

# DRY CABINET

Moisture Sensitive Devices (MSDs), must be managed correctly because "a single mistake" on a tray or reel of MSD causes "negative impact on the entire production batch". Electronic components (like QFP, BGA or SOIC for example), LEDs and Printed Circuit Boards, when extracted from their original protective package, absorb humidity from the environment and during the soldering process the trapped moisture can vaporize and exert internal package stress. GHIBLI-PRO dry cabinets provides a "safe place" to temporary stock the MSDs removed from their original Dry Pack before soldering process. In fact the J-STD-033 tells that under 5% RH the Floor Life is congealed.

## ADVANTAGES ABOUT GHIBLI

**Easy use:** It's plug and play, just connect it to the main supply without any settings and it will be stable at less than 5%RH (5%RH is guaranteed but the cabinets easily reach 2%). The dehumidifier units are always active and not controlled by any sensor. This avoid dangerous problems due to malfunction or drift of hygrometers.

**Easy calibration:** Inside the cabinet there is an instrument for measuring environmental parameters: a DryLogger 9265.302 for the GHIBLI PRO line, visible through the glass of the upper door, or a Ghibli ADV Sensor module 8104.853 for the GHIBLI ADVANCED line, magnetically anchored to the internal walls. Both instruments can be sent for calibration at any time without problems

**Modular design:** The dehumidifier modules are easy extractable with only a screwdriver. This allow easy reparation and grant the long life of the cabinet, over 20 years, as long as the metal structure last. This is our green policy. Smart magnetic handles with key lock at every door. The front of the cabinet is flat.

2 years warranty

## GHIBLI PRO LINE (DRY CABINET)

### Technical specifications

Humidity range: <5% RH guaranteed , typical 2% RH

Colour: Anthracite

Power supply: 230Vac

Structure: 1,2 mm thick carbon steel with antistatic paint

Door: magnetic handles , magnetic sealers

Wheel (optional): 4 antistatic 3" wheels, two of them with brakes

Grounding wire: 2mt

ESD paint:  $10^3 - 10^9\Omega$

Maximum load per shelf: 100 kg

Maximum total load: 300 kg

The portable instrument DryLogger (**9265.302**) can measure RH & Temperature values in several points inside the cabinet, and can record H/T and transfer the data to PC for graphing and analyzing. Made for very low humidity measurement can be used also for applications outside the cabinets.

Tray Rack  
(optional)

Alarm Box  
(optional)



**9265.302 DryLogger**

See page 77 (included in all Ghibli Pro Cabinet)



(optional - Tray Rack)  
(optional - Alarm Box)

## GHIBLI-ADVANCED LINE (DRY CABINET)

### Technical specifications

Humidity range: <5% RH guaranteed ,  
typical 2% RH

Colour: Anthracite

Power supply: 230Vac

Structure: 1,2 mm thick carbon steel with  
antistatic paint

Door: magnetic handles , magnetic sealers  
Wheel (optional): 4 antistatic 3" wheels,  
two of them with brakes

Grounding wire: 2mt long

ESD paint:  $10^3 - 10^9\Omega$

Internal LED lighting activated with  
proximity sensor

Visualization of environmental parameters  
on the display integrated into the top of  
the cabinet

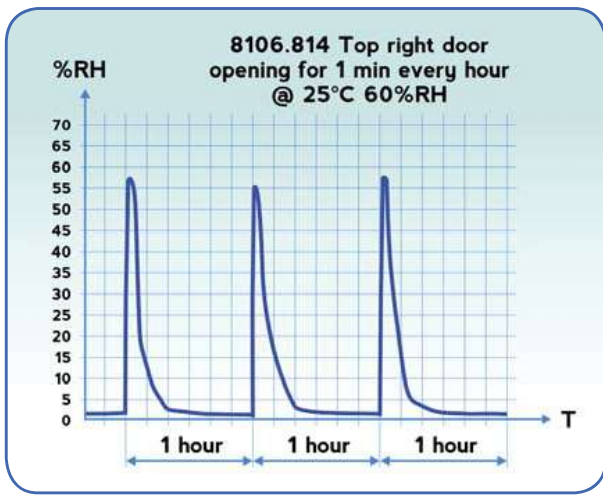
Ethernet port for real-time reading of  
environmental parameters and for alarm  
management from PC

Maximum load per shelf: 100 kg

Maximum total load: 300 kg

The Ghibli ADV Sensor **8104.853** module allows you to measure humidity and temperature at different points inside the cabinet, is magnetically anchored to the floors or walls. It is equipped with an internal data logger for viewing and analyzing the data both on the display and on remote PC. Through an Ethernet port it can make data available on the network in real-time.

<b>Code</b>	<b>8106.814</b>	<b>8106.807</b>	<b>8106.803</b>	<b>8106.834</b>	<b>8106.837</b>	<b>8106.808</b>	<b>8106.809</b>	<b>8106.810</b>	<b>8106.838</b>	<b>8106.839</b>
<b>Model</b>	Ghibli PRO 1400	Ghibli PRO 700	Ghibli PRO 350	Ghibli PRO 1400 BK	Ghibli PRO 700 BK	Ghibli ADV 1400	Ghibli ADV 700	Ghibli ADV 350	Ghibli ADV 1400 BK	Ghibli ADV 700 BK
<b>Capacity</b>	1400L	700L	350L	1400L	700L	1400L	700L	350L	1400L	700L
<b>Interior lights</b>	-	-	-	-	-	Led	Led	Led	Led	Led
<b>Connection to the LAN network</b>	-	-	-	-	-	Ethernet	Ethernet	Ethernet	Ethernet	Ethernet
<b>Ext. Dimensions (mm)</b>	1160x767 x1720(H)	580x767 x1755	580x767 x895	1160x767 x1720	580x767 x1755	1160x767 x1755	580x767 x1755	580x767 x895	1160x767 x1755	580x767 x1755
<b>Shelves</b>	5	5	2	5	5	5	5	2	5	5
<b>Shelf Size (mm)</b>	1094x606 x18	510x606 x18	510x606 x18	1094x606 x18	510x606 x18	1094x606 x18	510x606 x18	510x606 x18	1094x606 x18	510x606 x18
<b>Average power without baking</b>	80W	80W	40W	80W	80W	80W	80W	40W	80W	80W
<b>Maximum power without baking</b>	-	-	-	580W	330W	-	-	-	580W	330W
<b>Average power with baking</b>	500W	500W	250W	500W	500W	500W	500W	250W	500W	500W
<b>Maximum power with baking</b>	-	-	-	1500W	1000W	-	-	-	1500W	1000W
<b>Weight</b>	178kg	118kg	56kg	198kg	128kg	178kg	118kg	56kg	198kg	128kg



### Data analysis

With the portable instrument DryLogger and the software LogManager supplied with every cabinet you can calculate the time intervals and percentage that exceed the 10%RH or 5%RH which leads to the estimation of the MSD floor life ("Floor Life" is the allowable time period after removal from a moisture barrier bag, dry storage or dry bake and before the solder process reflow).

Another typical data analysis is the graph of the door opening.

### 40°C Baking

Some cabinets version can do 40°C low baking process of SMD components.

At this temperature the reels are not damaged and can be afterwards inserted into the feeders of the pick and place without problems.

## TEKDRY MODULE (INCLUDED)

The TekDry is a zeolite dehumidifier module (element that absorbs humidity), designed to work continuously, capable of lowering the humidity level up to 2%RH depending on the environment.

Operating ambient temperature: 5 °C < T < 35 °C

Operating ambient humidity 5% < RH < 90%

Power supply: 200÷240 Vac 50/60Hz

Average power: 40W

Maximum power 250W

**8104.852** Zeolite dehumidifier module

**8104.852**  
**TEKDRY**



## ADDITIONAL SHELF AND WHEEL KIT ESD (OPTIONAL)

**8106.840** Additional shelf 510x606x18 mm , Ghibli 700 and 350. 100Kg Max.

**8106.841** Additional shelf 1094x606x18 mm , Ghibli 1400. 100Kg Max.

**8106.850** Wheel Kit ESD

## FAST RECOVERY MODULE (OPTIONAL)

The FAST RECOVERY 8106.820 module is an immediate action dehumidifier. By exploiting the physical characteristics of compressed air (free of humidity) or nitrogen, it allows the humidity inside the Ghibli cabinets to be reduced in just a few minutes. Connected to the cabinet hygrometer, it allows you to maintain the humidity level within the established limits.

**8106.820** FAST RECOVERY module



**8106.820**  
**FAST RECOVERY**



## TRAY RACK (OPTIONAL)

Professional tray rack made of stainless steel that can be placed on the trays of the Ghibli dry cabinets.

**8106.866** Ghibli - RACK 10 trays store

**8106.583** Aluminium tray 495x570x12mm

## ALARM BOX (OPTIONAL)

With this option it's possible to set an alarm that become active when, after a certain period of time, humidity or temperature are above a predetermined maximum threshold.

The Alarm Box has a warning light and a buzzer that can be silenced from a switch on the panel.

**8104.856** Alarm Box for Ghibli cabinets

