

## Range

Our range of “**ROBOT LOADERS**” includes a series of machines, configurations and solutions conceived to automate the process of loading and unloading the product into/from deck ovens. These machines are configurable and can be adapted to the needs of each customer or each layout and so meet the most varied requirements.

Our “**ROBOT LOADER**” machines come in two versions:

- “**EASY**” is the simpler version which is suitable for small/medium-sized plants while still maintaining high technological standards.
- “**FULL**” is a more complete, high-performance version ideal for large plants with a high level of automation where automatic operating cycles are required.

## Features of the standard “EASY” Robot Loader

- **Robotized column loader and unloader** with product pickup from the pre-loading canvas (*reserve*), or by directly depositing the product on the column loader mat;
- **Widths available.** 1200mm – 1800mm.
- **Canvas** made from hard-wearing cotton;
- Support structure made from electro-welded steel profile, oven painted;
- Steel support trusses with antioxidant surface treatment.
- Column loader support units resting on the oven deck with Teflon coated rollers and self-lubricating bushes.
- **Longitudinal movement** of the column loader setter at oven entrance (*to go IN/OUT of the oven chambers*) made with ball bearing guides and toothed transmission belt driven by a Brushless motor installed on a planetary gear unit;
- **Transversal movement** (*column loader translation*) powered by a motorized system driven by a Brushless motor installed on a helical bevel gear unit and sliding tracks with guided wheels and rack and pinion transmission;
- **Vertical movement** up to the oven decks by means of Brushless gearmotor with electric locking brake installed on a helical bevel gear unit;
- **Mat rotation** for loading/unloading the oven provided by a Brushless motor installed on a helical bevel gear unit, rubber-coated traction roller, complete with mat tensioning rollers with preloading springs;
- **10" touchscreen operator panel**, wired in a remote metal box and electrical interfacing with relative serial communication with PLC in the electrical cabinet on the column loader;
- Supervision and control of column loader operation by means of **PLC**;

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- Oven loader management software with 3 operating modes:
  - "Manual" operation
  - "Semi-automatic" operation (optional);
  - "Automatic" operation (optional);
- Management software **and interfacing of the column loader PLC with the SMART control panels**, for a maximum of 2 ovens, for complete control of production, baking and recipe parameters directly from the touchscreen panel on the column loader;
- Possibility to connect up to a maximum of 10 Smart control panels;
- Machines and system fully compliant with EC standards in accordance with directive 2006/42/EC.

## Features of the "FULL" ROBOT LOADER

The machines in the **Robot Loader mod. "FULL"** range have the same basic features as the "EASY" series to which important components are added such as:

- Column loader platform structure in electro-welded **stainless steel** profiles;
- Full set of machine guards made from **stainless steel**;
- Electrical cabinet on board the machine made from **stainless steel**;
- **Brushless drive system** with high performance (movement speeds of up to 500 mm/s);
- Operator panel with **12" touchscreen**;
- Loader control and management software with standard "Semi-automatic" and "Automatic" functions.
- Possibility to control up to 40 SMART control units for ovens.
- Remote assistance modules for remote system supervision via the internet;

## Optional extras

The machines in the "ROBOT LOADER" series can be completed with a selection of important optional extras to adjust the system to the individual production needs of each customer. Some of the most important optional extras are listed below:

- **Preloading station** which acts as a **product reserve** with automatic pick-up of the product from the tables and handling and **automatic accumulation of empty tables** in dedicated trolleys;
- **Preloading station** which acts as a **product reserve** with automatic pick-up of the product from the tables **and manual removal** of the empty tables;
- **Unloading station** for the baked product which acts as a product reserve;
- Trolley unloader system to pick up or deposit tables from/onto trolleys with more than one level.
- Conveyor systems with belt or mat for moving the baked product to other processing areas.

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