

LINEA MONTAGGIO SHIM E RIVETTATURA

MAIN FUNCTION

Carry out the shim assembly and brake pad riveting operations according to the customer's specifications



DESCRIPTION

The main features of the line are:

- Pallet frame to support the transporter and machinery present in the line.
- Chain conveyor with flights for brake pad tending, with "Bonfiglioli" gearmotor and inverter for speed management, brake pad loading robot, manual shim assembly stations 1 and 2 with photoelectric barrier safety, electromechanical press1 - electromechanical press2 - free station for future pad printing press or stamping machine, riveting1 - riveting2 - brake pad unloading robot and loading onto the exit conveyor.
- Brake pad loading station with robot with 600 mm stroke, 6 kg capacity.
- Station 1 for manual shim assembly on the brake pad support.
- Station 2 for manual shim assembly on the brake pad support.
- Kistler electromechanical press $F=4000\text{kg}$. complete with internal piezoelectric load cell and plate with electrical resistances for a temperature of 150° .
- Free POSTION for future pad printing press or stamping machine.
- Baltec RNE 231 type orbital riveter installed on an orthogonal table with controlled X-Y registration axis system.
- Brake pad unloading station with robot with 600 mm stroke, 6 kg capacity.
- Brake pad exit belt conveyor.
- Upstream of the finishing line there is a galvanized steel plate slat conveyor complete with pneumatic cadencer for brake pads.
- An automatic flaming device is provided on board the galvanized steel slat conveyor Teca-Print FLG201
- Line management software PLC with recipe commands on the operator panel.

SPECIFICATIONS

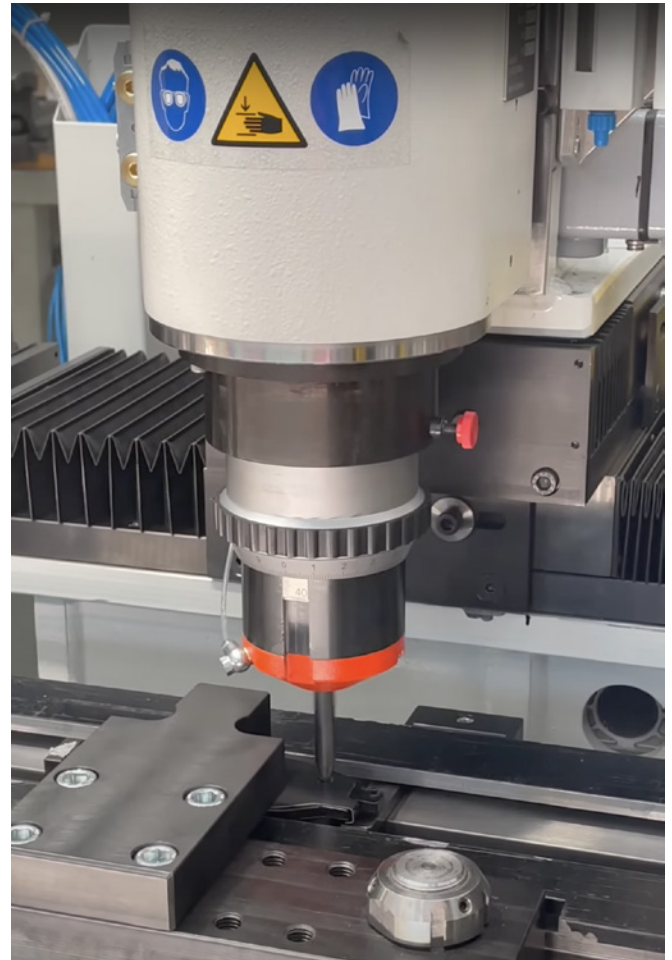
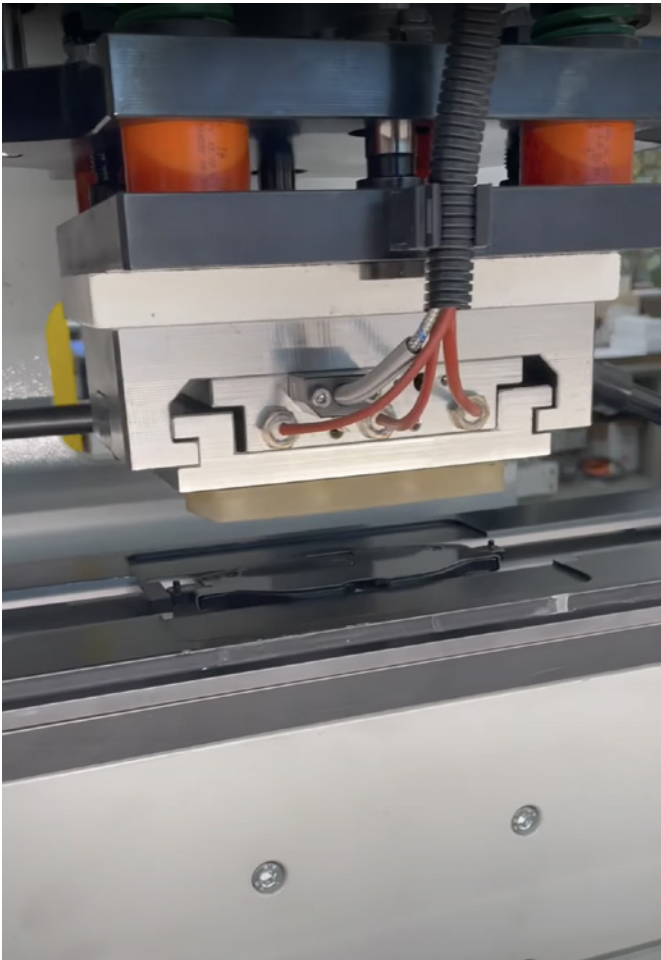
CYCLE / SEQUENCE OF OPERATIONS

4”

WORKING CYCLE

- STATION 1 = collection of the brake pad, previously subjected to the flaming treatment using the automatic Teca-Print device, on board the galvanized steel plate slat conveyor and deposit of the brake pad with a Fanuc scara robot on the finishing line conveyor.
- STATION 2 = manual assembly of the shim on the brake pad in position on the chain conveyor with flights.
- STATION 3 = manual assembly of the shim on the brake pad in position on the chain conveyor with flights.
- Advance translation of the brake pads towards the subsequent stations.

- STATION 4 = vertical pressure with electromechanical press F=4000 kg. of the shim with interface with plate with electrical resistances for temperatures of 100°.
- STATION 5 = vertical pressure with electromechanical press F=4000 kg. of the shim with interface with plate with electrical resistances for temperatures of 100°.
- STATION 6 = free for future pad printing press or stamping machine.
- STATION 7 = riveting of pin 1 on the brake pad.
- STATION 8 = riveting of pin 2 on the brake pad.
- STATION 9 = brake pad unloading with Fanuc scara robot and deposit on exit belt conveyor.
- STATION 10 = belt conveyor for the exit of processed brake pads.



DIAGRAM

Stations

