

# Marathon M91A

## PLASMA-WET ABATEMENT

M91A is the first of its kind microwave and wet abatement system that consumes very low power to break the highly stable materials like fluorinated compounds into smaller molecules.

M91A is developed and tested as a point-of-use abatement system to treat PFCs loaded gases that are mainly found in today's demanding semiconductor and flat panel display process chemical industries.

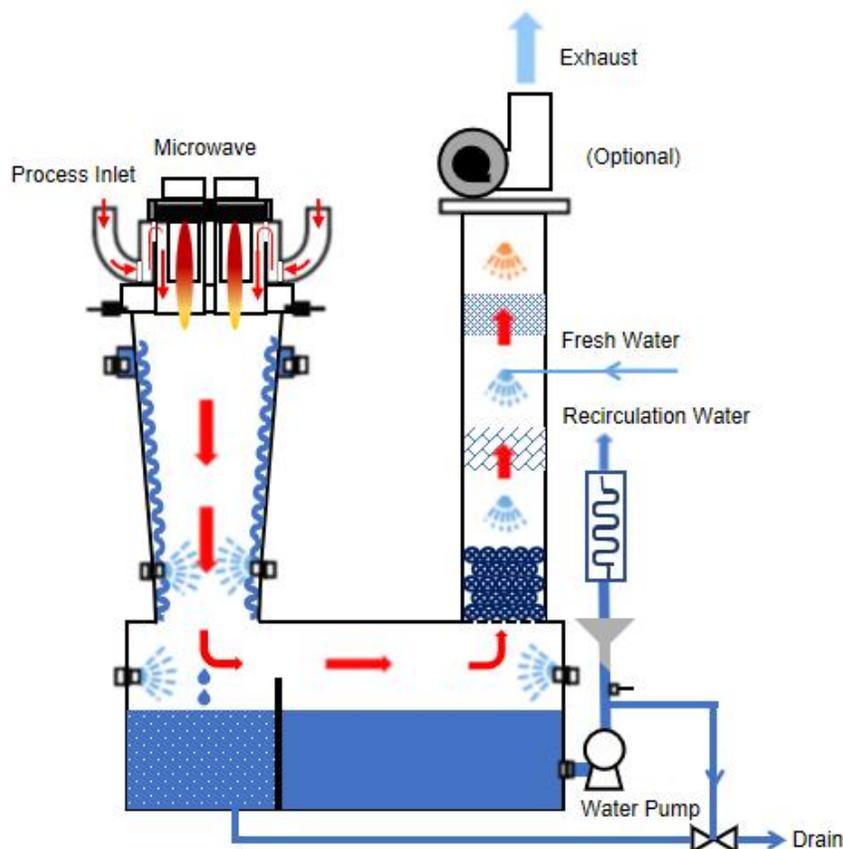
M91A meets the industry standard for controlled decomposition and oxidation treatment of fluorinated greenhouse gases.

### APPLICATION

- Semiconductor
- Flat panel display

### ADVANTAGES

- Low power consumption
- Excellent PFCs abatement efficiency
- Limited NOx and COx emission
- High flow capacity
- Low cost of ownership
- Ease of installation and services
- SEMI S2 compliance, CE marked
- Ethernet ready



## OPERATING PARAMETERS

Process Gas Capacity	600 slm
Cooling Water Consumption	20-40 lpm (Process Dependent)
Fresh Water Consumption	2 – 4 lpm (Process Dependent)
Clean Dry Air (CDA) Consumption	120 slm Max (Process Dependent)
N2 (System) Consumption	50 slm (Process Dependent)
Process Exhaust Static Pressure	-5 to -2.5" w.c.
Cabinet Exhaust Static Pressure	-0.40" w.c.
Power Consumption	8,200 watts (Process Dependent)

## FACILITIES REQUIREMENTS

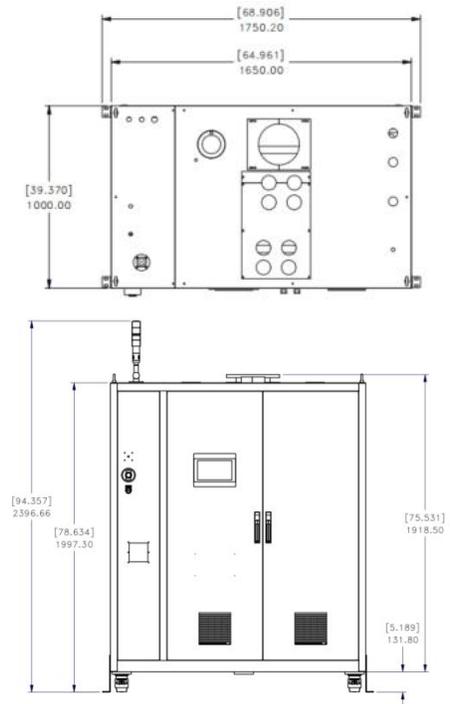
Process Connections	4 Inlet Process Ports KF40
Clean Dry Air (CDA)	90±10 psi 1/2" compression fitting
N2 (System)	90±10 psi 1/2" compression fitting
Fresh Water	40 – 60 psi 1/2" compression fitting
Process Cooling Water	55 – 75 psi 1" FNPT
Drain	1" FNPT
Process Exhaust	-5.0" to -2.5" w.c. 8"ANSI PVC FLANGE
Cabinet Exhaust	-0.40" w.c. 6" (152mm) Metal Duct
Electrical Supply	380 VAC @ 50/60 Hz 17A , 3 Phase, 5 Wires
Overall Dimensions (HxWxD)	80.72 H x 64.96 W x 39.37 D in (2050.30 x 1650.00 x 1000.00 mm)
Clearance	Front– 35.43" (900 mm) Left, Right– 23.62" (600 mm) (Optional) Rare – 23.62" (600 mm) (Optional)

## COMMUNICATION AND INTERLOCKS

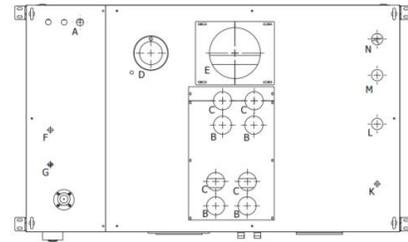
- Multiple dry contacts to meet customer-defined requirements
- Ethernet Ready
- Supports Central Monitoring System (CMS)

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## Product Dimensions



## Facilities Connection



	DESCRIPTION	CONFIGURATION	CONNECTION
A	Power Required	380 VAC, 17A, 3 Phase, 5 Wires	50/60 Hz
B	Process Bypass	4 Bypass Port	KF40
C	Process Inlet	4 Inlet Port	KF40
D	Cabinet Exhaust	6" (152 mm) SST or FRP	6" (152 mm) Metal Duct
E	Process Exhaust	8"ANSI PVC FLANGE	8"ANSI PVC FLANGE
F	Clean Dry Air (CDA)	90±10 psi	1/2" Compression Fitting
G	Nitrogen (System)	90±10 psi	1/2" Compression Fitting
K	Fresh Water	40-60 psi	1/2" Compression Fitting
L	Process Cooling Water Supply	55-75 psi	1" FNPT
M	Process Cooling Water Out	--	1" FNPT
N	Drain	--	1" FNPT