



ROTATION / SPIN

SPIN WELDING

RANGE

OMEGA 4 RI



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 fueled 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

Spin welding

with the OMEGA 4 RI range

Mecasonic's Omega 4 spin welder provides accurate and reliable thermoplastic part welding.

The Omega 4 RI models meet Industry 4.0 criteria.

Its standard USB, Ethernet, FTP and OPC/UA connectivity allows the Omega 4 RI 72 to be used in a highly communicative Industry 4.0 environment.

This equipment included two separate elements:

- Press
- Controller variator

Mecasonic's Omega 4 RI spin welders provide accurate and reliable thermoplastic part welding.

The many options available with the machines can be used for a wide range of thermoplastic welding issues.

The many checks carried out during the welding process make it possible to obtain high quality welded parts.

The Omega 4 RI are designed to be integrated and operated by a skilled operator in its floor stand configuration, providing very comfortable use.



OMEGA 4.Ri72 OMEGA 4.Ri115

Principle

The OMEGA 4 RI spin welding machines produce the melting heat required by rotating one part of the assembly to the other which remains fixed in the nest and applying simultaneously pressure. The friction generated allows a good quality weld, a good seal and a clear reduction of the scrape rate.

The spin welding process is recommended for parts having circular parting lines.

Caractéristiques

- Adjustment welding module by air gas cyclinder
- Stroke: 100 mm || 200 mm
- Adjustable module height on 250 mm
- Diameter of air cyclinder: 40 mm || 63 mm
- Maximum force: 500 Newtons for Ø40 || 2100 Newtons for Ø63
- Minimum force: 20 Newtons for Ø40 || 70 Newtons for Ø63
- 6 welding modes
- 12 programmable welding steps
- 32 possibilities of programmation
- Motion measurement resolution: 5/1000 (5 microns)
- Movement precision: 1/100 (10 microns)
- Precision of control windows: 0.01 mm, 0.01 s, 0.01J and 0.01W
- Cylinder location motor axis
- Safety stroke mechanical stop ajustable
- Indexing in low position
- Adjustable speed in front
- One-pièce structure in light alloy
- Power supply: three-phase 400V, neutral and earth 50Hz
- Compressed air: clean and dry max 7 bar et mini 6
- Weight: 100Kg || 130 kg
- Maximum size: 1120 x 950 x 540mm || 1234 x 672 x 560 mn

Avantages

- ✓ Multilingual menu system
- ✓ Two USB ports to export production datas
- ✓ Intuitive user interface with color touch screen 10"
- ✓ Safety by integrated PLC
- ✓ Self-check at start-up
- ✓ Ethernet connectivity for remote accessibility
- ✓ Connectivity FTP and OPC/UA
- ✓ Communication buses (Profibus, Profinet) in option
- ✓ Modularity: on table or on base-plate



Many applications

Applications

Omega 4 RI spin welding devices can be used in different sectors:

- automotive
- cosmetics (to assemble cosmetic tubes such as - mascara, gloss, lip stick...)
- medical
- leisure
- packaging



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.



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