

Foam Compression Tester

Car Seats, Mattresses

Model: F0013

a measurable difference...

IDM[®]
instruments

Complying with relevant standards, the Foam Compression Tester is used to evaluate a degree of firmness common within the foam and furniture industries, either in the laboratory, or on the production line.

This universal measurement of firmness and hardness is based on a physical property called the indentation force deflection (IFD) and is calculated by determining the force required to deflect the test piece a percentage of its original thickness using a circular indenter.

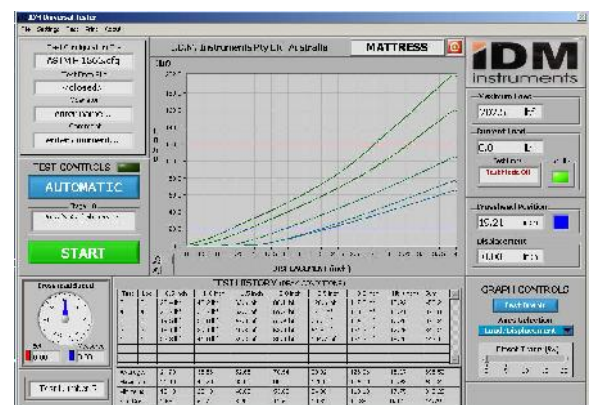
The circular indenter foot applies a force, while also recording the degree of indentation. To compare test results, test pieces must be of the same size and thickness. The whole article may be used if moulded shapes are being tested.

Software Package:

The Foam Compression Tester offers a variety of software features that allows programming of parameters, operational control and real-time display of the on-going test. This software package allows the operator to conduct a wide range of tests with an almost limitless array of test parameters and displayed test information when used with a compatible PC. The PC based control system uses the Universal Tester program developed by IDM Instruments Pty Ltd[®].

The Test Configuration is prepared for each test sample type. This procedure is fully automated. The test scripts, as well as the operating parameters, are entered in the Configuration Panel to run a test. Values including the test type, sample piece, sample size, standard reference and many more values can all be entered and also saved to be retrieved at a later stage.

The Software Program for the Foam Compression Tester is automatic. Once the Test Configuration menu has been programmed, "Start" button is pressed, initiating the test. The results of the test are displayed on the PC in real time. They can then be saved and/or printed for later use.



Foam Compression Tester sample test screen

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Software Feature:

- Data Sampling is adjustable from 1-200,000Hz
- Position or Load control
- Test parameters displayed with graph simultaneously
- Real time graphic display of data
- Selectable graphical display presentation
- Data can be sent to Excel
- Out of range stop
- Auto return after a test is selected
- Calibration File to calibrate the instrument
- Statistical analysis
- Printable Reports
- Windows based software
- Overlay display of data curve possible during test
- ISO and ASTM Test Methods programmable
- Other test methods programmable by the operator
- Cyclic testing with data recording during cycle



Applications:

- Flexible cellular polyurethane
- Car seats
- Bike seats
- Mattresses
- Furniture
- Chairs
- Springs



Features:

- Large Support Table allowing any test width
- Easy operation
- Capability of testing different sized samples
- $322 \pm 2\text{cm}^2$ circular indenter foot (8" Ø)
- Computer Hardware and 19" flat screen monitor

Options:

- Load Cells
- Custom Platen Fixtures
- Platen: 13 1/2" Ø

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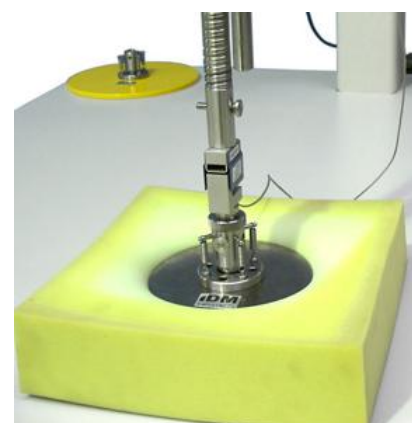
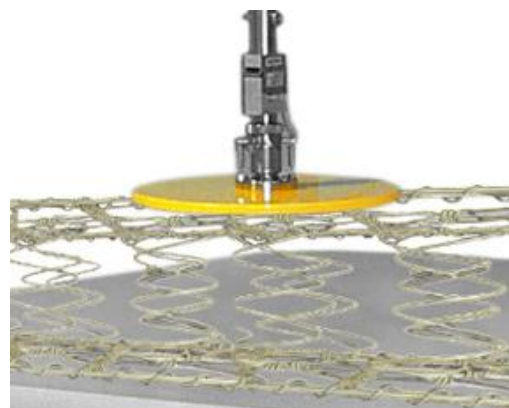
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Specifications:

Loading System:	Closed loop micro computer, which drives a ball screw and nut for its vertical movement
Maximum Capacity:	0-2224N
Travel approx.:	750mm x 0.1mm
Speed:	0.05 to 500 mm/min
Speed Accuracy:	better than + 0.2%
Return Speed:	500mm/min
Load Measurement Accuracy	± 0.5% of indicated value or ± 0.1% of full scale
Load auto-zeroing:	load cell discrimination
Max. Stroke Limiter:	upper/lower — 2 points
Safety function:	safety overloading provided at test



Dimensions:

- **H:** 2,925mm
- **W:** 2,500mm
- **D:** 1,350mm
- **Weight:** 245kg

Connections:

- **Electrical:** 220/240 VAC @ 50 HZ or 110 VAC @ 60 HZ
(please specify when ordering)

Standards:

- AS 2281 • AS 2282.8 • ASTM F1566 • ASTM D3574 -- Test B
- ISO 3386:1984 • ISO 2439 • BS EN 1957:2000 • GB 10807
- JIS K 6400

Benefits:

- Easy to use
- Fast results
- Accurate

