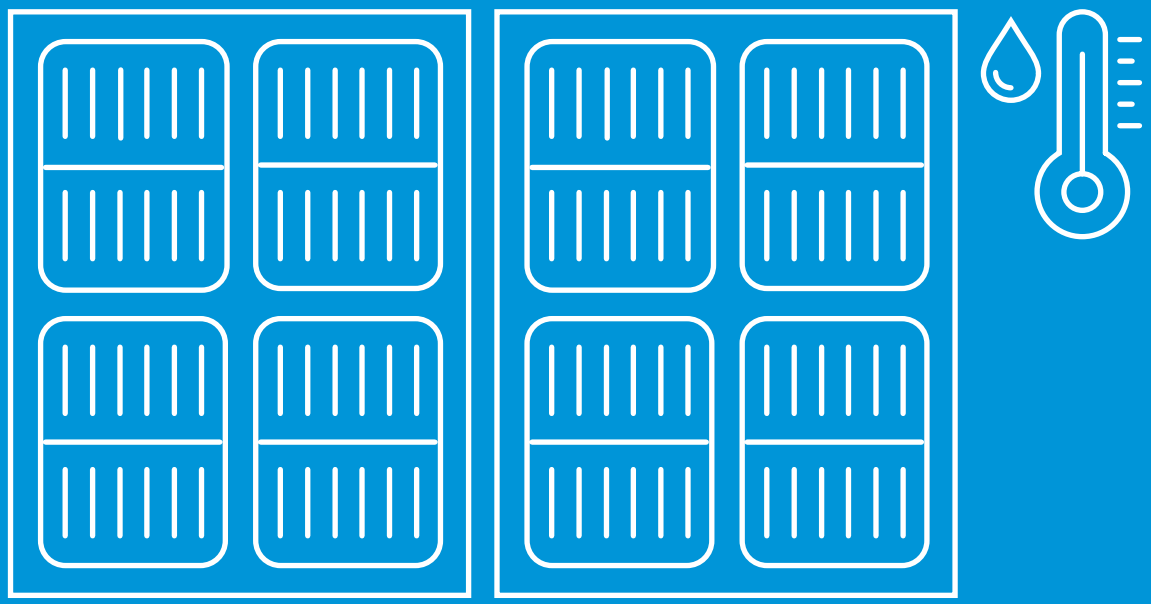
ESSEGI AUTOMATION

focus on **storage solutions**

ISM 500 Series
Pick to light
Dynamic Storage



INTELLIGENT STORAGE SYSTEM FOR VARIOUS COMPONENTS IN A SINGLE HUMIDITY-CONTROLLED SPACE

Essegi Automation has developed an innovative system for **intelligent management of various types of component** storage through dynamic warehouses. The goal is **optimizing available space** and ensuring **complete** material **traceability**.

Thanks to an integrated LED light system, ISM 500 Pick to Light guides the operator in the extraction and **insertion of materials** using a mobile device. The cabinet can be equipped with a **dehumidification system** capable of monitoring and maintaining the relative humidity below 5%, and it allows the management and tracking of external materials as long as they have a unique code.

THE **ISM 500** SERIES

An intelligent dynamic cabinet **capable of storing various types of components**, thanks to its flexible configuration options.
In the ISM 500, it is possible to store 7/13/15-inch reels, JEDEC and non-standard trays , SMT and PTH tubes, frames and stencils, printed circuits, PTH components, and much more. Literally any material that fits in the ISM 500 can be managed.

ISM 500
6 Shelves
Up to **160 positions**

Technical data
with various storage capacities

ISM 500
10 Shelves
Up to **400 positions**

Technical data
with various storage capacities

ISM 500
16 Shelves
Up to **640 positions**

Technical data
with various storage capacities

How it works

The system is guided by an **app on a mobile device** capable of **managing** the internal warehouse **material** and external positions.

At the core of the management is the **mobile device**

- For material extraction, a system of LEDs placed on the shelves lights up to indicate the exact position of the required component
- The mobile device also plays a sound to indicate if the correct or incorrect material has been selected.
- Operators can scan the unique ID of the material to see all data related to that item.

Management of components external to ISM500

ISM500 is a small cabinet used for storing components of various sizes (reels, trays, tubes, etc.) that require a dry storage environment.
With the help of the mobile device connected to the ISM 500 warehouse, it is possible to manage and track stored materials even outside in traditional warehouses or other locations using barcoded storage locations.

Humidity control

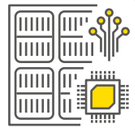
ISM 500 is designed to ensure a continuous air treatment cycle.
It drys the air inside the warehouse without waste and expels excess humidity into the external environment.

The HCU 2.0 system is equipped with:

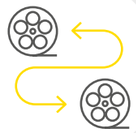
- 2 sensors: internal/external RH and internal/external temperature.
- A display to view internal/external humidity and temperature information.

Advantages

LARGE VARIETY OF STORAGE
In the ISM500, it is possible to store reels, trays, SMT and PTH tubes, frames, stencils, and many other materials. Virtually anything that fits can be managed.



WIDE RANGE OF POSITIONS
Up to 16 shelves for a total of 640 positions. Each position can hold one or more unique IDs.



ERROR-FREE PICKING
An LED guides the operator to the required material. Then the operator uses the mobile scanner to scan the unique ID of the material they have removed. The app confirms not only if the right part number has been selected, but the specific unique ID is correct, dramatically helping with FIFO logic.

DYNAMIC STORAGE
Materials do not have a fixed storage position. ISM 500 allows components in any available space to optimize space and achieve maximum utilization.

HUMIDITY CONTROL MODULE
The ISM 500 is equipped with a humidity control module maintains 5% or less relative humidity.

PRECISE “FLOOR LIFE” CALCULATION
The ISM software tracks the “remaining floor life” values of all stored materials and prevents their use once they have expired until they are regenerated.

PHYSICAL SECURITY
Upon request, electronic locks can be installed, allowing access to the cabinet only for authorized personnel.

Features

ISM 500 has been designed to **store a wide range of sizes and types of materials**.

The ISM500 Module:

- Available in various configurations, from 6 to 16 shelves.
- Shelves equipped with an LED light system that guides the operator.
- Antistatic internal separators and shelves, ESD certified.
- Integrated humidity control module.
- Handheld mobile device with integrated ISM app, also used for management of external materials or corporate reader configuration.

ISM Software

The heart of **integration**

Essegi Automation clearly understands the factors that drive the competitiveness of assembly companies in a global market: **managing storage, planning, and timely response**.

To achieve these goals, a reliable infrastructure for coordinated management of all phases of the production process is required, from receiving to movement and delivery to production lines.

Born out of the need for warehouse management and control, Essegi Automation **ISM software** has evolved over time to become a powerful tool **open to all types of integration and real-time data exchange with all major management systems in the company**, from ERP to MES, to Pick & Place production lines. The integration is key to reducing duplicate data entry, decreasing time spent on data entry, and eliminating human errors and is critical to a lean operation.

Essegi Automation has developed user-friendly, intuitive, and flexible software with data recording capabilities through image scanning, data acceptance from handheld devices, and label printing, as well as MSL management and external position management. An advanced material flow control system that can be further **customized through APIs and custom projects**.

Open and **ready for integration** with all company software systems

Advantages

- Up-to-date and comprehensive inventory of all available material information.
- Efficient organization of materials in the warehouse.
- Availability of materials at the right time and place without waiting times.
- Material traceability and the ability to determine the storage period.

A ISM Server software

Modules

B MSL Management

C Connections with Pick & Place

D Dynamic Warehouse Management

E Buffer/Supermarket Management

F Advanced Material Receiving Operations Management

G Dashboard

H Automated Material Handling Management

Options

1 Work Order Control

2 Alternative Parts Management

3 Traceability with Photographic Archive

4 Approved Vendor List (AVL) management

5 PO matching during receiving/ labelling

6 Location tracking with mobile devices

7 Material picking with mobile devices

8 Verification of the correct feeder setup locations

9 Visibility of feeder information from handheld devices

10 Smart Watch App

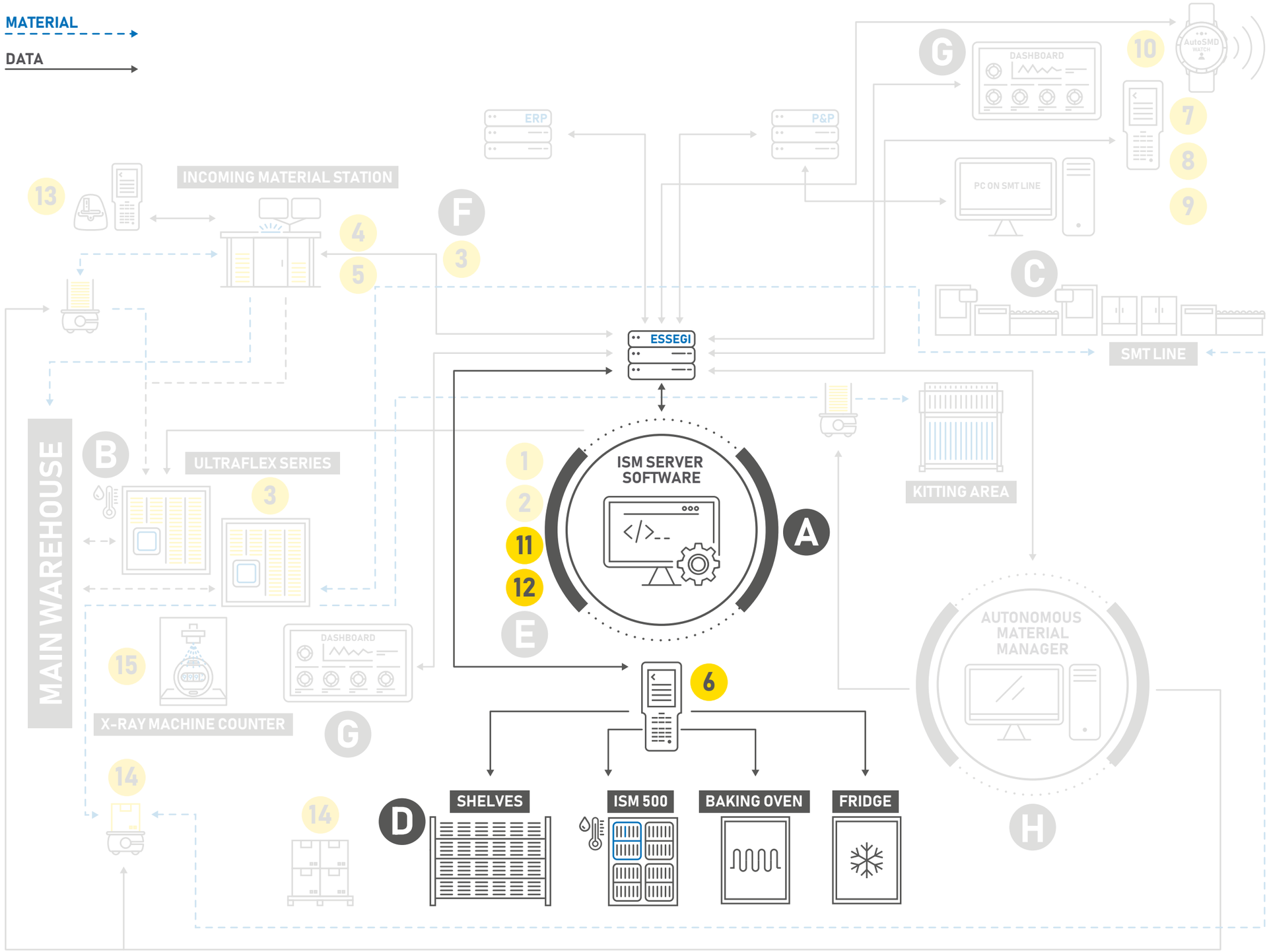
11 Solder Paste Management

12 Baking Management

13 Mobile scanning with handheld and label printing

14 Traceability of Boxes, Pallets, Trays with CASE BOX functionality

15 Connection to X-ray inspection systems



→ Pick to Light **version**

INTELLIGENT STORAGE SOLUTION FOR VARIOUS COMPONENTS

THE ISM 500 SYSTEM IS CAPABLE OF OPTIMIZING SPACE AND MONITORING POSITIONS, EXPIRATION DATES, AND THE HUMIDITY THRESHOLD OF MATERIALS OR COMPONENTS

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