



## SD 1104-21



The SD Series is equipped with two patented U 2000 Drying Units. It is engineered for medium to long-term constant low humidity storage of 1 - 2% RH.

Humidity, temperature and alarm functions are shown and can be adjusted on a digital display.

The circulation of air in the cabinet is regulated through an internal fan.

All surfaces are ESD coated in conformity with current ESD 61340-5-1 standard.

The SD-1104-21 is ideal for the moisture-proof and anti-oxidation storage of wide-ranging technologies and conforms with IPC/JEDEC J- STD 033C & IPC-1601.



## Features

- **Accuracy of sensor RH% & T°C**
- **Lockable doors**
- **ESD safe design**
- **Shelves**
- **Door alarm**
- **Dry unit**
- **ESD bonding point**
- **21 series digital panel**
- **Pre mounted holes**
- **Power supply**
- +/- 3% RH +/-0.3 °C
- 4 doors locked with key
- Norm (IEC 61340-5-1)  
ESD metal painted body (10<sup>6</sup> Ohm/sq).  
Dissipative glazing (inside and outside 10<sup>8</sup> Ohm/sq)
- 5 height adjustable chrome steel shelves
- Door is equipped with a switch which triggers the humidity or door alarm if the preset value is exceeded.
- U 2000 Dry Unit (2 pieces)
- ESD wristband can be connected with the cabinet
- Very convenient settings of RH%, temperature, alarm and calibration functions.
- For nitrogen unit & heater
- 5 meter cable with IEC plug

## Benefits

- **Maintenance**
- **Highly energy sufficient**
- **Option availability**
- **Recovery time after door opening**
- **Adjustable legs**
- **Datalogging**
- **Temperature**
- **IPC**
- The drying unit is maintenance free.
- Average power consumption 35 W/h.
- N2 Auto Flow, Heating, SMD Reel Racks, etc.
- <35 min to below 1%. (after 1 door opening)
- For levelling out.
- Through network with software.
- Maximum 40 °C (optional)
- According to IPC/JEDEC J- STD 033C & IPC-1601



## Technical Data Cabinet

- External dimensions: (W x H x D) 1200 x 1675(1840) x 658(768) mm
- Internal dimensions: (W x H x D) 1190 x 1533 x 630 mm
- Weight: 176 kg
- Max weight on shelf: 50 kg
- Max loading capacity: 300 kg
- Body: Steel, conductive coated  $10^6$ - $10^8$   $\Omega$ /sq
- Shelves (W x D): 5 pcs, 1150 x 490 mm adjustable
- Volume: 1179 L
- Voltage: 230 V AC (120 V AC optional)
- Power consumption: 70 W/h
- Dry Units: 2 U-2000 Dry Units
- Protection class: Hard grounded, Class 1
- Humidity level cabinet: Drying 1 – 2% RH \*

\*(depending on amount of door openings)

## Technical Data Dry Unit U-2000

- Control: Adjustable with 21 series control panel
- Voltage level: 230 V/50 Hz. (optional 120 V/60 Hz)
- Power consumption: 35 W/h
- Dimensions: W x L X D = 260 mm x 380 mm x 100 mm
- Weight: 8.1 kg.

## Technical Data 21 Display

### Settings:

- Nominal humidity value
- Nominal humidity value alarm (light)
- Time delay humidity alarm
- Nominal temperature value
- Door alarm buzzer
- Offset possibilities



## Technical Data N<sup>2</sup> (Auto) Flow

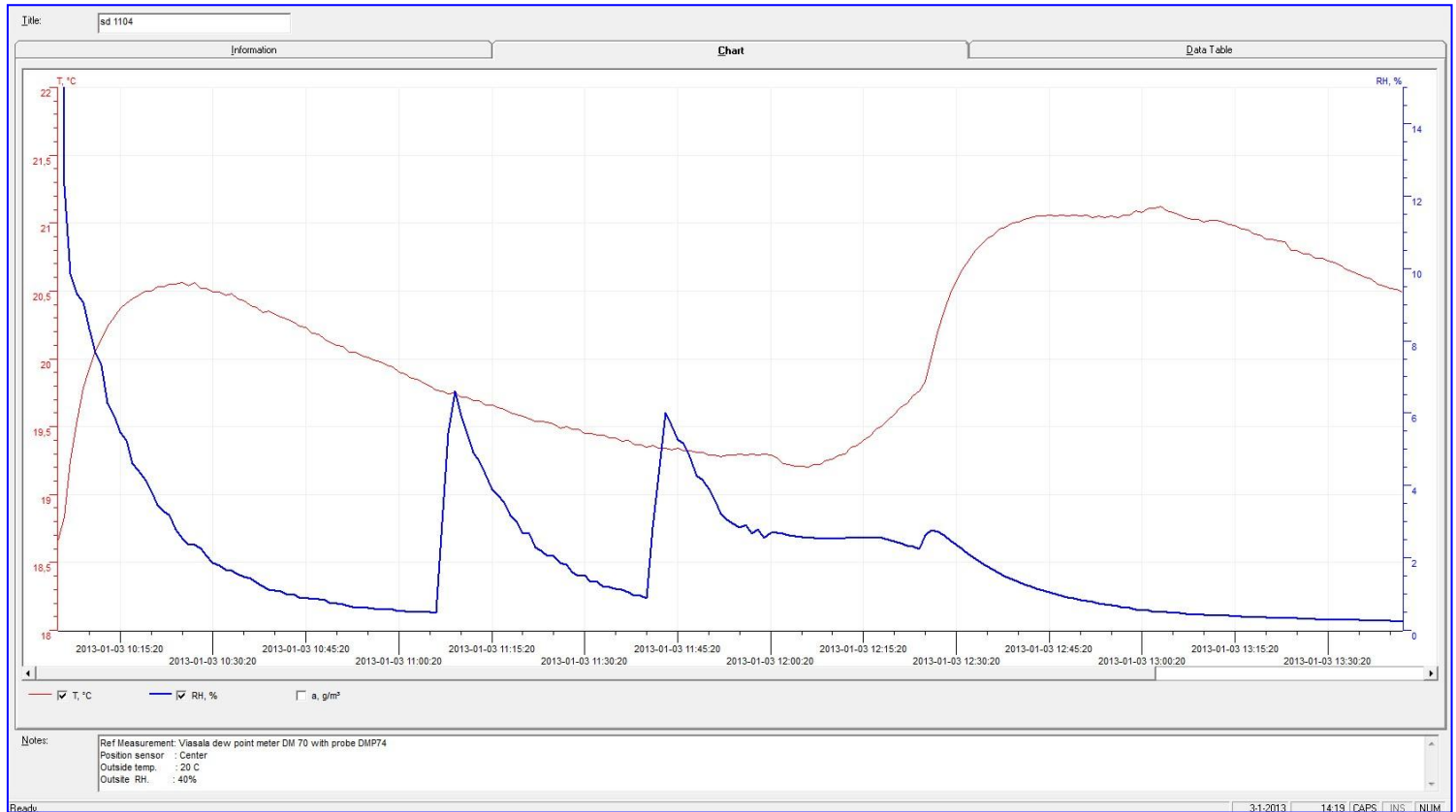
- Power supply: 230 V AC (110 V AC optional)
- N<sup>2</sup> Connection: 8 mm hose connection
- N<sup>2</sup> Pressure: 1 – 6 bar
- N<sup>2</sup> Standby- amount: 0 – 25 L/min
- N<sup>2</sup> Purge: 0 – 25 L/min

## Technical Data Heater SH 230-4

- Voltage: 230 V AC (110 V AC optional)
- Frequency AC: 50/60 Hz
- Power: 780 W
- Temperature sensor: PTC 100
- Thermal protection: 90 °C
- Temperature range: 30 – 40 °C
- Air Flow: 86 M<sup>3</sup>/H
- Display tolerance: 1 digit at 25 °C



## Performance



## Test conditions



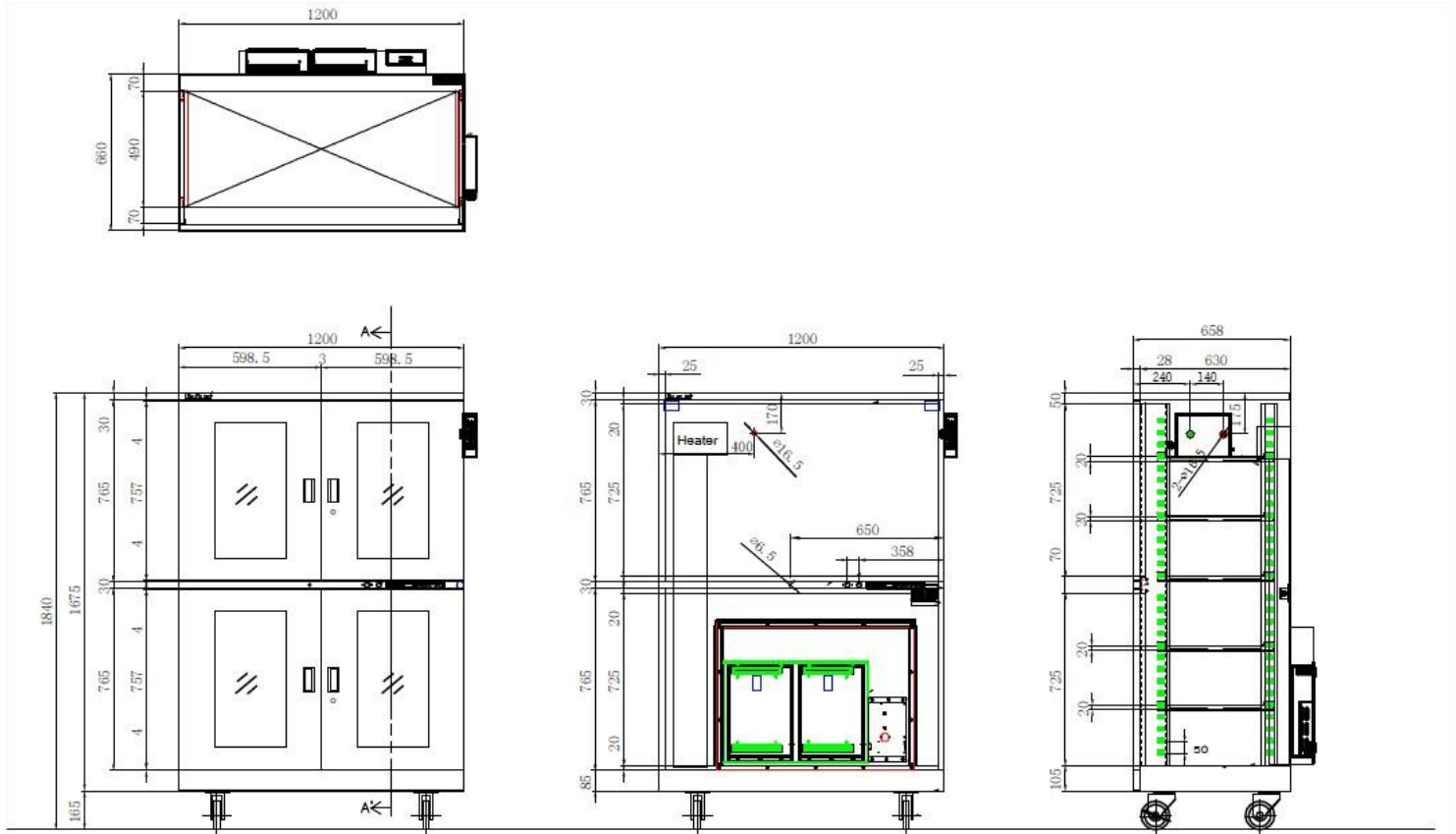
Instrument:  
 Type of dew point sensor:  
 Accuracy of dew point sensor:  
 Location of sensor:  
 Ambient conditions:  
 Door openings:

Vaisala.  
 Vaisala drycap 180M  
 $\pm 0.2^{\circ} \text{C}$  at  $+ 20^{\circ} \text{C}$  ( $+ 68^{\circ} \text{F}$ )  
 In the direct surrounding of cabinet sensor  
 Humidity  $50 \pm 5\% \text{ RH}$ ,  $25^{\circ} \pm 2^{\circ} \text{C}$ , Pressure  $994 \pm 20 \text{hPa}$ .  
 2 door openings, 15 sec. (average RH 0.70%)



## Technical Drawings

### SD 1104-21



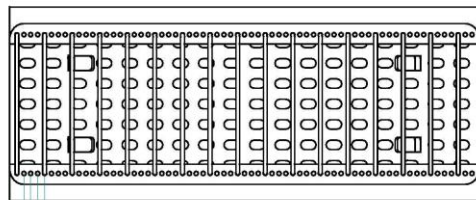
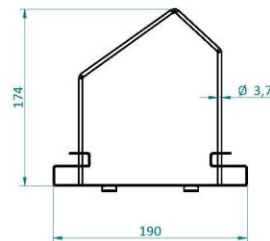
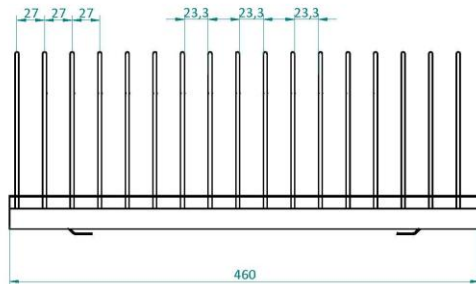
Dimensions in mm.

Number of shelves bottom section	2	3	4	5
Distance (in mm) between shelves if equally spaced in bottom section	230	180	130	80
Remaining space between top shelf and middle beam	230	130	105	175
Remaining space between bottom shelf and bottom cabinet	225	175	75	125
Loading capacity shelves m <sup>2</sup> (1155 mm x 490 mm)	1,13	1,72	2,264	2,83
Number of shelves top section	2	3	4	5
Distance (in mm) between shelves if equally spaced (if bottom shelf is mounted at lowest possible position in top section)	330	230	180	130
Remaining space between top shelf and top beam	375	225	225	125
Remaining space between bottom shelf and middle beam	0	0	0	0
Loading capacity shelves m <sup>2</sup> (1155 mm x 490 mm)	1,13	1,72	2,264	2,83
Shelves are adjustable every mm	30	30	30	30

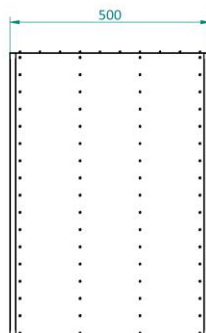
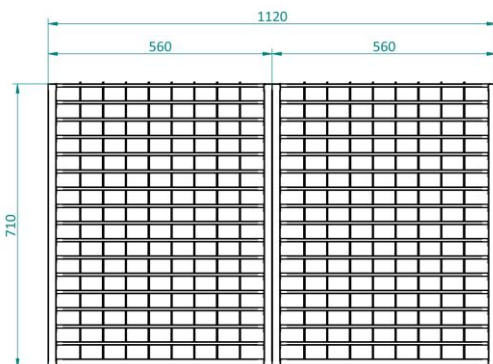
Measurements can slightly deviate. For loading capacity shelves see specification SD 1104.



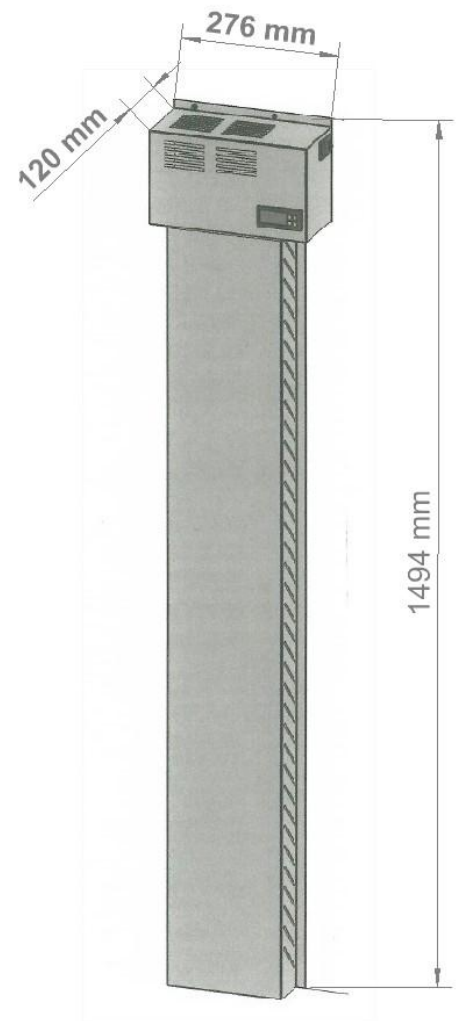
## Technical Drawings



Dimensions of the SMD Reel Rack, item number 20014000



Dimensions of the Honeycomb system, item number 20050101



Dimensions of the Heater SH 230-4, item number 21001001



## Options



### N2 Auto Flow System

The Auto Flow System is developed for use in combination with a Totech drying cabinet. The device is used for the quick removal of moisture in the cabinet after the doors have been opened. The drying process is realized by using nitrogen (N<sup>2</sup>), which is added automatically after the doors have been closed (by means of adjustable timer function)

Item number 22613001



### N2 Flow System 10-100

The N2 Flow System is developed for use in combination with a Totech drying cabinet. The device is used for the quick removal of moisture in the cabinet. The drying process is realized by using nitrogen (N<sup>2</sup>). Adjustable 10 – 100 L/min

Item number 20010020.



### SMD Reel Rack

460 mm length and mountable on shelf.

Item number 20014000



### Humidity calibrator Hygropalm 22

Precision measuring device for calibrating sensors

Set includes Hygroclip sensor, case and cable

Item number 20001019

Hygropalm only

Item number 20001016



### Humidity alarm light - Red or Orange

Item number 20016033



### Set spare parts SD cabinet

Set includes the main spare parts for the SD cabinet: U-2000 Dry Unit, main PCB and power supply.

Item number 30006099

### Exchange set pf main spare parts SD cabinet

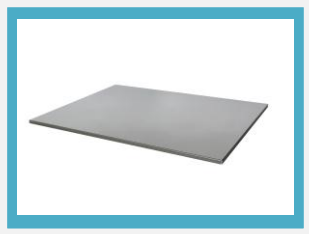
Same set as above, but as exchange.

Item number 30006096





## Options

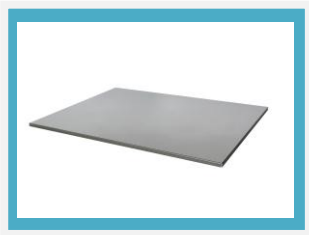


### Shelf standard

For cabinets type 1106 and 1104.

Item number 20111409

Brackets 2 pcs, item number 20111709



### Shelf

For cabinets with 2 drying units.

Item number 20111609

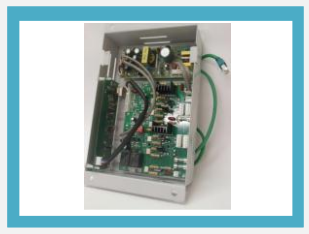
Brackets 2 pcs, item number 20111709



### Heater SH 230-4

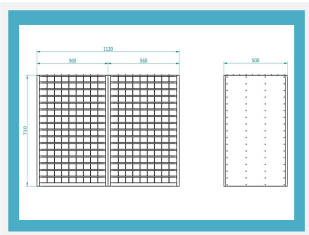
40°C heater

Item number 21001001



### SD network PCB incl. software

Item number 20024220



### Honeycomb system

Flexible stainless steel storage system for IC tubes, components & PCB's. The width of the compartments is adjustable before installing the system in the cabinet. The number of compartments varies from 16 to 288.

Item number 20050101



### Adjustable legs

4 height adjustable legs (63 – 80 mm).

Item number 20010010

version 21-01

