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RANGE

OMEGA 4T



MECASONIC
Plastic Welding Solutions

mecasonic.com





Offreurs
de solutions
Industrie du futur

We are PWS+

Founded in 1969 for the manufacture of ultrasonic welding equipment, MECASONIC joins the Crest Group in 2000 and becomes one of its technology centers by developing six welding technologies: ultrasound, rotation, heating blade, vibration, the laser and the hot air

Our leadership is fuelled by our ability to innovate and meet the expectations of our customers in sectors such as food, automotive, cosmetics, household appliances, electronics, recreation, medical, metals, food and beverage, packaging, textiles and many more.

Member of the French alliance industry of the future, and recognized as suppliers of 4.0 industry solutions, we are also a connected player of the 4th industrial revolution to become.

* Plastic welding solutions

Thermic welding with OMEGA 4 T

With the Omega 4 T thermal welder, assemble your plastic components with precision and reliability!

Ideally designed for hot riveting, the new Omega 4 T thermal welder has 2 welding modes (Time and Distance) allowing quality results to be obtained on many applications. The welding sequences (descent, welding, cooling) can be detailed up to 12 steps to improve the control.

OMEGA 4 T is an innovating platform that fulfils the Industry 4.0 requirements. Its PLC allows the integration of new options such as communication buses. Moreover, thanks to its modular and evolutive configuration (table or on sole plate) this welder meets the requirements of all industries whom activity is constantly changing.

Principle

A heating element forms the rivet head of a plastic pin. A cooling phase follows which thus freeze the shape of the rivet. This process is without mechanical constraints, very aesthetic and with high tensile strength.

The main advantage of this special technology, very useful in the electronic field: It allows fixing with precision and durability without soliciting the electronic devices present on the parts at the time of assembly.

With thermic riveting mostly solder joints in the form of points or segments are made.



OMEGA 4.T



Width	546 mm
Depth	700 mm
Hight	1524 mm
Weight	96 kg

no contractual pictures

Characteristics

- Adjustable module height on 250 mm
- Adjustment welding module by air gas cylinder
- Stroke: 200 mm
- Diameter of the cylinder: Ø63
- Welding and travel management thanks to a double encoders
- Safety stroke with mechanical stop
- Movement precision: 1/100 (10 microns)
- Guide on crossed roller rails
- Adjustable speed in front
- Compressed air: clean and dry max 7 bar et mini 5.5 bar
- No air detection
- 25 microns air filter
- Safety valve for pneumatic supply
- Welding modes: Time and Distance
- 2 warming zones with 2 cartridges per zone (4 warming zones in option)
- Power: 800W max/zone
- Safety PLC
- Bi-manual control with double encoder
- 2 USB ports
- Industrial buses in option
- Heating management module
- Power supply: three-phase 230V, neutral and earth
- Estimated weight without tooling: 96 Kg
- Machine dimensions: 740 x 1524 x 550 mm
- Controller dimensions: 452 x 523 x 222 mm

NB: The mentioned characteristics can be modified without prior notice

Industry 4.0

- **High communication:** the OMEGA 4 T is accessible remotely and can make its production data available. Thanks to its **programmable control windows** according to the experimental plans, **the self-check of the welds** enables the operator to identify non-conformities in real time to eliminate scrap from the production flow. Its **history** makes it possible to identify the source of non-quality in order to implement corrective actions.
- **Predictive data:** the machine provides instant indicators, cycle time, production duration forecast. These data make it possible to calculate the production capacity in a determined period. This information can be relayed to the supervisor system.

-> All of its possibilities support your data management to become one of the most important tools for operational decision-making.

Advantages

- Intuitive user interface with colour touch screen 10"
- 2 welding modes
- Multilingual menu system
- Ethernet connectivity
- Self-check at start-up
- Temperature control probe (max difference of 5 to 10°C between set point and actual value)
- Out of service cartridge detection

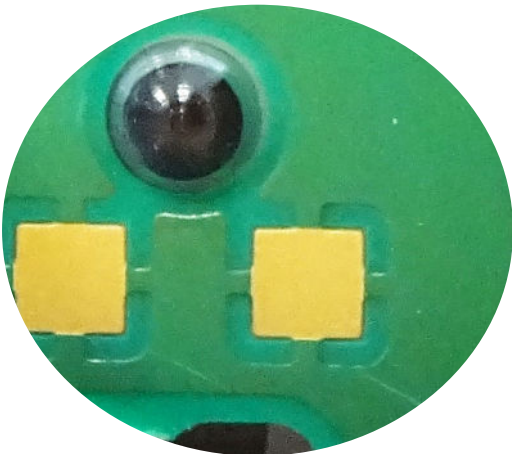
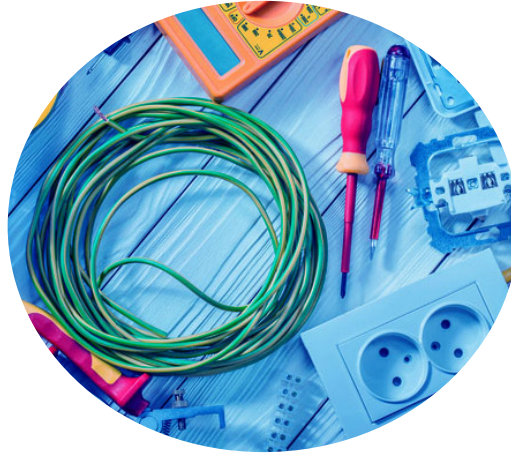
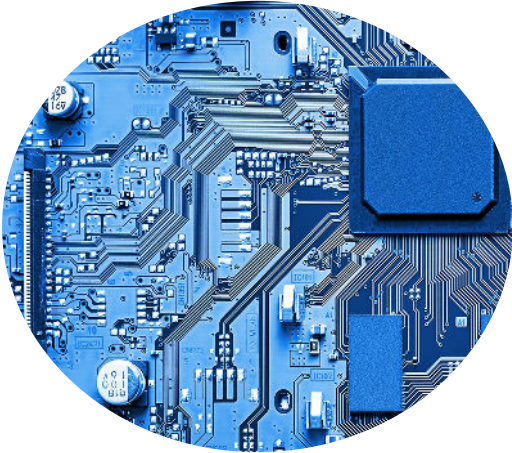


OMEGA 4.T

Many applications

The Omega 4 T is perfect for hot rivetting in many industry fields:

- Electronic
- Automotive
- Medical
- Households



no contractual
pictures

From our industrial site in Juvigny, France...

We are steering operations linked to our local and international markets. The support of our various partners across all five continents has helped us expand our field of activity and offer our clients personalised service effective throughout the world.



Argentina
Belgium
Brazil
China
Denmark
Finland
Germany
Indonesia

Italy
Israel
Japan
Malaysia
Morocco
Mexico
Netherlands
Philippines
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Turkey
United-Kingdom
USA



Welcome line
+33 (0)4 50 877 300
After sales service
+33 (0)4 50 877 316



Technosite Altéa
234 rue Georges Charpak
74100 Juvigny
France



mecasonic.com
contact@mecasonic.com

