# AMPOULE PACKING MACHINE PM-A



Automatic ampoules packing machine purposely studied and developed to be connected with after-forming lines by MODERNE MECANIQUE firstly but suitable to work with different lines as well.

The model PM-A allows to pick glass ampoules from the chain of the production line and put them in the boxes without missing units.

The compact structure of the model PM-A has been

Vacuum system picks tightly the ampoules with two cups per each ampoule, even for 1 ml ampoules. A special device at the end of production line allows a fine adjustment of the position of ampoules funnels before arriving to the picking area.

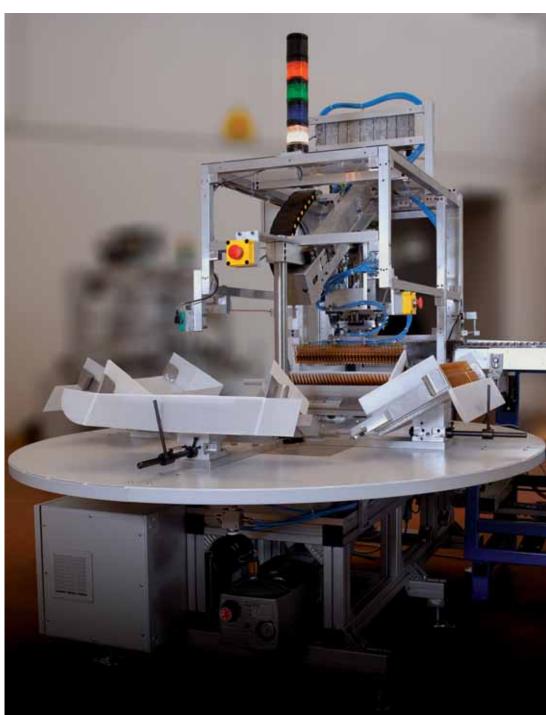
Alternative versions for the feeding of this machine can be studied according to the factory lay-out and the model of after-forming line.



studied even for factories with really limited passage available between production lines.

One traditional manual packing stations included in the lines by MODERNE MECANIQUE remain in its position and represent an alternative option to continue with the production while the automatic packing machine is under maintenance or stopped for any reason.

In the standard version the racks of packing machine pick the ampoules directly from the chain of the after-forming. The position of the four boxes, declining towards the centre of the table, allows to reduce the movements of the picking arm, that means less mechanical parts working and a longer working life of the mechanism.



### PLC AND SOFTWARE

Supplying to the machine automatisms the information to work correctly. Manual operations for adjustments and job changes are executed through the touch screen. The available functions include the picking simulation, counter of packed units and completed boxes and partial or total amount of picked units, jobs parameters storage, set of numbers of ampoules per row, set of rows configuration.

### **ROTATING TABLE**

With four stations equipped with one box each. One of the stations is always busy with the system picking the glass ampoules from the V-chain of packing machine and positioning them into the box through vacuum cups. Once the box loading is complete the round table executes a clockwise rotation in order to guarantee the continuity of packing operation and to allow the operator the access to the filled boxes.

### **CONTROL SENSORS**

For correct machine functioning. One sensor send a signal to a lamp launching an acoustic signal in order to inform the operator that he must unload at least one filled box.

One more sensor, with adjustable positioning, detects the missing units on the chain of production line and stops the V-chain of packing machine. That allows to get always full lines of ampoules on the V-chain of the packing machine and in the boxes too.

## **ALARMS AND EMERGENCIES**

Light and acoustic signals indicate the working status of the machine and advise when the rotating table is moving. The few not covered parts of picking system are equipped with security cables with safety microswitches. Emergencies buttons are located along the machine perimeter in order to stop the machine in case of need.

