

## Automatic Welding System

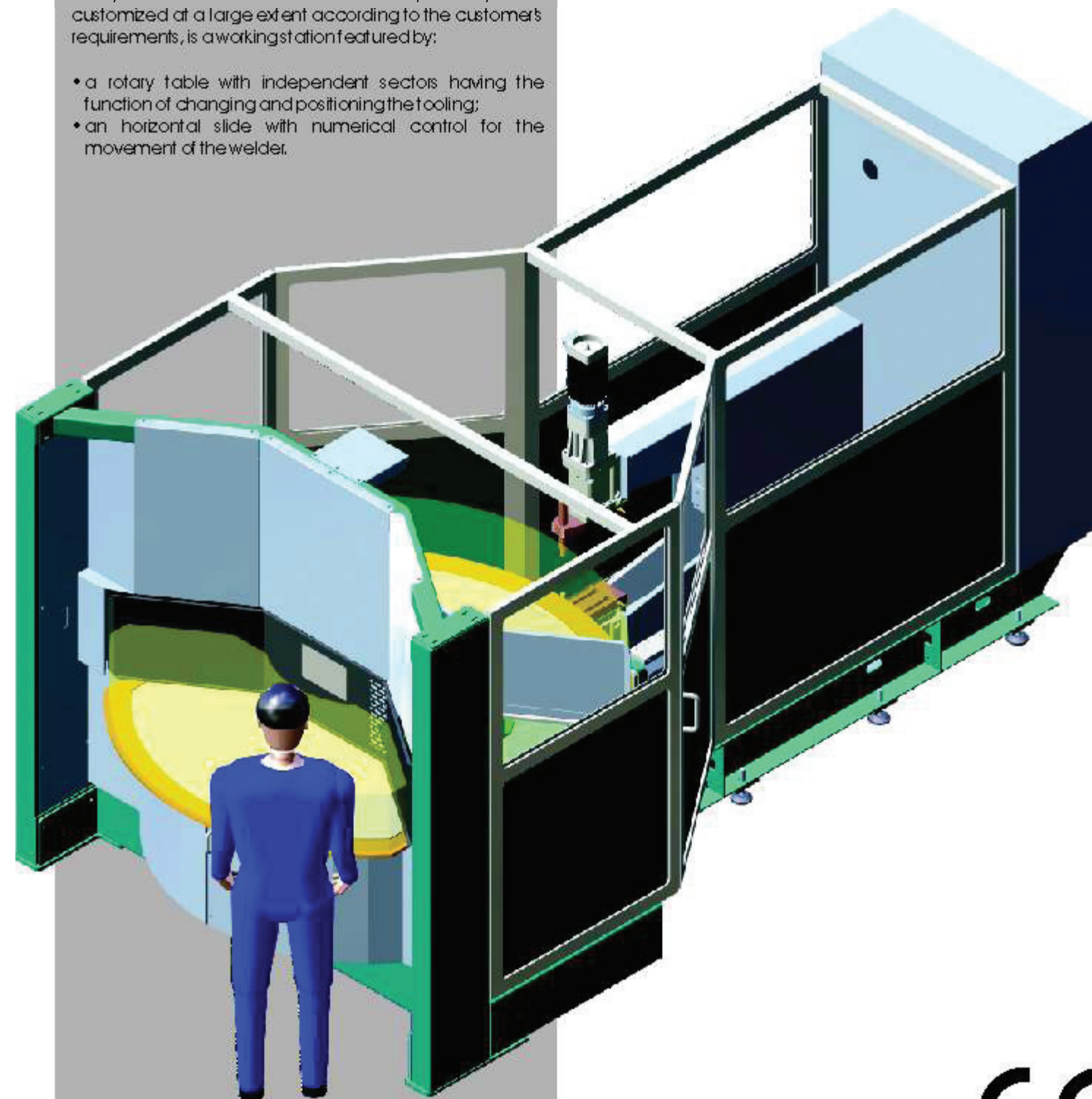
**ALATIS THERM d.o.o**

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Tecna introduces the new AUTOMATIC spot and projection welding system (patented).

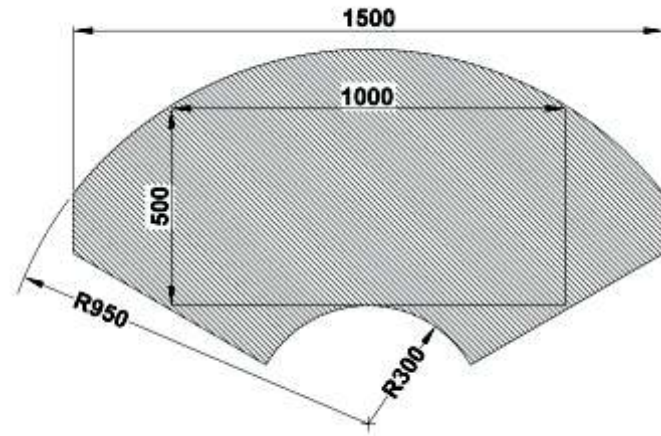
This system which is modular and has the possibility to be customized at a large extent according to the customer's requirements, is a workstation featured by:

- a rotary table with independent sectors having the function of changing and positioning the tooling;
- an horizontal slide with numerical control for the movement of the welder.



TECNA S.p.A. Specifications subject to change without notice

The combined movement of both the table and the slide enables to perform a series of spots in horizontal, they are contained in the working area as shown here below:



The welding machine, assembled on the horizontal slide, can be chosen among a large range of configurations, with different electric features (single-phase or medium frequency).

The electrodes movement can be carried out by means of either pneumatic or electric actuators.

The electric actuators have fixed squeeze stroke to get close to the work piece and fixed working stroke.

The electric actuators, whose stroke is controlled by a brushless motor, provide a further degree of manoeuvrability to the machine: this enables the welding on different planes, in between the foreseen stroke.

TECNA S.p.A. has decided to configure the machine as described above because this grants higher performance, in details:

The movement necessary to reach the welding area has been achieved by the combination of the co-ordinated movements of the tooling (assembled on the table) and of the welder (assembled on the sled).

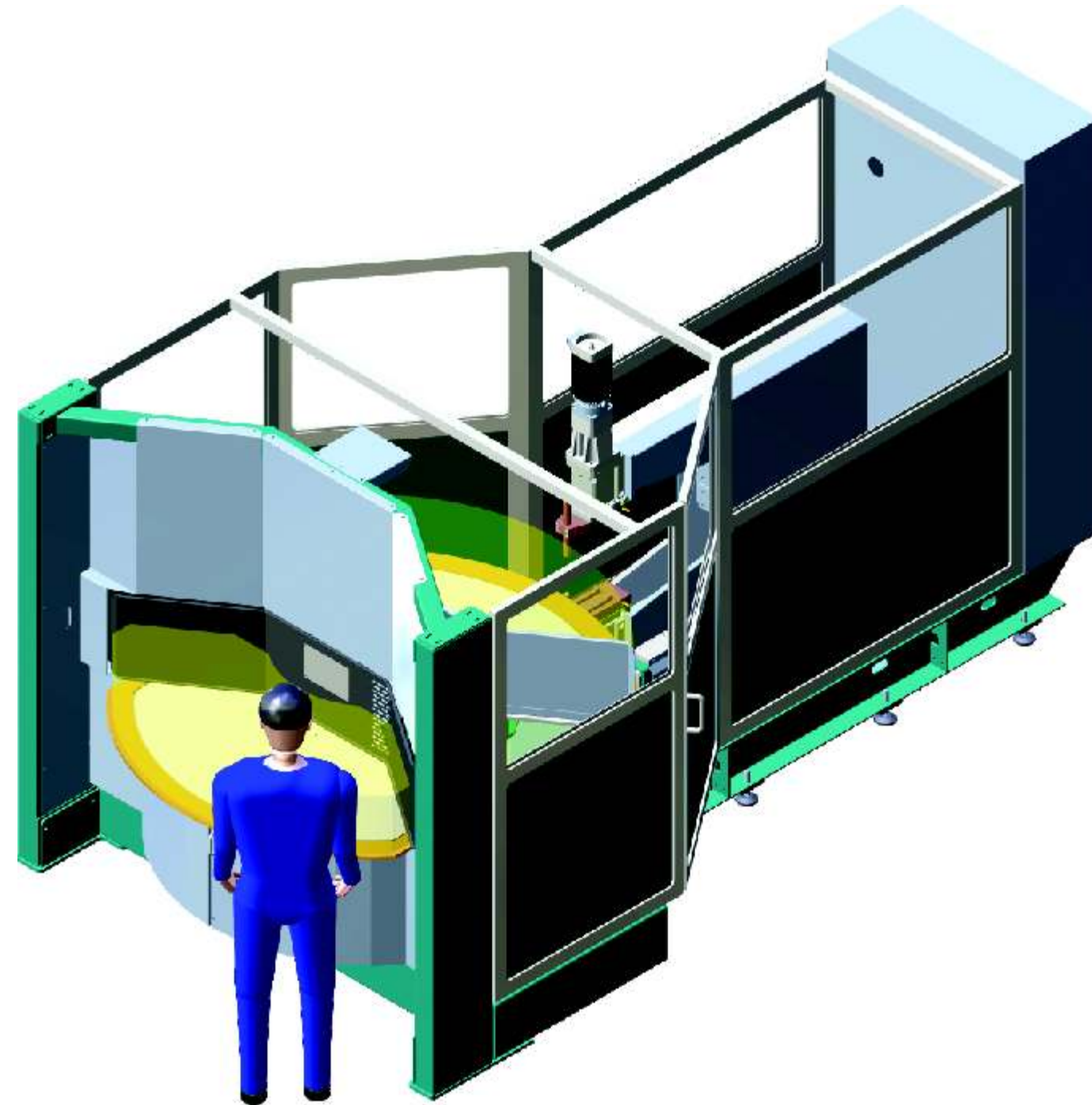
This optimizes the performance by reducing the moving masses and the consequent inertia.

The operator has only one point for charging and discharging the pieces for improved ergonomics of the working place.

The choice of brushless motors and caged ball ballscrews for the rectilinear movements and of torque motors for the rotary table with independent sectors assures high dynamics thus reducing the cycle time and reaching a good repeatability of the positioning.

The machine can be easily programmed for the SELF ACQUISITION ON THE FIELD by means of a portable programming terminal and of a specific software which guides the operator along all the phases of data entry, both for the setting of the movements and for the choice of the welding parameters.

The most updated techniques in use for the programming and the control of the machine has been borrowed by the industrial robotics in order to achieve the maximum efficiency, reliability and safety for the operator.



TECHNICAL FEATURES

<b>ROTARY TABLE WITH TORQUE MOTOR</b>	
Max. speed	50 RPM
Max. acceleration	(depending on the tooling in use)
<b>HORIZONTAL SLIDE</b>	
Stroke	700 mm.
Max speed	1.300 mm/sec
Max. acceleration	(depending on the welder in use)
Positioning repeatability	within +/- 0,1 mm. (this data can vary according to the welder and the tooling in use)
<b>WELDING MACHINE</b>	
Type	single-phase or medium frequency
Short circuit current	up to 60 kA
Electrodes force	up to 2.000 daN
<b>WELDING CONTROL UNIT</b>	
Single-phase version	TE550
Medium frequency version	TE700
<b>DIMENSIONS AND WEIGHT</b>	
Dimensions	see drawing
Weight	1900 kg
<b>INSTALLED POWER</b>	
Installed power for movement	approx. 6 kW
Installed power for welding	depending on the welder's features

ELECTRIC ACTUATORS WHOSE STROKE IS CONTROLLED BY A BRUSHLESS MOTOR

