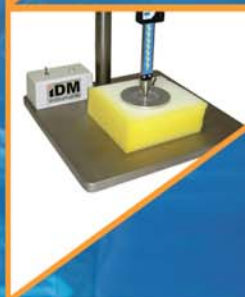


# **IDM**® instruments

TESTING INSTRUMENTS FOR THE FUTURE



## A Message From The Managing Director

IDM Instruments Pty Ltd<sup>®</sup> are renowned for our quality testing and measuring instruments that we supply worldwide, We have earned our reputation as a leading manufacturer of testing and measuring instruments, with a very diverse range, and the world leader in mattress testing instruments.

Whether we are supplying our specialised range of instruments, or a customised testing solution, we at IDM Instruments Pty Ltd<sup>®</sup> work towards our motto: "A Measurable Difference"

Our focus is to deliver what we promise to our customers, this is what they come to expect. This is achieved through the quality services we offer including design, manufacture, sales, maintenance and calibration across our entire range. Our team of highly skilled and motivated professional staff are more than happy to share their expertise with you.

IDM Instruments Pty Ltd<sup>®</sup> supply a large array of industries, including foam, mattresses, paper, packaging, plastics, textiles and many more, designed to such standards as ASTM, ISO, BS, AS and many others. Our instruments are supplied worldwide through our extensive network of distributors who can assist you with solutions to your testing needs.

For over 35 years now, the IDM name and brand has grown across the globe. Our commitment to quality and providing the measurable difference reflects upon our customers' satisfaction. We look forward to continuing to provide our expertise and assisting you with your next requirement.

Speak to IDM today, and see how an IDM testing instrument will benefit your quality control process.



Tommy Halmos  
Managing Director



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## Carpet Dynamic Load Tester

### Model: D0009

The Carpet Dynamic Load Tester is used for determining the thickness loss of textile floor coverings under dynamic load. The specimen is subjected to a cyclic-loading treatment. The thickness of the specimen is measured before and after the procedure.

#### Applications:

- Carpet

#### Features:

- Safety enclosure
- Totaliser
- Counter
- Bench top operation

#### Standards:

- AS/NZS 2111.2:1996



Model: D0009

## Static Load Tester for Carpet

### Model: S0011

The Static Load Tester for Carpet provides a procedure for the determination of thickness loss of textile floor coverings after prolonged heavy static loading. A small test specimen is subject to a prolonged, heavy static loading treatment and the thickness is measured before loading and after various recovery periods.

#### Applications:

- Carpet

#### Features:

- Presser Foot: 35.55mm  $\varnothing$
- 15 x Clamp Specimen Plates: 100mm x 100mm
- Bench top operation

#### Standards:

- AS 2111.2
- AS 2281
- BS 4939-1987
- ISO 2094: 1986
- ISO 3416-1986



Model: S0011

## Tetrapod Abrasion Tester

### Model: T0004

The Tetrapod Abrasion Tester is used to test the mechanical action on surface texture of textile carpet. A cylindrical drum, is rotated so that the tetrapod "walks" over the specimens. The appearance of the tested specimen is compared to that of a concurrently tested controlled specimen.

#### Applications:

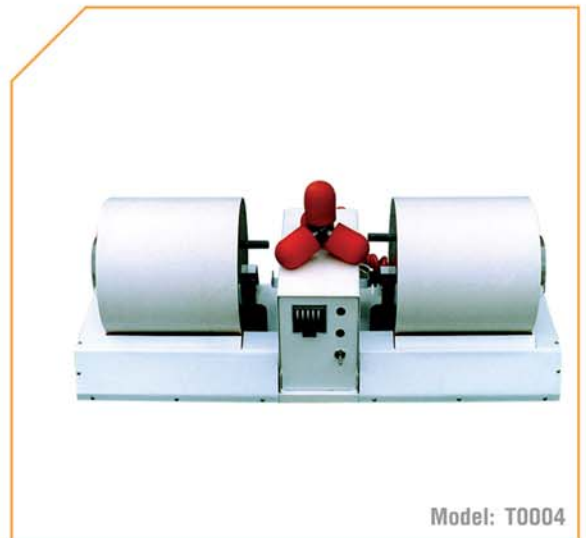
- All textile floor coverings with a thickness no greater than 20mm

#### Features:

- 5 digit counter
- Tetrapod: 950  $\pm$  20g
- Speed: 50  $\pm$  2 rpm
- Horizontal axis of rotation
- Perspex lids

#### Standards:

- ISO/TR 6131



Model: T0004



## Tuft Withdrawal Fixtures

**Model: C0051-A**

The IDM Tuft Withdrawal Fixtures are used alongside a tensile machine to measure the force required to withdraw a single tuft or loop of pile from a carpet – that is, the binding force between carpet pile and backing.

**Applications:**

- Textile floor covering which has a tuft (cut) loop pile yarn structure
- Woven: individual loops
- Woven: individual cut tufts

Model: C0051-A

## Also Available:



## Crockmeter

**Model: C0019** Page 55



## Thickness Gauge for Soft Underlay

**Model: T0014** Page 62



## Universal Testing Machines

Page 67

## Foam Compression Tester (PLC)

**Model: F0012**

The Foam Compression Tester performs two methods for determining the deflection force of flexible cellular polyurethane. Test A is the indentation force on deflection and Test B is the compression force on deflection. It is a PLC controlled machine that makes it very easy for the operator to use.

**Applications:**

- Flexible cellular polyurethane

**Features:**

- Printtable reports
- Bench top operation
- 5 pre-programmed testing procedures

**Standards:**

- AS 2282.8
- AS 2281
- ASTM D3574
- ISO 3386:1984



Model: F0012

## Foam Compression Tester (PLC) (Car Seats, Mattresses)

**Model: F0013**

The Foam Compression Tester is used to evaluate a degree of firmness common within the foam and furniture industries. This universal measurement of firmness and hardness is based on 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. It is operated using the Universal Tester program developed by IDM Instruments Pty Ltd.

**Applications:**

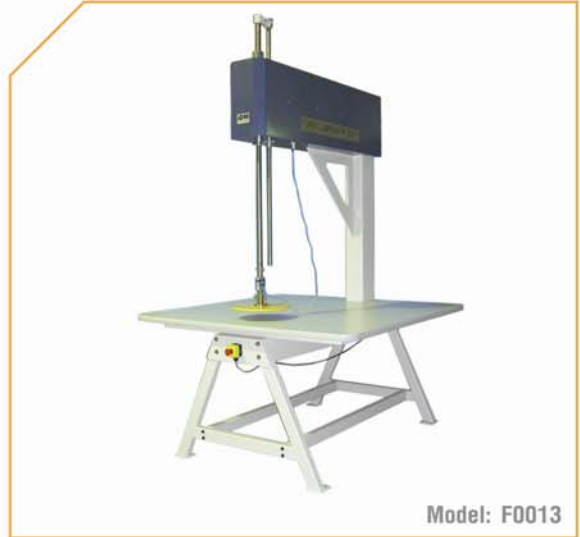
- Flexible cellular polyurethane
- Car seats
- Bike seats
- Mattresses
- Furniture
- Chairs

**Features:**

- Large support table allowing any test width
- Capability of testing different sized samples
- Circular indenter foot to suit various standards
- Easy operation

**Standards:**

- AS 2282.8
- AS 2281
- ASTM F1566
- BS EN 1957:2000
- ASTM D3574 – Test B
- ISO 3386:1984
- ISO 2439



Model: F0013

## Foam Thickness Gauge

**Model: F0017**

The Foam & Lofty products Thickness Gauge gives an accurate measurement of the thickness to be the basis for accurate values of various properties of cellular materials, such as density, tensile strength, tear resistance, and compression set.

**Applications:**

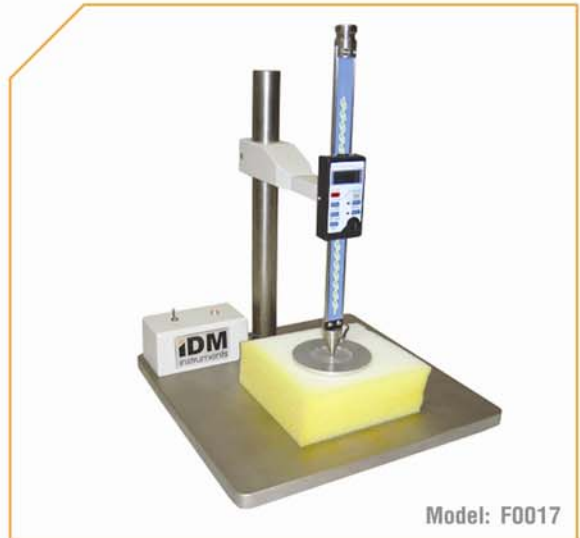
- Foam
- Latex
- Lofty products

**Features:**

- 80 mm circular pressure foot
- Digital scale readout with an accuracy of ± 0.01 mm
- Range: 200 x 0.01 mm.
- 100 ± 10N/m<sup>2</sup> pressure

**Standards:**

- AS 2282.8
- ISO 1923
- ASTM D3574



Model: F0017





## Foam Resilience Tester

### Model: F0020

The Foam Resilience Tester determines the resilience of flexible cellular polyurethane. A steel ball is dropped vertically onto a test piece and the rebound height is measured and expressed as a percentage of the height dropped.

### Applications:

- Flexible Cellular Polyurethane
- Latex

### Features:

- 16mm  $\varnothing$  Steel Ball
- 5% mark complete circle
- 1% mark 120° arc
- Transparent rigid tube

### Standards:

- AS 2282.11
- ASTM D3574 – Test H
- BS EN ISO 8307
- JIS K 6400
- BS EN DIN ISO 4651



## Foam Constant Load Pounding Machine

### Model: F0021

The Foam Constant Load Pounding Machine is used for the determination of loss in thickness and loss in hardness of flexible cellular materials intended for use in upholstery. This test provides a means of assessing the service performance of flexible cellular materials of the latex and polyurethane types used in load-bearing upholstery. The principle of the test is repeated indentation of a test piece by the indenter, the maximum load reached during each cycle being 750N, and running the machine for 80,000 continuous load cycles.

### Applications:

- Flexible Cellular Polyurethane
- Latex
- Seating

### Features:

- Plane platen
- Indentor 250mm  $\pm$  1mm; 25mm  $\pm$  1mm radius
- Maximum force: 750  $\pm$  20N
- 70  $\pm$  5 strokes per minute
- Stroke adjustable

### Standards:

- AS 2282.12
- ASTM D3574
- ISO EN BS DIN 3385



## Foam Porosity Tester Digital

### Model: F0023

The Foam Porosity Tester Digital monitors the porosity of flexible cellular polyurethane, by determining the ease with which air passes through a cellular structure. A flexible cellular test piece is placed in a cavity over a vacuum chamber and a specified constant differential air pressure is created. The rate or airflow required to maintain this pressure, is the airflow value.

### Applications:

- Flexible Cellular Polyurethane

### Features:

- Different flow ranges:
  - 0.2–20 L/min unit
  - 2–200 L/min unit
  - 5–500 L/min unit
- Digital manometer: 100–500 Pa  $\pm$  2%
- Variable flow range
- Test head area: 50mm x 50mm
- Test temperature: 23°

### Standards:

- AS 2282.14
- ASTM D3574 – Test G
- BS EN DIN ISO 7231

## Universal Testing Machine

### Model: F0025

The Universal Testing Machine is manufactured with dual testing capabilities, comprising of compression testing on the inner and tensile testing on the outer frame. It is operated using the Universal Tester program developed by IDM Instruments Pty Ltd. By incorporating the dual testing space design, it eliminates the need of having two machines required for testing compression and tensile; thus speeding up production time, test set up time, reducing operator fatigue and decreases possible setup errors.

### Applications:

- Flexible Cellular Polyurethane
- Plastic
- Rubber
- and many other materials
- Textiles
- Springs
- Latex

### Features:

- Speed: 1 – 500 mm/min
- Return speed: 500 mm/min
- Speed accuracy: better than +0.5%
- Load auto-zeroing, load cell discrimination
- Safety function for overloading provided
- Max. stroke limiter upper/lower – 2 points
- 2 load cells: 250kg for compression and 50kg for tension
- Foam compression platens area: 400mm x 400mm
- Test area of 600mm wide and not restricted at front and rear

### Standards:

- ASTM D3574 – Test B
- ASTM D3574 – Test E
- AS 2281
- ASTM F1566
- ISO 2439
- ISO 8067
- ASTM D3574 – Test C
- ASTM D3574 – Test F
- AS 2282.8
- ISO 3386
- ISO 1798



Model: F0025

## Constant Deflection Compression Tester

### Model: F0026

The Constant Deflection Compression Tester is designed to measure the change of thickness of a polyurethane sample of 50mm x 50mm, after deflecting the test piece to a specified deflection, at a certain amount of time and temperature.

### Applications:

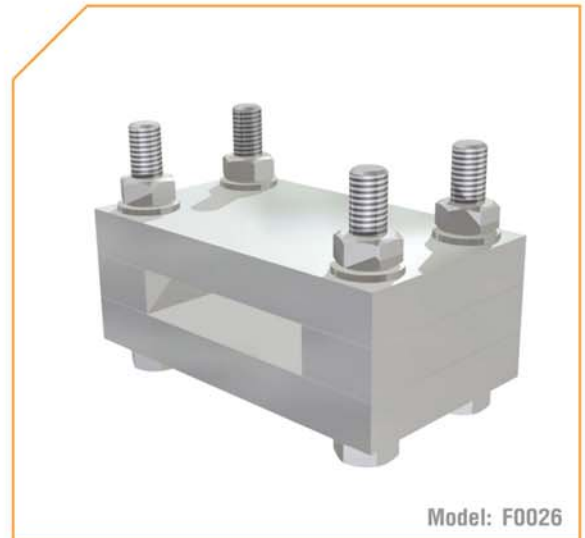
- Polyurethane

### Features:

- Two flat plates
- Spacers

### Standards:

- ASTM D3574 – Test D
- ISO 1856



Model: F0026



Model: F0027

## Constant Deflection Static Force

### Model: F0027

The Constant Deflection Static Force instrument determines the loss of indentation force deflection (IFD), loss of thickness and the structural breakdown by visual assessment of polyurethane.

### Applications:

- Polyurethane

### Features:

- Plates: 500mm x 500mm
- Test Area: 380mm x 380mm

### Standards:

- ASTM D3574 – Test I1



Model: F0028

## Foam Compression Tester

### Model: F0028

The IDM Foam Compression Tester is used for determining the deflection force of flexible cellular polyurethane, with reference to various international standards, based on the ILD and IFD.

### Applications:

- Polyurethane
- Rubber foam
- Foam components
- Latex foam
- Carpet underlay

### Features:

- Plates: 500mm x 500mm
- Maximum capacity: 0 – 2224N
- Speed (mm/min): 1 to 100 mm/min
- Test Area: 380mm x 380mm
- Travel (mm) approx.: 200mm x 0.1mm
- Return Speed (mm/min) 100 mm/min

### Standards:

- AS 2282.8
- AS 2281
- ASTM D3574
- ISO 3386:1984



Model: M0005

## High Speed Mixer

### Model: M0005

The High Speed Mixer is used for the rapid mixing of foam compounds to produce a well-mixed sample pat, which can be poured to form a sample for testing purposes and quality control. It is made from Stainless Steel for easy cleaning, and featuring automated mixing, as well as variable mixing speeds for added ease of use. The High Speed Mixer enables three (3) mixing times and three (3) different testing speeds to produce the sample pat. Once values are set, operation of the test is initiated through the hand controller, enabling the sample pat to be produced with the set required curing times.

### Applications:

- Polyurethane

### Features:

- Timed mixing sequence
- Automated mixing
- Stainless Steel construction
- Variable mixing speeds
- Mixing speeds: up to 3000 rpm

## Roller Shear Machine

**Model: R0010**

The Roller Shear Machine is used to determine the resistance to compression fatigue of flexible cellular polyurethane using dynamic roller compression testing. The Roller Shear Machine fatigues a specimen dynamically with a constant force deflecting the material both vertically and laterally. It has been used for many years in the foam industry to determine the percentage loss in thickness.

**Applications:**

- Flexible cellular polyurethane

**Features:**

- Base platen 500mm x 500mm
- Stainless roller 500mm long, 76.0mm  $\varnothing$
- Roller loading 130N (adjustable)
- Stroke length: 300mm
- Cycle frequency 0.5Hz
- Roller offset 15°
- Cycle counter
- Safety guard

**Standards:**

- ASTM D1564
- AS 2282.12 Clause 3.3, Method B
- ASTM D3574



Model: R0010

## Vertical Foam Impact Tester

**Model: V0001**

The Vertical Foam Impact Tester performs the procedure for determining the dynamic cushioning performance of cellular rubber materials and rigid and flexible cellular plastics, by measuring the peak deceleration of a mass when it is dropped on a test piece. The test described is intended primarily for quality assurance.

**Applications:**

- Foam packaging materials

**Features:**

- Flat-based drop hammer
- Adjustable hammer mass
- Hand controlled
- Piezo-electric transducer
- Electro-magnet release

**Standards:**

- AS 2282.11
- ISO 4651



Model: V0001

## Constant Displacement Foam Fatigue 4 Samples

**Model: F0029**

The Constant Displacement Foam Fatigue is a floor standing instrument with two daylight samples areas, one on the left and right side of the machine. The centre, top and bottom plates are stationary, while the upper and below centre platens simultaneously move up and down. Compression platens measure 500mm x 500mm.

**Applications:**

- Flexible Cellular Polyurethane

**Features:**

- 4 Samples can be tested simultaneously
- Sample Size: 380mm x 380mm (or smaller)



Model: F0029

**Also Available:**



**Bedding Impact Tester**

**Model: B0008** Page 14



**Cutting Dies - Tool Steel**

**Model: C0024** Page 51



**Cornell Type Tester**

**Model: C0044** Page 14



**Cutting Press Pneumatic**

**Model: C0050** Page 54



**Mattress Compression Tester**

**Model: F0024** Page 15



**Mattress Rollator**

**Model: M0010** Page 16



**Handheld Thickness Gauges**

**Model: T-0014-2** Page 62



**Universal Testing Machines**

Page 67

## Belt Flex Tester

**Model: B0001**

The Belt Flex Tester gives an indication of the risk of spontaneous cracking of the shoe soles due to flexing in wear. The sole forepart is attached to an endless belt which passes around two rollers, the smaller of which determines the severity of the flexing action. The endless belt usually accommodates up to six sole units.

**Applications:**

- Shoe Soles

**Features:**

- 3 Free-wheeling, crowned flexing rollers: 170mm x 90mm, 170mm x 60mm, 170mm x 120mm
- 1 Driven roller: 170mm x 225mm
- Cycle counter

**Standards:**

- STM 459F



Model: B0001

## Shoe Drop Tester

**Model: S0007**

The Shoe Drop Tester determines the impact resistance of protective toecaps. A 20 kg mass falls freely on vertical guides onto the protective toecap. The machine is designed so that a mass weighing  $20.0 \pm 0.2$  kg is allowed to fall freely on vertical guides through various predetermined heights.

**Applications:**

- Footwear

**Features:**

- Mass weighing:  $20.0\text{kg} \pm 0.2\text{kg}$
- Steel cap support fixture
- Striker
- Shoe support fixture

**Standards:**

- AS/NZS 2210.2
- ISO 8782



Model: S0007

## Sole Adhesion Tester

**Model: S0010**

The Sole Adhesion Tester measures the strength of the adhesion of stuck-on soles at the toe and heel in the shoe factory; however, it is equally useful in the laboratory. A steel plate is used as a cantilever to pull the sole of the footwear away from the upper. The maximum force reading of the dial indicator is 100kg.

**Applications:**

- Footwear

**Features:**

- Analogue Gauge: Range 0 – 100kgf x 1

**Standards:**

- AS/NZ 2210.2
- BS 5131
- ISO 782/1



Model: S0010



Model: W0001

## Whole Sole Flex Tester

**Model: W0001**

The Whole Sole Flex Tester can be fitted with three cleated soles to be tested as per DIN 53543 standard. Consisting of a rigid steel housing, the flex tester is driven by a three phase electric motor with a preset counter to stop testing at a predetermined cycle count.

**Applications:**

- Patterned sole units

**Features:**

- Multiple testing

**Standards:**

- DIN 53543

## Also Available:



## Thickness Gauge - Leather Dial

Model: T0008 Page 61



## Universal Testing Machines

Page 67

## Bedding Impact Tester

### Model: B0008

The Bedding Impact Tester has been designed and manufactured with relevance to testing and evaluating of innerspring and boxspring mattresses. It determines the effects of impact of mattresses for comparison testing under realistic abuse conditions. Drop locations can be selected with the Bedding Impact Tester to compare performance at different positions including corners, edges/ends as well as inner components. The software program used with the Bedding Impact Tester is based on the Universal Tester program designed by IDM Instruments Pty Ltd.®

### Applications:

- Innerspring mattresses
- Boxspring mattresses
- Foam mattresses
- Chairs

### Features:

- Drop test platen 14" diameter
- Printable test graphs
- Piezoelectric Load Cell
- Can be used on mattresses up to 600mm high
- Computer software
- Data storage

### Standards:

- ASTM F1566
- AIMA American Innersprings Manufacturers



Model: B0008

## Cornell Type Tester

### Model: C0044

The Cornell Type Tester has been designed and manufactured for testing and evaluating of Innerspring and Boxspring mattresses, to test the long term capacity of bedding to resist cyclic loading. It consists of a double hemispherical ram head on a manually adjustable shaft, with a load cell located on the ram head to measure the force being applied to the mattress. An operator prompting computer program designed by IDM Instruments Pty Ltd.®, measures both the load and ram head position from the two transducers throughout the total test stages and produces a full test report upon completion.

### Applications:

- Innerspring mattresses
- Boxspring mattresses
- Foam mattresses

### Features:

- Operator prompted software
- Adjustable ram head
- Printable data sheets
- Data storage

### Standards:

- ASTM F1566
- AIMA American Innersprings Manufacturers



Model: C0044





Model: F0024

## Mattress Compression Tester

### Model: F0024

The Mattress Compression Tester is used to evaluate a degree of firmness common within the mattress and foam industries. The circular indenter foot applies a force, while also recording the degree of indentation. 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. The PC based control system uses the Universal Tester program developed by IDM Instruments Pty Ltd<sup>®</sup>. The Test Configuration is prepared for each test sample type. This procedure is fully automated.

### Applications:

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

### Features:

- Floor mount operation for easy mounting of test pieces
- Automatic software operation
- Capability of testing different sized samples
- 934 ± 5cm<sup>2</sup> circular indenter foot (ø344mm) – 13½"
- Throat between back brace and indenter: 1,056mm
- Maximum mattress height: 652mm

### Standards:

- AS 2282.8
- AS 2281
- ASTM F1566
- BS EN 1957: 2000
- ASTM D3574 – Test B
- ISO 3386: 1984
- ISO 2439



Model: I0003

## Small Ball Impact Tester

### Model: I0003

The Small Ball Impact Tester is used to measure the resistance of impact on laminated surfaces by the minimum spring force needed to cause visible damage to the surface under test.

### Applications:

- Laminated surfaces

### Features:

- Newton-force scale
- Impact release lever
- 10 spare steel balls (5mm)
- Stainless steel construction

### Standards:

- ISO 4586-2
- EN 438-2: 2005

## Large Ball Impact Tester

**Model: I0004**

The Large Ball Impact Tester is used to measure the resistance of impact on surfaces using a large diameter ball. This is defined as the maximum height for which no visible surface cracking, or imprint greater than the specified diameter, occurs in five successive strikes.

**Applications:**

- Laminates

**Features:**

- Aluminium frame construction
- Solid steel base plate 450mm x 475mm
- Solid steel clamping frame base 450mm x 450mm
- Specimen clamp 270mm x 270mm
- Steel ball 324g ± 5.0g with diameter 42.8mm ± 0.2mm
- Electromagnet
- Foot switch

**Standards:**

- ISO 4586-2
- EN 438-2: 2005



Model: I0004

## Mattress Rollator

**Model: M0010**

The Mattress Rollator determines the durability of any type of mattress and boxspring unit, regardless of the materials of construction, by simulating long-term use conditions. The Mattress Rollator consists of a weighted roller which moves width ways across a test mattress to simulate body movement. A Safety enclosure surrounds the Mattress Rollator to ensure no harm comes to the operator or others in the testing area.

**Applications:**

- Boxspring mattresses
- Polyurethane mattresses
- Innerspring mattresses

**Features:**

- Electronic counter and totalizer
- Solid construction
- Safety enclosure
- Simple stroke setting

**Standards:**

- ASTM F1566
- American Innerspring Manufacturers (AIM)
- BS EN 1957:2000



Model: M0010

## Mattress Temperature & Humidity Data Logger

**Model: M0011**

The Mattress Temperature & Humidity Data Logger has been specially designed and manufactured to measure and data log for temperature and humidity percentage (%).

**Applications:**

- Mattresses

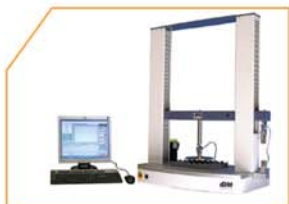
**Features:**

- One surface Temperature Sensor TC type K
- One Internal Piercing Temperature Probe TC type K
- One Internal Piercing Humidity Probe RH 0-100%



Model: M0011

## Also Available:



### Universal Testing Machine

Model: F0025 Page 08



### Universal Testing Machines

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## PACKAGING / PAPER



Model: B0003

### Box Compression Tester – 100kN

**Model: B0003**

The Box Compression Tester is a floor-mounted machine where a complete pallet can be loaded into the machine. It is designed to evaluate packages and material under compressive loads. Two platens are supplied with the machine as standard, an 800mm x 800mm x 50mm and a floating aluminium platen 1220mm x 1220mm x 50mm. The software used with the Box Compression Tester is the IDM Instruments Pty Ltd® Universal Tester Software.

**Applications:**

- Box compression
- Stack testing
- Multi-box compression

**Features:**

- Force: A precision load cell is used to measure the applied force and a precision linear transducer measures the test sample deflection.
- Construction: The construction is of a strong 'A' frame type.
- Crosshead Assembly: Motor driven ball screws, for fast and accurate operation, reposition the crosshead assembly.
- Power Pack: The power pack and hydraulic controls are in a stand alone cabinet; hoses and control cables plug into it.

**Standards:**

- AS130-1-800s
- ASTM D642
- ASTM D4169
- TAPPI T804
- ISO 12048:1994



Model: B0007

### Box Opening Pressure Tester

**Model: B0007**

The Box Opening Pressure Tester has been designed to measure the opening force of flat stacked carton boxes, used for the development and quality control of cartons during production, therefore speeding up production set-up time. The maximum pressure needed to open the box is locked in the digital display for evaluation.

**Applications:**

- Cartons

**Features:**

- Memory function
- Peak load Indication
- Zero set button
- Sample Size: 40mm to 250 mm
- Max. Load Capacity: 5,000 x 1g
- Accuracy: ± 1% F.S.

## Box Compression Tester – 50kN

**Model: B0009**

The Box Compression Tester is a floor-mounted machine where a complete pallet can be loaded into the machine. It is designed to evaluate packages and material under compressive loads. One platen is supplied with the machine measuring 1000mm x 800mm x 25mm which can be fixed or floated, as well as a base platen with the same dimensions. The software used with the Box Compression Tester is the IDM Instruments Pty Ltd® Universal Tester Software.

**Applications:**

- Box compression
- Stack testing
- Multi-box compression

**Features:**

- Force: 4 precision load cells are used to measure the applied force and a precision linear transducer measures the test sample deflection.
- Construction: The construction is of a strong 'A' frame type.
- Crosshead Assembly: Motor driven ball screws, for fast and accurate operation, reposition the crosshead assembly.

**Standards:**

- AS130-1-800s
- ASTM D642
- ASTM D4169
- TAPPI T804
- ISO 12048:1994



Model: B0009

## Crease Bend Tester

**Model: B0012**

The Crease Bend Tester is used to monitor scoring equipment to ensure box performance, by measuring the bending resistance of creased board at the time of folding at the crease. It measures the maximum force required to bend the sample board. Corrugated converters use the Crease Bend Tester to aid in making adjustments to improve the quality; thus ensuring the end user will have boxes that run effectively on their production line.

**Applications:**

- Board
- Corrugated Board

**Features:**

- Range of 0 – 5000 x 1gf
- Digital display
- Pneumatic sample clamp
- Adjustable folding distance
- Easy to operate
- Maximum Sample Width: 300mm
- Accuracy 1% FS
- Motorised Load Bar
- Peak Memory function
- Quick and simple testing



Model: B0012

## Cobb Moisture Absorption

**Cobb Moisture Absorption Test Ring Model: C0005**

**Cobb Moisture Absorption Test Roller Model: C0006**

The Cobb Moisture Absorption Test Ring and Roller determines the quantity of water absorbed by nonbulbous paper, paperboard and corrugated fibreboard. It is not suitable for tests on unsized porous papers such as newsprint or blotting paper.

**Applications:**

- It is designed primarily for nonbulbous materials and it is not suitable for unsized porous papers such as newsprint and blotting papers.
- It is not recommended as a sizing test for writing papers or for measuring the resistance of the surface of a sheet to minute quantities of water such as in writing with a pen.

**Features:**

- Compression springs
- Stainless steel ring and base
- Single handed operation
- Fast locking of the sample
- Couch roll is included

**Standards:**

- AS1301.411s
- Tappi T-441
- ISO 535



Model: C0005

Model: C0006



Model: C0008

## Coefficient of Friction Tester

**Model: C0008**

The Coefficient of Friction Tester determines the static and kinetic friction of plastic film, sheeting, paper and other sheeted material. It employs a stationary sled with a moving plane. With the option of a computer software package to record data, the IDM COF Tester has proven itself to be a fast, reliable and accurate method of determining friction in various areas of manufacturing. The IDM COF Data Acquisition Software features dynamic real-time display of test data, statistical analysis of results, and enables data to be saved in Excel and printed for later use. Values that can be read on the software include peak force value, static point, and kinetic average.

**Applications:**

- Paper
- Plastics
- Printing
- Coatings
- Composites
- Flexible packaging, foils
- Rubber
- Linoleum
- Metal

**Features:**

- Push-button and auto zero
- Read-out in selectable units kg, lb, N (1 x 0.001kgF)
- Plane: 150mm x 300mm x 6mm
- RS-232, analog, printer output
- Speed: 150 ± 15mm/min
- Sled Weight: 200 ± 5g at 63.5mm x 63.5mm

**Standards:**

- ASTM D 1894
- TAPPI 549
- Optional - ISO 8295



Model: C0013

## Concora Fluter

**Model: C0013**

The Concora Fluter is used to form test flutes in medium in preparation for crush tests. The temperature is maintained at a constant 175 °C. One roller is motor driven at 4 r/min, while the other is free to rotate with a minimum of friction or other resistance.

**Applications:**

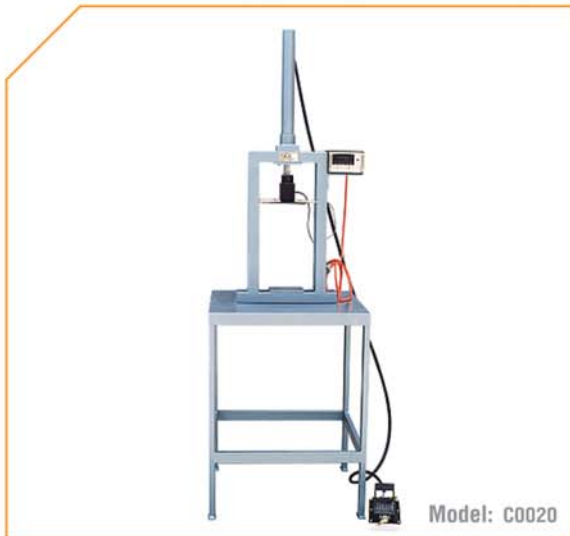
- Paper

**Features:**

- Heated rollers
- Over-temperature alarm / cut out
- Industrial self-tuning temperature controllers
- Temperature accuracy: ± 2 °C
- Nip Load: 98 ± 4N

**Standards:**

- AS / NZ 1301.434
- DIN 53143
- ISO 7263
- TAPPI T824
- TAPPI T809
- SCAN P27
- CPPA D24



Model: C0020

## Paper Tube Crush Tester

**Model: C0020**

The Paper Tube Crush Tester has been designed as a cost effective machine to measure the strength of manufactured paper cores up to a crushing force of 10kN. The crush test samples can be slices of the paper core ranging from 25mm to 100mm wide and up to 300mm in diameter.

**Applications:**

- Paper core

**Features:**

- Electric hydraulic pump
- 300mm diameter samples
- 10kN capacity
- Peak holding of applied force

## Crease and Stiffness Tester

**Crease and Stiffness Tester Model: C0039**  
**Crease and Stiffness Cutter Model: C0016**

The Crease and Stiffness Tester measures the force required to bend board in machine and cross directions of grain. The value of crease stiffness is technically important in the folding of carton blanks during their erection and closure. The crease recovery (spring back) can result in forces, which distort the erected carton or cause stresses to be applied to closures, which reduce their effectiveness.

**Applications:**

- Paper
- Cartonboard

**Features:**

- Easy to use, dual purpose instrument
- Board stiffness, Crease stiffness
- Stiffness bending 15°
- Crease stiffness sample 38 x 36mm
- Board sample 70 x 38mm
- Digital display
- Range of 0 – 1000gf
- Bending angle 90°
- Accuracy 0.1% FS
- Test time 15 seconds

**Standards:**

- BS 6965
- BS 3748
- ISO 2493: 1992



Model: C0039

## C.O.Friction Tester

**Model: C0041**

The C.O.Friction Tester determines the static and kinetic friction of plastic film, sheeting and paper and other sheeted material using the horizontal plane principle. The C.O.Friction Tester employs a moving sled with a stationary table. The table has a clamping system preventing slippage of the test piece during a test. The sled is lowered onto the table by means of an elevator system, which places the sled so as both test surfaces meet simultaneously, eliminating any operator error, which may influence the results of the test. The Windows based software program is designed by IDM Instruments Pty Ltd.®

**Applications:**

- Paper
- Plastics
- Printing
- Coatings
- Composites
- Flexible packaging, foils
- Rubber
- Linoleum
- Metal

**Features:**

- Operator adjustable testing parameters
- Operator promoting program for ease of use
- Variable speed drive
- Unit selection
- Data viewable after each cycle and or slide
- Data storage in common file format
- COF curves are plotted in real time

**Standards:**

- ISO 15359
- ASTM ANSI / ASTM D 1894
- DIN 53375
- T 816pm-92
- ASTM 3247
- DIN 6729
- ISO 8295
- T 549pm-90



Model: C0041



Model: C0045

## Coefficient of Friction Tester Incline Plane

**Model: C0045**

The Coefficient of Friction Tester Incline Plane is used to determine the coefficient of static friction of most packaging materials by measuring the angle at which one test surface begins to slide against another inclined surface as the incline is increased at a constant and prescribed rate. As the plane rises, the first sign of movement from the sled is detected by a micro switch, which stops the plane movement and records the relevant angle of the incline.

**Applications:**

- Paper
- Plastics
- Film
- Foil
- Coatings
- Packaging

**Features:**

- Standard sled: 90mm x 100mm, 1300g
- Extra sled: 63.5mm x 63.5mm, 200g
- Motor driven

**Standards:**

- ASTM D202
- TAPPI T548
- TAPPI T815



Model: C0049

## Coefficient of Friction Tester

**Model: C0049**

The Coefficient of Friction Tester determines the friction properties of plastic films, foils, laminates, papers and boards. The equipment is essential for measuring the slip properties of packaging materials to ensure smooth running on production packaging machines or to measure the effect that a coating or print has on base material. Using the latest in design and technology, the machine set up, testing, measurement and recording is all done via touch panel screen display. An optional temperature control circuit can also be used to heat the bed for 'hot slip' values.

**Applications:**

- Flexible packaging, foils
- Paper
- Rubber
- Plastics
- Printing
- Coatings

**Features:**

- Speed Control: 10 –1000mm/min ± 10mm/min
- Touch panel screen
- Temperature: Ambient to 100°C ± 5 °C (when specified)
- RS232 output

**Standards:**

- ASTM D1894
- ISO 8295



Model: D0003

## Dead Weight Compression Tester

**Model: D0003**

The Dead Weight Compression Tester is designed to perform either as a single test to investigate the effect of deformation, creep, collapse or failure as part of a sequence of tests designed to measure the ability of a package, to withstand a distribution system that includes a compression hazard. It may also be used to investigate performance under particular conditions of loading.

**Applications:**

- Carton boxes
- Packaging
- Corrugated boxes

**Features:**

- Compression surface: 500mm x 600mm
- Test height: 750mm maximum
- Range: 250kg

**Standards:**

- AS 2582.3

## Edge Compression

**Edge Compression Guide Blocks Model: E0001**  
**Edge Compression Cutter Model: E0002**

The Edge Compression Guide Blocks are to aid in the determination of the resistance of corrugated fibreboard to a load applied in the plane of the board in a direction parallel to the flutes, ie: parallel to the cross direction of the component sheets. The Edge Compression Cutter has been designed and manufactured to cut accurate samples from corrugated board for testing purposes.

**Applications:**

- Corrugated fibreboard
- Single-wall board
- Double-wall board
- Triple-wall board
- Waxed board

**Features:**

- Changeable blades
- Sample thickness: max 9mm

**Standards:**

- AS/NZ 1301.444s
- ISO 3037
- DIN 53149
- TAPPI T811



Model: E0001  
 Model: E0002

## Flat Crush Test

**Flat Crush Test Fixture Model: F0011**  
**Flat Crush Test Cutter 50cm<sup>2</sup> Model: C0032**

The Flat Crush Test evaluates the resistance of flutes in corrugated board to a crushing force applied perpendicular to the surface of the board. The Flat Crush Test requires the use of the Flat Crush Test Fixture to prevent lateral movement of the upper portion of the test piece during compressions and also the use of the Flat Crush Test Cutter which can cut through the corrugated structure, leaving clean cut edges at right angles to the faces.

**Applications:**

- Corrugated fibreboard

**Features:**

- Changeable blades
- 4 pin location points

**Standards:**

- AS/NZS 1301.429s
- TAPPI T825



Model: F0011  
 Model: C0032

## Flexseal<sup>®</sup>

**Model: F0022**

The Flexseal<sup>®</sup> is an advanced leak detection system designed for monitoring the seal performance of flexible and semi rigid packages. It provides the user with a valuable visual method of determining the integrity of the package and seal using a simple and easy process. It allows rapid detection of failures, and enables early corrective action to be taken.

**Features of the Flexseal<sup>®</sup> :**

- Simple/Rapid operation
- Positive pressure technology
- Visual identification of seal defects
- Accurate measurement of seal performance
- Rapid feedback to production line
- Improved product safety
- Lower scrap rates and greater package reliability
- Savings in cost and time
- PLC controlled
- Sample in place sensors
- Vacuum holding of samples in place
- 50 programmable scripts
- Adjustable test air pressure: 0.0 to 20.0 psi
- Stainless steel construction
- 15 litre water capacity
- 180° sample rotation
- Needle penetration of samples
- Transparent test chamber



Model: F0022





Model: 10001

## Ink Rub Tester

**Model: 10001**

The Ink Rub Tester is designed to determine the quality of adhesion, and scuff resistance of ink to paper surfaces, plastic and aluminium film. The method of operation is that a 2 or 4 lb weight with a clean white board is swept across the test piece for a set number of times, and then closely examined.

**Applications:**

- Printed cartonboard
- Printed corrugated board
- Aluminium film
- Paper
- Plastics

**Features:**

- Creasing Board & Creasing Tool
- 2lb and 4lb weights (optional heated weights)
- Counter 0-9999
- Two speeds - 42 and 85 cpm

**Standards:**

- TAPPI T830
- ASTM D5264



Model: 10002

## Twin Arm Ink Rub Tester

**Model: 10002**

The Twin Arm Ink Rub tester determines the abrasion resistance of printed material, labels, folding cartons, and various other packaging materials that contain graphics. The IDM Twin Arm Ink Rub tester is a motor-driven device for moving a weighted test specimen over a printed or unprinted sample for a predetermined number of strokes. Two samples can be tested simultaneously for fast and easy testing requirements.

**Applications:**

- Printed cartonboard
- Printed corrugated board
- Paper

**Features:**

- Double-sided rub testing capabilities
- Two speeds - 42 and 85cpm
- Creasing Board & Creasing Tool
- Counter 0-9999
- 2lb and 4lb weights
- Cutting templates

**Standards:**

- TAPPI T830
- ASTM D5264



Model: P0003  
Model: P0007

## Precision Drop Testers

**Model: P0003 (150kg Capacity)**

**Model: P0007 (75kg Capacity)**

The Precision Drop Tester performs a vertical impact test on a complete, filled transport package by dropping. The Precision Drop Tester has an open construction arrangement, which does not restrict the test sample geometry. The Drop Tester lifts the package in such a way so as not to cause damage to the operator or package.

**Applications:**

- Card board boxes
- Bags
- Crates
- Pails
- Containers

**Features:**

- Adjustable minimum and maximum height for loading & dropping, via a chain hoist for positioning
- Large steel base for test surface and mounting: 1m x 1.5m x 25mm
- A hand-held control and foot switch are provided
- Precise drop orientations
- Package width and height dimensions are not restricted
- Lifting apparatus: electric chain hoist
- Drop forks: 350mm x 278mm front to back

**Standards:**

- AS 2582.4
- ASTM D5276
- ISO 2248 Method A
- ISTA

## Page Pull Tester

**Model: P0011**

The Page Pull Tester measures the strength required to pull pages out of bound books and magazines. The force is displayed on the digital read out; thus ensuring a quality bound book is provided to customers.

**Applications:**

- Books
- Magazines

**Features:**

- Powdercoated, sturdy steel housing
- Aluminium base plate, with marked guide lines for central positioning
- Pneumatic operation
- Digital force gauge with peak hold function
- Capacity/Resolution of force gauge: 100 x 0.1lb, 50 x 0.05kgf, 500 x 0.5N
- Maximum book thickness: 60mm
- Maximum book width: 300mm



Model: P0011

## Ring Crush Test Fixture

**Model: R0008**

The Ring Crush Test fixture is designed to carry out the ring crush test for paper and board having an average thickness of up to 1000 µm, for the purpose of MD ring crush, CD ring crush, liner or fair side. The test piece of paper or board is supported in the ring crush holder and subjected to edgewise compression between the platens of a crush testing machine.

**Applications:**

- Paper
- Paper board

**Features:**

- Cylindrical recess: 6.35 ± 0.25mm deep
- Ring Crush test feeder

**Standards:**

- AS/NZS 1301.407s
- TAPPI T818
- TAPPI T822
- ISO 12192



Model: R0008

## Rapid Conditioning Cabinet

**Model: R0013**

The Rapid Conditioning Cabinet has been specially designed to pre-condition paper samples in an approximate 30 minute period, to the standard laboratory environment conditions by using the Laboratory air as the final conditioning process, prior to physical testing.

**Applications:**

- Paper

**Features:**

- Push button start
- Fully programmable controller
- Testing sequence indication
- Stainless steel construction
- Temp Range: Ambient – 50°c
- Sample size: 317 x 317 mm (12.5in)
- Finned heating element for maximum radiant heat displacement
- Industrial digital temp controller
- Controller lock out function
- 6 sample holders
- Sliding sample holders
- Quick action latch



Model: R0013



## Gelbo Flex with Cooling Chamber

**Model: G0002-C**

The Gelbo Flex Tester with Cooling Chamber is used to perform flex testing for plastic film, laminate plastic, within a controlled temperature environment. The chamber can be set to a temperature between  $-5$  to  $-40 \pm 1^\circ\text{C}$ . The Chamber also has a large viewing window to view samples during testing

**Applications:**

- Packaging
- Plastic

**Features:**

- Temperature Range  $-5$  to  $-40^\circ$
- Twist:  $400^\circ$  short stroke
- Twist:  $440^\circ$  long stroke
- Counter for oscillations
- Stroke: 80mm or 155mm
- Totaliser
- Home switch
- 45 cpm



## Reel Hardness Probe

**Model: R0014**

The Reel Hardness Probe has been specially designed to be used for measuring the roll tightness of paper rolls on the production line.

**Applications:**

- Paper

**Features:**

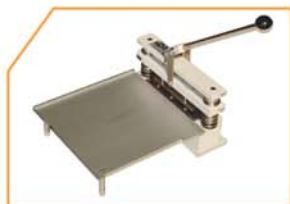
- Stainless Steel Probe
- Aluminium Holder

### Also Available:



## Cutting Press - 2 Tonne

**Model: C0022** Page 51



## Manual Sample Cutters

**Model: C0028** Page 52



## Circular Hand Cutters

**Model: C0038** Page 52



## Stainless Steel Sample Cutters

**Model: C0034** Page 52



## Grammage Cutter

**Model: C0042** Page 53



## Pneumatic Sample Cutter

**Model: C0043** Page 53



## Digital Micrometer

**Model: D0011** Page 61



## Universal Testing Machine

**Model: F0025** Page 08



## HiRes FQA

The HiRes FQA rapidly and accurately measures fiber length, width, % numeric fines and kink in dilute pulp samples. Software is also available to measure mean fiber coarseness, hardwood/softwood blends, analyse shives and analyse vessel elements. The AutoFeed can also be used with the FQA, capable of automatically testing up to 99 samples.



## Pulp Brightness Reversion Apparatus

The Pulp Brightness Reversion Apparatus is used in studies to optimise both cooking and bleaching processes, as well as pulp mill quality control. The PBRA ages pulp at 100°C and 100% RH, with reference to TAPPI and CPPA testing methods.



## Paprican Micro Scanner

The Micro-Scanner measures visible dirt with the correct illumination and automatic thresholding. It also measures sheet formation quality, light contraries, such as plastics (with reflected light) or pin holes (with transmitted light) and solid image print uniformity.



## Large Sheet In-speck-tor

The Large Sheet In-speck-tor-A4 measures dirt specks in pulp and paper. Operating on flat and smooth sheets, with ISO Brightness >70%, it measures dirt specks on sheet in a single scan.



## OpTiSurf

The OpTiSurf uses advanced optics and algorithms to quickly quantify the optical roughness of sheets. OpTiSurf is more objective compared to air-leak or stylus methods, correlates with traditional air leak tests but has greater precision and speed, with less maintenance. The OpTiSurf gives an Index of Roughness as well as Roughness values at different size scales.



## Domtar Lint Tester

The Domtar Lint Tester consists of a device for collecting lint, or other debris, from an offset blanket and a device for screening the lint for analysis. This device provides a simple and economical means to measure and characterise lint or other offset blanket debris.

## Paper PerFect Formation Analyzer

The Paper PerFect Formation Analyzer (PPF) revolutionises product quality optimisation and productivity by measuring the sheet uniformity at different "scales of formation." The PPF quantifies formation into its component values. Individual component values correlate well with paper and board properties, such as strength and printability.



## Print Mottle Analyzer

The Print Mottle Analyzer (PMA) revolutionises the measurement of print mottle. It quickly quantifies print non-uniformity over a range of mottle sizes from 0.5mm to 8mm. Comparisons with reference samples are performed automatically providing the user with a rapid determination of print mottle intensity and size scale differences.



## Scott Internal Bond Tester

The Internal Bond Tester uses the Scott method to produce a high speed Z-directional rupture of paper and paperboard. It is a dynamic test that measures and defines strength in terms of energy absorption.



## PROFILE/Plus™ Color Touch

The PROFILE/Plus™ Color Touch can measure the same sample under 3 different UV sources and calculate color data with 6 color spaces, 10 illuminants and 2 observers. PROFILE/Plus™ Color Touch can be optionally equipped with ERIC 950™ technology for measuring recycled content and deinking efficiency.



## PROFILE/Plus™ Brightness

The PROFILE/Plus™ Brightness features fully-automated measurement of two-sided brightness and fluorescence, fast evaluation of Optical Brightening Agents, standardized calibration process as well as concise and accurate data reporting. The ultra-violet light absorbing filter is positioned over the light source, providing accurate readings quickly.



## PROFILE/Plus™ Gloss

The PROFILE/Plus™ Gloss provides many new capabilities and features that will benefit your quality control program. A distinct advantage of the PROFILE/Plus™ Gloss module is its two-sided 75° gloss measurement capabilities. It features simultaneous MD/CD gloss measurement, as well as vacuum sample backing to ensure proper sample presentation to the measurement aperture. It meets TAPPI, ISO and PAPTAC test methods.





## PROFILE/Plus™ Opacity

The precision of the Opacity Tester Model 425 provides for effective evaluation of the TAPPI opacity of paper. The instrument operates automatically to ensure precise alignment and controlled loading of the sample and backing. It features unique self-locking device for maintaining white body adjustments, as well as automatic positioning of white and black backings. An infrared heat filter to maintain proper measurement conditions.



## PROFILE/Plus™ Formation

The PROFILE/Plus™ Formation instrument uses technology that has been developed to give a clearer picture of paper formation. These 10 scales of formation give a much truer indication of paper formation than most single number testers. The unit gives a better understanding of how formation quality affects sheet properties, and provides more in-depth information than conventional optical formation techniques. It easily compares results to a 'production standard' or to 'perfect paper'.



## PROFILE/Plus™ Burst

Bursting strength is widely used as a measure of rupture resistance in paper products. Factors such as tensile strength, elongation properties, shear, bending forces, fiber type, and grammage affect the burst strength. The Technidyne PROFILE/Plus™ Burst measurement is available in either paper or board configuration.



## PROFILE/Plus™ TSA

Stack lean, curl, and twist are all problems that cause major production difficulties for the end-users of paper. Using ultrasonic technology, the PROFILE/Plus™ TSA is an indispensable tool for papermakers enabling them to produce a better quality product. High resolution measuring head brings improved accuracy and precision. The self-aligning backing pad provides even clamping pressure on sample, and the robust ultrasonic sensor means longer sensor life and lower operating cost. Thorough analysis of data is provided by extensive software functionality.



## PROFILE/Plus™ Tensile

The PROFILE/Plus™ Tensile is the first fully automated stand-alone Tensile instrument which revolutionizes the way tensile tests are performed. Gone are the days when operators need to spend long hours cutting and preparing samples for tensile testing. Gone are the days when operators must perform countless repetitive tests just to ensure statistical relevance of the results.



## PROFILE/Plus™ Roughness & Porosity

Achieving uniform ink coverage is essential to high-quality printing, and can only be achieved with a uniform paper surface. The PROFILE/Plus™ Roughness & Porosity makes it possible to meet this demand with accurate measurements to help control paper roughness. It meets both TAPPI and ISO test methods.

## PROFILE/Plus™ PPS

With the accurate measurement and control of paper roughness being so important in high quality printing, it only makes sense to choose one of the industry's most trusted instruments: the technologically-advanced PROFILE/Plus™ PPS Roughness. Using the Parker Print Surf technique, this instrument measures in precise conformance to industry standards.



## PROFILE/Plus™ Grammage

As one of the most critical properties in the paper purchasing process, grammage is closely linked to the strength, thickness, and bulk of paper products. The PROFILE/Plus™ Grammage accurately cuts a sample to prepare it for analysis, and then determines the exact weight of the sample. Once the weighing process is completed, the proper conversion factors are applied to establish the sample's grammage.



## PROFILE/Plus™ Thickness

The PROFILE/Plus™ Thickness instrument meets or exceeds paper industry standards to provide the accuracy and repeatability you need from this critical test parameter. To assist in controlling the production process, each measurement is made quickly, so data is received in a timely manner.



## Color Touch 2

Supplying a broad array of measurements (including Brightness, Color, Color Difference, Fluorescence, Opacity, Whiteness, Tint, and Effective Residual Ink Concentration), the innovative Color Touch 2 spectrophotometer is the quickest, most accurate tool for measuring the optical properties of pulp and paper. With its touchscreen software, this system lets you measure and analyze key parameters in a variety of easy to use formats.



## Color Touch PC

With swing-in calibration, primary calibration, Color Touch PC software, sample viewing, and optional equipment, the Color Touch PC boasts functionality that is far beyond standard color evaluation. Samples may be measured under 4 different calibrated light sources or 2 user defined sources. The Color Touch PC is capable of sampling whiteness under different fluorescing conditions.



## Formation Tester

The Formation Tester is an easy to use instrument used for paper and nonwovens based on the image analysis. It has excellent correlation between visual evaluation and formation index, and features various analysed data including binary image and false color image.







## Sonic Sheet Tester

The Sonic Sheet Tester SST series fiber orientation testers are used analysing fiber/molecular orientation of sheets such as paper and film, with the technique using ultrasonic propagation velocity measurement.



## Crush Tester

The Crush Tester CT-2000 is used for the determination of compression strength of corrugated fibreboard and its components. It features built-in software, operated through the touch panel screen, and offers complete statistics, as well as RS-232 for connection to an external computer.



## Bursting Strength Tester

The Bursting Strength Tester MTA-2000 determines the bursting strength of paper, board and corrugated board. It features built-in software, operated through the touch panel screen. The software allows a choice of testing units, as well as complete statistics, and RS-232 for connection to an external computer.



## Package Shaker

The VMX-1100 Package Shaker is designed for the laboratory simulation of typical hazards present in distribution environments. It applies a uniform vibration input over the entire test specimen, to enable the assessment of external and internal packaging.



## Laboratory Digester

The Laboratory Digesters AU-E/20 and AU-E/4 are used for chemical, semi-chemical, thermal and bleaching pulping studies in the pulp and paper industries. The AU-E/20 model is mainly used in small sized production lines, where the AU-E/4 model is mainly used for Research & Development (R&D).



## Fiber Classifier – Brecht & Holl Type

The Fiber Classifier is used for the separation of pulps into fines, shives, and useful fibers fractions. The design is based on a pulsating membrane, sieves and continuous water flow, allowing the separation of different fractions to be done smoothly, without damaging the fibers or changing the original characteristics.

## Canadian Freeness

The Canadian Freeness is used for the precise determination of the drainability of a pulp suspension in water. The drainability is the measurable index of the refining degree of pulps, which is one of the most important stages in the paper production process.



## Box Caliper

The Box Caliper is used by manufacturers and end users to control quickly and precisely the internal dimensions of packages. This is fundamental to the preservations of the goods wrapped during transportation, storage and handling; thus reducing the risk of possible future losses caused by products out of specification.



## Disintegrator

The Disintegrator DSG-2000 is an equipment essential for the laboratory wet disintegration of pulp and the correct preparation of pulp suspensions. This preparation is a key component for the determination of refining degree, and for the preparation of laboratory sheets for physical testing.



## Laboratory Beater – Type Holandesa

The HV-10 Laboratory Beater is used for pilot beating of pulps, useful for quality control and R&D of pulps. Its high capacity and sturdy design allows the Laboratory Beater to be used in small production lines of special papers and boards.



## Electric Incinerator

The Electric Incinerator is used for the determination of residue (ash content) on ignition. It is a test used worldwide to determine the filler content pulp, paper and board. It is used for quality control in the production line.



## Laboratory Disc Refiner Bauer

The MD-3000 Laboratory Disc Refiner is widely used for pilot refining of pulps in the quality control and R&D of pulps, paper and board. With its high capacity the Laboratory Disc refiner Bauer can also be used as the main refiner in small sized production lines of specialty papers.





## Densometer Type Gurley

The Densometer Type Gurley PAG-1000 is used to determine the air permeance of paper, which is important in the specification of materials for the packaging and printing materials. The Densometer features a built-in computer and software, operated through the touch screen panel.



## Water Vapour Transmission Tester

The PVA/4 Water Vapour Transmission Tester is used for the preparation of test pieces for the accurate measurement of the water vapour transmission rate, of sheeted materials, including paper, board, plastics, aluminium, rubber and others.



## Laboratory Sheet Former

The RK-21 Laboratory Sheet Former is an automatic sheet former used for the production of laboratory hand sheets. It is used for the measurement of the physical and/or optical properties of pulps.



## Schopper Riegler Pneumatic

The Schopper Riegler Pneumatic SR/P is used for the determination of drainability of pulp suspension in water. It is applicable to all kinds of pulp in aqueous suspension. The drainability is the measurable index of the refining degree of pulps.



## Master Screen

The Master Screen is a low consistency screening device designed to mechanically separate shives, dirt and/or stickies from fiber. The instrument provides a rapid and repeatable method for concentrating and collecting shives, dirt and/or stickies.



## Zero Span 1000

The Zero Span 1000 provides the simplest way to generate data on the fiber strength, length, and bonding potential of production of pulp, as well as paper at the reel. The instrument benefits productivity by reducing downgraded pulp, which in turn equates to increased profitability.

## Zero Span 2000

The Zero Span 2000 offers an automatic zero and short span testing capability. It can effectively define pulp strength. The Zero Span 2000 is calibrated, and control software is loaded as part of the in-factory system integration.



## Zero Span 3000

The Zero Span 3000 offers a complete zero-span solution in one compact and highly automated system. The instrument has a Wet Sample Prep Station which enables fast and efficient sample prep to good repeatability. The Sheet Former delivers 6 test sheets, only 5 minutes after cycle start up.



## Deposit Control System

The Deposit Control System DSC is used to determine the thickness and pace of growth of deposits in water circuits. The instrument is widely used within paper manufacturers and chemical suppliers, and replaces the visual assessment by an objective measuring method.



## Penetration Dynamics Analyser

The Penetration Dynamics Analyser PDA is an ultrasonic tester used for the measurement of surface and internal properties of paper and board in order to predict the behaviour in the converting process. The PDA is PC driven, and ensures quick and simple operation.



## Tissue Softness Analyser

The Tissue Softness Analyser TSA is used to assess the softness, elasticity and compressibility of tissue and fabrics, as well as the ball burst strength, thickness and Grammage of tissue. It is highly used with in quality control and R&D departments. The Tissue Softness Analyser (TSA) simultaneously gathers all single relevant parameters which have an influence on the tissue softness. Parameters for values are calculated by high-performance PC software. The correlation of the measuring results to the subjective assessment (hand feel panel) is excellent. As a production tool, you can fine tune your production process in real-time - minimising input costs while maintaining a constant quality of product.



## Wet Stretch Dynamics Analyser

The Wet Stretch Dynamics Analyser WSD 02 is used to determine the dynamics of the change in dimension of paper, by means of one-sided contact with water based liquids under adjustable tension. It is used on paper and board.





## Charge Analysing System

The Charge Analysing System CAS is used for determining cationic/anionic and acid/base demands of aqueous charge systems. Both Streaming Potential and pH are measured simultaneously allowing for easy determination of isoelectric and flocculation points of a sample.



## Dynamic Filtration System

The Dynamic Filtration System DFS has been designed to accurately determine the influence of chemicals on filtration properties by automatic analysis of drainage and retention of fiber suspensions. The DFS can be used via the software program.



## Fiber Potential Analyser

The Fiber Potential Analyser FPA is designed to determine the Zeta Potential of fibers, by simultaneously measuring the conductivity, pressure and the streaming current potential. The instrument is operated via touch screen with digital readout, PC software, and has a built-in printer.



## Moisture Meters

IDM Instruments Pty Ltd® can supply various Moisture Meters used within different industries. The hand held units provide quick and accurate readings of moisture. A variety of units are available with different measuring ranges and probes to suit specific applications.



## OPUS

OPUS is an out-of-plane ultrasonic system for the measurement of paper and like materials using a dry contact technique. The instrument measures soft platen thickness and determines Specific Stiffness and Young's modulus in the "through" direction (referred to as Z-directional or ZD) of the material under test. The OPUS (Out of Plane Ultrasonic System) measures fundamental engineering constants of paper in a non destructive manner. The unit requires no real sample preparation (no tape and no template cutting, therefore less operator error), leading to less ambiguous results. This allows your production staff to obtain meaningful information in near real time, and make cost saving adjustments to the line while it is running.

## Coefficient of Linear Thermal Expansion Tester

**Model: C0007**

The Coefficient of Linear Thermal Expansion Tester is used for determining the linear change of a refractory caused by a change in temperature and to ascertain the reversibility of these characteristics.

**Applications:**

- Manufacturing materials

**Features:**

- Upper and Lower Limit Markers
- Easy-to-read dial gauge
- Bench-top operation

**Standards:**

- ASTM D696



Model: C0007

## Coefficient of Friction Tester

**Model: C0008**

The Coefficient of Friction Tester determines the static and kinetic friction of plastic film, sheeting, paper and other sheeted material. It employs a stationary sled with a moving plane. With the option of a computer software package to record data, the IDM COF Tester has proven itself to be a fast, reliable and accurate method of determining friction in various areas of manufacturing. The IDM COF Data Acquisition Software features dynamic real-time display of test data, statistical analysis of results, and enables data to be saved in Excel and printed for later use. Values that can be read on the software include peak force value, static point, and kinetic average.

**Applications:**

- Paper
- Plastics
- Printing
- Coatings
- Composites
- Flexible packaging, foils
- Rubber
- Linoleum
- Metal

**Features:**

- Push-button and auto zero
- Read-out in selectable units kg, lb, N (1 x 0.001kgF)
- Plane: 150mm x 300mm x 6mm
- RS-232, analog, printer output
- Speed: 150 ± 15mm/min
- Sled Weight: 200 ± 5g at 63.5mm x 63.5mm

**Standards:**

- ASTM D 1894
- TAPPI 549
- Optional - ISO 8295



Model: C0008

## Film Free Shrink Tester

**Model: F0006**

The Film Free Shrink Tester consists of a small, circular aluminium block, electrically heated and controlled by a temperature controller. Using aluminium foil discs with silicon oil, the test piece is placed into it to accelerate shrinkage at selectable temperatures.

**Applications:**

- Flexible packaging
- Shrink packaging

**Features:**

- Digital temperature controlled hot-plate
- Heating plate: Ambient - 250°C
- Specimen cutting knife
- Specimen cutting template
- Tweezers
- 2,500 aluminium foil discs
- 50ml silicone oil

**Standards:**

- ASTM D 2732



Model: F0006



## Falling Dart Impact Tester

**Model: F0008**

The Falling Dart Impact Tester covers the determination of the energy that causes Polyethylene Film to fail under specified condition, with the impact of a free-falling dart. The unit employs a dart, with a 38mm diameter hemispherical head, dropped from a height of 660mm. This unit may be used for films whose impact resistance requires masses of approximately 50 gms to 2 kg to fracture them.

**Applications:**

- Flexible

**Features:**

- Test Method A: Standard
- Pneumatic clamping for films
- Adjustable dart drop height
- Weights supplied:
  - 2x5g, 8x15g, 8x30g, 8x60g
- Brass weighted
- Two aluminium darts
- Foot switch for dart release

**Standards:**

- ASTM D 1709
- ISO 7765-1
- AS/NZS 4347.6



## Flammability Tester

**Model: F0009**

The Flammability Tester measures flame duration and material consumed for small specimens of cellular plastics of densities less than 100kg/m, exposed to a small flame with the specimen in a vertical orientation.

**Applications:**

- Plastic

**Features:**

- Remote ignition control
- Galvanised steel test chimney
- "Analite" burner with ceramic orifices
- Gas flow control unit

**Standards:**

- AS 2122.1



## Flexible Modules Tester

**Model: F0019**

The Flexible Modules tester determines the flexural properties of reinforced and unreinforced plastics, including high-modulus composites and electrical insulating materials in the form of rectangular bars moulded directly or cut from sheets, plates, or moulded shapes.

**Applications:**

- Plastic

**Features:**

- Dial Gauge

**Standards:**

- ANSI/ASTM D 790M

## Gardner Type Impact Tester

**Model: G0001**

The Gardner Type Impact Tester is used to rank materials according to the energy required to break flat, rigid plastic specimens, under various specified conditions of impact of a striker, impacted by a falling weight.

**Applications:**

- Impact properties of plastic materials

**Features:**

- Weights: 0.9kg, 1.8kg and 3.6kg
- Slotted guide tube graduated in newton-meters (inch-pounds)
- Specimen support plate
- Hardened steel striker

**Standards:**

- ASTM D5420
- ASTM D3763
- ISO 6603-1: 1985
- ASTM D5628
- ASTM D4226



Model: G0001

## Gelbo Flex Tester

**Model: G0002**

The Gelbo Flex Tester determines whether certain laminations of plastic withstand repetitive strain. By attaching sample pieces of laminated plastic to the two circular clamping disks, via hose clamps, the specimen is twisted and turned to the specific movements. This process will show a visual result of pinholding and delamination.

**Applications:**

- Laminated plastic films

**Features:**

- Stroke: 80mm or 155mm
- Twist: 400° short stroke
- Twist: 440° long stroke
- Counter for oscillations
- 45 cpm
- Totaliser
- Home switch

**Standards:**

- ASTM F 392



Model: G0002

## Glow Wire Tester

**Model: G0003**

The Glow Wire Tester is used to simulate the effect of thermal stresses, which may be produced by heat sources, such as glowing elements or overloaded resistors, for short periods, in order to assess the fire hazard by a simulation technique. The glow wire is a specified loop of resistance wire which is electrically heated to a specified temperature. The glow wire is then brought into contact with the specimen under test.

**Applications:**

- Electro technical equipment
- Solid combustible materials
- Solid electrical insulating materials

**Features:**

- Adjustable specimen clamp
- Calibrated thermocouple
- Nickel/chromium (80/20) wire

**Standards:**

- AS/NZS 60695.2.10:2001
- IEC 60695.2.10



Model: G0003





Model: H0005

## Hot Tack Tester

**Model: H0005**

The Hot Tack Tester is an advanced system for monitoring the seal performance of flexible and semi rigid plastic bags or tubes. The Hot Tack Tester has been developed to determine the capability of a heat-seal joint to hang together when it is stressed, at a specified time interval, while still hot from the sealing operation, but before it reaches ambient temperature. The overall design of a package can contribute or detract from the materials ability to provide hot tack during the sealing process.

**Features:**

- Colour touch screen
- Cycle history page to view progress of testing
- Printable Hot Tack graph: Applied Force v Sealing Temperature
- Safety guard and switches for safe operation
- Automatic idle after 10 mins non-use
- Automatic recording of ambient laboratory temperature
- Laboratory humidity is recordable
- Manual / Automatic operation
- Password accessible Calibration Menu
- Adjustable Start / Finish points
- PID temperature controlled sealing jaws
- Microsoft Window CE operating system
- Time/Date internal memory

**Standards:**

- ASTM F1921
- ASTM F2029



Model: L0001

## Laboratory Heat Sealer

**Model: L0001**

The Laboratory Heat Sealer is used for development work to help determine the sealing properties and characteristics of plastic and laminated materials. The Heat Sealer is electrically heated and temperature controlled with adjustable sealing pressure, controlled by a timer. Sealing bars are covered with Teflon for non-stick, and easy use. Sealing is initiated by a foot switch, powering a pneumatic cylinder to lower the upper sealing bar to seal. The timer determines the length of time the sealing bars will be in contact at the adjusted sealing pressure.

**Applications:**

- Flexible packaging
- Plastic laminates
- Plastic films

**Features:**

- 10mm x 180mm sealing bars
- Sealing area 5mm x 180 mm
- Changeable sealing bars
- Adjustable sealing pressure
- Foot switch
- Safety guard
- Upper and lower temperature controllers
- Ambient to 300°C
- Sealing time variable by timer setting 0 – 999.9 secs
- Maximum sealing force at 80psi – 280kg per 10cm<sup>2</sup>

**Standards:**

- ASTM F2029



Model: L0003

## Heated Laboratory Press

**Model: L0003**

The Heated Laboratory Press is designed for pressing or helping to form samples between two platens. Two digital temperature controllers enable the platens to be heated or cooled and even set process times for heating and cooling. Different capacity Presses can be manufactured depending on specified requirements.

**Applications:**

- Plastic
- Rubber

**Features:**

- Digital temperature controllers:
- Platens: 300mm x 300mm
- Hand pump
- Timer
- Digital Panel Meter
- Digital pressure gauge to indicate tonnes
- Ambient – 300°C ± 2°C
- Maximum daylight: 150mm
- Readability: down to 10kg
- Water solenoid valve

## Melt Flow Indexer

### Model: M0004

The Melt Flow Indexer is a dead-weight extrusion plastometer. It consists of a thermostatically controlled melting chamber (the barrel) in which the polymer under test is heated and from which it is extruded through a standard die under standard conditions of load, which is, of course, made up of the combined weights of the extrusion piston and the loose weight both of which are carefully calibrated to well within the most stringent limits.

### Applications:

- Plastics

### Features:

- Tungsten carbide die
- Precision ground tool steel barrel
- Temperature Range: 100° – 300°C,  $\pm 0.1^\circ\text{C}$
- Piston
- Piston weights

### Standards:

- ASTM D1238: Procedure A
- ISO 1133
- BS2782



Model: M0004

## Polarising Box

### Model: P0008

The Polarising Box is used to view the stress points created during manufacture of clear plastic and glass products. The samples can also be extruded film. The Polarising Box has two open sides so long items can be passed through.

### Applications:

- Plastic films
- Glass

### Features:

- Polarising filter mounted at the top for viewing
- Light source
- Fluorescent tubes, mounted at the base with a diffuser as the sample support panel



Model: P0008

## Pail Measuring Instrument

### Model: P0009

The Pail Measuring Instrument is manufactured with two recesses, one for 10 to 20 litre pails on the left-side, and 1 to 10 litre pails on the right side. The instrument will display the measurement in mm once the cylinder has stopped moving.

### Applications:

- Plastic pail lid
- Plastic pails

### Features:

- Repeatability: 0.30 mm
- Peak reading display
- 2 x calibration check rings
- Measuring type: spring steel band
- 1 – 10 and 10 – 20 litre pails and lids
- Readability: 0.1mm
- Accuracy: 0.10mm
- Adjustable air pressure



Model: P0009



Model: L0005

## Light Transmission Tester

**Model: L0005**

The Light Transmission Tester has been specially designed and manufactured to evaluate the light transmission properties of various shaped plastic containers.

**Applications:**

- Plastic Containers

**Features:**

- Light Meter
- 15W Light Globe
- Spring Collar to maintain pressure on sample
- Bench-top operation
- Quick and simple process



Model: SPM-AIR PERM

## Digital Air Permeability Tester for Plastics

**Model: SPM-AIR PERM**

The Digital Air Permeability Tester determines the air leakage of plastic films. It is manufactured to enable samples to be inserted at the front, with a sample opening of 5mm as well as a 45 lead in on sample opening. It features two safety activation switches for clamping, so that operators are using both hands, to ensure optimum safety.

**Applications:**

- Plastics

**Features:**

- Sample opening: 5mm
- Low pressure air supply gauge
- Digital display – flow meter
- 2 X Safety activation buttons
- Test area: 250mm x 120mm
- Air flow meter – Flow Range: 0–50 LPM for Air @ 1 atmospheric, 20 deg C (sensed before sample)



## Advanced Melt Flow System

The Advanced Melt Flow System Series 5 are used to determine the melt flow rate in plastic. Three (3) different models are available, all having different features to enable viscosity measurement, shear rate measurement and shear stress measurement.



## Microprocessor Controlled Impact System

The pendulum Microprocessor Controlled Impact System has been designed in accordance with several international test standards for Izod, Charpy, and Tension impact testing. The microprocessor technology enables ease of operation, high accuracy and repeatability of test results.



## Sample Notching Cutter

The Sample Notching Cutter has been designed to machine a very precise stress concentration notch in test specimens to ensure that breakage of the specimen takes place at the same section each time a test is carried out.



## STATIC METER

IDM Instruments offer a range of Static Meters, which is a handheld electrostatic voltmeter measures essentially all the parameters associated with static electricity. Its main function is measuring the voltage of a sample or surface without touching it. Different models are available including High Resistance / Low Conductance, Ultra Stable Volt Meter, and Voltage Touch Monitor.

### Also Available:



## ProTear Tearing Tester

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## C.O. Friction Tester

**Model: C0041** Page 20



## Pneumatic Sample Cutter

**Model: C0043** Page 53



## Coefficient of Friction Tester Incline Plane

**Model: C0045** Page 21



## Coefficient of Friction Tester

**Model: C0049** Page 21



## Dry Bath Aging Block

**Model: D0001** Page 47



## Cavity Sample Mould

**Model: D0005** Page 47



## Digital Micrometer

**Model: D0011** Page 61



**FlexSeal**

**Model: F0022** Page 22



**Universal Testing Machine**

Page 67



**Small Ball Impact Tester**

**Model: I0003** Page 15



**Large Ball Impact Tester**

**Model: I0004** Page 16



**Gelbo Flex with Cooling Chamber**

**Model: G0002-C** Page 25



**Durometers**

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**Digital Durometers**

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**Constant Pressure Load Durometers**

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**Xenon Test Chamber**

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## Colour Check Cabinet

**Model: C0048**

The Colour Check Cabinet was produced to answer visual colour matching needs. Used for assessing colour changes under different light sources, to determine suitability of materials for industrial applications where there is the need to maintain colour consistency and quality. Fluorescent daylight, incandescent and optional black light may be used either individually or in combination.

**Applications:**

- Plastics
- Paper
- Textiles
- Packaging

**Features:**

- Daylight simulator
- Incandescent source
- Hour meter
- Ultraviolet (UV)

**Standards:**

- AS/NZS 1580.601.1: 1995
- AS 4004



Model: C0048

## Gloss Meter

IDM Instruments Pty Ltd.<sup>®</sup> supplies various Gloss Meters to determine the specular reflection of various materials. The Gloss Meter can measure in 20°, 60° or 80°, all in the one single unit, with results displayed instantly, including the difference, pass/fail and statistics on the unit.



## Haze Meter

IDM Instruments Pty Ltd.<sup>®</sup> supplies the Micro-Haze meter, which measures both gloss and haze in one easy to use instrument. It is useful for measurement on the finished product and quality control in the production process.



## Spectro Guide

The Spectro-Guide measures both Colour and 60° gloss in one easy to use hand-held instrument. The Spectro-Guide unit can measure in even the most difficult to access areas, with its unique ergonomic design.



## ColorQA

The ColorQA is a colour comparison device that digitally measures the colour of a Target Colour and then allows the user to sample any number of comparison colours to determine a colour match. It is lightweight, portable, hand held and battery operated. The ColorQA can also be coupled with Software program, Easy-ColorQA System or the Pro System III; which plots and compares readings in various expressions, including XYZ, CIE Yxy, and CIE L\*a\*b\*





## ProGage Thickness Tester

The ProGage Thickness Tester measures the thickness of sheeted material, including paper, plastic film, textile, tissue and nonwovens. The unit is operated through a touch screen with digital display.



## ProTear Tearing Tester

The ProTear Tearing Tester measures the tear resistance of sheet materials, including paper, textiles, roofing products, films and foils. Three different models are available: Electronic ProTear, Mechanical ProTear, and Heavy-Duty ProTear.



## Electronic Inkometer

The Electronic Inkometer 106 provides reliable data on ink tack, measuring the integrated forces involved in ink film splitting, and the effects of speed, film thickness, temperature and solvent evaporation on these forces.



## Mechanical Inkometer MBC

The MBC Mechanical Inkometer is a manual version of the Electronic Inkometer. It provides reliable data on ink tack, by simulating the dynamic conditions that occur in the printing process.



## Quickpeek Color Proofing Kit

The Quickpeek Color Proofing Kit is used to quickly produce a proof that replicates how ink will appear on a printed copy from the press. Different rollers can be used for heat set inks or UV inks.



## Vapormeter

The Vapormeter is an easy to use instrument used for testing the water vapor permeability of flexible packaging materials, including parchment, wax paper, polyethylene, vinyl, cellophane, foil, laminates, and other materials.

## Mickle Proofer

The Mickle Proofer design is widely used by ink manufacturers and printers as an essential quality control tool. The 200 x 50mm prints produced are used for colour checking as well as measurement of density, penetration, set-off and drying.



## Ink Pipette

The Ink Pipette is a fast, efficient and clean method of measuring and applying a precise volume of ink to the Mickle Proofer. It is clearly marked with graduations of 0.1 ml enabling the operator to measure an accurate and repeatable volume of ink up to 1.0 ml in 0.05 ml increments.



## Xenon Test Chamber

The Xenon Test Chamber reproduces the damaging wavelengths of light encountered either indoors or outdoors. The optical filters maintain the required spectrum for life and do not need to be replaced. Xenon lamps emit ultraviolet, visible and infrared light. Filtered xenon arc lamps are the best way to test products such as pigments, dyes and inks, which may be sensitive to the longer UV wavelengths and visible wavelengths of sunlight. It is designed to be user friendly, easy to install, and calibrate. Specimen mounting and evaluations are fast with the unique slide-out specimen tray that easily accommodates three-dimensional parts. Lamp replacement is safe, quick and easy to perform.



## RUBBER

## Compression Tester – 65 Tonne

**Model: C0011**

The Compression Tester is designed to be used for various compression tests. It comes fitted with load cells to measure the load applied. Manufactured with an electric hydraulic pump, it has a large working area, and can be adapted to many applications.

**Applications:**

- Various

**Features:**

- Hydraulic power unit
- Electronic load cells
- Accuracy of +/- 1% FS
- Position measuring device



Model: C0011





Model: D0001

## Dry Bath Aging Block

**Model: D0001**

The Dry Bath aging Block is used for determining the long-term effects of elevated temperature on various materials like rubber, plastics, textile etc. Samples are placed in glass tubes. The 24 holes for insertion of the tubes are 38mm by 280mm.

**Applications:**

- Plastics
- Textiles
- Rubber

**Features:**

- Set of glassware
- Temperature controller: Ambient to 300°C



Model: D0005

## Cavity Sample Mould

**Model: D0005**

The four Cavity Sample Mould has been produced to fill certain requirements in the specification for Vulcanising Rubber as well as plastic.

**Applications:**

- Plastics
- Rubber

**Features:**

- 4 Cavities
- Hardened stainless steel

**Standards:**

- ASTM D3182



Model: D0008

## Din Abrader

**Model: D0008**

The Din Abrader is primarily for use in determining the resistance of vulcanised rubber to abrasive forces using a cylindrical type drum. It is manufactured to determine the resistance to abrasion of other types of materials such as certain plastics. A cylindrical shaped test piece is abraded across a surface of known abrasiveness for a defined distance under a certain load.

**Applications:**

- Rubber
- Plastics
- Industrial Hose
- Shoe soles
- Vulcanised rubber
- Elastometric materials
- Elevator belting

**Features:**

- Sample holder
- Safety cover
- Supplementary weights
- Rotating drum with replaceable abrasive paper

**Standards:**

- DIN 53 516
- ASTM D 5963
- AS 1683.21
- ISO 4649

## Wet Din Abrader

**Model: D0008-W**

The Wet Din Abrader determines the resistance of rubber to abrasion using a cylindrical drum device. It is manufactured from Stainless Steel to enable it to be used with water. The method involves determining the volume loss of a rubber through abrasion, by rubbing over a specific grade of abrasive cloth.

**Applications:**

- Rubber
- Plastics
- Industrial Hose
- Shoe soles
- Vulcanised rubber
- Elastometric materials
- Elevator belting

**Features:**

- Water Outlet
- Safety cover
- Sample holder
- Supplementary weights
- Rotating drum with replaceable abrasive paper

**Standards:**

- DIN 53 516
- ASTM D 5963
- AS 1683.21
- ISO 4649



Model: D0008-W

## Mooney Viscometer

**Model: M0007**

The Mooney Viscometer, when applied to rubber or other elastomeric materials, is used as a standard method of determining the viscosity of such materials in the raw or compounded state, and for determining the curing characteristics of vulcanisable compounds

**Applications:**

- Rubber Compounds
- Some Plastic Compounds
- Cork Compounds

**Features:**

- Die closes pneumatically
- Zero reset for signal
- High to low pressure timer
- Test Run Timer

**Standards:**

- ASTM D1646



Model: M0007

## Steel Cord Gas Tightness Tester

**Model: SPM-SGC**

The Steel Cord Gas Tightness Tester determines the cord elastomeric compound penetration and actual condition of the steel-cord coating and penetration with core rubber and the corrosion protection of the steel-cords embedded in a conveyor belt. It incorporates a digital readout (kPa) to display the differential pressure during testing.

**Applications:**

- Rubber

**Features:**

- Digital Readout (kPa)
- Clamping Device with handle
- Clamping Die

**Standards:**

- AS 1333



Model: SPM-SGC



Model: SPM-TBF

## Torsion Bending Fatigue Tester

**Model: SPM-TBF**

The Torsion Bending Fatigue Tester determines the water tightness as well as the corrosion resistance of the steel cords in the conveyor belts, at the same time. The Torsion Bending Fatigue Tester requires the steel cords to be opened during testing; therefore delivering information on the rubber penetration and the rubber coating of the steel cords.

**Applications:**

- Rubber

**Features:**

- Motor Driven
- Chuck Assemblies
- Water Container
- Height Adjustment Knobs
- Angle Adjustment Knobs
- Control Box



## Electronic Tensile Tester

The single column Electronic Tensile Tester is used for low capacity tensile testing of up to 100kgF, with a testing length of 650mm. It is operated via PC using a software program with real-time graphs, and ability print test results. The Electronic Tensile Tester provides force, strain, and stress values at breaking point, as well as the maximum point, and also displays all testing curves on the PC. Graphs and test results can also be printed from the software program.



## Mooney Viscometer

The UM-2050 is an advanced Mooney Viscometer, operated via PC using the specially designed software program to provide curves and values of mooney viscosity, scorch time, and stress relaxation time. It is applicable for rubber testing. The Mooney Viscometer provides a plot of Log Mooney Units versus Log Time from a Stress Relaxation Test, as well as providing curves of softening rate and scorch rate. The Mooney Viscometer features auto zero-point calibration, before each testing is started.



## Rotorless Rheometer

The UR-2010 Rotorless Rheometer has been specially designed to test silicone rubber. With VCH software, the accuracy of die oscillating frequency and torque transmission can be checked automatically. The software program used with the Rotorless Rheometer provides contour lines of physical properties to help the users choosing excellent formula matching easily.



## Oscillating Disc Rheometer

The UR-2070 Oscillating Disc Rheometer has been specially designed to test silicone rubber. It features touch panel controls, and also U-CAD software program operated via a PC. The software provides excellent reproducibility and repeatability, as well as automatically calibrate loss angle and torque.

## Carbon Black Dispersion Tester

The Carbon Dispersion Tester covers the degree of dispersion of carbon black in rubber. Via PC using the software program, users can store and print gray level analysis, dispersion and/or pixels diameter.



## Durometers

IDM Instruments Pty Ltd supplies a range of Durometers for measuring the hardness of materials including rubber and plastic. Durometers consist of namely 3 types: Type A (for medium hardness), Type D (for high hardness) and Type E (for low hardness).



## Digital Durometers

The Digital Durometers are used for measuring the hardness of various materials, with reference to various international standards. Various different models are available, depending on applications and hardness types required.



## Constant Pressure Load Durometers

The Constant Pressure Load Durometers are used for measuring the hardness of various materials, using a durometer on a stand for more stable measurements. It uses a stepper motor driving system, for more precise testing.



## Also Available:



## Universal Testing Machine

**Model: F0025** Page 08



## Heated Laboratory Press

**Model: L0003** Page 39



Model: C0022

## Cutting Press – 2 Tonne

**Model:** C0022

The 2 Tonne Arbour Press is used in conjunction with cutting dies to produce testing samples. An optional cutting die adaptor can be used when using the Arbour Press with the Tool Steel Cutting Dies for fast and repetitious sample preparation.

**Applications:**

- Paper
- Rubber
- Plastic
- Textiles

**Features:**

- Rack and pinion
- Table size: 250mm x 300mm



Model: C0024

## Cutting Dies – Tool Steel

**Model:** C0024

The Tool Steel Cutting Dies are used for the cutting of plastics, paper, textiles and rubber samples. They can be used along with IDM cutting presses for sample preparation.

**Applications:**

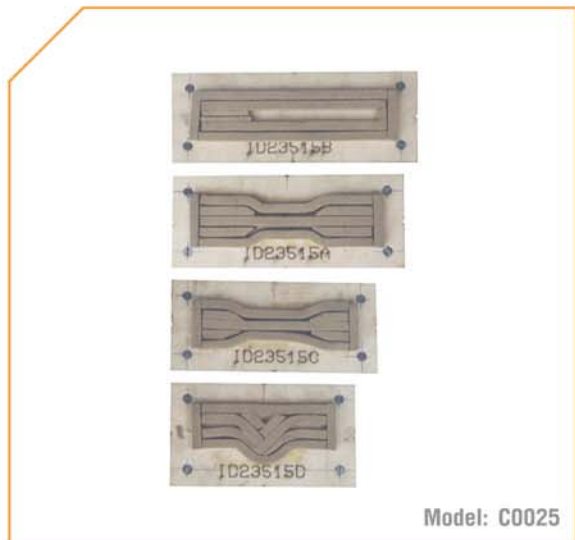
- Cardboard
- Paper
- Rubber
- Foam
- Plastic

**Features:**

- Dies can be resharpened

**Standards:**

- BS 2782-3
- AS 1180.2
- ASTM D470
- ASTM 1660.2
- ASTM D638
- ISO 527
- K6301
- AS 1301.404
- AS 2282.7
- ASTM D624
- ASTM D1822
- AS 1145
- ISO 6259
- AS 1683.11
- ASTM D412
- ASTM D1004
- ASTM D3574
- ISO 37
- K6251



Model: C0025

## Cutting Dies – Ruler Type

**Model:** C0025

The Ruler Type Cutting Dies are used for cutting of plastic film, paper and rubber samples used for tensile and tear testing (dumbbell, trouser, etc). They are manufactured with a ply backed knife-edge, and can be manufactured to suit various international test standards.

**Applications:**

- Plastic film
- Rubber
- Paper

**Features:**

- Low volume work

**Standards:**

- BS2783
- AS1180.2
- ASTM D470
- ASTM D1004
- ASTM D3574
- AS1301.404
- AS2282.7
- ASTM D624
- ASTM 1660.2
- AS1683.11
- ASTM D412
- ASTM D638
- ASTM D1822

## Manual Sample Cutters

- Ring Crush Sample Cutter: Model: C0028**
- STFI / Tensile Cutter : Model: C0029**
- Tear Test Sample Cutter Model: C0031**

The precision Manual Sample Cutters are used for cutting testing samples for paper to the following sizes as standards. IDM can also manufacture custom sizes if required.

**Applications:**

- Paper

**Features:**

- Can be resharpened

**Standards:**

- C0028: AS 1301.407
- C0029: AS 1301.448
- C0031: AS 1301.400



Model: C0028

## Circular Hand Cutters

**Model: C0038**

The Circular Hand Cutters are fast and easy to operate, creating accurate circular samples in various different mediums. They are available in several different sizes for suitability to many different tests.

**Applications:**

- Paper
- Corrugated fibreboard
- Textiles
- Paperboard
- Solid fibreboard

**Features:**

- Changeable blades
- 4 pin location points
- Safety Eject Plate



Model: C0038

## Cutting Templates - Stainless

**Model: C0034**

Manufactured from stainless steel with an easy to grip handle to provide a consistent cut out shape for example; Coefficient of friction testers, Colour fastness tester, etc.

**Applications:**

- Plastic Films
- Paper
- Cardboard
- Rubber
- Carpet
- Textiles

**Features:**

- Rust resistance
- Easy to hold
- Long life span
- Manufactured to customer requirements



Model: C0034



Model: C0042

## Grammage Cutter

**Model: C0042**

The Grammage Cutter has been designed to easily cut 100cm<sup>2</sup> circular paper samples to assess Grammage. Grammage in paper products is calculated from the ratio of mass to area. This is an important factor to know as most paper is bought and sold in accordance with its mass per unit area.

**Applications:**

- Paper
- Solid fibreboard
- Paperboard

**Features:**

- Sample support tray
- Bench mounting

**Standards:**

- AS/NZS 1301.405s
- SCAN P6:75
- TAPPI T410om
- CPPA D3



Model: C0043

## Pneumatic Sample Cutter

**Model: C0043**

The Pneumatic Sample Cutter is a fast and easy to operate mechanism used for sample preparation. The device is intended for preparation of various sized test pieces with uniform edges. It is pneumatic, for easy operation, and repetitious sample cutting

**Applications:**

- Paper
- Cartonboard

**Features:**

- Front paper load for easy operation
- One or more sheets can be cut simultaneously
- Punch and die made from tempered alloy steel
- Safety guard
- Grammage range: 35 to 1,000gsm
- Thickness: up to 4mm thick



Model: C0046

## Quick Cut

**Model: C0046**

The Quick Cut is an easy to operate apparatus used for cutting corrugated cardboard for sample preparation. The base is supplied with engraved cutting guides for quick and easy cutting of cardboard

**Applications:**

- Corrugated cardboard

**Features:**

- Engraved cutting guides
- Thickness: Up to 10mm
- 5 spare blades

## Cutter, Pneumatic Sample Press

### Model: C0050

The IDM Cutting Press Pneumatic is fast and easy to operate, used for sample preparation of various different sized test pieces. Tool Steel and Ruler Dies of standard and custom sizes can be used and interchanged with ease, allowing a large range of dies to be used with the Cutting Press. The IDM Cutting Press Pneumatic is one of the easiest and versatile cutting presses to operate on today's market. It is compact in size and fits onto a work table to conserve work space.

### Applications:

- Paper
- Polyurethane
- Foil
- Rubber
- Cartonboard
- Plastics
- Textiles
- and many other materials

### Features:

- Cutting Area: 300mm x 300mm
- 60mm Opening
- 95mm clearance from press plate to cutting board
- Front load for easy operation
- One or more sheets can be cut simultaneously
- Replaceable Cutting Boards



Model: C0050

## Sample Cutting Press – 10 Tonne Hydraulic

### Model: S0003

This hydraulic Sample Cutting Press is used for sample preparation for cutting of rubber, plastic and cartonboard. It has been manufactured with two spring-return safety switches, which need to be pushed and held to activate the cutting action. Tool Steel or Ruler Type Cutting Dies can be used with the Cutting Press for fast and repetitious cutting.

### Applications:

- Rubber
- Cartonboard
- Plastic

### Features:

- Electric – hydraulic pump
- Cutting base: 300mm x 300mm
- Cutting stroke: 125mm
- Throat: 125mm



Model: S0003





Model: A0002D

## Air Permeability Tester Digital

**Model: A0002D**

The Digital Air Permeability Tester is an instrument for monitoring the permeability performance of textile fabrics, including those such as woven, non-woven airbag fabric, blankets, napped fabrics, knitted or layered fabrics and pile fabrics. Air is drawn through a specified area of fabric, which is adjustable to suit specific textiles being evaluated. The Digital Air Permeability Tester is easy to use and readings are obtained automatically from the air flow rate panel meter, when the pressure is set.

**Applications:**

- Textile fabrics
- Blankets
- Knitted or layered fabrics
- Non-woven airbag fabric
- Napped fabrics
- Pile fabrics

**Features:**

- Digital flow range: 0 – 500 ft<sup>3</sup>/ min/ft<sup>2</sup> ± 1%
- Digital manometer: 0 – 300 Pa ± 1%
- Variable flow range
- Test head area: 38cm<sup>2</sup>
- Toggle clamps to clamp down sample

**Standards:**

- ASTM D737



Model: C0010

## Colour Fastness Tester

**Model: C0010**

The Colour Fastness Tester is one of a series for determining the colour fastness of textiles to various agencies. It determines the colourfastness of textiles to light using an artificial light source.

**Applications:**

- Fabrics
- NOT polychromatic coloured textiles
- Fibres
- Yarn

**Features:**

- 500 Watt lamp
- Black panel thermometer
- Countdown Timer
- 12 Sample holders
- Hour Timer

**Standards:**

- AS 2001.4.21



Model: C0019

## Crockmeter

**Model: C0019**

The Crockmeter determines colour fastness from dry or wet tests. A test specimen is clamped to the base plate, where a 16mm peg is moved back and forth over the test specimen.

**Applications:**

- Textiles
- Carpets

**Features:**

- Easy manual operation

**Standards:**

- BS 1006
- AS / NZ 2111.19.1
- AS 2001.4.3
- AATCC – Test method 8–1972

## Drying Cabinet

**Model: D0012**

The Drying Cabinet is used for the rapid drying of textile samples. The Drying Cabinet can be operated at different temperatures, ranging from Normal, Medium or Air Fluff temperature.

**Applications:**

- Textiles

**Features:**

- Racks equivalent to 16m
- Dehumidification capacity: 14 g/min
- Racks inside door
- Airing capacity: 180 m<sup>3</sup>/h



Model: D0012

## Extensiometer for Fabric

**Model: E0004**

The Extensiometer for Fabric stretches a specimen by applying a specified load; thus the extension is observed and the tension removed. The length of the unstretched specimen is observed after recovery.

**Applications:**

- Woven Fabric
- Knitted Fabric

**Features:**

- Cutting templates
- Adjustable clamps

**Standards:**

- BS 4952



Model: E0004

## Fabric Vertical Burn Tester

**Model: F0007**

The Fabric Vertical Burn Tester measures the flame spread properties of vertically oriented textile fabrics intended for apparel, curtains and draperies in the form of a single or multi component fabrics. A textile is held vertically in a frame. A small flame is used to ignite the specimen and the time is measured for the flame to spread up the specimen.

**Applications:**

- Coated textiles
- Multi layered textiles
- Quilted textiles
- Sandwiched textiles

**Features:**

- Adjustable flame
- Easy fixing mechanisms

**Standards:**

- ISO 6941
- AS 2755.2
- ISO 15025
- ISO 10047
- AS 2755.3



Model: F0007



Model: G0005

## Gelbo Flex Tester with Particle Counter

### Model: G0005

The Gelbo Flex Tester with Particle Counter is used to ascertain the amount of loose fibres (lint) to shed from non-woven materials in a 30 second time period of flexing. While the sample is being subjected to repetitive twisting and compression cycles on the Gelbo Flex Tester, air is withdrawn from the testing chamber and the particles in the air stream are counted and classified on the particle counter.

### Applications:

- Non-wovens
- Textiles
- Wovens

### Features:

- Flexing chamber and air collector
- Gelbo Flex Tester
- Sample Mounting Fixture
- Particle Counter
- Stainless steel cutting template: 280mm x 200mm

### Standards:

- ISO 9073-10
- DIN EN 13795-2
- INDA IST 160.1
- YY/T 0506.4



Model: H0002

## Horizontal Flame Chamber

### Model: H0002

The Horizontal Flame Chamber determines the comparative burn rate and burn resistance of textiles, plastics and other automotive interior materials. It features a stainless steel construction, large glass-viewing window, door-mounted burner and lift-off top cover.

### Applications:

- Interior materials for automobiles

### Features:

- Heat resistant glass
- Electric gas shut off valve
- Digital Counters
- Scale for flame height
- U-Frame Sample Holder

### Standards:

- ASTM D5132
- JIS D1201
- GM9070P
- MVSS 302
- SAE J369
- ISO 3795
- GMW 3232



Model: H0003

## Hydrostatic Head Tester

### Model: H0003

The Hydrostatic Head Tester is used to determine the resistance of textile fabrics to penetration by water at a constant rate of increase of pressure. The hydrostatic pressure supported by a fabric is a measure of the resistance to the passage of water through the fabric.

### Applications:

- All fabrics which are water repellent or coated to impart resistance to water penetration.

### Features:

- Stainless Steel test head 100 cm.
- High and low Analogue Pressure gauge
- Water explosion container cover
- Overflow tray

### Standards:

- BS 3424 part 26
- AS 2001.2.17

## Martindale Abrasion Tester

**Model: M0008**

The Martindale Abrasion Tester was developed primarily to assess the abrasion resistance of woven worsted wool fabrics. It was designed to give a controlled amount of multi-directional abrasion, between the fabric surface and a crossbred wool abrasant fabric, at comparatively low pressure until thread breakdown, or unacceptable change in colour or appearance occurs. It is not applicable to fabrics having a long pile or surface coating.

**Applications:**

- Flat woven fabrics
- Some knitted fabrics

**Features:**

- Pre-setting stop switch
- Bench top operation
- 4x Weights: 795g
- 2 outer wheels: 47.5rpm
- Stabilising weight: 2kg
- 4x Weights: 595g
- 4x Sample Holders
- 1 inner wheel: 44.5rpm

**Standards:**

- AS 2001.2.25
- ISO 12947



Model: M0008

## Pilling Box Tester

**Model: P0002**

The Pilling Box Tester determines the resistance to the formation of pills and other related surface changes on textile fabrics using the random tumble pilling tester. The procedure is generally applicable to all types of woven and knitted apparel fabrics.

**Applications:**

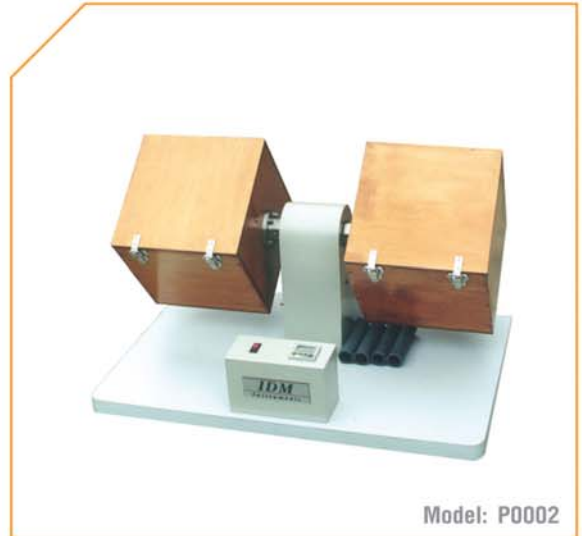
- Apparel fabrics

**Features:**

- Cork liners
- Specimen tubes
- 60rpm  $\pm$  1
- Reversible motor

**Standards:**

- BS 5811.1986



Model: P0002

## Stiffness of Cloth Tester

**Model: S0013**

The Stiffness of Cloth Tester is used to determine the bending length of a cloth by means of a fixed angle flexometer and for calculating its flexural rigidity and bending modulus. These quantities are related to the stiffness of cloth.

**Applications:**

- All types of cloth except for those that twirl or twist excessively when cut into strips.

**Features:**

- Sliding scale
- Bench top operation
- Specimen viewing mirror
- Adjustable levelling feet
- Bullseye level

**Standards:**

- AS 2001.29
- ERT 50-3
- BS EN 22313
- GOST 6943.11
- ASTM D1388
- BS 3356/9073-7
- MS 496



Model: S0013



Model: S0014

## Seam Fatigue Tester

### Model: S0014

This Seam Fatigue Tester was designed to test the strength of a sewn seam in a fabric. It operates by lifting a 3kg weight using the sewn fabric as a 'tow rope'. The 3kg mass is dropped onto a shelf at the end of each stroke and lifted again by the fabric. The shelf height is adjustable so that the mass can be set down gently without too much jerk. The machine is double-ended and two sets of specimens can be tested at each end.

### Applications:

- Textiles

### Features:

- Cycle Speed: 30 per/min
- Pre-determined counter: 4 digits
- Dropping mass: 4 x 3 kg
- Double ended, with 4 specimen
- Adjustable shelf height testing capabilities
- Limit Switch (stops machine if cover is opened)
- Safety cover over moving parts
- Stroke: 150mm
- Jaws: 4 x sets 50mm wide
- Sample length: 180mm

### Standards:

- GMW 3405



Model: S0015

## Stiffness of Cloth Tester – Motorised

### Model: S0015

The Stiffness of Cloth Tester Motorised is used to measure the stiffness of non woven fabrics, by means of cantilever bending of the fabric under its own weight; thus calculating the bending length and flexural rigidity.

### Applications:

- The Stiffness of Cloth Tester Motorised can be used for testing most non woven fabrics that are treated or untreated, as well as heavily sized, coated or resin treated.

### Features:

- Motorised specimen feeding unit 120 mm/min  $\pm$  10%
- Indicator inclined at an angle of 41.5°
- Moving slide weighing 270g  $\pm$  5g
- Bullseye level
- Adjustable levelling screws

### Standards:

- ASTM D5732-95 (2001)

## Also Available:



## Circular Hand Cutter

Model: C0038 Page 52



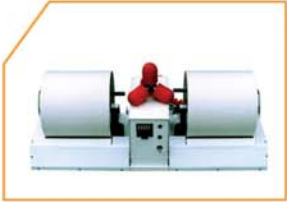
## Dry Bath Aging Block

Model: D0001 Page 47



## Universal Testing Machine

**Model: F0025** Page 08



## Tetrapod Abrasion Tester

**Model: T0004** Page 04



## Thickness Gauge for Soft Underlay

**Model: T0014** Page 62



## Thickness Gauge for High Loft Products

**Model: T0022** Page 63



## Xenon Test Chamber

**Model: T0022** Page 46



Model: D0011

## Digital Micrometer

### Model: D0011

The Digital Micrometer is used to measure the thickness of various sheeted material. It automatically cycles up and down at the push of a button, providing an accurate and repeatable thickness reading at the end of each cycle. The standard instrument comes with a measuring pressure of 2kPa, with the option of a 20kPa, 50kPa or 100kPa instrument dependent on your application and requirements.

### Applications:

- Paper
- Plastic
- Tissue

### Features:

- Pressure: 2kPa
- Anvil: 55mm  $\varnothing$
- Pressure Foot: 35.7mm  $\varnothing$
- Lowering Speed:  $1 \pm 0.1$ mm/ sec
- Range: 0 -12mm +
- RS232
- Accuracy: 0.001

### Standards:

- AS1301.426s
- BS 7387
- ISO 534: 1988
- ASTM D645
- TAPPI T 411



Model: T0008

## Thickness Gauge – Leather Dial

### Model: T0008

The Thickness Gauge – Leather Dial measures the thickness of materials used in the manufacture of footwear. The specifications ask for a gauge with a flat pressure foot of 10mm diameter and a load of 1N. The Thickness Gauge is also available with a digital indicator.

### Applications:

- Footwear

### Features:

- 1N Load
- Flat pressure foot – 10mm diameter

### Standards:

- AS/NZS 2210.2



Model: T0013

## Thickness Gauge Digital Indicator with Stand

### Model: T0013

The Thickness Gauge Digital Indicator with Stand can be used on many different materials where an accurate measurement of thickness is required. The unit is also capable of providing statistical results. Different options can be fitted to the Thickness Gauge to suit custom requirements including mm/inch gauge readout and special foot sizes.

### Applications:

- Plastic film
- Laminates
- Paper

### Features:

- Range:  $12 \times 0.001$  mm
- Thumb trigger
- Foot: 5 mm
- Lever

### Standards:

- ASTM D3767

## Thickness Gauge for Soft Underlay

**Model: T0014**

The Thickness Gauge is used for measuring the thickness of underlays, using a standard mass applied to the Pressure Foot according to the table in the Standard AS 4288 to determine the thickness.

**Applications:**

- Carpet Underlay

**Features:**

- Range: 30 x .01mm
- Weights for Pressures: 2 kPa, 5 kPa, 10 kPa, 20 kPa, 50 kPa and 100 kPa
- Pressure Foot:  $\varnothing$  35mm
- Base: 200 x 200mm

**Standards:**

- AS 4288



Model: T0014

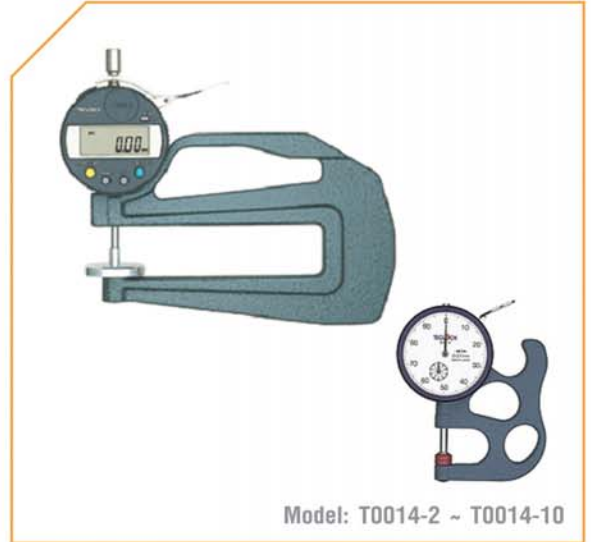
## Handheld Thickness Gauges

**Model: T0014-2 ~ T0014-10**

The Handheld Thickness Gauges can be used on many different materials where an accurate measurement of thickness is required. Different models are available depending on weight and contact point required, as well as deep throat gauges. They can be used on various different materials, with reference to different test standards, depending on specific applications.

**Applications:**

- Urethane foam
- Nonwoven fabric interlining
- Knit goods
- Ethylene film
- Shrink packing film
- Vulcanised rubber
- Laminated fabric interlining
- Polyvinyl chloride film
- Polyethylene film



Model: T0014-2 ~ T0014-10

## Deep Throat Gauge

**Model: T0021**

IDM supply a variety of thickness measuring devices for various applications, one of which being the Deep Throat Gauge. The Deep Throat Gauge has been specifically designed for measuring the thickness at a greater distance from the samples edge.

**Applications:**

- Plastics
- Rubber
- Textiles

**Specifications:**

- Depth: 450mm
- Read to: 0.01mm
- Open to: 12mm



Model: T0021





Model: T0022

## Thickness Gauge for High Loft Products

**Model: T0022**

The Thickness Gauge for High Loft Products measures the thickness of high loft nonwoven material, by means of a digital readout. Thickness is determined by observing the linear distance that a moveable plane is displaced from a parallel surface by the specimen while under a specified pressure. Thickness is one of the basic physical properties of Highloft Nonwoven fabrics. In certain industrial applications, the thickness may require rigid control within specified limits.

**Applications:**

- Highloft nonwoven fabric
- Textiles

**Features:**

- Accuracy: 0.1mm
- Platform Scale: 2,000 x 1g
- Presser foot: 300mm x 300mm
- Vertical Height Adjustment
- Base Support Frame: 400mm x 400mm
- Range: 200mm x 0.01
- Mass: 288g
- Sample Size: 300mm x 300mm
- Digital Load Indicator

**Standards:**

- ASTM D5736-95 (2001)



## Ultrasonic Thickness Gauge

The easy to use, dual-purpose Ultrasonic Thickness Gauge measures both wall thickness and sound velocities. Using advanced technology, and incorporating a modern design, the hand-held unit is operated via a user-friendly text menu. The measuring range of the Ultrasonic Thickness Gauge is from 0.7 to 400mm wall thickness, depending on the probe used. For sound velocity, all materials between 100 and 20 000 m/s can be inspected.



Model: SPM-AIR PERM

## Digital Air Permeability Tester for Plastics

**Model: SPM-AIR PERM**

The Digital Air Permeability Tester determines the air leakage of plastic films. It is manufactured to enable samples to be inserted at the front, with a sample opening of 5mm as well as a 45 lead in on sample opening. It features two safety activation switches for clamping, so that operators are using both hands, to ensure optimum safety.

**Applications:**

- Plastics

**Features:**

- Sample opening: 5mm
- Low pressure air supply gauge
- Digital display – flow meter
- 2 X Safety activation buttons
- Test area: 250mm x 120mm
- Air flow meter – Flow Range: 0-50 LPM for Air @ 1 atmospheric, 20 deg C (sensed before sample)

## Compression Tester – 3 Point Bend

**Model: C0047**

The Compression Tester 3 Point Bend measures the bending and shear strength of large anode cores, using a 3-point bend test fixture fixed into the instrument. It allows samples of up to 600mm long and by 50mm in diameter to be tested for flexure, with a capacity of 10 tonnes.

**Applications:**

- Anode Cores

**Features:**

- 3-Point bend fixture
- 10 Tonne force capacity
- Sample Support Cradle
- Front & Side door interlocked for safety
- Digital readout with peak hold function
- Limit Switches
- Hydraulic Ram
- RS232 output



Model: C0047

## Explosion Relief Valve Tester - Large

**Model: SPM-EVL**

The Large Explosion Relief Valve Assembly and Test Rig has been specially designed to assemble and also pressure test the Large Explosion Relief Valves.

**Applications:**

- Explosion Relief Valves

**Features:**

- Jib Crane – 2 arms (Clamping & Lifting)
- Explosion Relief Valve Testing Software Program
- PC with 19" LCD Monitor
- Pneumatic clamping system
- Dual Testing Range: different flow rates
- Pressure Transducer: precision  $\pm 0.05\%$
- Maximum data sampling rate: 12000 samples/sec
- Engraver – Technifor CN101



Model: SPM-EVL

## Explosion Relief Valve Tester - Small

**Model: SPM-EVS**

The Small Explosion Relief Valve Assembly and Test Rig has been specially designed to assemble and also pressure test the Small Explosion Relief Valves.

**Applications:**

- Explosion Relief Valves

**Features:**

- EV Valve Testing Software Program
- PC with 19" LCD Monitor
- Pneumatic clamping system
- Dual Testing Range: different flow rates
- Pressure Transducer: precision  $\pm 0.05\%$
- Maximum data sampling rate: 12000 samples/sec
- Engraver – Technifor CN101



Model: SPM-EVS



## Mattress Demonstration Machine

**Model: SPM – Mattress Demo**

The Mattress Demonstration Machine was specially designed and manufactured for a Latex mattress manufacturer to display how a mattress would support body weight. It is designed to be used at a mattress manufacturer or mattress retailer' shop front display.

**Applications:**

- Mattresses

**Features:**

- Safety Enclosure
- Digital Cycle Counter
- Digital Load readout: max.120kg
- Variable Speed selection
- Lighting inside machine

Model: SPM – Mattress Demo



## Car Window Seal Friction Tester

**Model: CWSF**

The Car window Seal Friction tester is used for fast, accurate and reliable evaluation of the static and kinetic coefficient of friction of materials when sliding over substances under specified test conditions. Different fixtures may also be attached, allowing for the testing and comparing of a variety of shapes for slip resistance.

**Applications:**

- Car Window Seals

**Features:**

- Variable speed
- Interchangeable fixture capability
- RS 232 out put

Model: CWSF



## XYZ Gloss Meter Holder

**Model: SPM-XYZ**

The XYZ Gloss Meter Holder was specially designed and manufactured as an aid to hold the hand held Gloss Meter to be used for testing purposes, allowing precise measurements to be taken in X, Y and Z positions. The instrument can be operated via a control cabinet, enabling all movement of the Gloss Meter, or alternatively, using a specially designed PC program to initiate the testing sequence.

**Applications:**

- Colour

**Features:**

- PC or Control Box operation
- Gloss Meter mounting Bracket
- Aluminium profile frame
- Servo motor
- Limit switches

Model: SPM-XYZ

## PEKI Cutting Machine

### Model: PEKI

The PEKI Cutting Machine was specially designed for a local company to enable the customer to easily and precisely cut sheets of insulation for the manufacture of fridge trailers from 40m x 3m in size, down to the required size using computer control.

### Features:

- Large cutting area
- Cutting in X, Y and Z positions
- Variable operating speeds
- Touch Panel control



Model: PEKI

## Force Sensitive Press

### Model: MRLF

The Force Sensitive Press is used for assessing the dispersion rate of various different resins and glues. It is operated via a specially designed computer software program to control all operation. The 10 Tonne Force Sensitive Press is manufactured with 3 precision load cells to accurately work across a large load range.

The computer program offers programmable temperature ramps, programmable load applied as well as programmable increase and decrease of temperature. The press can also be used as a high-tech compression tester.

### Features:

- 10 Tonne capacity
- Platens: 300mm x 300mm
- Heated Platens: up to 300 °C ± 1 °C
- 3 Precision Load Cells
- Computer controlled



Model: MRLF

## Digital Air Permeability Tester for Plastics

### Model: SPM-AIR PERM

The Digital Air Permeability Tester determines the air leakage of plastic films. It is manufactured to enable samples to be inserted at the front, with a sample opening of 5mm as well as a 45 lead in on sample opening. It features two safety activation switches for clamping, so that operators are using both hands, to ensure optimum safety.

### Applications:

- Plastics

### Features:

- Sample opening: 5mm
- Low pressure air supply gauge
- Digital display – flow meter
- 2 X Safety activation buttons
- Test area: 250mm x 120mm
- Air flow meter – Flow Range: 0–50 LPM for Air @ 1 atmospheric, 20 deg C (sensed before sample)



Model: SPM-AIR PERM

# UNIVERSAL TESTING MACHINE

The IDM Universal Testing Machine is used to test the tensile and compressive properties of materials. The Universal Testing machine can perform all the tests like compression, bending, tension, adhesion, peel, friction etc to examine material in all mechanical properties. The IDM machines generally have two columns but single column types are also available.

Load cells and extensometers measure the key parameters of force and deformation as the sample is tested. The IDM machines are widely used and can be found in many materials testing laboratory.

A typical testing system consists of a Universal Testing Machine, control and analysis software, the test fixtures, accessories, parts and devices used to hold and support the test specimen.

IDM offer two types of load frames; electromechanical and servo-hydraulic, offering excellent accuracy and ease of use. The machines are strong and durable. IDM can also manufacture Universal Machines to accommodate a wider testing space, while leaving no restrictions on the sample length that can be tested.

The Universal Testing Machine offers a variety of software features that allows programming of parameters of the test, 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. 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, as a fully automated process. The test scripts as well as the operating parameters are entered in the Configuration Panel to run a test as per International standard requirements or customer requirements. 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 Universal Testing Machine 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.

## Applications:

- Polyurethane
  - Rubber
  - Urethane
  - Wire
  - Paper
  - Textiles
  - Springs
  - Slings
  - Plastics
  - Packaging
  - Rope
  - Composites
- and many other materials

## Features:

- Full digital display and computer control
- Memory function-Test data may be displayed, stored in memory for future reference or printed for reports, certification and presentations.
- Simple operation-Test parameters are easily set through
- High quality load cell-The load cells used in all IDM models offer one-touch zero adjustment and load cell capacity discrimination guarantees accuracy, and speeds the setup process. This is particularly important when multiple tests are being performed.
- Easy to control and friendly, interface
- Manual or Automatic control of testing

## Specifications:

- Loading System- Closed-loop micro-computer controlled digital servo drive
- Crosshead Speed (mm/min) - 0.05 to 800 mm/min
- Speed Accuracy better than + 0.2%
- Crosshead Return Speed (mm/min) 800mm/min
- Tensile Load Measurement Accuracy  $\pm 0.5\%$  of indicated value or  $\pm 0.1\%$  of full scale
- Load Calibration auto-zeroing, load cell discrimination
- Safety Function for Over-loading provided
- Sample Break Detection provided
- Stroke Limiter upper/lower - 2 points

## Standards:

- ASTM D3574 - Test B
- ASTM D3574 - Test E
- AS 2281
- ASTM F1566
- ISO 2439
- ISO 8067
- ASTM D3574 - Test C
- ASTM D3574 - Test F
- AS 2282-8
- ISO 3386
- ISO 1798

## Capacities Available:

- 1kN
- 10kN
- 50kN
- 200kN
- 600kN
- 5kN
- 20kN
- 100kN
- 500kN



## Tensile Testing Machine—200 Tonne

**Model: T0015**

The 200 Tonne Tensile Machine has been specially developed for tensile testing of long materials. It is designed to ascertain the tensile strength of such materials to a load capable of 200 Tonne. The software used is the Universal Tester program developed by IDM Instruments Pty Ltd.®

Several different test categories can be performed on the 200 Tonne Testing Machine including tensile, adhesion, pull-out, creep, hysteresis, and cycle tests with momentary stops. With a 200 Tonne capacity, the machine extends to a total length of 30 meters, with a chain insertion length of 25 meters.

### Applications:

- Rope
- Links
- Slings
- Webbing
- Nylon rope
- Steel rope
- Steel chain
- Electrical wire
- Cable

### Features:

- **Tensile:** The tensile load is produced by a hydraulic cylinder with a stroke of 2000mm horizontally and a variable speed of 0–150 mm/min.
- **Construction:** The construction of the tensile machine frame is broken down into 6 easily connectable steel sections, one of which contains the 400mm round hydraulic cylinder. The power pack, hydraulic controls and computer hardware are in stand alone cabinets, connected to the main frame by hoses and cables. The assembled unit guarantees to withstand many years of use.
- **Crosshead Assembly:** The crosshead rolling assembly is a solid rolling construction, which is connected to the cylinder rod via a screw on coupling. Positioned at the opposite end of the frame to the crosshead is the anchor box, which can be positioned at any point along the machine to accommodate the test sample.
- **Control Unit:** The tensile machine is controlled by a computer which is runs the IDM Tensile Testing Program. A simple selection of the available function and control values by the operator allows the 200 Tonne Chain Testing Program to run and display a test on screen to the operators? requirement within the limits of the program.



Model: T0015

## Servo Hydraulic Universal Testing Machines

The computer controlled servo hydraulic universal testing machines are used to execute tension, compression, bending, shearing and other tests. This type of machine is used for higher capacity testing of manufactured components. Similar to a Universal Testing Machine, a broad range of mechanical testing is possible.

The machines are available with accessories and devices that can be used to test wood, concrete, cement, rubber, metals, and other materials.

This machine adopts a servo hydraulic measuring and control system. The load is measured by a pressure transducer or load cell. The software allows display of the load, deformation, and testing curves. Various control modes can be applied, such as uniform speed testing load, uniform speed deformation, uniform speed displacement, load holding, displacement holding etc. The data acquisition software is used in to record and output graphs and data reports.

### Applications:

- Rope
- Links
- Slings
- Webbing
- Nylon rope
- Concrete and many other materials
- Steel rope
- Steel wire
- Slings
- Cable
- Chain

### Capacities Available:

- 100kN
  - 500kN
  - 1000kN
  - 300kN
  - 600kN
  - 2000kN
- Other capacities available upon request





## Force Gauges

IDM offers a range of force gauges for a number of tension and compression testing applications. All gauges have the ability to capture the peak force in both directions, as well as selectable units of measurement. The force gauges can be used on their own, or coupled with a test stand and gripping fixtures to create a complete testing solution. Different types of force gauges are available including: BE, EG, MG and CG, with various capacities available including: 50 x 0.05 gF, 100 x 0.1 gF, 250 x 0.2 gF, 1 x 0.001 kgF, 2.5 x 0.002 kgF, 5 x 0.005 kgF, 10 x 0.01 kgF, 25 x 0.02 kgF, 50 x 0.05 kgF, 100 x 0.1 kgF, 250 x 0.2 kgF, or 500.0 x 0.2 kgF.



## Torque Gauges

IDM offers a range of torque gauges and torque testers that are accurate and feature-rich torque measurement products ideal for a wide range of torque applications. All torque gauges and torque testers capture the peak torque in both directions (CW and CCW) and have selectable units of torque measurement. Units may be handheld or used with a test stand and gripping fixtures to create a complete torque testing solution.



## Force / Torque Gauge

IDM Instruments Pty Ltd® offer a combined Force / Torque Gauge that is designed for working in conjunction with a variety of interchangeable remote force and torque sensors. The sensors do not require calibration or setup, as the unit automatically recognises any sensor. All configuration and calibration data is saved in the sensor's connector, a simple plug and play. Sensors include force, torque, wrench, closure, "S" beam and miniature button.



## Cap Torque Testers

Series CTA Cap Torque Testers present a simple, accurate, and economical solution for manual cap torque testing. These cap torque testers are ideal for lab or production use for closure manufacturers, bottlers, food and beverage companies, and others, capturing peak readings for application and removal torques.



## Manual Test Stands

Test stands are useful in eliminating variability inherent in hand testing and can help to automate test processes. A wide range of capacities, loading methods, and configurations are available. A test stand is an integral part of a testing system, typically also comprising a force gauge or torque gauge, grips, software, and accessories. Made of rugged, machined aluminium components, the Manual Test Stands are durable enough for the factory floor, yet precise enough for laboratory environments. Test stands include adjustable travel stops and a frictional low force brake. It is available in both vertical and horizontal orientations.

## Motorised Test Stands

IDM offer a wide and unique range of motorized force measurement and torque measurement test stands. Motorized Test Stands offer a significant advantage over manual test stands by providing constant test speed. Some models can be programmed for advanced test sequences to accommodate demanding applications. The Motorised Test Stands can be equipped with features including integrated travel indication, overload protection, auto return, auto cycle, programmable dwell time, independent up/down speed and a host more programmable parameters. The Motorised Test Stands are also available in both vertical and horizontal orientations.



## Grips

Grips and attachments are integral components of testing systems. IDM Instruments Pty Ltd® have available a wide range of grips and attachments for tension, compression, and torque applications. They mount to force gauges, torque gauges, sensors and test stands.



## 90° Peel Fixture

The 90° Peel Fixture is designed for applications in the packaging, food and beverage industries. It is used alongside a test stand to measure peel properties. A large, flat working table with mounting holes accommodates a range of sample sizes. As the test stand crosshead moves vertically, the table moves horizontally, maintaining a 90° angle between the table and the direction of pull. A unique limit switch option is available for motorised test stands to prevent cable breakage due to excessive movement.



## Custom Fixtures

IDM Instruments Pty Ltd® manufacturers customised fixtures to allow you to produce consistent, repeatable test regimes. These can vary from a simple spring compression plate to a two axis box peel opening fixture. Our products are designed to be as flexible as possible to suit a wide range of applications and configurations.



## Ergonomics Testing Kit

The Ergonomics Test Kits make job task analysis and ergonomic testing analysis simple and accurate, ideal for workplace design, physical therapy, and ergonomic studies. Two kit series are available, each of which is available in capacities of 200 lb and 500 lb.







## Adventurer Lab Balance

The Adventurer Lab Balance is one of the most versatile balances available with full analytical and precision models available. They are simple to use, and have the ability to count, sum, hold and deliver traceable results.



## Moisture Balances

The MB Series Moisture Balance offer superior performance and great value, with basic as well as advanced models available. It features fast halogen element which provides uniform infrared heating and durability.



## Portable Electronic Balances

The Portable Electronic Balances are designed to be used in laboratory, industrial or education applications. Featuring easy-to-use two-button operation, a high-contrast LCD display, multiple weighing units, four application modes, and the option of either RS232 or USB connectivity.

## pH Meters

The pH Meters are an advanced microprocessor based bench pH Meter ideally used in the laboratory for quality control. The units perform pH and temperature measurements, as well as memorised buffers for calibration and the automatic recognition system eliminates calibration error.



## Digital Thermometers

IDM Instruments Pty Ltd® supply Digital Thermometers that use a K-type probe together with an advanced microprocessor to enable temperature measurements. The compact and rugged instrument features an LCD read out, which gives highest and lowest temperatures measured in the cycle while also displaying the current temperature.



## Temperature & Humidity Cabinets

IDM Instruments Pty Ltd® supply a range of Temperature and Humidity Cabinets for use across a number of industries. They provide full control of both temperature and humidity independently, in conditions above the prevailing ambient. Different capacities are available dependent on application.





IDM Instruments Pty Ltd® now offers comprehensive, independent in-house testing services for various industries.

Our team of expert technicians equipped with our state-of-the-art testing instruments ensures reliable, accurate and prompt testing.

We are committed to quality, and deliver a high standard of excellence throughout the company.

We work to various national and internationally recognised standards including AS, ASTM, BS, ISO, EN, DIN, JIS, TAPPI as well as customer requested test methods.

Take advantage of the IDM independent in-house testing service, and save your company time, money and personnel, whilst reaping the benefits with timely reports, client confidentiality and most importantly a measurable difference.

Our field of independent testing services include:



## PAPER

- Coefficient of Friction
- Tear testing
- Cobb Moisture testing
- Paper Brightness
- Thickness
- Grammage



## FOAM

- IFD / Compression
- Hardness testing
- Porosity
- Resilience
- Thickness



## MATTRESS

- Cornell
- IFD / Compression
- Hardness testing
- Spring Compression



## PACKAGING/ PLASTIC FILM

- Coefficient of Friction testing
- Tensile testing
- Peel testing
- Crease and Stiffness
- Gelbo Flex testing
- Ink Rub testing
- Hot Tack
- Flexseal
- Falling Dart Impact testing
- Heat seal
- Grammage

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