

THE ART OF PRECISION



mta

SOLDERING & DISPENSING

Company profile

Located in Gals Switzerland, Unitechnologies has over 50 years of experience in the domain of precision automation. We develop and manufacture production machines at the cutting edge of technology for various industries such as electronics, optoelectronics, automotive, watchmaking and medical.

With our mta® brand, we globally commercialize selective **soldering** and volumetric **dispensing processes** based on standardized platforms. As a result, the product range includes simple manual systems, semi-automated table-top robots as well as fully automated production cells.

Thanks to our highly qualified professionals, our modern infrastructure and our proven method of managing knowledge and mastering risks, we propose innovative and very efficient solutions, perfectly adapted to the needs of our customers.



Key competences

Selective soldering

Amongst the different soldering techniques available, the selective point to point solution allows the precise soldering of clearly defined points; parameters are though adapted to the specific characteristics of each one.

Different automated mta® soldering technologies such as **iron**, **laser**, **induction** and **microflame** are used with the point to point technique.

This alternative to manual soldering guarantees a high quality level thanks to the repeatability and reliability of the process, which exceed the competences of any operator.

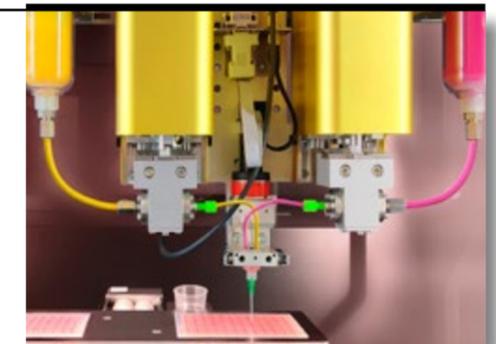


Volumetric dispensing

With the high precision mta® volumetric dispensers, the highest requirements of the dispensing industry, for mono and two-component liquid and high-viscosity materials, can be reached. The devices enable a perfect repeatability of micro-volumes to be dispensed starting with 0.1 mm³, in a variety of dispensing processes such as adhesive bonding, sealing, potting, conformal coating and glob top.

The working principle of the mta® dispensers is based on four systems including **ceramic piston/cylinder pump**, **eccentric screw pump**, **jet** and **cartridge**.

Furthermore, the mta® dynamic mixing chambers provide dispensing of two-component materials in a very wide range of ratios.



Personalized advice

When it is necessary to solder joints or to dispense a defined volume onto components with high accuracy and absolute repeatability, many factors need to be taken into consideration to be able to guarantee high-quality results.

We rely on the expertise of our process specialists to conduct in-depth tests in our laboratories to assess the most appropriate soldering or dispensing method.

Furthermore, we have state-of-the-art equipment including standard automated cells and table-top robots as well as all related soldering and dispensing technologies detailed under our key competences - see opposite.

The aim of our test program is essentially to check the feasibility of the tasks to be carried out while enabling us to provide a **process guarantee** for each application.

Our customers benefit by receiving a proof of process prior to investing in the corresponding production equipment.

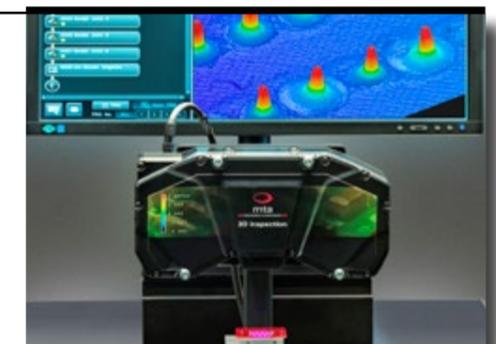


Optical inspection

Thanks to our extensive expertise in the soldering and dispensing domains, we also offer accurate and fast optical 3D or 2D inspection solutions (AOI).

Both of these systems provide very efficient **quality control** when included as part of a turnkey package. Particularly, three-dimensional image analysis provides access to a wide range of tools necessary to evaluate complex shapes. These systems are able to inspect the actual shape of a solder meniscus or a dispensing bead.

Today, all aspects of manufacturing are striving to reach higher quality requirements. Three-dimensional optical inspection offers the precision and the reliability needed to take a significant step forward in quality assurance.



Headquarters

Unitechnologies SA

Bernstrasse 5
3238 Gals
Switzerland

T +41 32 338 80 80
info@unitechnologies.com
www.unitechnologies.com

Subsidiary USA

mta automation inc.

123 Poplar Pointe Drive,
Suite E
Mooresville, NC 28117
USA

T +1 860 399 1141
info@mtaautomation.com
www.mtaautomation.com



mta

SOLDERING & DISPENSING