# Plastic boxes and drawers

MECALUX

Mecalux's plastic boxes and drawers are the best solution for the storage and classification of small materials. They are classified in four main groups, with a large variety of sizes and dimensions that meet every need and cover all possible applications.



### Euroboxes

They have multiple applications both for automated and manual storage systems.

Based on the European dimensions 600 x 400 mm, they can be used to store a wide range of articles, both for conventional storage as well as for automated warehouses and internal transport.



### Transport and storage trays

They provide safe and stable transport on conveyor rollers and belts. They can also be used to store products of any given dimensions and in various amounts within automatic warehouses.



### Stackable drawers

Very useful for conventional warehouses where many small references are dealt with, for instance in warehouses of spare parts, workshop, production processes, etc.



### Removable drawers

Adapted to the shelving modules, they provide storage and classification of small objects or articles.

# Euroboxes

Plastic boxes of different heights that are ideal for mini-load warehouses or other applications such as paternosters and manual or live picking.
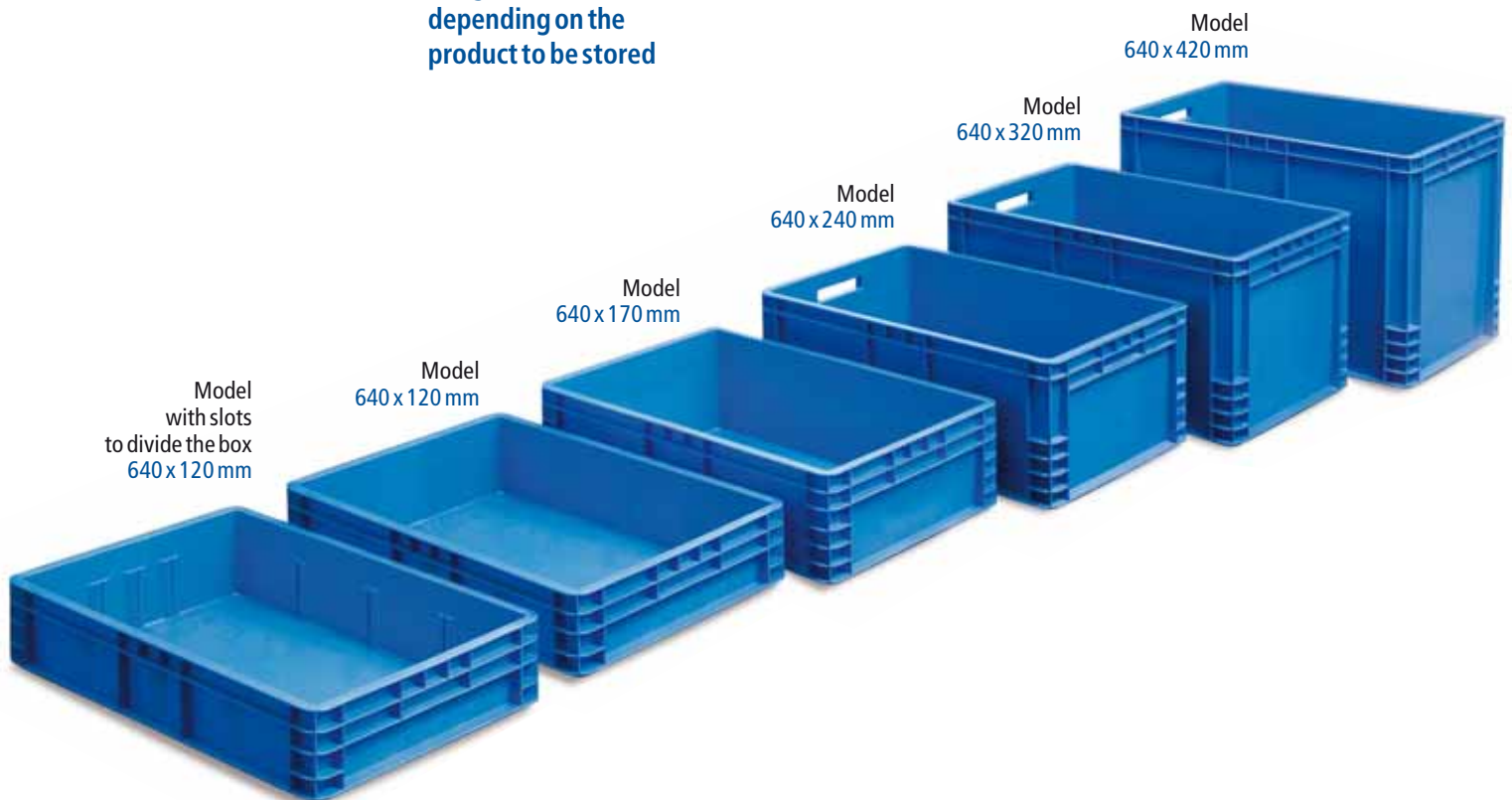
The studied design of its vertical and horizontal ribs provides them with a great resistance to side deformation and allows them to be handled in different manners, both manually and automatically.

In order to increase the reliability of the transport systems for boxes and reduce the inconveniences of certain containers, Mecalux has developed its own range of plastic boxes. Using a 600 x 400 mm base, the boxes have different heights depending on the merchandise to be stored.
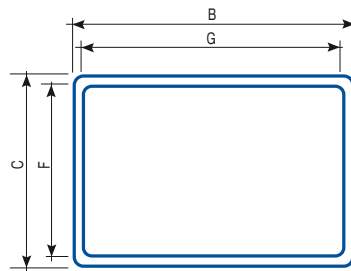
These boxes have been designed in accordance with the Eurobox standards and fulfilling the mechanical requirements for their intensive use in Mecalux's transport and storage systems.

The boxes fit one on top of each other and can be correctly stacked.
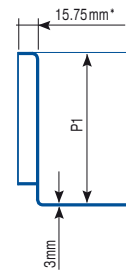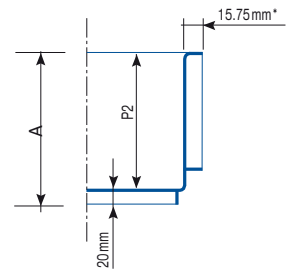
## Range of models depending on the product to be stored

Model
640 x 420 mm

Model
640 x 320 mm

Model
640 x 240 mm

Model
640 x 170 mm

Model
640 x 120 mm

Model
with slots
to divide the box
640 x 120 mm

## Dimensions of the different models



Flat bottom

Reinforced

15.75 mm *

15.75 mm *

3 mm

20 mm

* In all the perimeter

| Model | | External dimensions | | | Internal dimensions | | | |
|---|---|---|---|---|---|---|---|---|
| | | A (Height) | B (Width) | C (Length) | G | F | P1 | P2 |
| CME | 640 x 420 | 420 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | 417 mm | – |
| | 640 x 320 | 320 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | 317 mm | – |
| | 640 x 240 | 240 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | 237 mm | – |
| | 640 x 170 | 170 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | 167 mm | – |
| | 640 x 120 | 120 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | 117 mm | – |
| Reinforced CME | 640 x 420 | 420 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | – | 400 mm |
| | 640 x 320 | 320 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | – | 300 mm |
| | 640 x 240 | 240 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | – | 220 mm |
| | 640 x 170 | 170 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | – | 150 mm |
| | 640 x 120 | 120 mm | 600 mm | 400 mm | 568.5 mm | 368.5 mm | – | 100 mm |

## Depth of the boxes

The choice of euroboxes with either a flat or reinforced base depends on the weight of the product to be stored and its use.
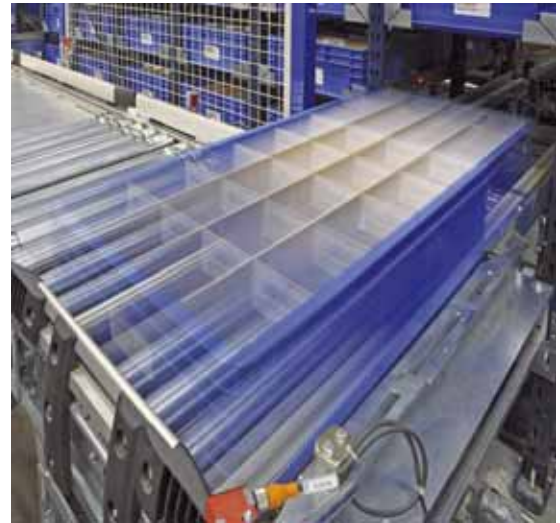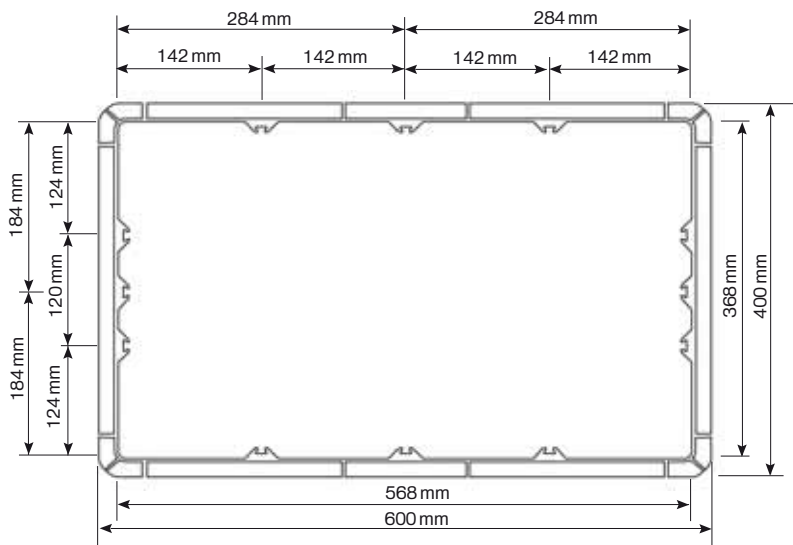


### Flat based box

A flat base is the easiest solution, perfect for light weights or for when the boxes are going to remain on the shelves.

### Reinforced based box

The base has a framework of longitudinal, transversal and diagonal reinforcements, which gives the box a great resistance. This box is ideal for automated warehouses and for use with roller and belt transport systems.

284 mm — 284 mm
142 mm — 142 mm — 142 mm — 142 mm
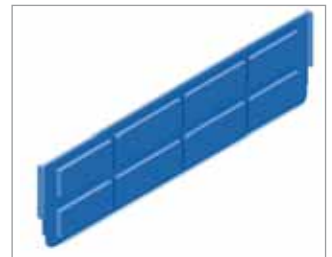184 mm — 124 mm — 120 mm — 184 mm — 124 mm
368 mm — 400 mm
568 mm
600 mm

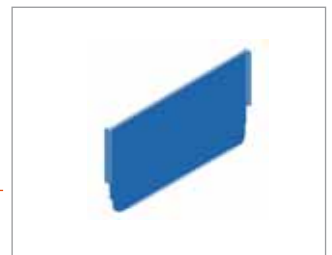## Internal design of the 600 x 400 x 120 boxes

There are three types of divisions that allow different types of compositions within the drawer's internal compartment. The aim of these divisions is the separate storage of different products. The use of dovetail slots maintains the shape of the compartments.
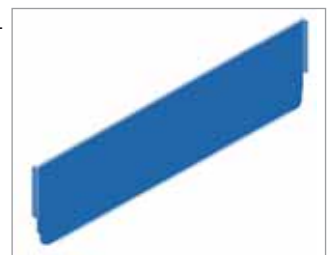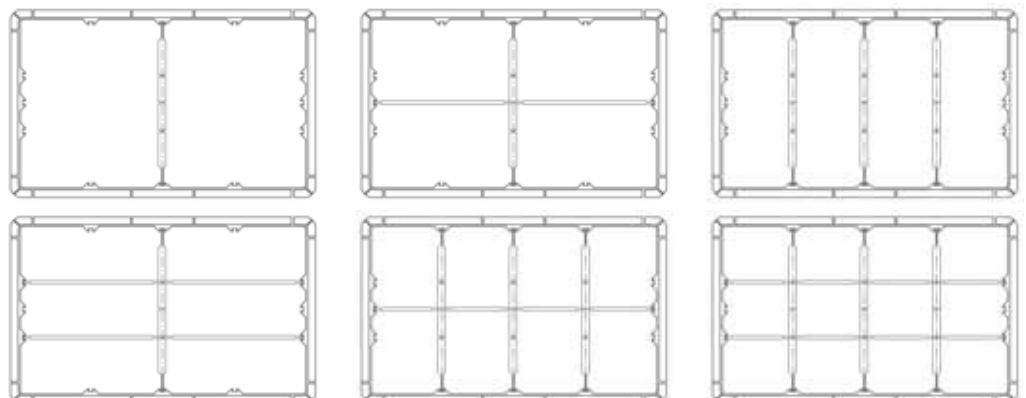
Division 640 T

Division 640 LC

Division 640 LL

## Common division design

The most common compositions are shown below in the six following figures, where up to 12 references can be stored in compartments with the same dimensions.

## 600 x 400
## Box lids

Also made of plastic, they keep the box closed and protect the stored product.

On one of the 600 mm sides, the lids have four pieces that fit in to the slots of the upper rib of the boxes and that can be used as hinge. Thus, the lid can be opened to gain access to the product without having to remove it completely.

Boxes with lids can also be correctly stacked.



## Applications

Both the euroboxes and the box-holding trays can be used in several storage and transport solutions.



### Mini-load with euroboxes

In automated transport systems, the box or container plays an important role in guaranteeing the correct functioning and performance of the facility.



### Conventional shelving with euroboxes

It is possible to use euroboxes (in warehouses for conventional picking shelving) with a great load and resistance capacity. The boxes can be stably stacked one on top of each other.

## Live picking
## with euroboxes

The shelves are formed by slightly inclined roller platforms. The goods are placed at one end and due to gravity it slides to the other end which joins the exit aisle.

On the live picking shelves, each type of box needs a certain distribution and gradient, due to the characteristics the material that it is made of and to its dimensions and weight.

In general, this solution is used with conveyor rollers or belts that connect different work areas. The use of boxes or trays as transport containers is an excellent solution.

## Vertical storages
## or paternoster with euroboxes

Euroboxes are also useful for vertical storage where the stable handling of the boxes is essential.

In this type of storage, an automatic handler moves the individual boxes and the trays vertically from the picking point to the desired storage level.
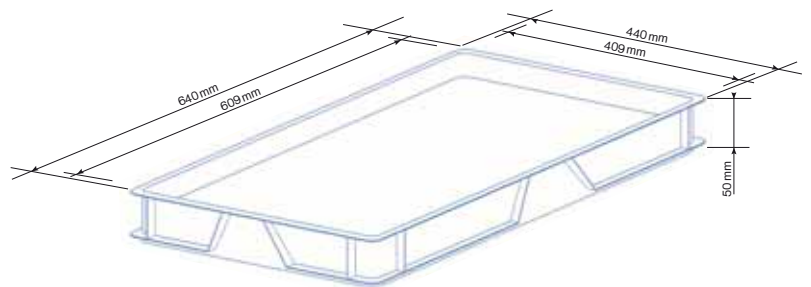
# Box-holding trays

They can hold, transport and store articles of different sizes and in different quantities.

The trays are most often used in automated warehouses for transport on conveyor rollers and belts, since it would be very difficult to operate without these trays.

One tray can hold from one 600 x 400 mm box up to several units of different dimensions.

640 mm
609 mm
440 mm
409 mm
50 mm

There are three different types of trays:

**Flat based tray**
With a great load capacity, the inside bottom is flat and the outside is reinforced with longitudinal, transversal and diagonal ribs.

**Perforated based tray**
Drilled trays allow the use of automatic handlers for the deposit and removal of the products. Its outer base is reinforced.

**Flat based ribbed tray**
In this case the ribbed section is inside the tray, and different products can be stored while reducing their movement within the tray. The outer base is flat.

# Stackable plastic drawers



Very practical in warehouses where many small references are handled, for instance in small parts warehouses, workshops, production processes, etc.
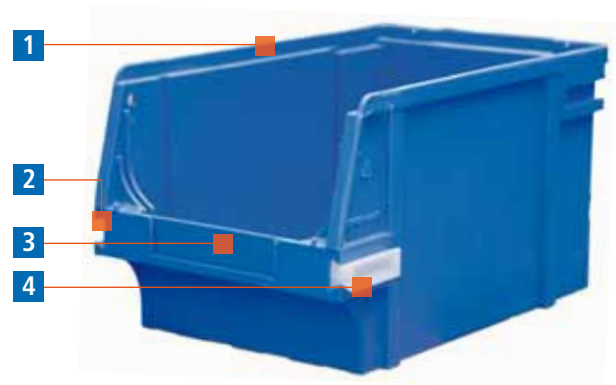
They can be used as independent load and classification units or can be assembled together in order to form a compact shelving system. Once integrated in the shelves, they can help to locate the stored products in an easy and effective way.

They are made of polystyrene, which guarantees their long life.

These are the available models:

**Basic elements**
1) Fastening and support surface for the stack of drawers.
2) Assembly slot.
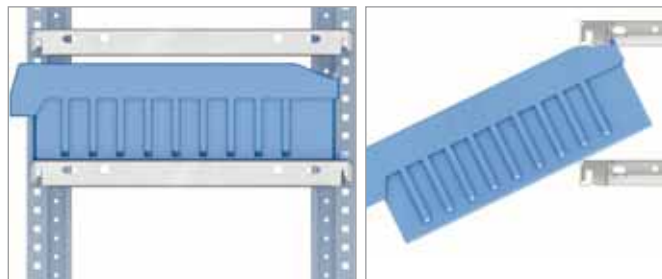3) Card holder for colour classification. Barcodes may be placed here.

**Accessories**
4) Connecting piece to consolidate compact shelving blocks.

| Model | Width | Depth | Height | Capacity |
|-------|-------|-------|--------|----------|
| 2 | 302 mm | 450/498 mm | 200 mm | 22,385 cm$^3$ |
| 3 | 210 mm | 295/345 mm | 200 mm | 9,925 cm$^3$ |
| 4 | 149 mm | 200/240 mm | 130 mm | 3,042 cm$^3$ |
| 5 | 101 mm | 140/164 mm | 75 mm | 746 cm$^3$ |

# Removable drawers

Its elaborated design, the reinforcements, the slots for separators, the stopper, the label holder, the resistance and accessibility of the handle, and other features, make it the perfect complement for picking shelves for small products.

Made of polypropylene, they have a great load capacity and resistance to handling.

They fit between two shelves, and when opening them to remove the product by means of a slight oscillation, they catch on the higher panel, avoiding a possible fall and facilitating the access to the merchandise.

An end stop limits the backwards movement of the drawer, making the opening of the handle accessible.

## Accessories

### Labels

On cardboard. The reference or code of the stored products can be written or stuck to the drawer.

### Transversal divisions

They subdivide the drawer transversally into compartments with different dimensions. The A-model divisions include a label holder.
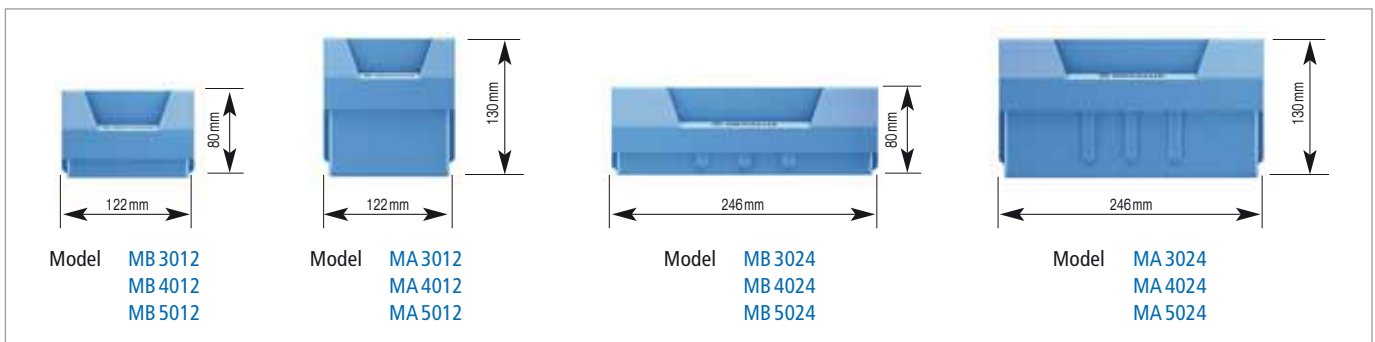
### Longitudinal divisions

They subdivide the 246 mm front drawers into two or three compartments. There are three possible positions.

## Four models with three different depths

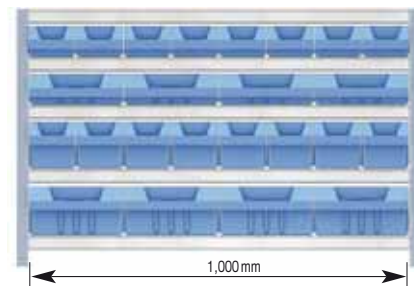There are four different models, each one of which has three different depths.

To choose the best model it is necessary to take into account the type of product to be stored and the depth of the shelving.

MA 12

MA 24

MB 12

MB 24

| | 80 mm | 130 mm | | 80 mm | 130 mm |
|---|---|---|---|---|---|
| 122 mm | 122 mm | | 246 mm | | 246 mm |

| Model | MB 3012 | Model | MA 3012 | Model | MB 3024 | Model | MA 3024 |
|---|---|---|---|---|---|---|---|
| | MB 4012 | | MA 4012 | | MB 4024 | | MA 4024 |
| | MB 5012 | | MA 5012 | | MB 5024 | | MA 5024 |

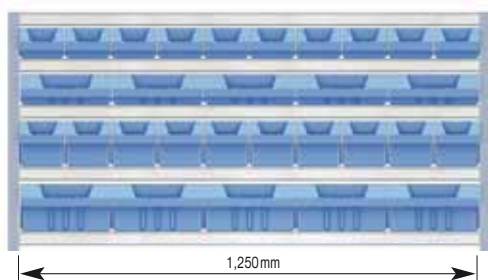## Capacity of the drawers by levels and their specifications

On a 1,000 mm level the following can be placed:
- 4 MA 3024, 4024 or 5024 drawers
- 4 MB 3024, 4024 or 5024 drawers
- 8 MA 3012, 4012 or 5012 drawers
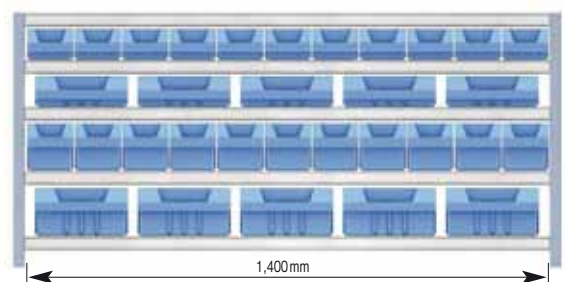- 8 MB 3012, 4012 or 5012 drawers

1,000 mm

On a 1,250 mm level the following can be placed:
- 5 MA 3024, 4024 or 5024 drawers
- 5 MB 3024, 4024 or 5024 drawers
- 10 MA 3012, 4012 or 5012 drawers
- 10 MB 3012, 4012 or 5012 drawers

1,250 mm

On a 1,400 mm level the following can be placed:
- 5 MA 3024, 4024 or 5024 drawers
- 5 MB 3024, 4024 or 5024 drawers
- 11 MA 3012, 4012 or 5012 drawers
- 11 MB 3012, 4012 or 5012 drawers

The abovementioned arrangements are based on Mecalux's M3 shelving system.

1,400 mm

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