LENNTECH

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# M SERIES DZONE GENERATOR SYSTEMS

### Features

- Redundant Modular Ozone Chassis Design
- Stainless Steel Floor-Mount Enclosure
- Air-Cooled Ceramic and Titanium Reactor Cell
- Feed Gas Regulator
- Over-Temperature Protection

### **Controls**

- 4-20mA or 0-10VDC Input
- Variable Output Control
- Programmable PID Controller
- Reactor Pressure Control
- Reactor Pressure Gauge
- Feed Gas Flow Control
- Remote On/Off Control

### Complete Integrated Solutions. Single Trusted Source.

### **Powerful and Scalable**

The advanced chassis-based design of the M Series ozone generators is the foundation for a potent ozone production system. It combines the power of Pacific Ozone's patented Floating Plate Technology™ ozone reactor cells with PID control in a 19-inch rack-mountable chassis. Three of the fully

redundant, self-contained chassis' are housed in a stainless steel enclosure. The populated enclosure modules may be combined to form the most powerful air-cooled ozone generators available. Standard configurations of the M Series can produce from 7 pounds per day to more than 50 pounds per day ozone.



Model: 3M24

### Modular Design

Modular redundancy is the key to the M Series' revolutionary chassis-based design, providing unsurpassed reliability. The M Series is engineered to meet demanding ozone process requirements with 4-20mA or 0-10VDC proportional ozone control interface. The standard PID controller is ready to receive feedback signal from your process and provide precise control of the ozone system. The PLUS options for M Series add one or two channels of dissolved ozone detection for input to the standard PID controller.

## M SERIES OZONE GENERATOR SYSTEMS

## Application Example: Mutual Water Systems

Mutual water systems are organized by or for water users in a given district to secure an ample water supply at reasonable rates. Today, mutual water systems are often formed to provide potable water for small-to-medium sized communities in semi-rural or rural areas, ranging from a handful of homes to hundreds.

The powerful M Series ozone generators help mutual water system operators meet increasingly stringent water quality regulations. For example, Pacific Ozone designed and installed an ozone system to serve a 720-home resort community at Clear Lake, California.



### Model: 9M24 Ozone Generator System

The twin banks of 9M24 ozone generators produce up to 1080 grams of ozone per hour and are capable of servicing up to 1,600 homes. Only one 9M unit is required to meet current demand. The second bank provides additional capacity for expansion and system backup.

### **Additional Applications**

The versatility and built-in redundancy of the M Series are ideally suited to a wide range of ozone applications:

• Aquaculture

• Food processing

• Industrial waste water treatment

- Marine/Workboat
- Fresh cut produce processing

### M SERIES OZONE GENERATOR SYSTEMS

Model: 3M23/24



Dimensions: inches [mm]

Note: Drawings of other M Series models are available upon request.

## M SERIES OZONE GENERATOR SYSTEMS

Technical Specifications										
Model/ Part Number	Max. Ozone Production	Max. Ozone Concentration	Max. Reactor Pressure	Feed Gas Flow Range	Power Consumption	Air Cooling	Compressed Air Inlet Fitting	Ozone Outlet Fitting*	Dimensions (HxWxD)	Weight
	lbs./day (grams/hour)	% weight	psig (bar)	scfh (lpm)	watts	scfm (lpm)	inches (mm)	inches (mm)	inches (mm)	lbs (kg)
3M23/ R-MSG0332 (230V)	7.1 (135)	8%	12 (0.8)	10-90 (4.7-42)	1550	720 (20388)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x23.3x19.3 (1251x592x490)	335 (152)
3M24/ R-MSG0342 (230V)	9.5 (180)	8%	12 (0.8)	20-120 (9.4-57)	1700	720 (20388)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x23.3x19.3 (1251x592x490)	340 (154)
6M23/ R-MSG0632 (230V)	14.3 (270)	8%	12 (0.8)	20-180 (9.4-84)	2900	1440 (40776)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x45.6x19.3 (1251x1158x490)	625 (283)
6M24/ R-MSG0642 (230V)	19.0 (360)	8%	12 (0.8)	50-240 (24-114)	3200	1440 (40776)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x45.6x19.3 (1251x1158x490)	635 (288)
9M23/ R-MSG0932 (230V)	21.4 (405)	8%	12 (0.8)	50-270 (24-127)	4400	2160 (61164)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x67.9x19.3 (1251x1725x490)	915 (415)
9M24/ R-MSG0942 (230V)	28.6 (540)	8%	12 (0.8)	50-360 (24-170)	4850	2160 (61164)	1/2" fnpt (12.7 mm)	1/2" (12.7 mm)	49.2x67.9x19.3 (1251x1725x490)	925 (420)

\* Compression fitting.

The 9M model is the largest single M Series unit available. Models beyond the 9M (the 12M, 15M and 18M model) are comprised of combinations of 6M and 9M units. Contact Pacific Ozone for more information.

The PLUS options for all M Series models provide one or two channels of dissolved ozone detection. Single-channel dissolved ozone detection is designated by adding "A1" to the end of the standard part numbers. The dual-channel PLUS option is designated by adding "A2" to the end of the standard part numbers.

#### **Operational Requirements**

- All M Series models have the following operational requirements:
- Electrical Requirement: 230V 50/60Hz, 1 phase 40A circuit, all models
- Minimum Feed Gas Pressure: 6 psi (0.4 bar)
- Feed Gas Air Flow: Model 3M23: 90 scfh (42 lpm), Model 3M24: 120 scfh (57 lpm), Model 6M23: 180 scfh (84 lpm), Model 6M24: 240 scfh (114 lpm), Model 9M23: 270 scfh (127 lpm), Model 9M24: 360 scfh (170 lpm).

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