

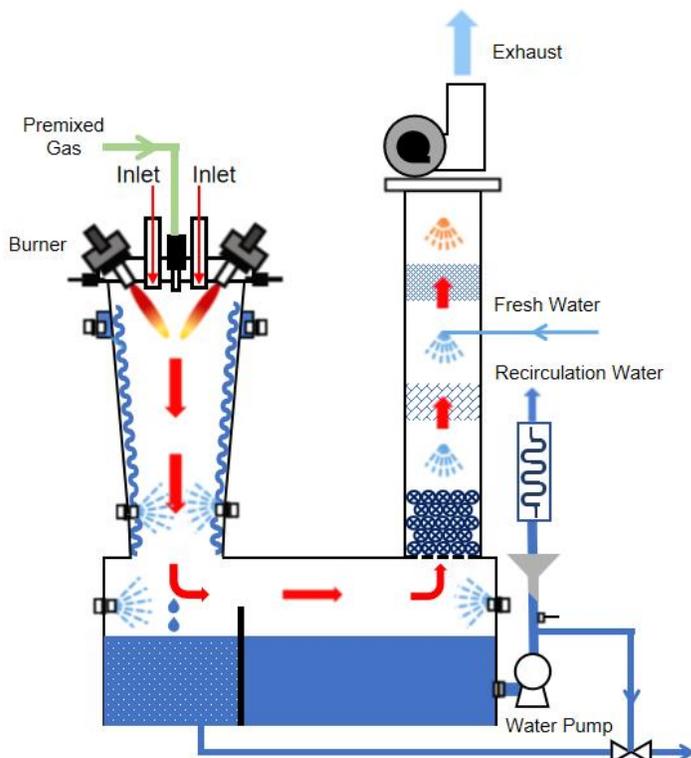
Marathon M91

INTEGRATED COMBUSTION & WET ABATEMENT

M91 is an integrated combustion & wet abatement system.

M91 is designed to effectively remove process gases through the inlet into the flame area of the main combustion chamber by means of combustion or pyrolysis. Moreover, the flowing water forms waterwall in the inner wall of the combustion chamber and can effectively prevent byproduct deposition while cooling the outer wall of the combustion chamber. The multiple nozzles at the lower end of the combustion chamber can effectively absorb water-soluble harmful substances.

M91 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 NO_x and CO_x 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	600slm
Cooling Water Consumption	30-35 lpm (8-9 GPM) (Process Dependent)
Fresh Water Consumption	2 – 4 slm (Process Dependent)
Clean Dry Air (CDA) Consumption	Max 200 slm (Process Dependent)
Methane (CH4) Consumption	20 slm (Process Dependent)
N2 (System)	10 slm (Process Dependent)
Oxygen (O2) Consumption	20 slm (Process Dependent)
Process Exhaust Static Pressure	-5 to -2.5 " w.c.
Cabinet Exhaust Static Pressure	-0.40" w.c.
Power Consumption	1,850 watts

FACILITIES REQUIREMENTS

Process Connections	4 Inlets Process Port KF40
Clean Dry Air (CDA)	90±10 psi 1/2" compression fitting
N2 (System)	90±10 psi 1/2" compression fitting
Methane (CH4)	3 - 7 psi 1/2" compression fitting
Oxygen (O2)	5 - 30 psi 1/2" compression fitting
Water Supply 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	380/400 VAC, 50/60 Hz 20 A , 3 Phase, 5 Wires
Overall Dimensions (HxWxD)	81.20"H x 55.32"W x 39.37"D IN (2,062.46 x 1,405.00 x 1,000.00mm)
Clearance	Front, Rear – 35.43" (900 mm) Left, Right – 23.62" (600 mm)

COMMUNICATION AND INTERLOCKS

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

EcoSys Pte. Ltd.

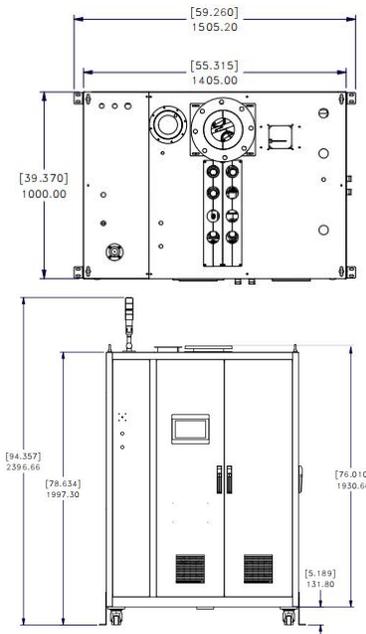
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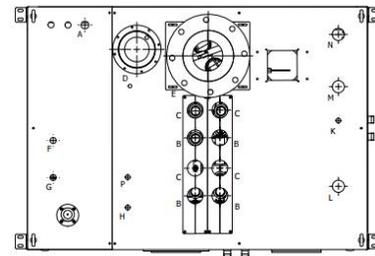
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Product Dimensions



Facilities Connection



	DESCRIPTION	CONFIGURATION	CONNECTION
A	Power Required	380/400 VAC, 16A, 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" (152mm) SST or FRP	6" (152mm) 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	N2 (System)	90 ± 10 psi	1/2" Compression Fitting
H	Methane (CH4)	3 - 7 psi	1/2" compression fitting
P	Oxygen (O2) (Optional)	5 - 30 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