

PROTOTYPE LABORATORY PLANT
FOR RESEARCH IN THE FIELD OF DISPOSAL AND PYROLYSIS



CHARACTERISTICS:

- kiln with 3 independent cooking zones (total heated length of 1000 mm)
- steel tube AISI 310/S OD = 115 mm, ID = 102 mm
- 20 LT inlet hopper with seal (complete with portholes for loading material)
- motorized conveyor screw, stainless steel AISI310/S
- hopper designed for a motorized dosing auger
- n°4 clutches for the introduction of inert gas (2 at the entrance to the furnace, 2 at the exit of the furnace)
- sealing tank for collecting treated material
- programmable heated upper chimney (max temp. 300°C)

DESCRIPTION

The structure of this machine is in fire-painted steel with epoxy paints and the furnace is thermally insulated with temperature-suitable preformed ceramic fibre materials work for which it was produced.

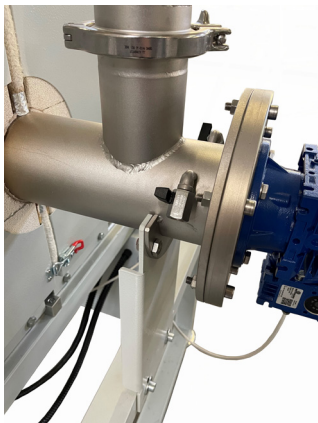
The machine can be prepared to perform thermal cycles with a maximum operating temperature of 1050 °C.

It is a kiln consisting of a tube inside which rotates a screw that transports the material to be treated along its entire length.

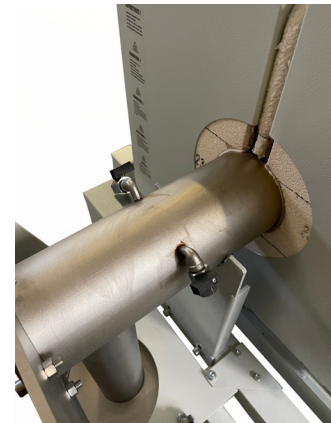
The material to be treated, in granules or small splinters, is introduced through the loading hopper and by falling it reaches the conveyor screw, to start being treated.

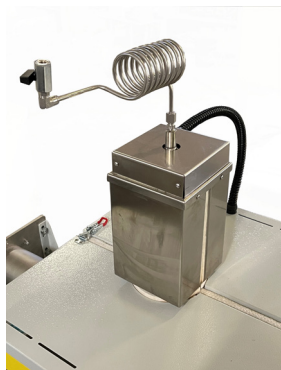
The handling system, through the rotation of the screw inserted in the steel tube, transports the material for the entire length of the furnace through the three heated zones, individually programmable up to the max temperature 1050 °C.

At the end of its journey, the treated material, by falling, is collected in a special tight tank.



This kiln is designed to work even in a controlled atmosphere; there are four inert gas clutches, two at the inlet and two at the outlet.



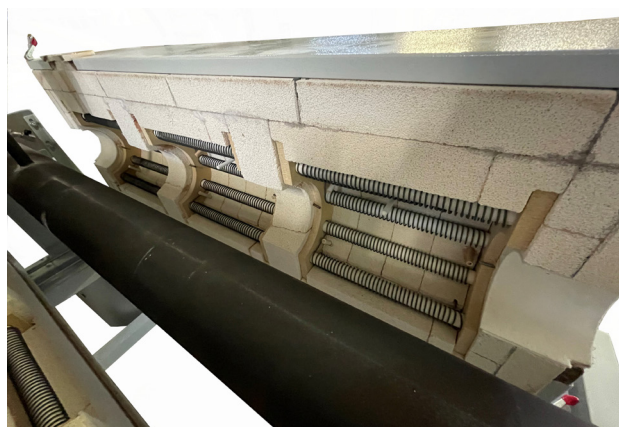


The working tube forming the furnace chamber is equipped with a chimney, which can be heated up to a maximum operating temperature of 300 °C, through which the gases that form inside the furnace can pass and can be conveyed to other instruments for analysis.

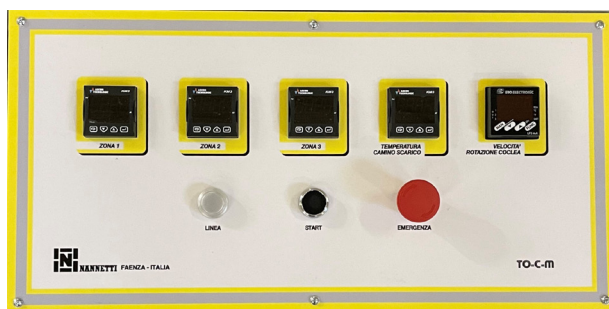
leak-tight tank for collecting treated material



The construction of the furnace body is made of two horizontally opening parts, mounted on slides to allow quick and easy maintenance, replacement of heating elements and possible replacement of worn parts



CONTROL PANEL



composed by:

- n° 3 thermoregulators for independent regulation of the 3 kiln chambers
- n° 1 conveyor screw speed controller
- n° 1 thermoregulator for the flue gas outlet temperature (max temp. 300 °C)
- n° 1 voltage indicator lamp
- n° 1 START button
- n° 1 emergency fungus

TECHNICAL CHARACTERISTICS

Mod.	Max temp °C	Tube dimensions [mm]			External dimensions [mm]			Power kW	V + T	Weight [kg]
		Ø Outer	Ø Inner	Useful length	Length	Depth	Height			
TO-C-M	1050	115	102	1585	1100	2100	1730	12	400	375

(all data are non-binding, the manufacturer reserves the right to modify them)