SUPER DRY®
Totech EU®
MORE THAN JUST DRY AIR

HSD 1104-52

Dry Cabinet

Outstanding performance

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 ≤ 0,5% RH and automatically regenerates if necessary.

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

Data can be taken out from the cabinet through a standard Ethernet connection with available software.

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

SUPER DRY® Totech EU®

MORE THAN JUST DRY AIR

HSD 1104-52

Standard Features

✓ **User friendly handling**	Display with easy menu structure
✓ **ESD features**	Norm (IEC 61340-5-1) ESD metal painted body (<10^6 Ohm/sq) Dissipative glazing (in- and outside 10^8 Ohm/sq)
✓ **Online functionality**	Interface and data logging through standard Ethernet interface Compatible with new MSL 2.0 software
✓ **Door & humidity alarm buzzer**	Longer door openings are detected, high RH levels are detected
✓ **Transport**	Castors
✓ **Lockable doors**	4 doors locked with key
✓ **Sliding shelves**	In height adjustable chrome steel shelves (5 pcs)
✓ **U-5000 series drying unit**	≤0,5% RH, made in Germany
✓ **Rotronic sensor**	Precision sensor, accuracy +/- 0,8 % RH, +/- 0,3°C
✓ **Power supply**	Power cord 5 meter with IEC plug

Benefits

✓ **Drying time (see reference table)**	Fast drying time, Level 3 component, <1,4 mm = 18 hours (60°C / 1% RH)
✓ **Recovery time after door opening**	< 6 minutes to below 1% (with 1 cabinet and 1 door opening)
✓ **Energy saving consumption**	As a result of a Dynamic dry unit, 46 W/h
✓ **Network**	Standard ethernet interface
✓ **IPC**	According to IPC-JEDEC J-STD 033C & IPC-1601
✓ **European Quality**	Made in Germany
✓ **Maintenance**	Easy to service, low maintenance

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

SUPER DRY® Totech EU®

MORE THAN JUST DRY AIR

HSD 1104-52

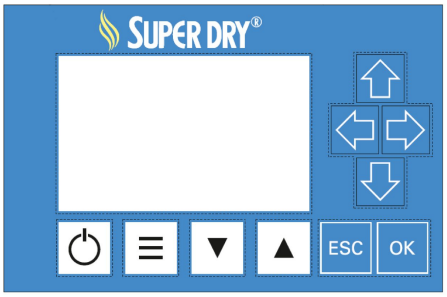
Technical data cabinet

✓ 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:	189 kg
✓ Weight on shelf:	50 kg
✓ Max. loading capacity:	300 kg
✓ Body:	Steel, conductive coated 10^6-10^8 Ω/sq
✓ Shelves (WxD):	5 pcs, 1150 x 490 mm
✓ Volume:	1179 L
✓ Electric supply:	230 VAC (120 VAC optional)
✓ Power consumption:	Average 46 W/h (excl. heating)
✓ Protection class:	Class 1, hard grounded
✓ Humidity level cabinet:	≤0,5% RH can be reached with drying unit U-5003
✓ Sensor accuracy:	+/- 0,8 % RH, +/- 0,3°C

Technical data type 2 display

Settings

- ✓ Language Menu
- ✓ Nominal Value Humidity
- ✓ Nominal Value Humidity Alarm
- ✓ Delay Humidity Alarm (in combination with heater)
- ✓ Nominal Value Temperature (in combination with heater)
- ✓ Temperature Alarm (in combination with heater)
- ✓ Delay Temperature Alarm
- ✓ Doors Alarm
- ✓ Interlocking
- ✓ Manual Regeneration



Display

- ✓ Supply voltage (supplied by drying unit) 24 VAC/DC
- ✓ Input 4 function keys (tactile-touch keys)
- ✓ Display 61 x 33 mm, white, controllable backlight, adjustable contrast
- ✓ Ethernet connection
- ✓ Power consumption at 24 VDC, 40 mA

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Technical data Rotronic sensor HC2A-S

Based on the Airchip 3000 Technology use the HygroClip 2 probes can be used for control of temperature and humidity.

The HygroClip 2 probes can be configured with the ROTRONIC HW4 software and share the following features:

- ✓ Measurement of relative humidity and temperature.
- ✓ Data recording of up to 2000 relative humidity and temperature value pairs.
- ✓ Programmable automatic sensor test with failsafe mode and sensor drift compensation.

Technical data dry-unit U-5000 series

- ✓ Dehumidifying performance: 120 g/h max.
- ✓ Minimal humidity 0,2% RH
- ✓ Dehumidifying Temperature 10 – 60° C
- ✓ Electric supply: 230 VAC
- ✓ Dimensions (L x B x H): 487 x 487 x 150 mm
- ✓ Weight: 14 kg

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Technical data heater SH-230-4

✓ Voltage:	230 VAC / 50 Hz (120 VAC / 60 Hz optional)
✓ Power:	780 W
✓ Temperature sensor:	PTC 100
✓ Thermal protection:	90 °C
✓ Temperature range:	30 - 40 °C
✓ Air flow:	86 m^3/h
✓ Display tolerance:	1 digit at 25 °C

Technical data N^2 (Auto) Flow

✓ Power supply:	90 - 230 VAC
✓ N^2 connection:	8mm hose connection
✓ N^2 pressure:	1 - 6 bar
✓ N^2 standby amount:	0 - 25 L/min
✓ N^2 purge:	0 - 100 L/min
✓ Purge time:	0 - 99 min

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

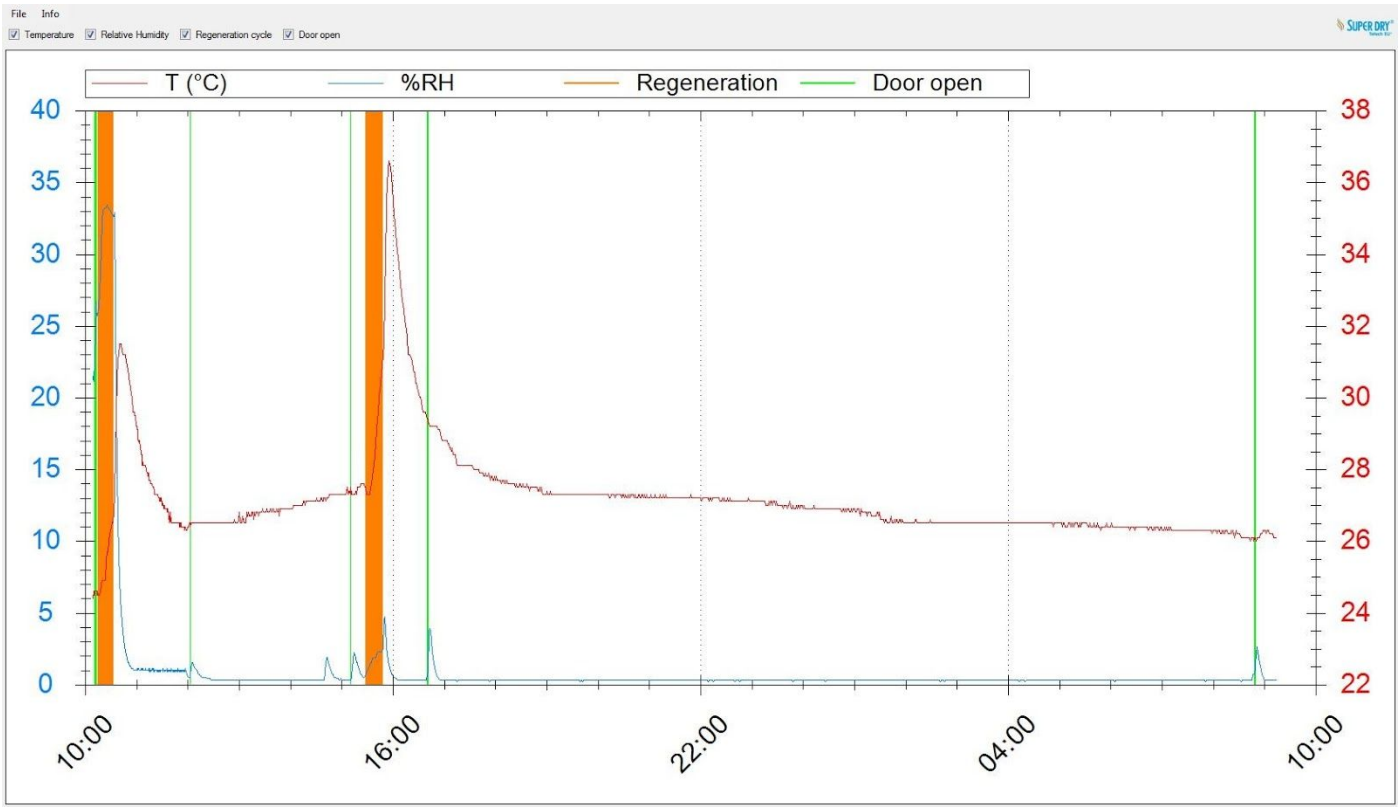
V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Free Totech viewer

- ✓ Writing of climate data, door openings and alarms to SD card
- ✓ Transfer data through Ethernet to PC (history data)
- ✓ User-friendly display of all relevant data
- ✓ Data processing in MS-Excel

- ✓ Seamless documentation
- ✓ Excellent process safety



Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

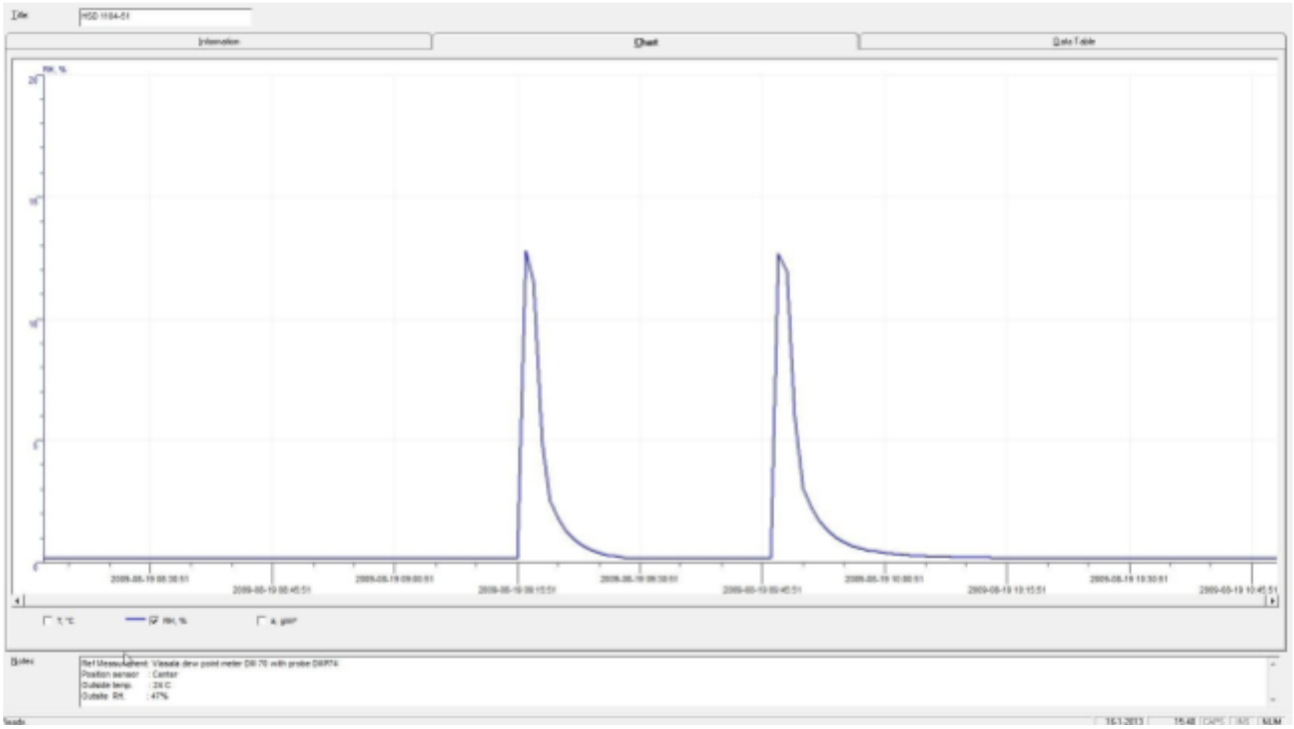
V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

SUPER DRY® Totech EU®

MORE THAN JUST DRY AIR

HSD 1104-52

Performance test



Test conditions

- ✓ Instrument: Vaisala
- ✓ Type of dew point sensor: Vaisala drycap 180M
- ✓ Accuracy of dew point sensor: ± 0,2° C at + 20° C (+ 68° F)
- ✓ Location of sensors: In the direct surrounding of the cabinet sensor.
- ✓ Ambient conditions: Hum. 50 ± 5% rH, 22°C ± 2°C, Pressure 994 ± 20 hPa
- ✓ Door openings: 2 door openings, 15 sec. (average RH 0,70%)

For more detailed test results, please refer to our website.

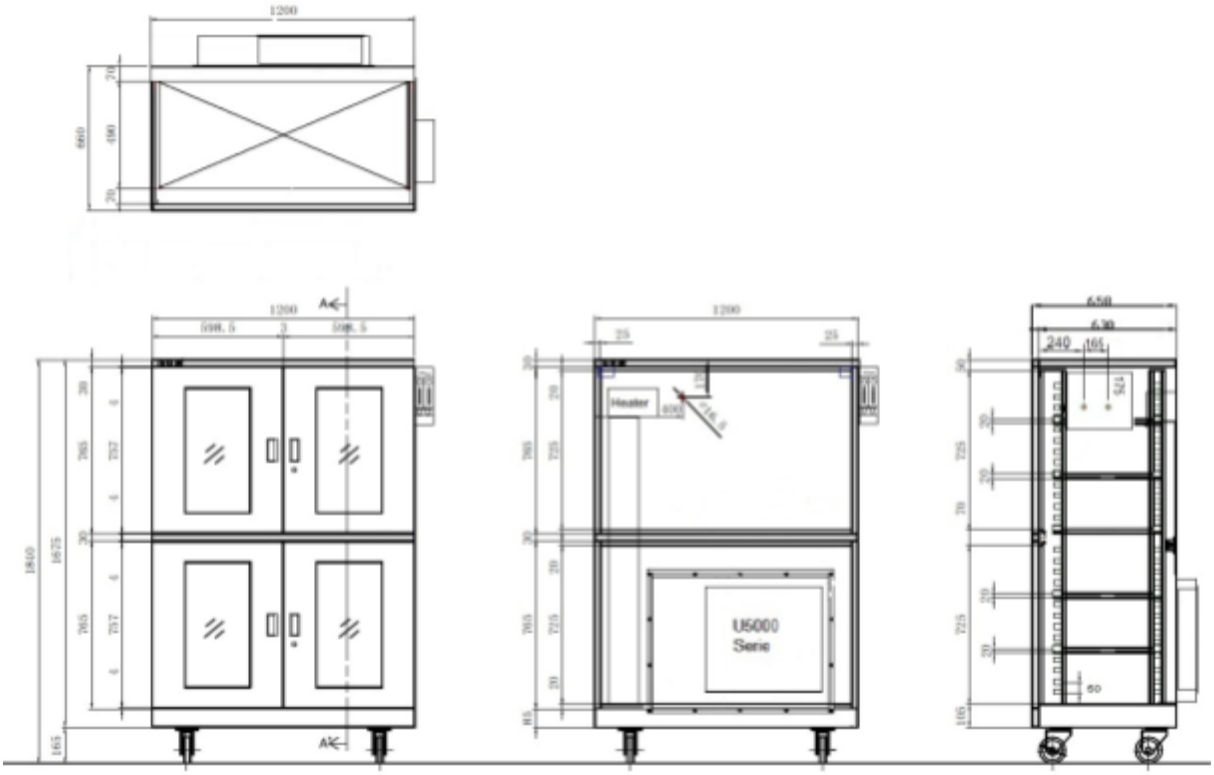
Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Technical drawings



Dimensions mentioned in mm.

Shelves

Number of different types of shelves that can be mounted in the cabinet

Number of shelves bottom section	**2**	**3**	**4**	**5**
Distance (in mm) between shelves if equally divided 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^2 (1155 mm x 780 mm)	1.80	2.74	3.60	4.50

Number of shelves top section	**2**	**3**	**4**	**5**
Distance (in mm) between shelves if equally divided in bottom section (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^2 (1155 mm x 780 mm)	1.80	2.74	3.60	4.50

Measurements can slightly deviate. For loading capacity shelves see specification SDF 1704.

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

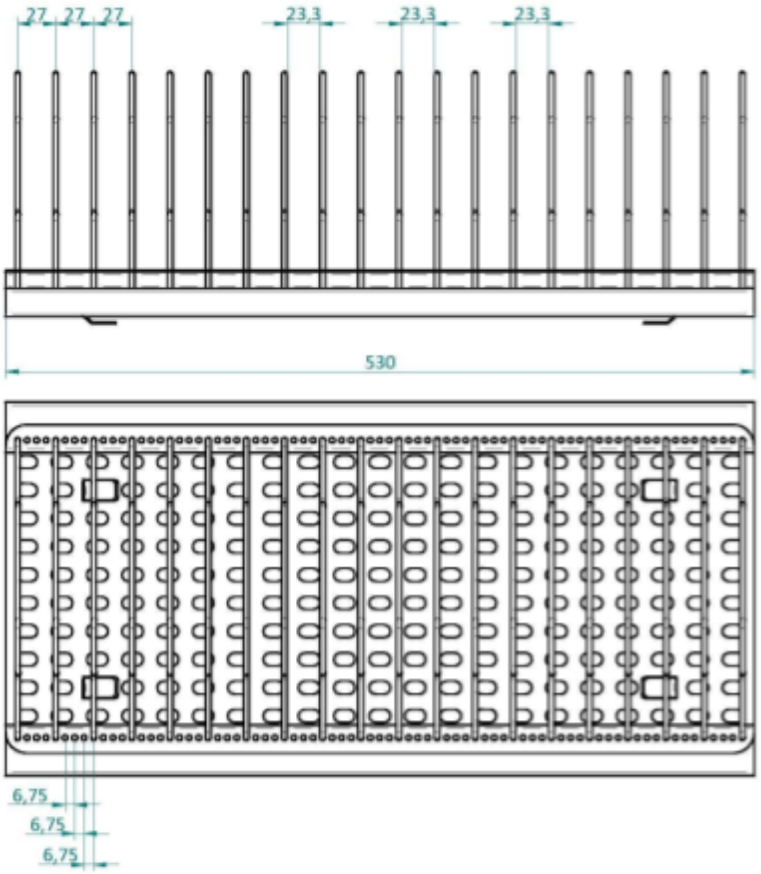
Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

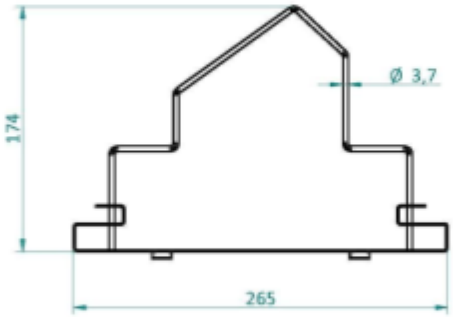
V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

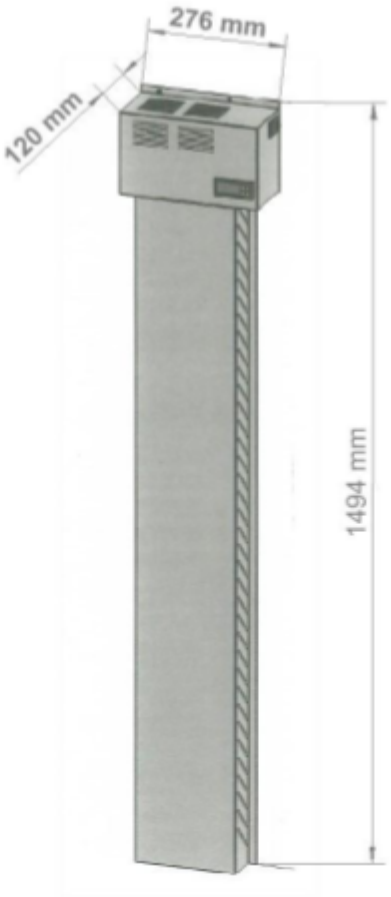
SUPER DRY®
Totech EU®
MORE THAN JUST DRY AIR

HSD 1104-52

Technical drawings







Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Options

SMD Reel rack ESD coated with reel supports
L x W = 530 x 265 mm incl. 18 reel supports.

Reel support
Additional reel supports for 20014000.

Humidity alarm signal lamp
Two-color (orange/green or red/green), magnetically fixed, providing optical signals on operational states and exceeded limit values. Operates on 24V.

N^2 Autoflow system
The autoflow system is developed to 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 realised by using Nitrogen (N^2), which is purged automatically after the doors are closed. (timer controlled)

Adjustable legs
4 in height adjustable legs (63 - 80 mm)

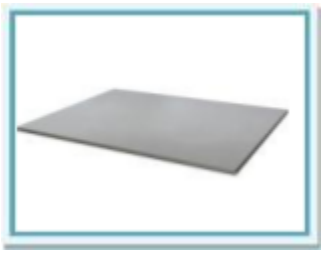
Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

Options



Shelf standard
For cabinets type 1106 and 1104

Brackets 2 pcs

X Feeder system
This feeder rack is suitable for Siemens X Feeder systems.
Sold in combination with reel rack.

S Feeder system
This feeder rack is suitable for S Feeder systems.
Sold in combination with reel rack.

Hygroclip 2
Probe with maximum accuracy for all climate measurements.

Excange calibrated sensor:

Humidity calibrator Hygropalm 22
Precision measuring device for calibrating sensors.

Set including Hygroclip sensor, case and cable:

Hygropalm only:

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443

HSD 1104-52

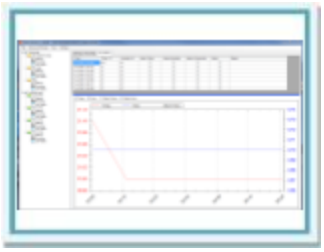
Options

MSL 2.0 software for 1000 components

Software solution for the monitoring of moisture sensitive components and their MSL states during storage and processing in the production. The exact drying state individually for each component is monitored and displayed with the software. One of the possibilities is that it can read out multiple HC2A-S sensors. To adjust storage conditions, picking of stock, removal of used parts and more stock control. A complete history for each component is traceable up to the full processing. The evaluation of the drying conditions is based on the requirements of the IPC / JEDEC J-STD-033B1 directive.

MSL software upgrade with additional 1000 components

Upgrade to monitor an additional 1000 components



Totech Monitor software

Realtime cabinet monitoring with alarm function, sending e-mails with detailed information on the status of the cabinet.History data files with graphical overview

Rotronic datalogger set

Including HW4-E software and cable AC3006

Heater SH 230-4

Max. 40°C heater

Totech Europe BV
De Linge 28
8253 PJ Dronten
www.superdry-totech.com

Phone: +31 (0) 321 330239
Fax: +31 (0) 321 330254
K.v.K.: Lelystad 390 86417
e-mail: sales@totech.eu

V.A.T. : NL813341887B01
IBAN : NL83Rabo0145683443
BIC : RaboNL2U
Bank : Rabobank 14.56.83.443