

Energetic Materials Abatement Technology

CHEM'BOT EnMAT is a state of the art Chemical Delivery System for Energetic Materials like TMAI (Trimethylaluminum). The delivery system has an integrated leak containment and abatement system developed, designed and manufactured by Basis Solutions LLC.

Dangerous pyrophoric Metal Organics are applied in numerous semiconductor processes, and the increased risks and needs for operational safety have never been greater. CHEM'BOT EnMAT stands for the utmost in safety and reliability in semiconductor Metal Organic Delivery Systems - everything integrated with minimum foot print.

Maximum Safety and Purity

Proven automatic purge cycles and system monitoring ensures a safe container change-out and prevents contamination of the sensitive chemicals. CHEM'BOT itself offers maximum safety and with the integrated safety system offers maximum risk protection.

Highest Up-Time and Reliability

CHEM'BOT is specifically designed for use in the semiconductor industry. A buffer tank with level sensor, robust and open design enables maximum up-time and reliability. Larger source tanks ensure a cost-efficient and secure supply for your production.

Advanced Monitoring and optimized Footprint

The CHEM'BOT system is fully automated and includes a PLC with touch screen. The controller monitors the system and ensures automated removal of chemicals from pigtail connections for safe container changeouts. Furthermore, intelligent consumption monitoring enables maximum chemical use and reliable, cost saving distribution of precursor. CHEM'BOT EnMAT integrates the unique safety system with no additional space requirements making the system the perfect choice also for replacements in existing fab infrastructures.



Minimum Footprint with Maximum Safety



Together with our partner Basis Solutions LLC we have designed a fully integrated self-contained safety control system which monitors and controls the environment within the CHEM'BOT, while keeping a minimum footprint of the cabinet. In the event of a liquid leak, CHEM'BOT EnMAT will contain and abate any leaked pyrophoric metal organic without fire, damage, or particle contamination to the fab. Thus, CHEM'BOT EnMAT provides maximum incident mitigation and secures continuous production.



System Features

- Fail save PLC
- 12" color touch screen interface with clear intuitive HMI
- Proven auto-sequenced routines for all aspects of operations and maintenance
- Configurable parameter settings
- Fill Level Detection
- Diagnostics screen and Data logger
- According to Semi S2
- UHP orbital welded dead volume minimized design
- CLASS 100 clean room assembly

Please contact us to customize your CHEM'BOT EnMAT. Our experienced engineers will be happy to assist you.

Technical Data

Dimensions:

585 (w) x 2305 (h) x 650 (d)

Weight:

~300 kg

Electrical Connection:

1 x 110 - 240 V-AC

50/60 Hz NSV

Inlets:

1 x 1/4" Purge gas Inlet (8-9 bar)

1 x 1/4" Push gas Inlet (8-9 bar)

1 x 1/4" Pneumatic Inlet (8 - 9 bar)

Outlets:

1 x 1/4" Process line 1 - 4

1 x 1/2" Vacuum

