







Increase P&P lines production P&P set up preparation time saving



Operators time saving



Space saving



Avoid human mistake



MSD controlled environment (RH<5%)



Complete stock control



Money Saving (fast R.O.I.)

# ISM 500

The ISM5OO intelligent dynamic warehouse has been developed to satisfy the storage needs of the most varied types of components.

With the possibility of configuring up to 640 different positions, in the ISM5OO intelligent static warehouse it is possible to insert 7 /13/15" reels, JEDEC trays, SMT and PTH tubes, screen-printing frames and foils, printed circuits, PTH components, etc...

Equipped with three luminous LED signals per position, the dynamic warehouse will indicate the position of the components to be extracted and, by reading the code with a PDA scanner, will prevent the incorrect removal of components. For the inserting phase the operator will only have to read the code to be inserted and the system will suggest the position. However, the operator will still have the possibility of inserting the component in a different position of his own choice. This offers a dynamic management of the positions in order to exploit the space available so as to reach maximum capacity. The ISM5OO intelligent static warehouse is configured with the humidity control module\*. It is thus possible to control and monitor humidity, to maintain an internal environment with a humidity of less than 5%.

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### **Characteristics of the shelves**

Up to 640 configurable positions (minimum position dimensions:  $34 \times 620 \times 130$  mm I width x depth x height) 3 LEDs per position to manage up to three extractions at the same time. It is possible to manage multiple items in each position:

- example ISM500 10 SHELVES: tota I capacity 3600 reels 7" H=8mm.
- example ISM500 16 SHELVES: total capacity 60.000 tubes.

VERSION	Positions for 7" reels, tubes, JEDEC trays, etc	Positions for 7/13/15" reels, tubes, JEDEC trays, etc	positions for tubes, etc
ISM 500 - Standard	80	160	
ISM 500 - 10 Shelves	400		
ISM 500 - 16 Shelves			640

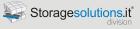
	FECUNICAL DATA			
TECHINCAL DATA				
Dimensions:	Width: 1,754 m/ 5.75 ft			
	Depth: 0,8 m/ 2.62 ft			
Min Height (For transport):	2,15 m/ 7 ft			
Operative Height:	2,20 m adjustable up untill 2,26 m (7,2/7,4 ft)			
Weight:	Weight: 350-850 kg (depending on configuration)			
Power supply:	110V - 230V; 50/60Hz			
Power consumption:	average 0,2 KWh - max. 0,8 KWh			
rower consumption.	average 0,2 KWIII - IIIax. 0,0 KWIII			
Humidity control:	Up to 8 dehumifiers			
Monitor:	Screen touch			











# Hardware Options for ISM500

HARDWARE AND SOFTWARE	Included by default
Humidity Control - 4 dehumifiers	<b>②</b>
ESD Setup	<b>S</b>
Multi Item Management option	<b>②</b>

At least one PDA has to be ordered to run the ISM500. One PDA can manage more than one ISM500. If needed, to carry out multiple extractions at the same time with different operators, it will be necessary to order one PDA for each operator. Each PDA has to be equiped with "PDA mobile software"

One Server PC is enough to manage many ISM storages. The Server PC is a normal computer with minimum requirement as per description bellow.

If not in the company Storagesolutions can provide a Server PC.

Items marked with this symbol are essential or the functioning of the system, therefore they should be added to the configuration as specified in the notes.

HARDWARE OPTIONS	On request
Humidity Control - 8 dehumifiers	<b>©</b>
Fast recovery Unit	<b>Ø</b>
Precision Camera Reader 5MP	<b>Ø</b>
Precision Camera Reader 13MP	<b>Ø</b>
(PDA)Mobile computer with 1D, 2D (datamatrix) scanner	<b>O</b>
1D manual barcode scanner	N.A
1D/2D manual barcode scanner	N.A
2D Wireless manual barcode scanner	N.A
Server PC	o
Standard PC	<b>Ø</b>
External backup Hard Disk	<b>②</b>
External Camera Station	<b>②</b>
Barcode Label Printer	<b>②</b>
Electronick Lock	<b>②</b>

# Hardware Options Details

### **Humidity Control Module**

With the Humidity Control Module, it is possible to adjust and monitor humidity, to maintain an internal environment below 5% RH.

This way it will be possible to store properly all sensitive components. Thanks to the software interface, the humidity floor life of each component can be monitored in terms of humidity. ( RH<5%, Software unit to control MSL life of every component managed inside the ISM systems, 8 dehumidifiers, 4 sensors: internal/external RH and internal/external temperature, Display to show internal/external RH and temperature)

Shelves and separators are finished with anti static paint. ESD certified.

### **FRU - Fast Recovery Unit**

The Fast Recovery Unit takes humidity down to optimal levels in a very short time even after longer periods with the doors open.

### PDA Mobile computer with 1D, 2D (datamatrix) scanner

It is the mobile device used to control one or more ISM500 and will be the interface between operator and main software. (see PDA Software)

### Server PC

It is the PC where to install the SERVER software. Separate SERVER PC shall be used to install SERVER software when customer has more than 10.000 unique ID inside his database. Specs: CPU Intel i7, 16GB RAM, 256GB SSD RAID HARD DISK.(monitor not included)

It is the PC where SERVER software and/or CONSOLE software can be installed when less than 10.000 unique ID are inside his database. Specs: CPU Intel i3, 4GB RAM, 60GB SSD HARD DISK.(monitor not

### **External Camera Station**

This option allows to take pictures, from a camera station that can be placed over a table. All pictures will be saved inside the DB in order to be able to visualize the picture of the reel easily. (very useful for any complain with supplier).

### **Precision Camera Reader 5 or 13MP**

This camera allows the automatic identification of cases height.

- allows the insertions of cases of different heights.
- reads 2D (datamatrix) barcodes and is able to give onmidirectional reading of the standard 1D barcodes (for this last possibility check specifications before). Through this camera the system will handle the Reels Pictures Traceability Option.

### **Electronick Lock**

It is an automatic lock that helps increase security and reduces extraction/ load errors by controlling accesses to the warehouse.









# ISM Software

The ISM software springs from direct needs that have emerged in more than 17 years working in the electronics industry.

Thanks to a close collaboration with the most diverse realities in the electronic field and to four years of development, the ISM Software can meet the needs of the electronic production at 360°.

The quantity control, component traceability, automatic extraction depending on the job order, the automatic calculation of the components used and their inventories, etc., are just some of the features of this software especially designed for warehouse management of electronic components.

### Life cicle reel management: incoming, tracing and updating

The software monitor the life cycle of each single reel / tube or other format, from incoming until it is exhausted, constantly updating its position at each loading or unloading and the quantity of components still present after each production.





### Stock analysis for purchases planning

The software stores the components necessary to produce a variety of boards. With this information the user can easily insert the number of boards to be produced and check whether in the stock is available the sufficient amount of components to complete the production or not. Otherwise, the software processes the list of missing components for the purchasing department.

### Warehouse analysis for production planning

The software is able to analyze the availability of components for more productions at the

same time, verifying the feasibility also based on the sequence of estimated launch.

# Flexible set of logical tracking, analysis and extraction

The system is able to use both linear bar codes and 2D (Data Matrix) according to customer's specification.

For example it is possible to design tailed 1D and 2D labels, set the system to extract multiple reels of the same component to speed up pick & place production or prioritize the extractions using FIFO or based on the shelf-life of the reel.



ISM-SOFTWARE

# **Humidity monitoring and SMD components management**

If at least one of the purchased warehouse is equipped with Humidity Control Unit, the software will track for each reel the humidity levels to which it is exposed and for how long, indicating in the analysis the components in stock that have exceeded the level of exposure allowed. In the case of mixed systems, sensitive components can be set to be stored only in machines with humidity control.





### **Other Software Features**

- SMT stock management
- THT stock management
- · Externals storage management
- Mobile Software
- PDA Mobile Software
- NEW: Led Binning Management
- NEW: External storage management
- NEW: Reels Pictures Traceability
- Software unit for automatic extraction from Pick and Place
- API ERP/P&P software interfacing module
- Feeder management
- F.I.F.O logic





