





## Costruzioni meccaniche industriali

## IMPIANTI SILVESTRINI S.r.I.

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SILVESTRINI Company was founded at the beginning of 1900, by Domenico Silvestrini, aided by his son Arturo and by a few workers carrying out the specific activity of artisan blacksmith work.

In the 1960's, further investments in property were made with the purchase of 20,000 sq.mts of land, on which sheds and offices were built (near to the centre of Bologna and also to railway station, airport and motorway).

Meanwhile, the mechanical sector was developing alongside the metal work sector, and was crowned by success with the setting up of the "HYDRAULIC POSITIONER" which has always met with great success, first in Italy and then abroad.

The hydraulic system patented by the company has led Silvestrini to utilize its technology in various fields where hydraulic applications were required and especially in projects of large magnitude.

Starting from 1970, production has been developed in further branches, such as robotic installations for welding and manipulation, special machines, etc.

Here under we point out our main products and pertinent fields of application.

1. HYDRAULIC POSITIONERS WITH ROTATING TABLE for heavy capacities, built in two models: "SA" type and "AVSA" type.

<u>Positioners type SA -</u> with capacity from 0,1 to 40 ton. Provided with two movements: rotation and tilting.

Rotation is controlled by means of hydraulic motoreducer that, by a pinion, is in gear with a large thrust bearing.

The rotation speed adjustment is controlled by means of a special self-compensated in pressure and temperature valve (Silvestrini patent), which allows to obtain an absolutely constant torque at any r.p.m.

Table tilting is by means of pistons of our production equipped with special valves. In case of breakage or cut of piston feed hoses, these valves immediately stop the inclination of the table and only when the hoses have been replaced, the inclination may be continued.







<u>Positioners type AVSA</u> - with capacity from 0,1 to 40 ton., are provided with a third movement, besides rotation and tilting, the lifting.

This movement too, is obtained by means of hydraulic pistons controlled by valves, that prevent the table fall in case of accidental tubes breaking.











2. ELECTROMECHANICAL POSITIONERS WITH ROTATING TABLE for small capacities (from 50 to 3000 Kgs.) – Model SAE

These positioners have the rotation controlled by a d.c. motor. The rotation speed adjustment is by means of a potentiometer controlled by electronic card.





3. ELECTROMECHANICAL ROLLERS POSITIONERS Model SARE This type of positioners is necessary for making welding on tubes or tanks with weight from 1000 Kgs. to 90 tons.

These positioners consist of a power section + a driven section.





## 4. ROBOT INSTALLATIONS for welding and manipulation.

We have been Robot integrators of COMAU Group for about 10 tears. According with them we have manufactured and installed directly c/o the final customer several plants for automotive industries and military constructions.

Subsequently we worked for following robot manufacturers:

- Motoman/Yaskawa
- ABB (now ESAB)
- Hitachi
- Kuka
- Fanuc
- Etc.

Since several years we are devoted to the welding and assembling lines robotizations, as well as:

- Robotic interfaced special postioners for laser welding (Client RIVA TECHINT)
- Robotic Cells for catalytic silencers welding (Client FIAT GROUP)
- Manipulation Cells for Automotive Sector (Clients FIAT GROUP, RENAULT, PEUGEOT, JAGUAR, YAMAHA).
- Robotic Cells for earth-moving & military sector welding (Clients ALCOA, ALSTOM, ALENIA/OTO MELARA, FIAT SAVIGLIANO, LEMMERZ etc.)







