Industrial reciprocating moving head depositor for confectionery, wire cut one colour and soft centre cookies with the addition of a hopper for the filling.

The dosing head is available with an innovative mechanical servo controlled system, adopting an interchangeable dosing pumps, to reach and achieve even and precise volumetric deposit all along the production.

The head is made of double rollers and a dosing metering pump. With suitable accessories, wire cut frame, twisting dies, shutters and additional filling hopper it is possible to produce different cookies, biscuits, meringues, eclair, cup cakes and special pastry on demand.
Industrial reciprocating moving head depositor for confectionery, wire cut two colours and soft centre cookies.

The dosing head is available with an innovative mechanical servo controlled system, adopting couple of inter-changeable modules of dosing pumps, to reach and achieve even and precise volumetric deposit all along the production.

Each head is made of double rollers and a dosing metering pump. With special nozzles to be used with suitable dies it is possible to deposit at the same time 2 different doughs (e.g. 2 colours biscuits) or make soft-center cookies, filled with creams or jams.
A very accurate dosing of the product is achieved by means of rotation of feed rollers and underneath dosing pumps leading to a very accurate displacement of the product between the dosing pump and the pump house, that grants a great consistency of cookies weight across the width of the machine.

The product is placed in the hopper of the machine, the rollers feed the dosing metering pumps, placed below.

When depositing ends, the head rises up and the counter clockwise rotation of dosing pumps avoids cookies tips and gives an uniform finish to them.

By continuous rotation of the feed rollers and dosing metering pumps, without horizontal motion of the head, the machine can extrude as well for the production of wire or guillotine cut.

The dosing pump are made of special material and designed with a particular pattern thanks to many research and engineering sessions.
Wire cut processing

The new wire cut system has been study for have no influence on the performance of the machine during depositing process. The module is completely removable by an automatic parking procedure, reducing the head weight. A new wire cut innovative mode selection, controlled by servo motor, guarantees the following advantages:

- sharp and well shaped cut
- falling of cookies always in line handled by wire speed impact mode
- two different operating modes: by step or continuously
- two operating mode of wiring impact: backward or forward
- fast change over of the wire cut frame
- high frequency cutting speed, up to 200 strokes per minute
- adjustable wire position
Dosing head has been designed and manufactured in hard anodized aluminium and AISI 304 stainless steel, easy to clean and in compliance with HACCP international standards. Dosing head, hoppers, rollers, die and pumps can be removed from the machine structure independently.

All the parts of the dosing head can be easily disassembled without any tools. At the end of the production it is possible to remove completely the head using the relevant head carrier trolley, or remove independently the hoppers, the rollers, the pumps and the die.

Whether same dough is processed in the next step, a new hydraulic system allows a fast pumps and die plate change over.
Application

Additional colour
A further components can be added in the main cookie structure, using and additional hopper provided with metering dosing pump. This application can be used both for filling or topping of cookies.

Diaphragm shutter
Forms special cookies with soft center of cream or jam. Process suitable for high speed production (140 strokes per minute).

Extrusion guillotine
The special design of the vertical motion of the head allows to install underneath it a sliding web conveyor for the production of continuously extruded dough, cut with a high speed guillotine placed over it (180 strokes per minute).

Filler block
On the single head machine the metering dosing pump can be substituted by a filler block for extrusion of dough with high inclusion contents as American chocolate chips.
Industrial depositor is suitable to deposit double or single colour huge variety of soft dough cookies, almond pastries, sponge cakes and meringues and more as far as in an accurate and precise way.

The two heads design, built adopting the new technology of metering pumps system, combined with a big diameter of feed rollers, allow an even crosswise weight, and a beautiful look of cookies.

**Deposited cookies**

**Depositing processing**

Head starts cycle lowering his position and forwarding the tunnel oven belt motion. The grooved rollers feed the dough and the metering pump unit shapes the cookies through the nozzles.

When dosing ends, the head rises up and the counter clockwise metering pump unit avoids cookie tips and gives a sharp look to them.

**Dough stress-free**

The machine head has been reengineered obtaining a special configuration of the extrusion channel optimizing the dough flow and pressure distribution.
Wire-cut cookies

Industrial depositor is also suitable to shape and extrude a huge variety of double colour plain dough like shortbread cookies, almond pastries, and more. Also, better incorporating chocolate chips, fruits scraps or candies, can be cut in an accurate and precise way granting steady weight due to wire availability to adjust its speed and stream of impact.

Wire-cut processing

The head starts positioning itself at the preset working height. The wire frame goes on its start position waiting for achieved pumping status of feed rollers and pumps. After that, the extruded dough is cut at the required thickness as per recipe control parameters from the operator panel.
### Control system

Clear, simple “Touch screen” Operator Panel connected to a PLC to allow the operators to keep under full control the machine running, with recipe-driven set-up and full alarm messages to reduce changeover time, downtime and waste.

Full recipe handling and management, total process visualization, performance historic trends, alarm monitoring and handling, machine parameters and variable control, easy diagnosis for trouble shooting are the main features that make the machine operation fully controlled.

By a simple setting on the Operator Panel, it is possible to use the machine for continuous extrusion, intermittent depositing with or without vacuum, wire cutting.

Up-to-date links for Teleservice, as remote control, provided via Internet as VPN or modem, to get immediate access and assist with problem solving.

### Maintenance

For the operator cleaning needs it is provided a variety of ancillary equipment:
- Carrier trolley for the heads
- Store trolley for pump, die plates and nozzles

The machine is equipped with an automatic electronic lubrication system, with scheduled maintenance intervention from the operator panel.

All mechanical components are placed on the external sides of the frame for easy maintenance access.
Moulds, fully manufactured by atoxic and alimentary raw materials, are executed with high accuracy and severe tolerances. An enormous range of templates is available due to Polin long experience in this field, but dies and nozzles can also be developed and customized as per your unique requirements. By using only one die, suitable to fit wide variety of nozzles, the industrial depositor can shape huge varieties of cookies.