

Super Dry

World Leading Technology
More Than 40 Years

New!

MSD

Medium Temperature / Low Humidity

New!

SUS

Made of all Stainless Steel
Ultra Low Humidity

Silicon • Electronic equipment
Semiconductor
Electronic Components • Food
Drug and Precision Machinery
• Optical Instruments

Revolution of
Low Humidity
Storage!!

- 1 Temperature 50°C + Humidity 2%RH • MSD Series
- 2 Cabinets made of all stainless steel 1%, 2%RH • SUS Series
- 3 Ultra-low Humidity 1%RH • 01 Series
- 4 Ultra-low Humidity 2%RH • 02 Series
- 5 High cost performance Humidity 5%RH • 05 Series
- 6 Long Term Storage Humidity 20%RH • Auto Dry
- 7 Acrylic Nitrogen Cabinet

Newly Developed

MSD Series



MSD-1106-02

Inner Temperature:
Room Temperature(25°C)~50°C
Inner Humidity:2~50%RH

Chips Needed to be Baked
in Cabinet
Components that Can not be
Baked at High Temperature
Tape Goods

01 Series



HSD-702-01

6 models
Inner Humidity:1~50%RH

Inner Humidity 1%
Continuous to Keep

(Unloaded at Environment
Humidity of 50~60%)

02 Series



SD-1104-02

7 models
Inner Humidity:2~50%RH

Inner Humidity 1%
Continuous to Keep
(Unloaded at Environment
Humidity of 50~60%)

TOTECH Remote Monitoring System



Monitor Humidity and Temperature

The World's Leading Automatic Dry Cabinet Supplier

Totech

Manufactured by
TOYOLIVING CO.,LTD.



History of Totech

- **1974** The foundation of Toyo Living Co., Ltd. The development of dry unit started.
- **1976** Instead of using silica gel desiccant, the dry unit, which is installed with the new desiccant, has been firstly come into the Japanese market through agents in the field of physical and chemistry.
- **1982** The manufacturer of home electronic applicant, TOSHIBA bought our dry unit, and sold out 13.500 sets only within three months from June to August. (It was promoted on 30-second TV commercial once)
- **1983** With the installation of Shape Memory Alloys(SMA), the dry unit has been firstly come into the optical market in Japan.
- **1987** As the usage of dry cabinet (Auto Dry, with humidity setting 30~50%RH) shift from the optical market to the field of semiconductor, the humidity setting is verified to 10%RH, 5%RH, and 1%RH. Besides, the air clean dry cabinet with a HEPA filter is also developed at this time.
- **Beginning of 1990s** To meet the storage of semiconductor, the temperature baking dry cabinet is developed, for both dehumidifying and medium temperature baking. (Room Temperature 50 degrees)
- **Beginning of 21 century** Enter the market of Europe and America.
- **2006** Totech Global Co., Ltd. was established to take in charge of the oversales sales and service of Toyo Living products.
- **2008** Totech Shanghai Co., Ltd. was set up to further expand the global market of Totech dry cabinets.



Office



Factory

SUPER DRY FEATURES**1 Digital Control Panel Adjusting Humidity**

Electronic
Effective
Energy-saving

2 Features of Super Dry Accord to or even Exceed IPC/JEDEC J-STD-033C**3 Perfectly ESD Safe- Fit for Storage of Semiconductor, Electronic Component, Accords to ESD-IEC61340-5-1****4 Warranty Period 2 Years****Series & Features**

Storage of Medical Equipment-Medicine
Physico-chemical analysis Semiconductor
Storage of Chemicals, Food

★ MSD Series

Medium Temperature: Room temperature (25°C)~50°C
Low Humidity: 2~50%RH

MSD Max.(50 °C) Forced invective of inner hot air
Semiconductor, electronic components, powder material, tape material, etc.

★ SUS Series

Inner Humidity Keeps at 1% or 2%RH

Made of all stainless steel, with ultra low humidity, most suitable for clean rooms and labs.

★ 01 Series

Inner Humidity Keeps at 1%RH

Dry storage of IC, silicon wafers, aerospace related instruments and tools, optical components, etc
Fast recovery after door open-and-close

★ 02 Series

Steady Low Humidity- Long Term Storage

Average door open-close 1~2 times a day keeps at 2%RH
Save energy appr.50%

★ 05 Series

Low Humidity: 5~50%RH

High cost performance
Reach 5%RH, fit for medium/long term storage of PCB and IC.

★ 20 Series

Medium Humidity: 20~50%RH

Low cost
Reach 20%RH, fit for medium/long term storage.

★ Auto Dry

Inner Humidity: 20~50%RH

Inner Humidity Adjustable
Capacity 1100L~260L

★ Suitable for Universities, Institutes, Labs, Food, etc

★ Acrylic N₂ Cabinet

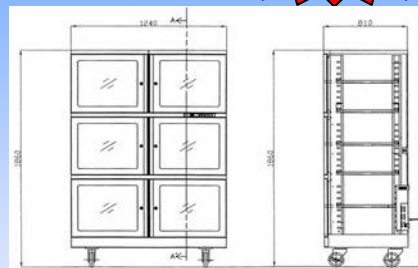
Dry Unit Optional, 5% or 20%RH

Transparent Nitrogen Cabinet
Easy for observation

MSD Series

Leadtime
20-30 days

Inner Temperature: Room temperature (25°C)~50°C Inner Humidity: 2%~50% **Fast Dehumidifying**



- ◆ Improved heat insulation(MSD-1106-02 Max.50°C)
- ◆ Operate under forced invective of inner hot air and low humidity (2%RH), baking dry.
- ◆ Baking for semiconductor, PCB, IC and LED, accelerate drying, Improve production efficiency.

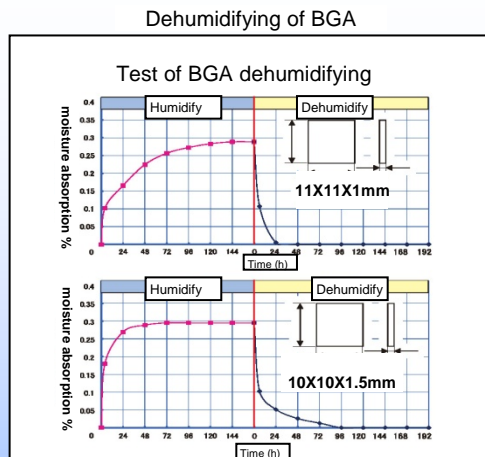
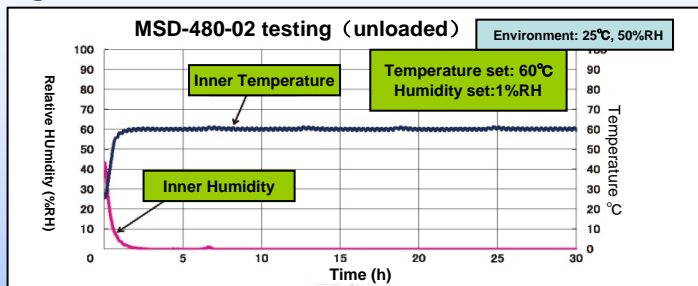
MSD-330-02 MSD-480-02 MSD-702-02 MSD-1106-02

Advantages to Items Stored

- 1 No need of pre-baking: To prevent the defective products
- 2 Mild baking: Cause no flaws to SMDs during dehumidification.
- 3 Moisture prevention: To prevent moisture absorption in one hour after taken from the cabinet.

※ This product has the function of heating and dehumidifying, has no function of refrigerating

- 1 Avoid high temperature(>100°C) baking, easy for operation
- 2 Control and show inner humidity on the digital panel
- 3 Accord to IC package management standard IPC/JEDEC J-STD-033C
- 4 Shelf loading capacity: **100kg** (Extra charge for ESD safe shelves)
- 5 Warranty period 2 years



[Note] ※ Specifications are subject to change.

Model	MSD-330-02	MSD-480-02	MSD-702-02	MSD-1106-02
External Dimension W-H-D(mm)	600X918X700	600X1185X700	620x1840x780	1200X1840X670
Internal Dimension W-H-D(mm)	589X768X620	589X1035X620	610x1560x730	1190X1560X620
Inner Capacity (L)	290	388	680	1160
Weight (kg)	95	120	140	235
Power Consumption	1370W/h	1370W/h	1370W/h	1370W/h
Rated Voltage	AC220V (50/60HZ)	AC220V (50/60HZ)	AC220V (50/60HZ)	AC220V (50/60HZ)
Material	Steel (ESD Paint)	Steel (ESD Paint)	Steel (ESD Paint)	Steel (ESD Paint)
Stainless Steel Shelves	2 pcs loading 100kg/shelf	3 pcs loading 100kg/shelf	5 pcs loading 100kg/shelf	5 pcs loading 100kg/shelf

TOTECH SUPER DRY**NEW!****Stainless Steel Cabinet****1% or 2% Available****Made of Stainless Steel**

Cabinet body made of 1.5 mm thick stainless steel SUS304, most suitable for ultra low humidity storage in clean rooms

**ESD Safe**

5 methods for 100% perfect EPA!

- ① Stainless steel body
- ② Stainless steel shelves
- ③ Conductive windows
- ④ 1MΩ earth resistance wire
- ⑤ Earth point for wrist strap & Wrist strap

SUPER DRY

Can enable your best achievement in production and development, with highest security and safety.

Digital Panel

Simple and easy to set humidity
Temperature can also be indicated

**Humidity Sensor**

High end, high quality sensor to transmit Data to digital panel (Calibratable)

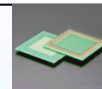
Engine Developed by ToyoLiving**U-2001F Type Dry Unit**

High Reliability and Stability
humidity, quick recovery system works.

Only Super Dry by original TOTECH can supply fully satisfied ESD FREE cabinets, 100% adjustment to IEC-61340-5-1.

Application example

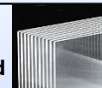
1) IC packages



2) Silicon Wafer



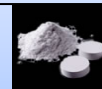
3) Liquid Crystal Glass(LCG) Board



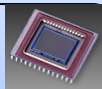
4) PCBs



5) Ceramics



6) Optical Fiber. CCD etc

**SUS-1106-02****SUS-480-02**

Model	SUS-1106-02	SUS-702-02	SUS-480-02
External WxHxD(cm)	120x184x67	62x184x78	60x118x70
Internal WxHxD(cm)	119x156x62	61x156x73	58x103x62
Capacity(L)	1160	680	388
Rated Voltage	AV220V, other voltage is optional		
Material	Stainless steel body and shelves, conductive glass windows		
Stainless Steel Shelves	5 pcs	5 pcs	3 pcs

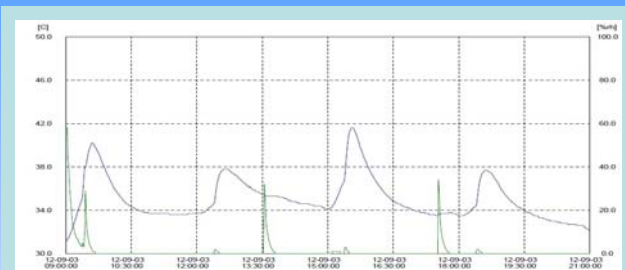
01 Series (Digital Control Panel: 1~50%RH)



Superior Recovery after Frequent Door Openings

01 series are equipped with 2 powerful patented dry units to reach ultra-low humidity min. 1%RH which meets IPC/JEDEC J-STD-033C demands, and provide the most effective solution to

1. Micro-cracks in Intergrated Circuits like QFP and BGA
2. Delaminations in Printed Circuit Boards and Rework Devices
3. Defects Caused by Heating in Lead-free SMD Devices

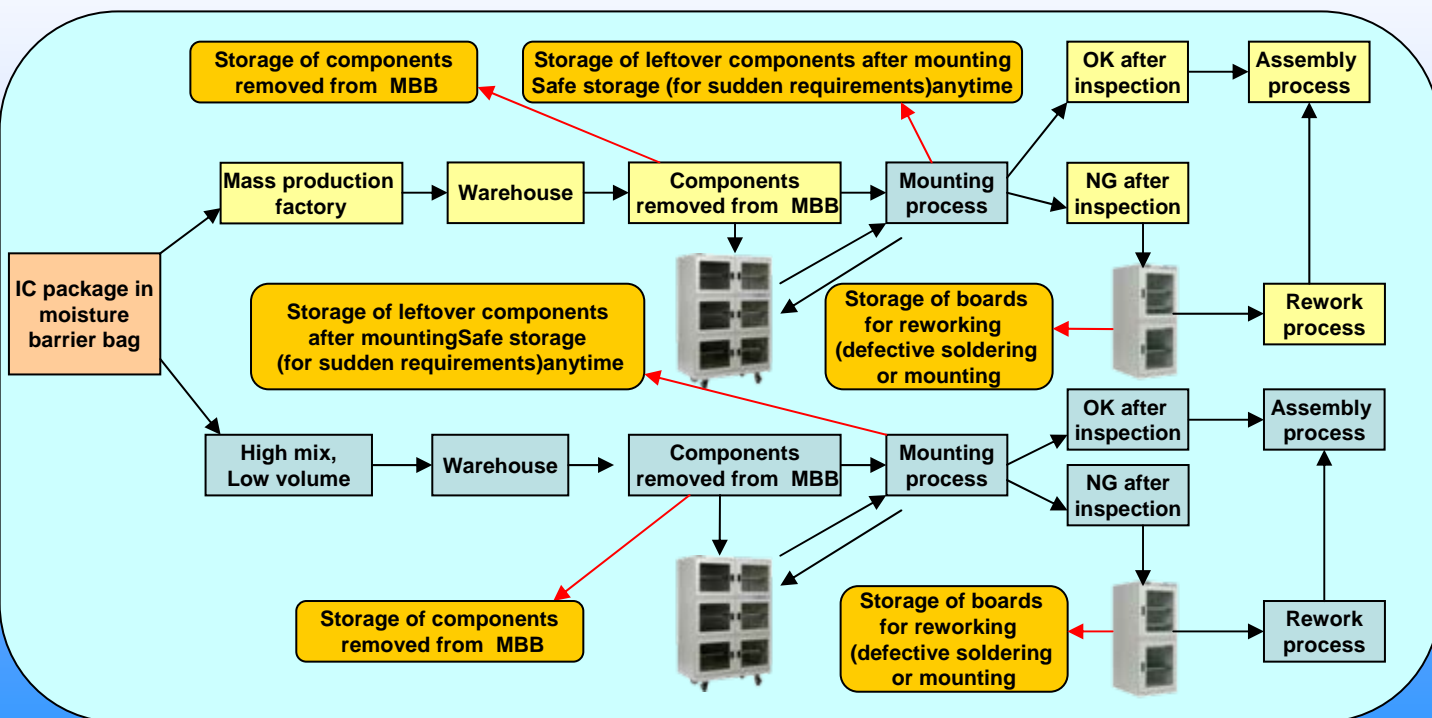


Door open-and-close test



HSD-1106-01 HSD-1104-01 HSD-702-01 HSD-302-01 HSD-502-01 HSD-252-01

Model	HSD-1106-01	HSD-1104-01	HSD-702-01	HSD-302-01	HSD-502-01	HSD-252-01
External WxHxD(cm)	120x184x67		62x184x78	50x123x64	88x90x74	88x90x38
Internal WxHxD(cm)	119x156x62		61x156x73	49x116x59	87x83x69	87x83x33
Capacity(L)	1160		680	340	510	252
Weight(kg)	167	162	117	67	67	46
Mean Power Consumptin	56W/h=40.4kW/month			56W/h=40.4kW/month		
Rated Voltage	Variations in voltage are available					
Material	Steel Body and Conductive Glass Doors					
Stainless Steel Shelves	5 pcs			7 pcs	3 pcs	



O2 Series (Digital Control Panel: 2~50%RH)

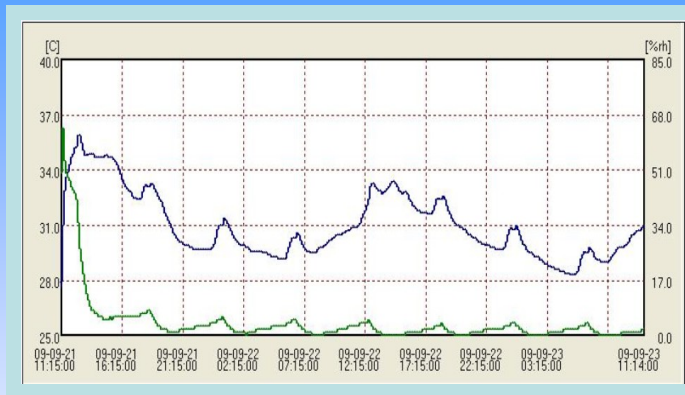
Dry Unit ×1



Medium to Long Term Constant Ultra-Low Humidity Storage

O2 series are equipped with 1 patented dry unit to constantly maintain the ultra-low humidity to min. 2%RH, to meet IPC/JEDEC J-STD-033C demands, and are ideal for the moisture proof and anti-oxidation storage of the following items.

- 1.Storage of all kinds of Interated Circuits and Silicon Wafers etc
2. Storage of PDP Inspection Equipments and Liquid Crystal Cleaning Equipments etc
- 3.Storage of Aerospace related instrumentsand Tools
- 4.Storage of Optical Equipments and Digital Media
- 5.Storage of Chemicals, Medicine, Cultural Assets,etc



O2 series unloaded test



SD-1106-02

SD-1104-02

SD-702-02

SD-302-02

SD-502-02

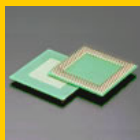
SD-252-02

SD-151-02

Model	SD-1106-02	SD-1104-02	SD-702-02	SD-302-02	SD-502-02	SD-252-02	SD-151-02
External WxHxD(cm)	120x184x67		62x184x78	50x123x64	88x90x74	88x90x38	50x63x58
Internal WxHxD(cm)	119x156x62		61x156x73	49x116x59	87x83x69	87x83x33	49x56x53
Capacity(L)	1160		680	340	510	252	145
Weight(kg)	160	155	110	60	60	39	29
Mean Power Consumptin	28W/h=20.2kW/month			28W/h=20.2kW/month			21W/h=15.1k W/month
Rated Voltage	Variations in voltage are available						
Material	Steel body with ESD safe painting and conductive glass windows						
Stainless Steel Shelves	5 pcs			7 pcs		3 pcs	

Applications in Production Process

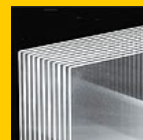
1) IC packages



2) Silicon Wafer



3) Liquid Crystal Glass(LCG) Board



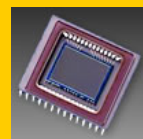
4) PCBs



5) Ceramics



6) Optical Fiber. CCD etc



Superior Features of 01 and 02 Series

Engine Developed by ToyoLiving

U-2000 Type Dry Unit

High Reliability and Stability

Till today more than 55,000 Units have been supplied and Used in the world, especially in Japan where strict regulations Exist. Low humidity, Quick recovery system works.



ESD Safe

7 methods for 100% perfect EPA!

- ① Conductive coating
- ② Conductive castors
- ③ Conductive windows
- ④ 1MΩ earth resistance wire
- ⑤ High end stainless steel shelves
- ⑥ Earth point for wrist strap
- ⑦ Wrist strap

SUPER DRY



Can enable your best achievement in production and development, with highest security and safety.

Digital Panel

Simple and easy to set humidity
Temperature can also be indicated



Humidity Sensor

High end, high quality sensor to transmit Data to digital panel (Calibratable)

Door Switch

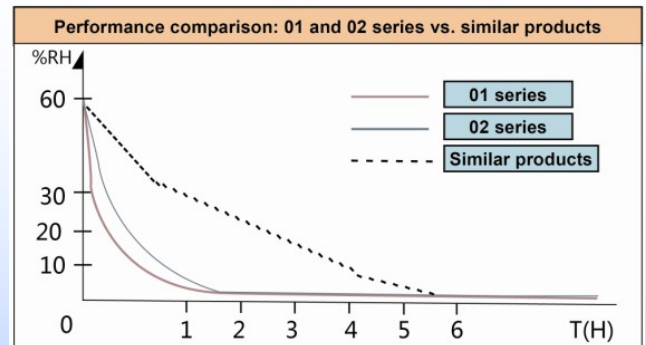
Each door is installed a door switch, operating the fan inside dry unit to Accelerate the dehumidifying after door Open and close.

Only Super Dry by original TOTECH can supply fully Satisfied ESD FREE cabinets, 100% adjustment to IEC-61340-5-1.

Fast dehumidification

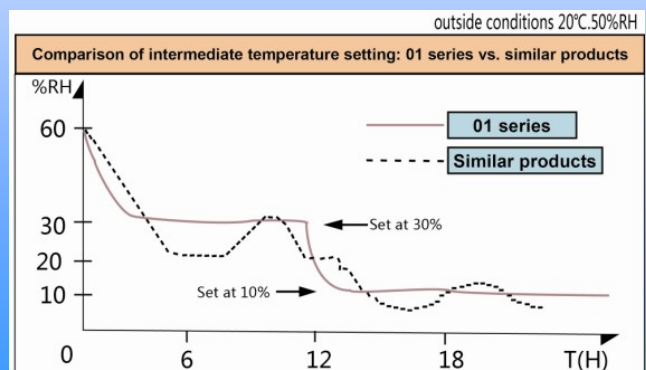
<Suitable for production process>

When a door is opened and closed, the fan inside the dry unit operates automatically about 20mins <automatic operation>. This provides faster dehumidification than the previous models and similar products. This new and original feature is indispensable for solving problems of moisture proofing and dehumidification between production line where doors are frequently opened and shut, and in reducing the humidity under highly humid external environment conditions.



Keeping constant humidity

At one time it was said that, due to the dehumidifier problems, maintaining constant humidity was not just very difficult but impossible, with the 01 and 02 series, improvements in both the circuitry (software aspects) and mechanism (hardware aspects) have made it possible to cope with storage of special devices which you'd better store in the 20~30%RH range.

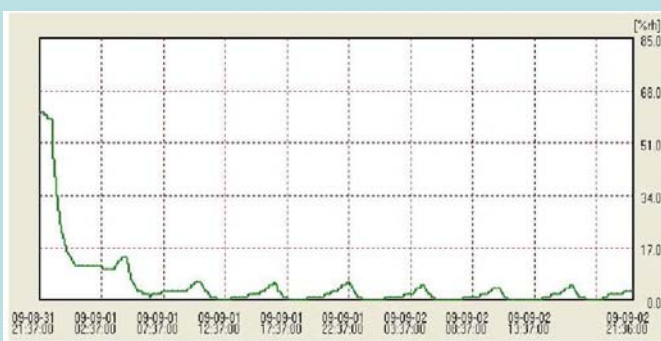


05 Series (Dial Humidity Control: 5~50%RH)



Super Dry Newly Designed

Constantly Dehumidifying, reaching min. <5%RH
LCD Digital Hygrometer
Cost Low
Meet the requirement of
IPC/JEDEC J-STD-033C



CSD-1106-05 CSD-1104-05 CSD-702-05 CSD-302-05 CSD-502-05 CSD-252-05 CSD-151-05

Model	CSD-1106-05	CSD-1104-05	CSD-702-05	CSD-302-05	CSD-502-05	CSD-252-05	CSD-151-05
External WxHxD(cm)	120x184x67	120x184x67	62x184x78	50x123x64	88x90x74	88x90x38	50x63x58
Internal WxHxD(cm)	119x156x62	119x156x62	61x156x73	49x116x59	87x83x69	87x83x33	49x56x53
Capacity(L)	1160	1160	680	340	510	252	145
Weight(kg)	160	155	110	60	60	39	29
Voltage	Variations in voltage are available						
Material	Steel body and glass windows						
Shelves	5 Steel shelves			7 Steel shelves		3 Steel shelves	

Special Cabinets

(Ask for customized cabinet)

Feeder Series (ESD Safe)

Perfect Ultra-Low Humidity Storage for Tape Feeder at 1%RH
Deep Design Handles Tape Feeders

Tape feeder can be stored directly inside dry cabinet



HEPA Clean cabinet With 6 pcs doors is available

HEPA Clean Cabinet (ESD Safe)

Equipped with HEPA filter and dry unit, controlling cleanliness and humidity simultaneously. Air cleanliness class 100, humidity 1~50%RH.

External Dimension	W120×H184×D96(cm)
Internal Dimension	W119×H156×D91(cm)
Capacity	1170(L)
Weight	197(kg)
Power Consumption	58W/h
Shelves	5 Stainless Shelves
Material	Steel body

External Dimension	W120xH184xD80(cm)
Internal Dimension	W119xH156xD62 (cm)
Capacity	1100L
Weight	193(Kg)
Power Consumption	58W/h
Shelves	5 Stainless Shelves
Material	Steel Body



SDF-1104-01

SDC-1204-05



Super DRY

20 Series

(Dial Humidity Control: 20~50%RH)

Long Term Storage

Super Dry Newly Designed

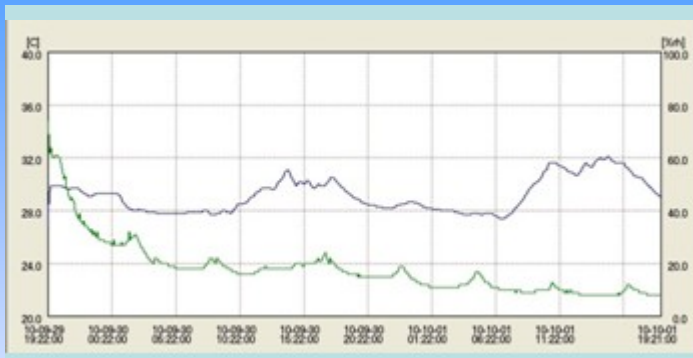
Best choice for factories, labs and universities

Constantly Dehumidifying, 20%~50%RH

LCD Digital Hygrometer

Cost Low

ESD Safe Function Optional



CSD-1106-20

CSD-1104-20

CSD-702-20

CSD-302-20

CSD-502-20

CSD-252-20

CSD-151-20

Model	CSD-1106-20	CSD-1104-20	CSD-702-20	CSD-302-20	CSD-502-20	CSD-252-20	CSD-151-20
External WxHxD(cm)	120x184x67	120x184x67	62x184x78	50x123x64	88x90x74	88x90x38	50x63x58
Internal WxHxD(cm)	119x156x62	119x156x62	61x156x73	49x116x59	87x83x69	87x83x33	49x56x53
Capacity(L)	1160	1160	680	340	510	252	145
Weight(kg)	160	155	110	60	60	39	29
Voltage	Variations in voltage are available						
Material	Steel body and glass windows						
Shelves	5 Steel shelves			7 Steel shelves		3 Steel shelves	

SUPER CASE

Ask for details

High intensity, shockproof, airtight, watertight, moisture proof and dustproof. With toughest foam (or protective padded dividers).

The best cases for police, emergency, army, aviation, outfield research, scientific exploration and outside photography.



Auto Dry

Most Economic Choice for Long Term Storage



ASD-1006



ED-508



ED-268



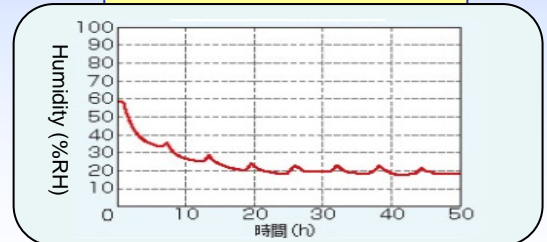
ED-138

Model	ASD-1006	ED-508	ED-268	ED-138
External (WxHxD)cm	120x184x69	88x90x76	88x90x40	44x90x40
Internal (WxHxD) cm	119x156x62	87x84x70	87x84x34	42x84x29
Capacity (L)	1160	510	252	151
Weight(kg)	155	58	33	21
Power Consumption	12.6W/h	6.3W/h		1.9W/h
Voltage	Variations in voltage are available			
Material	Steel body with gray painting			
Steel Shelves	5 Shelves	3 Shelves		

Totech Auto Dry flexible setting 20%~50%RH, fit for long term storage.

1. Storage of micro-films and positive/negative films
2. Storage of antiques and ancient documents
3. Storage of electronic devices, PCB and IC packages before removing from moisture barrier bag
4. Storage of powdered medicines and water solution
5. Storage of micro-lens and microscope lens etc

Auto Dry Unloaded Testing



Storage of Metal Objects and Tools

Recommended Humidity Level: Lower than 40%



Rust and error on the internal precision instrument can be prevented by storing commercial measuring instruments and other precision equipment, special tools, weapons, home equipment with metal parts in a low humidity.

Powders

Recommended Humidity Level: Lower than 40%



Any powder material for scientific, industrial, medical or household use can be protected from moisture absorption and chemical reaction by storing in a low humidity environment.

Stamps, Photos, Albums

Recommended Humidity Level: 30%~50%RH

Prevent discoloration and yellowing.



Humidity is one of the main causes of yellowing and decoloration of stamps and photos. They should be stored in a humidity level of 30~50%, not too high or too low.

Seeds

Recommended Humidity Level: 30~ 50%

Desirable Humidity Level: Lower than 10%



There is a strong relationship between seed germination with the moisture level of seed storage environment. A low humidity environment and prevention against water absorption will lead to high germination and growth rate.

Camera Lenses

Recommended Humidity Level: 50%



Mold can be prevented on camera lenses, microscopes, binoculars and photography equipment by storing in an Auto Dry cabinet.

Antiques, Arts

Recommended Humidity Level: 30%~55%RH



The hot summer and dry winter environment must be overcome to maintain the value of the items.

Acrylic Nitrogen Cabinet

Transparent Acrylic Cabinet

N2 set pre-installed, dry unit 5~50% or 20~50%

Fast dehumidification

Developed out of a robust acrylic material, the Super Dry Acrylic Series is engineered to achieve 5% RH control. Equipped with an N²-Set, the series can be used to store any stock commonly used in laboratories or electronics in a nitrogen atmosphere. Transparent acrylic cabinet serves clear observation of items stored inside, such as powder, chemicals, antiques, and so on.



Precise Hygrometer

Aluminium frame and Acrylic body

Stainless steel shelves
ESD safe

Light, easy to remove

Transparent design,
Easy for observation

ESDA Series ESD safe, 5~50%RH



Digital panel optional



N2 manual system
pre-installed



ESDA-800S



ESDA-400S



ESDA-200S

Model	ESDA-800S	ESDA-400S	ESDA-200S
External WxDxH(mm)	1152x540x1675	576x606x1675	574x549x792
Internal WxDxH(mm)	1140x487x1470	561x487x1470	559x487x737
Capacity	820 L	400 L	220 L
Weight	85 kg	46 kg	20 kg
Stainless Steel Shelves	10pcs	5pcs	2pcs

SDA Series

20~50%RH



SDA-800S



SDA-400S



SDA-200S



SDA-100S



SDA-090S



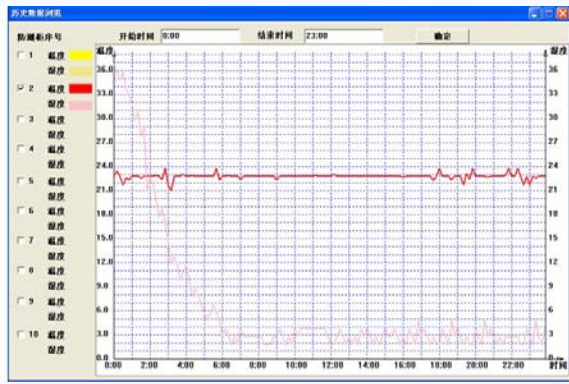
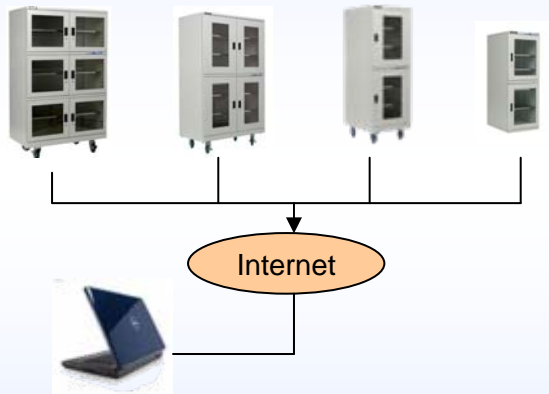
SDA-070S

Model	SDA-800S	SDA-400S	SDA-200S	SDA-100S	SDA-090S	SDA-070S
External WxDxH(mm)	1152x540x1675	576x606x1675	574x549x792	426x416x868	480x432x560	380x432x560
Internal WxDxH(mm)	1140x487x1470	561x487x1470	559x487x737	411x356x835	465x370x530	385x370x530
Capacity	820 L	400 L	220 L	120L	90L	70L
Weight	85 kg	46 kg	20 kg	20kg	15kg	10kg
Stainless Steel Shelves	10pcs	5pcs	2pcs	3pcs	2pcs	2pcs

Options Fully experience the high performance of Super Dry with the following options.

<p>1. Shelf</p>  <p>Greatly increase the usable space inside Super Dry</p>	<p>2. Reel Rack</p>  <p>Suitable for storage of components on tap eand reel</p>	<p>3. Divider</p>  <p>Better organization of inner space</p>	<p>4. L shape Metal Fitting</p>  <p>Anti tip stablizer</p>
<p>5. Humidity Alarm Light</p>  <p>Alarm light flashes when its internal humidity exceeds unit set point</p>	<p>6. Humidity Alarm Buzzer</p>  <p>Alarm buzzer sounds when its internal humidity exceeds unit set point</p>	<p>7. Door Alarm Buzzer</p>  <p>Alarm buzzer sounds when door open time exceeds unit set point</p>	<p>8. Wrist Strap Connection</p>  <p>Allows grounding while handling ESD sensitive materials</p>
<p>9. Castors</p>  <p>Available as an option for Super Dry not installed as standard</p>	<p>10. Adjustable Legs</p>  <p>Available for Effective stablization</p>	<p>11. N2 Auto-Purge System</p>  <p>Effective usage of N2 combined with Super Dry</p>	<p>12. Data Logger</p>  <p>Data Logging humidity and temperature</p>

Option: Network Monitoring System



- Multi-point sampling of temperature and humidity, carried out at 24hrs.
- The monitored data is transmited directly to thenetworked computers.
- The temperature and humidity is displayed and stored simultaneously.
- The data can be checked and printed at any time.
- Automatic alarm in case of overrun.
- Multiple languages available (Chinese, English, Japanese)



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