



# SMD REWORK

TECHNOLOGY

Fast. Precise. Reliable.

# REWORK

Reliable process.

All MARTIN rework systems utilize advanced convection and infrared heating technologies, delivering extremely repeatable and efficient heating. HD vision provides high contrast and pin sharp images.

Component alignment and placement is effortless and accurate, performed automatically via AVP package recognition. New APP Tools support flux dipping, solder paste printing solutions along with the presentation of the smallest  $\mu$ SMD.

## Martin technologies

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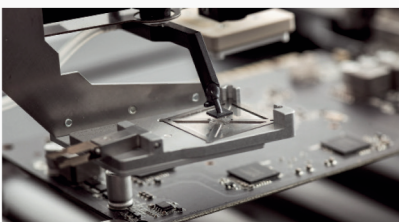
### Hybrid from below

Using the advantages of both convection and infra-red technologies, energy is transferred efficiently with uniform heat distribution across the PCB. Controlled heating and cooling of small and large mass assemblies, minimize temperature induced stresses and preheat products for optimized soldering.



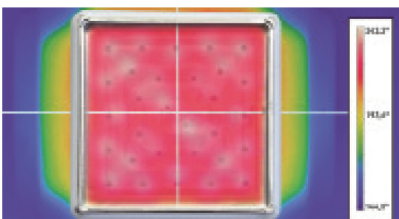
### Clear Vision

The EXPERT 10.6 vision system displays HD quality images for precise alignment. High-quality optical systems are available for a wide range of applications from  $\mu$ SMDs to large components. The Auto-Lens-Detect function eliminated all vision calibration.



### New APP Tools

DIPPING, PRINTING, HANDLING are supported by the new APP TOOL feature. Whether flux dipping, printing QFNs or presenting  $\mu$ SMDs for placement - all can be accomplished quickly, precisely and without programming.



### Soldering tools

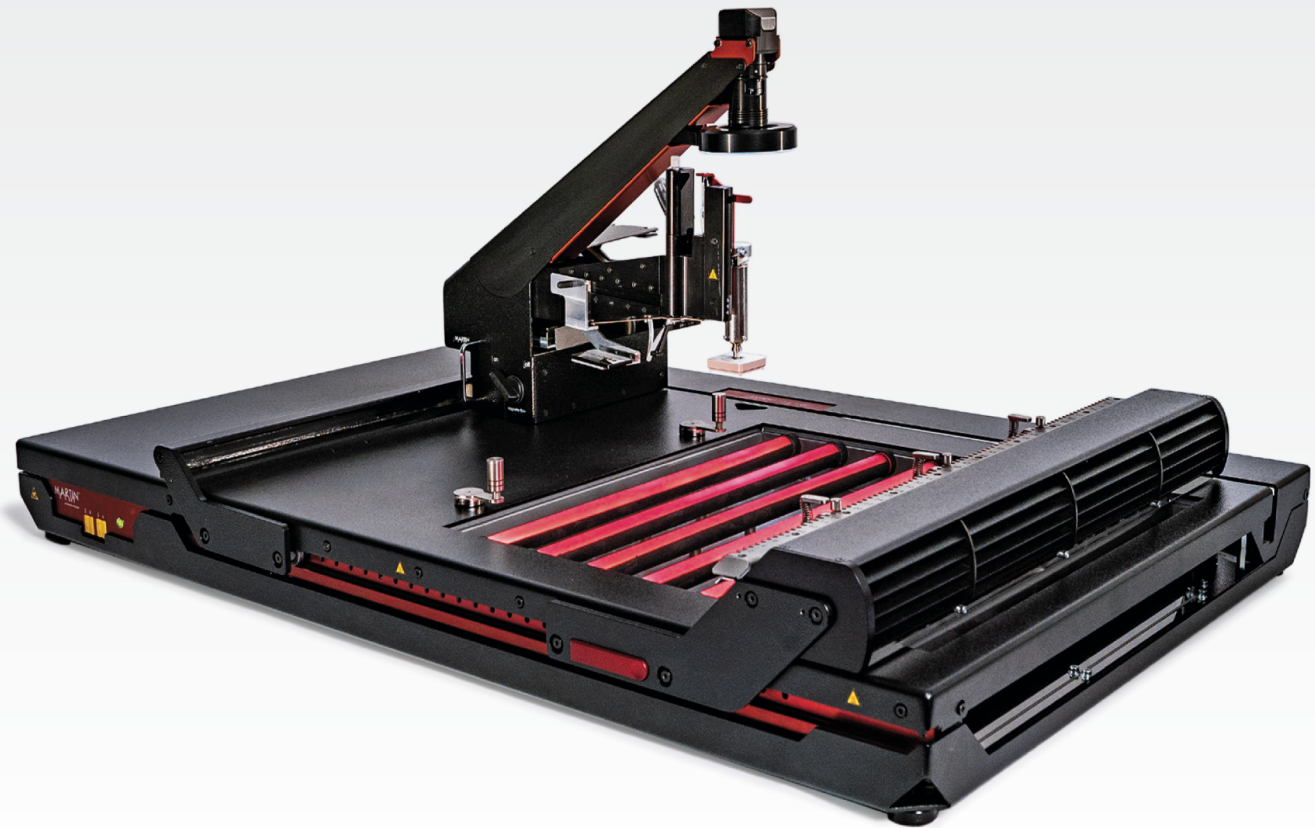
Advanced technologies such as thermal imaging provide optimal nozzle designs to ensure maximum thermal uniformity and heat transfer for all MARTIN rework systems. The specific MARTIN nozzle designs provides maximum thermal isolation of adjacent components.

# EXPERT 10.6

Extensive tasks.

The EXPERT 10.6 rework platform delivers reliable and precise rework of surface mount devices, sockets and connectors. Innovative technologies such as Advanced Vision Placement (AVP) provide repeatable component alignment and soldering automatically, minimizing operator

reliance. Ultra-flexible product support features simplify top-justified PCB positioning. All 10.6 systems are configured for residual solder removal and dispensing of flux or solder paste.



## Top Features

Camera-supported rework



### Flexibility

Various PCB sizes and shapes as well as components available up to 75 x 75 mm<sup>2</sup>



### Under-heating system

Large PCBs 500 x 500 mm<sup>2</sup>



### Performance

Uniform heat distribution through convection and hybrid technology



### Multifunctionality

One device for all processes, including desoldering, pad cleaning, automatic positioning and soldering



### Process control

Automatic profiler for under- and top-heating systems



### Software

Simple, intuitive, tablet-compatible

# EASYSOLDER 07

## Intuitive Design.

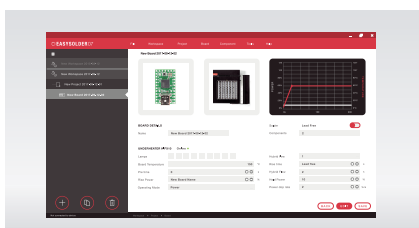
The software EASYSOLDER 07 guides the user through the entire rework process with clarity. The "AutoProfiler" is a special simplification. Using a few datapoints and the measured values of several temperature sensors, the software module creates a soldering and desoldering profile.

Each process step can be saved, edited and reloaded later. The functions are arranged very clearly and can be used intuitively. For documentation purposes and Industry 4.0 standards, the report function enables the creation of protocols and analyses of the results. EASYSOLDER 07 can be used by all touch-enabled laptops or tablets.



### EASYSOLDER 07 functions:

- Desoldering of various components
- Removal of old solder from printed circuit boards
- Dispensing new solder paste or flux
- Placement of new components
- Soldering of new components
- Touch-enabled software interface



### Intuitive Design

permanent control of all parameters



### RELIABLE PROCESS

AUTOPROFILER for all applications



### EASY HANDLING

flexible stand with magnet power

# EXPERT 05.6

## Manual tasks.

The Rework station with 2,000 W heating power in IR technology allows uniform heating over an area of 185 x 245 mm<sup>2</sup> and prevents mechanical stress due to temperature differences during the process. The high-resolution camera delivers fast, accurate and reproducible placement results. Even the smallest components from a size of 1 x 1 mm<sup>2</sup> can be repaired and placed.

User-friendly handling is provided by the touch-enabled EASYSOLDER 07 software. Reflow profiles with individual temperature parameters can be created, edited and saved and enable high process reliability and repeatable soldering. The Expert 05.6 IXH is a precise, cost-effective solution for the complete rework process on one unit.



## Top Features

Manual rework of BGA, QFP and sockets



### Flexibility

Various PCB sizes and shapes as well as components available



### Precision

Precise camera-supported placement



### Under-heating system

IR heating system, variable heating area



### Software

Simple, intuitive, tablet-compatible



### Multifunctionality

One device for all processes, including desoldering, pad cleaning, camera-supported positioning and soldering



### Plug and Play

Compact format, innovative design and intuitive operation for professional manual rework

# HOTBEAM 05

High performing under heater in IR technology.

This Hotbeam is perfectly suitable for hand soldering tasks. The under-heating system can be used simply and comfortably in the various operating modes (consistent power, consistent temperature and profile) via the intuitive menu navigation. The innovative heating-management system ensures a reproducible circuit board temperature without overshooting at the highest long-term stability. The Auto-Profiler feature determines required device settings (profile) automatically for the user. The exact desired circuit board temperature is attained by executing

the profile learned automatically by the device. Working processes become safer and more efficient. The IR lamps, which are protected by a glass plate, are independently switchable. This makes cleaning of the hot area easy and simple. Furthermore, the under-heating system can control devices (e.g. for removal by suction) or configure them in such a way that they become activated by external devices (SPS or foot switches). The EASYBEAM software allows for the sorting, editing and writing of profiles via a USB connection.



## Top Features

Precise preheating



### Format

Flexibility in terms of the circuit board's shape and size; up to 200 x 250 mm are able to be processed



### Flexibility

Preheating circuit board for the subsequent Rework process, through to curing and cracking of underfill



### Process reliability

Various operating modes, e.g. for consistent power, consistent temperature and profiles



### Performance

HOTBEAM and SMART DESOLDER combination for the perfect rework



### Process control

Use of temperature profiles via PC software



### Ergonomic workstation

Table mount available

# MINIOVEN 05

Precision and quality.

The robust design of the MINIOVEN 05 offers integrated features such as convection circulation, infrared heating source, process gas distribution and a user-friendly operator interface. This configuration yields an optimal Reballing and Prebumping system, heating is extremely uniform across the device.

The use of nitrogen process gas ensures a soldering atmosphere where oxidation is minimised and promotes optimal wetting of solder joints as well as increased component life expectancy.



## Top Features

Hybrid heating technology for the best temperature distribution



### Process reliability

Optimized heat distribution via convection



### Flexibility

Reflow of solder paste or solder balls



### Plug and Play

Compact format, innovative design and intuitive operation



### Precision

Nitrogen connection for optimal reflow of solder balls



### Process control

Use of temperature profiles via PC software



### Support

Tailored mask design

# SMART DESOLDER 01

Removing residual solder.

The SMART DESOLDER 01 combines a manual hot gas source with a vacuum pen. The remaining solder on the board or on the BGA can be heated systematically and be removed by the vacuum pen.

Due to this gentle procedure damages on the boards caused by overheating or mechanical stress can be avoided.



## Top Features

Manual hot-gas source with a vacuum pen



### Process safety

The soft and antistatic Teflon tip prevents damage to the pads through high mechanical or electrical demands



### Plug and Play

Compact format, innovative design and intuitive operation



### Temperature control

The temperature-controlled airflow prevents the pads from overheating as well as neighboring components from heating up



### Process control

Solder pen's controlled airflow between 5-25 l/min



### Performance

HOTBEAM and SMART DESOLDER combination for the perfect rework



### Flexibility

Intuitive use, with two handheld pens