up and tune units to the customers' desired specifications.

Oxygen pressure - (5 - 98 psi) [UL 5x rated]
Oxygen flow liters/minute - (.2 - 40 Lpm) or equivalent SCFH
Heat load btu/hr = 3400
Inlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)
Outlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)

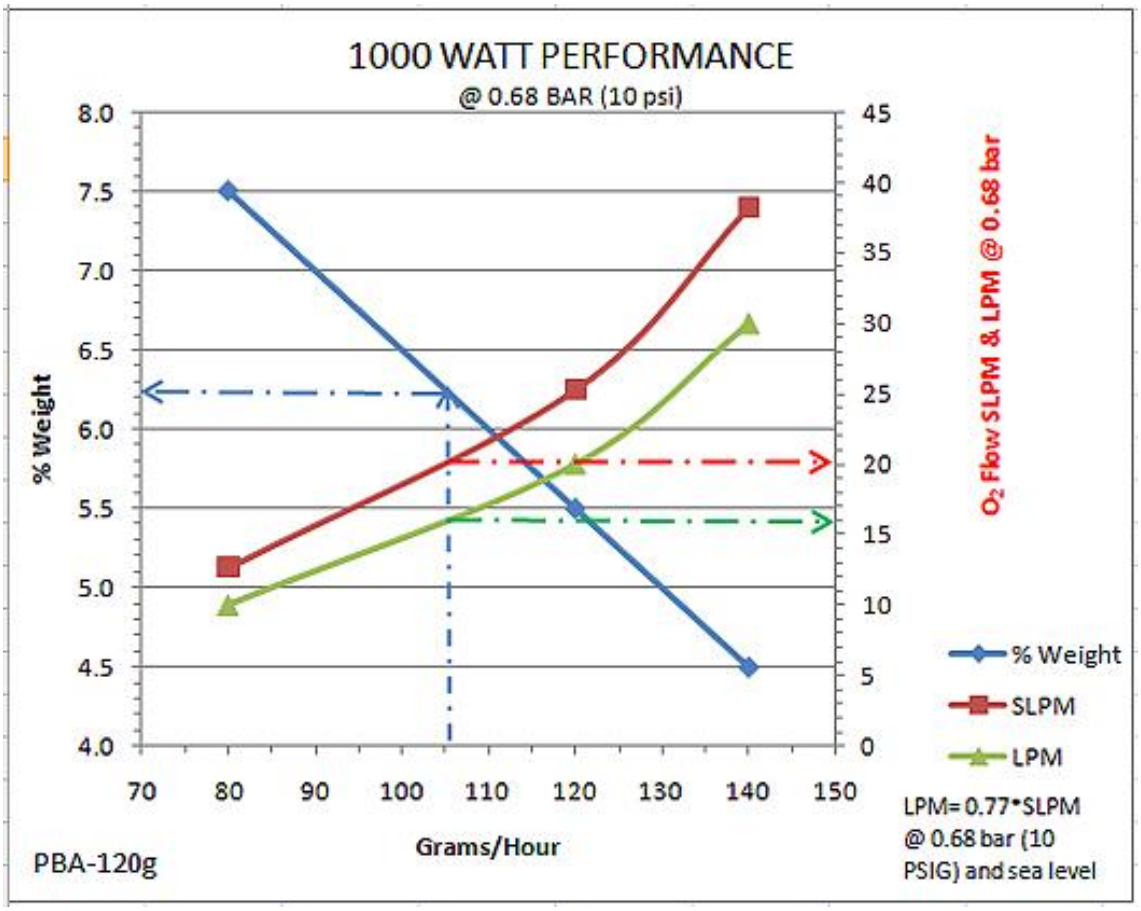
Weight Lbs (Kg) : 40.8 (18.57)

Installation Drawing: Inches


10.31
Line
Voltage
Input
Ø.28
SLOT FOR
1/4" FASTNER
12.74
8.75
Ozone Outputs - 2
15.52
Oxygen Input - 1

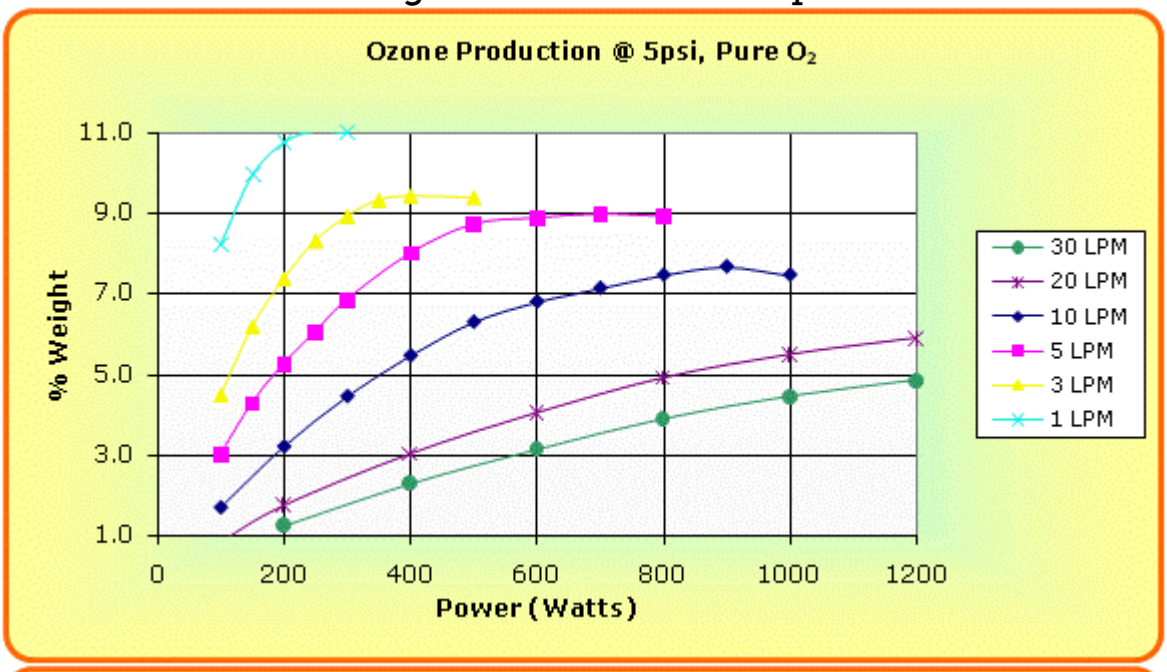

3.805
1.890
1.065
⇊ Fan ⇊
⇊ Fan ⇊
Line
Voltage
Input
11.76
⇈ Fan ⇈
⇈ Fan ⇈
7.78
All Dimensions in INCHES

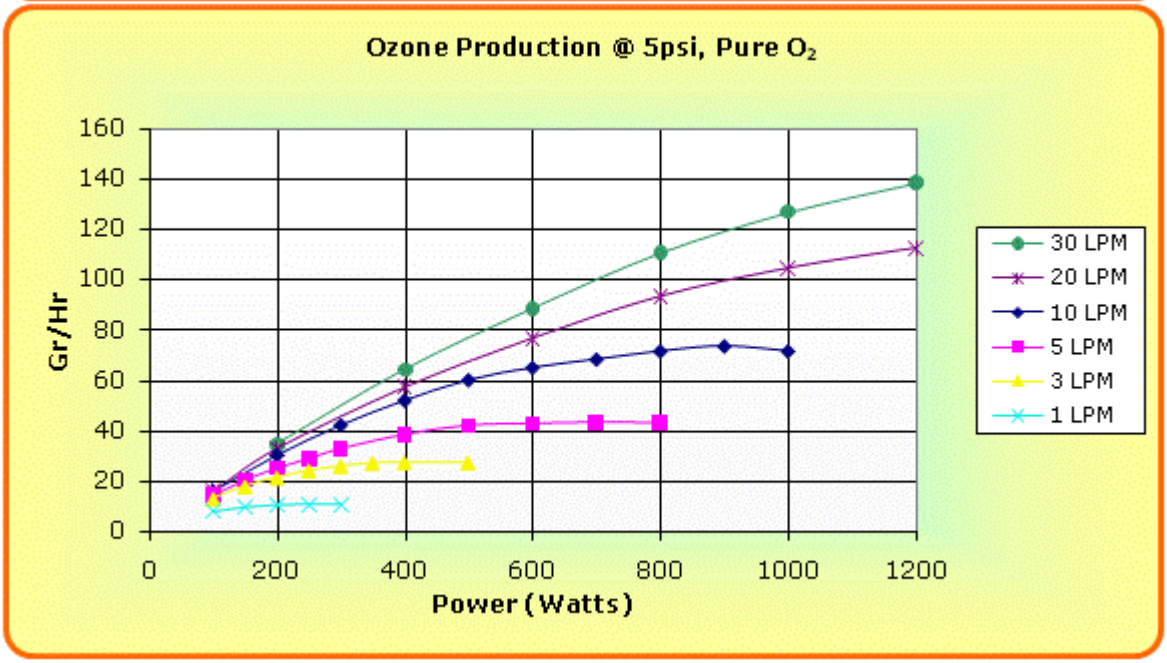
Output Performance:



Output Performance: 5 psi

% Weight vs Power Consumption





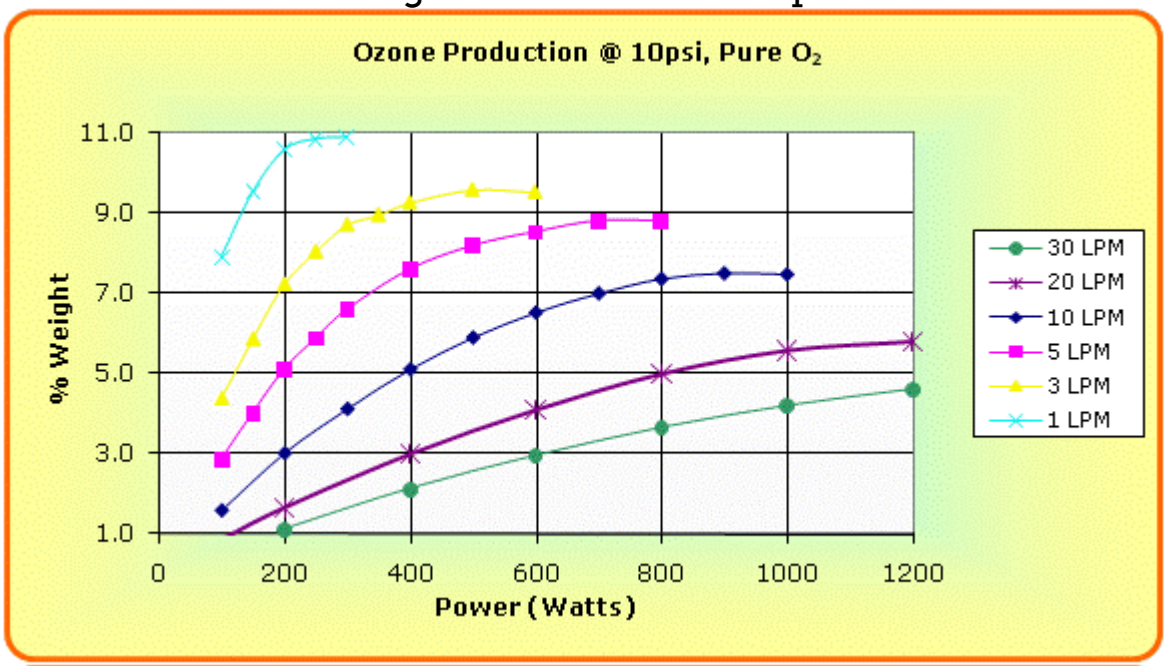
Grams / Hour vs Power Consumption

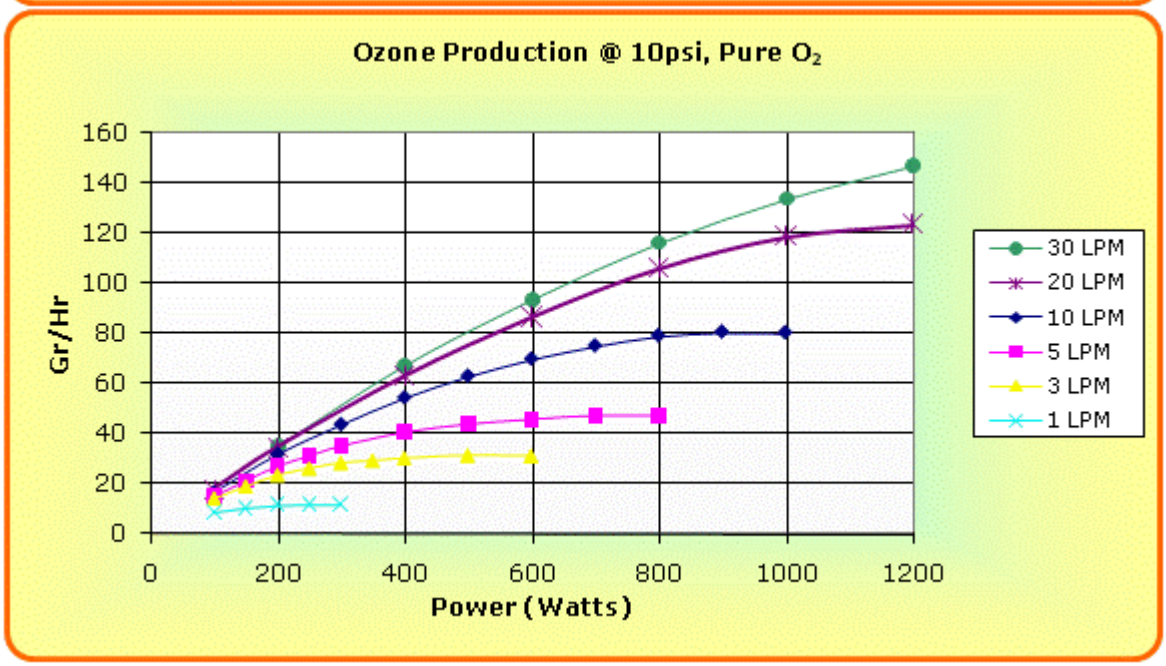
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 10 psi

% Weight vs Power Consumption





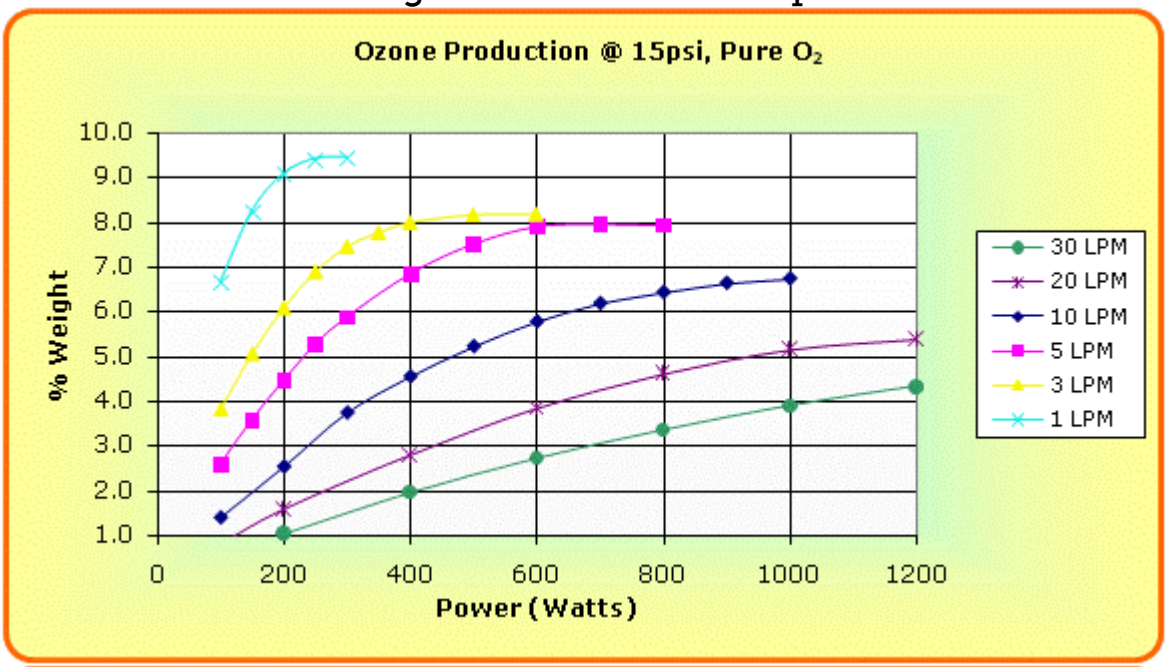
Grams / Hour vs Power Consumption

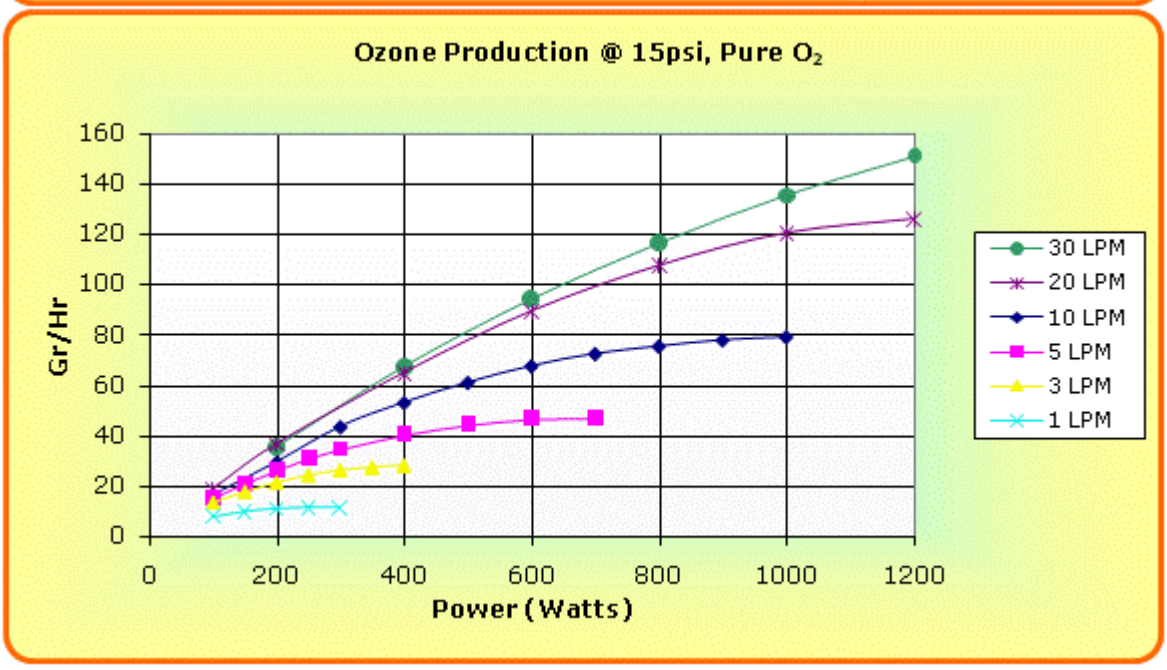
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 15 psi

% Weight vs Power Consumption





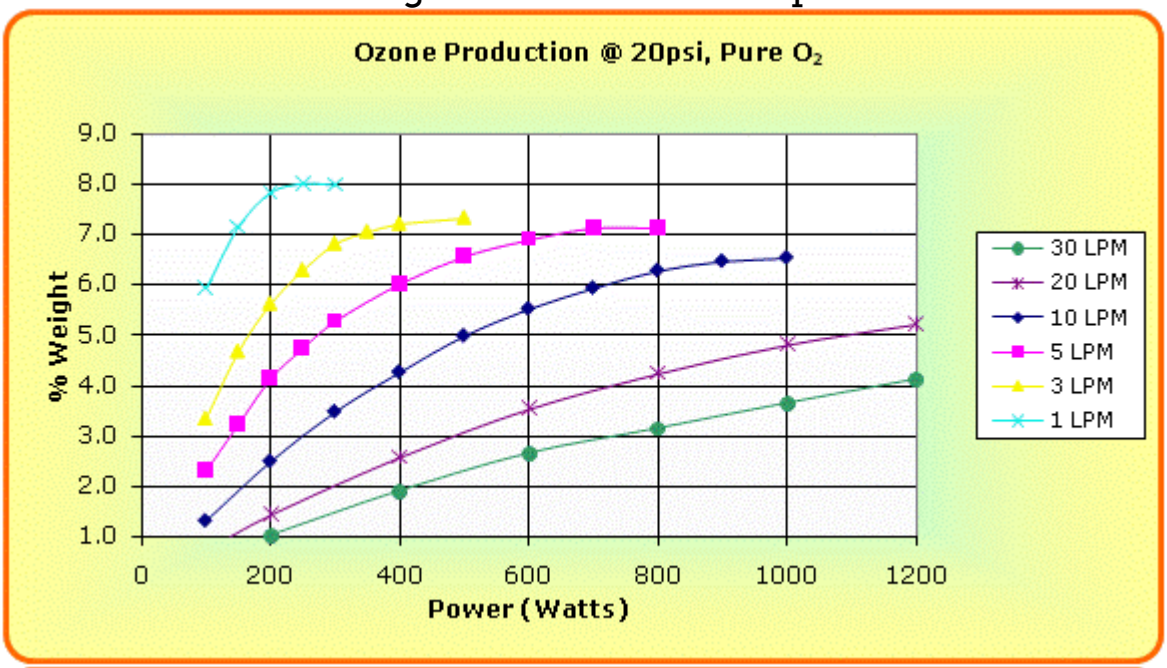
Grams / Hour vs Power Consumption

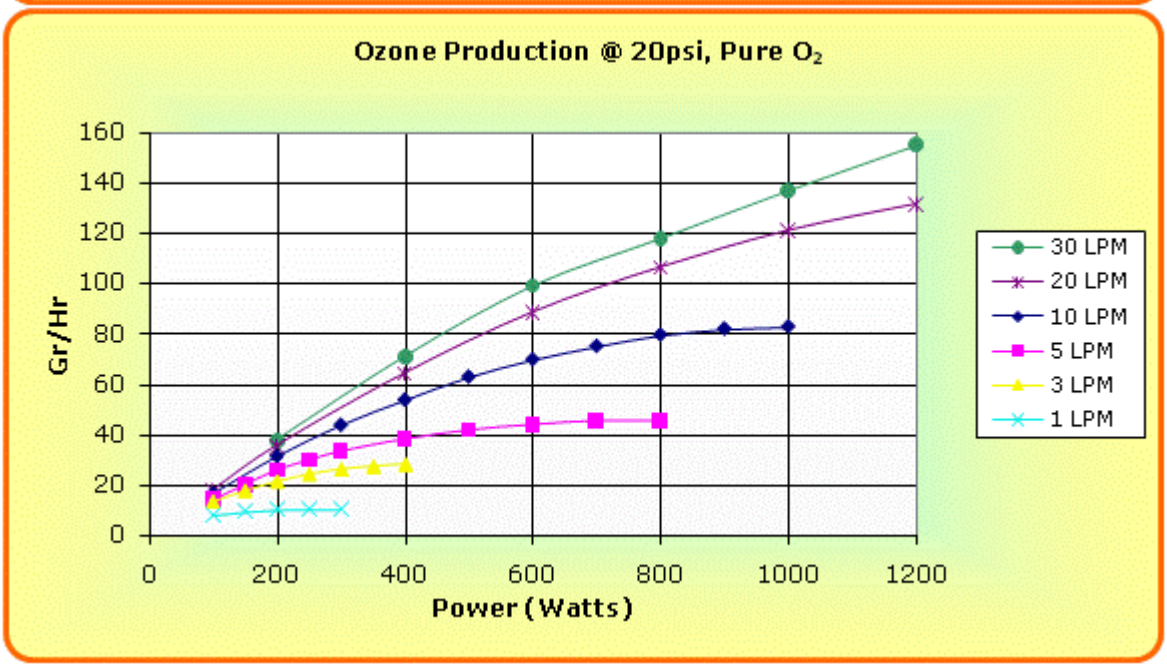
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 20 psi

% Weight vs Power Consumption





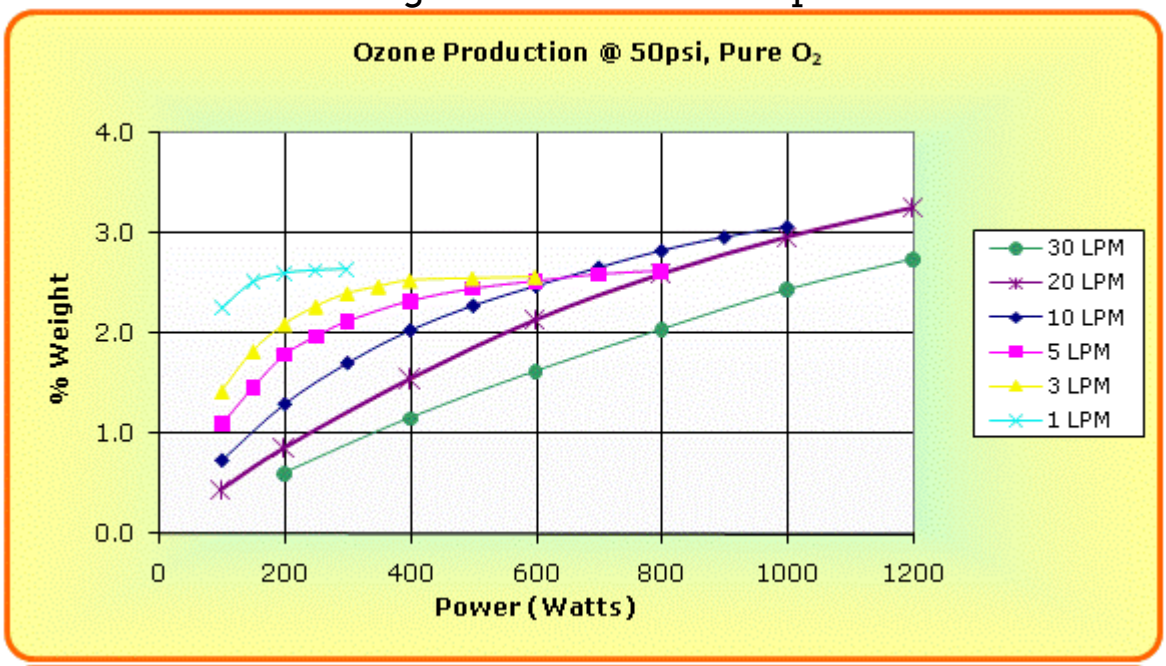
Grams / Hour vs Power Consumption

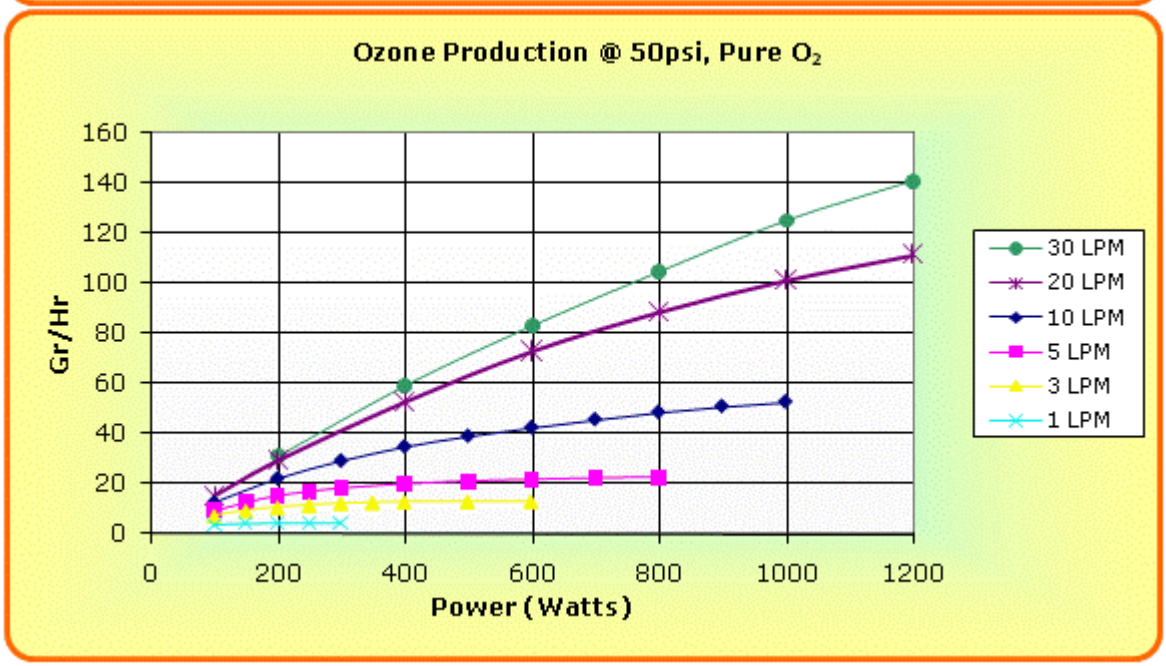
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 50 psi

% Weight vs Power Consumption





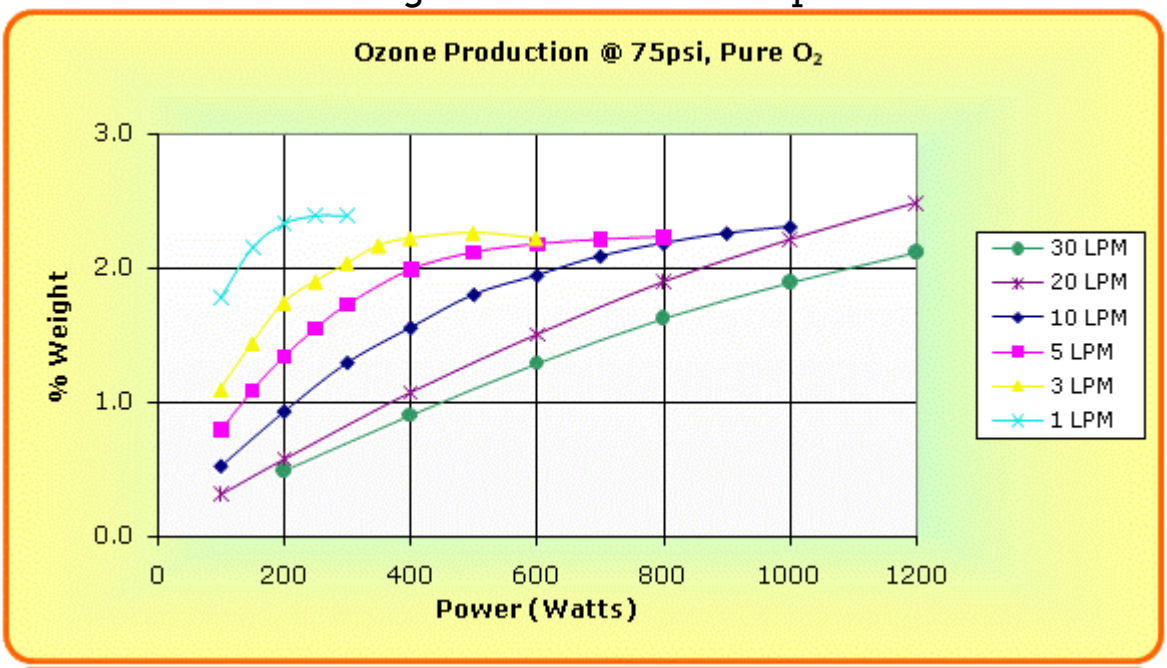
Grams / Hour vs Power Consumption

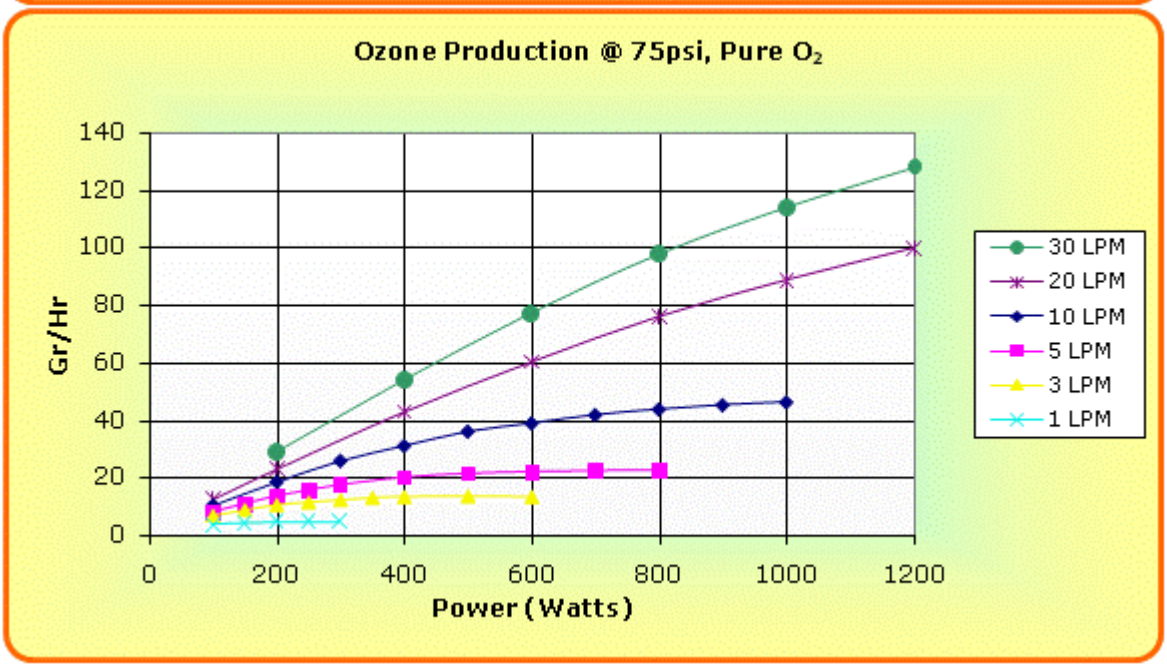
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 75 psi

% Weight vs Power Consumption





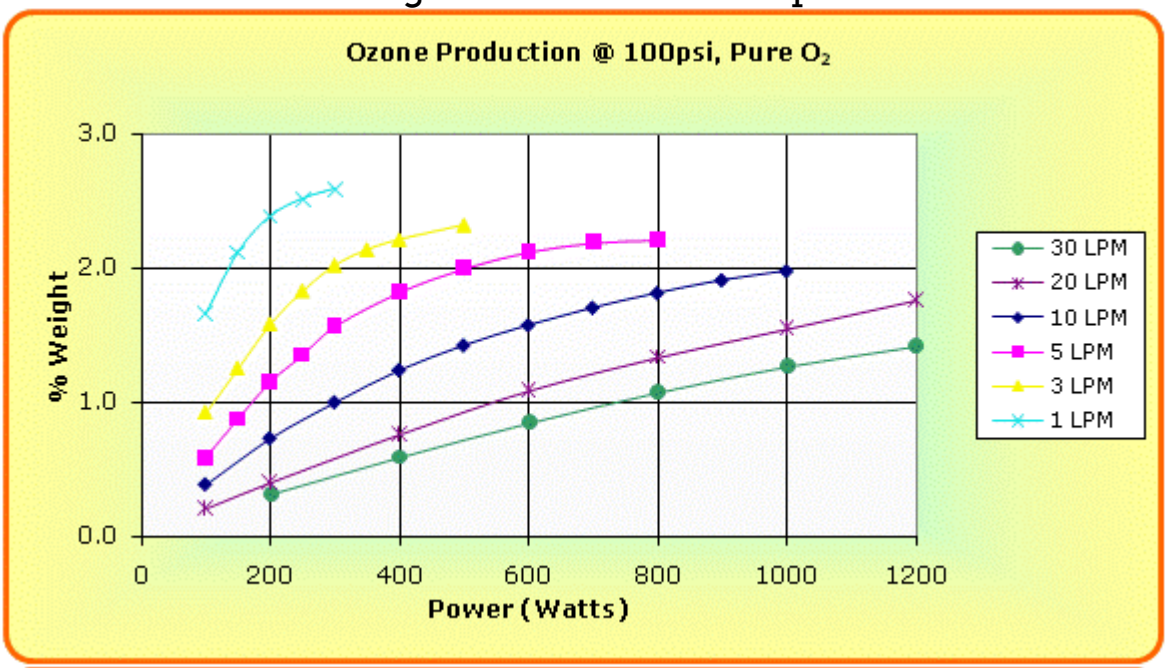
Grams / Hour vs Power Consumption

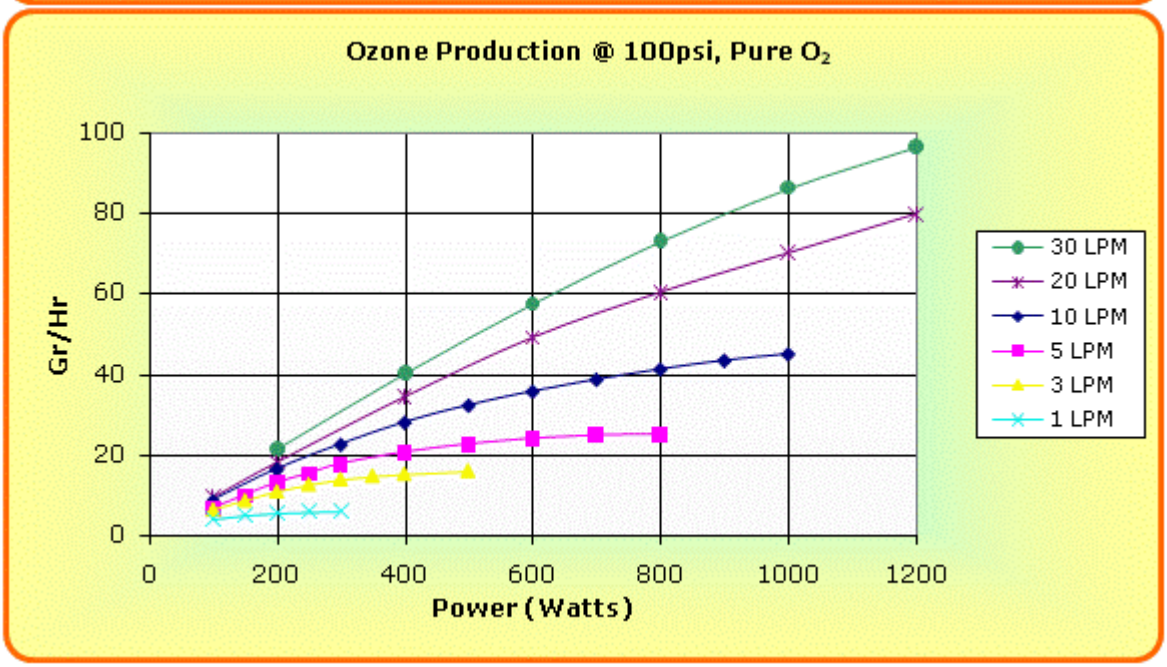
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Output Performance: 100 psi

% Weight vs Power Consumption



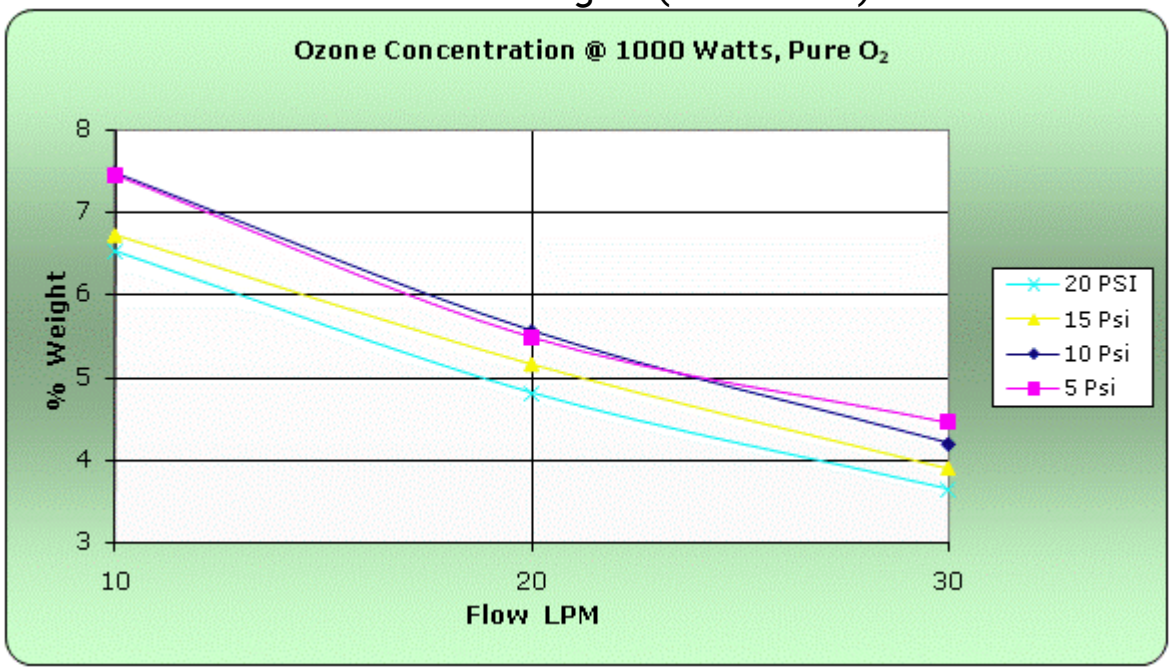


Grams / Hour vs Power Consumption

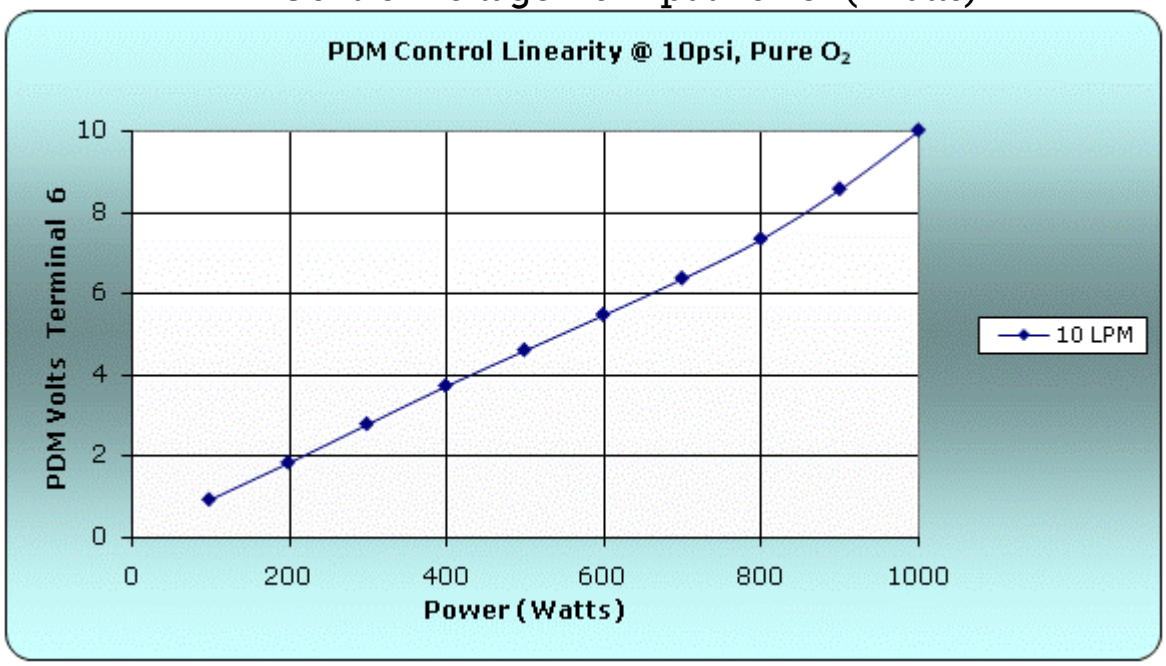
Normal factory POWER setpoint: 1000 watts at FULL PDM (10vdc or 20ma)

Published production-ozone output level (120gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Flow vs % Weight (1000 Watts)



PDM Control Voltage vs Input Power (Watts)



OEM

Gen2 Dual Cell 4 Fan or Modular

140g @ 10%, 20 psi, 19 SLPM

210g @ 5%, 25 psi, 53 SLPM **(Air-Cooled)**

Complete Package **OR** **Modular**

Fully automatic tuning for constant ozone output and installation simplicity
Service simplicity due to automatic fault diagnostics
Silent, Rugged, Reliable and Cost Effective
No exposed high-voltage safety hazards
Now available with PlasmaVIEW® software (optional)

Design Features:

- Wi-Fi and digital communications available as an option.
- Digital communications optional: simple and less expensive.
- **Micro Processor based,** installation simplicity and automatic tuning for constant ozone output.
- Automatic bus voltage compensation stabilizes output as power line conditions change.
- **Pulse Density Modulation (PDM),** linear power (ozone) output even at high turn-down.
- Service simplicity due to automatic fault diagnostics.
- Easy interface to PLC or computer.
- **Efficient**, compact, silent (25khz), safe, rugged, reliable, advanced – all the normal traits of a PTI product. Same precise linear control, with turn down to 1%, as with all Plasma Block® products.

- Maximum up-time , durable, commercial / industrial solution the ozone industry requires.
- Possible **cell flooding** is identified followed by shutdown and enunciation. No damage is caused to electronics, transformer and rarely the cell. Cell flushing and drying in the field is usually sufficient to restore full service.
- **Control connections** of the essential I/O functions are the **same** as all other Plasma Block® products.
- Line voltage 240v and 120v (UL approval pending).
- **Military grade conformal coating** eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.

Configuration options :

PTI will set up and tune units to the customer's desired specifications:

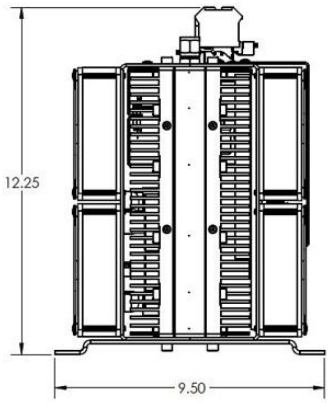
Oxygen pressure - (10 - 100 psi) [UL 5x rated]
Oxygen flow liters/minute - 5 – 60 SLPM.
Heat load btu/hr - 4400 btu.
Chassis (stand alone)
Inlet fittings (none, 3/8, other)
Outlet fittings (none,3/8 , other)

Weight Lbs (Kg) :

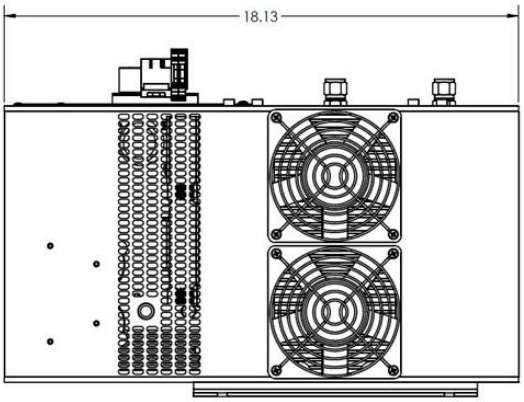
37.7 Lbs (17.34) Kg. complete package
32.9 Lbs (15.1) Kg. modular

Installation Drawings (complete package) :

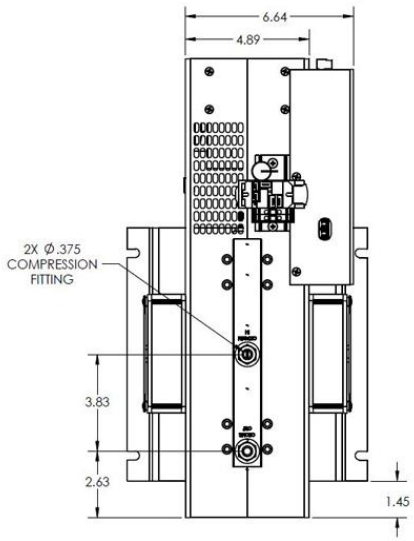
Front View



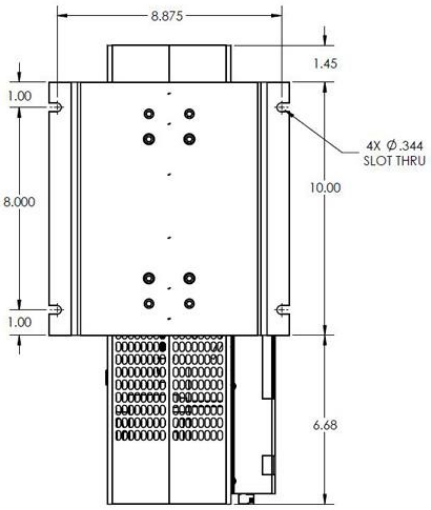
Side View



Top View

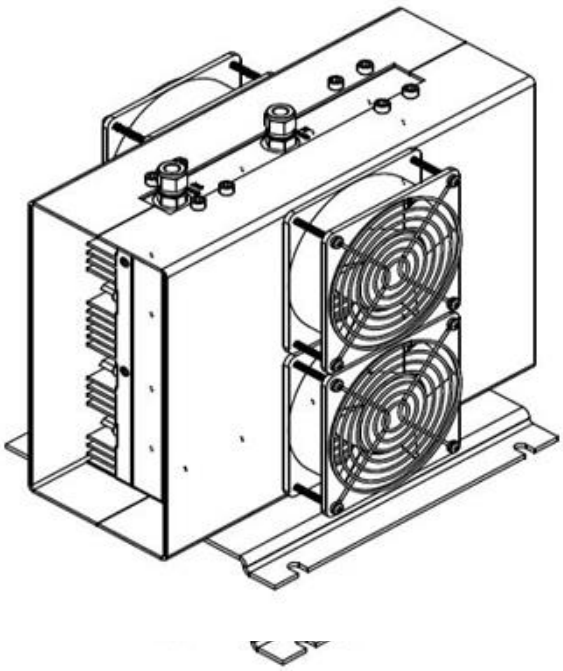


Bottom View

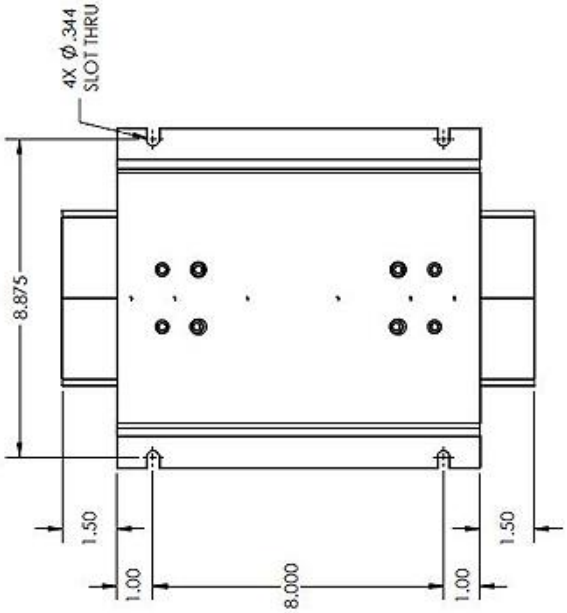


Installation Drawings (modular) :

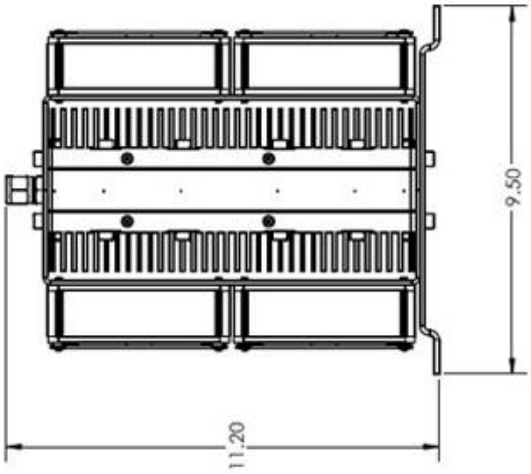
Main View



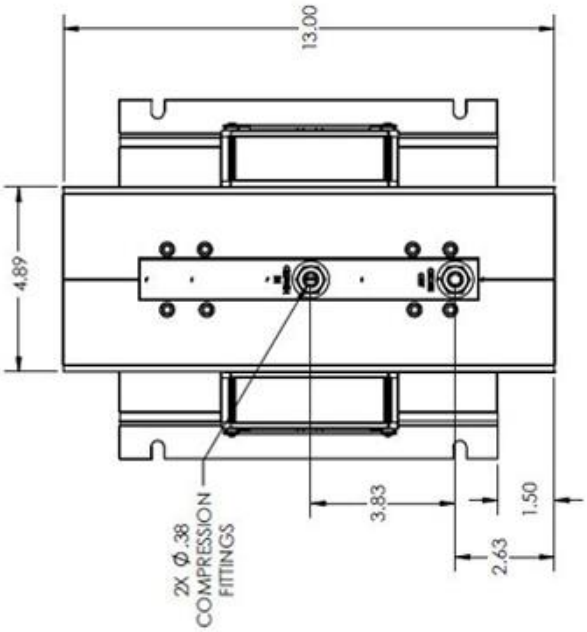
Bottom View



Front View

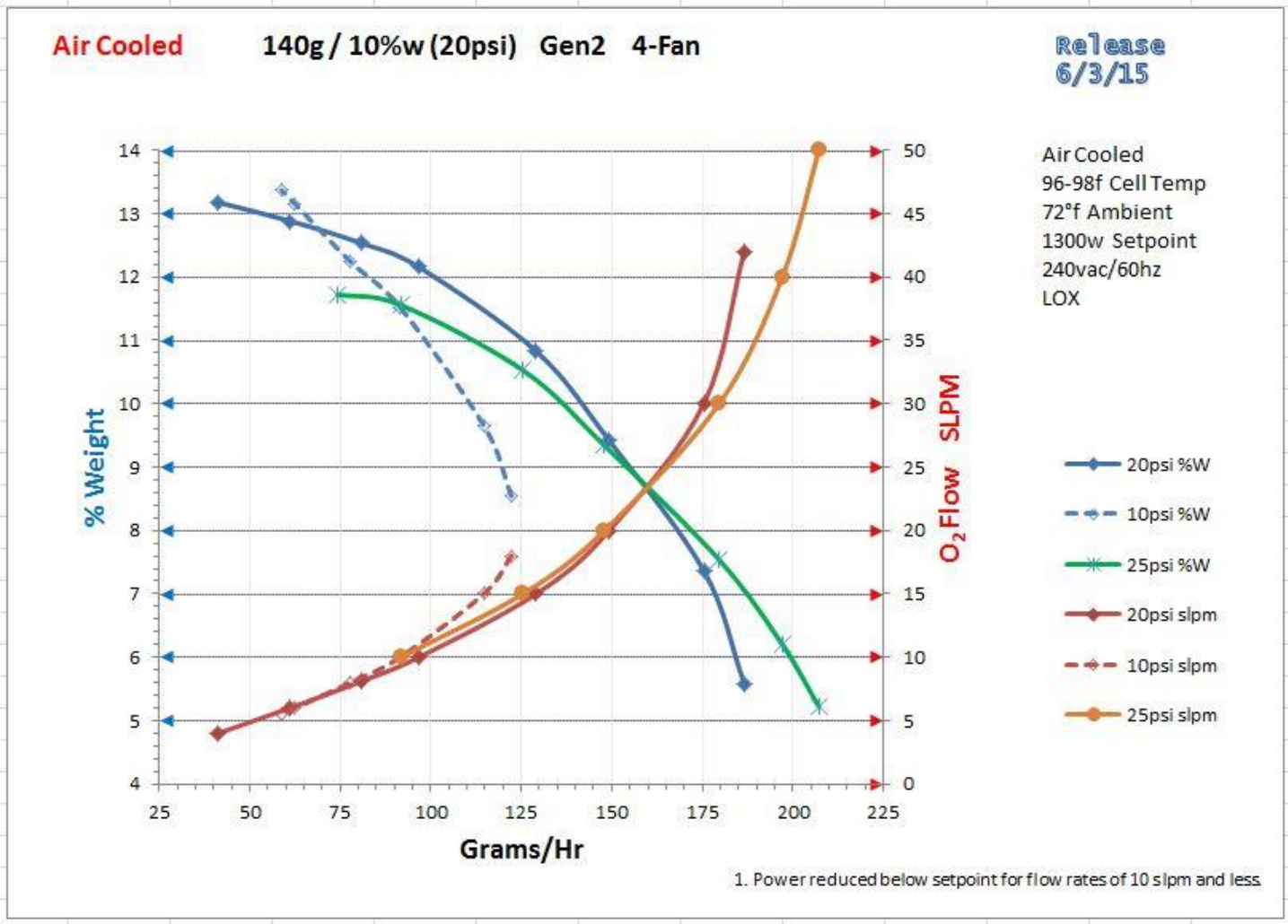


Top View



Output Performance:

Typical bench best values (Gr/Hr). See individual sales cutsheets for published minimums.



To 3300 ft. altitude without derating.

Ozone production increases or decreases by .58% / Deg F cell temperature, based on nominal published cell temperature. See specific test parameter for product in question.

OEM

QuadBlock® 250g @ 5% (Air-Cooled)

13 PPD @ 5%

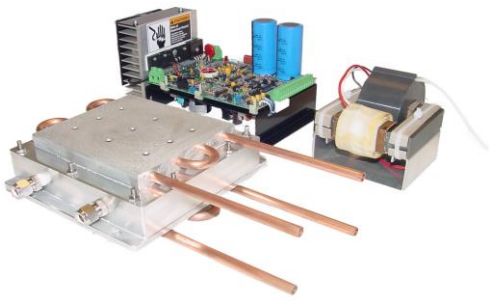
4.2 PPD @ 9%

For additional information, contact Plasma Technics Inc.

Plasma Technics, Inc.®

OEM

Plasma Blo$_3$ck® (Water-Cooled)



Reliable, Cost-effective, **Compact**, Light Weight, Ceramic, **Liquid-cooled** and power-Efficient.

2.2 lbs/day at 8.5% and 5 LPM**, 5 lbs/day at 5.13**% weight and 15 LPM (Oxygen or Concentrator).

Precise ozone control using **Pulse Density Modulating** (PDM) via potentiometer, 4/20ma or 0-10vdc.

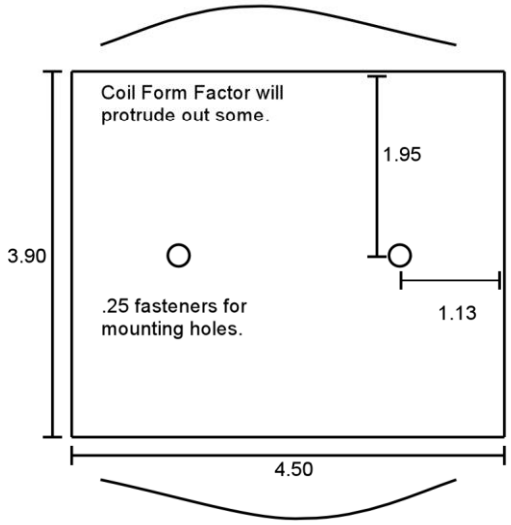
Turndown to 1%.

Design Features:

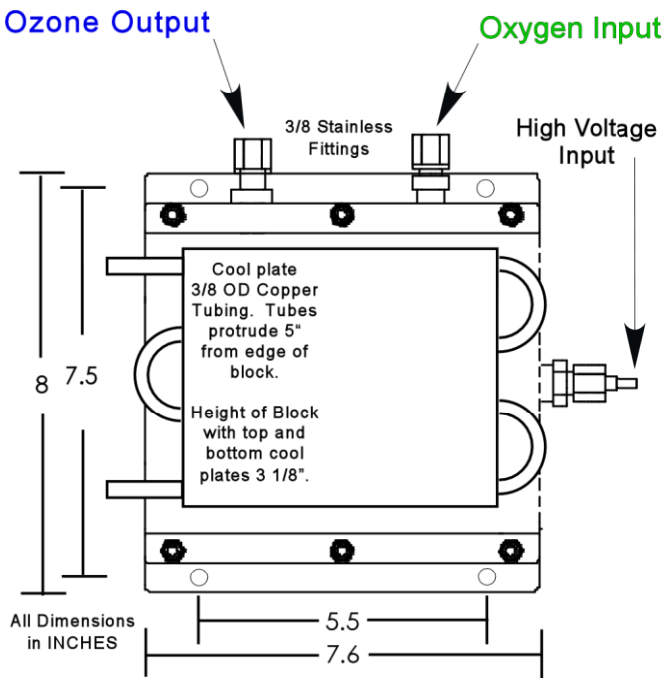
- Pre-tested package which includes cell, transformer, and inverter. Design uses the finest high-quality material for maximum performance and efficiency.
- Micro gap design results in high concentration, reduced high-voltage levels and more efficient operation.
- Precision-machined aluminum block eliminates inefficient hot spots. Optimum performance pressure band from 10 psi to 20 psi. 4.4 psi drop with 15 LPM flow. As with any cell, the most predictable performance occurs in the positive pressure domain.
- Stackable: very cost-effective.
- Ozone level automatically controlled to ± 1% from 190 to 260vac.
- The Inverter is PTI's popular SSD110. All control and interface features of the SSD110 are available in this product. [Freq., Voltage, PDM, Digital ON/OFF, Enable and Freq. outputs. ±15vdc, +5vdc available.]
- High operating frequency for silent operation. Several magnetics' packages available to accommodate a wide range of multi-block systems, pressure ranges and price points.
- Premium dry style, long-life magnetics.
- Inverter will drive up to 3 cells for easy system scaling.
- Line voltage 208v, 220v, 240v, 50/60hz. No selection jumpers; system automatically compensates.
- Inlet 3/8", Outlet 3/8": both Stainless Fittings. Water connections 3/8" OD.
- **UL and CSA Listed** Inverter.
- Rigorous 100% performance and burnin tests of all electricals are conducted at elevated operating temperature to ensure the highest level of product **quality** and **reliability**.
- Military grade conformal coating eliminates problems associated with condensation and mold, as well as greatly retards damage caused by accidental ozone exposure.

Installation Drawing: Inches

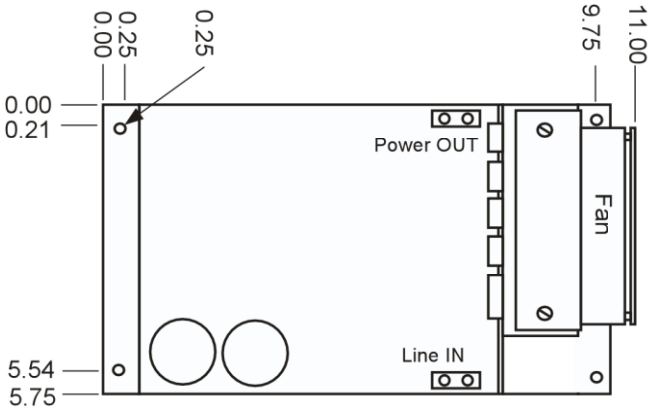
Transformer

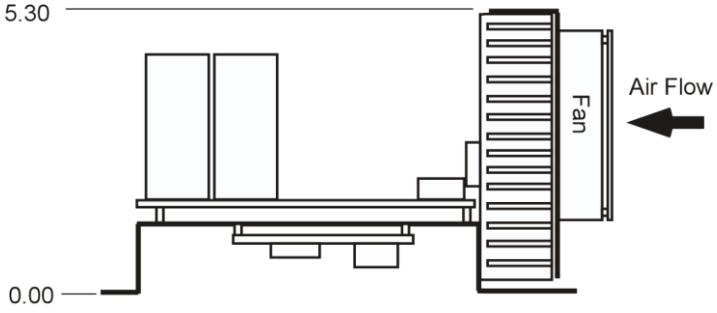


Plasma Blo3ck



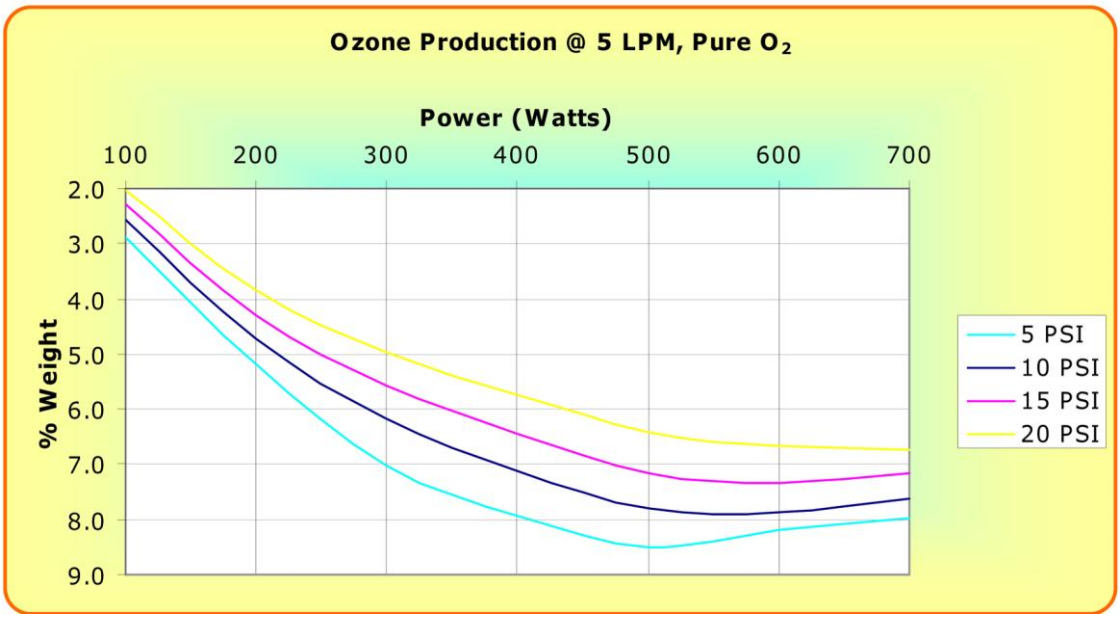
Inverter

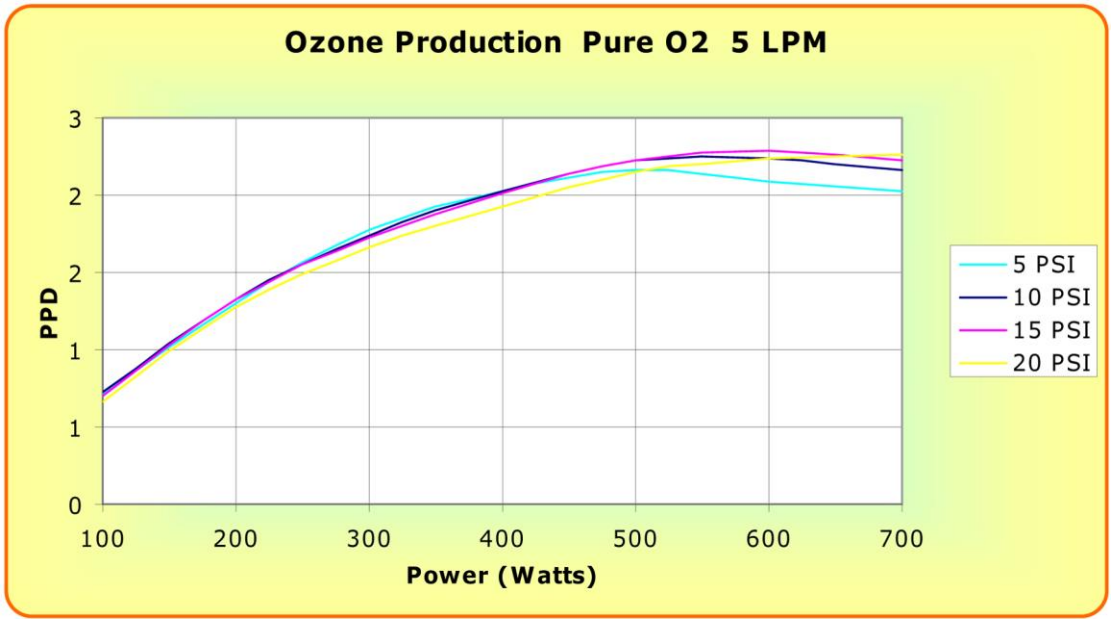




Performance Information:

% Weight vs Power



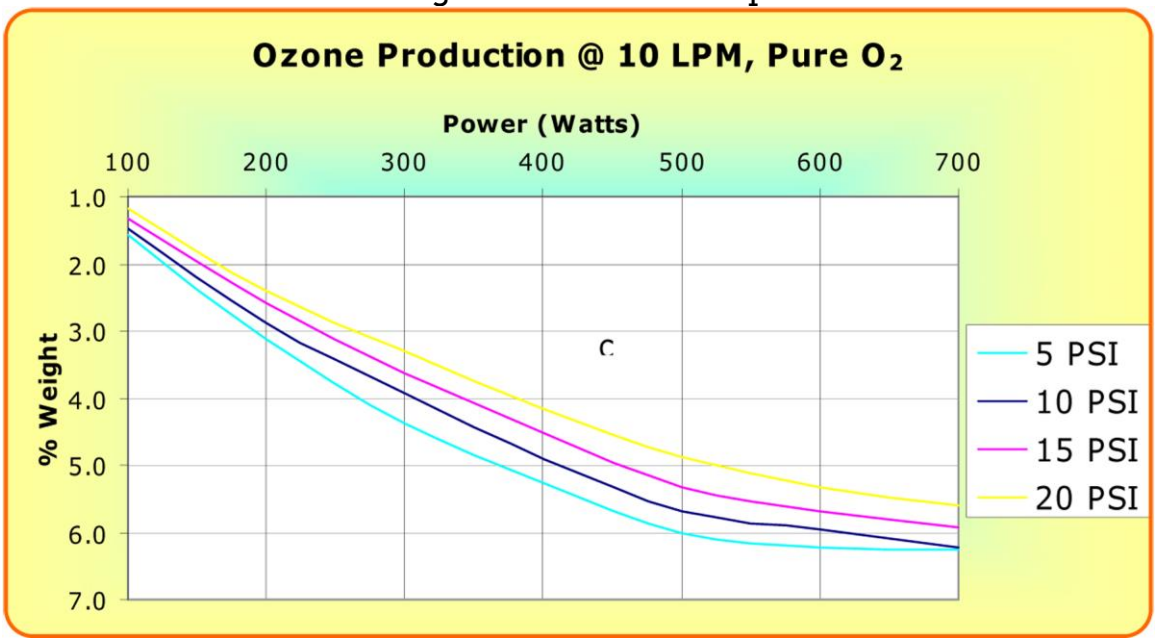


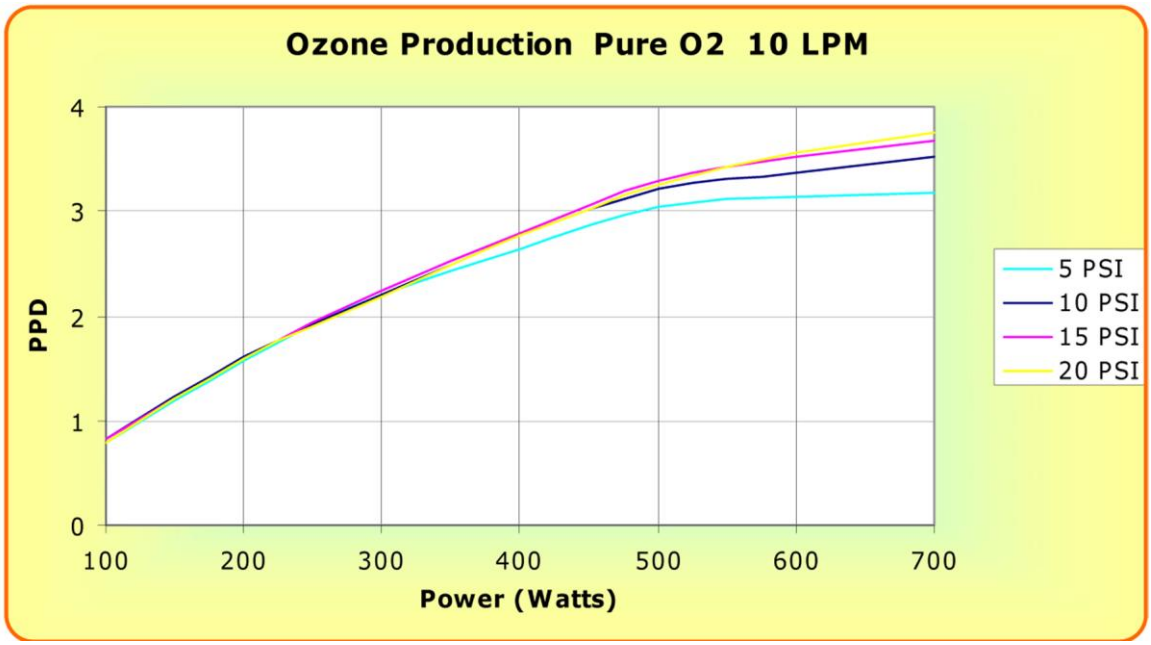
Lbs / Day vs Power Consumption

Block Pressure Drop: @5LPM= .3psi, @10LPM= 1.6psi, @15LPM= 4.4psi,
@20LPM= 6.5psi All data with Block at 23°C.
Tests conducted at 72°F, 700' MSL, all pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

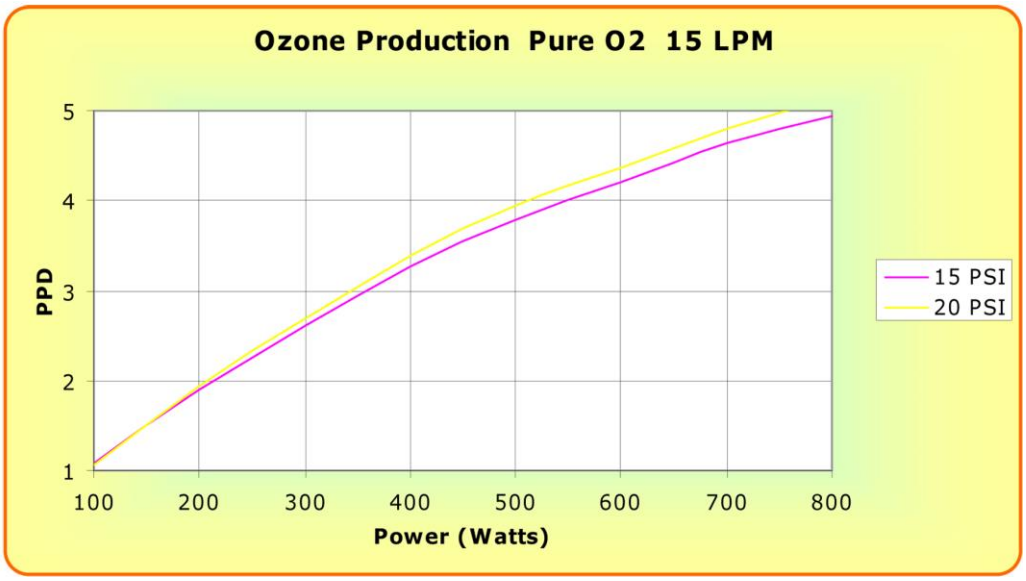
Performance Information:

% Weight vs Power Consumption

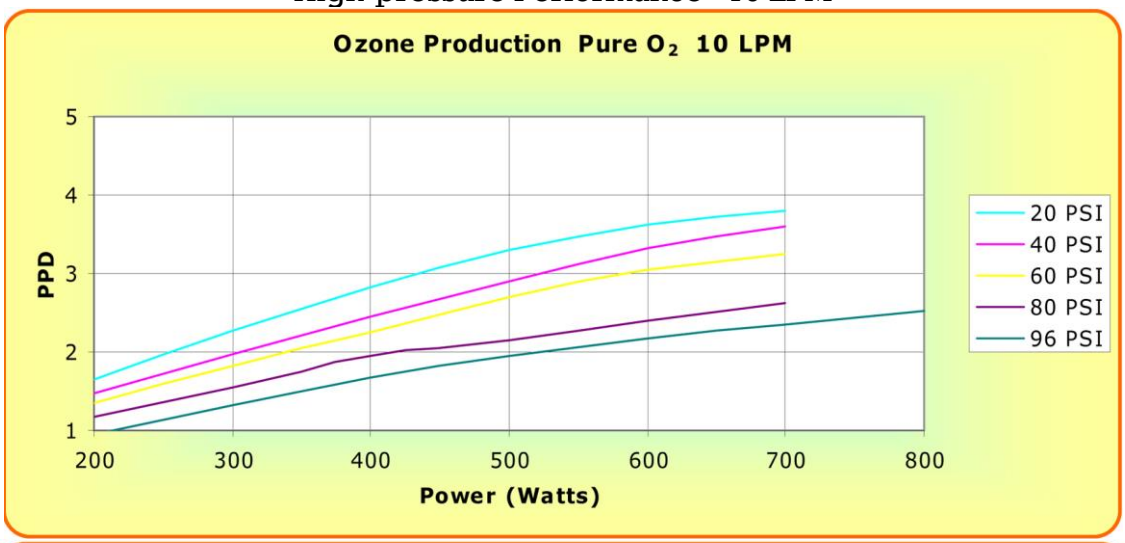


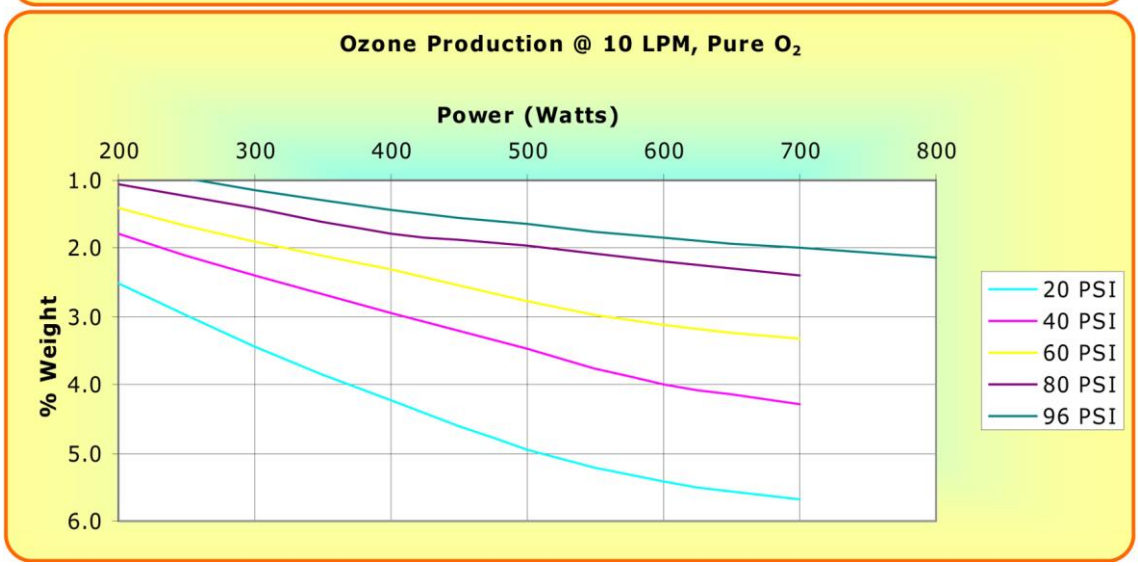


Lbs / Day vs Power Consumption

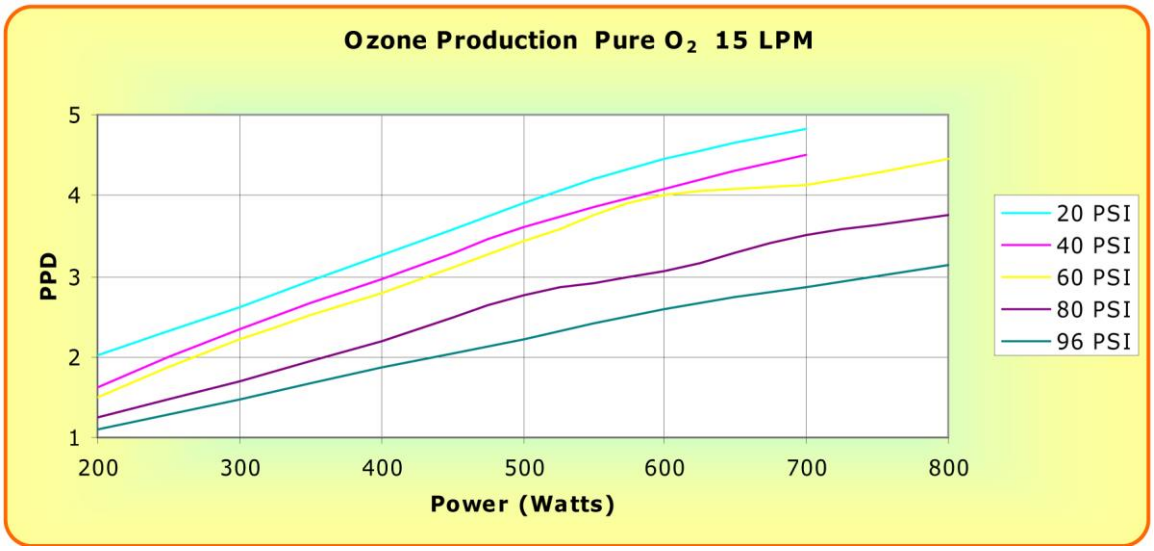


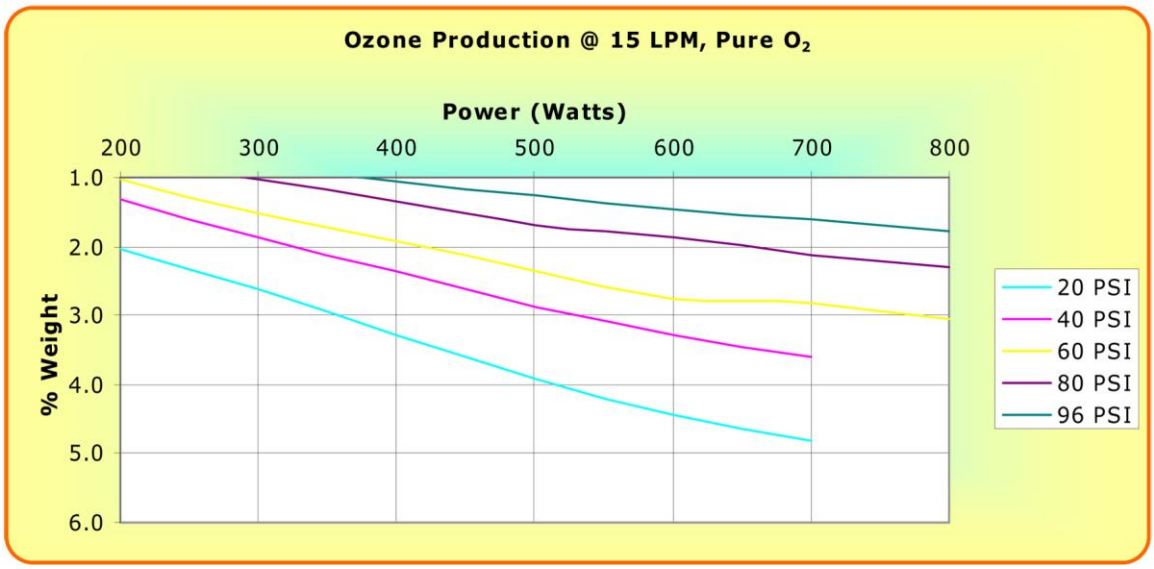
High-pressure Performance 10 LPM





High-pressure Performance 15 LPM


Ozone Production Pure O_2 15 LPM
PPD
5
4
3
2
1
200
300
400
500
600
700
800
Power (Watts)
20 PSI
40 PSI
60 PSI
80 PSI
96 PSI

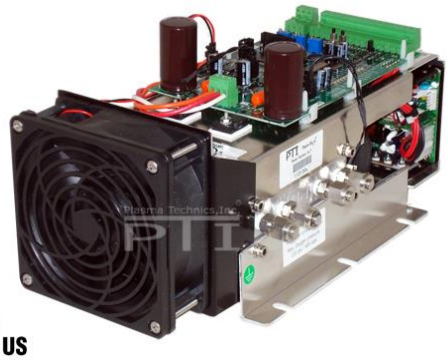

Ozone Production @ 15 LPM, Pure O_2
Power (Watts)
200
300
400
500
600
700
800
% Weight
1.0
2.0
3.0
4.0
5.0
6.0
20 PSI
40 PSI
60 PSI
80 PSI
96 PSI

OEM

15 - 26g @ 5% Plasma Blo$_3$ck® (Water-Cooled)

Regular Mount

c UL us LISTED



Alternate Mount

For added application information, see the **Plasma Block® Applications Guide** manual.

Models available :

Refer to - **Configuration Options Summary Sheet**

Fully automatic tuning for constant ozone output and installation simplicity
Service simplicity due to automatic fault diagnostics
Silent, Rugged, Reliable and Cost Effective
No exposed high-voltage safety hazards
Now available with PlasmaVIEW® software (optional)

Design Features:

- **25g**, 5%, **6 lpm**, 5 psi.
- Directly installable by UL 508a panel house.
- **Full-Auto** and **Semi-Auto** modes hold constant power over the entire pressure range of **5 - 100 psi**. From package to process, no setup or adjustments are required. Continuously tracks and automatically optimizes performance for changes in pressure, flow and line voltage.
- **Universal, world class product**. **Constant ozone output** and cooling: 100 – 240vac, 50/60hz, power factor .94-.99 across the entire working voltage and power range. Power supply is UL / CSA / CE approved. NO line voltage configuration jumpers – any voltage, any frequency; same unit.
- **Efficient**, compact, silent (25khz), safe, rugged, reliable, advanced – all the normal traits of a PTI product. Same precise linear control, with turn down to 1%, as with all Plasma Block® products.
- Maximum up-time , durable, commercial / industrial solution the ozone industry requires.
- Possible **cell flooding** is identified followed by shutdown and enunciation. No damage is caused to electronics, transformer and rarely the cell. Cell flushing and drying in the field is usually sufficient to restore full service.
- Extensive two tier fault enunciation **maximizes up-time** and simplifies service diagnostics. Latched fault indicators retain fault status until serviced.

- This Gen2 cell is a scaled down version of PTI's field proven 50g product which is virtually impervious to extremes in temperature, vibration and pressure. **Major savings are had due to its low energy use, low oxygen volume needs and competitive price.**
- The control electronics is accomplished via Plasma Technics® new DAT300 or 310 microcontroller based inverter board. This state of the art controller yields a simpler user interface and many new features intended to further increase up-time and **simplify installation** and troubleshooting.
- **Control connections** of the essential I/O functions are the **same** as all other Plasma Block® products.
- PDM, Voltage and Frequency potentiometers have their own jumper selection for onboard control if desired.
- Complex and thorough onboard electronic short circuit protection prevent nuisance circuit board failure due to accidental field wiring errors.
- Power and control connections are located at the rear of the product to enable integrators to construct 'plug & play' mounting.
- **Same mounting footprint and mounting hole centers** as the popular 50g Plasma Block® The 25g chassis is a miniature version of the 50g unit. This means that the general location for control connections, gas in / out, cooling, etc., are the same.
- **Military grade conformal coating** eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Like all other Plasma Block® products, the feed gas supply must be either PSA concentrator or bottle feed of at **least -60°F dew point, filtered, positive-pressure oxygen.**

Configuration options :

PTI will set up and tune units to the customer's desired specifications:

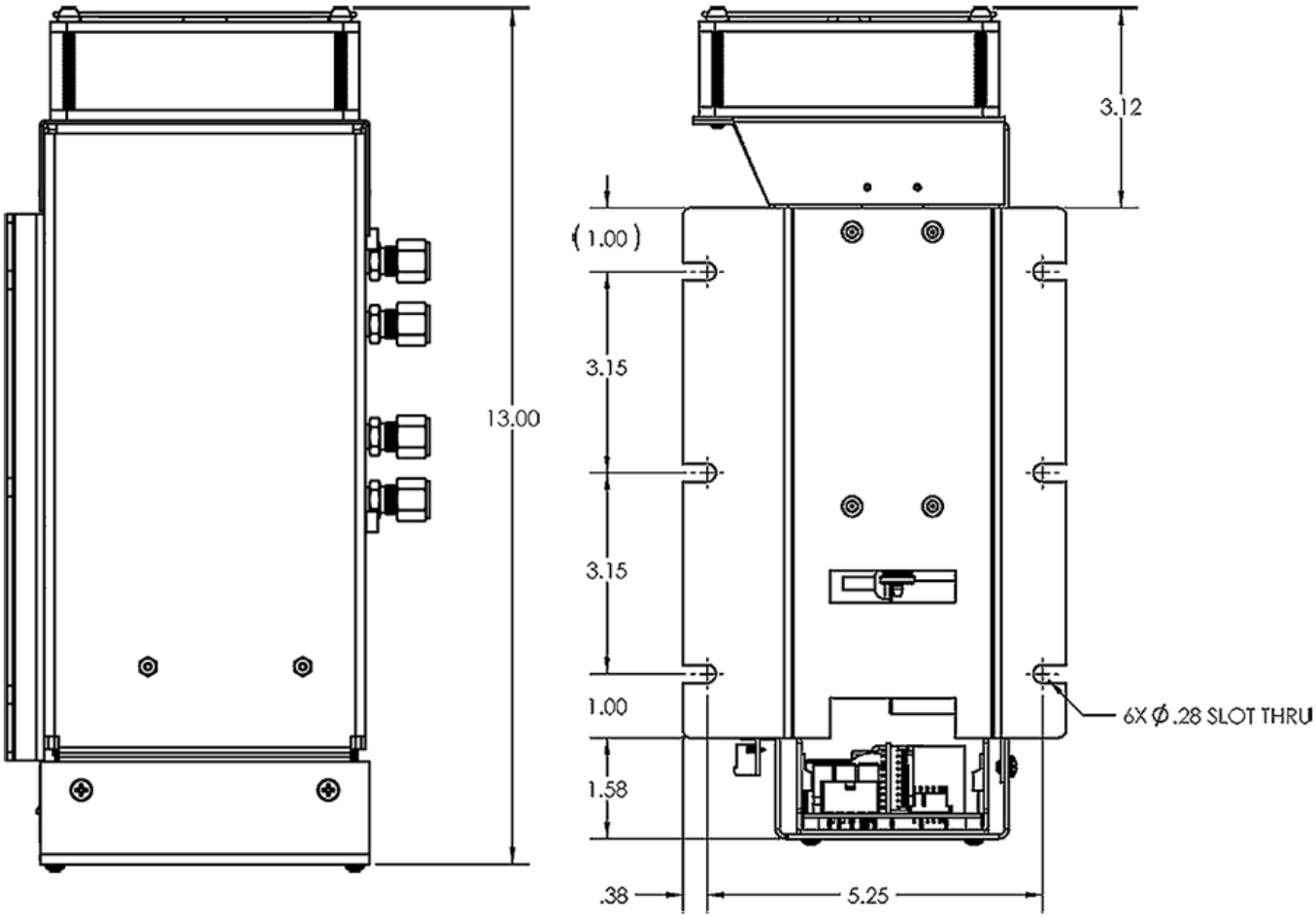
Oxygen pressure - (5 - 100 psi) [UL 5x rated]
Oxygen flow liters/minute – (.1 - 10 Lpm) or equivalent SCFH
Heat load btu/hr = 430 (10g) and 860 (20g)
Chassis (standard or alternate)
Inlet fittings (none, 1/4", other)
Outlet fittings (none, 1/4", other)

Weight Lbs (Kg) :

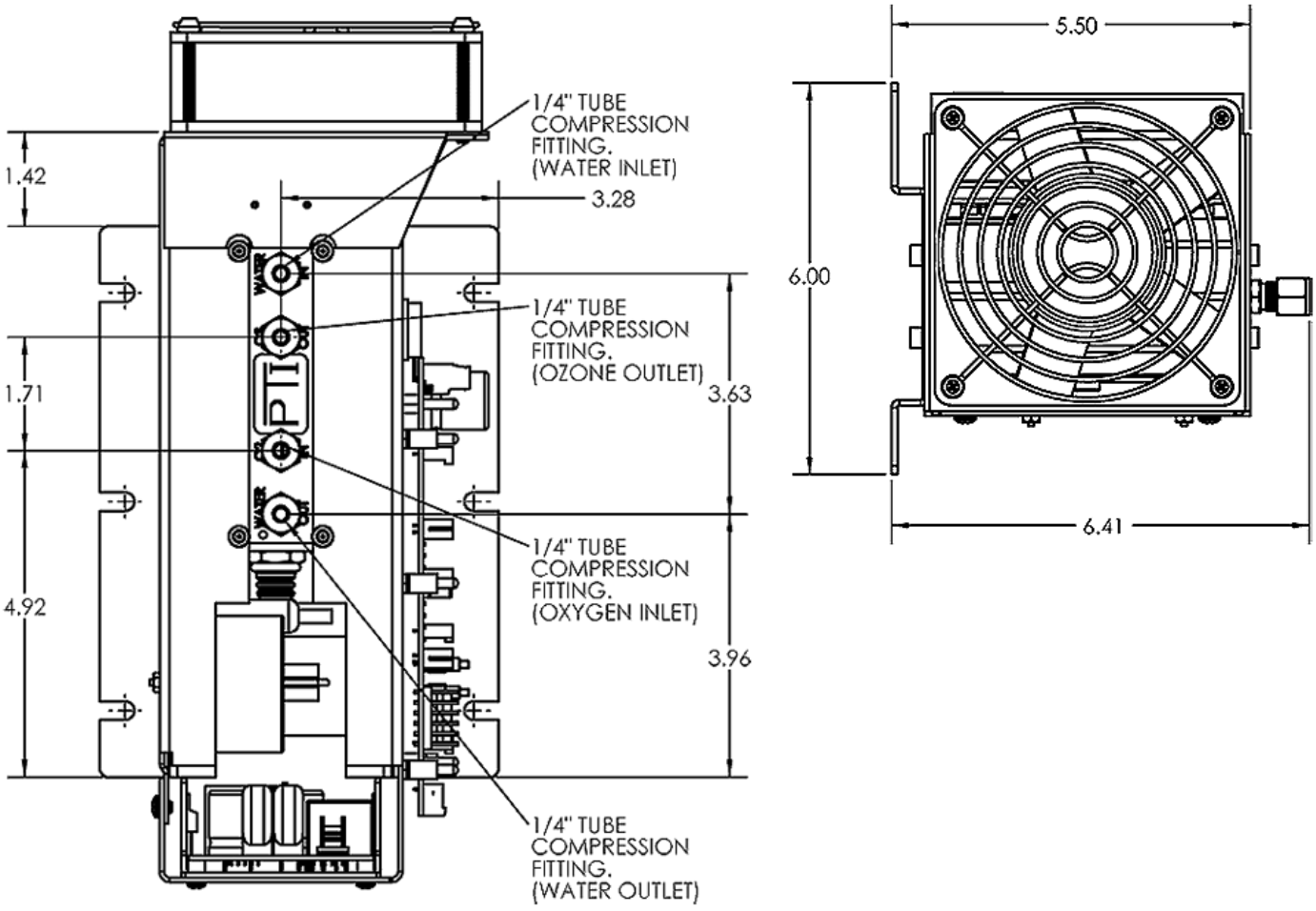
9.45 Lbs. (4.29) Kg.

Installation Drawing Regular Mount : Inches

Side and Bottom View

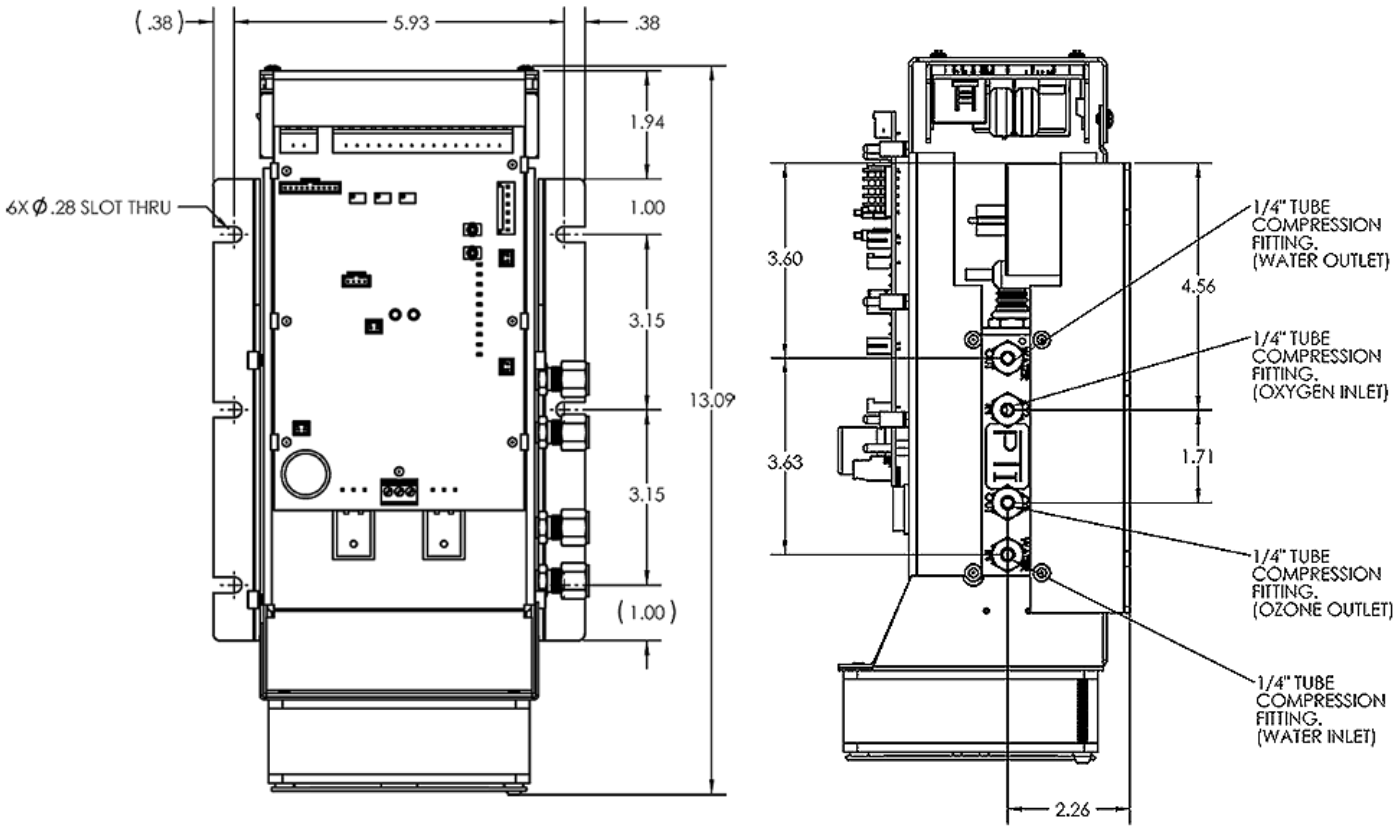


Top and Front View

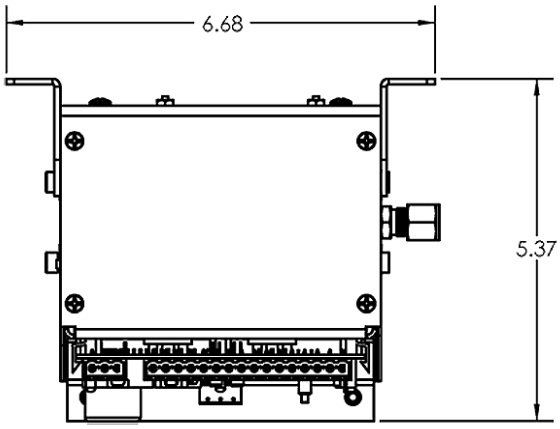


Installation Drawing Alternate Mount : Inches

Top and Side View



Back View



Output Performance:

15 - 26G Plasma Block®

PSI	SLPM	Gr/hr	% Wt	Temp °F
5	1.78	7.4	12.0	60
5	1.75	15.8	10.5	60
5	1.75	15.0	10.0	70
5	6.00	25.0	5.0	60
10	6.00	26.0	5.1	60

Plasma Technics, Inc.®

OEM

150g @ 5% Plasma Blo$_3$ck® (Liquid-Cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Model

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Safe, Efficient, Cost-effective, Compact, Light-Weight, Ceramic dielectrics.
1.7 lbs/day at 9.5% and 3 LPM; 8 lbs/day at 4.7% weight and 30 LPM (Oxygen or Concentrator).
No exposed high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Linear Control with **Turndown to 1%.**
Useful pressure range: 5 – 98 psi. Available with **PlasmaVIEW®** software (optional).

Design Features:

- **All** high voltage is safely contained within the Plasma Blo$_3$ck® thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- **Pre-mounted, seasoned and tested package sub-system which includes cells, heat exchangers, inlet gas flow meters, all inlet/outlet piping, manifolds, transformers, individual operational status indicators for each Plasma Blo$_3$ck®, PDM controlled inverter, fans**. Design uses the finest quality material and machining for maximum performance and efficiency. All framework components are epoxy powder-coated.
- Directly installable by UL 508a panel house.
- **Modular design for service simplicity**.
- Instant-ON ozone production -- no warm-up time. Ideal for 'over-the-road' applications.

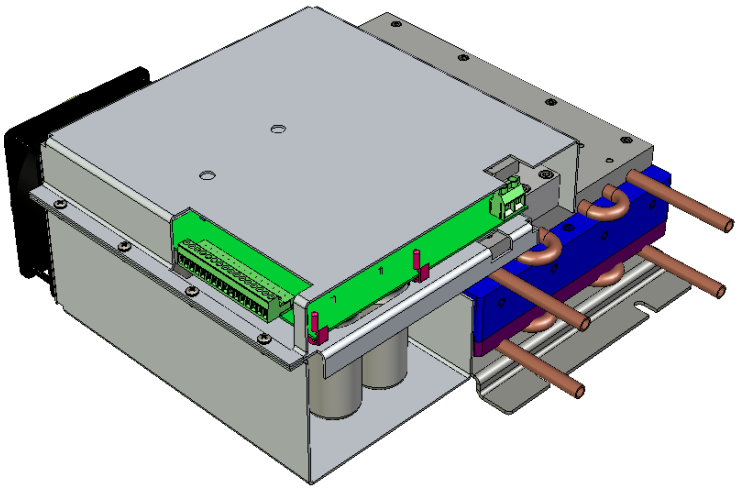
- No fragile glass or ceramic cylinders which are prone to breakage during shipping or when used in 'over-the-road' applications.
- **Micro Channel**® design results in high ozone concentration, reduced high-voltage levels, and more energy-efficient operation. Design has been mechanically and electrically optimized for oxygen. **Requires concentrator or bottle feed of at least -60°F dew point, filtered, positive-pressure oxygen**. Materials in the gap are **ceramic and aluminum**.
- PTI designed **custom ceramic high-voltage feed thru** provides the ultimate in high-voltage and high-pressure integrity, connection reliability, and safety.
- Precision-machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures** as well as **vacuum ride through,** should a vacuum pulse occur. Only 1 psi drop with 60 LPM flow. As with any cell, the most predictable performance occurs in the positive-pressure domain. Maximum pressure 98 psi. Certified by UL at 5x rating.
- **23 kHz** operating frequency yields **compact design**, **silent** operation, **lower cost,** and **no customer irritation** due to high- pitched whine customarily present with older medium-frequency designs.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer-tightened ozone fitting. All non-metal materials are ozone rated.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Ozone level automatically controlled to **± 1%** from 170v to 260vac.
- The Inverter is a version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product. To simplify customer use and serviceability, **ALL of PTI's Air and Liquid-cooled OEM systems use the same Input/Output control wiring connection points and signal levels**. Said another way, you can unplug the control connector from a 30g Air system and plug it into this 150g Water system, and still be fully operational. No wiring or PLC changes are needed, and changes to your system user manual would not be necessary.
- Line voltage 208 - 240vac, single phase, 50/60hz, approx .6pf. Optional supply reactor available for improved power factor. Customer provided soft-start and phase-loss detect if needed.
- **All gas connections are 3/8" NPT, water connections 3/8" OD.**
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance as well as burnin tests of all electricals, are conducted to ensure the highest level of product **quality, reliability, and consistency**.
- Patented design.

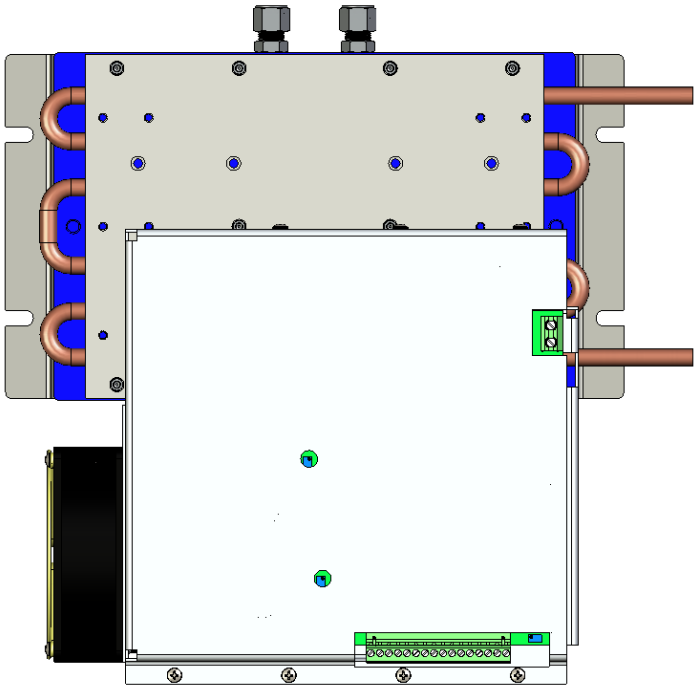
Configuration options :

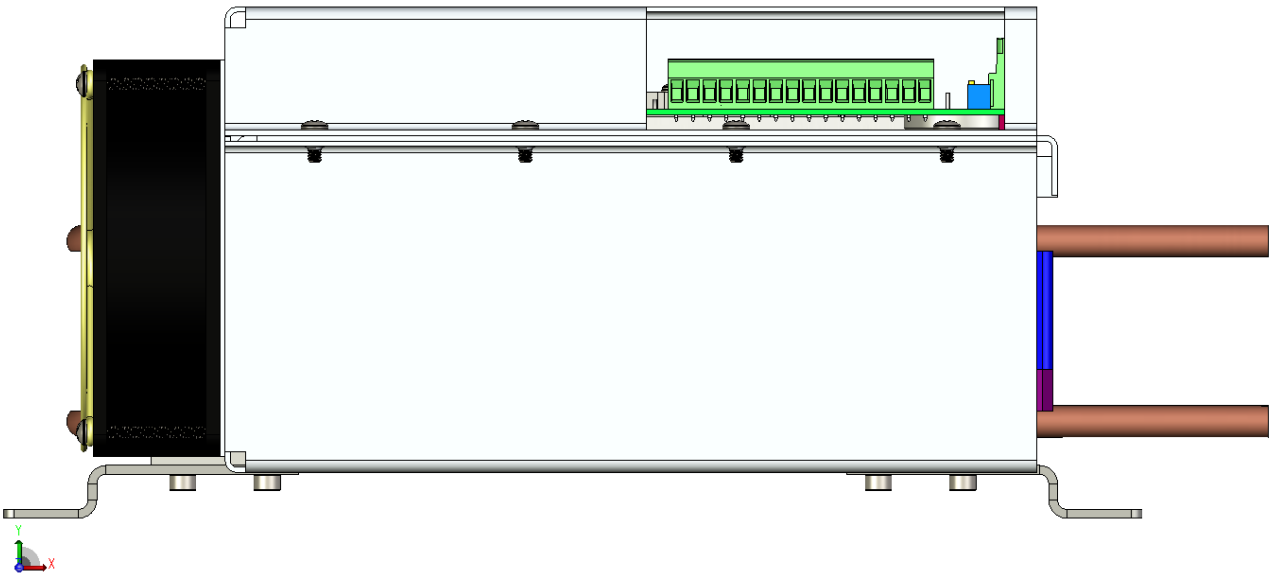
PTI will set up and tune units to the customers' desired specifications.

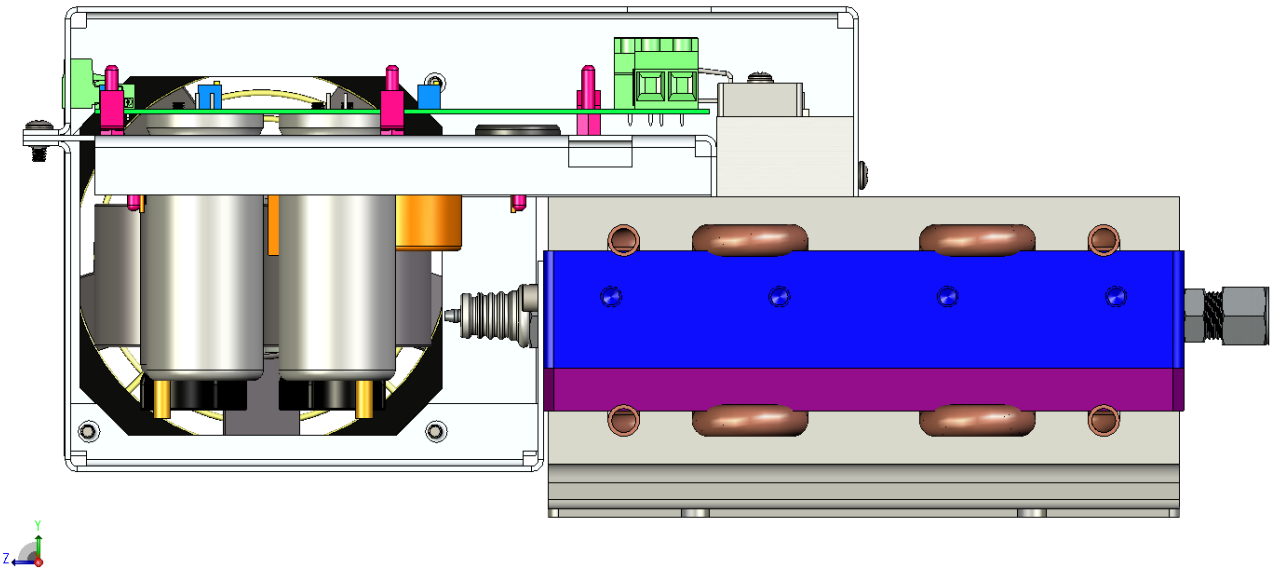
Oxygen pressure - (5 - 98 psi) [UL 5x rated]
Oxygen flow liters/minute - (.2 - 40 Lpm) or equivalent SCFH
Heat load btu/hr = 4100
Inlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)
Outlet fittings (none, 1/4", 3/8", 8mm, 10mm, other)

Weight Lbs (Kg) : 34.65 (15.71)



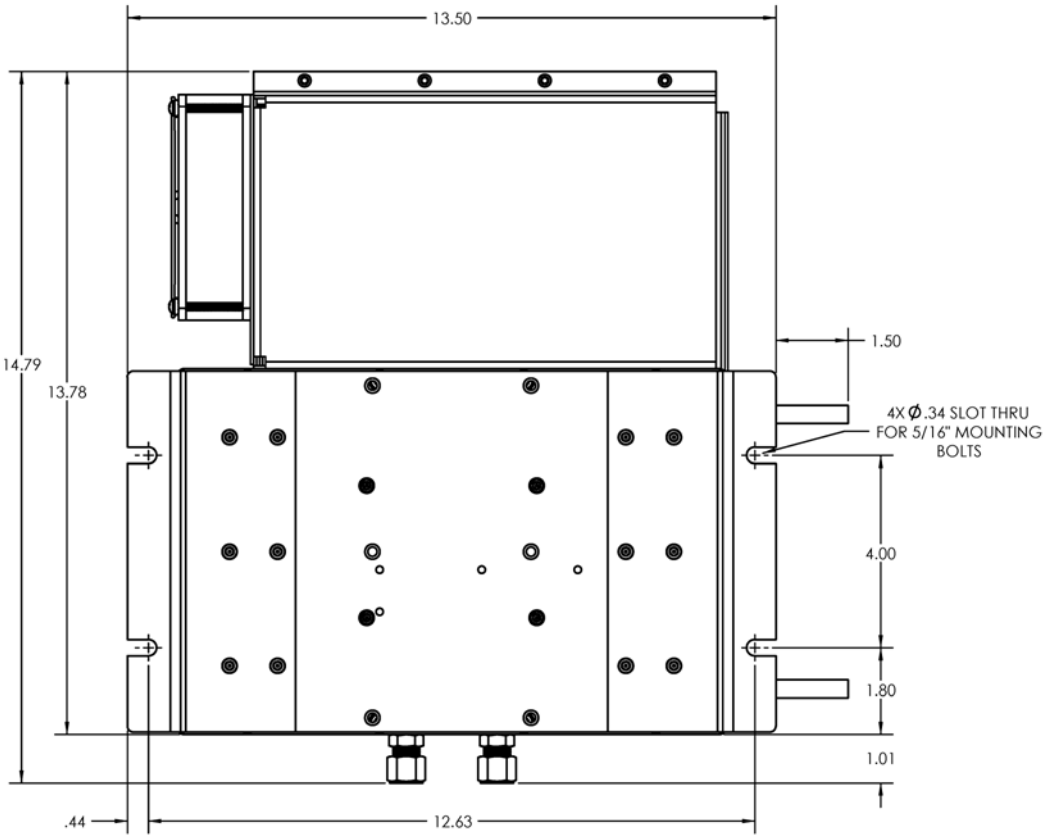




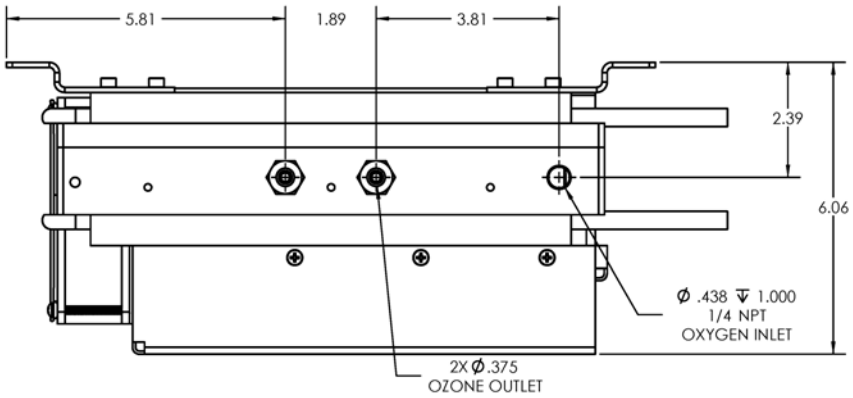


Installation Drawing: Inches

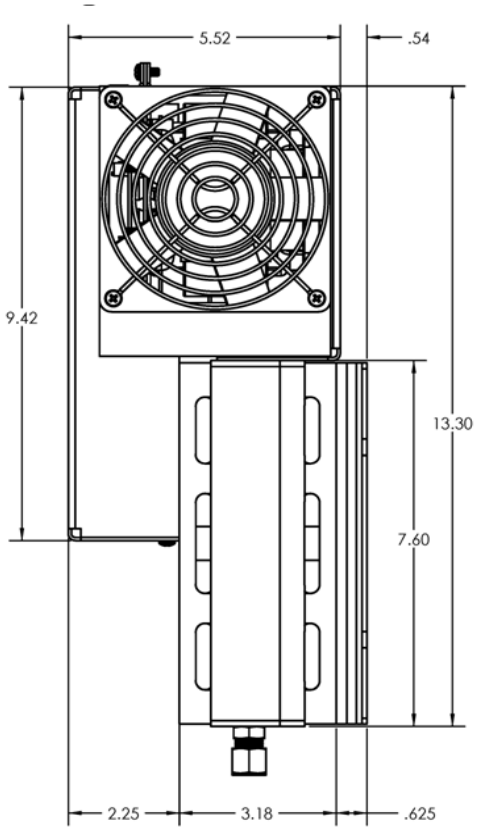
Bottom



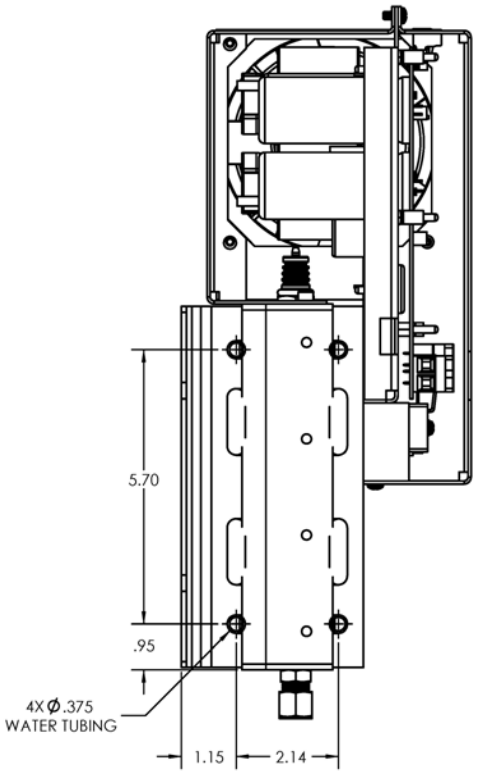
Side



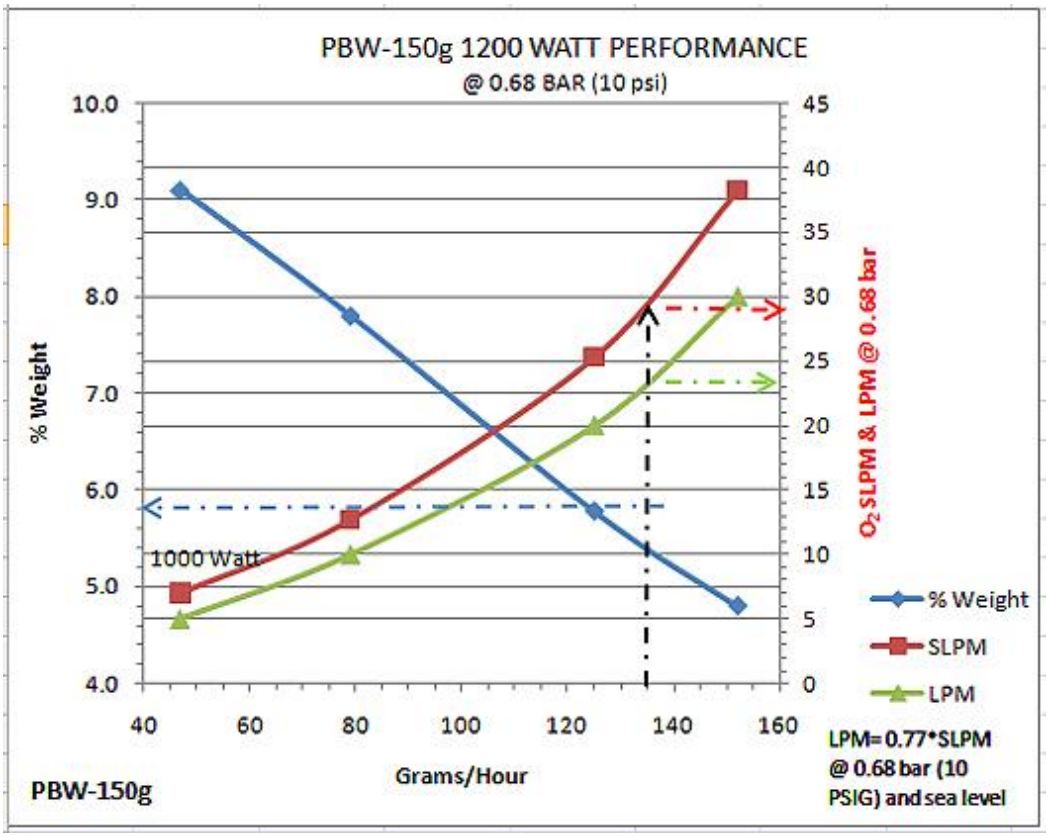
Front


5.52
.54
9.42
13.30
7.60
2.25
3.18
.625

Back

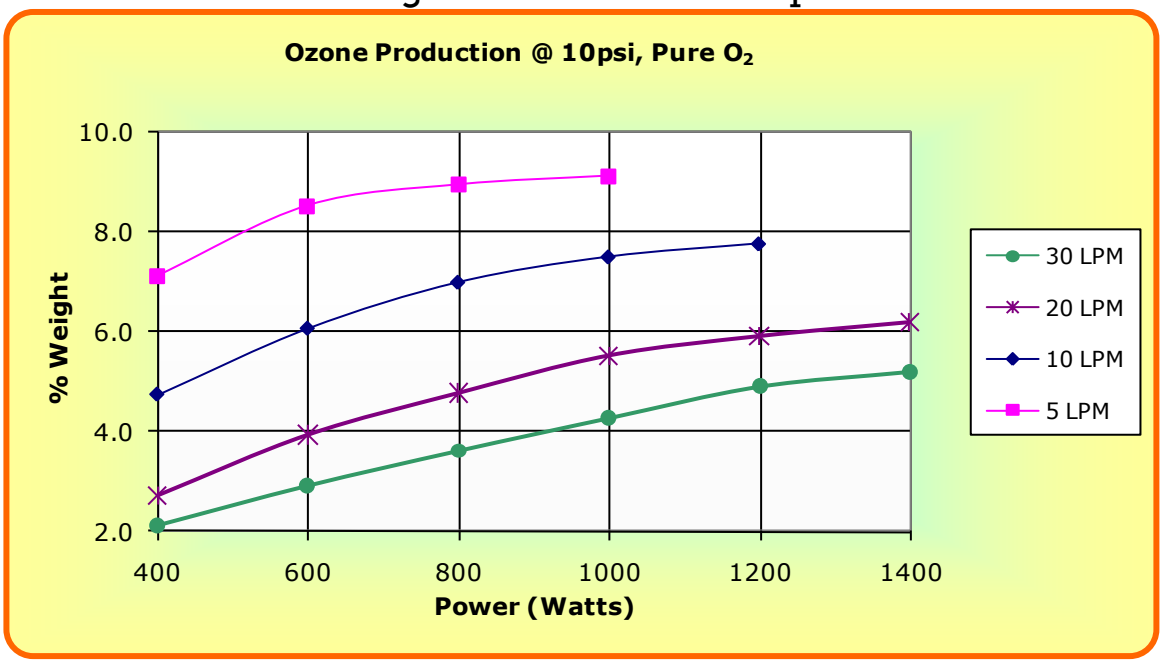

5.70
.95
4X Ø.375
WATER TUBING
1.15
2.14

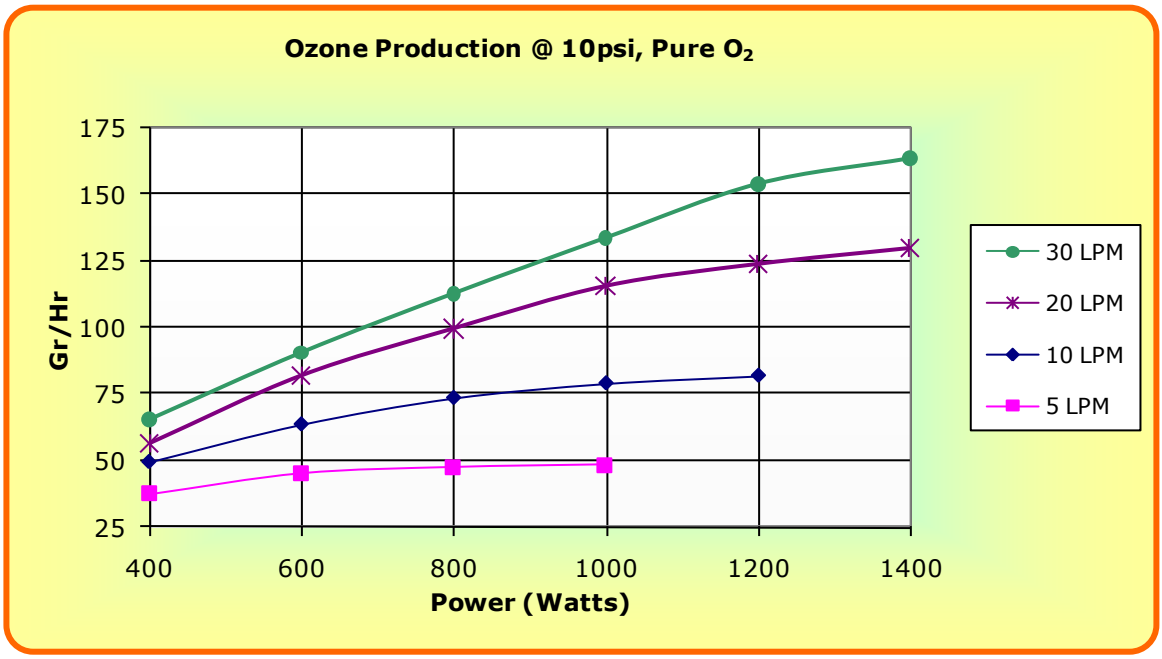
Output Performance:



Output Performance: 10 psi

% Weight vs Power Consumption





Grams / Hour vs Power Consumption

Normal factory POWER setpoint: 1200 watts at FULL PDM (10vdc or 20ma)
Curves are scaled 450g data

Published production-ozone output level (450gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

Plasma Technics, Inc.®

OEM

300g @ 5% Plasma Blo$_3$ck® (Liquid-Cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Model

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Safe, Efficient, Cost-effective, Compact, Light-Weight, Ceramic dielectrics.
3.4 lbs/day at 9.5% and 6 LPM; 16 lbs/day at 4.7% weight and 60 LPM (Oxygen or Concentrator).
No exposed high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Linear Control with **Turndown to 1%.**
Useful pressure range: 5-98 psi. Availble with **PlasmaVIEW ®** software (optional).

Design Features:

- **All** high voltage is safely contained within the Plasma Blo$_3$ck® thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- **Pre-mounted, seasoned and tested package sub-system which includes cells, heat exchangers, inlet gas flow meters, all inlet/outlet piping, manifolds, transformers, individual operational status indicators for each Plasma Blo$_3$ck®, PDM controlled inverter, fans**. Design uses the finest quality material and machining for maximum performance and efficiency. All framework components are epoxy powder-coated.
- Directly installable by UL 508a panel house.
- **Modular design for service simplicity**.
- Instant-ON ozone production. -- No warm-up time. Ideal for 'over-the-road' applications.
- No fragile glass or ceramic cylinders which are prone to breakage during shipping or when used in 'over-the-road' applications.

- **Micro Channel**® design results in high ozone concentration, reduced high-voltage levels, and more energy-efficient operation. Design has been mechanically and electrically optimized for oxygen. **Concentrator or bottle feed of at least -60°F dew point, filtered, positive-pressure oxygen is required**. Materials in the gap are **ceramic and aluminum**.
- PTI designed **custom ceramic high-voltage feed thru** provides the ultimate in high-voltage and high-pressure integrity, connection reliability, and safety.
- Precision-machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures** as well as **vacuum ride through,** should a vacuum pulse occur. Only 1 psi drop with 60 LPM flow. As with any cell, the most predictable performance occurs in the positive-pressure domain. Maximum pressure 98 psi. certified by UL at 5x rating.
- **23 kHz** operating frequency yields **compact design**, **silent** operation, **lower cost,** and **no customer irritation** due to high- pitched whine customarily present with older, medium-frequency designs.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer-tightened ozone fitting. All non-metal materials are ozone rated.
- Ozone level automatically controlled to **± 1%** from 170v to 260vac.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- The Inverter is a version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product. To simplify customer use and serviceability, **ALL of PTI's Air and Liquid-cooled OEM systems use the same Input/Output control wiring connection points and signal levels**. Said another way, you can unplug the control connector from a 30g Air system and plug it into this 300g Water system, and still be fully operational. No wiring or PLC changes are needed, and changes to your system user manual would not be necessary.
- Line voltage 208 - 240vac, 3 phase, 50/60hz, approx .6pf. Optional supply reactor available for improved power factor. Customer provided soft-start and phase-loss detect if needed.
- **All gas and water connections are 3/8" NPT.**
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance, as well as burnin tests of all electricals are conducted to ensure the highest level of product **quality, reliability and consistency**.
- Patented design.

Configuration options :

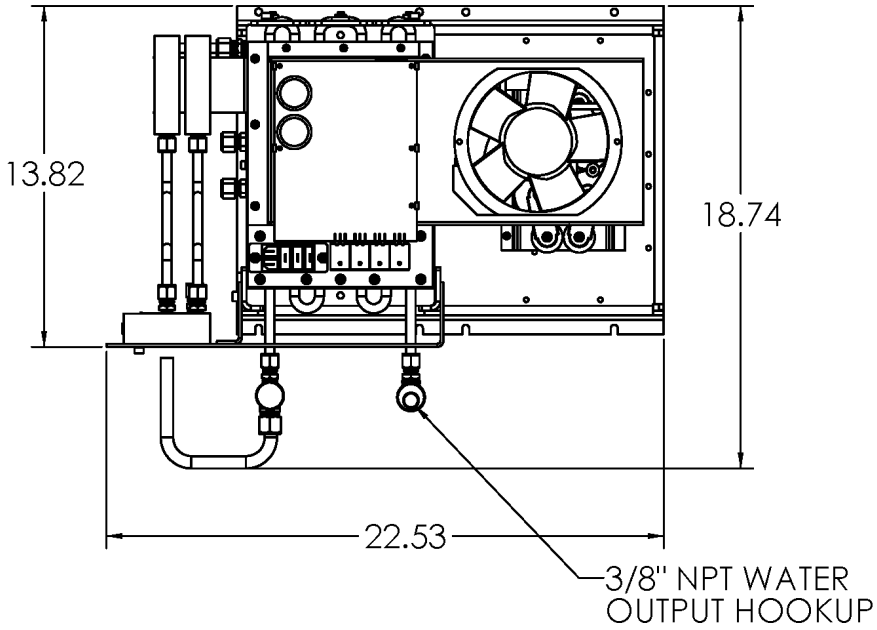
PTI will set up and tune units to the customers' desired specifications.

Oxygen pressure - (5 - 98 psi) [UL 5x rated]
Oxygen flow liters/minute - (.4 - 80 Lpm) or equivalent SCFH
Heat load btu/hr = 8200
Inlet fittings (none, 1/4", 3/8", other)
Outlet fittings (none, 1/4", 3/8", other)

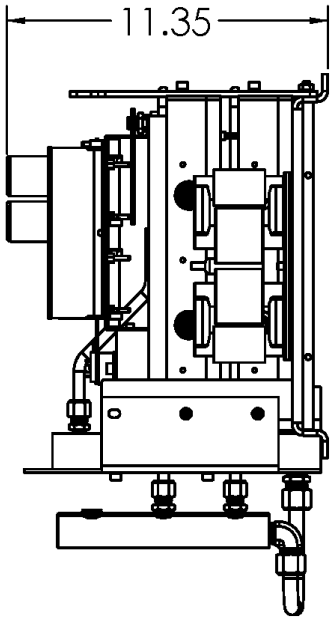
Weight Lbs (Kg) : 69.0 (31.33)

Installation Drawing: Inches:

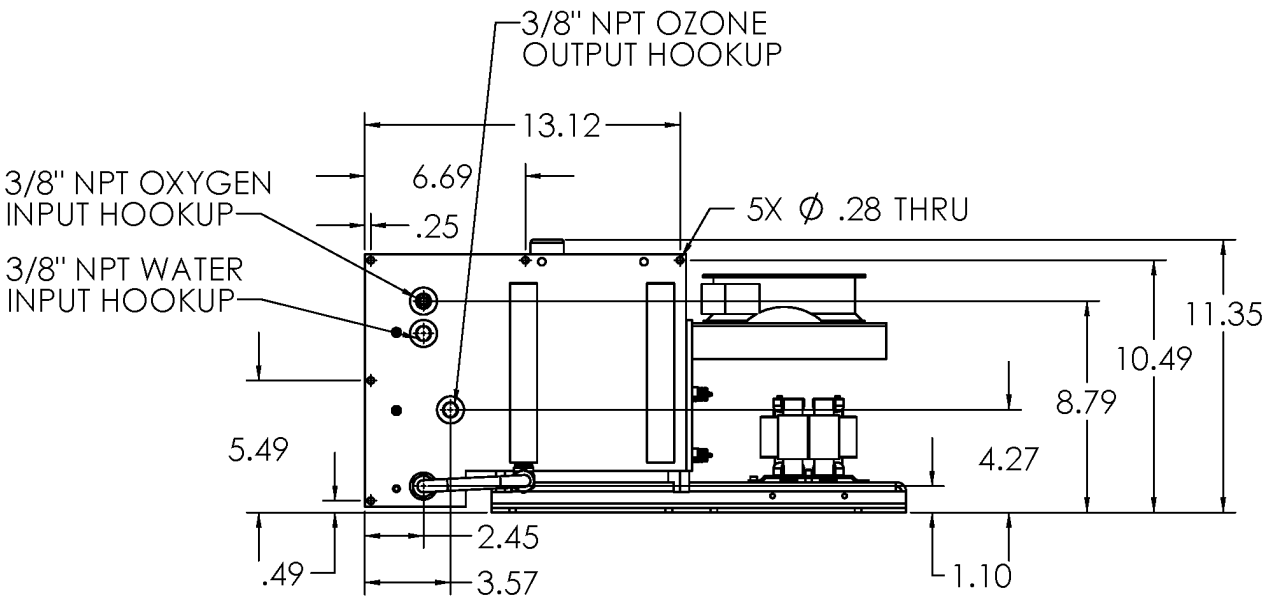
Top



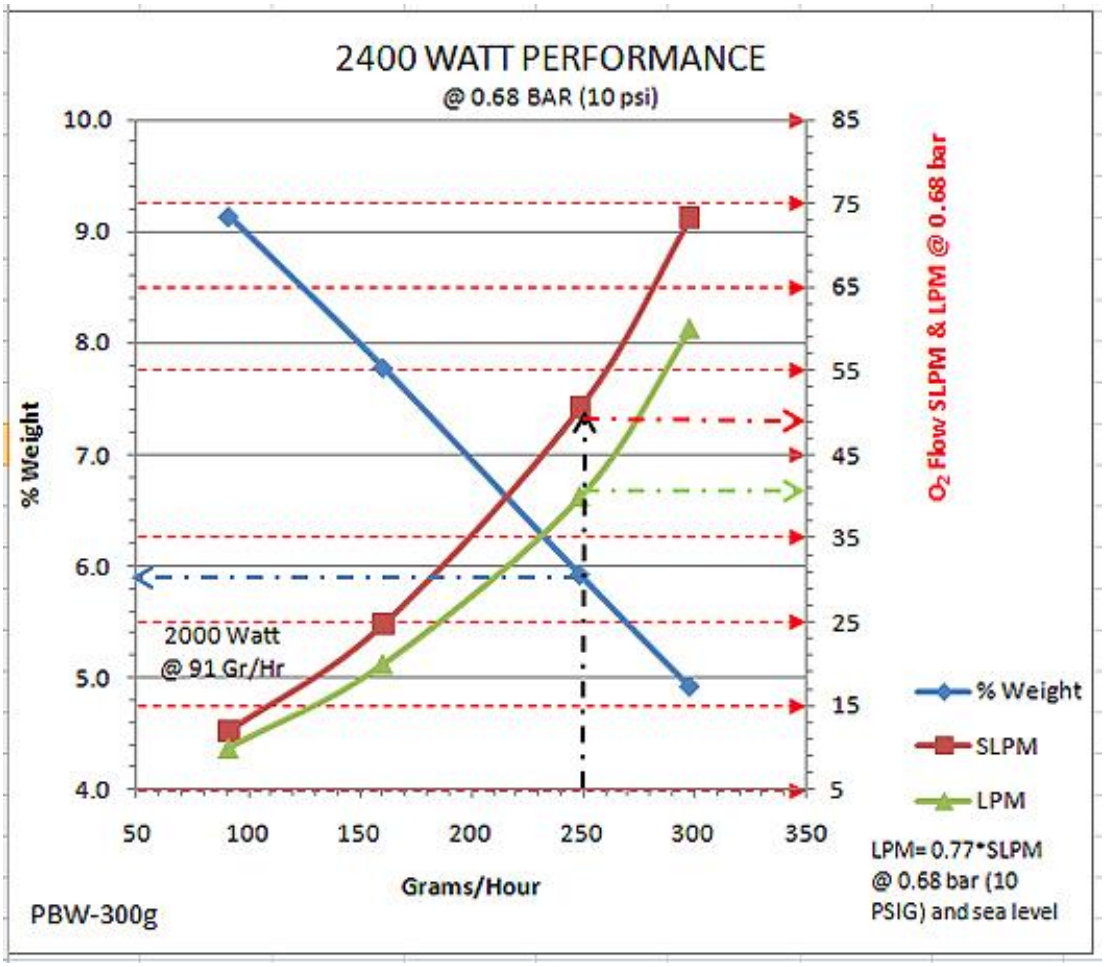
Side



Front

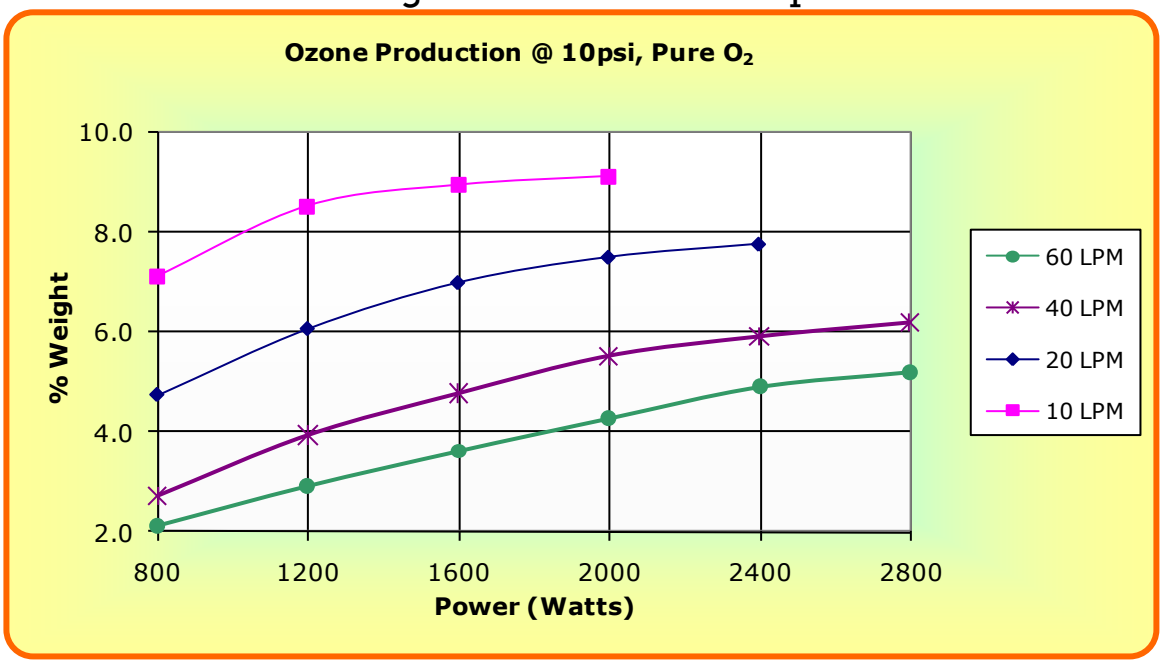


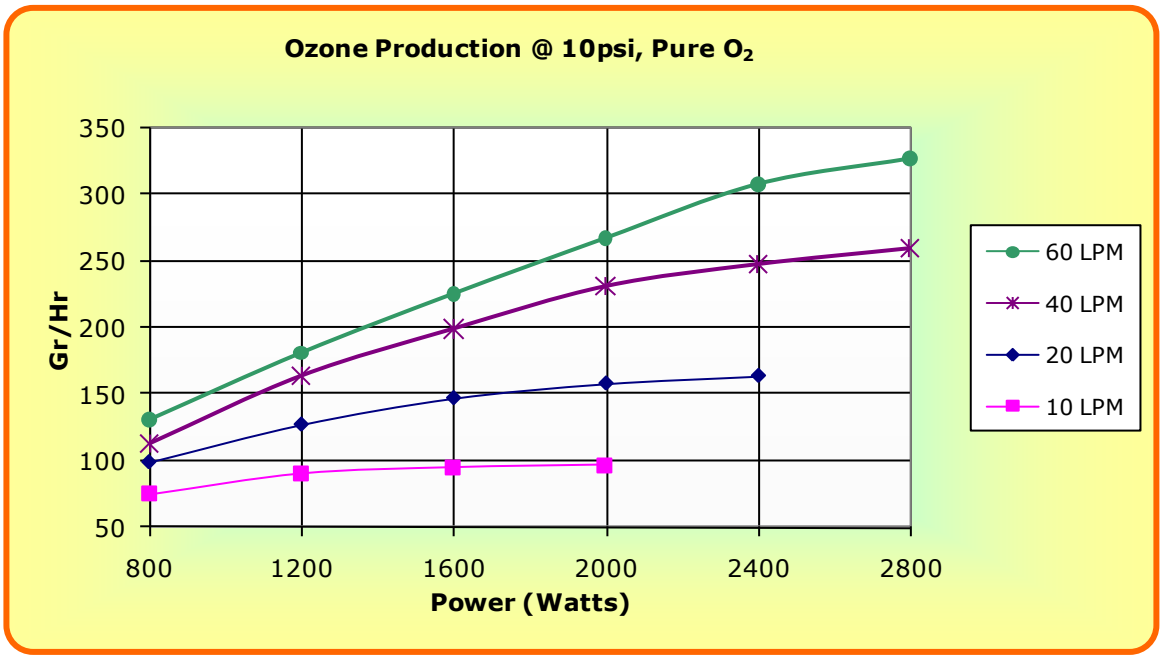
Output Performance:



Output Performance: 10 psi

% Weight vs Power Consumption





Grams / Hour vs Power Consumption

Normal factory POWER setpoint: 2400 watts at FULL PDM (10vdc or 20ma)

Curves are scaled 450g data

Published production-ozone output level (450gr/hr) based on 5% concentration.
Tests conducted at 72°F, 700 MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

OEM
450g @ 5% Plasma Blo$_3$ck®(Liquid-Cooled)

For added application information, see the **Plasma Block® Application Guide** manual.

Models available :

Refer to – Configuration Options Summary Sheet at the end of the catalog.

Silent, Rugged, Reliable, Safe, Efficient, Cost-effective, Compact, Light-Weight, Ceramic dielectrics.
5.2 lbs/day at 9.5% and 9 LPM; 24 lbs/day at 4.7% weight and 90 LPM (Oxygen or Concentrator).
No exposed high-voltage safety hazards.
Precise ozone control using **Pulse Density Modulation** (PDM) via potentiometer, 4/20ma or 0-10vdc.
Precise Linear Control with **Turn-down to 1%.**
Useful pressure range: 5 – 100 psi. Available with **PlasmaVIEW ®** software (optional).

Design Features:

- **All** high voltage is safely contained within the Plasma Blo$_3$ck® thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- **Pre-mounted, seasoned and tested package sub-system, which includes cells, heat exchangers, inlet gas flow meters, all inlet/outlet piping, manifolds, transformers, individual operational status indicators for each Plasma Block®, PDM controlled inverter, fans**. Design uses the finest quality material and machining for maximum performance and efficiency. All framework components are epoxy powder-coated.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Directly installable by UL 508a panel house.
- **Modular design for service simplicity**.
- Instant-ON ozone production. -- No warm-up time. Ideal for 'over-the-road' applications.

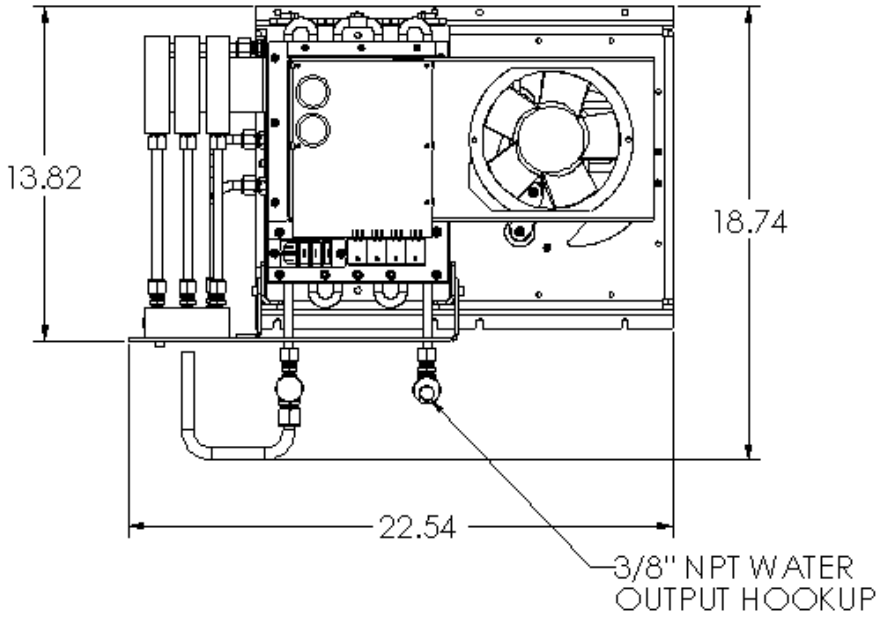
- No fragile glass or ceramic cylinders which are prone to breakage during shipping or when used in 'over-the-road' applications.
- **Micro Channel**® design results in high ozone concentration, reduced high-voltage levels and more energy-efficient operation. Design has been mechanically and electrically optimized for oxygen. **Concentrator or bottle feed of at least -60°F dew point, filtered, positive-pressure oxygen is required**. Materials in the gap are **ceramic and aluminum**.
- PTI designed **custom ceramic high-voltage feed-thru** provides the ultimate in high-voltage and high-pressure integrity, connection reliability, and safety.
- Precision-machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures** as well as **vacuum ride; through** should a vacuum pulse occur. Only 1 psi drop with 60 LPM flow. As with any cell, the most predictable performance occurs in the positive-pressure domain. Maximum pressure 100 psi. 2.7 safety factor at 150 psi.
- **23 kHz** operating frequency yields **compact design**, **silent** operation, **lower cost,** and **no customer irritation** due to high-pitched whine customarily present with older medium-frequency designs.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer-tightened ozone fitting. All non-metal materials are ozone rated.
- Ozone level automatically controlled to **± 1%** from 170v to 260vac.
- The Inverter is a version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product. To simplify customer use and serviceability, **ALL of PTI's Air and Liquid-cooled OEM systems use the same Input/Output control wiring connection points and signal levels**. Said another way, unplugging the control connector from a 30g Air system and plugging into this 450g Water system will operate this system, with no wiring or PLC code changes, and no changes to your system user manual.
- Line voltage 208 - 240vac, 3 phase, 50/60hz, approx .6pf. Optional supply reactor available for improved power factor. Customer provided soft-start and phase-lose detect if needed.
- **Inlet 1/2", Outlet 1/2"; both Stainless Compression Fittings** are standard; 3/8" or 3/8" NPT on request.
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance as well as burnin tests of all electricals, are conducted to ensure the highest level of product **quality, reliability and consistency**.
- Patented design.

Configuration options :

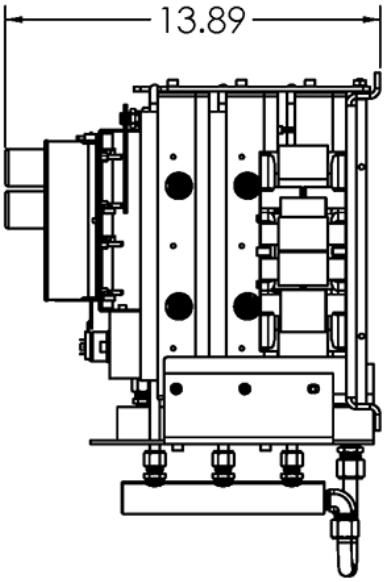
PTI will set up and tune units to the customers' desired specifications.
Oxygen pressure - (5 - 98 psi) [UL 5x rated]
Oxygen flow liters/minute - (.6 - 120 Lpm) or equivalent SCFH
Heat load btu/hr = 12300
Inlet fittings (none, 1/4", 3/8", other)
Outlet fittings (none, 1/4", 3/8", other)

Weight Lbs (Kg) : 89.09 (40.66)

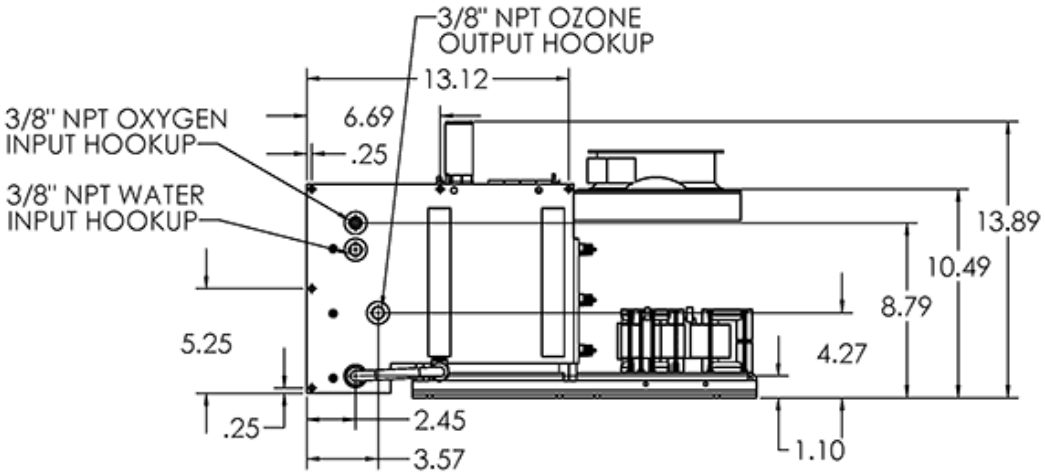
Installation Drawings: Top View



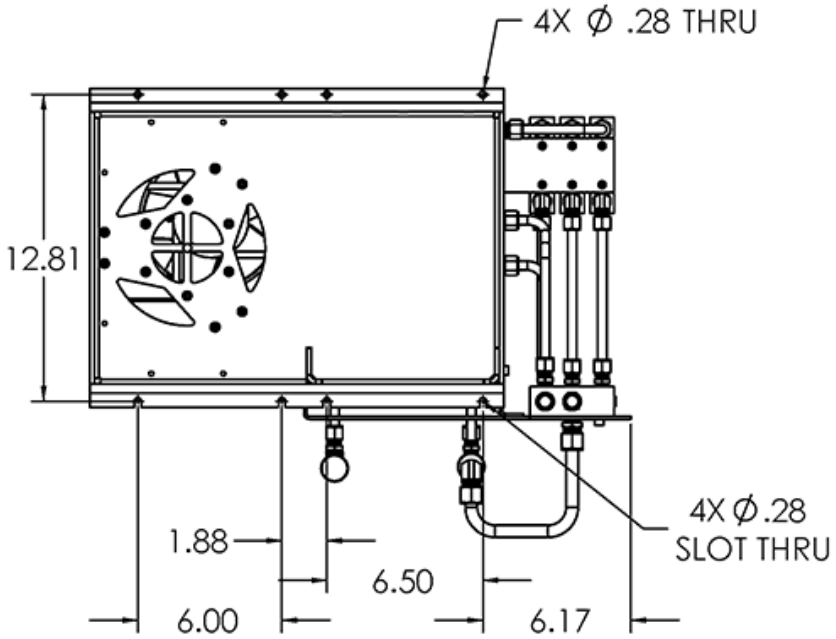
Front View



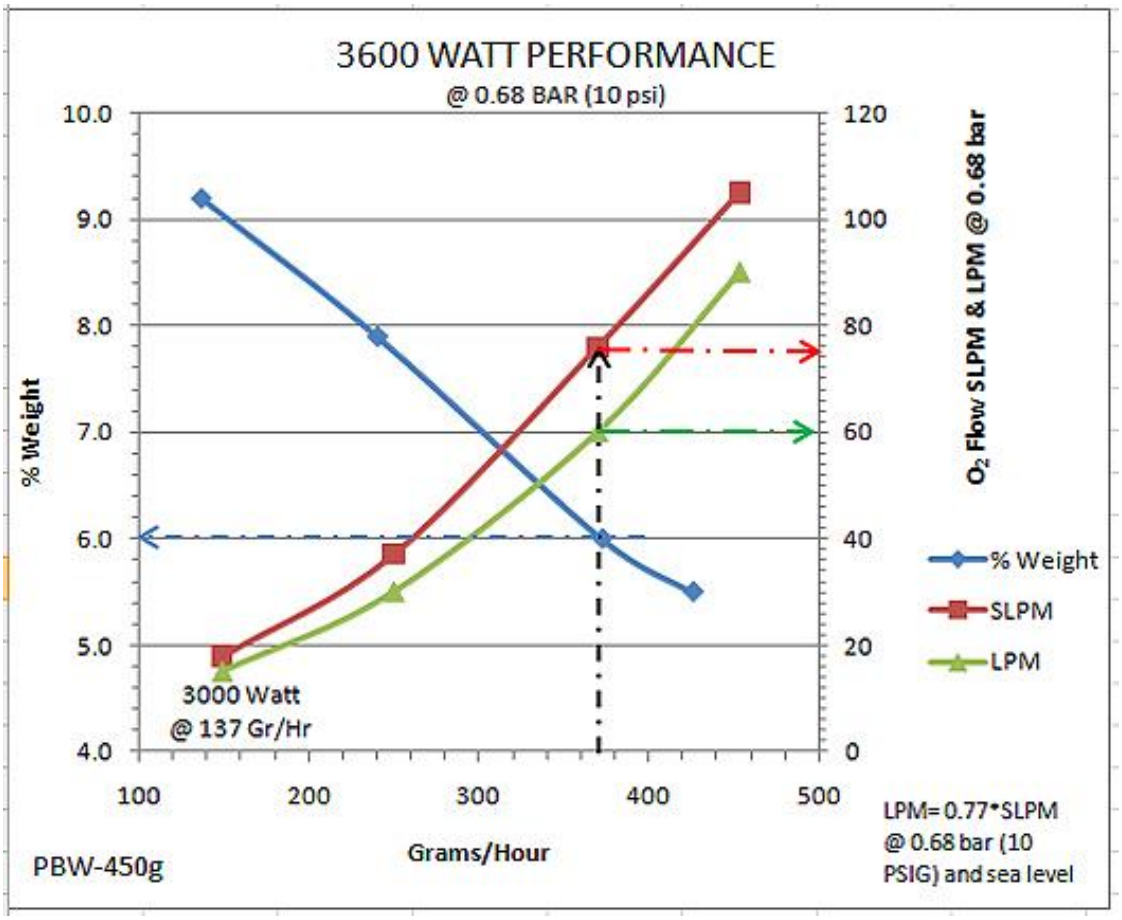
Side View



Bottom View

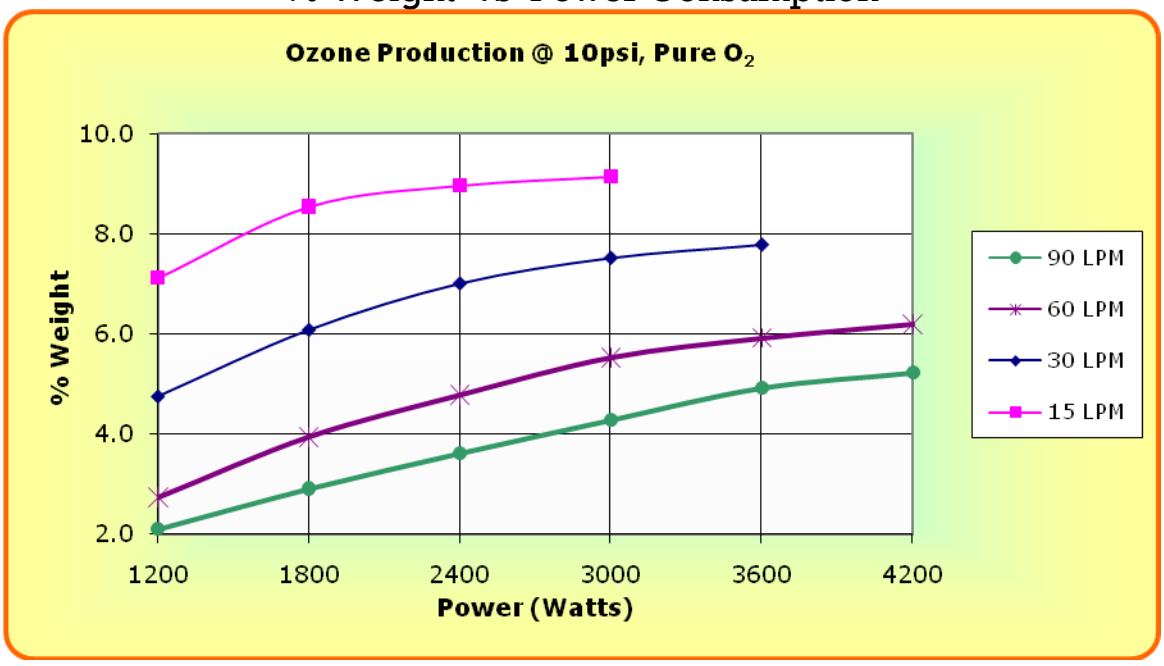


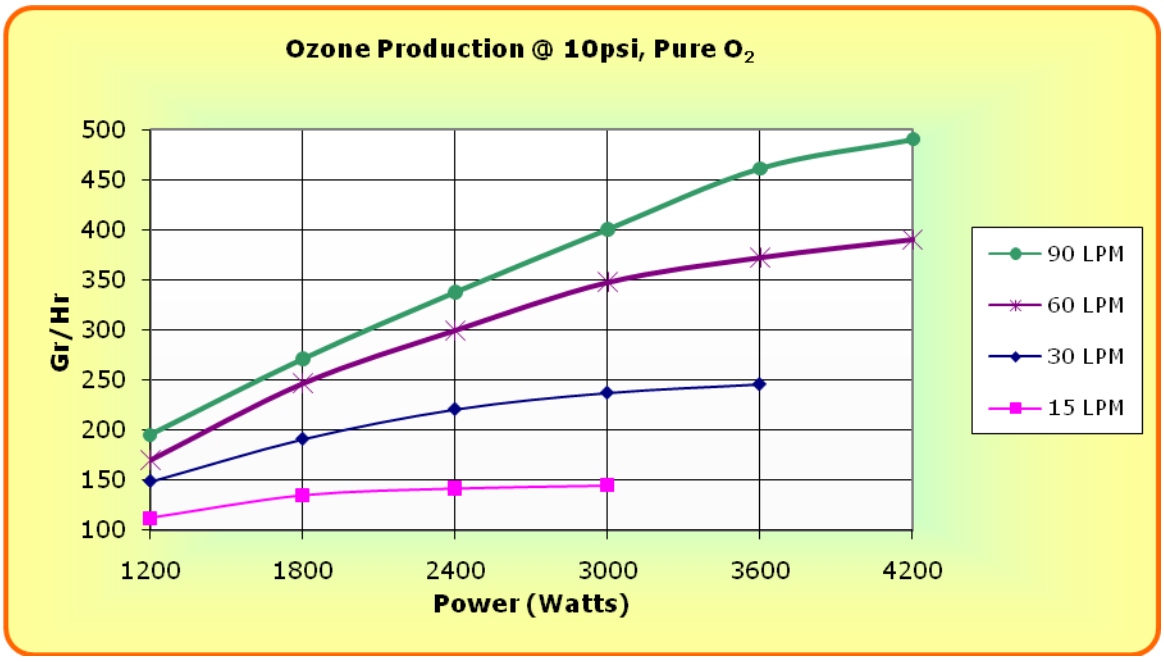
Output Performance:



Output Performance: 10 psi

% Weight vs Power Consumption





Grams / Hour vs Power Consumption

Normal factory POWER setpoint: 3600 watts at FULL PDM (10vdc or 20ma)

Tests conducted at 72°F, 700' MSL. All pressure readings in psig. Ozone in g/nm3.
Flow measured in LPM via uncorrected Rotameter at inlet port. Ozone at 0 psi from sidestream.

The New Gen2 Plasma Block® Line

Introducing the Gen2 Plasma Blocks®. A new line of Plasma Block® products with a significant improvement in watt hours/lb of ozone (e.g. more ozone for the same power consumption). This results in either a higher volume or concentration. Ozone concentration on air-cooled units will be 10-12wt%, even higher for water-cooled units with power consumption remaining about the same.

Only the internals of the block are changed in the Gen2 line. The product footprint, size, appearance, dimensions, power consumption and control remain identical to the current Plasma Block® line. Gen2 products can be substituted into existing equipment.

All current Plasma Block® products will have a Gen2 equivalent. All Gen1 products are and will remain available for customers who do not require or want the performance of Gen2.

Price increase, a modest 20 - 40% by product.

Design Features remain unchanged from the current product line :

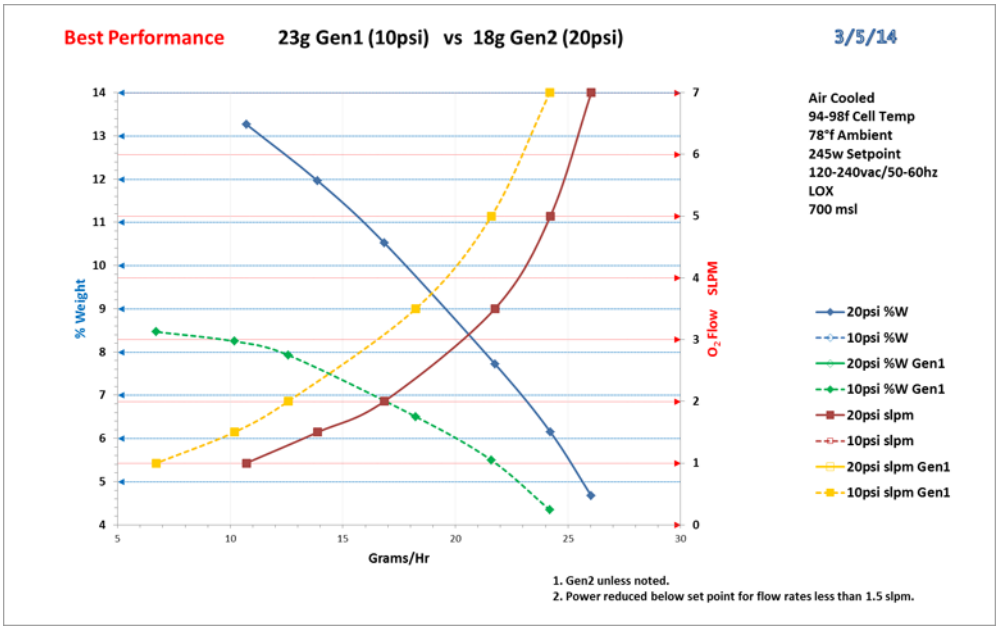
- **All** high voltage is safely contained completely within the Plasma Block® thereby eliminating shock hazards and dirt buildup which can cause dangerous flashover. High-voltage wiring is booted and **all** metal grounded.
- Advanced design eliminates the possibility of ozone leakage from the body or fittings. The only ozone leak possible is at the customer tightened ozone fitting. All non-metal materials are ozone rated.
- Military grade conformal coating eliminates problems associated with condensation and mold, and greatly retards damage caused by accidental ozone exposure.
- Directly installable by UL 508a panel house.

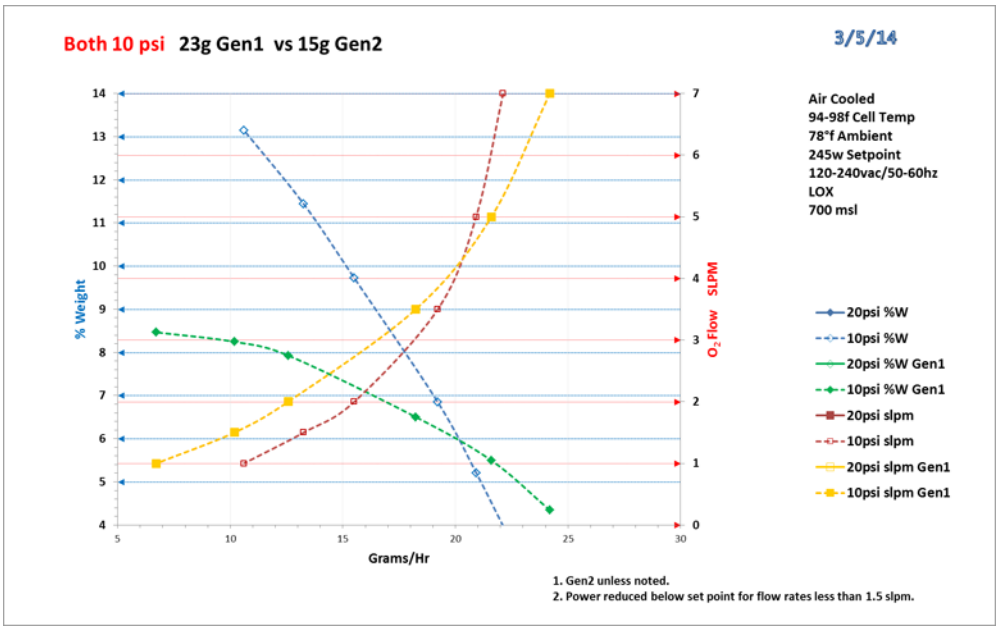
- **Micro Channel**® design results in high concentration, reduced high-voltage levels and more efficient operation. **Concentrator or bottle feed of at least -60°F dew point, filtered, positive pressure oxygen is required**. Materials in the gap are: **ceramic and aluminum**.
- Ideal for 'over the road' applications. Instant ON ozone production. – No warm up time.
- Precision machined aluminum block eliminates inefficient hot spots and facilitates operation at **high pressures**, as well as **vacuum ride through**. Only 1 psi drop with 10 LPM Flow. As with any cell, the most predictable performance occurs in the positive pressure domain. Maximum pressure 100 psi. 2.7 safety factor at 150 psi.
- Ozone level automatically controlled to ± 1% from 85 to 130vac; or 170v to 260vac depending on model.
- Pre-mounted, seasoned and tested package sub-system, which includes cell, transformer, inverter and fan. Design uses the finest quality material and machining for maximum performance and efficiency.
- The Inverter is a reduced power version of PTI's popular SSD110. All control and interface features of the SSD110 are available in this product.
- **23 kHz** operating frequency for **silent** operation.
- Line voltage 120v or 240v, 50/60hz.
- **Inlet 3/8", Outlet 3/8" both Stainless Compression** are standard; 1/4" or 1/4" NPT on request.
- Pre-seasoned, calibrated and **pre-adjusted to customers' individual performance needs**. Ready to install. Rigorous 100% performance as well as burn-in tests of all electricals, are conducted to ensure the highest level of product quality, reliability and consistency.

Performance Graphs :

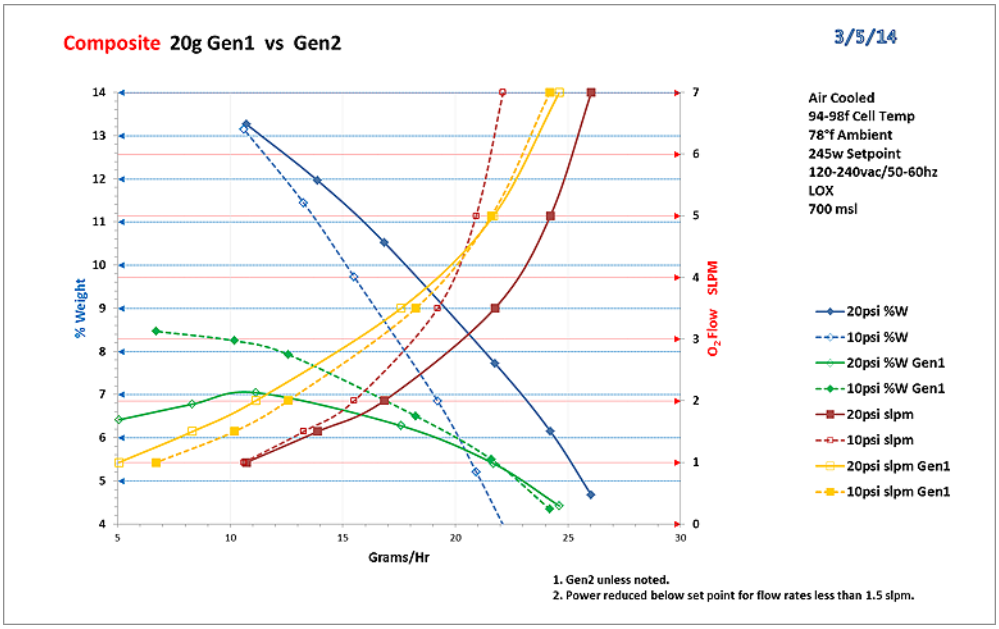
Note - all Gen1 ozone is at 5% weight, all Gen2 ozone is at 10% weight.

Gen1 20g unit vs Gen2 unit



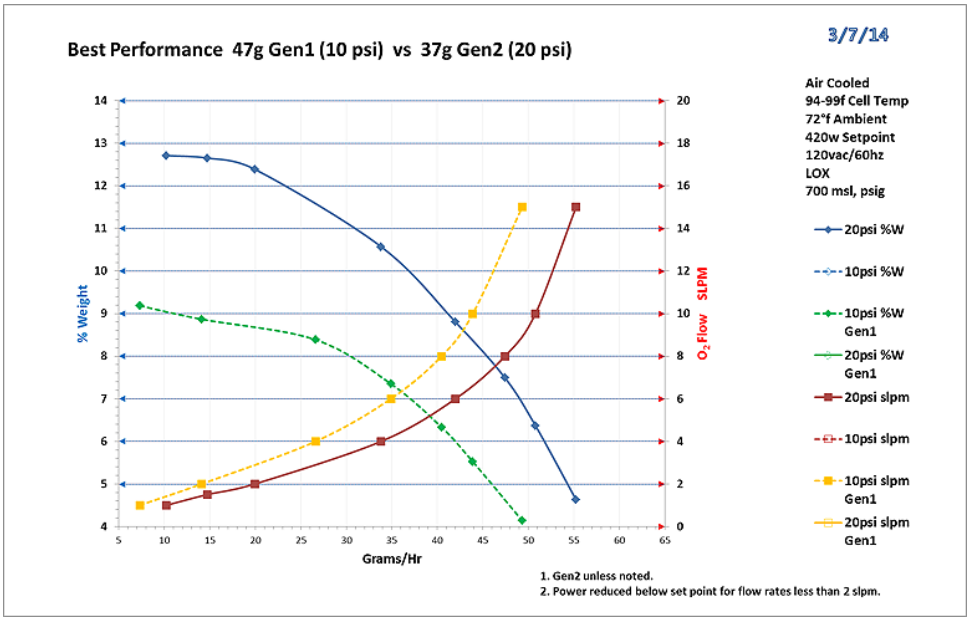


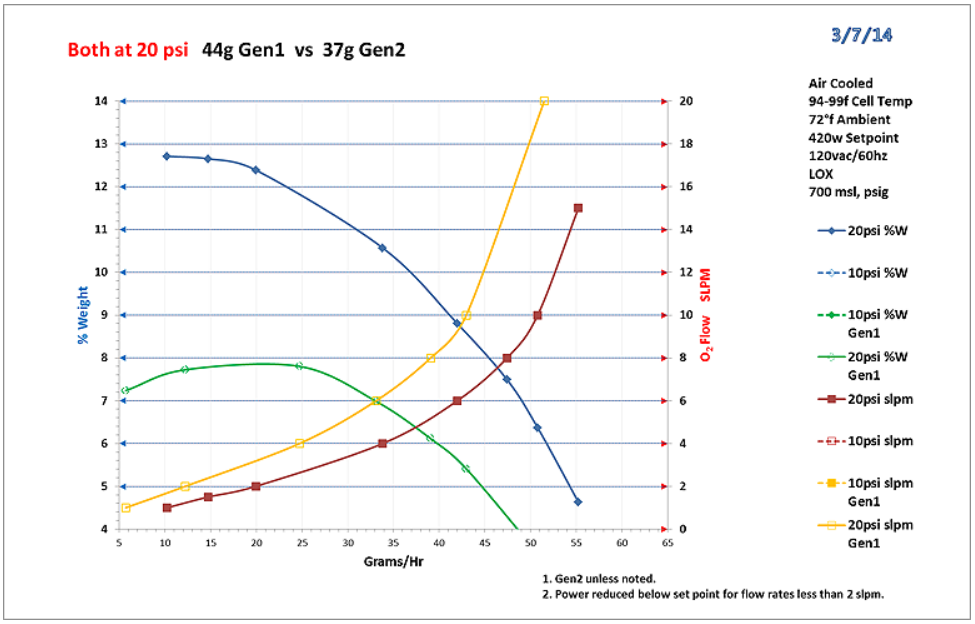

Both 20 psi 23g Gen1 vs 18g Gen2
3/5/14
% Weight
O2 Flow SLPM
Grams/Hr
Air Cooled
94-98f Cell Temp
78°f Ambient
245w Setpoint
120-240vac/50-60hz
LOX
700 msl
20psi %W
10psi %W
20psi %W Gen1
10psi %W Gen1
20psi slpm
10psi slpm
20psi slpm Gen1
10psi slpm Gen1
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 1.5 slpm.

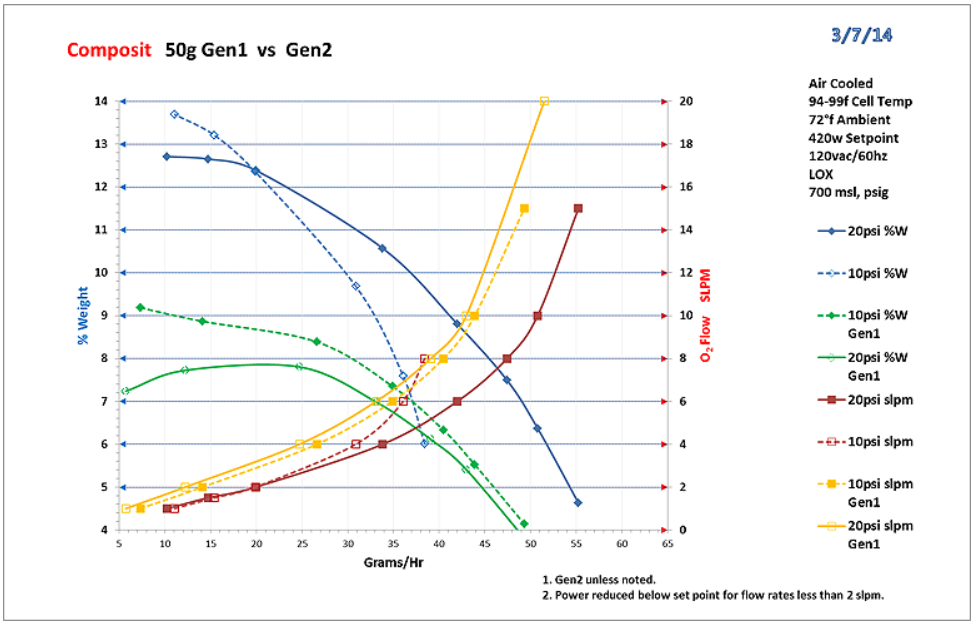

Composite 20g Gen1 vs Gen2
3/5/14
% Weight
O2 Flow SLPM
Grams/Hr
Air Cooled
94-98f Cell Temp
78°f Ambient
245w Setpoint
120-240vac/50-60hz
LOX
700 msl
20psi %W
10psi %W
20psi %W Gen1
10psi %W Gen1
20psi slpm
10psi slpm
20psi slpm Gen1
10psi slpm Gen1
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 1.5 slpm.

Note - all Gen1 ozone is at 5% weight, all Gen2 ozone is at 10% weight.

Gen1 50g unit vs Gen2 unit

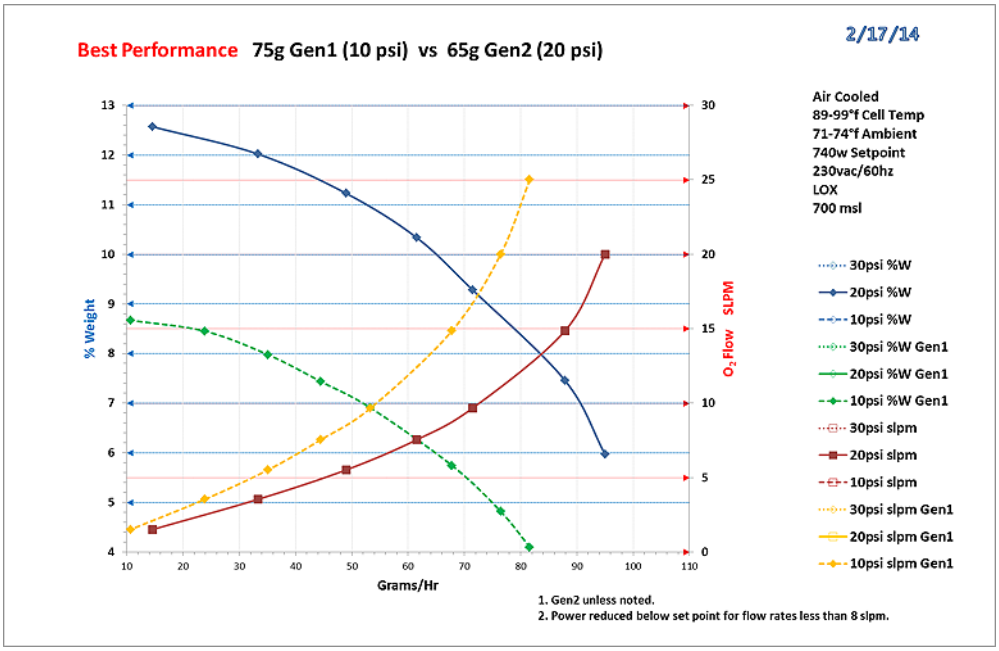


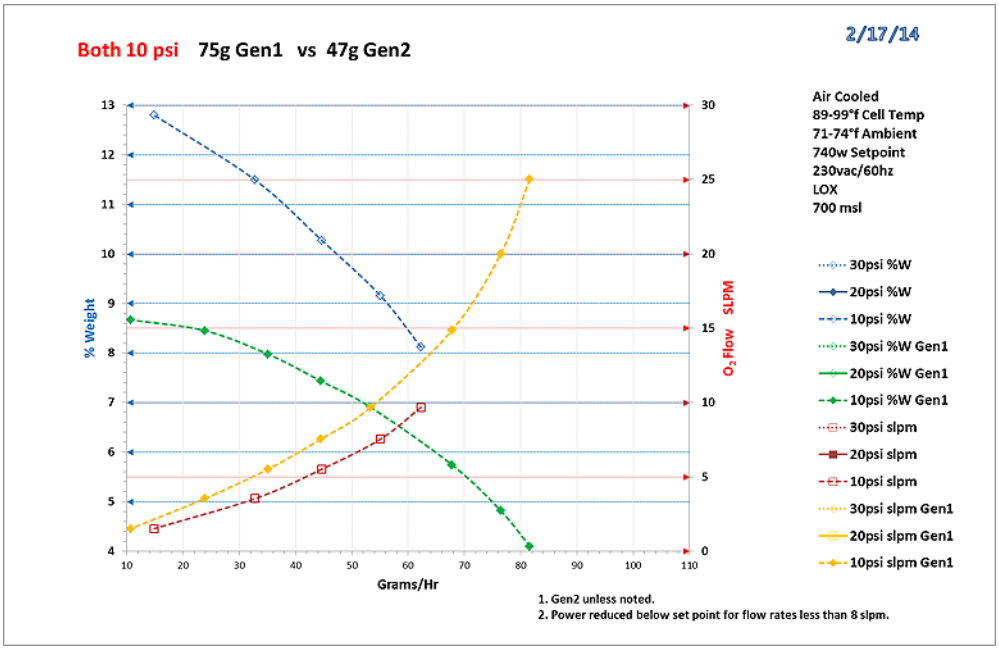

Both at 20 psi 44g Gen1 vs 37g Gen2
3/7/14
Air Cooled
94-99f Cell Temp
72°f Ambient
420w Setpoint
120vac/60hz
LOX
700 msl, psig
20psi %W
10psi %W
10psi %W Gen1
20psi %W Gen1
20psi slpm
10psi slpm
10psi slpm Gen1
20psi slpm Gen1
% Weight
O2 Flow SLPM
Grams/Hr
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 2 slpm.

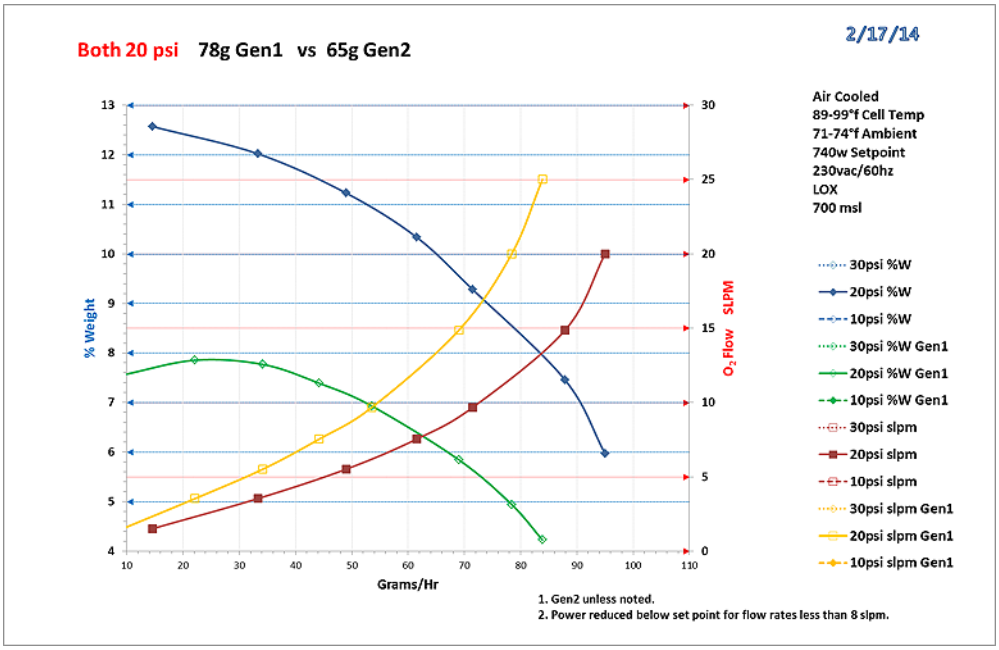

Composit 50g Gen1 vs Gen2
3/7/14
Air Cooled
94-99f Cell Temp
72°f Ambient
420w Setpoint
120vac/60hz
LOX
700 msl, psig
20psi %W
10psi %W
10psi %W Gen1
20psi %W Gen1
20psi slpm
10psi slpm
10psi slpm Gen1
20psi slpm Gen1
% Weight
O2 Flow SLPM
Grams/Hr
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 2 slpm.

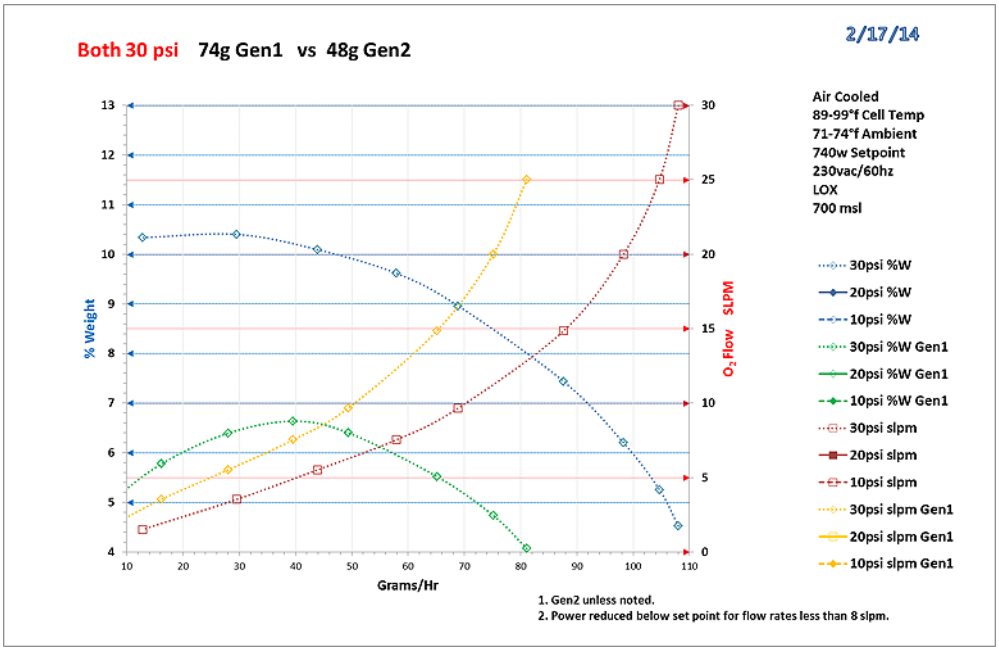
Note - all Gen1 ozone is at 5% weight, all Gen2 ozone is at 10% weight.

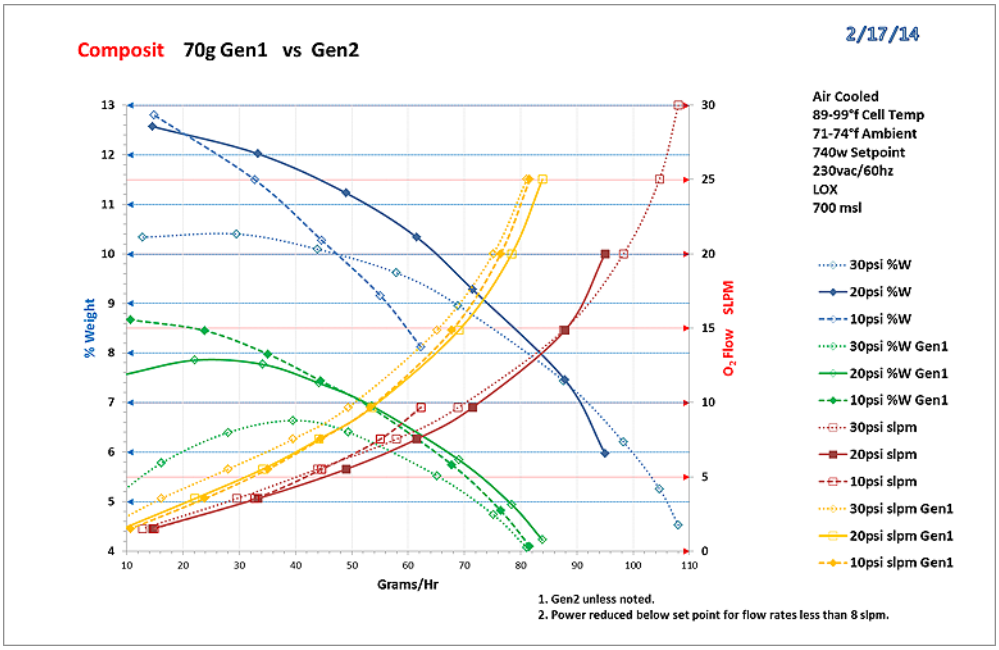
Gen1 70g unit vs Gen2 unit





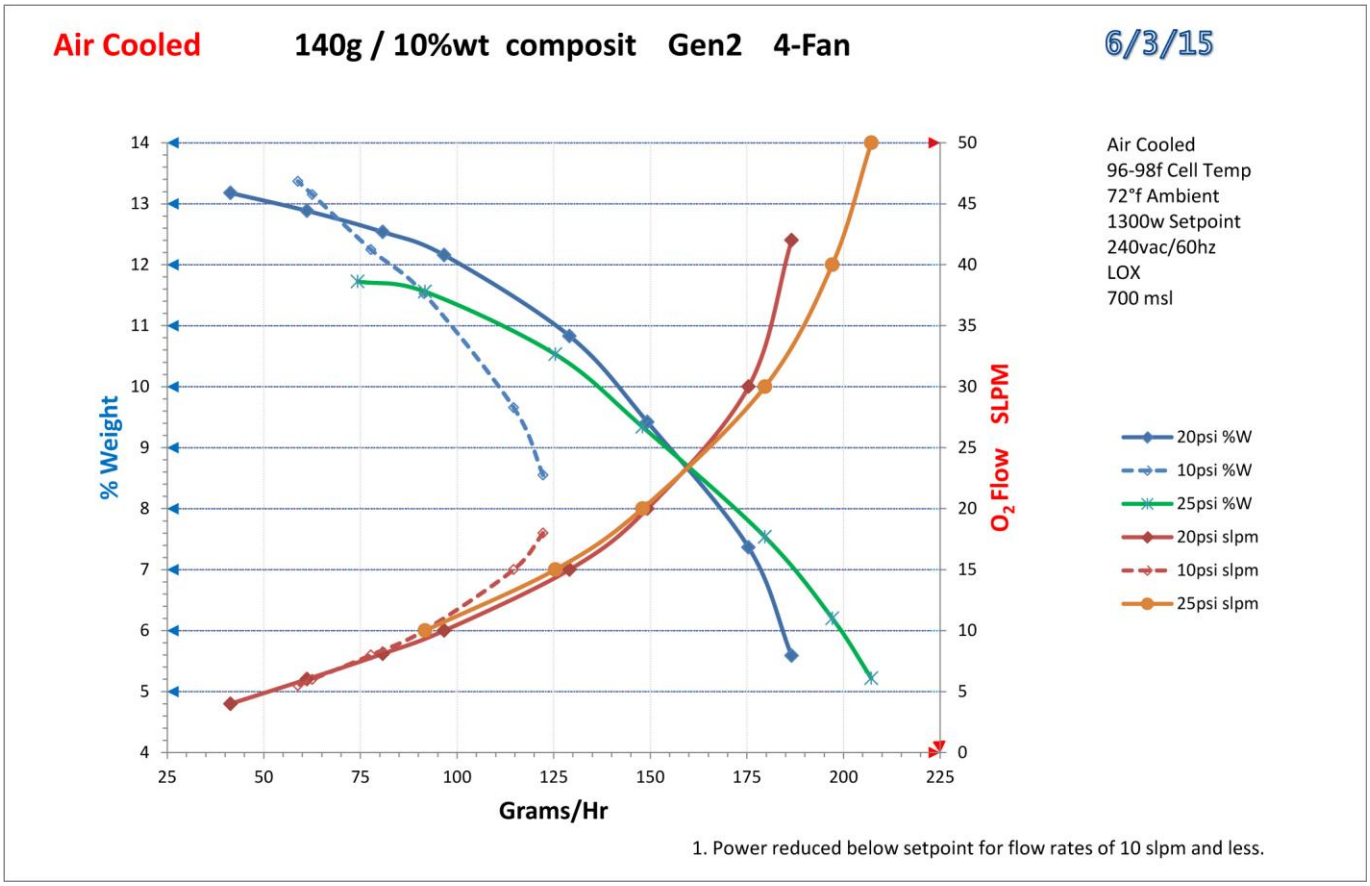

Both 20 psi 78g Gen1 vs 65g Gen2
2/17/14
Air Cooled
89-99°f Cell Temp
71-74°f Ambient
740w Setpoint
230vac/60hz
LOX
700 msl
% Weight
O_2 Flow SLPM
Grams/Hr
30psi %W
20psi %W
10psi %W
30psi %W Gen1
20psi %W Gen1
10psi %W Gen1
30psi slpm
20psi slpm
10psi slpm
30psi slpm Gen1
20psi slpm Gen1
10psi slpm Gen1
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 8 slpm.


Both 30 psi 74g Gen1 vs 48g Gen2
2/17/14
Air Cooled
89-99°f Cell Temp
71-74°f Ambient
740w Setpoint
230vac/60hz
LOX
700 msl
% Weight
O_2 Flow SLPM
Grams/Hr
30psi %W
20psi %W
10psi %W
30psi %W Gen1
20psi %W Gen1
10psi %W Gen1
30psi slpm
20psi slpm
10psi slpm
30psi slpm Gen1
20psi slpm Gen1
10psi slpm Gen1
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 8 slpm.


Composit 70g Gen1 vs Gen2
2/17/14
Air Cooled
89-99°f Cell Temp
71-74°f Ambient
740w Setpoint
230vac/60hz
LOX
700 msl
% Weight
O_2 Flow SLPM
Grams/Hr
30psi %W
20psi %W
10psi %W
30psi %W Gen1
20psi %W Gen1
10psi %W Gen1
30psi slpm
20psi slpm
10psi slpm
30psi slpm Gen1
20psi slpm Gen1
10psi slpm Gen1
1. Gen2 unless noted.
2. Power reduced below set point for flow rates less than 8 slpm.

Note – all Gen2 ozone is at 10% weight.

140g 20psi 10 wt% 19slpm
210g 25psi 5 wt% 53slpm



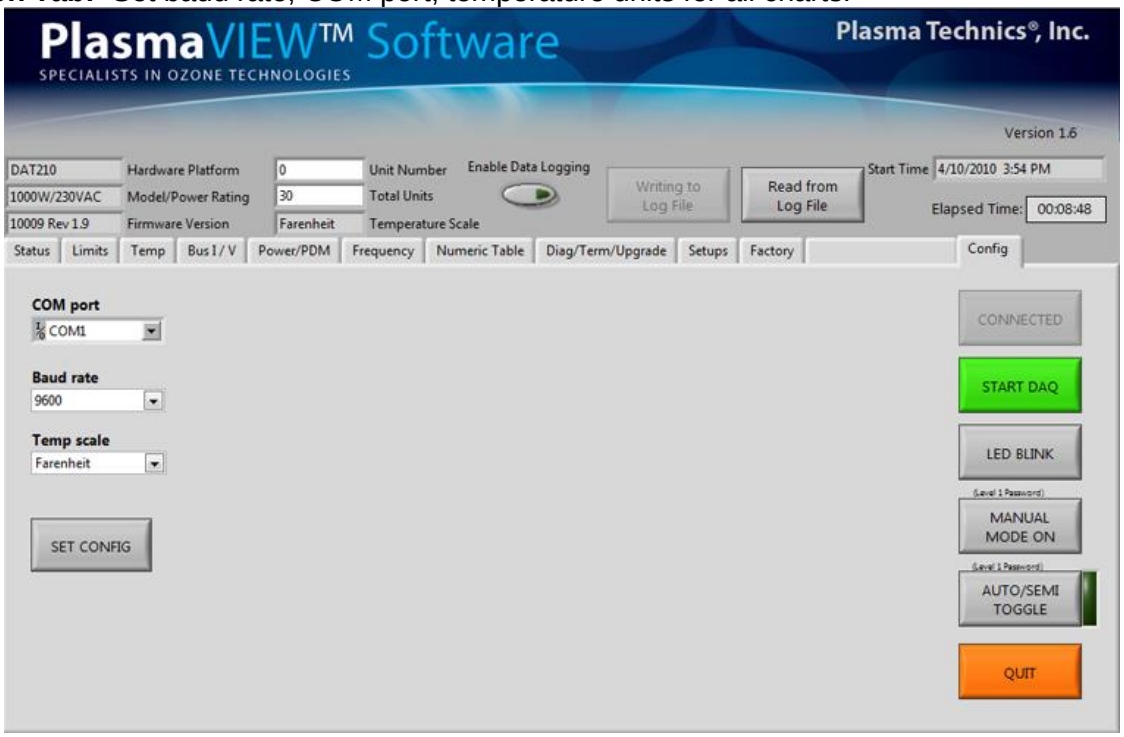
PlasmaVIEW® Software

The new **PlasmaVIEW®** software enables unprecedented access to the PlasmaBlock® processor thereby simplifying bench-top setup and field diagnostics. The program displays charts for all measurement parameters with an unlimited time base and disk drive storage for delayed retrieval and emailing. PlasmaVIEW® can also be used as a file viewer so data can be studied and expanded at a later time or in another location. Observing a complete functional system over the weekend is as easy as plugging in a laptop computer and spending the weekend with the family.

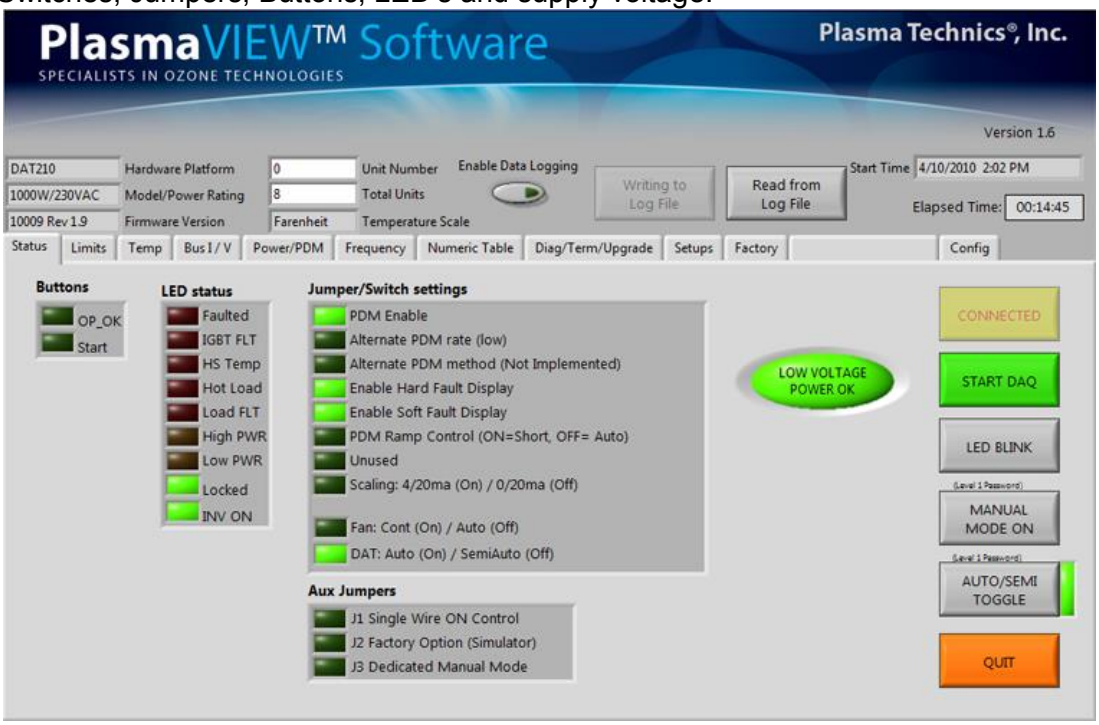
Testing of the fully integrated ozone system is simplified by the programs ability to create a fault at the output terminals. This enables the user to evaluate the total systems response to the PlasmaBlock® outputs without the need to jury-rig external wires thereby creating exactly the same outputs as would normally be produced. Want to see how the system handles a fault – just click on the 'Faulted' LED in the 'Diagnostics' tab.

Supports all DAT series control boards. Supplied with the software is: PTI's custom RS232 processor interface adapter, USB/RS232 adapter and 10' RS232 extension cable.

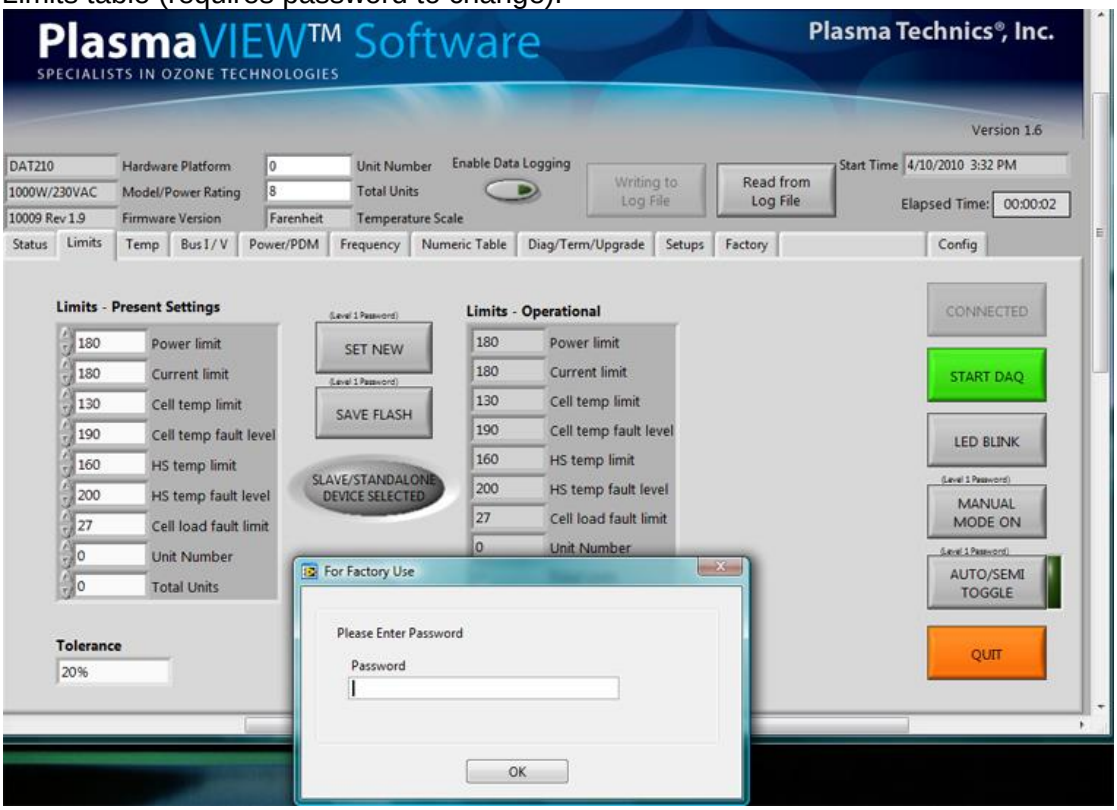
Configuration Tab: Set baud rate, COM port, temperature units for all charts.

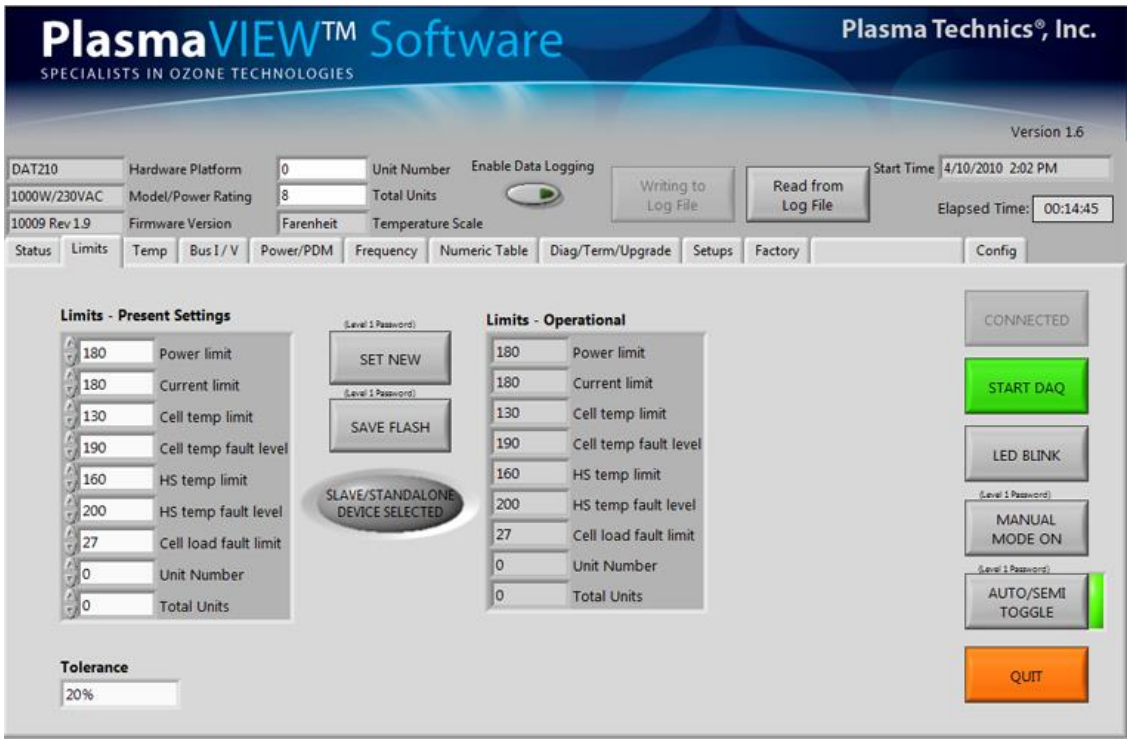


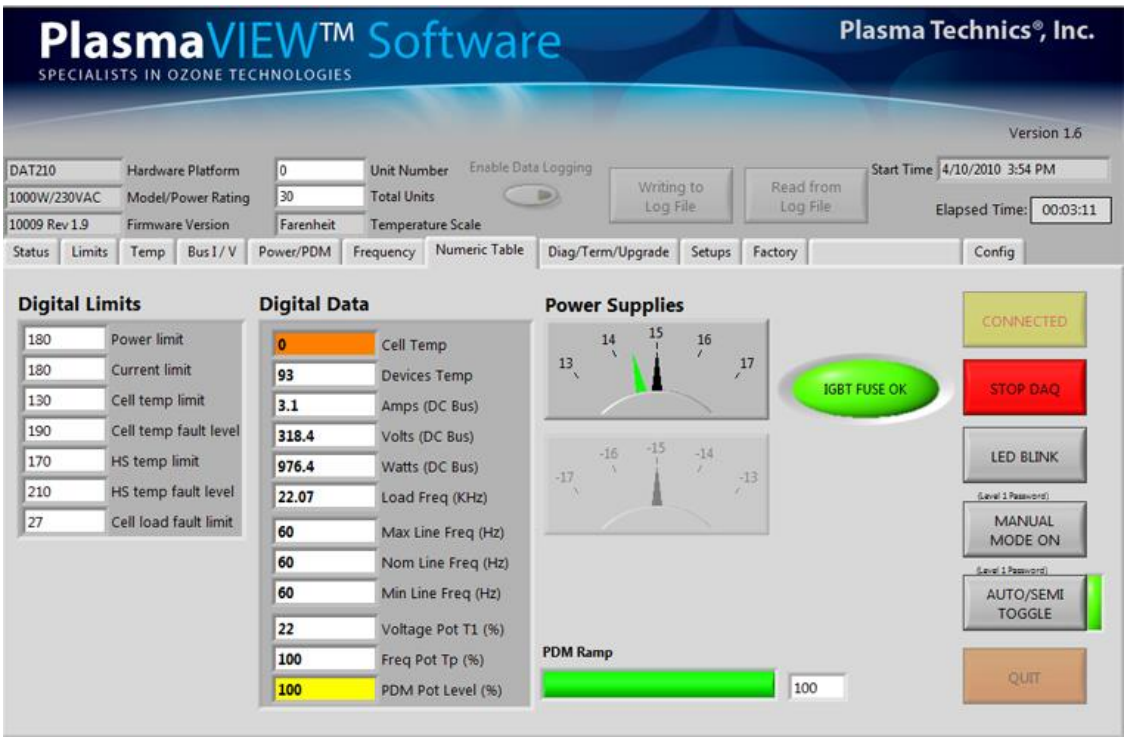
Status Tab: Switches, Jumpers, Buttons, LED's and supply voltage.



Limits Tab: Limits table (requires password to change).




PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
Writing to Log File
Read from Log File
Start Time 4/10/2010 2:02 PM
1000W/230VAC
Model/Power Rating
8
Total Units
Elapsed Time: 00:14:45
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
Limits - Present Settings
180 Power limit
180 Current limit
130 Cell temp limit
190 Cell temp fault level
160 HS temp limit
200 HS temp fault level
27 Cell load fault limit
0 Unit Number
0 Total Units
SET NEW
SAVE FLASH
SLAVE/STANDALONE DEVICE SELECTED
Limits - Operational
180 Power limit
180 Current limit
130 Cell temp limit
190 Cell temp fault level
160 HS temp limit
200 HS temp fault level
27 Cell load fault limit
0 Unit Number
0 Total Units
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT
Tolerance
20%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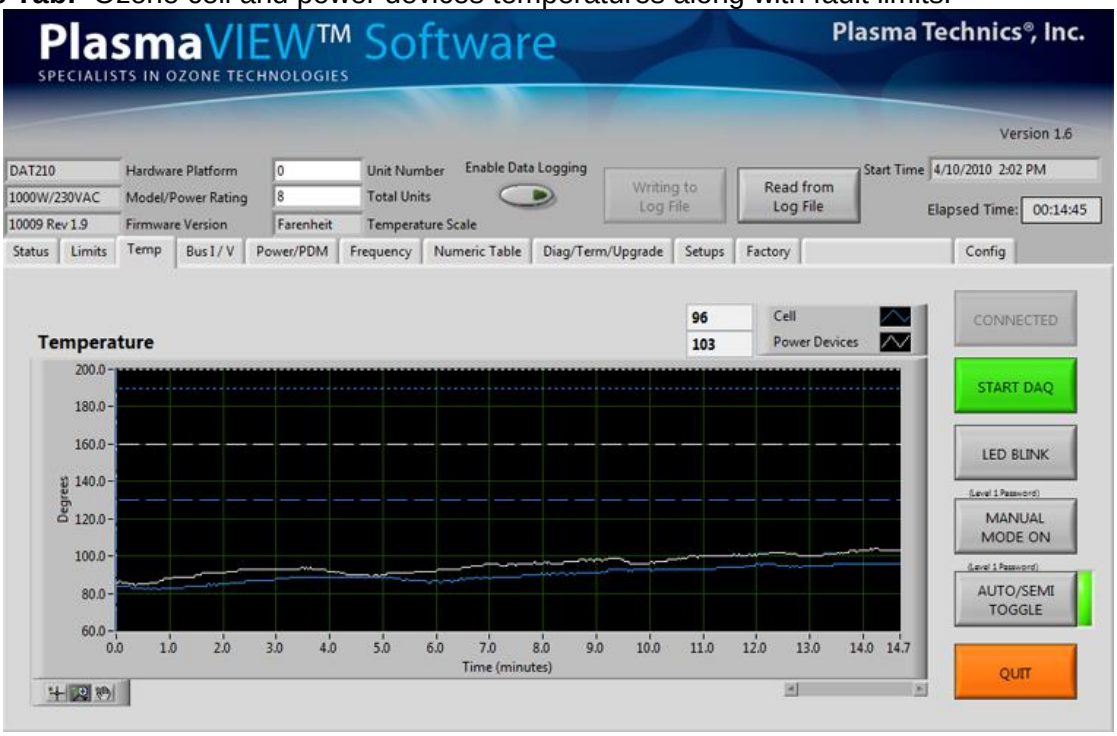
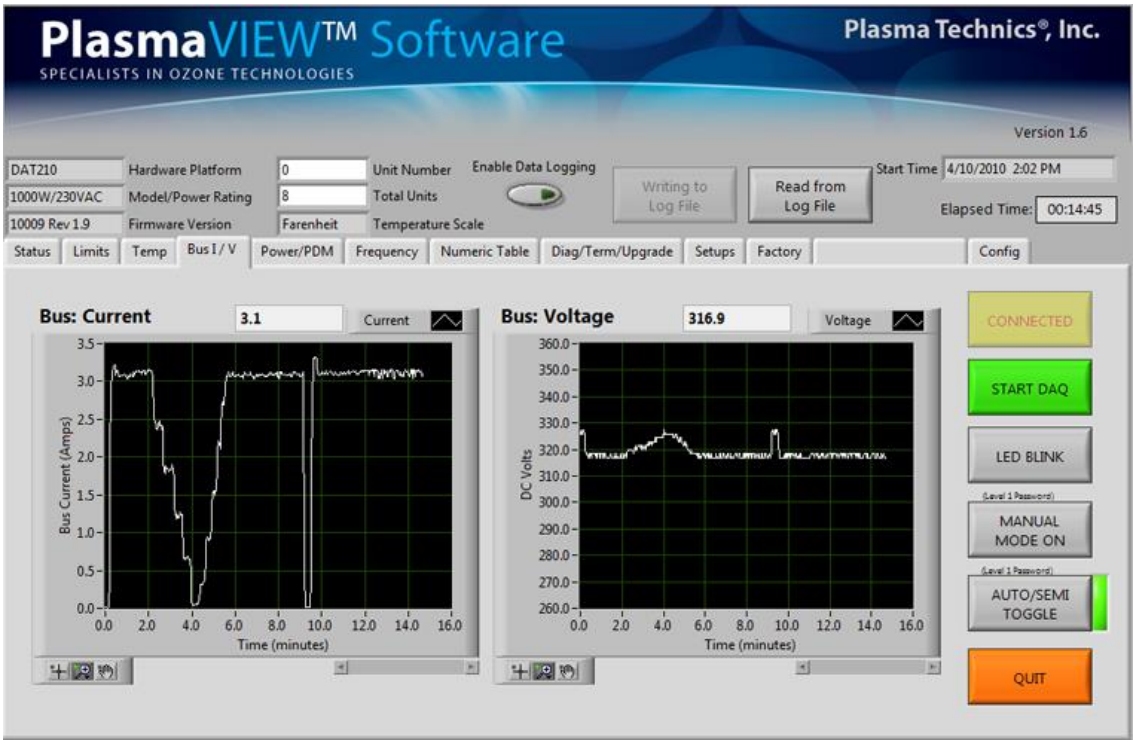
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:54 PM
1000W/230VAC
Model/Power Rating
30
Total Units
Elapsed Time: 00:03:11
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
Digital Limits
180 Power limit
180 Current limit
130 Cell temp limit
190 Cell temp fault level
170 HS temp limit
210 HS temp fault level
27 Cell load fault limit
Digital Data
0 Cell Temp
93 Devices Temp
3.1 Amps (DC Bus)
318.4 Volts (DC Bus)
976.4 Watts (DC Bus)
22.07 Load Freq (KHz)
60 Max Line Freq (Hz)
60 Nom Line Freq (Hz)
60 Min Line Freq (Hz)
22 Voltage Pot T1 (%)
100 Freq Pot Tp (%)
100 PDM Pot Level (%)
Power Supplies
13 14 15 16 17
-17 -16 -15 -14 -13
IGBT FUSE OK
PDM Ramp
100
CONNECTED
STOP DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT

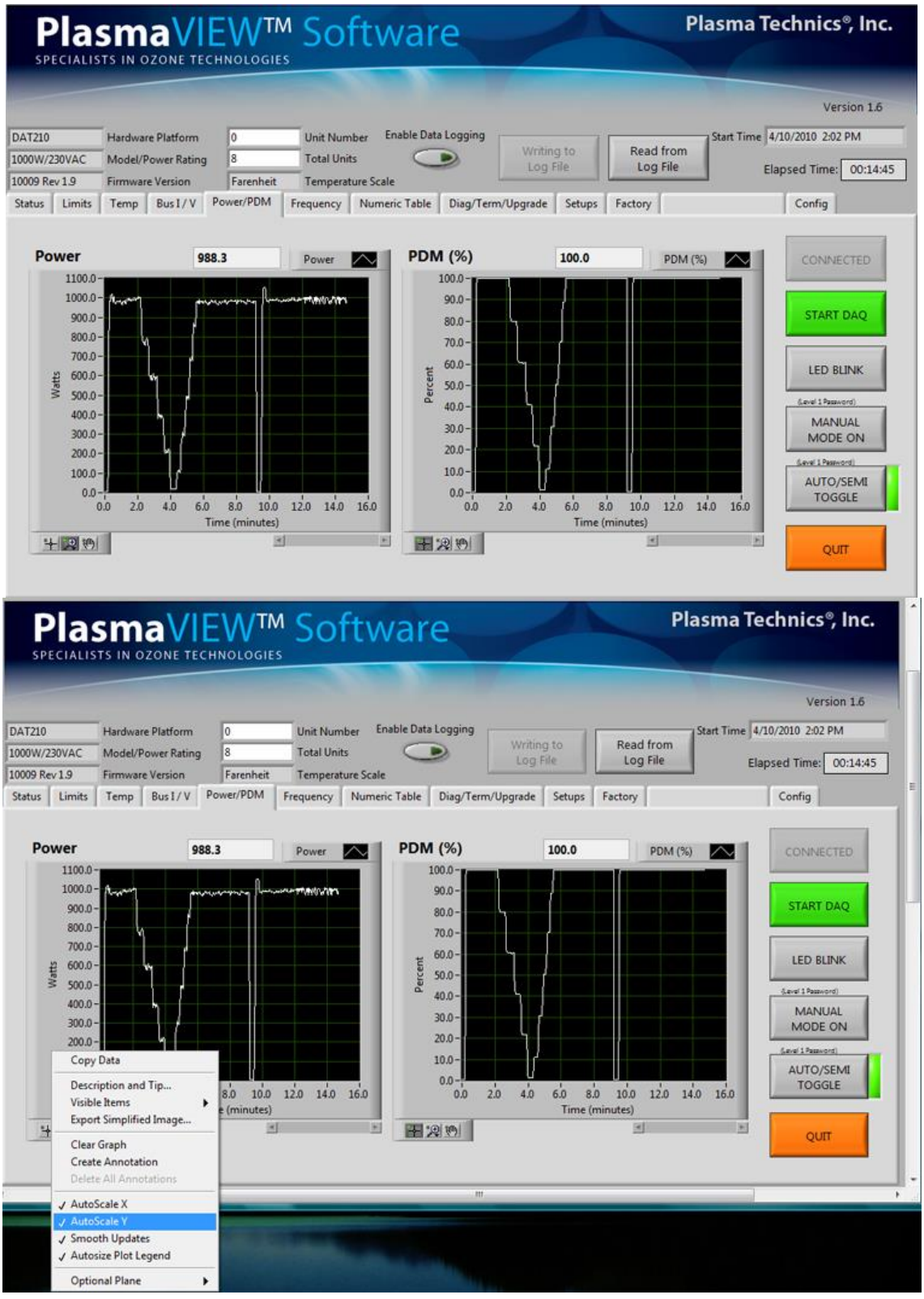
Temperature Tab: Ozone cell and power devices temperatures along with fault limits.

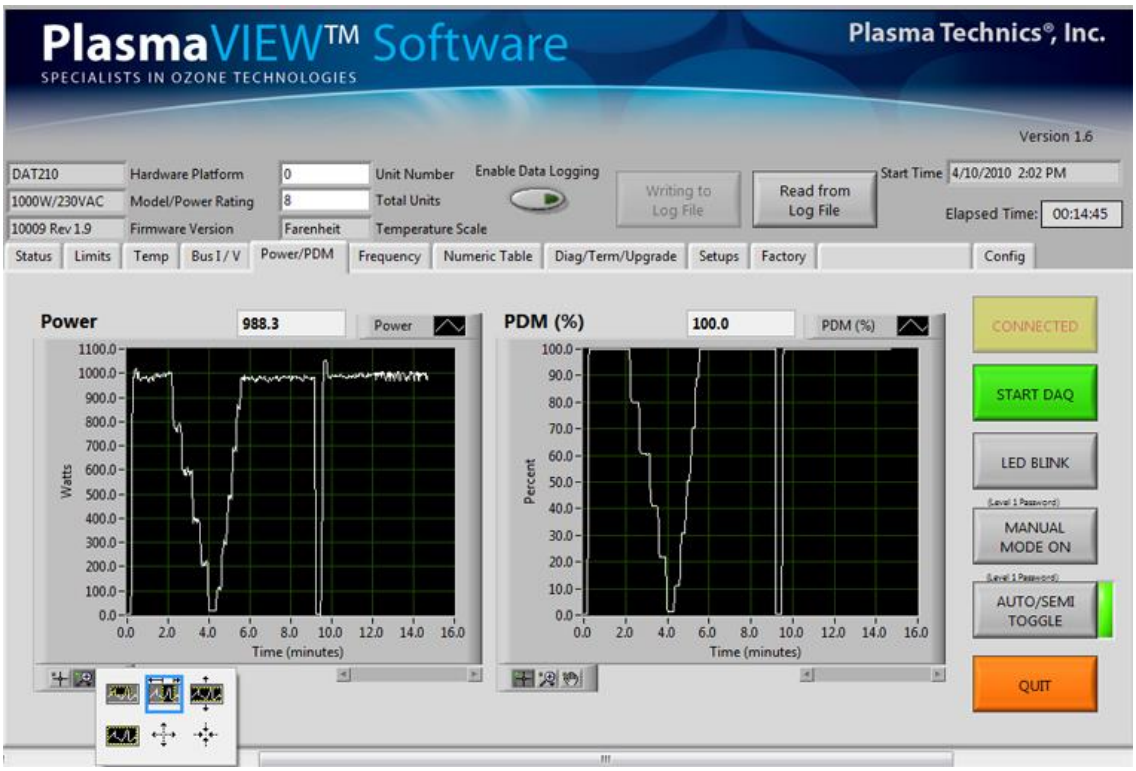


Buss Current & Volts Tab:

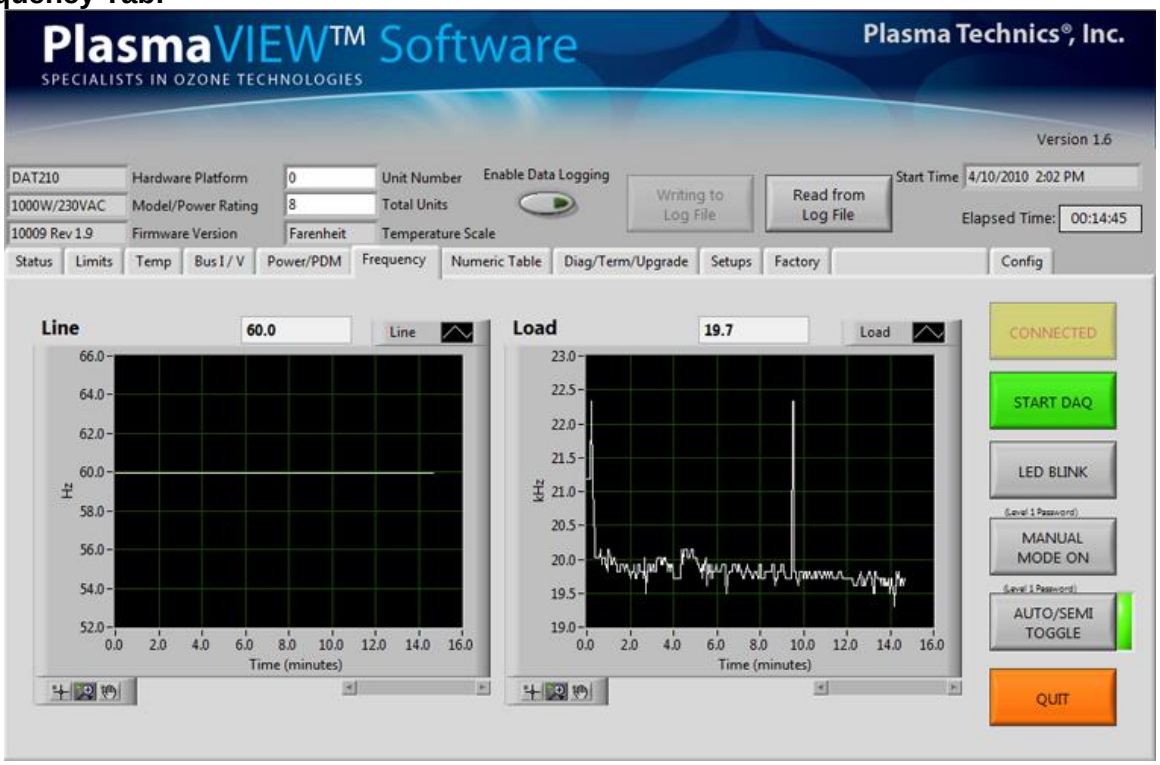


Power & PDM Level Tab:

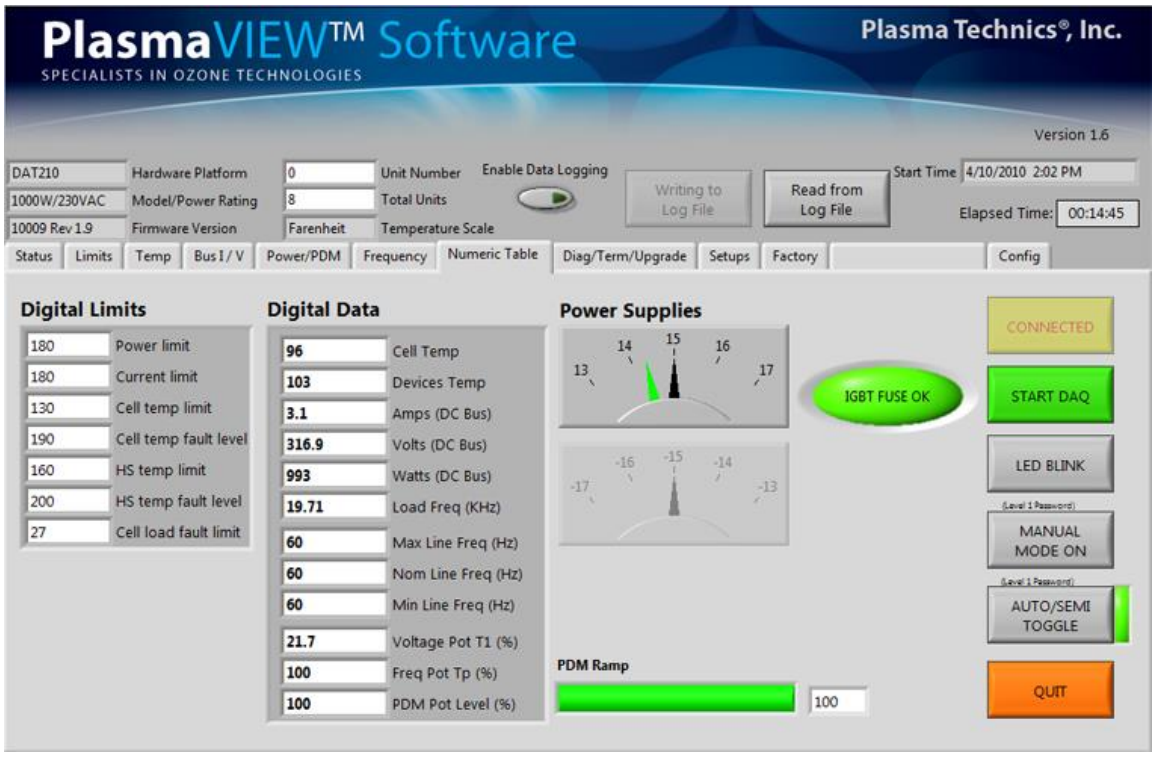




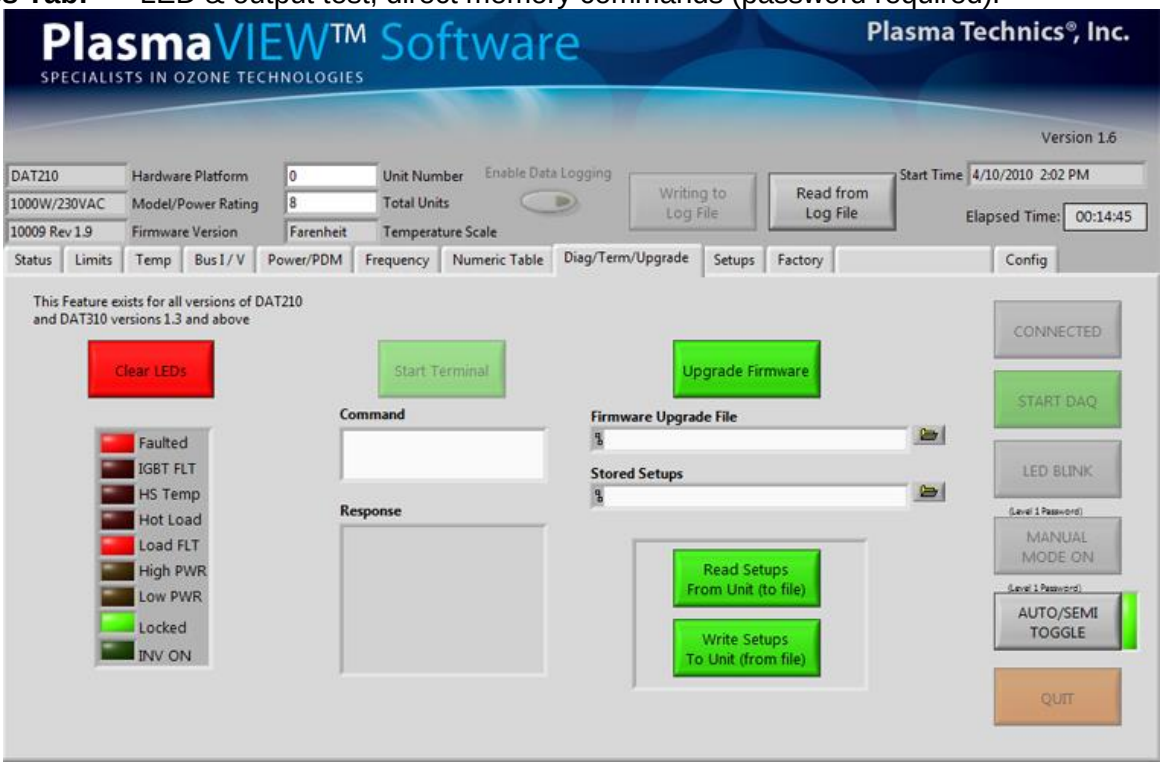
Power/Frequency Tab:

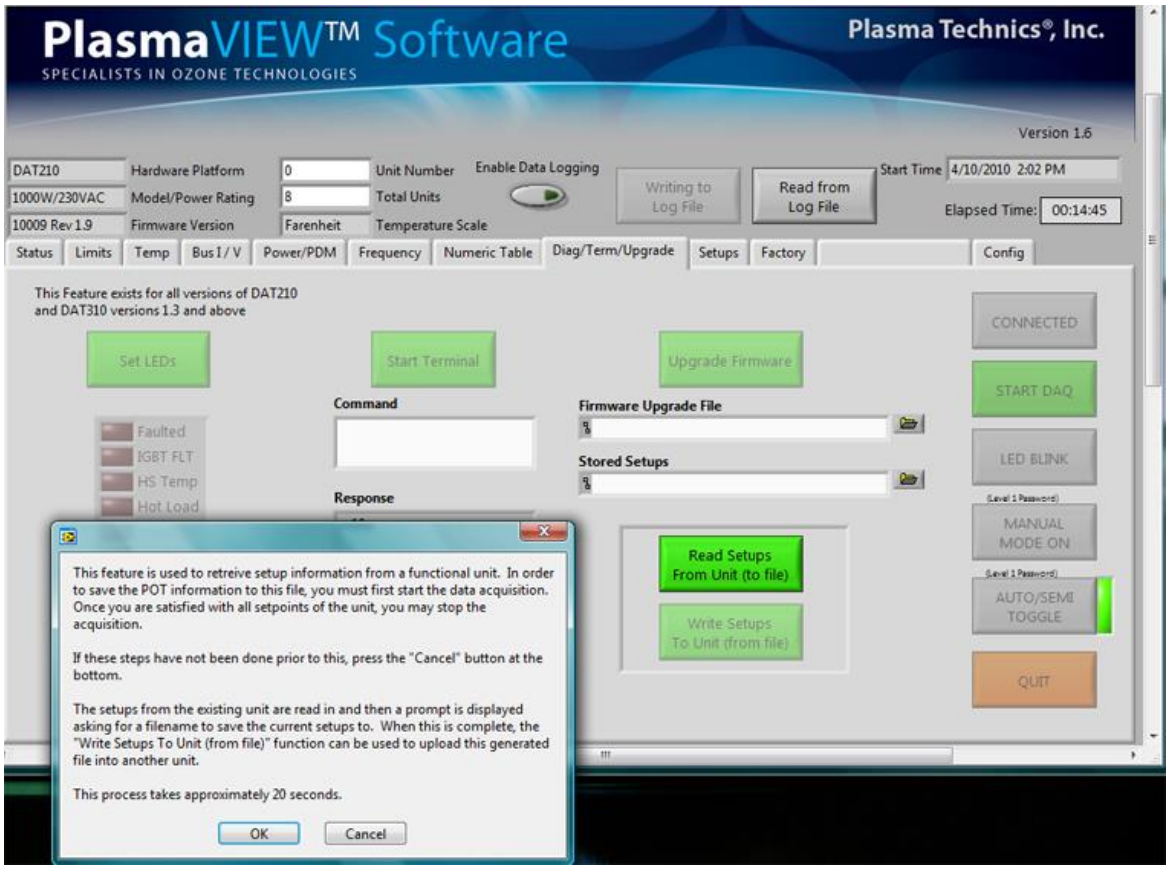


Numeric Table Tab:



Diagnostics Tab: LED & output test, direct memory commands (password required).




PlasmaVIEW™ Software
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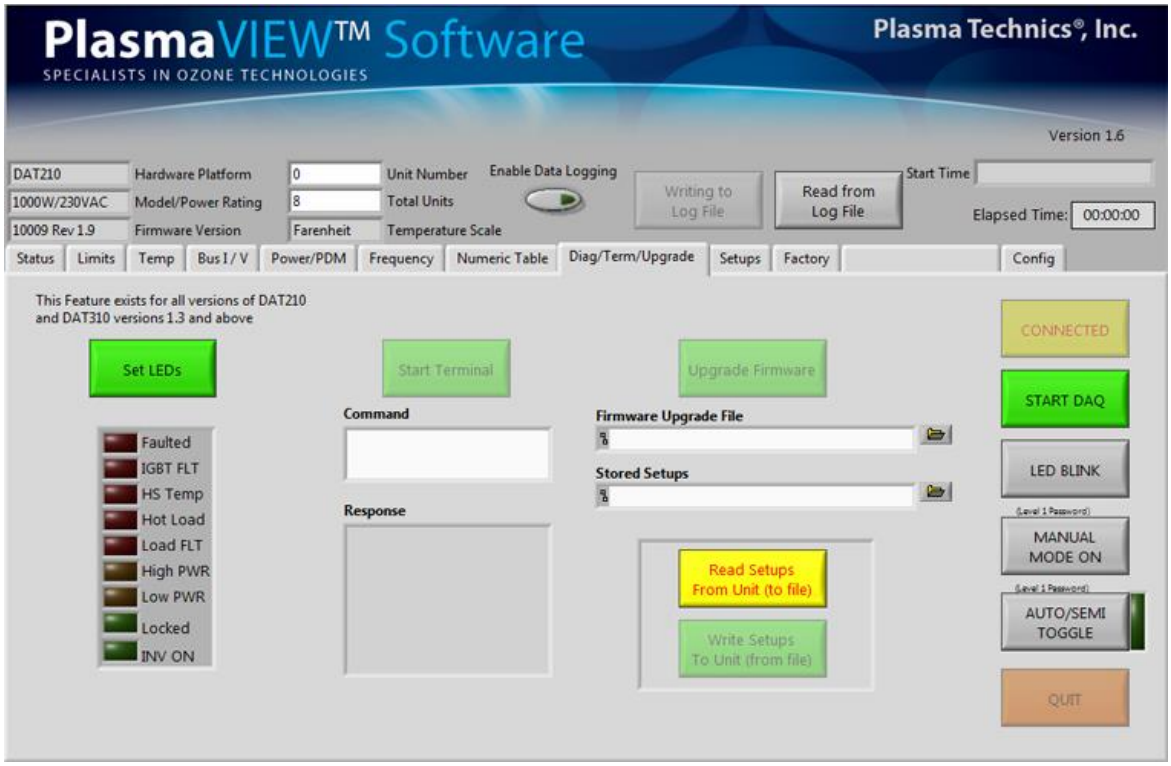
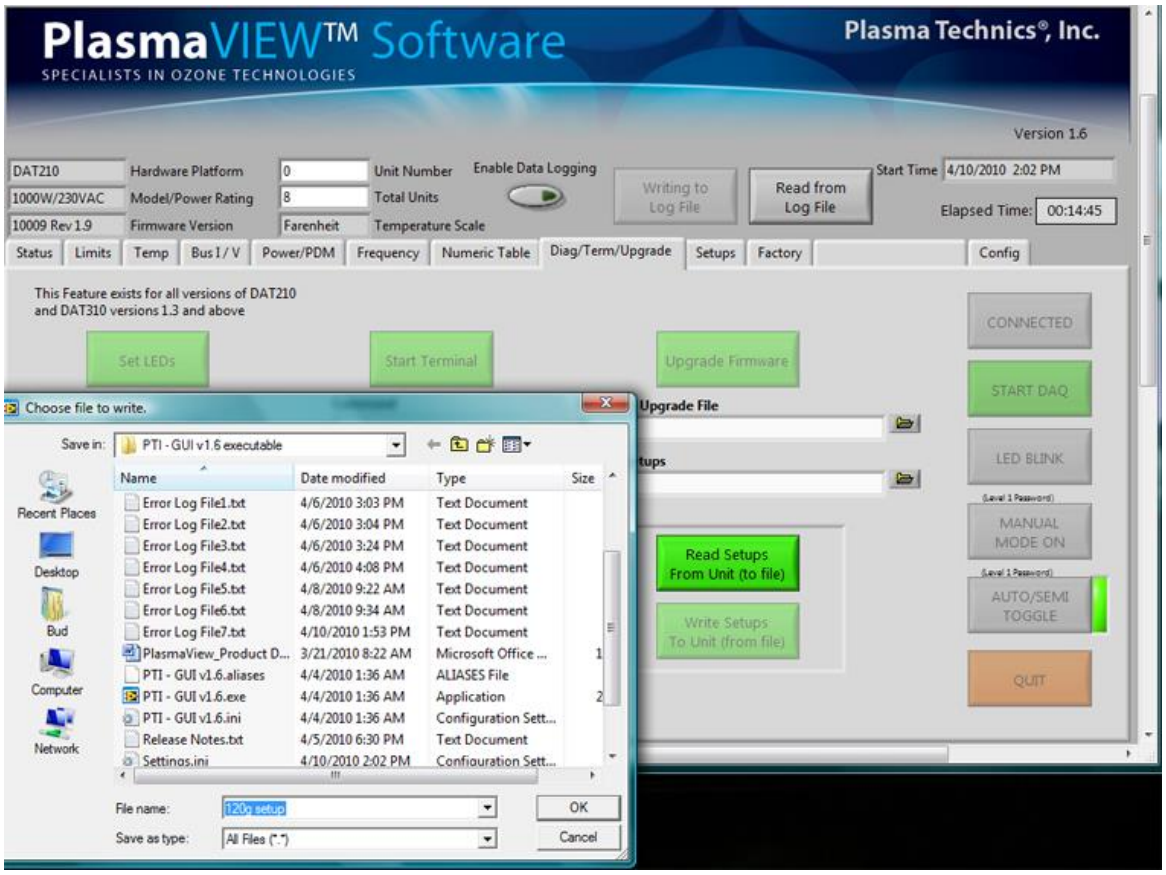
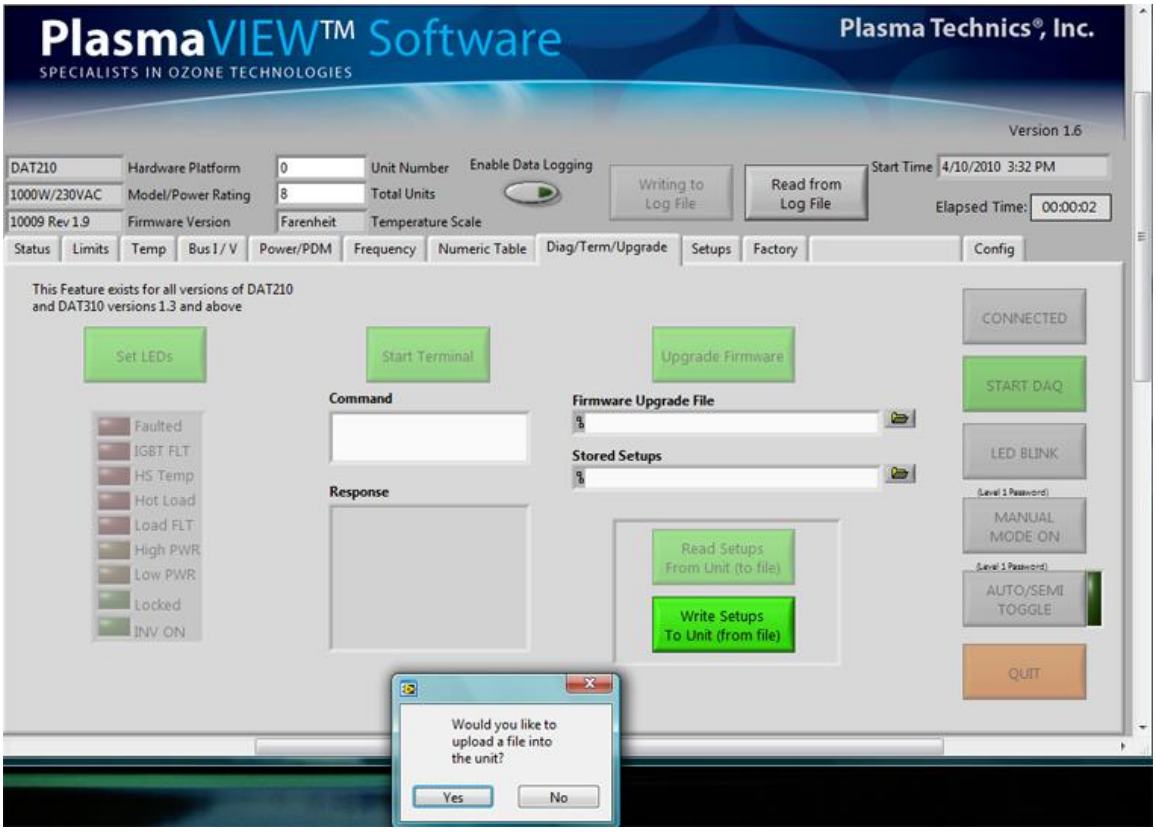
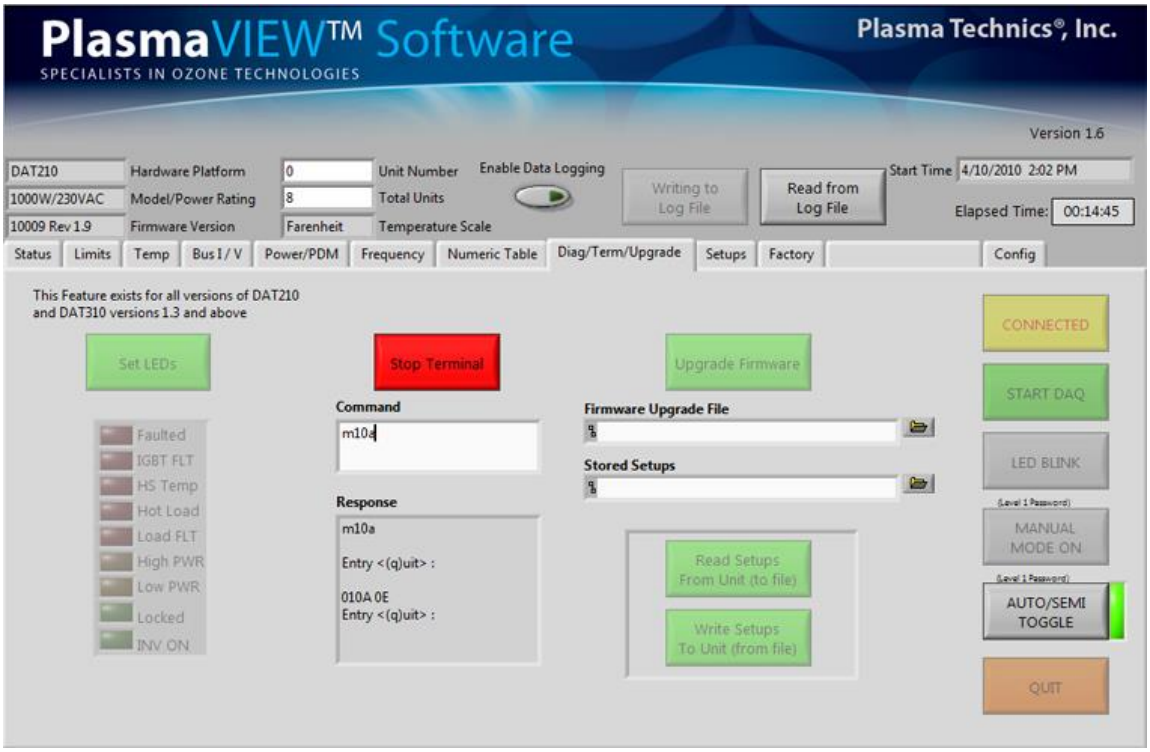
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 2:02 PM
Elapsed Time: 00:14:45
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
This Feature exists for all versions of DAT210 and DAT310 versions 1.3 and above
Set LEDs
Start Terminal
Upgrade Firmware
Command
Firmware Upgrade File
Stored Setups
Response
Faulted
IGBT FLT
HS Temp
Hot Load
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT
Read Setups From Unit (to file)
Write Setups To Unit (from file)
This feature is used to retreive setup information from a functional unit. In order to save the POT information to this file, you must first start the data acquisition. Once you are satisfied with all setpoints of the unit, you may stop the acquisition.
If these steps have not been done prior to this, press the "Cancel" button at the bottom.
The setups from the existing unit are read in and then a prompt is displayed asking for a filename to save the current setups to. When this is complete, the "Write Setups To Unit (from file)" function can be used to upload this generated file into another unit.
This process takes approximately 20 seconds.
OK
Cancel

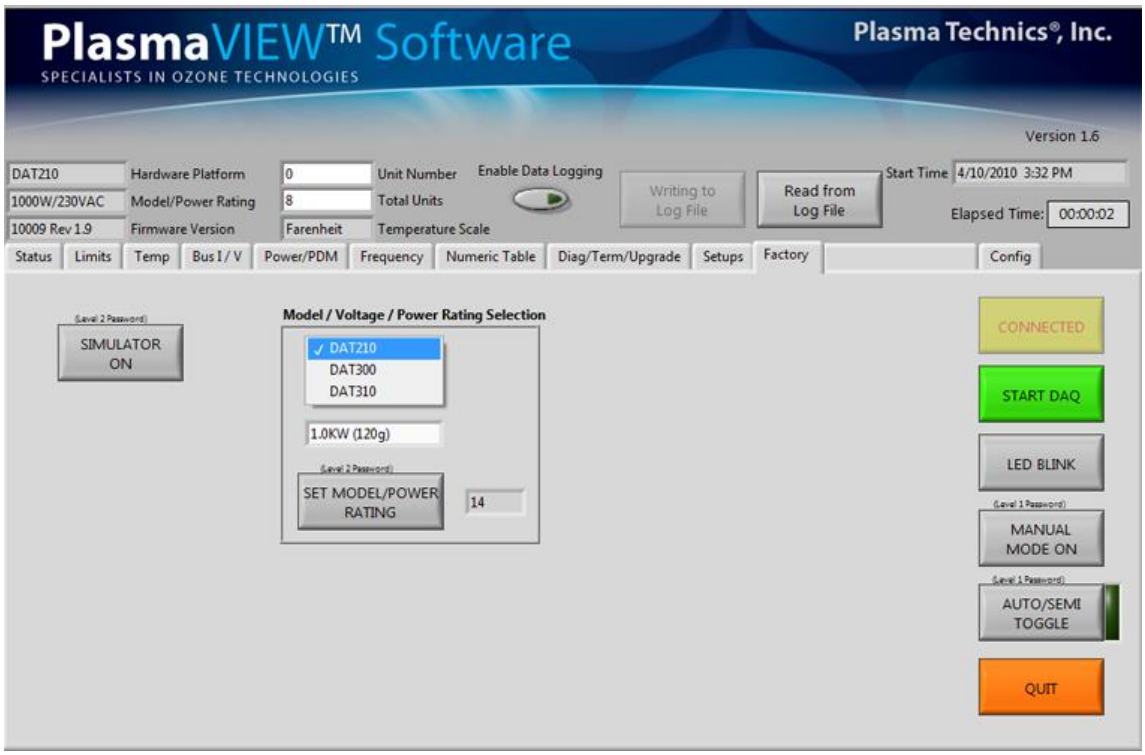

PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time
Elapsed Time: 00:00:00
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
This Feature exists for all versions of DAT210 and DAT310 versions 1.3 and above
Set LEDs
Start Terminal
Upgrade Firmware
Command
Firmware Upgrade File
Stored Setups
Response
Faulted
IGBT FLT
HS Temp
Hot Load
Load FLT
High PWR
Low PWR
Locked
INV ON
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT
Read Setups From Unit (to file)
Write Setups To Unit (from file)

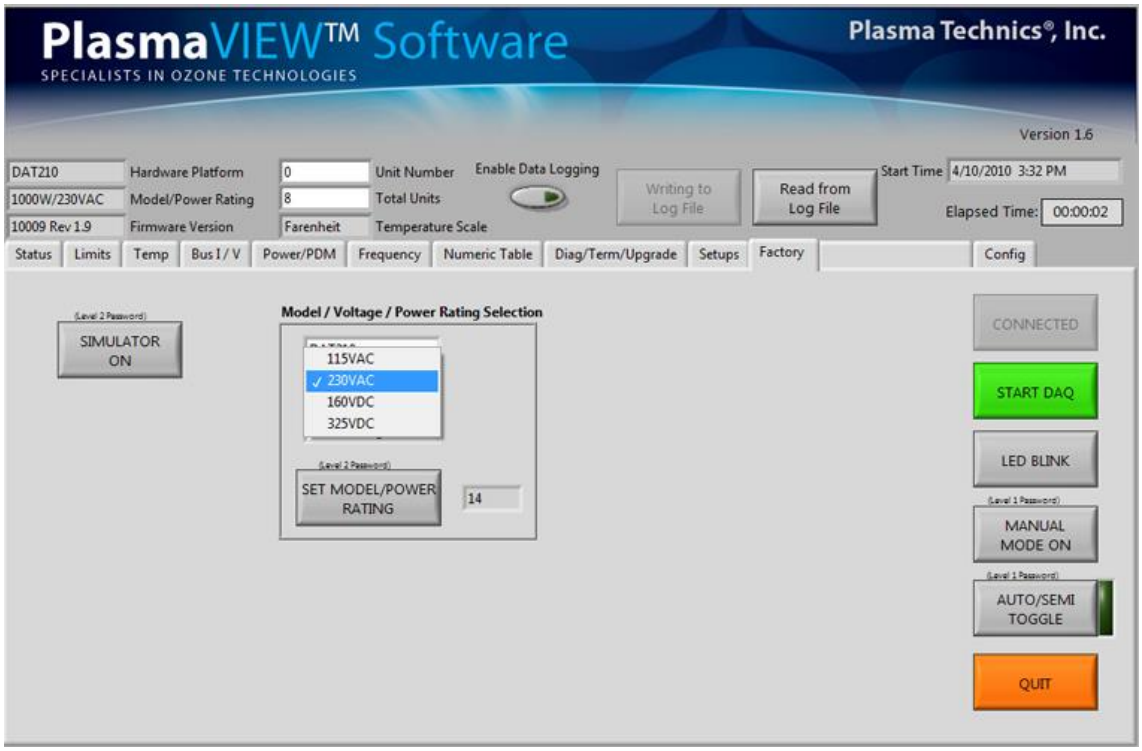

PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 2:02 PM
Elapsed Time: 00:14:45
Status
Limits
Temp
Bus 1 / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
This Feature exists for all versions of DAT210 and DAT310 versions 1.3 and above
Set LEDs
Start Terminal
Upgrade Firmware
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT
Upgrade File
Read Setups From Unit (to file)
Write Setups To Unit (from file)
Choose file to write.
Save in: PTI - GUI v1.6 executable
Recent Places
Desktop
Bud
Computer
Network
Name
Date modified
Type
Size
Error Log File1.txt 4/6/2010 3:03 PM Text Document
Error Log File2.txt 4/6/2010 3:04 PM Text Document
Error Log File3.txt 4/6/2010 3:24 PM Text Document
Error Log File4.txt 4/6/2010 4:08 PM Text Document
Error Log File5.txt 4/8/2010 9:22 AM Text Document
Error Log File6.txt 4/8/2010 9:34 AM Text Document
Error Log File7.txt 4/10/2010 1:53 PM Text Document
PlasmaView_Product D... 3/21/2010 8:22 AM Microsoft Office ... 1
PTI - GUI v1.6.aliases 4/4/2010 1:36 AM ALIASES File
PTI - GUI v1.6.exe 4/4/2010 1:36 AM Application 2
PTI - GUI v1.6.ini 4/4/2010 1:36 AM Configuration Sett...
Release Notes.txt 4/5/2010 6:30 PM Text Document
Settings.ini 4/10/2010 2:02 PM Configuration Sett...
File name: 120g setup
Save as type: All Files (*.*)
OK
Cancel

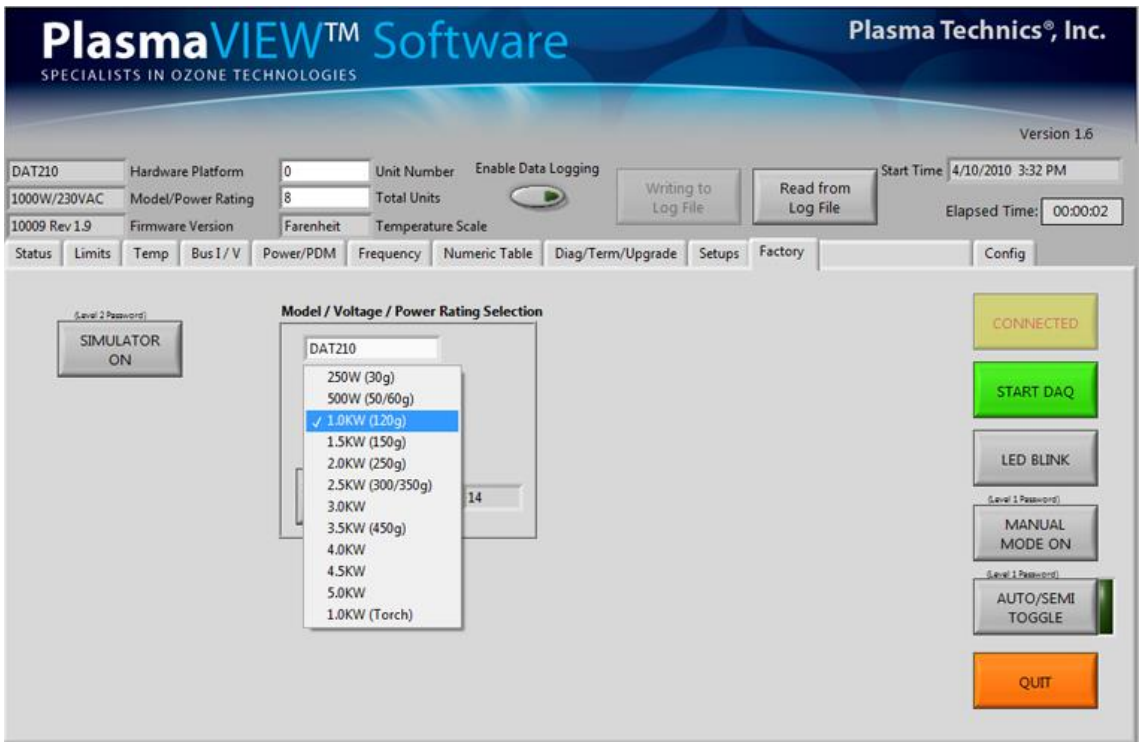

PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus 1 / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
This Feature exists for all versions of DAT210 and DAT310 versions 1.3 and above
Set LEDs
Start Terminal
Upgrade Firmware
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT
Command
Response
Faulted
IGBT FLT
HS Temp
Hot Load
Load FLT
High PWR
Low PWR
Locked
INV ON
Firmware Upgrade File
Stored Setups
Read Setups From Unit (to file)
Write Setups To Unit (from file)
Would you like to upload a file into the unit?
Yes
No

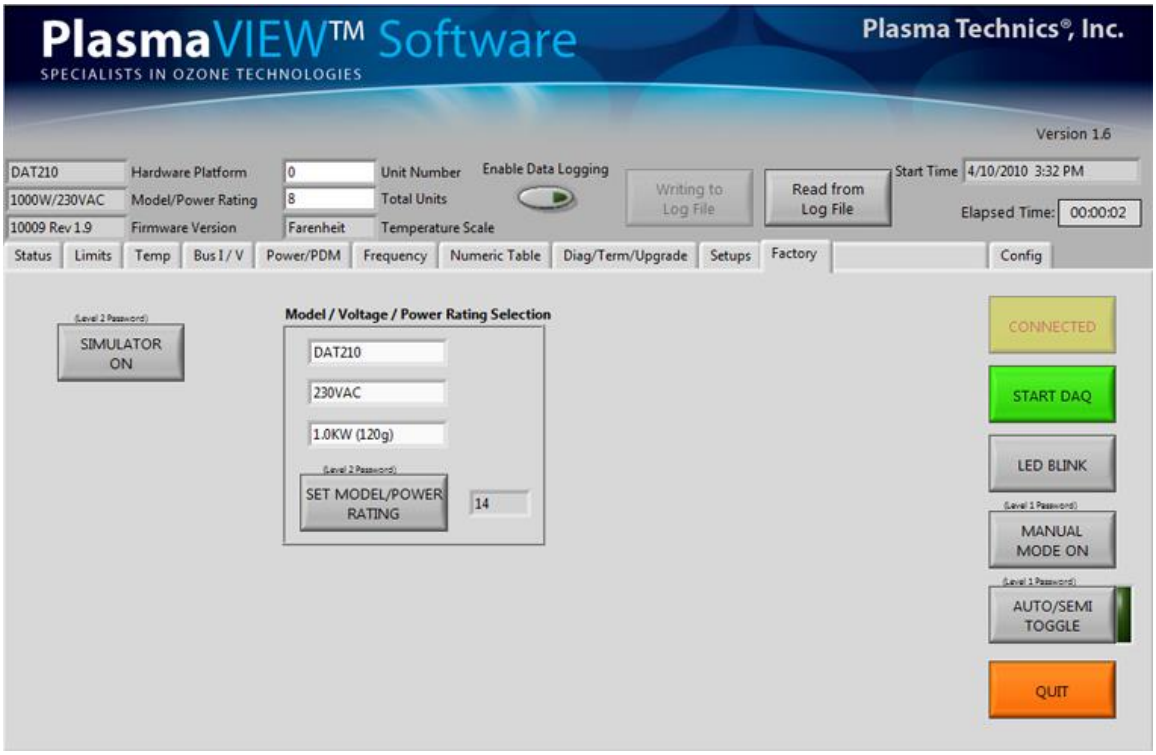

PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 2:02 PM
Elapsed Time: 00:14:45
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
This Feature exists for all versions of DAT210 and DAT310 versions 1.3 and above
Set LEDs
Stop Terminal
Upgrade Firmware
Command
m10a
Firmware Upgrade File
Stored Setups
Response
m10a
Entry <(q)uit> :
010A 0E
Entry <(q)uit> :
Faulted
IGBT FLT
HS Temp
Hot Load
Load FLT
High PWR
Low PWR
Locked
INV ON
Read Setups From Unit (to file)
Write Setups To Unit (from file)
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT

Factory tab:

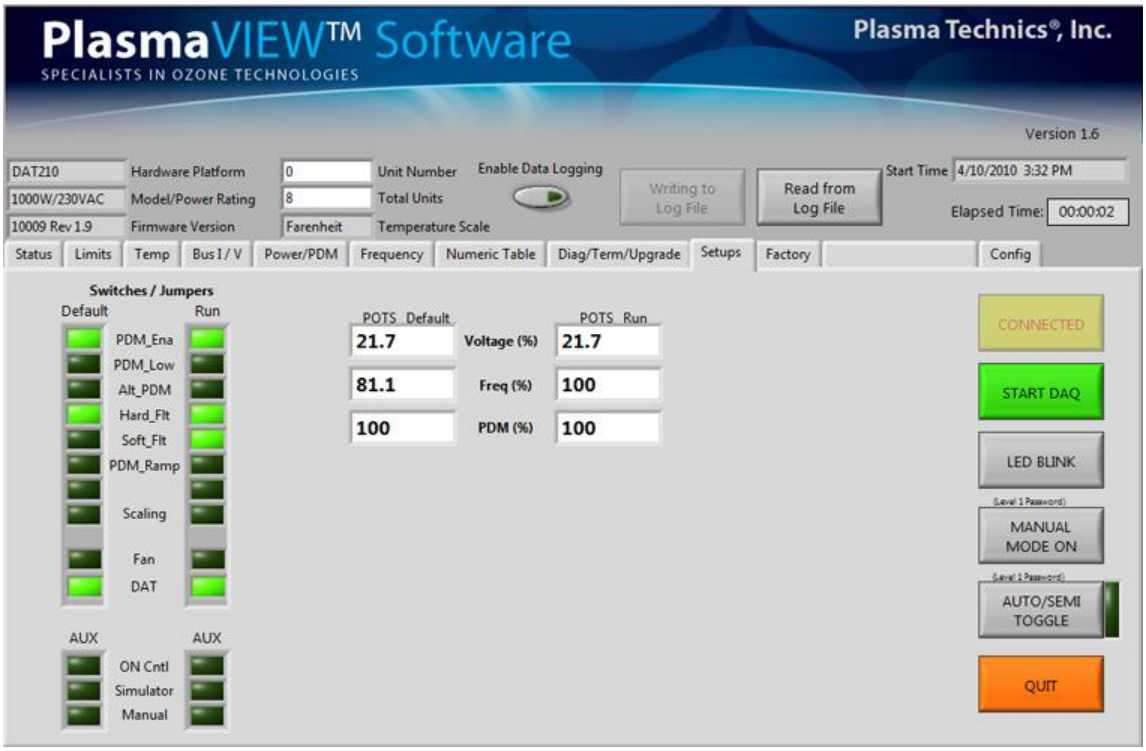

PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
SIMULATOR ON
Model / Voltage / Power Rating Selection
DAT210
DAT300
DAT310
1.0KW (120g)
SET MODEL/POWER RATING
14
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT


PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
SIMULATOR ON
Model / Voltage / Power Rating Selection
115VAC
230VAC
160VDC
325VDC
SET MODEL/POWER RATING
14
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT


PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
SIMULATOR ON
Model / Voltage / Power Rating Selection
DAT210
250W (30g)
500W (50/60g)
1.0KW (120g)
1.5KW (150g)
2.0KW (250g)
2.5KW (300/350g)
3.0KW
3.5KW (450g)
4.0KW
4.5KW
5.0KW
1.0KW (Torch)
14
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT


PlasmaVIEW™ Software
SPECIALISTS IN OZONE TECHNOLOGIES
Plasma Technics®, Inc.
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
SIMULATOR ON
Model / Voltage / Power Rating Selection
DAT210
230VAC
1.0KW (120g)
SET MODEL/POWER RATING
14
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT

Setups tab:


PlasmaVIEW™ Software
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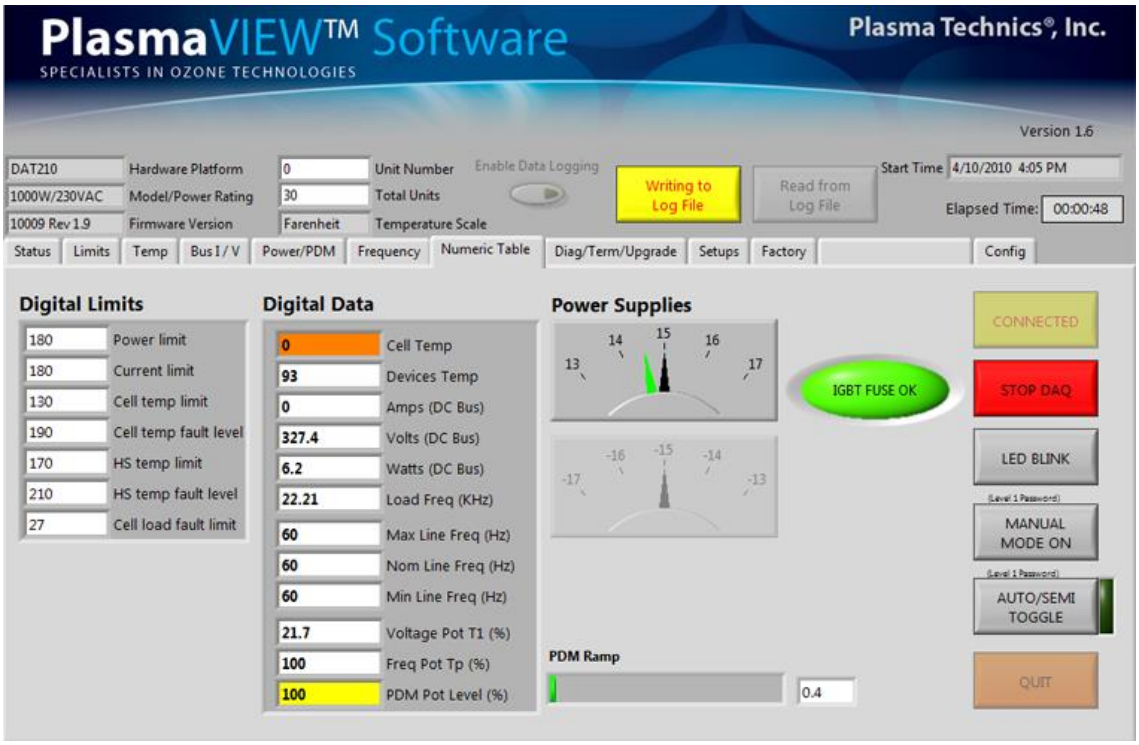
Version 1.6
DAT210
Hardware Platform
0
Unit Number
Enable Data Logging
1000W/230VAC
Model/Power Rating
8
Total Units
10009 Rev 1.9
Firmware Version
Farenheit
Temperature Scale
Writing to Log File
Read from Log File
Start Time 4/10/2010 3:32 PM
Elapsed Time: 00:00:02
Status
Limits
Temp
Bus I / V
Power/PDM
Frequency
Numeric Table
Diag/Term/Upgrade
Setups
Factory
Config
Switches / Jumpers
Default
Run
PDM_Ena
PDM_Low
Alt_PDM
Hard_Flt
Soft_Flt
PDM_Ramp
Scaling
Fan
DAT
AUX
AUX
ON Cntl
Simulator
Manual
POTS Default
POTS Run
21.7
Voltage (%)
21.7
81.1
Freq (%)
100
100
PDM (%)
100
CONNECTED
START DAQ
LED BLINK
MANUAL MODE ON
AUTO/SEMI TOGGLE
QUIT

Write to file button:



Connection items supplied with PlasmaVIEW® software :

Serial extension cable

RS232 to 9 pin cable

PlasmaLINK™

A **new** way to connect and communicate with your **Plasma Block®**. The PlasmaLINK unit connects to the DAT series board on Plasma Block® units.

Links Available:
WiFi
USB
RS232 via USB and Keyspan
Ethernet
HDMI

Design Features:

- Communicate via WiFi , local LAN or Internet using a PC, laptop or smartphone
- Standard browser navigation screen
- Collect, store and analyze performance data from local or remote locations
- Monitor performance and/or troubleshoot a unit from local or remote locations

The PlasmaLINK unit includes :
A power cord, Micro SD card (with installed software), WiFi dongle.

The connection kit supplied with PlasmaVIEW provides the final connection between the PlasmaLINK unit and the DAT series PCB. Important note, PlasmaVIEW software is not the same as the software supplied with PlasmaLINK.

Connection items supplied with PlasmaVIEW software :

USB Serial Adapter
Code 70254

Serial Extension cable
Code 70256

Serial extension cable

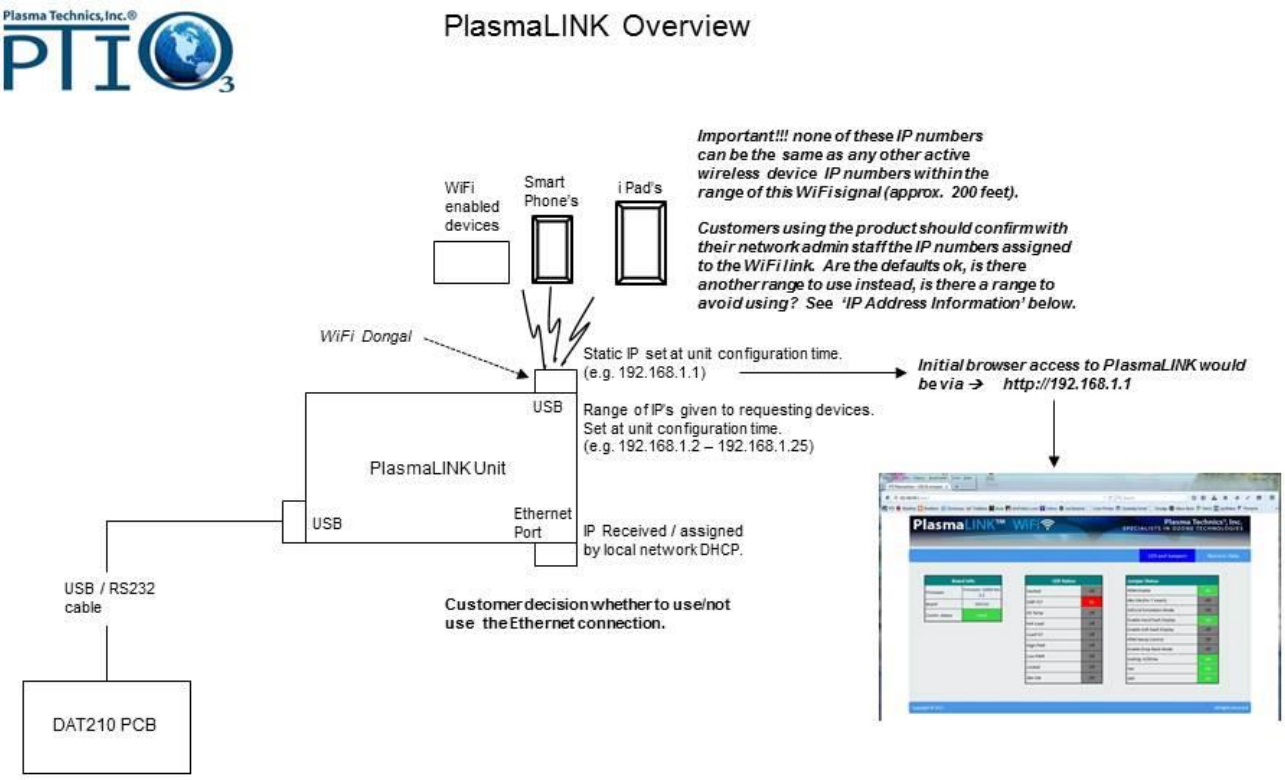
RS232 9 pin cable
50145

Full Set of all three items
Code 70257

RS232 to 9 pin cable

Connection overview:

If the Ethernet port is connected to a local network the PlasmaLINK unit can become visible on the world wide internet. Using the supplied WiFi link keeps it local and invisible on the internet. Use of the ethernet port is a customer decision and requires some coordination with the local site LAN admin staff.



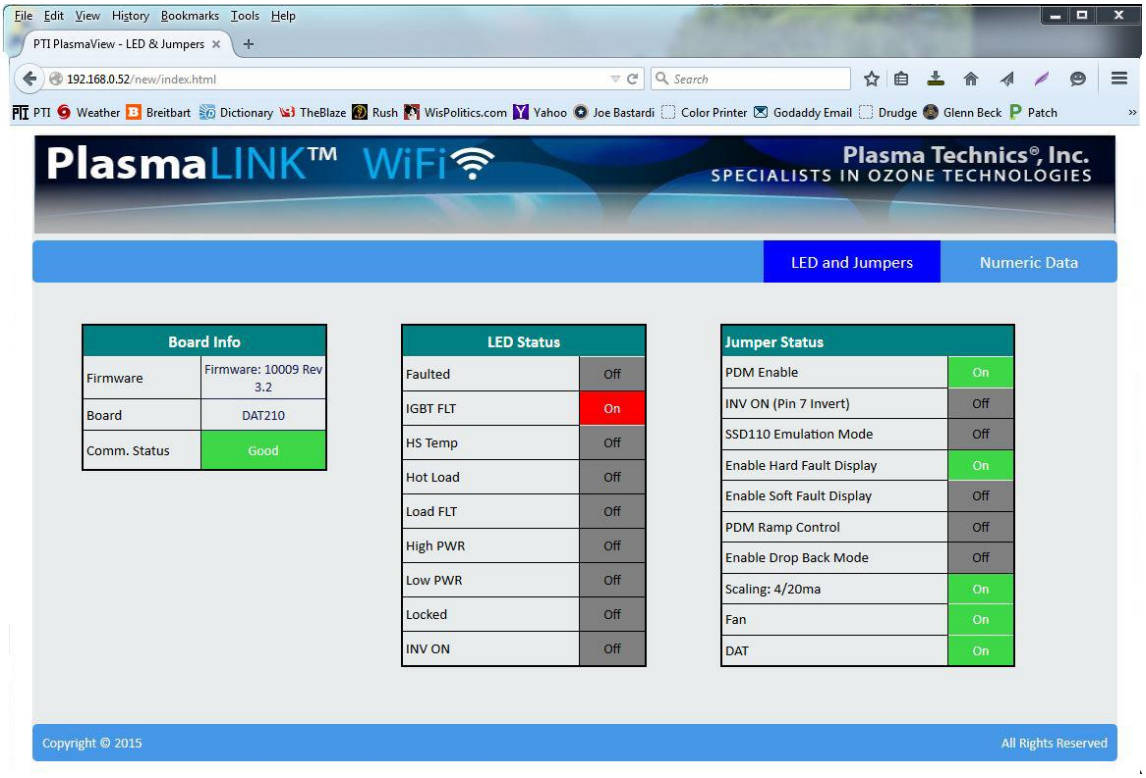
IP Address Information

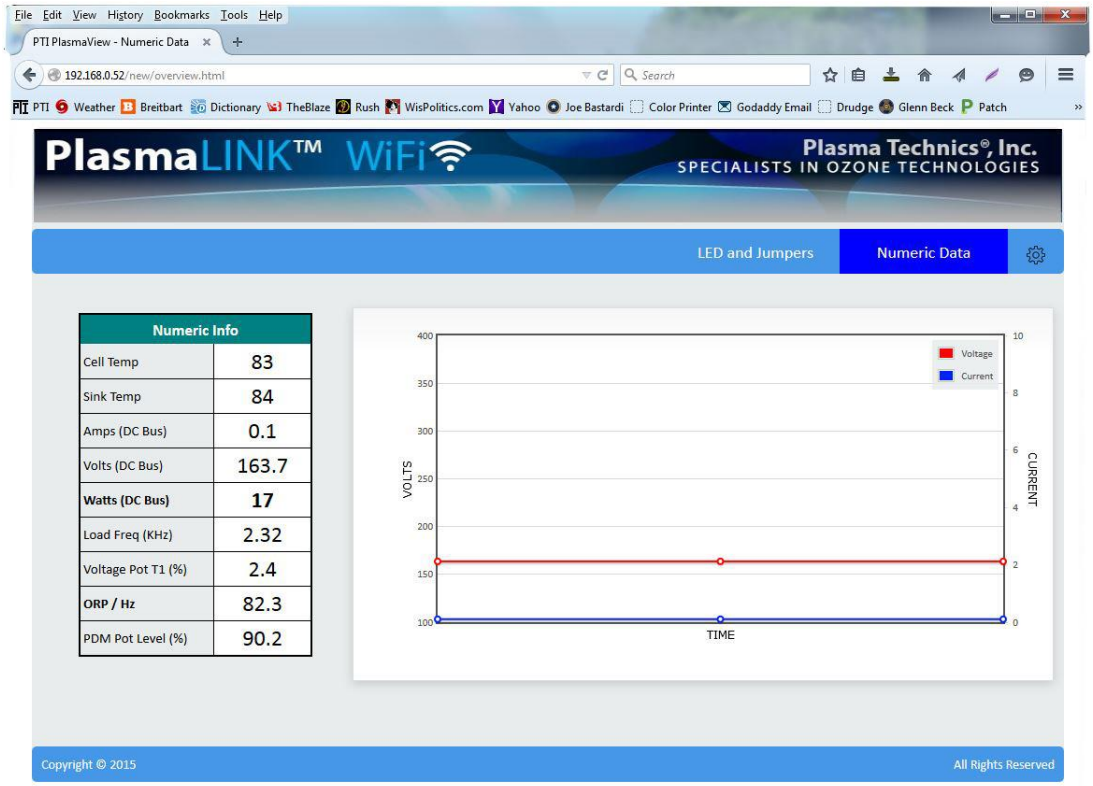
Private IP addresses are in the following ranges:				PTI can configure numbers in these ranges into the PlasmaLINK unit. Numbers outside these ranges are considered Public IP addresses.
FROM	10.0.0.0	TO	10.255.255.255	
FROM	172.16.0.0	TO	172.31.255.255	A customer requesting IP addresses in the 'Public' range must own them before PTI can configure them into the PlasmaLINK unit.
FROM	192.168.0.0	TO	192.168.255.255	

Plasma Technics Inc. 1900 William St. Racine, WI 53404 (262) 637-7180 www.plasmatechnics.com

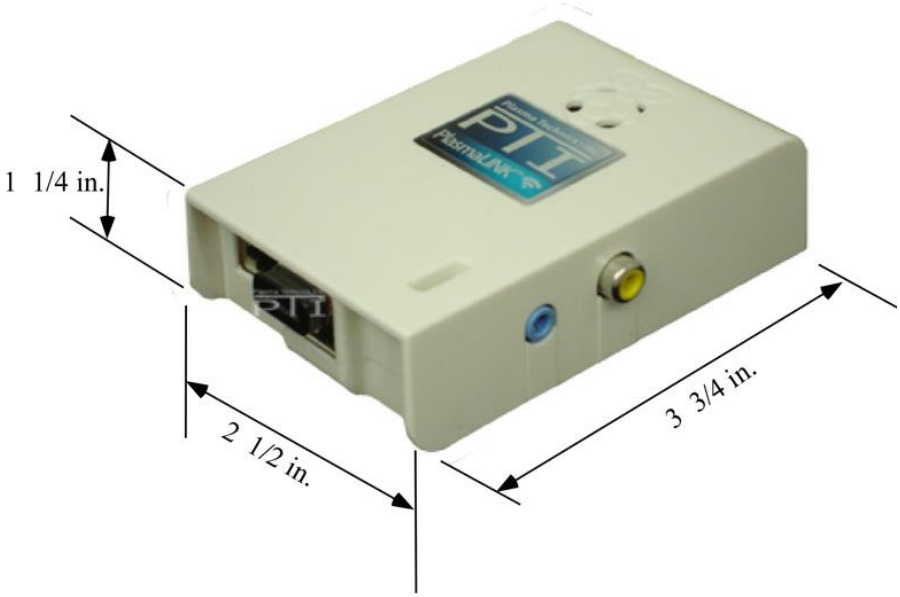
Screen snapshots :

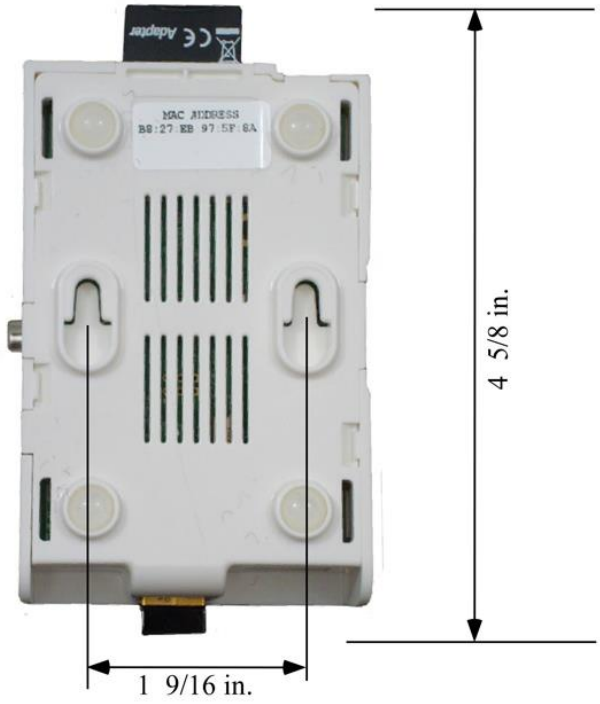
PlasmaLINK will display the following two information screens.





Plasma Link Dimensions





Plasma Blo$_3$ck Performance Summary

Air Cooled	Water Cooled	Model #	Ozone Gr/hr (1)	Pressure PSI (3)	Flow LPM (2)	Power Watts	Heat Load BTU/hr (4)
✓		PBA-10g-E1-UNIV-1Ø-135w-D21	**10g**	5	3	135	460
✓		PBA-20g-E1-UNIV-1Ø-260w-D21	**20g**	5	4	240	890
✓		 PBA-20g-E1-UNIV-1Ø-245w-D21	**18g**	20	2.2	240	890
✓		PBA-30g-A1-120v-1Ø-250w-D11 PBA-30g-A1-240v-1Ø-250w-D11	**30g**	10	5	250	850
✓		PBA-50g-D1-120v-1Ø-440w-D21 PBA-50g-D1-240v-1Ø-440w-D21	**50g**	10	10	440	1,500
✓		 PBA-50g-D1-120v-1Ø-440w-D21 PBA-50g-D1-240v-1Ø-440w-D21	**37g**	20	4.5	440	1,500
✓		PBA-60g-B1-120v-1Ø-500w-D21 PBA-60g-B1-240v-1Ø-500w-D21	**60g**	10	10	500	1,700
✓		PBA-70g-J1-240v-1Ø-700w-D21	**70g**	10	20	700	2400
✓		 PBA-70g-J1-240v-1Ø-700w-D21	**65g**	20	8	700	2400
✓		PBA-120g-C1-240v-1Ø-1000w-D21	**120g**	10	20	1000	3,400
✓		 Dual Cell	**140g** **210g**	20 25	19 53	1400	4,800
✓	✓	PBD-60g-B1-120v-1Ø-500w-D21	**60g**	10	10	500	1,700
	✓	PBW-25g-I1-UNIV-1Ø-260w-D21	**26g**	10	4	260	890
	✓	PBW-150g-C1-230v-1Ø-1200w-D21	**150g**	10	30	1200	4,100
	✓	PBW-300g-C1-240v-3Ø-2400w-D21	**300g**	10	60	2400	8,200
	✓	PBW-450g-C1-240v-3Ø-3600w-D21	**450g**	10	90	3600	12,300

1. All Gen1 ozone data rated @ 5% weight, All Gen2  ozone data rated at 10% weight.
2. Flow measured in LPM via uncorrected Rotameter at inlet port.
3. Typical Ozone output at outlet.
4. Water cooled thermal transfer is to the water. Air cooled is thermal transfer to the air.
5. All Gen2 flow rates are in SLPM, all Gen1 flow rates are LPM.

Plasma Technics, Inc.®

2/13/2018

Plasma Block® Configuration Options - Summary Sheet

Air or Water cooled	Block version	Voltage	Phase	Ozone output (grams) @ 5% wt	Wattage *4	Control board	Oxygen pressure	Oxygen flow	Chassis	Inlet/Outlet fittings
PBA	E1	Univ	1Ø	10	137	D31	5-100 psi	3-10 lpm	Std/Alt	*1
PBA	E1	Univ	1Ø	20	245	D31	5-100 psi	3-10 lpm	Std/Alt	*1
PBW	I1	Univ	1Ø	26	245	D31				
PBA	A1	120 or 240	1Ø	30	250	D11 or D21	5-86 psi	3-20 lpm	Std	*3
PBA	D1	120 or 240	1Ø	50	400	D11 or D21	5-100 psi	3-15 lpm	Std/Alt	*1
PBA	B1	120 or 240	1Ø	60	500	D11 or D21	5-86 psi	3-20 lpm	Std	*3
PBD*	B1	120 or 240	1Ø	60	500	D11 or D21				
PBA	J1	240	1Ø	70	700	D21	5-100 psi	3-20 lpm	Std/Rack	*1
PBA	C1	240	1Ø	120	1000	D11 or D21	5-98 psi	3-30 lpm	Std	*3
PBA	K1	240	1Ø	140	1400	D21				
PBW	C1	240	1Ø	150	1200	D11 or D21	5-98 psi	3-40 lpm	Std	*3
PBW	C1	240	3Ø	300	2400	D11 or D21	5-98 psi	3-60 lpm	Std	*1
PBW	C1	240	3Ø	450	3500	D11 or D21	5-98 psi	3-90 lpm	Std	*1

*1 - none, 1/4, 3/8, other
*2 - none, 1/2, 3/8, other
*3 - none, 1/4m, 3/8, 8mm, 10mm, other
*4 - Units can be configured for lower wattage / less output (consult the factory)
F1 - gas 1/2" water 3/8 F2 - manifold style porting

All Plasma Block® units are shipped with a Model number label and if space permits, a configuration label.