

# PEN-2000 gravimetric packaging machine

## general features

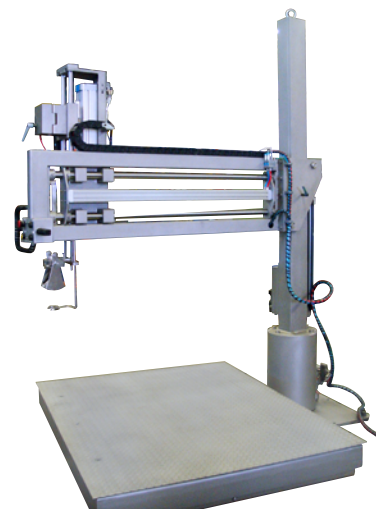


The packaging operation is a key stage in the processing industry. Having the most suitable equipment to perform this function allows optimizing the entire manufacturing process: cost-effective packaging improves your offering.

The PEN-2000 gravimetric filling machine has been designed to fill containers or drums directly positioned on a pallet, without needing to be moved and with the intervention of a single operator. It is suitable for the dosing of liquid or pasty products of medium to high viscosity, and the filling volume control is carried out by means of a platform scale.



PEN-2000-C packaging machine, fully made of stainless steel with Cartesian translation system



PEN-2000-C packaging machine, fully made of stainless steel with Radial translation system

### MODELS

We offer two models depending on the dosing head translation system:

» **Cartesian system:** This system automatically positions the filling nozzle in an X-Y plane. It consists of two columns supporting a horizontal movement guide on which a second guide, perpendicular movement to the first one, carries the nozzle. The movement of both guides is pneumatically driven. Additionally, the set of guides and nozzle moves in height to adjust to the different container formats.

» **Radial system:** This system allows semi-automatic positioning of the nozzle. It features a guide with a single pendulum movement support, manually adjustable up to 240°. On this guide, a second perpendicular and pneumatically driven guide slides, carrying the nozzle and adjusting its height according to the container format.

In both cases, once the working position is set and the filling command is given, a brake located at the rear of the support column automatically locked the equipment in the desired working position.

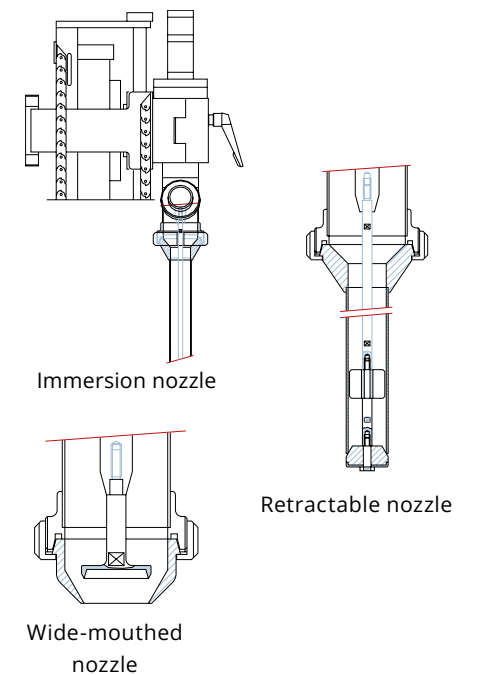


En función del tipo de producto, la envasadora PEN-2000 permite instalar 3 tipos de boquillas diferentes:

» **Immersion nozzle** for foaming products. The nozzle is inserted into the container until it reaches a few millimetres from the bottom, starts dosing, and once it is partially covered, the head lifts slowly, without exceeding the liquid level until reaching the preselected amount of product.

» **Retractable nozzle** designed for dosing non-foaming liquid or viscous products into narrow-mouthed containers. This nozzle has a cannula and a visual centering mechanism. Once it is positioned, the cannula descends until it is partially inserted inside the container, doses the product, closes the valve, and returns to its initial position.

» **Wide-mouthed nozzle** suitable for high and medium viscosity pasty products. This nozzle doses in a fixed position and is equipped with a non-drip plug closure.



### PRODUCT FEED SYSTEM

For product feeding to the packaging machine, we can provide different types of feeding pumps: positive displacement ones of Salomon type, with Archimedes screw for high viscosity products or pneumatic pumps of Depa type, suitable for less viscous products.

For its assembly, there is a bypass available for flow rates of around 12-15 m<sup>3</sup>/h.

### ELECTRONIC SCALE

For controlling the dosing of the containers, the equipment features an electronic scale with a force capacity of 1,500 kg and multi-range precision. It is equipped with a control unit allowing dual a pre-set of weighing for fast filling and fine-tuning, automatic zeroing after each filling cycle, and protection of the equipment against false manoeuvres with the head, thanks to a safety device.

### CONTROL PANEL

A control panel is available for handling the equipment, with touchscreen for synchronizing the operation of the dosing head with the scale and the feed pump.

### ROLLER CONVEYOR

In order to optimize the operation of the packaging machine, additional roller conveyors (gravitational or motorized) can be supplied at the infeed and outfeed of the weigher, acting as pallet accumulators before and after the filling cycle. Under these conditions, the installation can achieve a throughput rate around 10 to 12 pallets/hour, referring to 4 drums of 200 litres per pallet.



PEN-2000-C packaging machine equipped with motorized roller conveyor for the infeed and outfeed of the containers.