

Ozone-Pro Water Treatment System



The new Ozone Pro Water Treatment System is a computer controlled ozone water sterilization system for recycled irrigation waste water. It was designed specifically for sterilizing greenhouse waste water using CCS Plasma Ozone technology.

The system features a built-in, oil-less air compressor that is used to supply dry, clean air to the Oxygen generator. The oxygen generator produces pure Oxygen which is fed to the plasma Ozone Block to produce Ozone.

This Ozone is injected into the water stream through a special process and blended in a stainless steel tank to dissolve the Ozone in the water.

The dissolved ozone in the water destroys bacteria, viruses, and algae as it comes in contact with O_3 molecules. This water can then be filtered down to with special filters resulting in pure sterilized water without using any chemicals. The dissolved Ozone turns back to pure Oxygen in the water after a very short period of time.

This dissolved oxygen in the water is very beneficial to the plants root zone.

The end results in clean, sterilized water without the use of chemicals. The Oxygenated water is very beneficial to plants, by recovering and sterilizing fertilized irrigation waste water, the grower saves 40% fertilizer cost and 30% water costs. The Ozone Pro greatly improves plant health, brighter colors in flowers and better fruit quality for greenhouse vegetable crops.

The Ozone Pro water treatment systems are available for water flow rates from 5 US GPM to 800 US GPM. Each system is custom designed to suit specific grower's needs. With our water collection and recycling technology complies with environmental regulations and you receive the following benefits:

- Save 40% fertilizer costs
- Save 30% on water usage
- Proven to improve vegetable crop yields by 10%
- Remove bacteria, viruses, and algae in recycled nutrient water
- Systems available from 10 GPM to 800 GPM
- Low power consumption provides low operating costs
- No chemical residue in the water
- Provides dissolved Oxygen in the irrigation water for the root zone

Self Cleaning Automatic Backwashing Water Filters

- Model AT Available from 3/4 ~ 2" or 3" ~ 4"
 - Model ATP Available from 5" ~ 8"



Automatic Time and Pressure Differential Automatic Backwash Operation

Model available from 5 GPM to 800 GPM For irrigation water applications up to a maximum water temperature of 30C (86F) with an operating pressure of 22 - 150 PSI (150 - 1.034 kPa).

Specifications:

- Automatic backwash generated by a time actuated relay with the following available settings: hourly / daily / weekly / monthly with a manual over-ride button.
 - The backwash process uses a patented point-rotation system without any interruption of the water supply or filtration process.
 - Simultaneous cleaning of the sight-glass during the backwash process.
 - Electronic control system with LED display indicators for operation, alarm fault buzzer and manual over-ride button for backwash start-up.
 - 120/24 VAC plug-in transformer (21 VA), 3 prong duplex box outlet with GFI required. Run backwash flush connection to nearest drain hub using an indirect connection.
 - Threaded connection to ANSI B1.20.1.
 - Filter is equipped with 2 potential-free output dry contact remote transmissions for building automation system.
 - Maximum load current 1A; Maximum switching voltage 24V
 - Optional sieve sizes on request..
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- Max. Flow Pressure 150 PSI
 - Mesh Size mm 0.1 x 0.1
 - Model available from 5 GPM to 800 GPM

Ozone Pro

Ozone Pro system is built on stainless steel frame with Ozone & Oxygen Generator, water pump, Ozone Injector, pressure gauge, flow meter, Oxygen regulator, Stainless Blending Tank & ORP and Water meter, panel mount touch screen computer with Ozone Pro Program

CA80 Pro	Ozone Pro Water Treatment System	
Frame	Stainless steel Frame with Stainless steel Tank Width 48" Length 60" Height 72"	
Power	Power Single phase 220 VAC 60 Hz 5 Amps (dedicate 15A AC Breaker) 50 HZ Version available for Export	
Water Pump	Water pump 3 Phase 208/230 VAC or 480 VAC 60Hz 8 Amps / 4 Amps 50 HZ Version available for Export	
Ozone Generator	Plasma Ozone Generator 220 VAC- 2 Amps (Air cooled)	
Oxygen Generator	Oxygen Generator 220VAC 60 Hz 1 Amps	
Air Compressor	Oil less air compressor two stage 1/2 HP Motor 220VAC 60 Hz 3 Amps	
Air Dryer	Desiccant Air dryer continuous self cleaning moisture purging	
ORP Meter	Programmable water meter 24 VDC with Flow sensor	
Water Meter	Programmable ORP meter 24 VDC with ORP sensor	
Level Meters	Programmable water level meter 24 VDC with level sensor	Option
Filters	Inline 1/4" Oxygen line and Air line filters 5 Microns	
Cooling Fans	Cabinet cooling fans 220 VAC 60HZ	
Frame Size	Width 48" Length 60" Height 80	

Ozone Pro Software Program

The Run Time Schedule allows you to set the time periods you want to run the Ozone system over the 24 hour day. There are time programs that can be set to run at different time periods thought the day or night.



The screenshot shows a window titled "Scheduler" with a "Run Time Schedule" table. The table has five columns: Program, Start Time, End Time, Enabled?, and Active?. There are five rows of data.

Program	Start Time	End Time	Enabled?	Active?
1	7.00	10.30	Yes	Yes
2	11.00	12.00	Yes	No
3	13.00	14.00	Yes	No
4	16.00	18.00	Yes	No
5	0.00	0.00	No	No

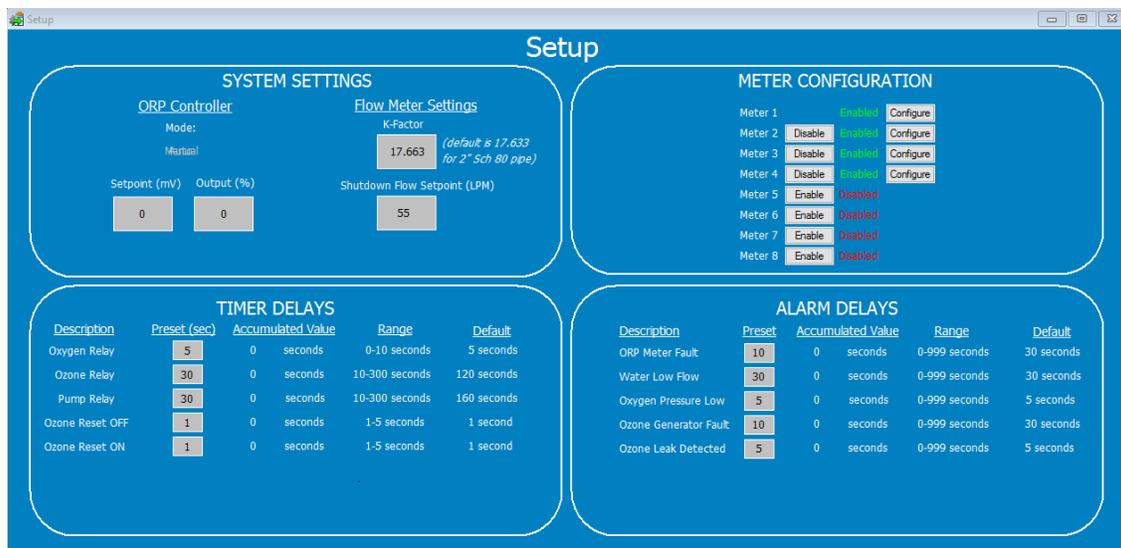
There are a number of meter options that can be programmed as they apply. Meters screen displays ORP, Conductivity, pH, Temperature and Tank Water Levels and Dissolved Oxygen (DO) meter.



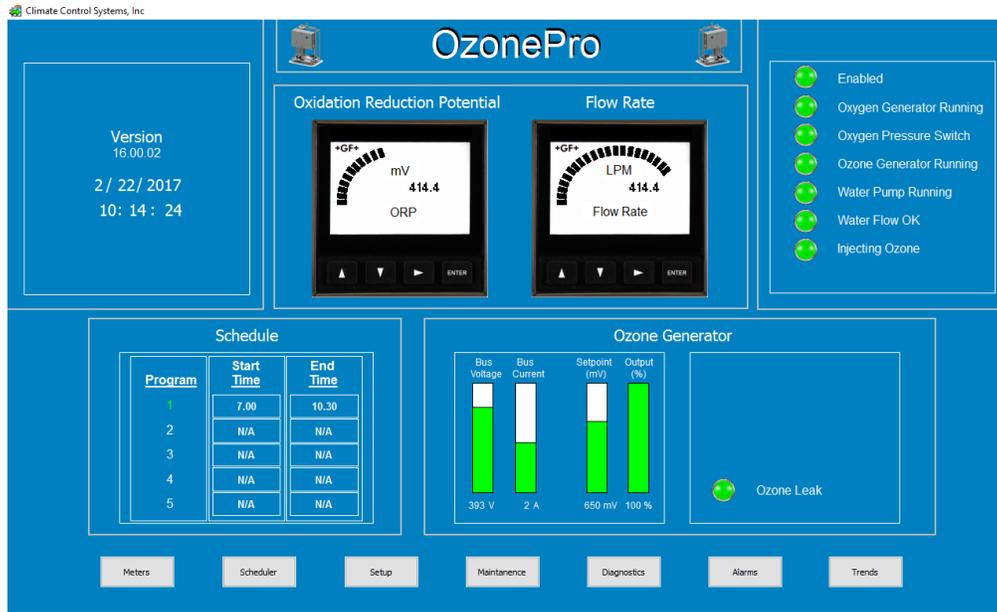
The screenshot shows a window titled "Meters" with eight individual meter displays arranged in a 2x4 grid. Each display shows a unit, a numerical value, and a label.

+GF+ mV 648 ORP	+GF+ M/cm 1750 Conductivity	+GF+ pH 5.60 pH	+GF+ Deg F 72.5 Temperature
+GF+ gal 8550.5 Level	+GF+ gal 9250.8 Level	+GF+ gal 9538.6 Level	+GF+ gal 9355.4 Level

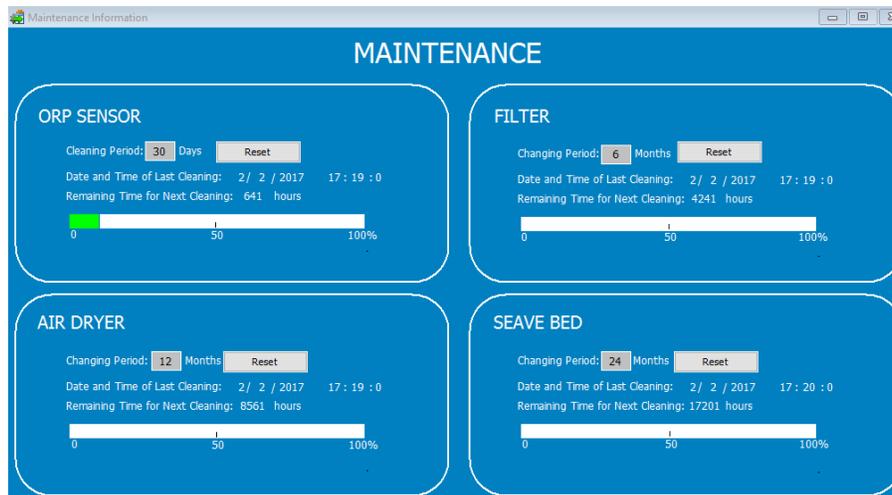
The Set up screen allows you to program the meters required for your system. System settings are for the set points for the ORP meter/controller and the Water Flow Meter Settings. The Meter Configuration section allows you to program specific meters in or out of the program. The Timer Delays section allows you to preset the Oxygen, Ozone and Pump delays. The Alarm Delays section allows you to preset alarm delays for ORP Meter, Water Flow, Oxygen, Pressure, Ozone Level, Generator Fault and Ozone Leak Detection.



The Ozone Pro Screen gives you an overall view of the overall system status and the time schedule. The green indicator LED lights on the right side of the screen indicate that all functions are normal. If the LED lights turn red, it indicates a fault function within the system.



The Maintenance screen allows you to monitor the function of the ORP Sensor, Filter, Air Dryer and Molecular Sieve Cylinders.



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