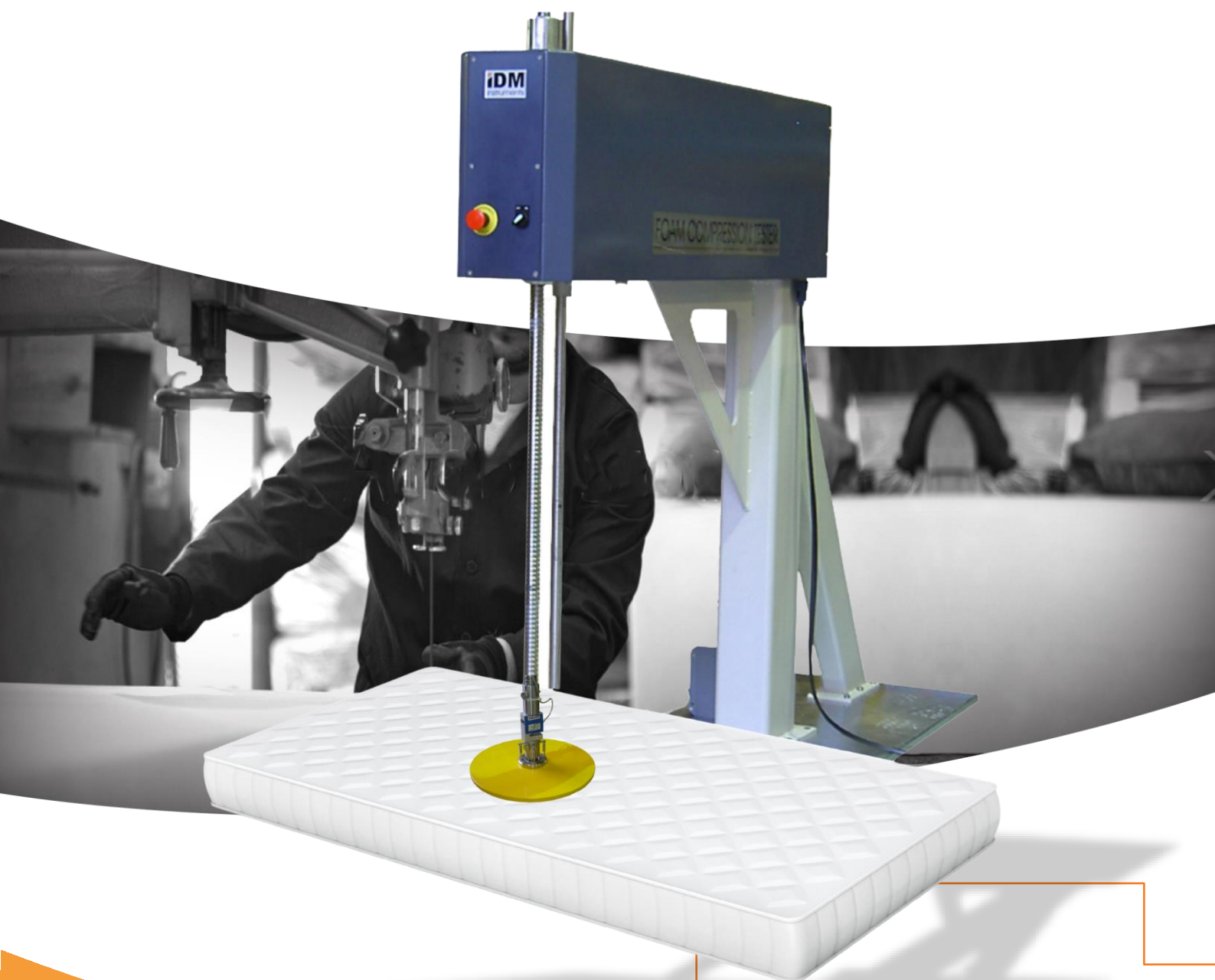


TESTING INSTRUMENTS FOR
A MEASURABLE DIFFERENCE...

IDM
instruments

MATTRESS COMPRESSION TESTER

MODEL: IDM-F0024-M1



INTRODUCTION

The Mattress Compression Tester is used to evaluate a degree of firmness common within the mattress and foam 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.

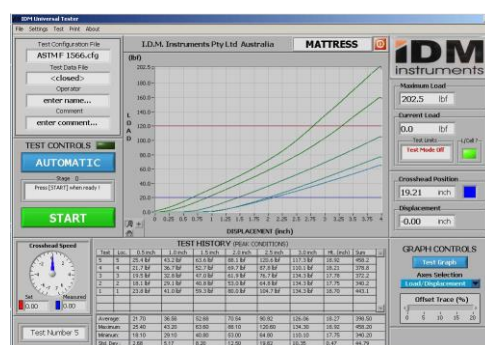
TEST RESULTS & SOFTWARE FEATURES

The Mattress 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.

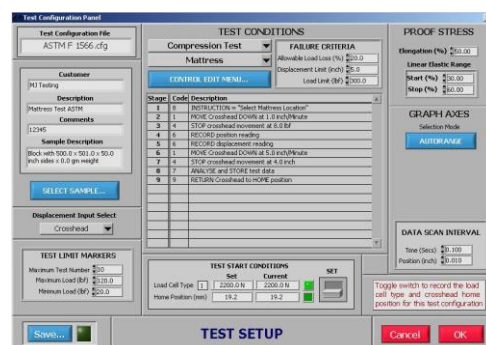
The Test Configuration is prepared for each test sample type. This procedure is fully automated. The test scripts as well as the operating parameters are entered in the Configuration Panel to run a test. Values including the test type, sample piece, sample size, standard reference and many more values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

The Software Program for the Mattress 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.

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



Mattress Compression Tester sample test screen



Sample Test Configuration Screen



Sample Test Result

FEATURES

- Floor Mount operation for easy mounting of test pieces
- Easy operation
- Automatic software operation
- Capability of testing different sized samples
- 934 ± 5cm² circular indenter foot (Ø 344mm) - 13 ½ "
- Throat between back brace and indenter: 1,056mm
- Maximum mattress height: 652mm
- The latest computer hardware and a 17" Flat Screen Monitor

SPECIFICATIONS

Model	IDM-F0024-M1
Loading System	Closed loop micro computer which drives a ball screw and nut for its vertical movement
Maximum Capacity	0-2450N (250kg)
Travel	1000mm 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	Load auto-zeroing, load cell discrimination
Safety feature	Safety function for overloading provided at test
Stroke	Max. Stroke Limiter upper/lower — 2 points

OPTIONAL ITEMS

- **IDM-F0024-OP1** - Fixed Platen (8" diameter) ASTM D3574 (Optional)
- **IDM-F0024-OP2** - Swivel Platen (8" diameter) ASTM D3574 (Optional)
- **IDM-F0024-OP3** - Fixed Platen (13 ½" diameter) ASTM F1566 (Optional)
- **IDM-F0024-OP4** - Swivel Platen (13 ½" diameter) ASTM F1566 (Optional)
- **IDM-F0024-OP5** - Swivel Platen (355mm Diameter) BS EN 1957 (Optional)
- **IDM-F0024-OP6** - Foam Test Base Plate (Optional)
- **IDM-F0024-OP7** - Larger Capacity 5KN
- **IDM-F0024-OP8** - Swivel Platen - 390 x 390mm - ISO 3386-1



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APPLICATIONS

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

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

DIMENSIONS

Instrument:

- H: 1912 mm
- W: 700 mm
- D: 2196 mm
- Weight: 450 kg

CONNECTIONS

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

WARRANTY AND CALIBRATION SERVICES

- **1 year Warranty**
- Our **Preventive Maintenance and Calibration (PM&C) program** has been designed to make the maintenance and calibration of your valuable testing equipment more cost effective by preventing breakdowns and downtime by regular calibration, service and replacement of defective parts. Talk to us about this today.