

# SEMI-AUTOMATIC EQUIPMENT

- ◆ Customized cutting machines for tubing in reel or from extruder, with possibility to integrate:
  - printing systems (pad printing, inkjet, etc.)
  - poka-yoke systems for the assembly of cut tubes by operator
  - rewinding machines
  - catheters production equipment.
- ◆ Working cells and manual or semi-automatic benches.
- ◆ Unwinders and rewinders for tubings, wires, adhesive films, sheaths.
- ◆ Production and laboratory equipment.
- ◆ Structures, frames and protections, transport systems.

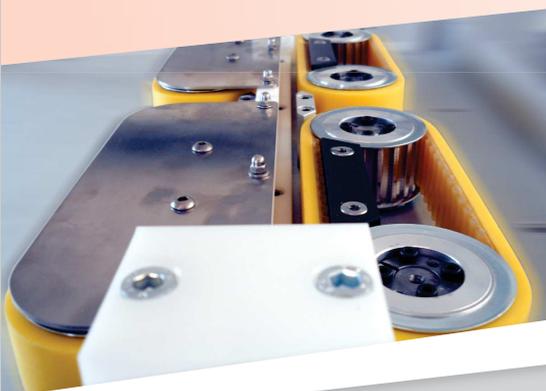
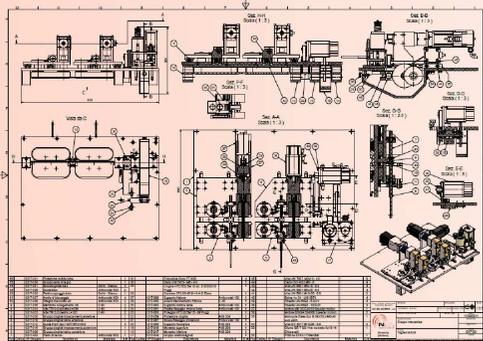


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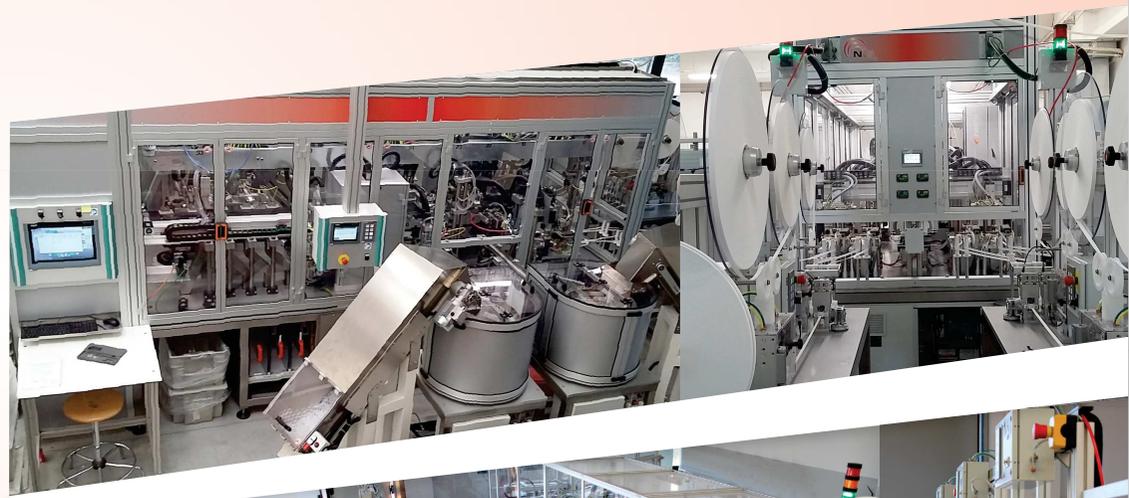
# SERVICES

We can provide services of:

- ◆ retrofitting, maintenance and assistance on existing equipment
- ◆ electrical and software design
- ◆ mechanical and pneumatic assembly
- ◆ manufacturing of electrical panels.



# INDUSTRIAL AUTOMATION



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# WHO WE ARE

**NS Sistemi e servizi** is a company founded in 2002 by people already working in the field, who decided to put their experiences, knowledge and technical skills at the service of companies. Today, **NS Sistemi e servizi** is a consolidated reality, with a "Sole Member", is composed of a team of mechanical, electronic and software engineers and technicians. We carry out the mechanical, electrical and software design of our products in-house; our workshop can manufacture customized mechanical parts and spare parts; assembly and wiring are done by our staff.

# OUR TARGET BUSINESS

Our experience does not limit us to the possible applications. Wherever there is a material to be processed, a product to be assembled and tested, a system to be optimized, **NS Sistemi e servizi** can help you. We were born in the Italian medical area, but we range from the cosmetic to the pharmaceutical, from the mechanic to the food, to the most varied production industries.



# WHY CHOOSING US

Our young and dynamic structure together with our *will to do*, allow us to be FLEXIBLE, QUICK and ECONOMIC. Our goal is not just to be a "supplier", but a working partner to rely on with confidence and peace of mind.



# AUTOMATION AND ROBOTICS

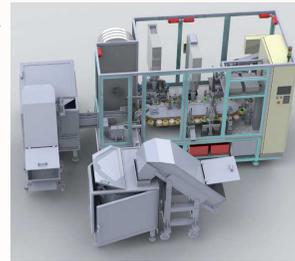
Design and manufacturing of automations for the processing and assembly of components, according to customer specifications, with the possibility of integrating:

- vision systems
- robotics \*
- US or induction welding systems
- solvent or UV glue bonding systems
- pressure and flow testing.

## case history # 1

Automation for production of breathing filters.

- Automatic loading of components (Lid, Bottom and Luer Cap).
  - US cutting of the filtering membrane and automatic insertion into bottom, with unwinding system and waste recovery.
  - Automatic assembly of the lid and the bottom by ultrasonic welding.
  - Automatic positioning and screwing of the Luer cap on the cone.
  - Automatic leak and flow testing.
  - Automatic discharge of good parts.
  - Automatic unloading of the rejected parts distinguished between sealing waste and generic waste.
- Productivity: **840 pieces/h** (according to customer requirements).



## case history # 2

Automation for alignment and packaging of plastic covers with anthropomorphic robot.

The covers, coming from another automation, are deposited in a vertical loading system that aligns them into accumulation cradles. Once the set number of covers has been reached, 4 electric axes - individually controlled - bring the complete rows to the withdrawal area.



In this area, the "Comau" robot equipped with a gripping hand picks up the rows and places them in an orderly manner inside a carton box, which is manually opened and positioned on a motorized system that advances the boxes, placing them in the loading area when requested.

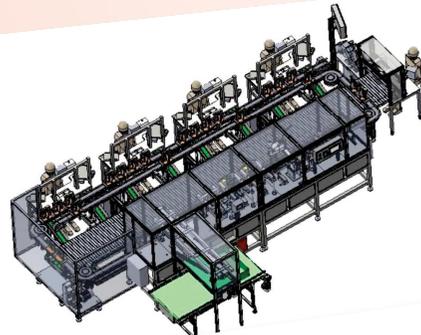
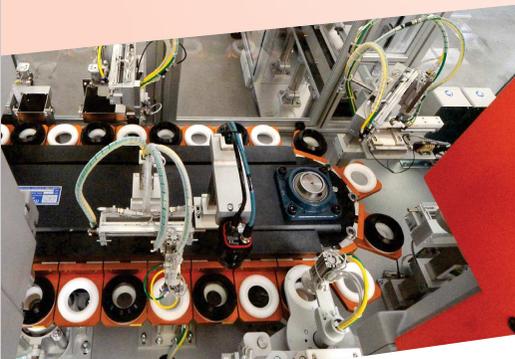
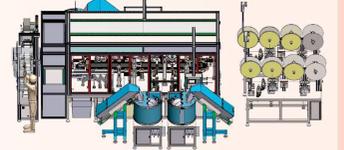
Once reached the loading area, the boxes are inclined to facilitate covers deposit.

Once the box has been completed, the system provides for the unloading on a roller conveyor and for the recovery of the empty one.

## case history # 3

Automation for production of breathing filters.

- Automatic loading of components (case, silicone membrane, covers).
  - Silicone membrane cutting and ultrasonic welding on the case.
  - Automatic unwinding of membrane, engraving, insertion of the filtering membrane into case and membrane waste recovery.
  - Vision systems for checking correct assembly.
  - Leak and flow testing systems on assembled parts.
  - Automatic unloading of good and rejected parts based on 3 levels of defects.
- Productivity: **900 pieces/h**.



\* Since 2017 N.S. sistemi e servizi srl is Comau Robotics Partner.