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DPE DATA PROCESSING ENGINEERING SRL is a company with a long history.

Founded in 1975 to supply IT, over time it has become the reference reality in the publishing sector: the press distribution system in Italy has passed through our offices and our laboratories.

Since the 2000s, the activity of designing and supplying automation began to prevail, mainly

picking e sorting machines

Innovation, maximum efficiency, reliability, scalability are our strength, for systems entrusted to warehouse personnel, without specialists and white coats.

Contact us!



www.dpe.it

DGT - Pick to Light - Put to light - Send to Customers

DGT

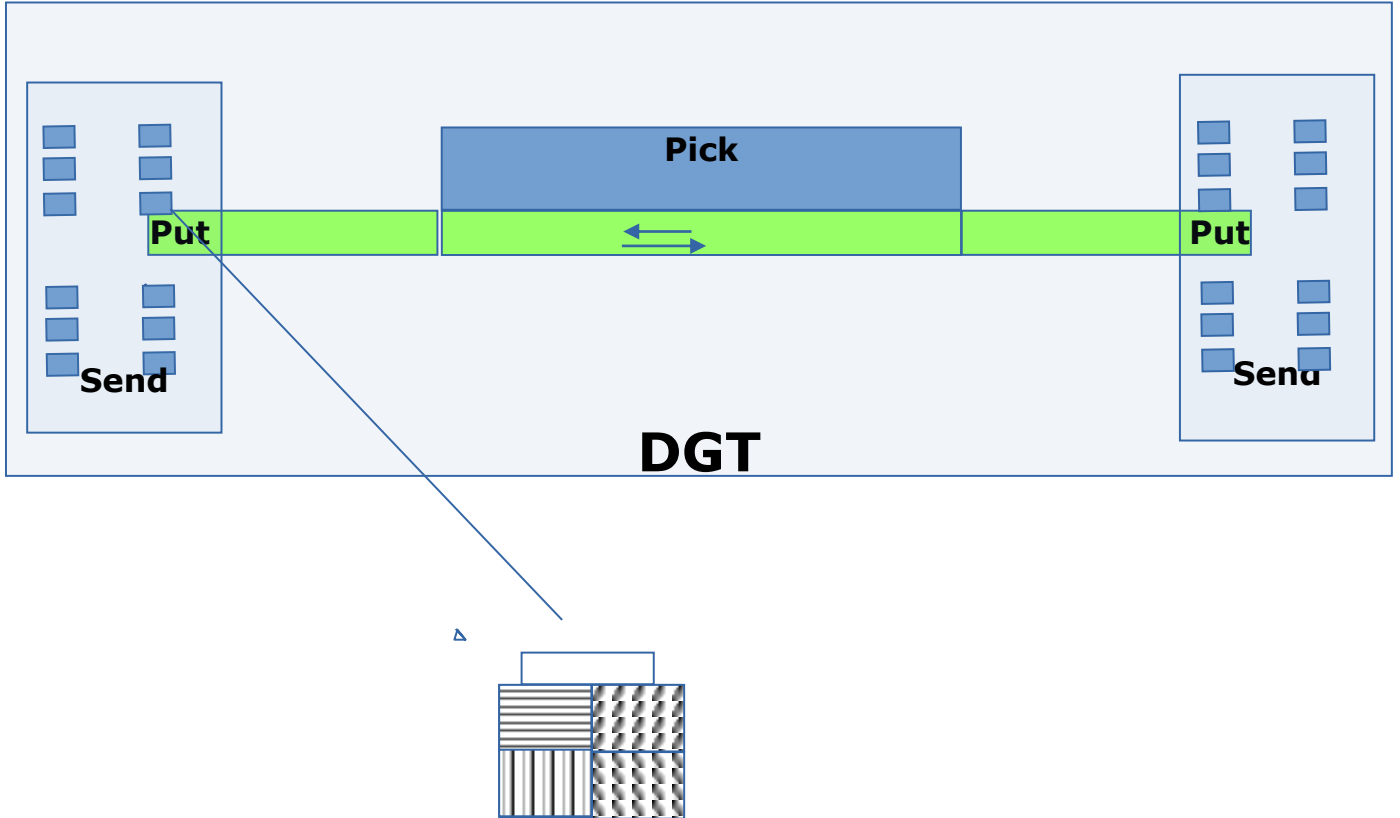
Take out of each product what and what is expected

Put what and how much ordered in the customer's basket

Send the baskets to Customers grouped by Line

DGT is the most efficient and advanced picking, packing and shipping system ever made.

The three fundamental functions of a logistics system, suitable for delivering orders from **e-commerce**, are integrated and harmonized in an easy to use and solid solution: **DGT**.



Features:

- suitable for packaged and bar-coded products
- 100, ..., 500, ... different products per cycle (depending on the size)
- product size: from 50 mm to 600 mm, ... (on the working front, with limitations)
- Unlimited number of customers (up to the desired maximum time per daily cycle)
- containers per customer: boxes, plastic baskets (with limitations: eg stackable, ...)
- double counting for great accuracy
- outbound baskets organized for 96 (max) different shipping lines per cycle
- very high productivity per work cycle
- patented

Pickup Area



Packaging Area



Customers in shipment



DGT - Pick to Light - Put to light - Send to Customers

DG

The assisted picking system simple and reliable

DG/ DGS was born in the 1980s.

Simple, reliable and economical, it is aimed at realities where the number of customers is not high, and for products to be delivered preferably to the generality of customers.

It is available in two classic versions:

DGS Equipped shelves, one cell for each customer.

It is a picking system based on a shelving in which each cell represents the point where the products to be packaged for a specific customer are inserted.

The shelving must therefore have a physical place for each customer for each work cycle. The operator in charge, using the service terminal, chooses the product to be packaged by reading the bar code.

The control computer indicates the quantity of product to be inserted on the LED display placed on the cell of each customer present.



DGS Equipped shelves, one cell for each customer.

For ease of work, a container is placed in each cell in which the quantities of product ordered by each customer will be inserted.

The container will then be sent to the customer together with the delivery note prepared by a special printer for all customers present in that work cycle.

DG : Products to be packaged for each customer.

When the number of customers to be packaged is high, and the products to be packaged for all customers are limited in number (eg 20, 50, ..), the DG system is convenient.

The products to be packaged are arranged on an "equipped table".

Each product place is equipped with a LED display.

The operator indicates to the control computer which customer is about to pack (or follows the sequence of customers proposed by the computer).

Withdraw the quantities indicated by the LED displays and places them in the customer's container which is transported with the appropriate sled.



DG : Products to be packaged for each customer.



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At the end of the planned path in front of the products to be packaged, the customer's container is complete.

A printer placed on the sled prepares the accompanying bill to be affixed to the shipping container.

The customer sequences to be packaged respect the shipping sequences.

REDIC - SORTING MACHINE

The **REDIC** plant is a Sorting Machine created to recognize, account for and select the products entered.

It is designed in a modular way:

- SR module for entering and recognizing products.
It allows to recognize products with:
 - The bar code, through high performance chamber readers.
 - pattern recognition, for the processing of special products.
- SMx modules for the selection of the destination of the products introduced towards a significant number of destinations.

Thanks to its careful design, it allows to treat:

- boxes, envelopes, books, magazines, etc.
- non-packaged products, as long as they do not separate during the passage in the machine.

Products size:

- min: 80x100 mm;
- max: 500 x 600 mm
- height from h = 1 mm to 200 mm (max)

Fig. 1 shows the entry point of the products.

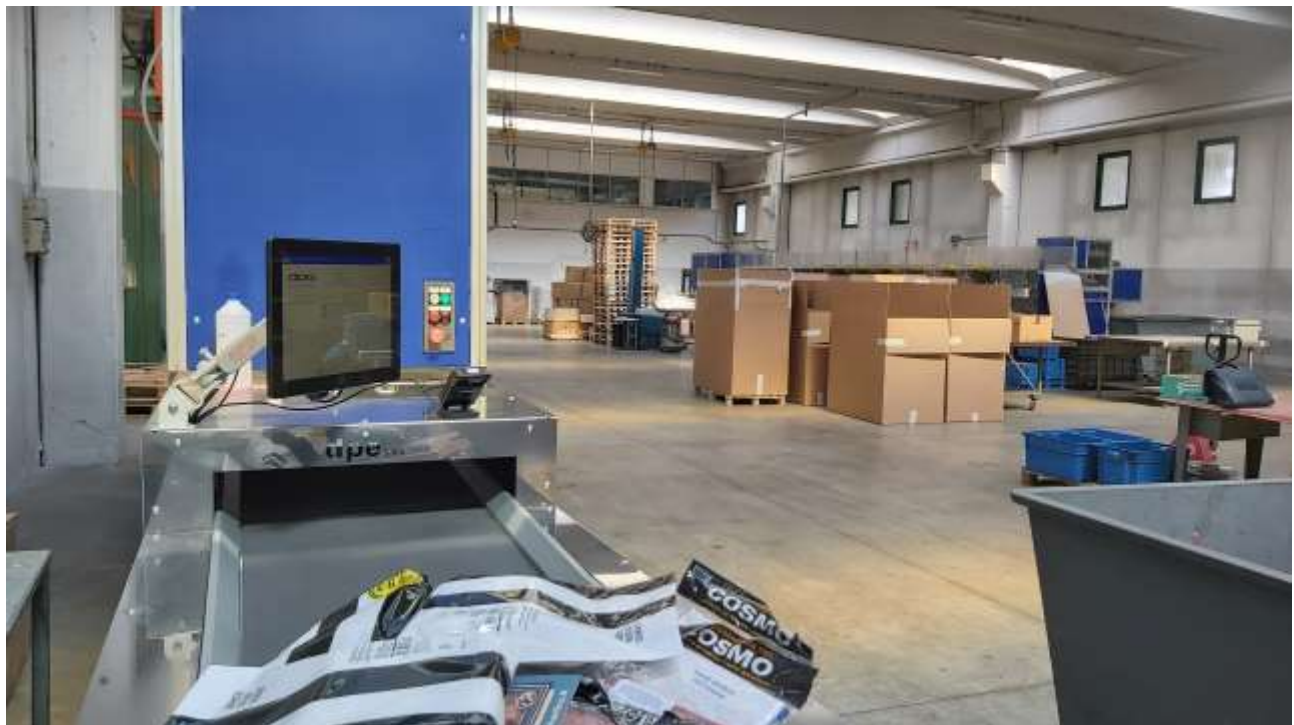


fig. 1

Product image registration.

All the products that pass through the machine are taken up by a special color camera. A verification software application allows an accurate inspection of the processing phases showing the processed products and the sequence of the processing step by step.

Products with unreadable code.

Unreadable products are rejected to be treated with the hand reader. They are then fed into the car to be sent to their final destination.

Control system.

- Process control:
 - It is made with plc located in the various parts of the machine.
 - They guarantee the modularity of the machine: i.e. the possibility of varying at will both the number of lines present in a system and the number of outputs present in each line.
 - They allow complete control of the machine and the acquisition of the data necessary for both its operation and processing control.
- Server:
 - It has its own relational database.
 - Stores the processing data and related images, in the order in which they are passed inside the machine for the number of different jobs that you want.
 - manages a large number of machines (e.g. 10 or more lines).
 - It provides exhaustive processing statistics, which make it possible to monitor the operating and performance characteristics of the machines and operators over time.
 - *the assistance and maintenance of applications and the most important components of the machine takes place remotely, via the Internet directly from our Service Center.*

Data interface.

The **REDIC** system is designed to work with any management system. It communicates through a simple data interface that can be easily implemented in any reality.

Selection modules.

In addition to the singling and recognition unit, the **REDIC** system has **SMx Selection Modules** width 4 and 8 output each, which can be replicated as needed to reach the desired number of outputs.

REDIC with 20 or 40 outputs per single line are a usual realization.

Productivity.

The *maximum productivity* of **REDIC** machines cannot be reached by operators with ordinary means; on the other hand, the *actual productivity* during a process depends exclusively on the skill of the operators.

In real production plants, operating under normal conditions and with trained operators, a typical productivity of between 2,500 and 3,000 pieces/hour per single line has been continuously observed.

REDIC - RING SORTING MACHINE

Plants with a high number of destinations: Redic-Ring.

When the selection destinations need to be more than 50, it becomes interesting to talk about **Redic-Ring**

Fig. 2 shows an axonometric view of a system with 6 entry points and **284** destinations. Each entry point also has a number of local destinations (e.g. 8).

Redic-Ring is a valid solution to manage a high number of destinations and a high volume of products to be destined. Its typical performance is 1,500 pieces / hour per point of entry and a virtually unlimited number of different products to address.

