Introducing Gen3 Systems MUST 3 Solderability Tester - the World’s No 1 Solderability Test System.

Features:

- Automatic component alignment and testing
- Immediate pass/fail information on completion of each test
- Step & Repeat function for multi-leaded devices
- 4 individual globule blocks for Wetting Balance testing
- Testing ability down to 0201 devices
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The Unquestioned Industry Benchmark for Solderability Testing

The MUST System 3 is the latest technological evolution of the original Multicore Universal Solderability Tester (MUST) that grandfathered all modern solderability test standards. Since 1975, and with more than 4000 installed systems, the MUST System has maintained its position as the World’s No 1, and industry benchmark, Solderability Test System.

The MUST 3 performs solderability testing in accordance with all major international standards and comprises everything necessary for all forms of solderability tests.

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- Automatic component alignment and testing
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Gen3 Systems – for over 40 years, recognised leaders in dealing with the challenges for high reliability electronic circuitry. Your partner in Capital Equipment who understands electronics manufacturing… because we do that too!

Helping you Reduce Waste – Improve your Product Reliability – Increase your Profit – are the key elements in all of the products and services we provide.

Achieving high reliability is an increasingly critical issue in today’s products, now that very low defect levels in manufacture are obtainable. In order to keep up with the rapid developments of the global market, we offer a range of suitable measurement methods and techniques that further refine the assembly processes that help you, our customer, to remain competitive.

We have specialist experience and expertise in:

- Setting the Standard for Solderability Testing
- Capable of measuring down to 0.001 mN, the MUST is THE most accurate and comprehensively equipped test system of its type in the world.
- Gen3 Systems actively participates in standards development work with IEC, IPC, ISO, BSI and other official standards authorities to help maintain and develop solderability metrology.

The MUST 3 sets the standard - it performs solderability testing in accordance with all major international standards and comprises everything necessary for all forms of solderability tests.
High Precision Solderability Tester

The MUST CVS camera system is used to aid sample alignment for testing and video recording the solderability test. The MUST CVS greatly enhances solderability testing of: 0201, 0402, μBGA, QFN and other miniature components, monitoring the wetting of the sample during the test, and recording for further analysis and examination. The MUST CVS can be retrofitted to all MUST 3 systems.

The MUST System 3 is a high precision solderability tester for both surface mount (SMT) and leaded (through-hole) components, as well as PCB pads and plated through-holes (PTHs or vias) on bare boards. It is also ideal for the laboratory testing of fluxes and other soldering materials.

By eliminating problems associated with poor solderability, the MUST 3 can significantly improve product quality and yield large potential cost savings by lowering defect rates during the soldering process. It can also help facilitate the use of less aggressive (lower activity) no-clean and environment-friendly soldering materials – including, of course, lead-free alloy testing – and is capable of testing at temperatures in excess of 300°C.

Counterfeit Component Detection – Solderability Testing is a First Line of Defence.

Already being widely used by many MUST users.

It is the superior force measurement sensitivity of the MUST 3 that produces a very distinctive force curve signature. Comparing the signature obtained from testing a known good component and comparing any signature change provides a clear indication of the need for further investigation.
Main Features

- **Wetting Balance and Micro-Wetting Globule Testing**
  - Electronically operated using LVDT technology
  - Windows® 8 capable software
- **Superior Gauge R&R**
- **Greater accuracy using a sampling rate measuring to levels better than 0.1mN/BIT**
- **Force resolution 0.001mN**
- **Immersion Depth 0-30mm at a resolution of 0.01mm**
- **Immersion Speed 0-30mm/s (resolution 0.05mm/s)**
- **Auto-Tare before testing**
  - This increases test accuracy and efficiency permitting more tests per hour
- **Software control of the motorised XYZ axes**
- **Safer to use**
  - Using unique automatic safety cover to prevent operator exposure to molten solder when changing components or clips
- **Multi-lead testing – Step-and-Repeat function**
- **Force and Electrical Contact detection**
- **Auto-range selection**
- **Complex parameter setting**
- **USB Camera (CVS Option)**
- **Fully SPC compliant – all tests fully recorded**
- **THE most comprehensive scope of supply:**
  - Bath and 4 Globules: 4mm; 3.2mm; 2mm and 1mm plus
  - Solder pellets (SnPb and Lead-Free) 200mg (4mm); 100mg (3.2mm); 25mg (2mm) and 5mg (1mm)
  - ALL Accessories to conduct solderability testing in full compliance with all standards
  - A set of 13 clips to suit the majority of components
  - Customised clips also available
  - Comprehensive Solderability Testing Manual
  - NPL Solderability Testing Best Practice Guide
- **Software controlled replacement of bath or globule**
- **Smooth, Fast and Quiet in operation**
- **Grandfathered solderability testing with almost 40 years experience**
- **Testing to ALL international standards including:**
  - IEC
  - IPC
  - MIL STD
  - EIA/JET
  - ISO – JEITA – JNC and many user specific methods