

# BOX-EXT



Small Footprint  
BOX-Erector Extended



**GTE**

innovators in technical engineering



Adjustable and perfect for a high mix and low volume of boxes

The small carton erector for various sizes of boxes and inlays  
 The BOX-EXT (carton erector) is the first system with a small footprint, that folds and glues various sizes of plain cardboard into top-loaded boxes, combined with an automatic carton inlay folding and gluing into the carton box. This system is adjustable and succeeds perfectly at processing a high mix and low volume of boxes and inlays. Handling of low quantities and various shapes and sizes is a trend in medical and pharmaceutical industry.

### Gluing and folding

The BOX-EXT system consists of two machines, each with its own automated drawer. The drawer in the first machine contains a mould for positioning a plain cardboard. When this drawer moves into the machine, hot melt glue is automatically applied at the exact position of the folding flaps. After this the cardboard is accurately placed above a folding mould. A vertical pusher presses the cardboard through the mould, giving the bottom its required shape by folding it in the right sequence. If the lid of the box has to be fold into an overlid box, an overlid mould does so. The folded box is placed on a conveyor belt and is transported to the second machine. The operator places a carton into the drawer, to be folded into an inlay. On the conveyer belt, glue is applied to the bottom of the box to fix the inlay. After the inlay has been placed in the box, it is ready and it will be transported out of the machine.

### Exchangeable tools



Pick and place tool



Drawer tools



# BOX-EXT

## BOX-Erector Extended

### Multiple sizes and easy changeover

In the first machine (carton erector) the pusher tool, the folding tool, the drawer tool and the overlid tool are exchangeable moulds. In the second machine (inlay erector) the drawer tool and the pick and place tool are exchangeable. All of these moulds can be easily positioned and fixed. No special tools are needed to change the moulds for the required box sizes. The exchangeable parts are poka yoke designed. The glue pattern is read from the exchangeable drawer mould. For accurate positioning, the hot melt glue applicators are mounted to spindles with numeric indicators. All the parameters are hardware parameters and placed on the change parts; there are no adjustable parameters in the software. The machine is controlled by a Siemens PLC or Allen Bradley PLC and is equipped with a display for status and alarms.

### Operational functions

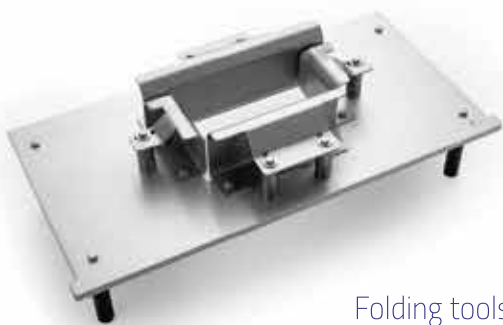
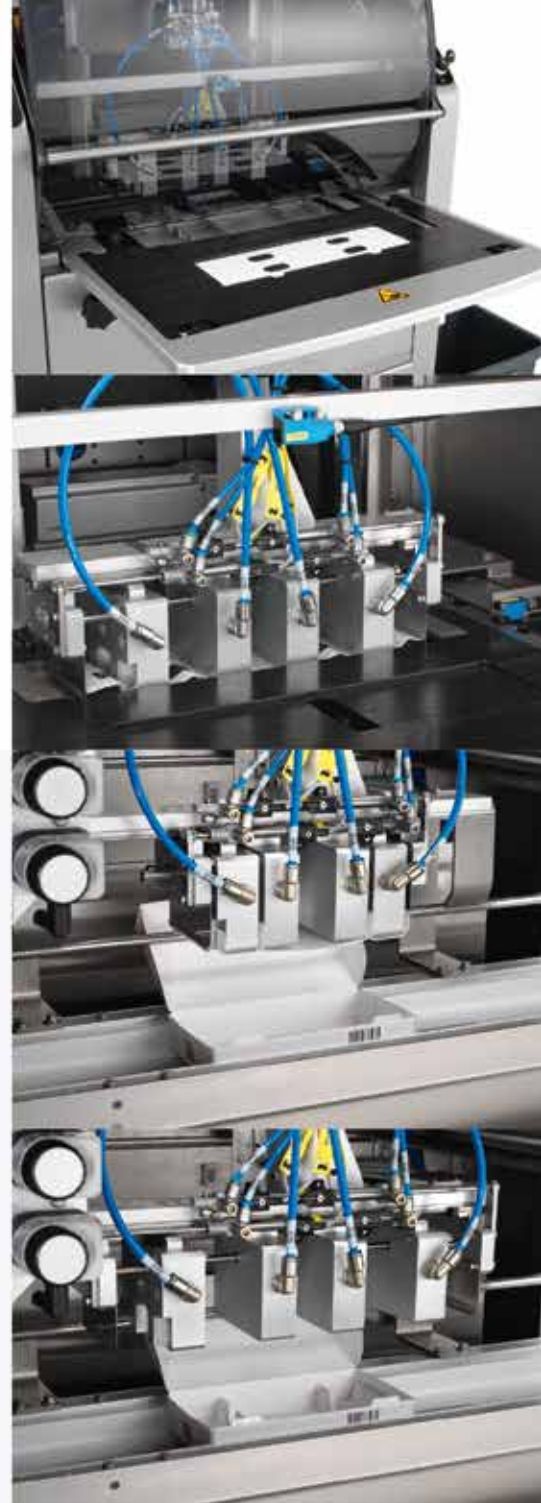
- Emergency stop
- Start button
- Reset button
- Maintenance key switch
- Brake release button
- Bypass key switch (possible to produce boxes without inserts / inlays)

### Cycle Time

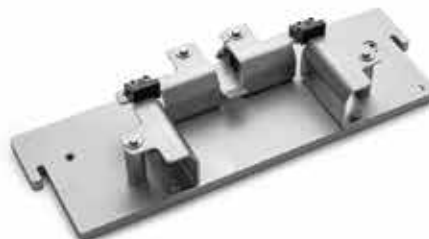
The cycle time to produce boxes with inlays will be 12 to 20 seconds, depending on box size and operator speed. The cycle time to produce boxes without inlays will be 10 to 15 seconds, also depending on box size and operator speed.

### Ergonomics

To achieve an optimal standing working height, the distance from floor to top of the drawer is adjustable between 1050 and 1100 mm.



Folding tools



Pusher tool







Smart customization  
 Tailor-made machines  
 Assembly, packaging,  
 processing and handling

### Dimensions and weight

	Carton erector	Inlay erector	
Depth	655 mm	700 mm	drawer in the machine
Width	1370 mm	1700 mm	whole system 2900 mm
Height	1590 - 1640 mm	1590 - 1640 mm	with closed cover
Mass	±270 kg	±255 kg	provisory

### Electrical Connections

Input power / rated current	Depending on customers' requirements / specifications		
Active power	2,3 kW	2,3 kW	together 4,6 kW

### Pneumatic Connections

Minimum input pressure	6 BAR
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### Emission

Maximum noise level	74 dB (A)
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### Environmental health

Room temperature	20 +/- 5 °C
Room humidity	20 - 90 %RH

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