

# Safely Managing Metal Organics

CHEM'BOT LCAS is a state of the art Chemical Delivery System including Basis Solutions Leak Containment and Abatement System (LCAS). 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 LCAS stands for the utmost in safety and reliability in semiconductor Metal Organic Delivery Systems.

## 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 LCAS 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 Control

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.



## LCAS: Leak Containment & Abatement System



LCAS is a self-contained safety control system, which can be added on to CHEM'BOT or VAPOR'BOT. LCAS monitors and controls the environment within the CHEM'BOT. In the event of a liquid or vapor leak, LCAS will contain and abate any leaked pyrophoric metal organics without fire, damage, or particle contamination to the fab. LCAS provides maximum risk mitigation and protects against disruption to production.

LCAS has been developed by our partners at Basis Solutions LLC.

## System Features

- Fail save PLC control
- 7" color touch screen interface with clear intuitive HMI
- Proven auto-sequenced routines for all aspects of operations and maintenance
- On screen warnings, alarms, prompting and instructions
- Settable limits for all parameters
- Fill Level Detection
- Emergency Off
- Diagnostics screen and Data logger
- UHP 316L SS
- UHP orbital welded dead volume minimized
- Helium leak tested to  $1 \times 10^{-9}$  atm\*cc/s
- CLASS 100 clean room assembly

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

## Technical Data

### Dimensions:

1450 (w) x 2050 (h) x 610 (d)

### Weight:

~600 kg

### Electrical Connection:

1 x 110 - 240 V-AC  
50/60 Hz NSV  
1 x 110 - 240 V-AC  
50/60 Hz UPS (OPTION 13)

### Inlets:

1 x 1/4" VCR Purge gas Inlet (8-9 bar)  
1 x 1/4" VCR Push gas Inlet (8-9 bar)  
1 x 1/4" SW Pneumatic Inlet (8 - 9 bar)

### Outlets:

4 x 1/4" VCR Process line  
1 x 1/2" VCR Vacuum  
1 x 101,6 x 1,2 mm Exhaust

