



Drying Cabinets and Vacuum Machines for Moisture Sensitive Components

 **SUPER DRY**<sup>®</sup>  
**Totech EU**<sup>®</sup>

*More than just dry air*





made in Germany



Our cabinets are esd-safe



Very environmental-friendly



**Jos Brehler**  
CEO Totech Europe B.V.

We are very pleased to introduce our latest brochure; time passes quickly! In spite of uneven economic conditions, we have continued to grow our sales and dealer network. A special thank you goes to all our dealers for the numerous projects that have been initiated. Recently we celebrated our 10 years anniversary and were awarded by Global SMT &

Packaging their Global Technology Award in the category "Storage Systems". Our development efforts have produced new levels of drying performance and also environmentally responsible products such as our XSD & XSDB series. We have begun to deliver automated dry storage systems driven by the increased demand to manage large quantities of MSL components. Combined with newly developed MSL management software, we continue to provide industry leading solutions. The control and management of moisture sensitive components and PCB's are fast changing challenges. Super Dry® by Totech is here to help you meet those challenges head on!



Page	RH ≤0,5%	RH ≤1%	RH ≤3%	RH ≤5%	N <sup>2</sup>	Room-temp.*	40°C	60°C
3			✘		✘	✘	✘	
4		✘			✘	✘	✘	
6	✘				✘	✘	✘	
7		✘			✘	✘		
8	✘				✘	✘	✘	
9	✘				✘	✘	✘	
10	✘				✘		✘ <sub>XSDB</sub>	✘ <sub>XSDB</sub> ✘ <sub>XSD</sub>
12				✘	✘		✘	✘
13				✘	✘		✘	✘
14								
15								
16				✘	✘			
18	✘			✘		✘	✘	✘
19								

✘ Standard

✘ Optional available

\* without temperature adjustment, Ø-room temperature: 25°C

# Dry storage cabinets SDB-Series Wide choice at low prices.

Dry Storage  $\leq 3\% \text{ RH}$   $\emptyset$  conditions / day  $\leq 5\% \text{ RH}^*$  Room temp.  $\emptyset 25^\circ\text{C}$

\* Depending on amount of dooropenings



## Features:

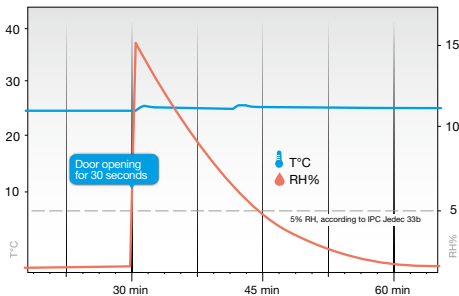
- Hygrometer with alarm function, accuracy +/- 3%
- Doors lockable with keys
- ESD safe design:
  - Norm (IEC 61340-5-1)
  - ESD metal painted body ( $10^8 \text{ Ohm/sq}$ )
  - Dissipative glazing (in- and outside  $10^8 \text{ Ohm/sq}$ )
- In height adjustable painted steel shelves
- U 4001 Dry Unit
- ESD wristband can be connected with the cabinet
- Power supply: 5 meter cable with IEC plug

## Benefits:

- The drying unit is maintenance free
- Average power consumption 24 W/h
- Recoverytime after 1 door opening; <15 min to below 1%
- Adjustable legs for levelling out
- IPC conformity: (According to IPC/JEDEC J- STD 033C & IPC-1601)



Hygrometer of the 0-Series



SDB 1104, 1106

Ext. dimensions (whd): 500 x 630 x 580 mm
Int. dimensions (whd) (excl. dry unit): 490 x 560 x 530 mm
Hygrometer with alarm function, accuracy +/- 3%
Effective capacity: 135 l
Weight: 37 kg
ESD safe design
Door lockable with key
Number of shelves: 3
Drying unit: 1 x U-4001 for $\leq 3\% \text{ RH}^*$
Power consumption: 24 W/h

SDB 151-40

(These cabinets cannot be equipped with N2 or Heater)

Ext. dimensions (whd): 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit): 1190 x 1533 x 630 mm
Hygrometer with alarm function, accuracy +/- 3%
Effective capacity: 1139 l
Weight: 155 kg
ESD safe design
Doors lockable with key
Number of shelves: 5
Drying unit: 1 x U-4001 for $\leq 3\% \text{ RH}^*$
Power consumption: 24 W/h

SDB 1104-40

Ext. dimensions (whd): 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit): 1190 x 1533 x 630 mm
Hygrometer with alarm function, accuracy +/- 3%
Effective capacity: 1139 l
Weight: 155 kg
ESD safe design
Doors lockable with key
Number of shelves: 5
Drying unit: 1 x U-4001 for $\leq 3\% \text{ RH}^*$
Power consumption: 24 W/h

SDB 1106-40

\* Depending on amount of dooropenings

# Dry storage cabinets SD-Series

Dry storage ≤ 1% RH	Ø conditions / day ≤ 3% RH*	Room temp. Ø 25°C	Temperature 40°C (optional)	Nitrogen optional
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\* Depending on amount of dooropenings



Optimal protection with minimal deployment. User-friendly operation and compact construction guarantee safe and reliable storage requirements.



The SD Series are equipped with patented drying units U 2000. Engineered for medium to long-term constant low humidity storage of ≤1% RH.

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

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

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

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

<b>Ext. dimensions:</b> 500 x 630 x 580 mm
<b>Int. dimensions (whd)</b> (excl. dry unit) : 490 x 560 x 530 mm
<b>Accuracy of sensor RH% &amp; T°C</b> (+/- 3% RH, +/-0.3 °C)
<b>Effective capacity:</b> 135 l
<b>Weight:</b> 37 kg
<b>ESD safe design</b>
<b>Door lockable with key</b>
<b>Number of shelves:</b> 3
<b>Drying unit:</b> 1 x U-2000 for ≤1% RH*
<b>Power consumption:</b> 35 W/h

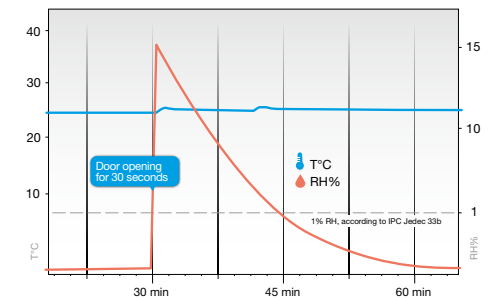
SD 151-21

<b>Ext. dimensions:</b> 500 x 1127 x 640 mm
<b>Int. dimensions (whd)</b> (excl. dry unit) : 490 x 1124 x 594 mm
<b>Accuracy of sensor RH% &amp; T°C</b> (+/- 3% RH, +/-0.3 °C)
<b>Effective capacity:</b> 320 l
<b>Weight:</b> 68 kg
<b>ESD safe design</b>
<b>Doors lockable with key</b>
<b>Number of shelves:</b> 7
<b>Drying unit:</b> 1 x U-2000 for ≤1% RH*
<b>Power consumption:</b> 35 W/h

SD 302-21

<b>Ext. dimensions:</b> 880 x 898 x 740 mm
<b>Int. dimensions (whd)</b> (excl. dry unit) : 870 x 830 x 702 mm
<b>Accuracy of sensor RH% &amp; T°C</b> (+/- 3% RH, +/-0.3 °C)
<b>Effective capacity:</b> 496 l
<b>Weight:</b> 70 kg
<b>ESD safe design</b>
<b>Doors lockable with key</b>
<b>Number of shelves:</b> 3
<b>Drying unit:</b> 1 x U-2000 for ≤1% RH*
<b>Power consumption:</b> 35 W/h

SD 502-21



SD 151, 302, 502

\* Depending on amount of dooropenings

# Dry storage cabinets SD-Series

Dry storage ≤ 1% RH	Ø conditions / day ≤ 3% RH*	Room temp. Ø 25°C	Temperature 40°C (optional)	Nitrogen optional
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\* Depending on amount of dooropenings

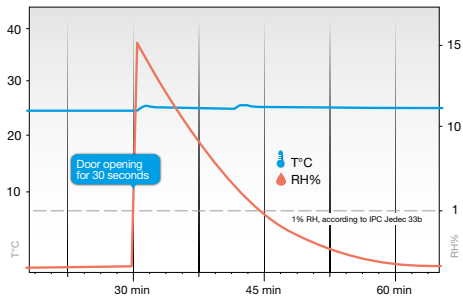


## Features:

- Accuracy of sensor RH% & T°C: +/- 3% RH, +/-0.3 °C
- Doors lockable with keys
- ESD safe design:
  - Norm (IEC 61340-5-1)
  - ESD metal painted body (10<sup>6</sup> Ohm/sq)
  - Dissipative glazing (in- and outside 10<sup>8</sup> Ohm/sq)
- In 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
- ESD wristband can be connected with the cabinet
- 1-series digital panel
- Pre mounted holes for nitrogen unit & heater
- Power supply: 5 meter cable with IEC plug

## Benefits:

- The drying unit is maintenance free
- Average power consumption 35 W/h
- N2 auto Flow, Heating, SMD Reel racks, etc.
- Recoverytime after 1 door opening: <15 min to below 1%
- Adjustable legs for levelling out
- Datalogging through network with software
- Temperature: Maximum up to 40°C (optional)
- IPC conformity: (According to IPC/JEDEC J- STD 033C & IPC-1601)



SD 1104, 1106

## SD 702-21

Ext. dimensions: 620 x 1840 x 768 mm
Int. dimensions (whd) (excl. dry unit) : 610 x 1533 x 735 mm
Accuracy of sensor RH% & T°C (+/- 3% RH, +/-0.3 °C)
Effective capacity: 680 l
Weight: 152 kg
ESD safe design
Doors lockable with key
Number of shelves: 5
Drying unit: 1 x U-2000 for ≤1% RH*
Power consumption: 35 W/h

## SD 1104-21

Ext. dimensions: 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit) : 1190 x 1533 x 630 mm
Accuracy of sensor RH% & T°C (+/- 3% RH, +/-0.3 °C)
Effective capacity: 1179 l
Weight: 176 kg
ESD safe design
Doors lockable with key
Number of shelves: 5
Drying unit: 2 x U-2000 for ≤1% RH*
Power consumption: 70 W/h

## SD 1106-21

Ext. dimensions: 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit) : 1190 x 1533 x 620 mm
Accuracy of sensor RH% & T°C (+/- 3% RH, +/-0.3 °C)
Effective capacity: 1179 l
Weight: 176 kg
ESD safe design
Doors lockable with key
Number of shelves: 5
Drying unit: 2 x U-2000 for ≤1% RH*
Power consumption: 70 W/h

\* Depending on amount of dooropenings





# Dry storage cabinets SD<sup>+</sup>-Series

Dry storage ≤ 1% RH	Ø conditions / day ≤ 3% RH*	Room temp. Ø 25°C	Temperature 40°C (optional)	Nitrogen optional
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\* Depending on amount of dooropenings



Optimal protection with minimal deployment. User-friendly operation and compact construction guarantee safe and reliable storage requirements.

The new SD<sup>+</sup> Series is an upgraded version of the SD Series. Next to new upgraded operating hardware and software, a more accurate sensor has been chosen (+/- 0,8 RH & +/- 0,3 °C). The integrated data logger can provide all climate data and door openings from the cabinet through Ethernet and free available datalogging software, for further analysis. The circulation of air in the cabinet is regulated through an inside fan. All surfaces are ESD coated in conformity with current ESD 61340-5-1 standard. The new SD<sup>+</sup> Series 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:

- Online functionality via Ethernet
- Accurate sensor HygroClip 2
- Lockable door
- ESD safe design
- Door & Humidity alarm buzzer
- Shelves
- 1-series digital multicolor and multilanguage display
- Castors
- ESD bonding point
- Free datalogging software

## Benefits:

- Maintenance free dry unit
- Low energy consumption
- More stable Humidity and Temperature
- Remote access
- Sensor calibration
- IPC conformity:  
(According to IPC/JEDEC J- STD 033C & IPC-1601)



Control panel of the 2-Series display



MSL 2.0 Software

<b>Ext. dimensions:</b> 500 x 1127 x 640 mm
<b>Int. dimensions (whd) (excl. dry unit):</b> 490 x 1124 x 594 mm
<b>Accuracy of sensor RH% &amp; T°C (+/- 0,8% RH, +/- 0.3°C)</b>
<b>Effective capacity:</b> 320 l
<b>Weight:</b> 68 kg
<b>ESD safe design</b>
<b>Doors lockable with key</b>
<b>Number of shelves:</b> 7
<b>Drying unit:</b> 1 x U-2000 for ≤1% RH*
<b>Power consumption:</b> 35 W/h

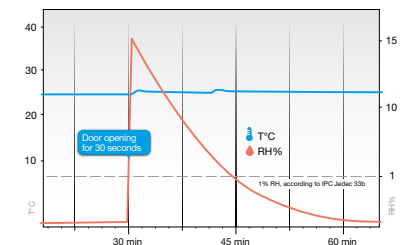
SD<sup>+</sup> 302-22

<b>Ext. dimensions:</b> 1200 x 1840 x 658 mm
<b>Int. dimensions (whd) (excl. dry unit):</b> 1190 x 1533 x 630 mm
<b>Accuracy of sensor RH% &amp; T°C (+/- 0,8% RH, +/- 0.3°C)</b>
<b>Effective capacity:</b> 1179 l
<b>Weight:</b> 176 kg
<b>ESD safe design</b>
<b>Doors lockable with key</b>
<b>Number of shelves:</b> 5
<b>Drying unit:</b> 2 x U-2000 for ≤1% RH*
<b>Power consumption:</b> 70 W/h

SD<sup>+</sup> 1104-22

<b>Ext. dimensions:</b> 1200 x 1840 x 658 mm
<b>Int. dimensions (whd) (excl. dry unit):</b> 1190 x 1533 x 620 mm
<b>Accuracy of sensor RH% &amp; T°C (+/- 0,8% RH, +/- 0.3°C)</b>
<b>Effective capacity:</b> 1179 l
<b>Weight:</b> 176 kg
<b>ESD safe design</b>
<b>Doors lockable with key</b>
<b>Number of shelves:</b> 5
<b>Drying unit:</b> 2 x U-2000 for ≤ 1% RH*
<b>Power consumption:</b> 70 W/h

SD<sup>+</sup> 1106-22



SD<sup>+</sup> 1104, 1106

\* Depending on amount of dooropenings

# Acrylic cabinets ESDA-Series

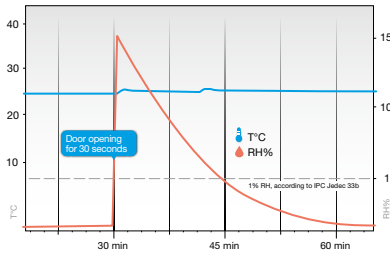
Drying ≤ 2% RH\*    Storage ≤ 5% RH    Room temp. Ø 25°C    N2 optional

\* Depending on amount of dooropenings



Our acrylic cabinet series offers conveniently arranged storage possibilities with low humidities. Installation of an optional nitrogen or drying unit is available.

Our ESDA Series are suitable for storage under controlled atmosphere. This can be achieved through a nitrogen unit and / or installation of our state-of-the-art U-4001 dry unit. The cabinet can be delivered with a control panel. Proven in use around the world, the unique design of the ESDA-201 with optional drying unit U 4001 is highly energy efficient, representing a significant cost advantage for our customers. The ESDA version is produced ESD safe. The surfaces of the cabinet are not chargeable. Acrylic body  $10^7 \Omega/\text{sq}$ .



	ESDA-00 serie	ESDA-21 serie	ESDA-40 serie
ESD-Polycarbonate body	✗	✗	✗
Lockable doors	✗	✗	✗
Hygrometer of the 0-serie	✗		✗
Digital panel of the 1-serie		✗	
U-4001 dry-unit			✗
U-2000 dry-unit		✗	
N2 (Auto) Flow	optional	optional	optional
Datalogging through network with software		optional	
Datalogging with Rotronic datalogger	optional	optional	optional
ESD castors	✗	✗	✗



Digital panel of the 1-Series



Hygrometer of the 0-Series



Ext. dimensions (whd): 574 x 750 x 517 mm
Int. dimensions (whd): 560 x 730 x 480 mm
Effective capacity: 200 l
Weight: 23 kg
Number of shelves: 2
Available with U-4001 dry unit (optional)
No control panel

Ext. dimensions (whd): 574 x 1690 x 517 mm
Int. dimensions (whd): 560 x 1480 x 480 mm
Effective capacity: 400 l
Weight: 59 kg
Number of shelves: 5
Available with U-4001 dry unit (optional)
No control panel

Ext. dimensions (whd): 574 x 1690 x 517 mm
Int. dimensions (whd): 560 x 1480 x 480 mm
Effective capacity: 400 l
Weight: 60 kg
Number of shelves: 5
Dry unit 1 x U-2000, with control panel
Power consumption: 35 W/h

Ext. dimensions (whd): 1152 x 1690 x 517 mm
Int. dimensions (whd): 1120 x 1480 x 480 mm
Effective capacity: 800 l
Weight: 87 kg
Number of shelves: 10
Available with U-4001 dry unit (optional)
No control panel

Ext. dimensions (whd): 1152 x 1690 x 517 mm
Int. dimensions (whd): 1120 x 1480 x 480 mm
Effective capacity: 800 l
Weight: 88 kg
Number of shelves: 10
Dry unit 1 x U-2000, with control panel
Power consumption: 35 W/h

# Modular drying cabinet MSD-Series

Drying ≤ 0.5% RH	Ø conditions / day ≤ 1% RH	Room temp. Ø 25°C	Temperature 40°C (optional)	Nitrogen optional
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The cabinet that grows with your requirements. Made to size solutions are possible through modular construction. The standard cabinet can be extended with further modular cabinets up to 6000 l.

A cabinet that grows with your demand, the MSD series is the first modular dry cabinet that can be expanded as your storage and drying needs increase. Incorporating our extremely powerful, “dynamic dry unit”, the basic MSD can be expanded to 4800 litres without the need for additional dry units. Regeneration times are reduced due to the closed loop control of the dry unit which automatically responds to atmosphere and frequency door openings, while delivering precise humidity control to ≤0.5% RH with traceability to a computer or network.



MSD 1223 + MSD 1222-52

Ext. dimensions (whd): 840 x 2040 x 900 mm
Int. dimensions (whd): 830 x 1780 x 850 mm
Effective capacity: 1255 l
Weight: 125 kg
ESD safe design
Door lockable with key
Number of shelves: 4 sliding shelves
No drying unit pre-installed



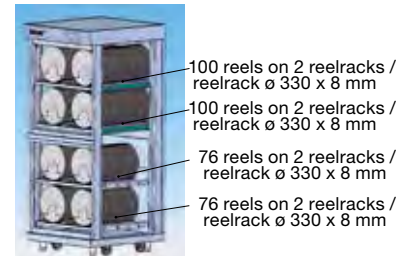
Ext. dimensions (whd): 840 x 2040 x 900 mm
Int. dimensions (whd) (excl. dry unit): 830 x 1780 x 850/730 mm
Precision sensor, accuracy +/- 0.8% RH, +/- 0.3 °C (Rotronic)
Effective capacity: 1200 l
Weight: 140 kg
ESD safe design
Door lockable with key
Number of shelves: 4 sliding shelves
Dry unit: 1 x U-5002 for ≤0.5% RH
Power consumption: 30 W/h

MSD 1223-00

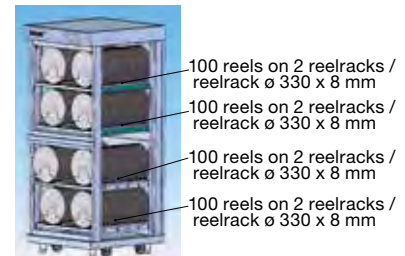
MSD 1222-52

## Features:

- Display multi language control panel, 5 menu's & up and down button
- ESD safe design:
  - Norm (IEC 61340-5-1)
  - ESD metal painted body (10<sup>6</sup> Ohm/sq)
  - Dissipative glazing (in- and outside 10<sup>8</sup> Ohm/sq)
  - 4 ESD Castors
- Integrated data logger
- RS 232 interface for data (optional software is required)
- Door & humidity alarm buzzer
- Adjustable legs for levelling out
- Lockable doors
- 8 adjustable sliding shelves (4 pcs)
- U 5000 Series drying unit, < 0.5% RH, made in Germany
- Rotronic Precision sensor: accuracy +/- 0.8 % RH, +/- 0.3°C
- 4 ESD safe castors
- Power supply: 5 meter cable with IEC plug



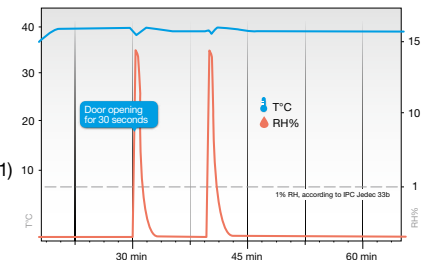
MSD 1222



MSD 1223

## Benefits:

- Fast drying, Level 3 component, 1,4 mm = 8 days (25 °C / 1% RH)
- Recoverytime with 1 cabinet and 1 door opening: <15 min to below 1%
- Energy saving consumption As a result of dynamic regeneration (drying unit)
- Internal illumination: Optional
- Modular system: Can be extended dependable on your requirements
- Network: Optional
- IPC conformity: (According to IPC/JEDEC J- STD 033C & IPC-1601)
- Made in Germany
- Easy to service, low maintenance





# Drying cabinet HSD-Series

Drying ≤ 0.5% RH	∅ conditions / day ≤ 1% RH	Room temp. ∅ 25°C	Nitrogen optional
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Our HSD Series combines two cabinet designs with high achievement (very fast recovery time) drying technology. Category: Very good – our practice test winner for your production.

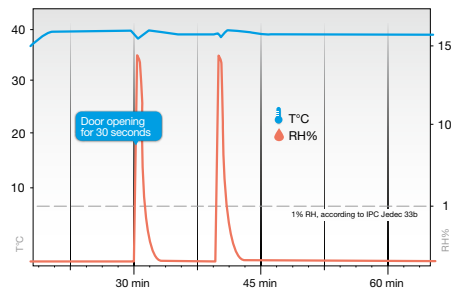


## Features:

- ESD safe design:
  - Norm (IEC 61340-5-1)
  - ESD metal painted body (10<sup>6</sup> Ohm/sq)
  - Dissipative glazing (in- and outside 10<sup>8</sup> Ohm/sq)
  - 4 ESD Castors
- Doors lockable with keys
- Integrated data logger over sensor with standard 2000 measuring points (optional software is required)
- Online read out: RS 232 interface for data (optional software is required)
- Door & humidity alarm buzzer: Longer door openings are detected, high RH levels are detected
- Castors
- In height adjustable chrome steel shelves
- U 5000 Series drying unit, < 0.5% RH, made in Germany
- Accuracy of sensor RH% & T°C: Precision sensor, accuracy +/- 0,8 % RH, +/- 0,3°C
- Power supply: 5 meter cable with IEC plug

## Benefits:

- Recoverytime after 1 door opening: <6 min to below 1%
- Average power consumption 46 W/h
- Network: Optional
- IPC conformity: (According to IPC/JEDEC J- STD 033C & IPC-1601)
- Made in Germany
- Easy to service, low maintenance



The HSD cabinet series has an outstanding performance for drying moisture sensitive components and pcb's as a result of a high performance drying unit. Therefore it is very suitable for operation with frequent approach. The dynamic drying unit of the 5000 series reaches very reliable low humidity values of ≤0,5% RH and automatically regenerates if necessary. Humidity, temperature, alarm functions are shown and can be adjusted on a digital display.



Ext. dimensions (whd): 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit): 1190 x 1533 x 630 mm
Accuracy of sensor +/- 0.8% RH, +/- 0.3 °C (Rotronic)
Effective capacity: 1179 l
Weight: 189 kg
ESD safe design
Door lockable with key
Number of shelves: 5
Dry unit: 1 x U-5002 for ≤ 0.5% RH
Power consumption: 30 W/h

HSD 1104-52



Ext. dimensions (whd): 1200 x 1840 x 658 mm
Int. dimensions (whd) (excl. dry unit): 1190 x 1533 x 620 mm
Accuracy of sensor +/- 0.8% RH, +/- 0.3 °C (Rotronic)
Effective capacity: 1179 l
Weight: 176 kg
ESD safe design
Door lockable with key
Number of shelves: 5
Dry unit: 1 x U-5002 for ≤ 0.5% RH
Power consumption: 30 W/h

HSD 1106-52

# Insulated drying cabinets XSD & XSDB-Series

Drying  $\leq 0.5\% \text{ RH}$      $\emptyset$  conditions / day  $\leq 1\% \text{ RH}$     Temp.  $40^\circ\text{C}$     Temp.  $60^\circ\text{C}$     Nitrogen optional



The combination of high achievement dryer, heating and thick-walled insulation enables the XSD-Series to effect a quick drying of moist components and pcb's.



External dimensions (whd): 700 x 1930/2110 x 808 mm
Internal dimensions (whd): 544 x 1504 x 600 mm
Precision sensor, accuracy +/- 0.8% RH, +/- 0.3°C
Effective capacity: 490 l
Weight: 142 kg
ESD safe design
Door lockable with key
Number of shelves: 5
Dry unit: 1 x U-5002 for $\leq 0.5\% \text{ RH}$
Average power consumption: 230W/h (40°C)

XSD(B) 701-52/53



External dimensions (whd): 1432 x 1930/2110 x 808 mm
Internal dimensions (whd): 1315 x 1504 x 600 mm
Precision sensor, accuracy +/- 0.8% RH, +/- 0.3°C
Effective capacity: 1190 l
Weight: 230 kg
ESD safe design
Door lockable with key
Number of shelves: 10
Dry unit: 1 x U-5002 for $\leq 0.5\% \text{ RH}$
Average power consumption: 230W/h (40°C)

XSD(B) 1402-52/53

The XSD series has an outstanding performance for drying moisture sensitive components and pcb's. The dynamic drying unit of the 5000 series reaches very reliable low humidity values of  $\leq 0.5\% \text{ RH}$  and automatically regenerates if necessary. As a result of an insulated double metal sandwich construction a precise temperature of  $60^\circ\text{C}$  can be reached with a very low power consumption. A radial fan and heater supports the drying process and realizes an equable temperature and moisture level in the cabinet. The relevant process data is obtained by use of an accurate Rotronic sensor.

	XSD 53 serie	XSD 52 serie	XSDB 52 serie
Painted steel body			×
Stainless steel body	×	×	
Lockable doors	×	×	×
Heat-resistant glazing	×	×	×
Radial fan for a stable temperature profile	×	×	×
Insulated cabinet body / 60mm	×	×	×
Continuously adjustable heating up to $40^\circ\text{C}$			×
Continuously adjustable heating up to $60^\circ\text{C}$	×	×	optional
Drying unit U-5000 Series, $<0.5\% \text{ RH}$	×	×	×
Precision sensor (Rotronic)	×	×	×
ESD Safe design (also in-and outside glass)	×	×	×
Full graphic display TFT 7" 53 serie, resolution (800x480 pixel)	×	optional	optional
Network possibilities (ethernet)	×	×	×
Wifi possibilities	optional		
Remote cabinet control and control data on external computer without extra software	×		
Digital display 52 serie		×	×
RS232 interface for data	×	×	×
Integrated datalogger (software needed to read it)	×	optional	optional
LED Light	×	×	optional
Metal shelves on metal rollers	×	×	optional
Metal shelves on sliding rail	optional	optional	×
Height adjustable feet	×	×	×
5/10 shelves	×	×	×



Control panel of the 2-Series display

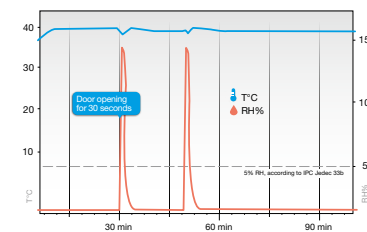


Control panel of the 3-Series display

Full graphic touchscreen  
Display TFT 7" 800x480 Pixel



Network / Wifi possibilities on tablet or phone



# Insulated drying cabinets XSD, XSDB & XSDF -Series

Drying ≤ 0.5% RH	Ø conditions / day ≤ 1% RH	Temp. 40°C	Temp. 60°C	Nitrogen optional
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The XSD-F Series provides an answer to the growing demand for flexible sized cabinets. They can be built in virtually any size required, and utilize the same components and options as our proven XSD and XSDB Series.

The XSD-F offers outstanding performance for drying moisture sensitive materials of all kinds, with relevant process data collected through the use of a highly accurate digital sensor by Rotronic.

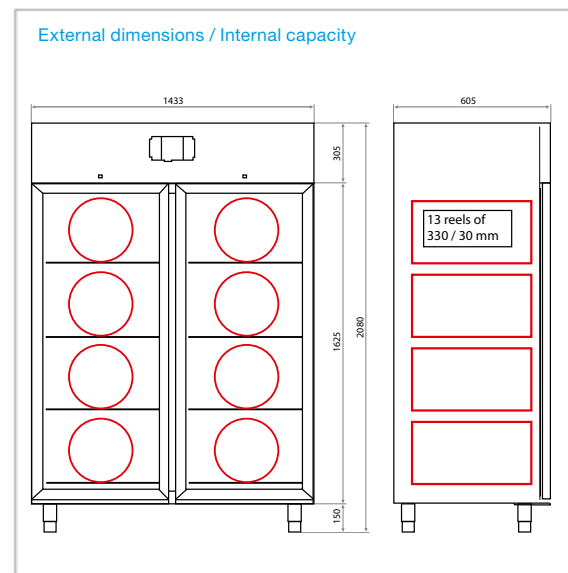
The integrated data logger can provide all relevant climate data and door openings from the cabinet via Ethernet and free available datalogging software.

## Features (XSD, XSDB & XSDF- Series):

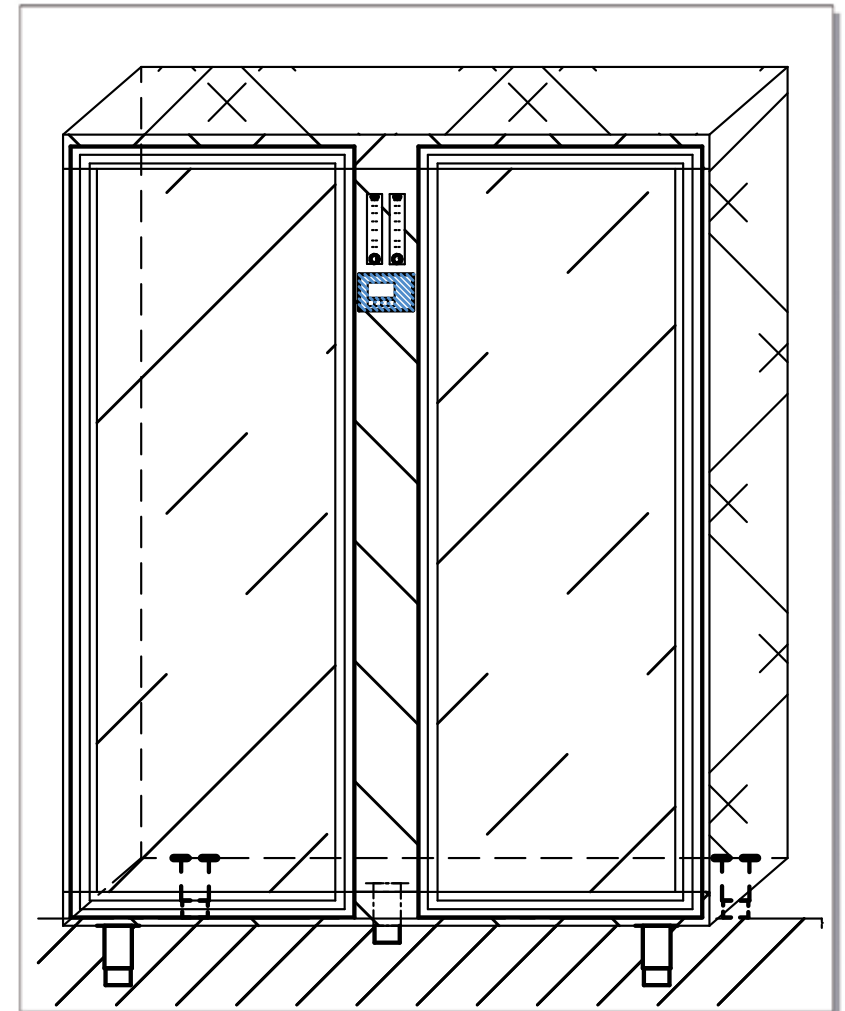
- Insulation
- Interior lighting (optional XSDB, XSDF)
- Adjustable legs
- Accurate Rotronic sensor with integrated datalogger
- Remote control and operation (53 serie)
- Door & RH alarm buzzer
- Sensor read out possibility
- Touchscreen read out possibility
- Flexible concept. every size possible (XSDF Serie)
- Conductive glass doors

## Benefits (XSD, XSDB & XSDF- Series):

- IPC conformity (Acc. to IPC/JEDEC J- STD 033C & IPC-1601)
- Volume optimized for 330mm reels
- Recovery time after door opening
- User friendly handling
- Energy saving consumption
- Temperature stability
- Low maintenance
- Wifi



XSD & XSDB



XSDF -Serie, flexible concept

# Feeder systems & Storage SDR-Series

Drying ≤ 0.5% RH	Ø conditions / day ≤ 1% RH	Temp. 40°C	Temp. 60°C	Nitrogen optional
---------------------	-------------------------------	---------------	---------------	----------------------



There are many different possibilities to store feeders. Our cabinets is purpose fit to install a feeder system alternatively a room for storage in between of feeder trolleys is become popular. All the cabinets as well as the rooms achieve a very low humidity due to the different kind of dry units we supply.



Feeder storage walk-in room:  
*Special sizes on request*



MSD cabinet with feeder rack and SMD  
Reel rack ESD coated with reel support



Control panel of the  
2-Series display

## Features:

- Online functionality via Ethernet
- Accurate Rotronic sensor with integrated datalogger
- Lockable doors
- ESD safe design
- Door & Humidity alarm buzzer
- 2-series digital multicolor and multi-language display

## Benefits:

- Special sizes for an affordable solution
- Maintenance free dry unit
- Low energy consumption
- Stable Humidity and Temperature (insulation)
- Remote access
- Yearly sensor calibration
- IPC conformity: (According to IPC/JEDEC J-STD 033C & IPC-1601)



# Custom-made Dry Rooms SDR-Series



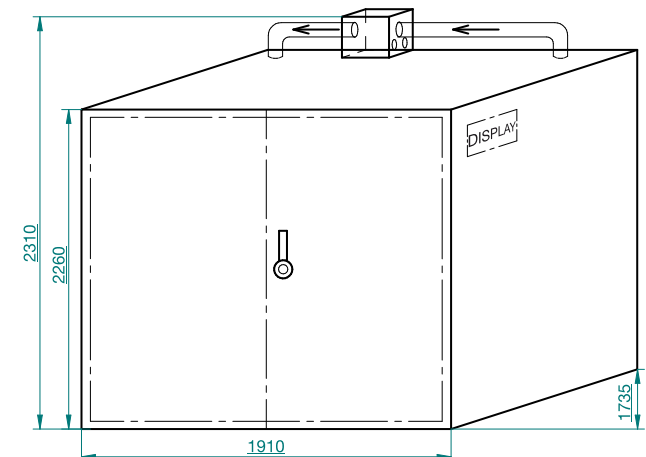
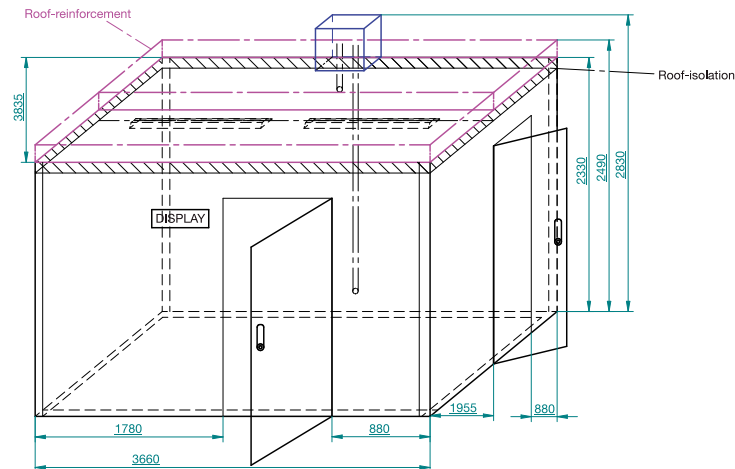
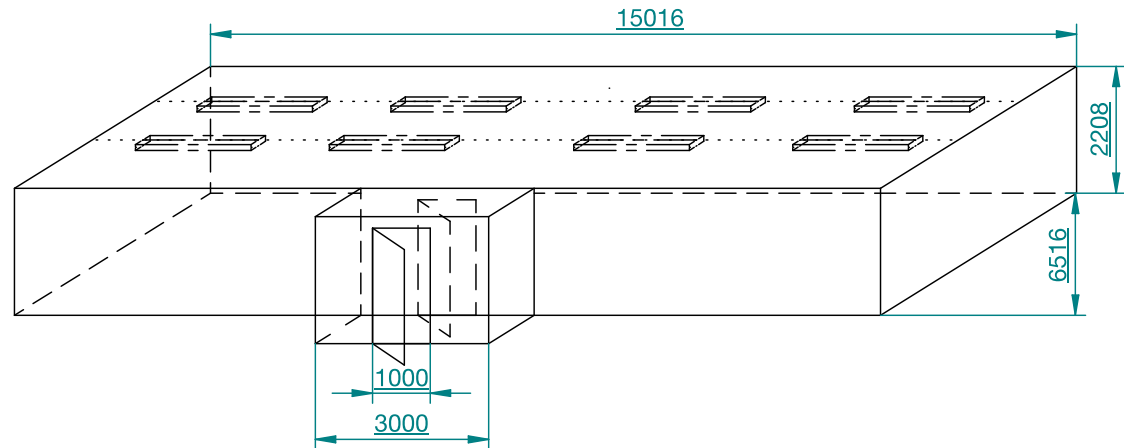
Our custom-made rooms are the answer to the increased interest of our customers in individual dry room solutions such as walk in rooms, feeder trolley rooms, long term storage rooms. With this modular concept we are in a position to react quickly to the wishes of our customers. By using reliable parts we guarantee a safe process also with special solutions. We are interested in low energy values and environment-friendly solutions. The integrated data logger can provide all climate data and door openings from the cabinet rooms through Ethernet and free available datalogging software, for further analysis.

## Features:

- Online functionality via Ethernet
- Accurate sensor HygroClip 2
- Lockable door
- ESD safe design
- Door & Humidity alarm buzzer
- 2-series digital display
- U 7000 series dryer with heater function

## Benefits:

- Maintenance free dry unit
- Cleanroom capability
- Available multicolor and multilanguage display
- More stable Humidity and Temperature due to hermetical closing of room access
- Yearly sensor calibration
- IPC conformity: (According to IPC/JEDEC J-STD 033C & IPC-1601)



# General options and accessories for all cabinet series



Shelves



Separation elements



External alarm lights



Door alarm



Height adjustable feet



ESD castors



SMD reel holders



SMD reel holder extendable



SMD reel holder on extendable shelf



Various steering



High accuracy sensor



Nitrogen unit



N2 Auto Purge system



MSL 2.0 Software



HW4 Software



Cover Plate



Feeder system



U-7000 series dry unit



U-5000 series dry unit



hygropalm22-set



Rotronic HL20D



Heater 40°C



Heater max. 40°C

# Advantages cabinets

Totech EU®

*More than just dry air*

	XSD Series 53	XSD(B) Series 52	HSD Series	MSD Series	SD <sup>+</sup> Series	SD Series	SDB Series	ESDA 21 Series	ESDA 00 Series
Recoverytime <6 minutes to < 1% RH (60°C, 2 door openings)	×	×	×						
Recoverytime <15 minutes to <1%RH (1 cabinet, 2 door openings)				×					
Recoverytime <35 min. to < 1% RH (2 dry units, 2 door openings)					×	×		×	
Recoverytime <15 min to < 5% RH (1 dry unit, 2 dooropenings)							×		
Modularity				×					
7 inch full colour HMI Touchscreen	×								
History graphics from past 90 days	×								
Firmware update by SD card	×								
Event Log & password protection	×								
Remote control & operation	×								
Network adapter included	×								
Wifi possibility	×								
Insulation double wall 60 mm.	×	×							
Rotronic Sensor 0.8% 0.3°C	×	×		×	×				
Sensirion Sensor 3% +/- 1°C			×			×	×	×	
Temperature accuracy	×	×							
Simple up & down menu structure with alarm functions			×		×	×		×	
Multilanguage 2 serie with alarm functions		×		×					
Dissipative window	×	×	×	×	×	×	×		
Acrylic ESD safe body								×	×
Painted body (static safe)		×	×	×	×	×	×		
Stainless steel body	×	×							
Datalogging possibility with external port	×	×	×	×	×				
Datalogging possibility from sensor	×								
Integrated N2 Auto Flow system adjustable by touchscreen	×								
Integrated N2 Auto Flow system manually adjustable		×							×
Internal illumination	×								
Dry unit U-2000					×	×		×	
Dry unit U-4001							×		×
Dry unit U-5000 Serie, dynamic dry unit	×	×	×	×					
Standard door & humidity alarm	×	×	×	×	×	×		×	
Made in Germany	×	×	×	×					
Hygometer							×		×

# Vacuum Machines SDV 46

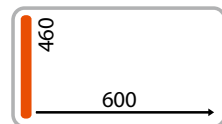


Our ESD vacuum machine series is particularly suitable for being used in ESD protected sections. The controlled reduction of humidity and oxygen content serve to ensure safe storage and transport conditions. Ideally suitable for the packaging of moisture-sensitive materials.



Int. dimensions (whd): 650 x 210 x 475 mm  
Sealing length: 460 mm  
Vacuum pump: 21 m<sup>3</sup>/h  
Weight: 105 kg  
Digital steering Z-3000 (sensor controlled)

Sealing length



## Control Display Z3000 / (Model Z-2000, Time Controlled)

Our sensor control has been equipped with a vacuum sensor, and allows for the accurate setting of important parameters. Humidity and oxygen content can be reduced in a controlled manner. 99 program memories facilitate your packaging result's reproducibility and ensure easy handling and operation.



## ESD Safe

Our machines have been equipped with acrylic covers. All surfaces are electrically conductive. Critical surfaces have been coated with dissipative plastics, and feature a bleeder resistance of 1x10<sup>6</sup> Ohm, compliant with the ESD standard.



## Nitrogen

Optionally, a nitrogen unit may be installed to facilitate the packaging of materials, which are vulnerable to oxidation or of pressure-sensitive nature. The additional reduction of oxygen content and diffusion rate are ideal for long-term storage.



## IPC Conform

The construction & control system are based on the IPC regulation



SDV 46



# Vacuum Machines SDV-Series

Storage ≤ 5% RH    Temp. 25°C    Nitrogen optional



The ideal combined action of vacuum chamber, heating system, and vacuum pump characterizes this apparatus.

Dependent on the size of the machine trays, sticks and reels can be packed in conformity with the "IPC norm Jedec 033C". All models are available in ESD Design, with Nitrogen Unit, and Under Carriage. In case you are interested in consumer materials such as drying means, humidity indicators or moisture barrier bags, go to our webshop, [www.totech-superstat.com](http://www.totech-superstat.com)



Int. dimensions (whd): 580 x 125 x 350 mm  
Sealing length: 320 mm  
Vacuum pump: 10 m³/h  
Weight: 60 kg  
Digital steering Z-2000 (timer controlled)

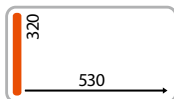
Int. dimensions (whd): 450 x 210 x 460 mm  
Sealing length: 420 mm  
Vacuum pump: 16 m³/h  
Weight: 69 kg  
Digital steering Z-2000 (timer controlled)

Int. dimensions (whd): 450 x 210 x 460 mm  
Sealing length: 420 mm  
Vacuum pump: 16 m³/h  
Weight: 70 kg  
Sensor steering Z-3000 (sensor controlled)

Int. dimensions (whd): 650 x 210 x 475 mm  
Sealing length: 460 mm  
Vacuum pump: 16 m³/h  
Weight: 102 kg  
Digital steering Z-2000 (timer controlled)

Int. dimensions (whd): 650 x 210 x 475 mm  
Sealing length: 460 mm  
Vacuum pump: 21 m³/h  
Weight: 105 kg  
Sensor steering Z-3000 (sensor controlled)

SDV 26

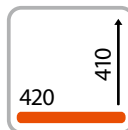


Sealing length



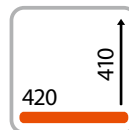
100 x 660 mm

SDV 36 basic



250 x 500 mm

SDV 36

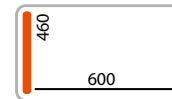


420 x 440 mm



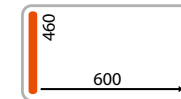
420 x 540 mm

SDV 46 basic



Moisture Barrier Bags  
Humidity Indicator & Desiccant

SDV 46



# Dry Tower

## Volume & process optimized components storage



<b>Moisture level:</b>	≤5% RH
<b>Min. dimensions:</b>	2,75 x 3,15 x 1,80 m
<b>Max. dimensions:</b>	3,85 x 5,25 x 4,00 m
<b>Loading/ unloading:</b>	fully automated
<b>Loading/ unloading time:</b>	15 sec.
<b>Temperature:</b>	up to 40°C, partly sections 60°C

### Dry Tower Quattro

Totech EU® has developed a new Dry storage system. With this development we are reacting to the growing demand of components storage.

Stocking and traceability of moisture sensitive products and complicated picking assignments with minimum staff have become important priorities..

With the development of this system, we have reached a milestone in storing components. It incorporates mature, proven drying technology and WMS-System integration capabilities. This dry storage solution is modular & can be individually configured for different size & storage requirements. All relevant data for processing components is saved into a data base, from incoming through to the retrieval of the component for production..

The storage system can be connected through standard interfaces with different inventory control systems ( WMS ). Automated input and output at a central point reduces personnel time. Incoming components are determined by image size recognition as reels or trays and automatically fed into the system. The system calculates the smallest storage position the component requires and places it there. As an example you can store up to 15000 7" reels. By a permanent storage of ≤5% RH all MSL components can be stored safely and kept dry without oxidation. The floorlife of the components can be stopped and reset to zero by using a separate heated section of up to 60° C.

### Storage capacity

Type of cabinet	Solo	Twin / Slim	Quattro
<b>Reelsize</b>			
<b>180 mm (7")</b>	3.800	7.600	15.200
<b>330 mm (13")</b>	1.140	2.280	4.560
<b>380 mm (15")</b>	855	1.710	3.420
<b>JEDEC-Tray</b>	2.660	5.320	10.640

In this example an automatic system height of 4 meter has been taken. The Information can be obtained up to a maximum Reel thickness of 25mm. For higher Reel thickness storage it will reduce the storage capacity accordingly. Multiple systems can be combined, so that higher storage capacity can be achieved.

# Reference Table Drying cabinets

Our reference table offers you a survey of the drying times of your components. Please read it dependent on component strength, MSL Level, temperature and humidity Level.

## Body Thickness

Level	Drying at 1% RH (HSD & XSD-Series)			Drying at 2% RH (SD & SDA-Series)		**Drying at 5% RH (N <sup>2</sup> -Cabinets)	
	25°C 1% RH	40°C 1% RH	60°C 1% RH	25°C 2% RH	40°C 2% RH	40°C 5% RH	90°C 5% RH

## Thickness ≤ 1,4 mm

2	3 days	36 hours	10 hours	8 days	3 days	8 days	17 hours
2a	4 days	2 days	12 hours	9 days	4 days	9 days	23 hours
*3	8 days	3 days	18 hours	12 days	5 days	13 days	33 hours
4	9 days	4 days	24 hours	15 days	6 days	15 days	37 hours
5	10 days	5 days	30 hours	17 days	7 days	17 days	41 hours
5a	10 days	6 days	36 hours	22 days	9 days	22 days	54 hours

## Thickness > 1,4 mm ≤ 2,0 mm

2	18 days	8 days	2 days	25 days	10 days	25 days	63 hours
2a	22 days	10 days	2 days	30 days	15 days	29 days	3 days
3	23 days	11 days	2 days	35 days	16 days	37 days	4 days
4	28 days	14 days	3 days	40 days	17 days	47 days	5 days
5	35 days	16 days	4 days	50 days	24 days	57 days	6 days
5a	56 days	18 days	4 days	67 days	27 days	79 days	8 days

## Thickness > 2,0 mm ≤ 4,5 mm

2	67 days	20 days	5 days	80 days	30 days	79 days	10 days
2a	67 days	20 days	5 days	80 days	30 days	79 days	10 days
3	67 days	22 days	5 days	80 days	31 days	79 days	10 days
4	67 days	22 days	5 days	80 days	31 days	79 days	10 days
5	67 days	22 days	5 days	80 days	31 days	79 days	10 days
5a	67 days	22 days	5 days	80 days	31 days	79 days	10 days

\* according 100TQFP-Test  
(Semiconductor Device (100TQFP)  
Dehumidifying Property)

\*\* according to IPC J-STD-033C





*More than just dry air*

dealer



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