

S E R I E S

14

MICROTESTER

### SERIES 14 MICROTESTER

The Dage Series 14 Microtester is a low cost wire pull test system that combines accuracy and speed with ease of use. It meets the wire pull test requirements of Mil Standard 883D.

- Multirange Rotary Load Arm
- Versatile Fixturing
- Automatic Calibration System
- Simple Operation
- Accurate and Repeatable Results
- Database and Statistical Output

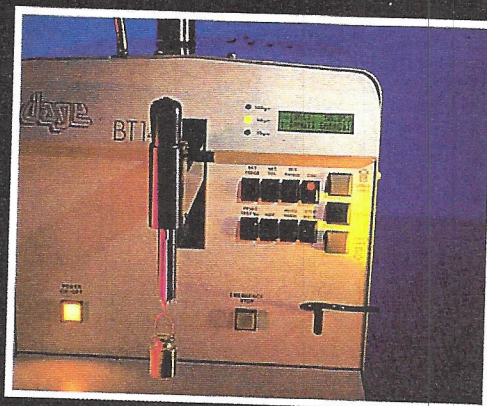
### SIMPLE AND QUICK OPERATION

Designed for ease of use and maximum throughput in production environments, the Series 14 features electronic limits on the arm to prevent hook damage, while a stepback feature returns the hook to the lower limit following test. Pull speed is programmable and the system is supplied with non-destruct feature.

There are two modes of operation:

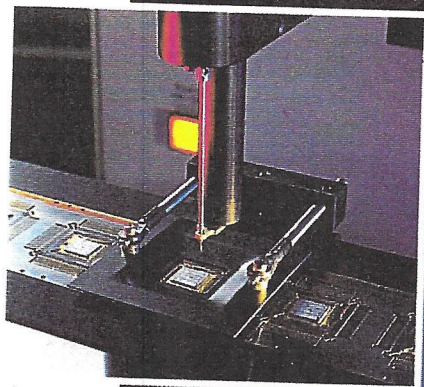
**Semiautomatic** - simply position the hook under the wire and press the test switch.

**Autohook** - Align the hook parallel to the wire and press the test switch. The machine will automatically rotate the hook, perform the pull test and return the hook to its original position. This mode allows quick throughput on non-destruct testing



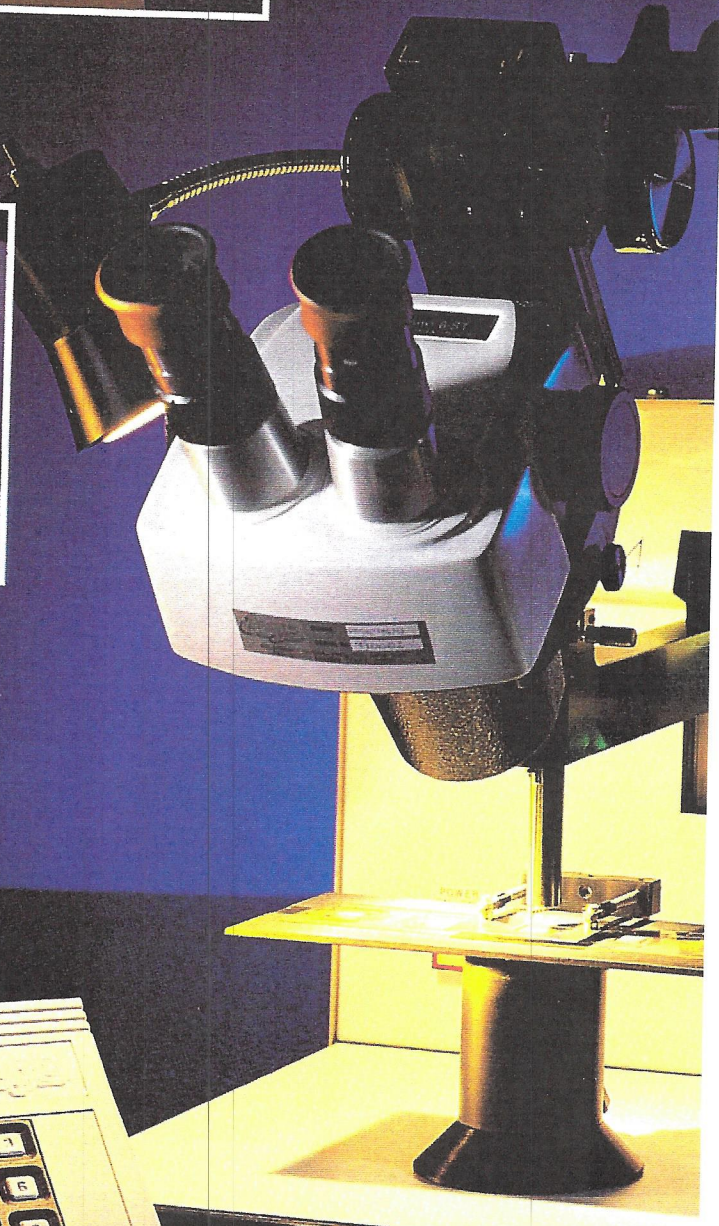
#### Automatic Calibration

The Series 14 can be calibrated in seconds. To verify current calibration, press the switch and hang a weight. A further push of the switch initiates self calibration. No mechanical adjustments necessary!



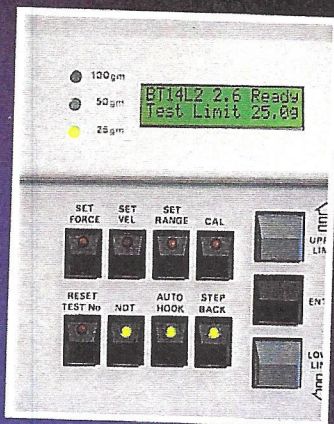
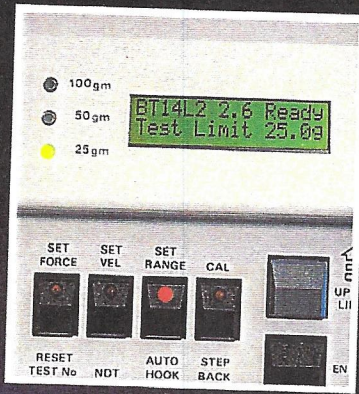
#### Versatile fixturing suits wide range of applications

Leadframes, ceramic substrates and packages, T.O. style metal headers - the Series 14 handles them all, in a wide range of sizes. Even non-standard packages can be accommodated with custom fixturing.



**Multirange load arm tests wide range of wire diameters**

No need for mechanical adjustment or load cartridge change! Select from 3 load ranges covering 0.2 to 100 grams (accurate to +/-0.5% FSD) simply by pressing the front panel switch.



**Simple and quick operation**

All controls are set using a simple key panel, while a 32 character LCD display shows status, results and error messages.

**ACCURATE AND REPEATABLE RESULTS**

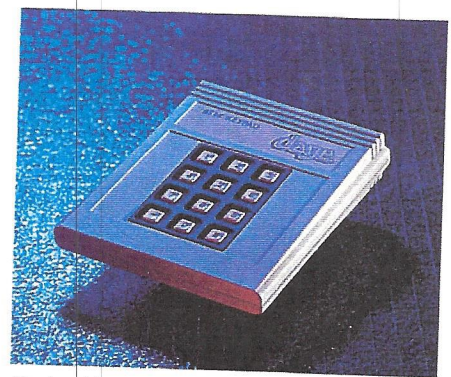
Microprocessor control eliminates inaccuracies associated with mechanical systems thus ensuring repeatable test conditions and accuracy of results. It also allows a high degree of sophistication and reliability whilst maintaining simplicity of operation.

Microprocessor-controlled obstruction sensing protects the load hook from Z damage should an operator inadvertently drive the hook into the work piece.

The Series 14 has a full self-diagnostics facility and checks all of its main functions at the power-up cycle.

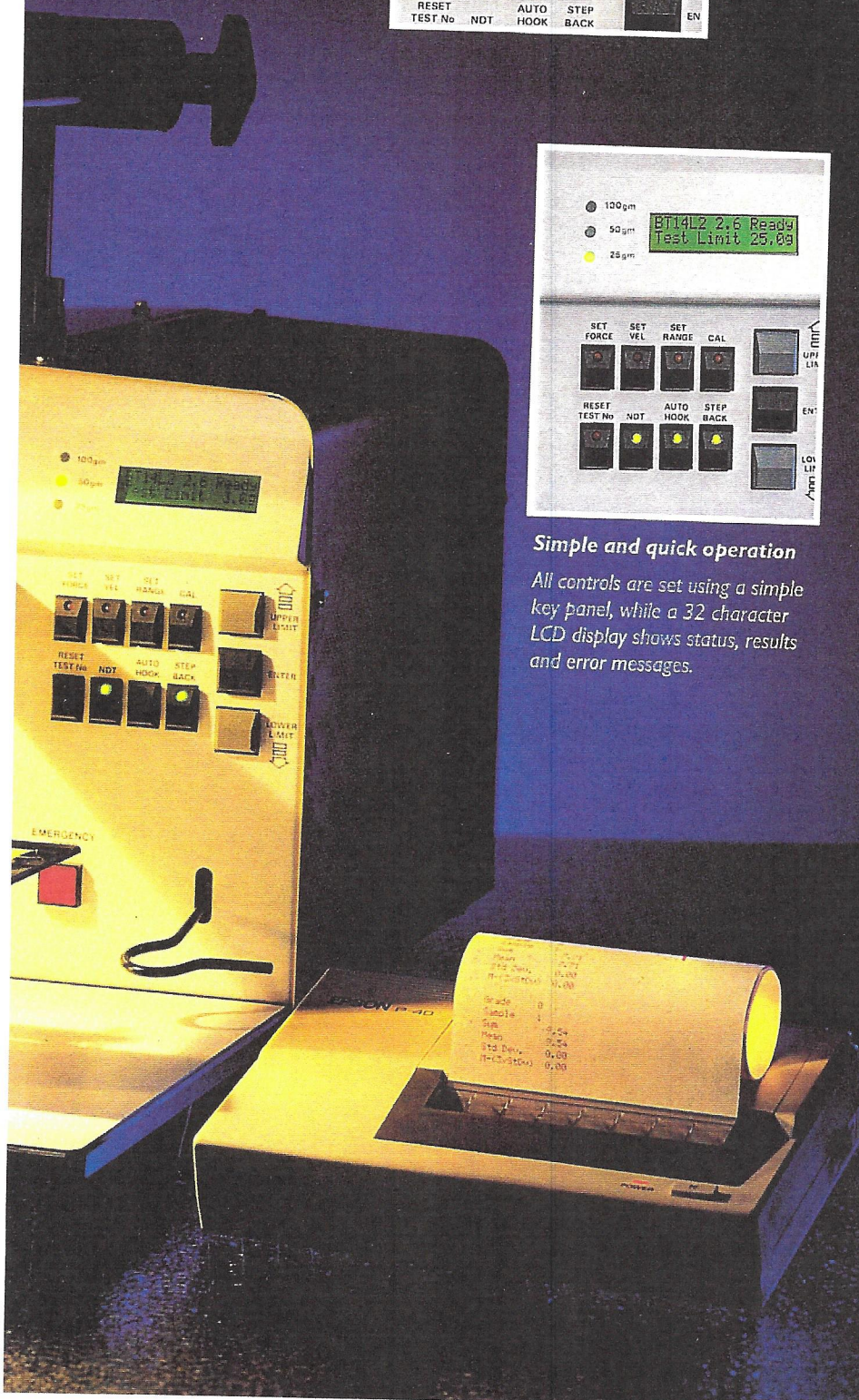
**DATABASE AND STATISTICAL OUTPUT**

The Series 14's database can accept up to 1100 results for output and analysis via the keypad and printer. Also, failures can be allocated a grade by use of the grading keypad. Analyses include mean, standard deviation and confidence level. Keypad and printer are optional.



Optional keypad

An optional PC-based SPC package offers real-time data acquisition and analysis. Results, which are sent directly via the RS232 interface, can be analysed at any stage via control charts or exported to files for spreadsheet use. (See separate SPC data sheet for full details).



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**FULLY COMPLIANT WITH MIL STD 883D**

The Series 14 Microtester complies with and most areas exceeds the specification points called for in the Military Specification for wire bond pull test.

**Important Notice**

The information contained in this publication does not form part of any contract and supersedes that given in any previous publication and has been prepared in good faith to give potential customers a general view of the capability of the product(s). Each customer must satisfy himself as to the suitability or otherwise of these products to satisfy his particular needs and also as to the particular configuration to use. Our products are subject to continuous improvement and may therefore be supplied with different specifications or features to those described at the time of publication.

Series 14 Standard Specification		
System Configuration	The Series 14 is supplied complete with the following: <ul style="list-style-type: none"> <li>● Multirange load arm</li> <li>● Upper/lower limit switches</li> <li>● Autohook feature</li> <li>● Step back function</li> <li>● 360° hook rotation</li> <li>● Auto calibration mode</li> <li>● Semi-auto test mode</li> <li>● Reset test number switch</li> <li>● Adjustable pull speed</li> <li>● Electronic obstruction sensing</li> <li>● All interfaces</li> <li>● Workholder suitable for substrates</li> <li>● Five load hooks</li> <li>● Operators' manual</li> </ul>	
Physical	Size (w x l x h) Weight Power Supply Interfaces Illumination	300 x 530 x 400mm (12 x 21 x 16") 20 Kgs (44lb) 100/110, 220/240vAC, 50/60Hz, switchable RS232, Centronics and Keypad 20w Halogen Floodlight
Load Arm	Ranges Hook Rotation Accuracy Travel Limits Control of Arm Pull Speed Step back	Switchable 25, 50, 100gms 360° manual rotation +/- 0.5% of FSD of range selected Push button selectable Positional joystick Adjustable 0.01-8.0mm/sec Push button selectable
System	Display	32 character alphanumeric LCD
Features	Test Initiation Calibration Test Type	By footswitch Auto calibration system using weights Destructive test and non-destructive test

**Company Profile**

Established in the early 1960's, and located in 4 strategic centres in the US and Europe, Dage supplies the semiconductor industry with "state-of-the-art" products and services, helping customers to manufacture more easily and with greater efficiency. Dage micromechanical test systems, developed and manufactured in-house, are used throughout the semiconductor and hybrid industries - both for quality control and research investigations.

The success of the company has been built on good customer relations with the development team - giving users what they want, when they want it. The team is continually introducing enhancements to meet the ever evolving user needs.

In addition to the company's own offices in the UK, USA and Germany, Dage's network of agents and distributors provide service and support on a global basis.

