



Pack Robot Series

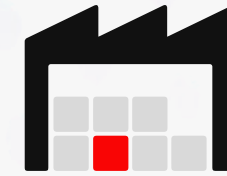
# ***CUBE*** 800/1000

Compact and moveable palletizer



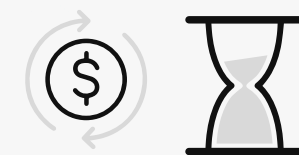


# ***Loading boxes*** is a thing of the past

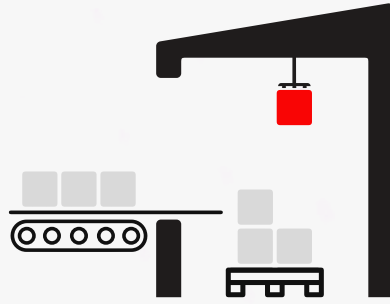


You would like to take care of your workers, but ...

- Space is insufficient in your productive plant
- Your production is not high and return on investment takes too long
- You are concerned about your operators safety, as well as the skills of your workers to operate complex machinery

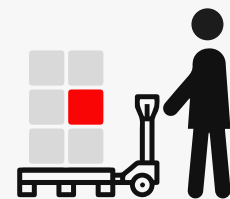




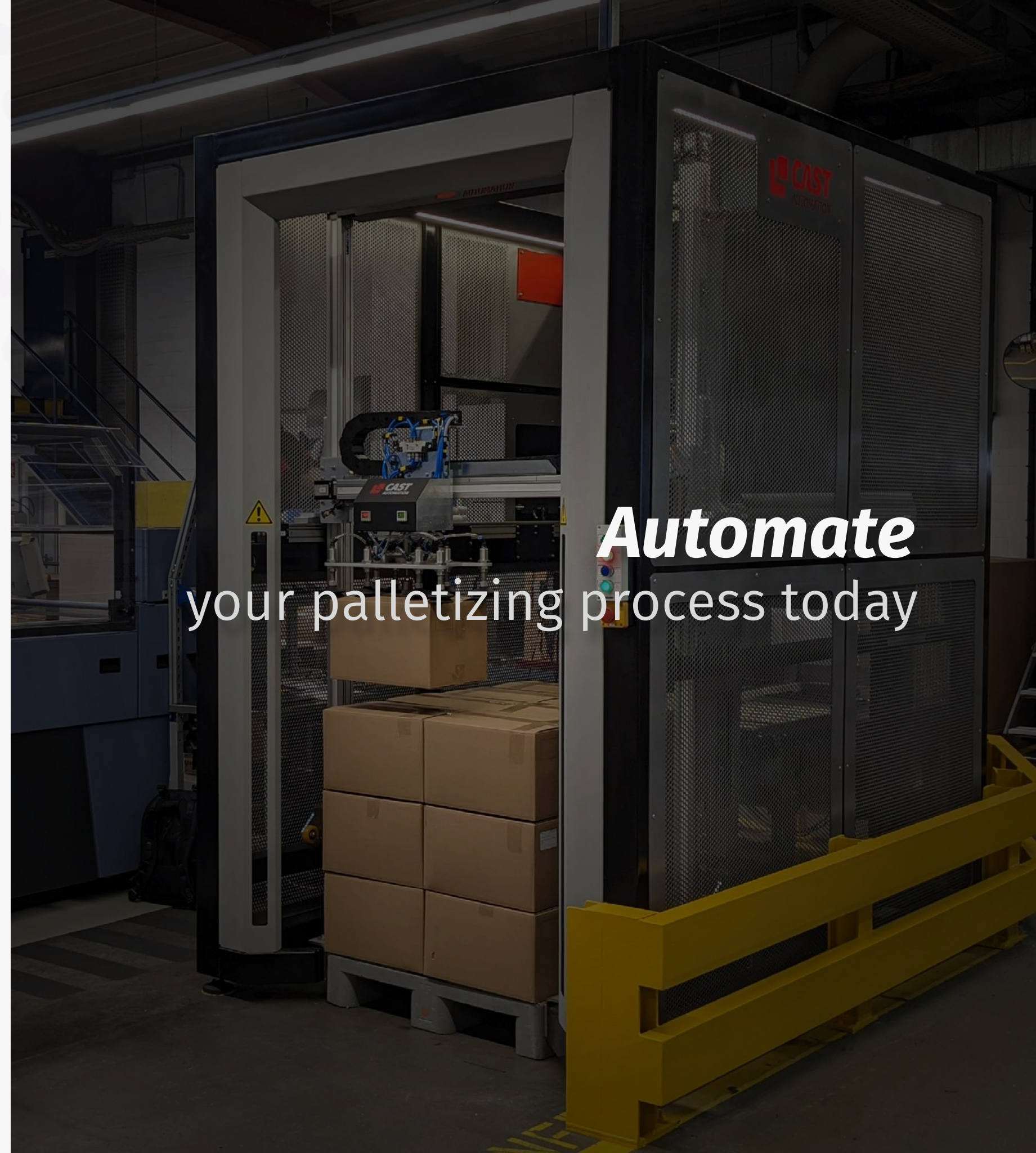


CUBE is the solution

- It is very compact and easy to move
- You will recoup the investment in less than three years with only one work shift. CUBE is ideal for 6-8 boxes/min productions
- Eliminate risk of injury to your workers



***Automate***  
your palletizing process today





# Process

## how it works

### 1. Ready, set, go!!

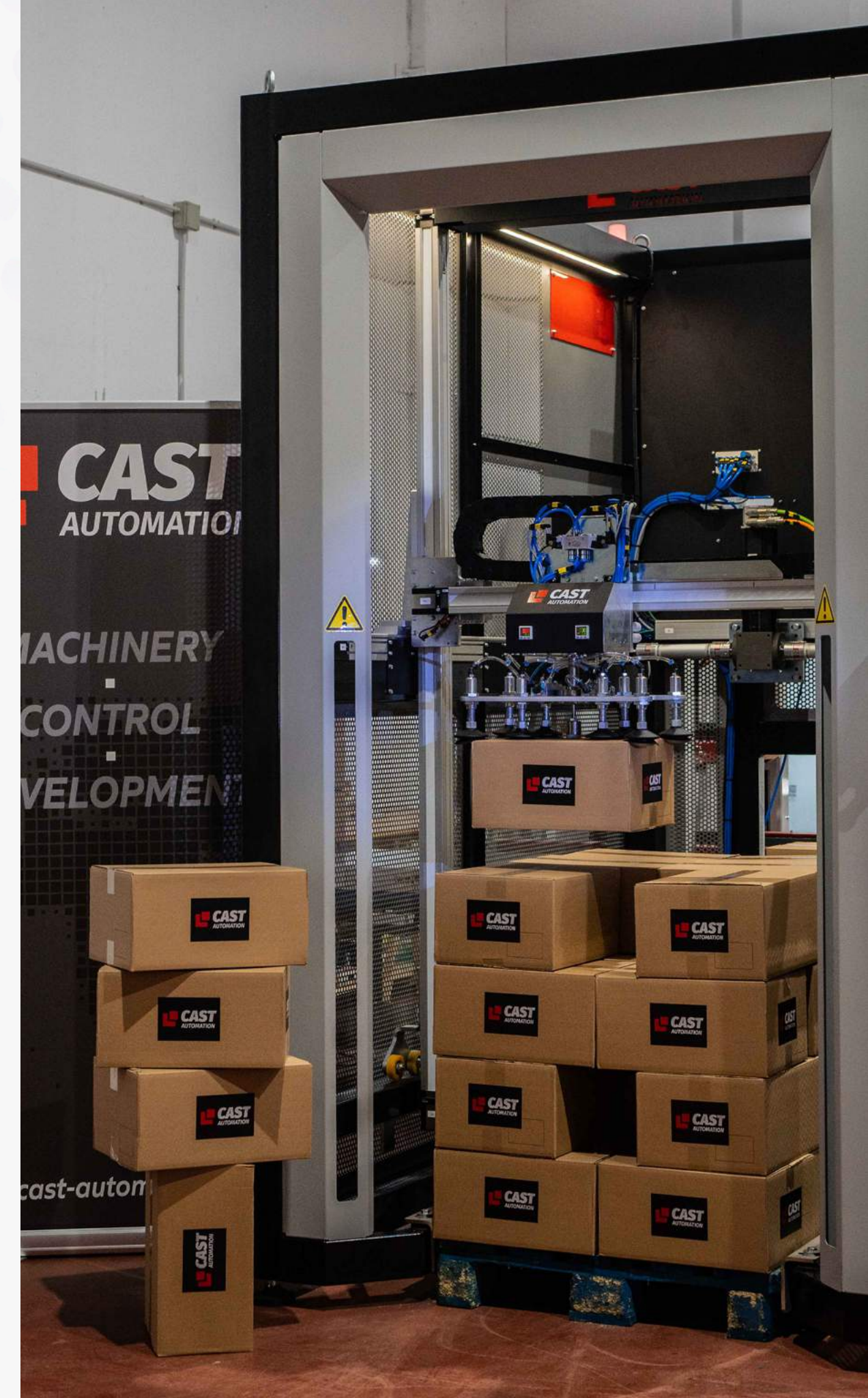
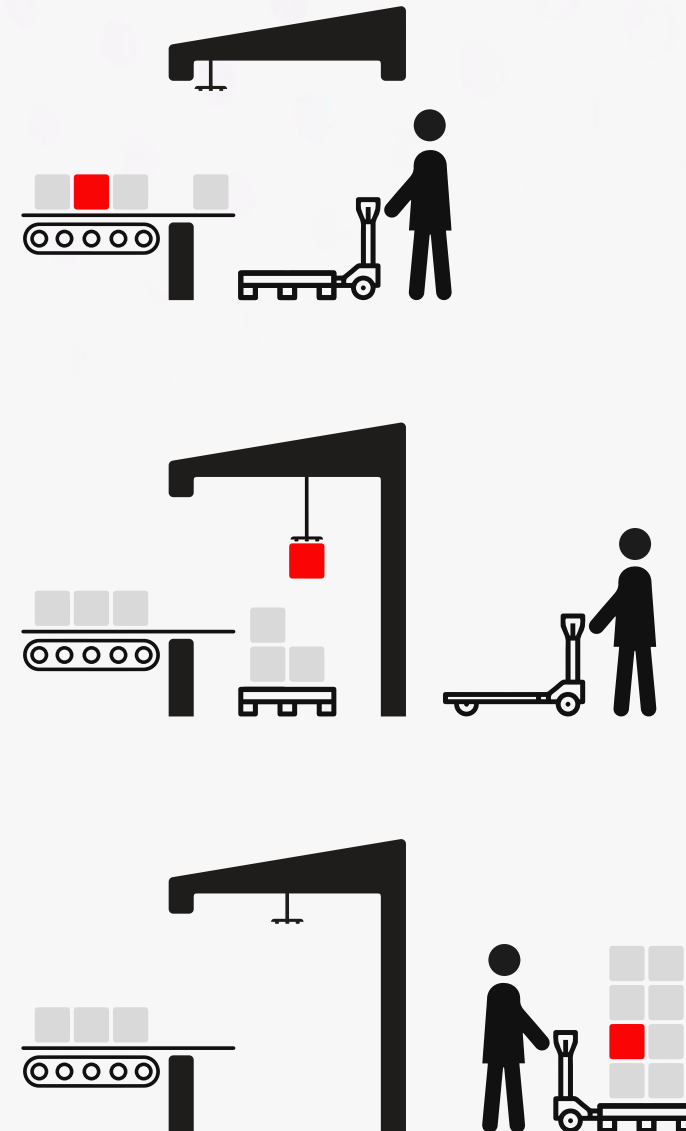
CUBE is directly couple with conveyors at the end of the production line, after the box packing station. Once it is in place, the operator selects the desired program and manually positions the empty pallet in the loading area.

### 2. Relax

A system of Cartesian axes with high-speed servo-driven movement loads each box placing it on the pallet layer by layer, making the drawing-mosaic previously selected in the “CUBE” program.

### 3. Next

Once the pallet is complete, the operator can remove the full pallet and place an empty one in order to continue the cycle.





# CUBE 800 / 1000

## Pack Robot Series

The Cartesian palletizer, CUBE, has been designed to manipulate cardboard boxes in order to organize your production on comfortable pallets.

A compact and flexible design, it allows to adapt to any small area.



### Data sheet

MAXIMUM PALLETIZING HEIGHT *(including pallet)*

MAXIMUM LOAD *(head included)*

CAPACITY

HEADS AVAILABLE

PALLET MEASUREMENTS

- CUBE 800
- CUBE 1000

ELECTRICAL POWER

**1950 mm \***

**16 kg/box \***

**6-8 box/min. \***

**Vacuum system**

**800x1000 mm**

**1000x1000 mm**

**10 kW**

*\* Modifications on request*

GRIPPER HEAD AND  
SERVO-MOTORS




VACUUM GRIPPING  
SYSTEM BY MULTIPLE  
SUCTION CUPS OR  
VACUUM TABLE



CRASH SENSOR





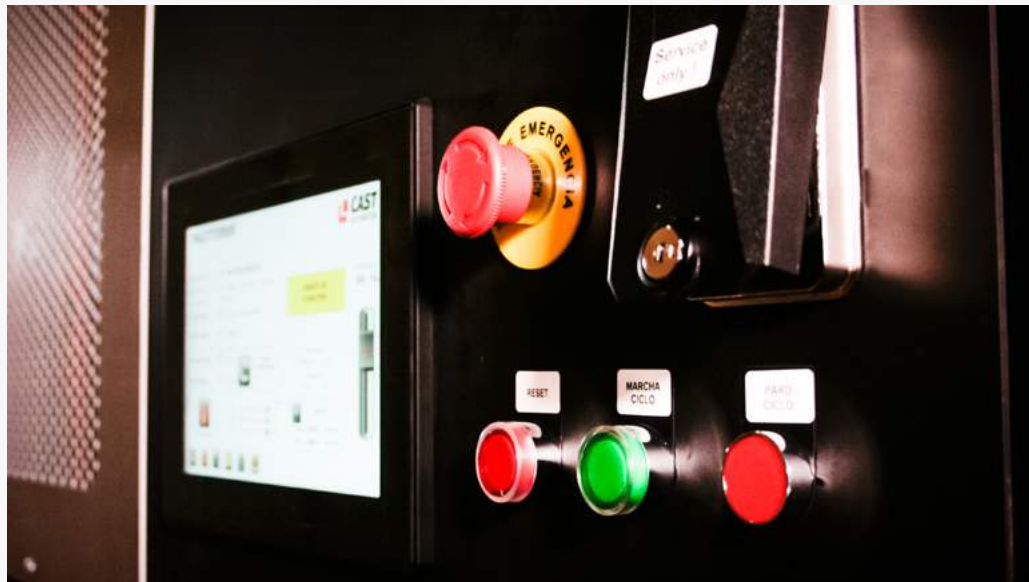


# *10 reasons* to trust CUBE



# Features

## benefits and advantages



### 1. Safety

It has been ergonomically designed to avoid injury to your workers and in accordance with **CE regulations**.

- Equipped with a safety light curtain at the access to the machine
- Head collision detection
- Open box detector on the box supply conveyor



### 2. Optimization

Thanks to the automated palletizing process, it allows you to reduce costs and times.

- **Capacity: 6-8 boxes/min**
- Designed to handle cardboard boxes
- Acoustic warning system for the last layer of boxes and due to machine failure
- Output signal to stop the machine in case it is not working in automatic cycle



### 3. Save space

The compact design of CUBE allows you to work in a **small area**. Its measurements are:

- Height 2700 mm
- Width 1620 / 1820 mm\*
- Length 2484 mm

*\*Version: CUBE 800 / CUBE 1000*



## 4. Move it wherever you want

Thanks to the **wheel system** and its weight of 850kg, you can easily move CUBE. Once positioned where you want, you have to activate just the anchoring system, to fix it to the ground.

## 5. Careful load/boxes handling

- **Vacuum grip system** to safely transport loads **up to 16kg**
- The gripper head can rotate the position of the boxes between 0-90°
- Depending on the characteristics of your product, we can adjust speed and acceleration for an optimal palletizing process

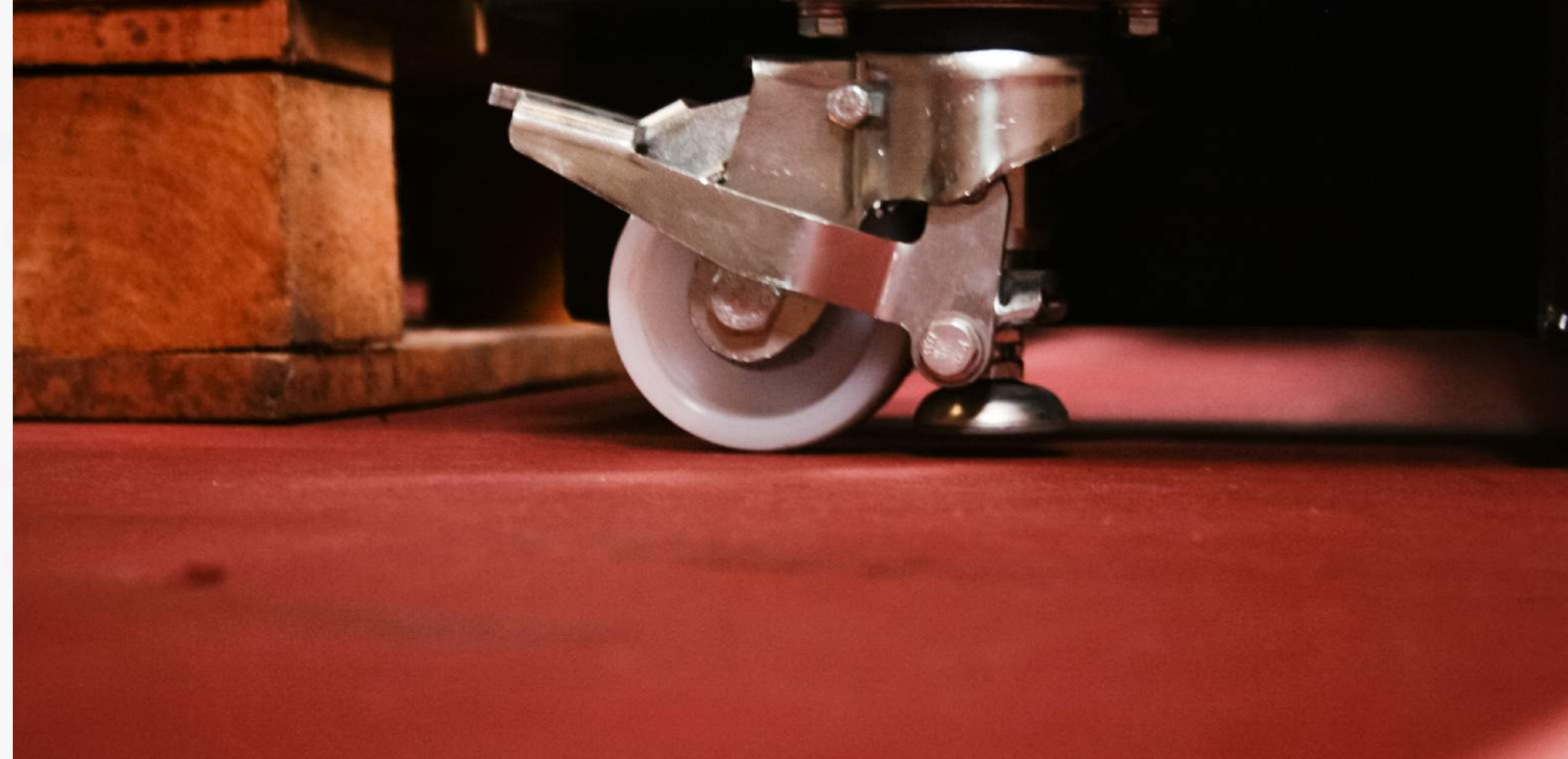
## 6. Flexibility

CUBE was designed with an adaptive centering system with manual adjustment, to correct small variations in pallet size due to manufacturer or material ( $\pm 30\text{mm}$ ).

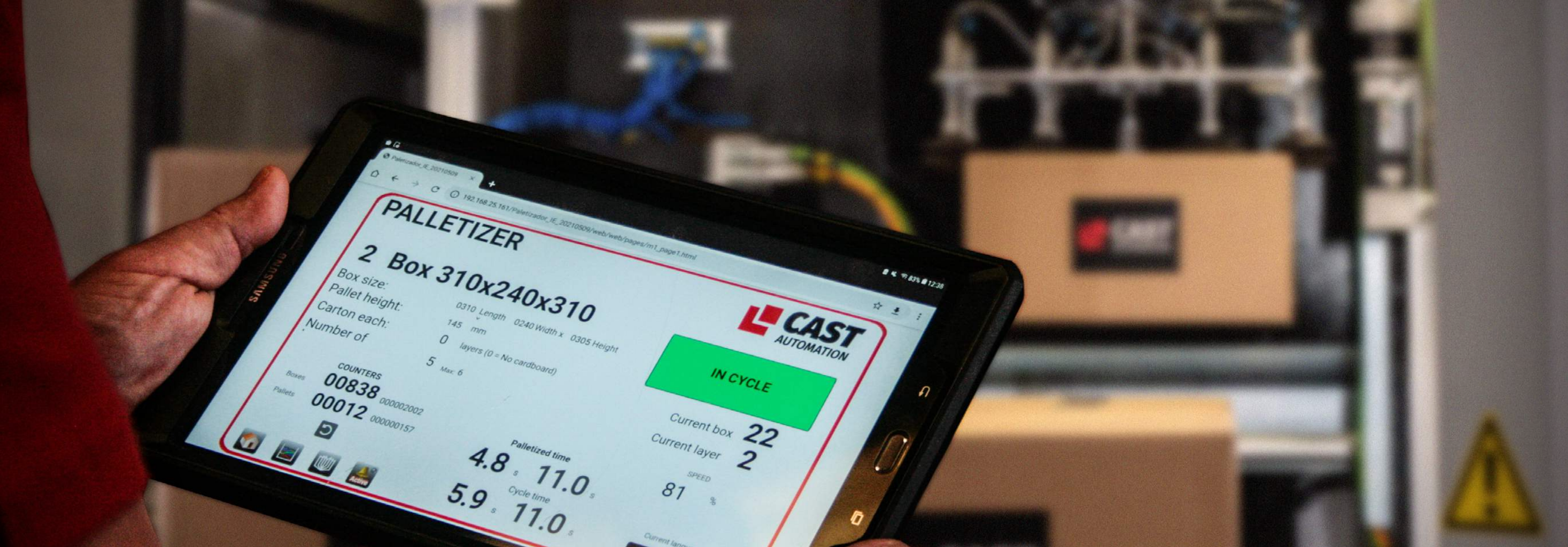
The equipment memorizes and allows you to configure up to 100 palletizing programs.

## 7. Access and maintenance

Its simple and open design, without mechanical barriers; **facilitates access to the machine** for any intervention, cleaning or maintenance.







## 8. Digital control system

Thanks to a **10.1" touch screen**, the operator can manage all the functions of the CUBE palletizer easily and simply. Control by PLC.

When the palletizer does not receive boxes for a certain time, the **energy saving mode** is activated.

## 9. Remote assistance & monitoring

During first two years, the remote assistance service will be included.

As well as, the CAST CONTROL supervision software for the management of production efficiency, **with real-time recording and monitoring on different devices** (mobile, tablet and PC).

## 10. Intuitive and multi-language interface

The user interface, through the screen, allows to check the status machine, axes position, mosaic configuration...

In addition, it **displays security warnings** and it allows you to change the interface language.





***Your safety,***  
our commitment

- Design according to Machine Directive 2006/42 / CE
- Emergency stop button
- Safety light curtain at the pallet entrance
- Failure detection *in vacuum circuit*
- Failure detection *in electrical and pneumatic supply*
- Failure detection *in open boxes*
- Detection of the most common errors *in the definition of the palletizing program*
- The first cycle is carried out at low speed, to avoid collisions, due to an accidental movement pallet or configuration changes
- Box centering system before gripping process starts
- Oblique unloading of boxes onto pallets, to ensure precise positioning of each box
- Limit detection in XYZ axes
- Smooth acceleration and deceleration to avoid load oscillation
- Password protected setup screen to prevent accidental modifications by the operator
- Safe vacuum system against energy losses



# CAST Control

## monitoring anywhere



### Monitoring system

Our CAST Control service is included free of charge, to control production.

Thanks to its use, the factory manager will be able to **supervise and monitoring** the current **production** and in a 10-day history. It can be viewed in real time and from any computer in the production plant.

The equipment saves a **log file** with all the **records**. It will be very useful for your continuous improvement process.

The information collected is:

- *Production done*
- *Average time of arrival of a box*
- *Average palletizing speed*
- *Machine time working*
- *Machine stop time*

You will have a 2-day graph on the screen (and remote access) to observe when shutdowns occur, when shifts start, shift ends, etc..

**Control chart** of “motor torque” to monitor the machine and its correct operation.

Information provided by the machine is the standard for this type of application.

Optionally, the reports and information obtained can be adapted to your needs (data backup on the server, working with a database, sending emails, etc.).



# Frequently asked questions

## doubts

### SAFETY, REGULATIONS AND MAINTENANCE

#### ***What happens if a pallet is half full?***

CUBE memorizes it. When you turn the machine back on, and start the cycle, it will continue to the next position.

#### ***What happens if there is an open box before it goes inside the palletizer?***

CUBE has a detection system. The palletizer will stop and notify you with a message on the screen.

#### ***What maintenance does CUBE need?***

Minimal maintenance. Any maintenance problem will be shown on the screen in order to be solved.

In addition, with the purchase of CUBE, we will include a set of replacement suction cups.

#### ***What regulations does CUBE comply with?***

Each of our machines comply with the European Machine Directive 2006/42/CE. Their respective technical manuals and CE certificate are included with them.

### DEADLINES AND DELIVERY TIMES

#### ***How long would it take to manufacture CUBE?***

Manufacturing would take 3 months.

#### ***How long will it take to install it?***

Installation will take less than 8 hours.

#### ***How long does commissioning and training take?***

Commissioning and operator training will take less than 16 hours.

#### ***How long is the warranty?***

2 years warranty.

### POSITIONING AND DESIGN MODIFICATIONS

#### ***How many people are necessary to change the position of the machine?***

Two people would be enough, just need to push it.

#### ***Could CUBE be modified?***

Of course. We are manufacturers and we can adapt CUBE to your requirements and needs.

### LOGISTICS AND COSTS

#### ***Where do you ship to?***

All over the world.

#### ***How much does CUBE cost approximately?***

The final price will depend on your needs.

It would cost a third of a conventional palletizer or about 75% of a robotic solution.

#### ***How long would it take to return on investment thanks to the automation of the process??***

You will recoup the investment in less than three years with only one work shift.

#### ***Any more questions?***

We will be very pleased to assist you in:

**[info@cast-automation.com](mailto:info@cast-automation.com)**



A photograph of three men standing in front of a white Peugeot van. The man on the left is wearing a blue polo shirt and jeans. The man in the center is wearing a red t-shirt and grey shorts. The man on the right is wearing a black polo shirt and black shorts. The van has 'CAST AUTOMATION' branding on the front and side. The license plate is '7842 LRN'. In the background, there is a building with a large 'CAST AUTOMATION' sign.

***Experience,***  
commitment and innovation

# **CAST Automation**

## About us

After more than 20 years developing automated machines for many different industrial sectors and leading international projects, CAST Automation was created with the aim of **manufacturing high value-added products**. This allows our clients to increase their productivity and competitiveness by reducing their operational costs and increasing the safety of their workers.

From CAST we want to provide **excellent services and affordable machines for any company**.

In order to achieve this, we work together a great team of professionals, suppliers and collaborators; to develop the most complex machines. Based on a **philosophy of commitment**, innovation, teamwork and honesty.

Communication with the client in the design and the manufacturing phases guarantees success in all projects.



***Stop thinking***  
palletize automatically

***Contact us***

AROUND packaging  
AROUND finishing  
AROUND measuring  
AROUND recycling



VOLKER BRAUN

/// KMB-BRAUN  
KUNSTSTOFF MASCHINEN BRAUN  
BRAUN@KMB-BRAUN.COM  
BEERENHÖHE 20 /// DE-21077 HAMBURG  
MOBIL +49 (0)171.970 0 970  
FON +49 (0)40.76 11 89 12  
WWW.KMB-BRAUN.COM



**Central office - GERMANY**

Edison Str. 15 52152  
Simmerath - Alemania



**Central office - SPAIN**

Parque Empresarial Oeste  
C/Cerrajería, nave 3 11408  
Jerez de la Frontera, Cádiz - España

EMAIL

TEL





[www.CAST-AUTOMATION.com](http://www.CAST-AUTOMATION.com)