

Advanced BGA Rework Station

RD-500V ALL - IN - ONE
SEMI-AUTOMATED REWORK STATIONS

Suitable for all kind of reworks on different SMT components



Advanced BGA Rework Station

New Key Features

- **Compact and Stable Design**
- **Larger Board Holding Capacity**
- **One Touch Lock Fixture Anti-Warpage PCB Support**
- **Powered Up Focal Top/Bottom Heater**
- **Powered Up New Technology Faster Response and Save Energy IR Heater**
- **Larger and Thick Board Heating Area Design**
- **Larger and Thick Board Holding Capability Design**
- **2 Mega Pixel Full HD Camera**
- **Adjustable Vision LEDs Illumination Intensity**
- **Motorized Z-Axis Closed Loop Motion Height Control**
- **Closed Loop Air Flow/ IR Control**
- **Friendly Ease of Use Software Adopting New Interface**
- **3 Points Auto-Profile Mode**
- **Profile Library Easy Select Mode**
- **Multiple Reflow Zones Adds**
- **POP, Chip 0402,0603 , QFN...etc...Capable**
- **N2 Capable**
- **Optional Contactless Site Cleaning**
- **Optional Start and Go Diagnostic and Calibration Software**

Heating System



Powered Up Heating System

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- **New IR Technology Faster Response 1000 W Top & Bottom Heaters**
- **3600 W Area Heater**
- **Larger Area Heater**

New Software Features

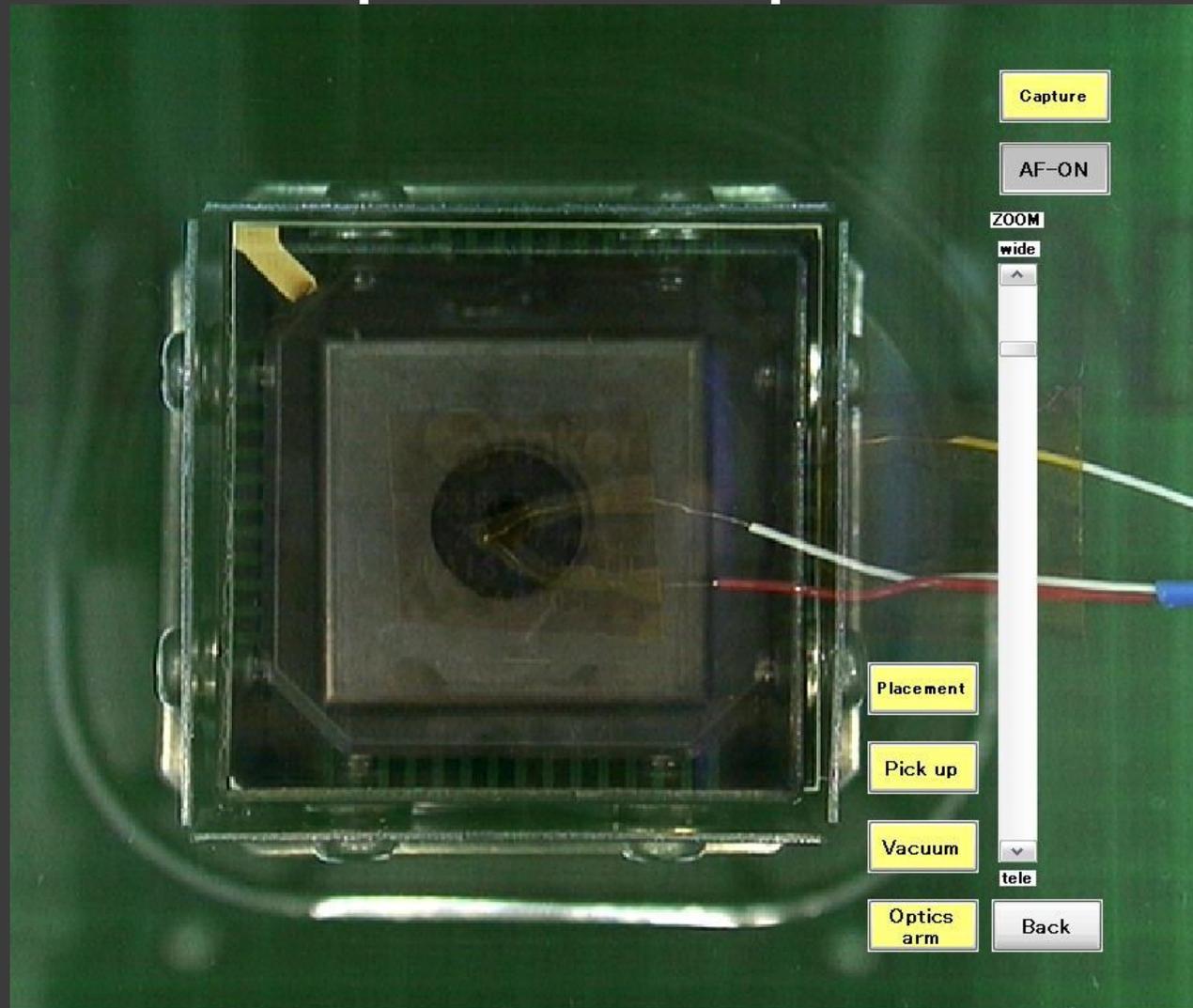
3 Special Modes:

- 1.POP
- 2.Chip Mode – for 01005 & 0201
- 3.QFN

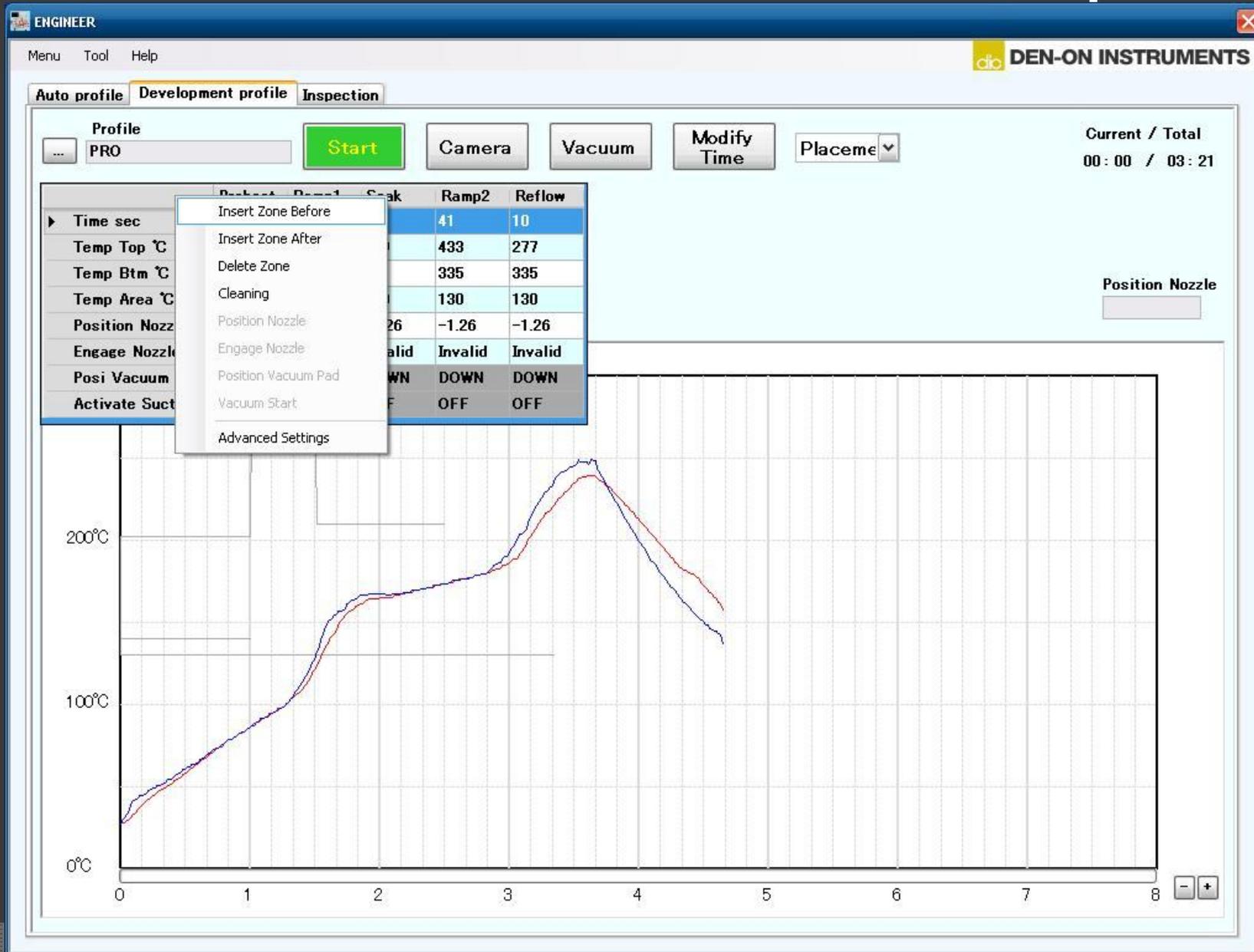
- Add New Zones
- New Auto-profile Technique
 - Solder Control
 - Top Package Control
 - Board Temp Control



2MPixel Full HD Camera Improves Optics



Insert Custom Multiple Zone



Auto-profile



3 Auto-profile Modes:

- Single Point (same as RD500 III)
- Dual Point (same as RD500III)
- Three Point Control. **New**
 - Peak Solder Temp Set point
 - Top Package Maximum Set point
 - Board Temp Input

Full Control Mode – Engineers

ENGINEER DEN-ON INSTRUMENTS

Menu Tool Help

Auto profile **Development profile** Inspection

Profile **Start** Camera Vacuum Modify Time Placeme

Current / Total
00:00 / 00:00

	Preheat	Ramp1	Soak	Ramp2	Reflow
Time sec	0	0	0	0	0
Temp Top °C	0	0	0	0	0
Temp Btm °C	0	0	0	0	0
Temp Area °C	0	0	0	0	0

Position Nozzle

Advanced Settings

STEP: 0 **Set**

Final Data: **Set**

top heater: FULL MID LOW btm heater: FULL MID LOW

area heater: FULL MID LOW area control: HEATER EXT

Blower: OFF Invalid Cooling Blower: OFF Invalid Vacuum: OFF Invalid Pad position: UP Valid

Blower: OFF Invalid Cooling Blower: ON Valid Vacuum: OFF Invalid Pad position: DOWN Invalid

Cooling Fan: OFF Invalid Audible Alarm: OFF Invalid Pre-heat 1: OFF Invalid Pre-heat 2: OFF Invalid

Cooling Fan: OFF Invalid Audible Alarm: OFF Invalid Pre-heat 1: OFF Invalid Pre-heat 2: OFF Invalid

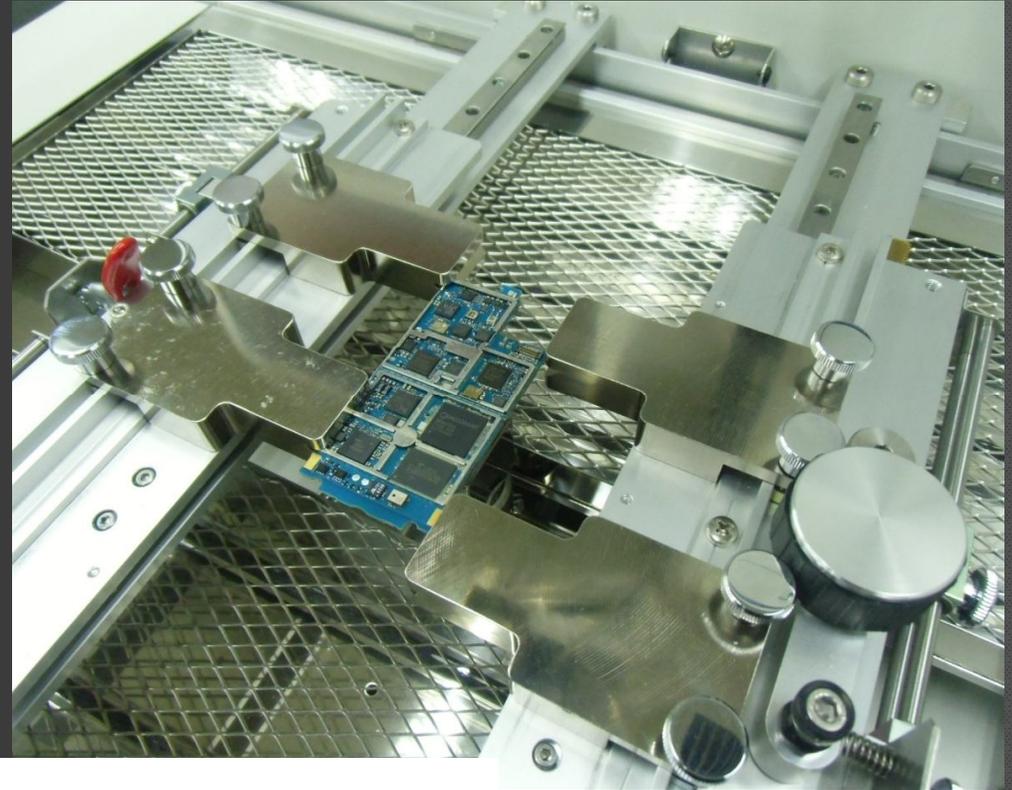
Time: 0 Final Cooling Temp: 70

Nozzle: Invalid LIGHT HEAVY nzl pos: 0.0

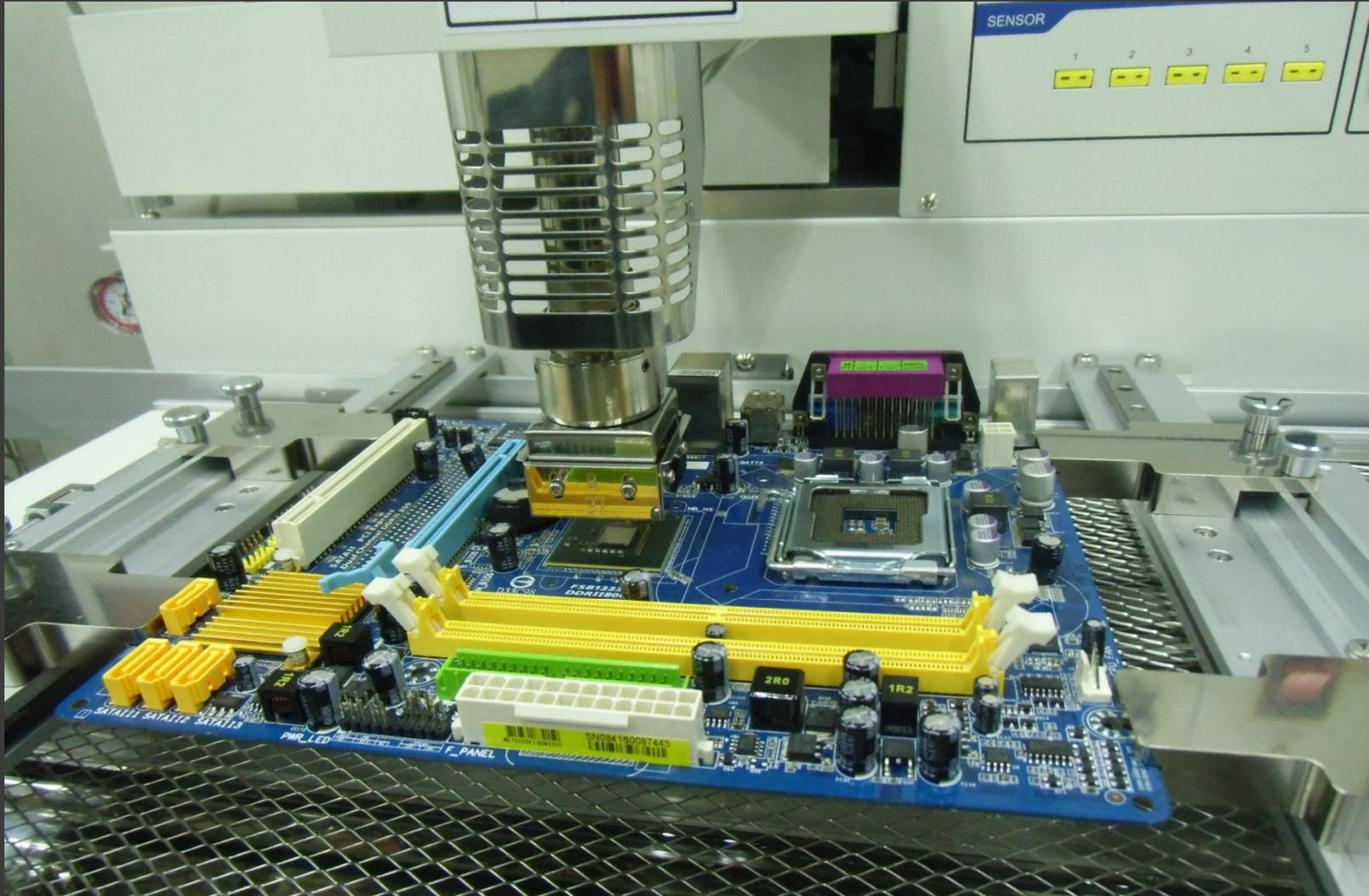
Close

New Board Fixture and Support

1. Linear Guide Rails
2. Heavier and Thick PCB work load
3. Thicker Heavier Design
4. Spring Loaded Underside Board Support movable with the PCB Holder



New Board Fixture and Support.





High-Performance All IN ONE

Rework Station for all type of SMT

Components for Eutectic and Lead Free Solders

Introduction:

RD500V Series for stable, safe rework of large or small boards and large or small sensitive components.

The RD-500V series is a semi-automated single motorized Z-axis placement and reflow station for all type of components rework. The machine uses a high 3-point heating system with an advanced computer control technology designed for safe lead free and eutectic rework application.

The RD-500V series 3 stage heating system provides 5.6kW overall thermal output for sufficient thermal capacity and control to execute precise profile on small to medium sized boards up to 500 x 700mm.

Each system comes complete with a trouble free controller <Internal Flash Memory Hard Drive>, no hard drive or separate computer is necessary.

Specification:

Full vision optics with a 2 mega pixel high-definition video camera and five separate thermocouple inputs make the Den-on RD-500V the ultimate solution. For safe, repeatable removal, alignment, placement, and soldering of BGAs, CSPs, ultra-fine-pitch QFPs, QFN, 01005 and other delicate components, heat-sensitive, and expensive SMDs. Huge heating and holding capacity area with ultra-sensitive Z-axis height-sensing controlled by optoelectronic switching allows a Z-Axis Closed Loop Motion Height Control accuracy about 1/10mm. A 6-zone rapid-IR under-heater with multiple reflow zones adds combined with the easy selecting mode profile library also contribute to performance that makes the RD-500V the most advanced rework system Den-on has ever offered.



New Key Features:

- Compact and Stable Design
- Powered Up Focal Top/Bottom Heater
- Powered Up New Technology Faster Response and Save Energy IR Heater
- Larger and Thick Board Heating Area and Handling Capacity Design
- 2 Mega Pixel Full HD Camera with a 19 Inch LCD Display For Easy Visual Alignment
- Adjustable Vision LEDs Illumination Intensity
- 5 Thermocouple Inputs For Real Time Temperature Profiling Control
- Printing, Dipping and Re-balling Solutions Made Easy
- Motorized Z-Axis Closed Loop Motion Height Control
- One Touch Lock Fixture Anti-Warpage Universal PCB Support
- Closed Loop Air Flow/ IR Control
- Operator/Engineer Inscription Mode Password Protected User Software Interface
- Friendly Ease of Use Software Adopting New Interface
- 3 Points Auto-Profile Mode
- Profile Library Easy Select Mode
- Multiple Reflow Zones Adds
- POP, Passive -Sensitive Resistors/ Capacitors 01005, 0201 , QFN...etc...Capable
- N2 Capable
- Stable and easy profile data transfer from machine to another with the offset heaters reset software.
- Optional Side View Camera Provides Optical Inspection Of The Soldering/ Melting Process
- Optional Contactless Site Cleaning
- Optional Start and Go Diagnostic and Re-Calibration Software