MABAT

CDDU-3000 (slurry)
Chemical dilution & delivery unit

The CDDU3000 designed to mix slurry, H_2O_2 and DI water or any other additives to a final mixture at required concentration. CDDU3000 is a full automatic system with the option of local manual operation.

The system provide with one delivery tank, one smaller buffer tank.

CDDU3000 has 2 options for mixture preparation. One based on batch preparation in the buffer tank and delivery to the Delivery tank. The second is an online mixing in the delivery tank, when the buffer tank use for holding the concentrated slurry.

On line H_2O_2 analyzer is optional. The analyzer provides real time data to support H_2O_2 replenishment.

Standards

MABAT hold the ISO standards of ISO 14001 and ISO 9001, and is a member at the SEMI org. for the last 5 years.

All products are design and manufacture according to the above standards.
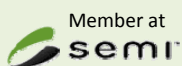
- Handles most aqueous Slurries
- Small footprint
- Front maintenance access
- Utilities located at high level for easy connection
- Can supply multiple POCs on demand, supply during internal circulation
- Polypropylene cabinets with height adjusting feet mounted on a stainless steel chassis
- High Level resolution touch screen for local operation
- All chemical handling pathways, tubing and valves utilise PFA
- Pneumatic actuation of valves, transfer and delivery chemical pumps
- Cabinet base acts as leak containment and any spills are automatically pumped to drain
- Slurry and delivery tanks are having wet N_2 blanket during operation

Principal of dilution

The amount of each chemical and DI is calculated according to required consternation and operator parameters, and transfers to the buffer or delivery tank (for mixing) in the same time and in the same ration. Chemical volume is measured with load cell.

H_2O_2 provide from external CDU and measure by load cell and supply to the tank by dosing pump.

DI water is measured by double flow meters.

Mixture can be prepared in two forms:
- Online mixing in the delivery tank for a full batch
- Mixing in the buffer tank and filling the delivery tank with a small batches at a time

Options

- Cabinet MOC — FM compliant plastics, or other according to customer requirements
- Sample chamber for on line sampling
- Filter housing(s) sized according to process requirements
- Stirrer — Stirrer and pneumatic motor for the mixing and delivery tank
- Suppressor — For delivery pumps
- H_2O_2 Analyzer

Member at semi

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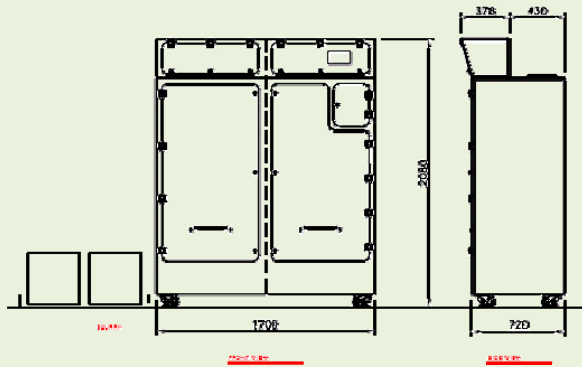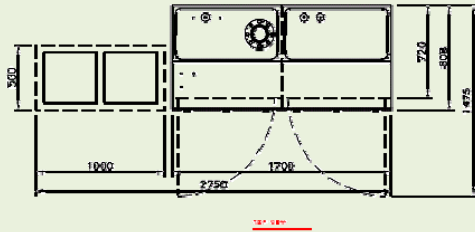
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MABAT can offer a turn-key solution if required and have their own experienced team or approved local contractors to ensure project installation and acceptance dead-lines are achieved.

MABAT have a range of products to suit most applications and can also provide custom built systems for non-standard requirements. Site visits can be arranged to ensure the end user's exact needs are understood and catered for.

Please contact our offices to obtain advice and quotations.

For applications outside any system's specification or capabilities please refer to our local representative or the MABAT Headquarters at Kiryat Gat.

MABAT have more than 25 years experience supplying systems to the Semiconductor and Solar Cell manufacturing industries.

Contact details

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Dimensions

	Height	Width	Depth
Process cabinet	2,080 mm	1,700 mm	720 mm
Analyzer cabinet *	2,080 mm	600 mm	720 mm

* Optional

Utilities Needed

N$_2$	1 m^3/hr. at 2 bar
CDA	10 m^3/hr. At 5-7 bar
Exhaust	500 m^3/hr.
Drain	10 l/min. (top connection)

Electrical- top location

Supply	24VDC 6A
PLC	ABB
Touch Screen	Exter

System Delivery Volumes

Output	Up to 30 lpm as required by the application

Construction Materials

Std CDU	White PP or other, on a coated stainless steel chassis
Mixing Tank	Natural PP
Tubing	HP PFA
Valves	HP PFA
Pumps	PTFE/HP440PFA or SS for Solvents

Reliability

Uptime	>99.9%
MTBF	2500 hours
MTBA	250 hours
MTTR	2 hours, subject to spares being available on site