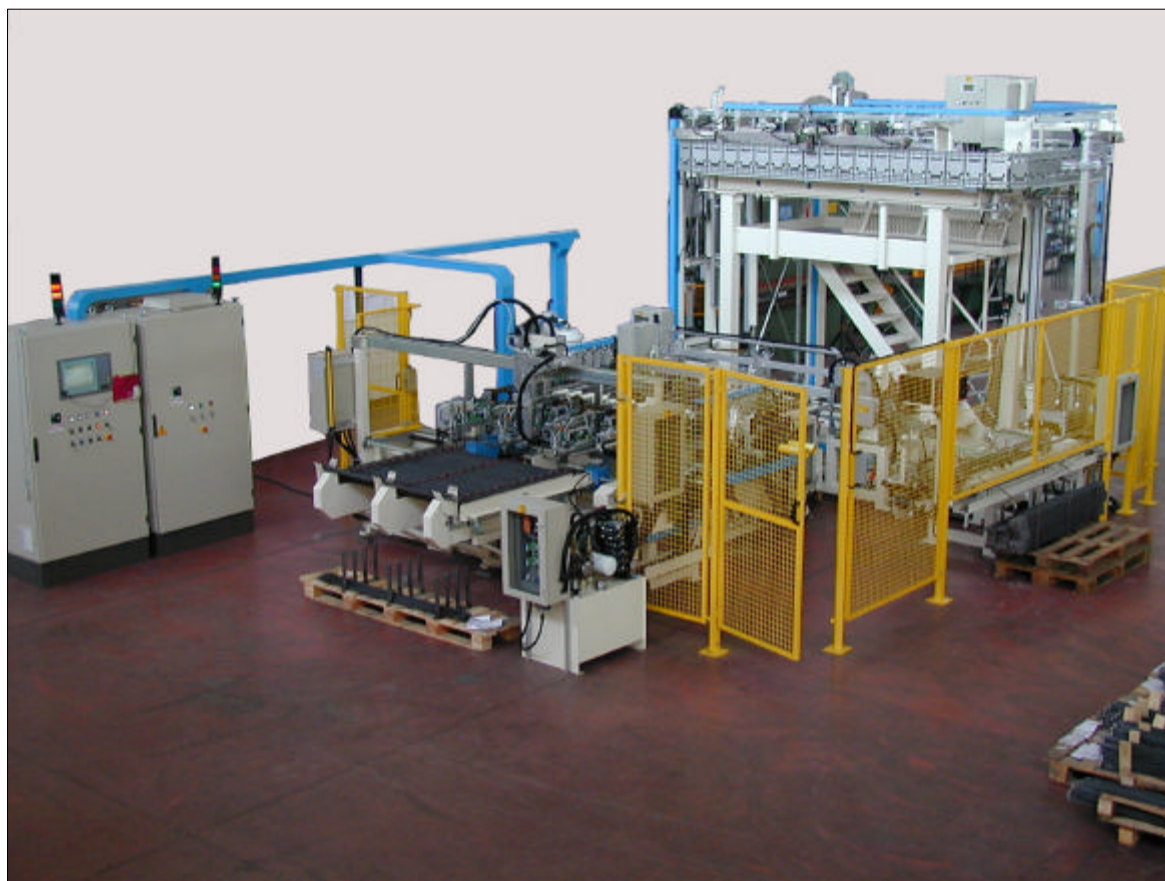


**AUTOMATIC LINE FOR THE WORKING AND SEALING OF HEATING ELEMENTS FOR OVENS**



## **AUTOMATIC LINE FOR THE WORKING AND SEALING OF HEATING ELEMENTS FOR OVENS**

The line in question is intended for manufacturers of substantial quantities of heating elements for ovens.

It makes it possible to finish the straight element starting from the exit from the annealing furnace.

The load of the heating elements, not being rectified, takes place via insertion on fork catenary.

The pull module is realized with a double station so as to halve operating times.

The system is hydraulic and ensures traction precision of +/- 1 mm.

Following this operation the pieces travel along a pilger transfer which alternately performs on the two sides the following operations:

- Terminal cutting to size
- Terminal rectifying
- Terminal forming
- Oxide groove to house bead
- Cleaning of internal hollow by blowing
- Measurement of obtained depth
- Movement of pieces on rollers to opposite side
- Performance of same operations on opposite end of heating element.
- Unloading to step catenary with removal of any scraps of hollow depth.

After these operations, the heating elements are automatically placed in a vertical position via a rotating manipulator and inserted in a pallet carousel in groups of 12 at a time, the latter receives a pre-established step movement via a cam inermittter.

In this second phase, the heating elements undergo sealing and testing which consists of:

- Heating of end on a tunnel at controlled temperature to favour the release of residual humidity.
- Injection of sealing resin
- Insertion of bead and control
- Passage in tunnel for further heating
- Passage in tunnel for resin polymerization
- Rotation of 180° group of 12 heating elements with special manipulator
- Execution of same operations for opposite end.
- Manipulator for unloading and deposit horizontally of groups on step catenary
- Execution of all electrical tests with selection of any manufacturing scraps

The system is completely managed by an industrial PC with supervision and process control, with the possibility to manage production lots with statistical production reports.



## GENERAL TECHNICAL CHARACTERISTICS:

Heating element diameter	mm	6.25-6.5
Heating element length	mm	600-3000
Terminal diameter	mm	2-2.5
Length of cut terminal	mm	10-25
Oxide hollow depth	mm	0-7
Installed electrical power	kw	10
Electrical power supply	volt	3x400+N
Pneumatic supply	bar	6
Productivity	Sec/cycle	4.5-5
Average setup time	min	10
Dimensions	mm.	6000x10,000x5000H
Weight	kg.	10.000

