

Marathon M91U

INTEGRATED COMBUSTION & WET ABATEMENT

M91U is industry standard for reliable, integrated combustion & wet abatement system with dual reactors.

M91U inherits all the best features of M91 and it has a second reactor to increase the processing capacity or act as a fault-tolerant mechanism to reduce the system downtime. The newest addition of the sedimentation compartment in the sump tank can further separate and drain away the heavy particulates water from the system.

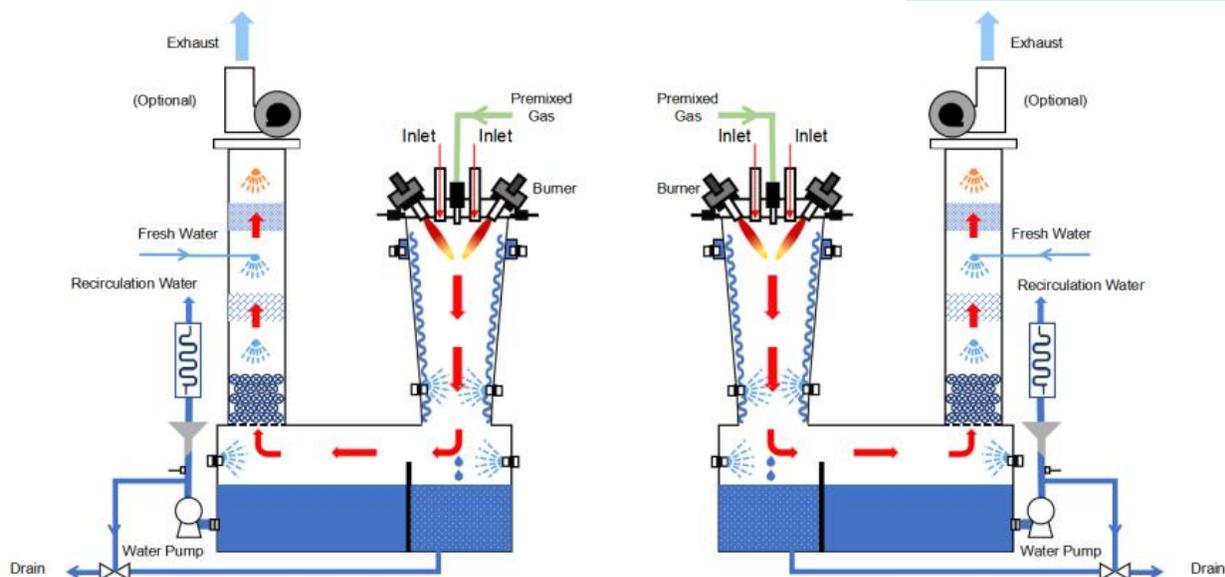
M91U has extensive range of optional components available to be installed to meet with your specific needs. M91U is an all-in burn/wet abatement system that meets the industry standard for today's demanding semiconductor industry.

APPLICATION

- Polysilicon
- CVD
- Pyrophoric/flammable gas combustion
- Gas cabinet vent purge

ADVANTAGES

- Dual reactor
- Fault-Tolerant Capability
- Low power consumption
- Limited NOx and CO emission
- High flow capacity
- Reduced water consumption and recirculating water system
- Low cost of ownership
- Ease of installation and services
- SEMI S2 compliance, CE marked
- Ethernet ready
- Extensive range of optional components available to meet with specific needs



OPERATING PARAMETERS

Process Gas Capacity	600 - 1000 slm
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 500 slm (Process Dependent)
Methane (CH4) Consumption Optional : LPG H2	50 slm (Process Dependent)
N2 (system) N2 (purge)	2 - 20 slm (Process Dependent) 2,500 slm (Optional)
Process Exhaust Static Pressure	-5 to -2.5" w.c.
Cabinet Exhaust Static Pressure	- 0.40" w.c.
Power Consumption	3,600 W (Process Dependent)

FACILITIES REQUIREMENTS

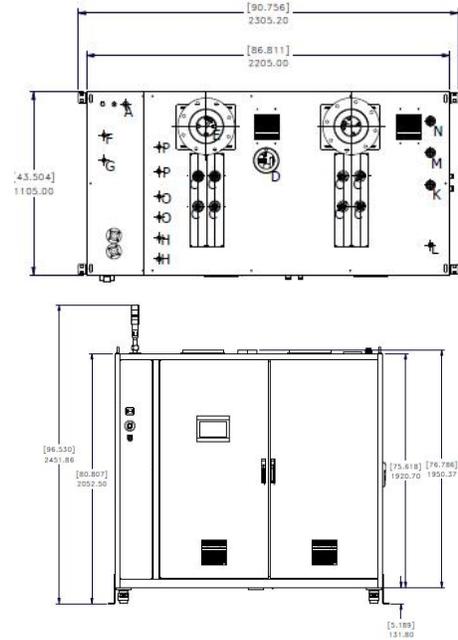
Process Connections	4 Inlet Process Ports KF40
Clean Dry Air (CDA)	90±10 psi 1/2" compression fitting
N2 (system) N2 (purge) (Optional)	90±10 psi 1/2" compression fitting 90±10 psi 1/2" compression fitting
Methane (CH4)	3 - 7 psi 1/2" compression fitting
Water Supply Fresh Water	40 – 60 psi 1/2" compression fitting
Process Cooling Water	55 – 75 psi 1" FNPT
Drain	1" FNPT
Process Exhaust	-1.0" to -5.0" w.c 6" ANSI PVC FLANGE
Cabinet Exhaust	-0.40" w.c. 6" Stainless Steel or FRP
Electrical Supply	220 VAC, 50/60 Hz, 11A , 3 Phase, 4 Wires
Overall Dimensions (H x W x D)	76.786 H x 86.811 W x 43.504 D (1,950.37 x 2,205.00 x 1105.00 mm)
Clearance	Front- 17.32" (440 mm) Left, Right -23.62"(600mm)(Optional) Rear – 17.32" (440 mm)(Optional)

COMMUNICATION AND INTERLOCKS

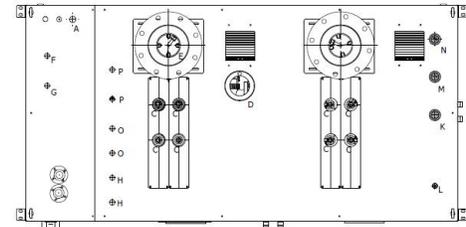
- Multiple dry contacts to meet customer-defined requirements
- Ethernet Ready
- Supports Central Monitoring System (CMS)

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Product Dimensions



Facilities Connection



	DESCRIPTION	CONFIGURATION	CONNECTION
A	Power Required	220 VAC, 11A, 3 Phase, 4 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	6" ANSI PVC FLANGE	6" 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
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
O	Oxygen (O2)	90±10 psi	1/2" Compression Fitting
P	Nitrogen, Purge (Optional)	90±10 psi	1/2" Compression Fitting