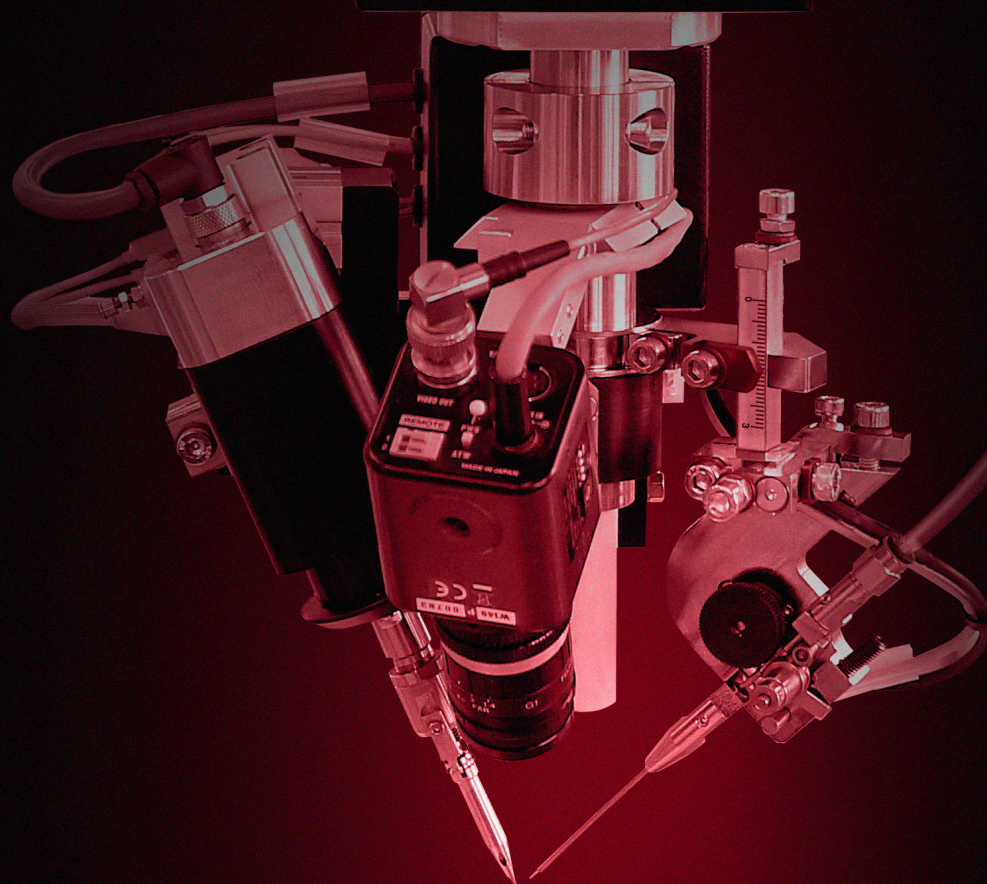




mta

SOLDERING & DISPENSING

High performance iron soldering head



unitechnologies

THE ART OF PRECISION

Selective point to point soldering

Amongst the different soldering techniques available, the selective point to point solution allows for precise soldering with a high accuracy and the possibility of adapting the soldering parameters to the requirements of each individual point. With its repeatability and reliability of process, this alternative to manual soldering guarantees a high degree of quality, which exceed the competences of any operator.

Iron soldering head

The iron soldering head is designed for selective point to point operations to be carried out with the optimal quality and repeatability. The powerful 150W heating element keeps energy fluctuations to a minimum and guarantees to rapidly reach the requested soldering temperature. Furthermore, to increase the life-span of the soldering tips when not in use, a standby mode can be set.

Soldering tips

The design of the mta[®] soldering tips is the result of 50 years of experience in the soldering domain. The unique design is based on the following key parameters:

- Easy changeover of the tip: swivel of heating element for better tip accessibility. It can be changed within a few seconds and a minimum of steps. The simple and accurate spring lock ensures the replacement of the tips without requiring any further changes to the machine. Furthermore, this spring includes a compliance which avoids stressing the soldered element.
- Accurate temperature control and thermal transfer: the main challenge in an iron soldering device is the quality of the thermal transfer between the heating element and the tip. In addition, the measurement and the control of the temperature must be fast and accurate.
- A large range of standard tips for 150W soldering heads, corresponding to the most common uses, is available. Specific tips can also be offered depending on the customer's application. mta[®] tips can be used for both lead and lead free soldering.

Wire feeder guides

As a key element of the soldering robot, the wire feeder drives the soldering alloy to the exact position required by the application. It has been designed to pull the wire instead of pushing it. A sensor checks the wire presence to ensure the soldering process. This unit is adaptable to several wire diameters. At the end of the device, the wire is guided through a tube, which, due to the continuous pollution of the soldering alloy, must be replaced from time to time.



Quick and easy adjustments

- Possible adjustments are indicated using colored markings
- Graduated scale to easily return to previous adjustments for products and processes
- Simple access to the adjustment positions

Reliability

- Protection of the clearance of iron cylinder
- Weight gain: less constraint on the mobile unit

Simplified & embedded electric connections

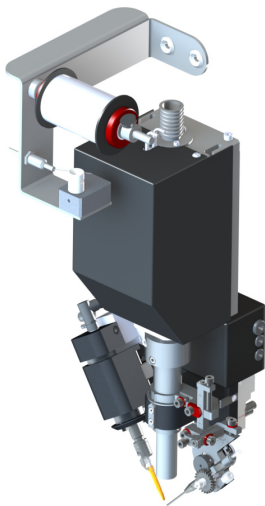
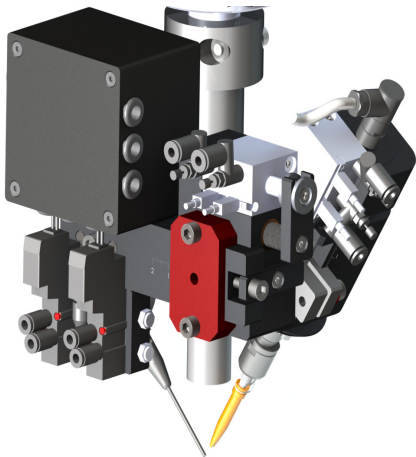
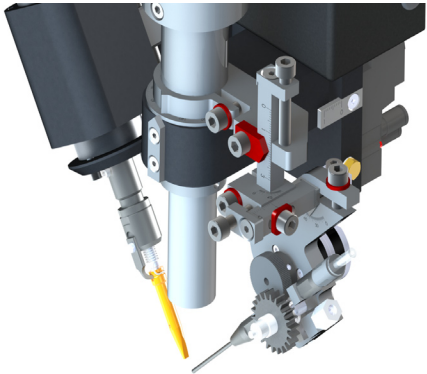
- Terminal block instead of soldering joints for a reliability of the connections and ease of maintenance
- Embedded temperature controller, PID close to the process

Compact design

- Compactness and rigidity were the cornerstones in the design process
- Easier integration of a second wire guide or other options such as cameras, vision systems, sensors, etc.
- All elements are easily exchangeable (heating unit, end of stroke sensors, etc.)

Iron soldering head specifications

Technical specifications	
Iron power	150W
Iron temperature	adjustable to 450°C (837°F) and standby mode
Temperature accuracy	± 2°C (regulation over a 4-20mA current loop)
Plug-in connection	integrated in the head
Power supply controller	24V
Air pressure	max. 6 bar
Iron head dimensions	200 x 200 x 180 mm (without monitoring camera)
Iron head weight	~2.3 kg
Soldering wire diameter	0.3 - 1.2 mm
Soldering wire qty accuracy	±2.5% / Power supply: 24VDC



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