



The CDDU2000 is a chemical dilution and delivery system, designed to dilute and supply from two independent mixing tanks.

Each mixing tank utilises load cell and level transmitters.

Each tank can dilute one chemical with DI, according to operator parameters and process requirements.

The two tanks hold dilute chemical, when the on-line tank becomes empty the system automatically switches to the off-line tank and the empty tank is then available for a new batch to be prepared.

The system has two pumps with filters. The two pumps are used for internal circulation and final delivery to the POC.

Standards

MABAT work to ISO 14001 and ISO 9001 standards, and is a member of SEMI.

All products are manufactured according to SEMI guidelines and are CE marked.



CDDU-2000 Chemical dilution & delivery unit

- Handles most aqueous chemicals
- Each of the on-board chemical tanks tanks can be used for different volumes and dilution concentrations. Each tank can also be used for back-up for complete automatic redundancy
- Small footprint
- Front maintenance access
- Utilities located at high level for easy connection
- Can supply multiple POCs on demand
- 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

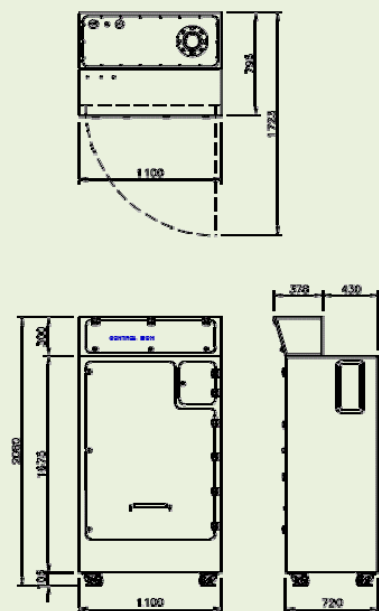
Principal of dilution

After full data is entered, via the control panel, of the required mixture, DI water fills the mixing tank to the required volume, based on load cell measurement. Chemical is then added in the pre-selected volumes and the mixture is re-circulated to ensure a homogenous blend.

In order to supply the chemical and the DI water to the highest accuracy, the system utilises High flow and Low flow sets of valves. Starting with the High flow and switching to the Low flow, for the final amount up to the set-point.

The chemical blend is based on, raw material concentration, target concentration and process requirements. Factors such as chemical density and viscosity are factored into our calculations that are loaded into the control system

CDDU-2000 Chemical dilution & delivery unit



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
- Other materials for wetted surfaces are available, please contact your local office for more information

Dimensions

| | Height | Width | Depth |
|-----------------|----------|----------|--------|
| Process cabinet | 2,080 mm | 1,100 mm | 720 mm |

Utilities Needed

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

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.

CDDU-2000 Chemical dilution & delivery unit

Electrical

| | |
|--------------|----------|
| Supply | 24VDC 6A |
| PLC | ABB |
| Touch Screen | Exter |

System Delivery Volume

| | |
|--------|---|
| Output | Up to 15 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 |



Contact details

Kiryat-Gat, ISRAEL
Tel. + 972.8.660.1320
US toll free + 1.866.908.6297
UK +44 (0) 1825 733503
info@mabat-systems.com
www.mabat-systems.com