



COMPANY PROFILE

L.C.M. PROGETTI s.r.l.
AUTOMAZIONE ROBOTIZZATA



History and mission

- Since 1988 we have designed and built special automatic machines in several application sectors. Our structure is based on the experience of our technicians and allows us to offer a valid and reliable product, and a very efficient after-sale service. Founded as an engineering study, L.C.M. PROGETTI has developed a production department for the manufacturing of the machineries we design.
- At the beginning the production was mainly concerned with the manufacturing of assembly lines commissioned by our costumers. Some innovative products, totally developed by LCM, like our Scara Robot with 4 controlled axis, were used in the production and assembly lines engineered in those years.
- In the picture our project department





→ At the beginning of the new millennium the company's mission changed, meeting the new customer's desires. Complete testing lines and dedicated machineries to test the products are developed (e.g. NDT Pressure test for welded parts, electrical insulation and rigidity, vision checks...). The production of automatic machines for welding was more and more empowered, with welding robots, gantries and automatic welding benches, with the most innovative welding technologies such as Plasma.

→ As a further change, the our core business became the production of metal working machines to improve the quality in our customers' production.

In the picture our assembling department





Assembling -

Lines and machineries

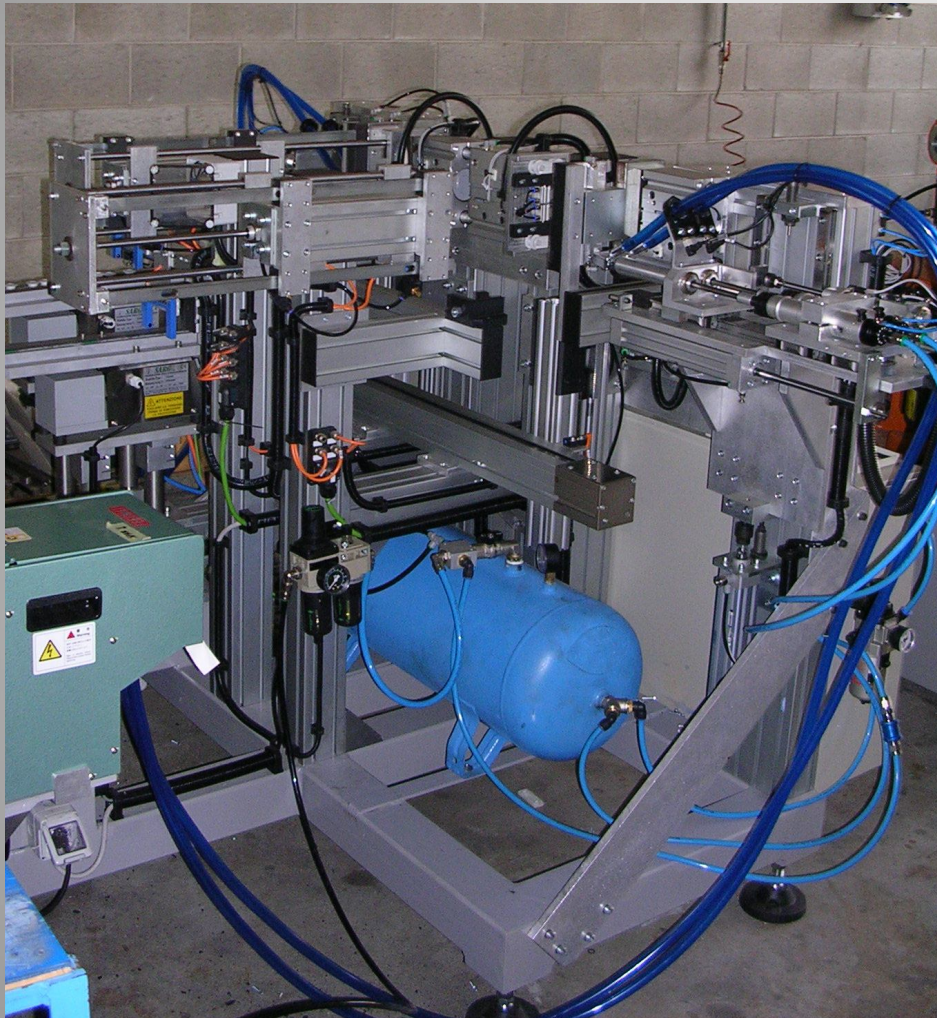


Automatic assembling machine for hinges of washing machine doors





Assembling line with KUKA Robot for Dishwashers





Assembling machine of washing machine drums and blades





Assembling machine drums group of household washing machines



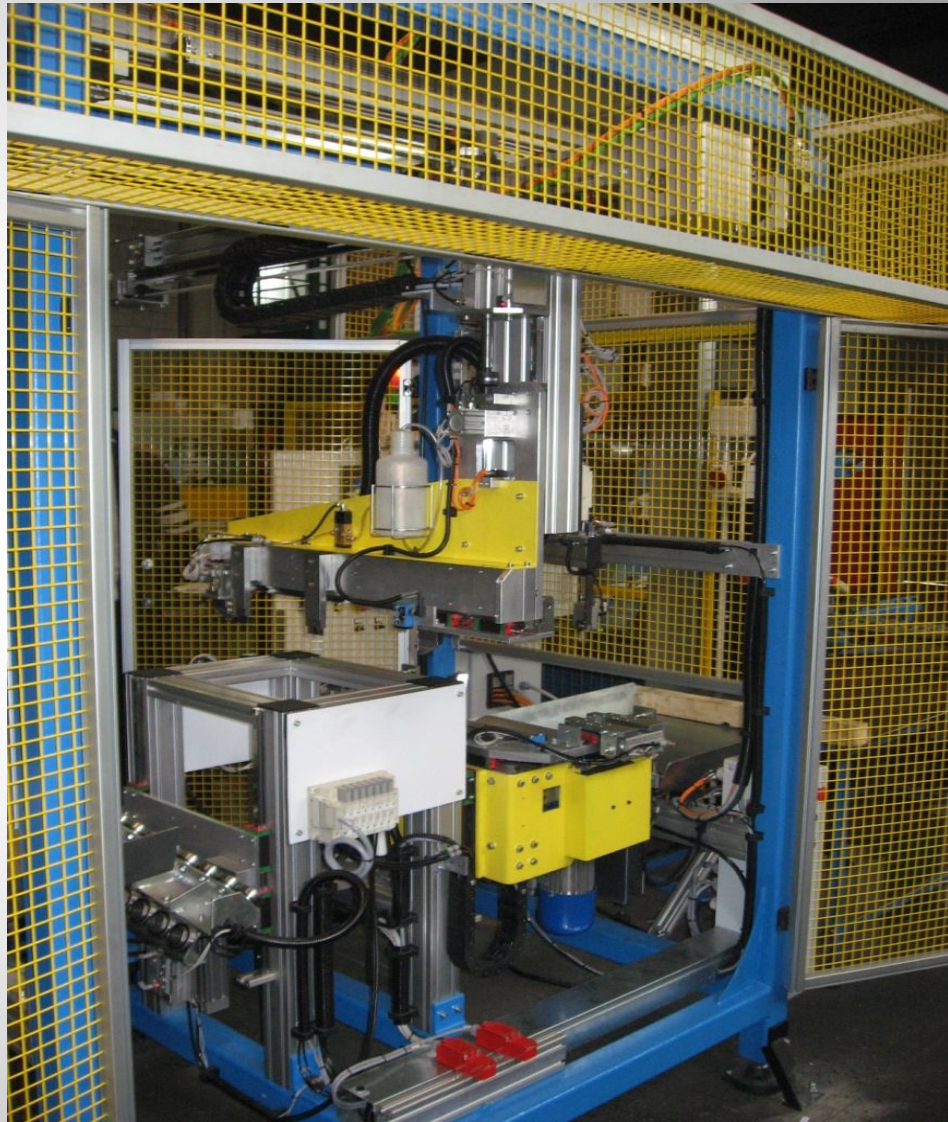


Welding



Welding machine for canisters

- GTAW welding of bodies for fire extinguishers
- Maximum length of the weld 800mm
- Maximum diameter of the tank 170mm
- Production rate 33 sec/PCS
- Automatic loading of sheet from the 'sheet rolling machine'
- Optical research of the edges to weld
- Automatic loading of the weldin bench





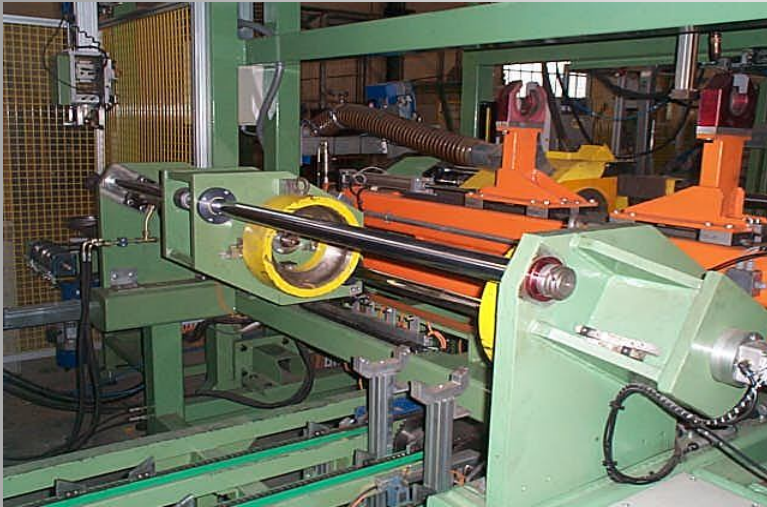
Plasma Welding machine



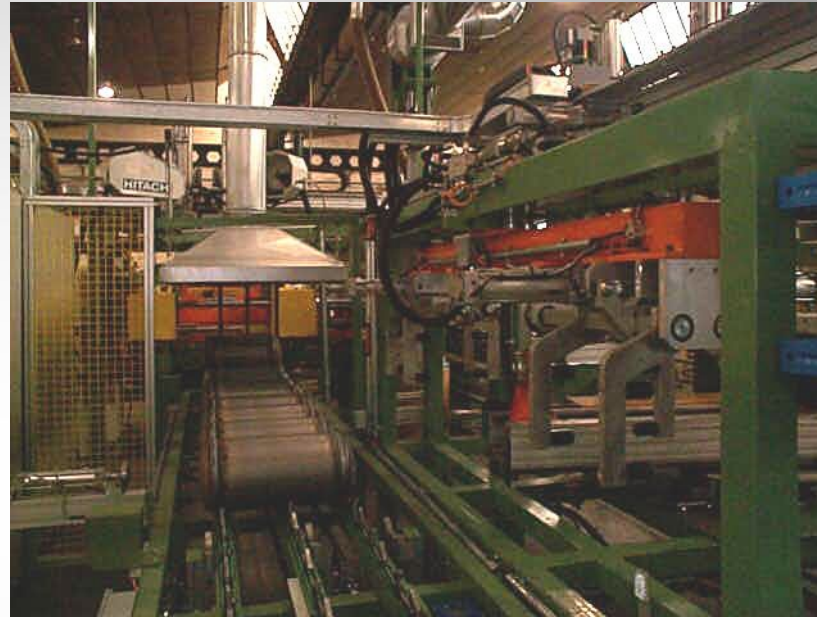


Assembling lines and welding of tanks

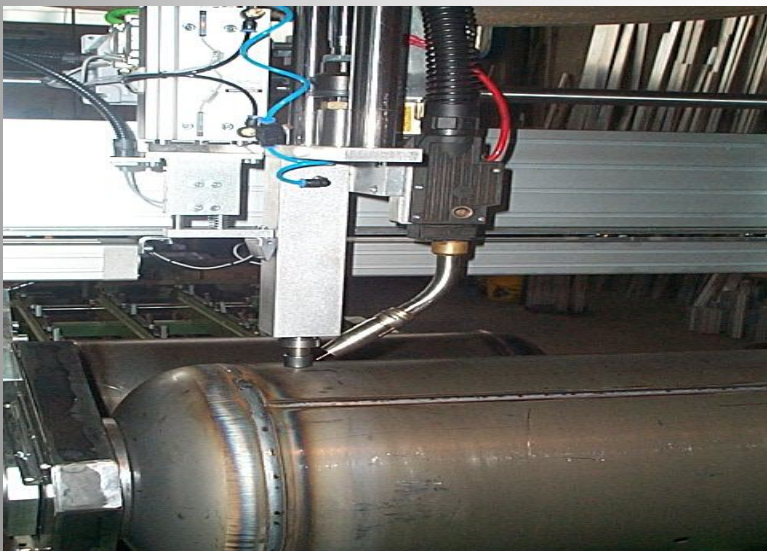
Handling and coupling of caps in round welding station



GTAW production line of gas tanks



GTAW welding system for joint



Assembling line for caps and canisters



Spot welding machine for rain collectors



This machine welds rain collectors in copper, with a welding unit at double head the cycle time is of 35 sec/pcs. The bench where the collectors are placed is on a rotary table that allows to the operator to load the piece not welded while the machine is welding the previous.

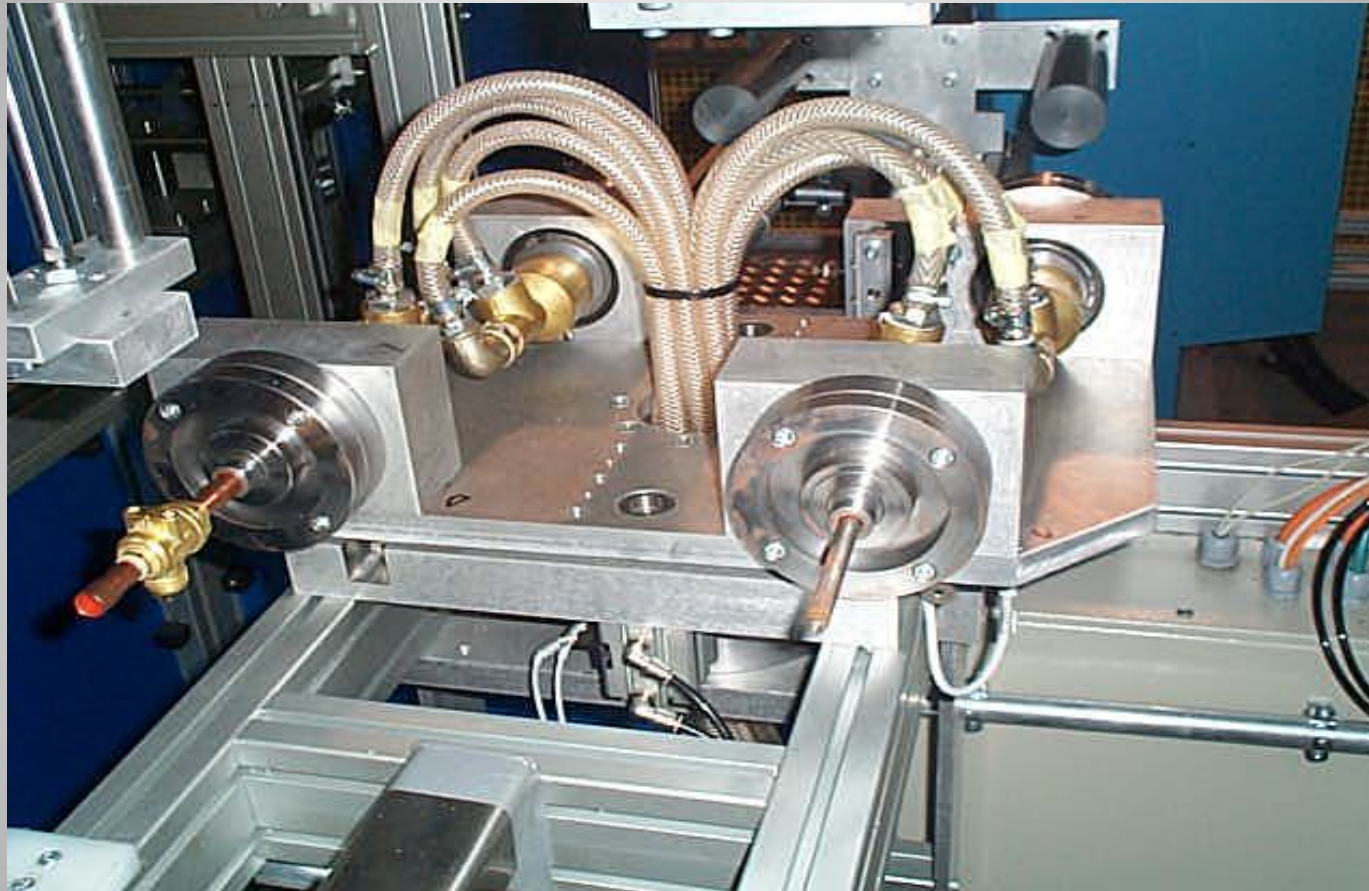


Automatic welding machine for water collectors (GTAW)





Automatic welding machine for valves





Welding of temperature probes in stainless steel

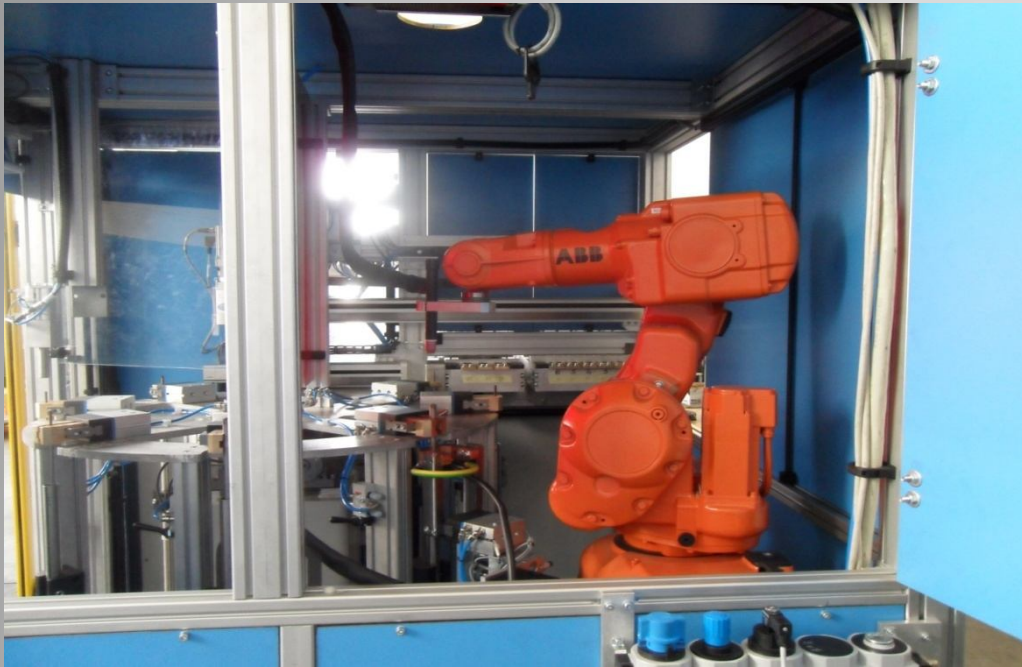
GTAW autogenic for tubes and flanges, on benches vise for termo prefix :

- 5 different alloys, with different welding parameters. Welding that warrants the total renovation and watertight seal in aggressive environment;
 - Diameter of the tubes from 9 to 12 mm;
 - Identification of the product and choice of the parameters of production with a bar code scan
 - Manual loading of the tubes; automatic alignment of caps and flanges following the scanned bar code.
 - Robot 6 axis ABB iRB140 for welding torch moving on a spiral escalation route
 - Industrial PC touch screen with database and production log, operator authentication through badge RFID and adaptive menu'
 - Able to make leak test with spectrometer with helium
- Production time: 1 pcs every 20 secs





Detail of ABB welding robot





Test + checking machine



Hydraulic test of tanks at 250 Bar

Test machine for welded fire extinguishers; 2 bottles are checked simultaneously at 25 Mpa (250 bar). Destructive tests are also possible





Test: leak test of welded valves



High pressure NDT-leak test for gas valves. Handling with 6-axes-robot; the weld is checked at 30 Mpa with two independent electronic devices.

Pictures of the vavles to be welded



Press bench for leak test of welded pieces + joint. It works on pressure vessels of plastic and welded steel





Test machine : high pressure leak test of welded valves





Valves to be tested on the conveyor (on the right) + System to control the leakage of the valves



*Robot SCARA
Handling
and Machine Integration*



Scara Robot



Transfer at 3 controlled axis



Ortogonal manipulator



Isle with 6 axis Robot



Scara Robot LCM





Stacker for sheet metal – Max length of sheet 4mt., Width 2,5 mt –
These machines are used in Sheet metal processing lines.





Gantry to handle sandwich sheet panels – payload up to 150KG –





Gantry robot to handle copper bars– payload up to 80 Kg.
Head of a production line, it feeds a punch and a milling machine and its software manages the automatic drawer stock of raw material,





CONTACTS

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