



## Dynamic Mergers

**Compact, wash-down, easy to use and maintain**

### TYPICAL PRODUCTS



Thermoformed trays, Fresh Box



Boxes and cases



Pillow bags, flowpack, doypack



**DU41M merger positioned at the outlet of a thermoforming machine**

M.H. developed a solution to fulfill the requirement of merging multiple lines of production into a single one.

It's a unique, compact set of modular chain conveyors integrated in just a single machine.

The system is composed by a conveyor for each input line and one output conveyor set up with side-guides or motorized shares to merge products in a single line.

The unit comes complete with all necessary sensors, electrical cabinet and CE mark.

The standard machine is a single structure made of AISI 304 Stainless Steel, easy to connect with any thermo-forming machine as well as with other conveyors in the packaging line

Three standard configurations are available: 2 in 1, 3 in 1, 4 in 1.

Custom solutions are can be realized on request.

The system can be controlled according to two different working principles, depending on the position in which will be placed in the production line:

#### **M MODE:**

The merger is positioned at the outlet of a thermo-forming machine. All products will arrive at the same time in a row every time the machine expels a mould.

Launch conveyors will move simultaneously when the machine expel the mould. When products reach the sensor all will be stop and then will start again one by one to send away one line after the other, before the succeeding mould is expelled from the machine.



**DU41M Merger ejecting products**

**L MODE:**

The mergers is positioned in any place of the line and products enter from the different inlet lanes randomly without any control or phasing.

In this case the system is controlled by a PLC; a sensor is positioned on each launch conveyor which controls the arrival of the products. The one with the highest delay is the first one to be released on the outlet conveyor, the following will be released after a delay that will allow the correct exit of the preceding one in order to avoid any jam or contact.



**DU31L-V02 Merger, high speed model for pillow bags with motorized share**

**VERSIONS AND ACCESSORIES**

The standard machines is fit with Stainless Steel side guides; motorized shares are available on request, to be used in case of products advancing on the wide side or packaging with risk of jams.

End passages are built with fixed noses with a 40 mm diameter. For high speed applications roller ends are required with 70 mm diameter or more.

The system is normally provided with a single set of launch conveyors at the inlet. For high productivity applications another set or phasing conveyors will be required before the launch ones.

**TECHNICAL DATA\*****Standard Configuration**

2 in 1 – 3 in 1 – 4 in 1

**Typical size of the machine**

Output conveyor width from 200 to 800 mm

Overall length from 1500 mm to 3000 mm circa

**Productivity**

Up to 200 pieces/min overall productivity depending on the product sizes, shapes and conditions

\*These values are rule of thumb. Please contact our technical department in order to evaluate each specific application.