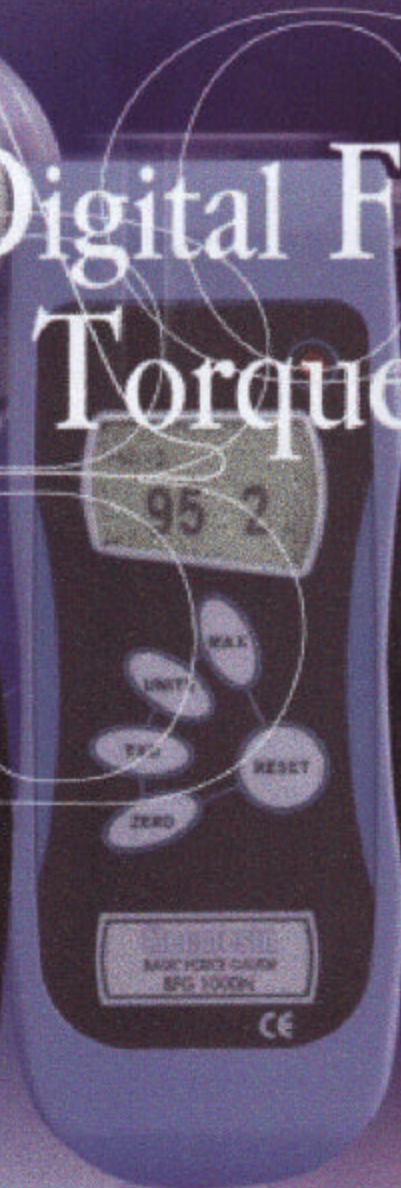
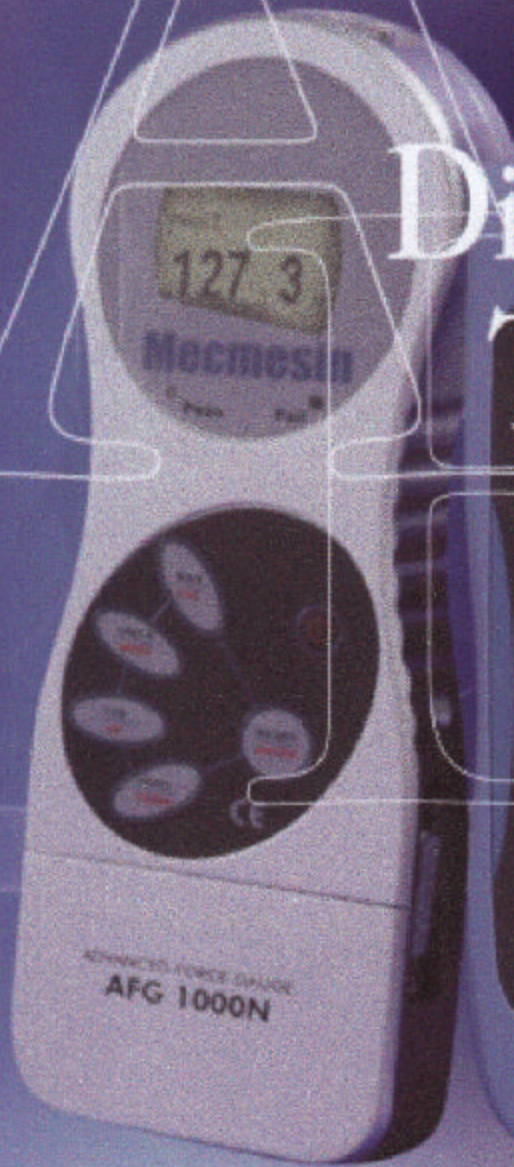


Mecmesin

Digital Force and Torque Gauges



Market Sectors

Pharmaceuticals
Military/Defence
Electronics
Medical
Packaging
Toy & Nursery Products
Cosmetics
Food Processing
Rubber & Plastics
Ergonomics/Occupational Therapy
General Engineering
Metal Fabrications
Automotive
Aviation
Aerospace/Defence
Telecommunications
Textile
Domestic Appliances

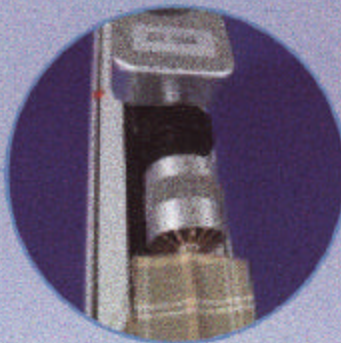
Typical Applications

Tension & Compression Testing
Spring Testing
Packaging - Crush & Peel Testing
Adhesive Bonds
Connector Insertion & Withdrawal
Crimp Joint Testing
Operation Forces of Pedals & Levers
Medical Devices
Closure Torque Testing
Torque Wrench Calibration
Steering Wheel Torque
Release Torque of Screws/Fasteners
Resistance Torque of Machinery Rollers
Shear Torque on Rivets

Mecmesin reserves the right to alter equipment specifications without prior notice.



Top load bottle test



Textile test



Peel test

AFG

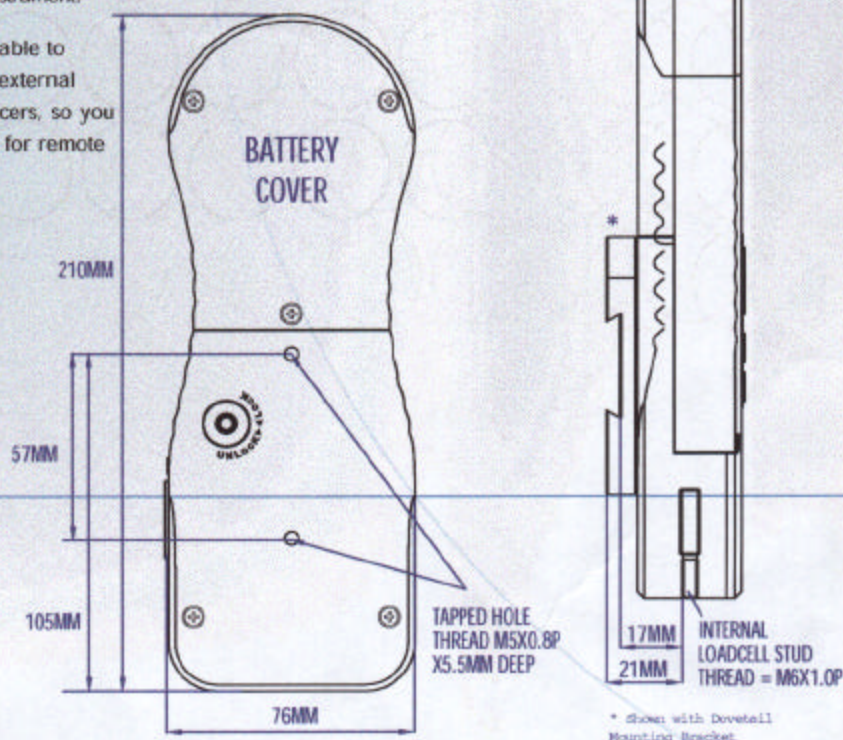
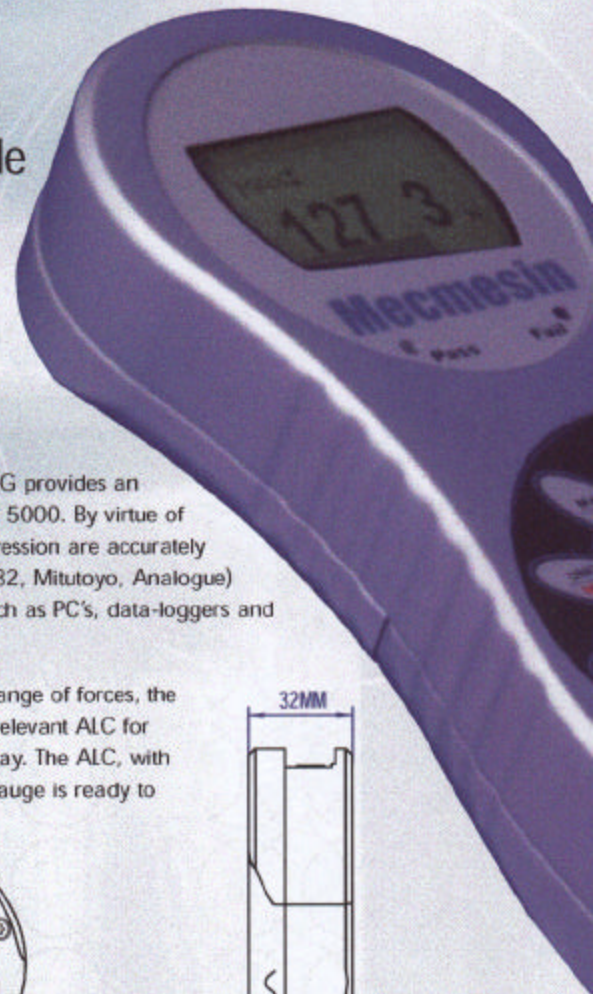
The AFG is the most versatile and fully featured instrument yet offered by Mecmesin. Housed in an ergonomically shaped rugged aluminium case and powered by either mains-adaptor or standard rechargeable AAA batteries. The AFG can be used hand-held or fixed to a manual or motorised test stand to enable testing under controlled conditions.

Comprising 9 different models ranging from 2.5N up to 1000N, the AFG provides an impressive accuracy of $\pm 0.1\%$ of full scale with a resolution of 1 part in 5000. By virtue of its 5000Hz internal sampling rate, peak readings for tension and compression are accurately and repeatably captured. The configurable bi-directional interface (RS232, Mitutoyo, Analogue) ensures full data transfer and communication with peripheral devices such as PC's, data-loggers and Mecmesin test stands.

For applications that require an instrument to measure across a broad range of forces, the AFG features an Advanced Loadcell Cartridge (ALC). Simply select the relevant ALC for your application and use the quick-fit connector to fix to your AFG display. The ALC, with all its calibration and range data, is automatically recognised and the gauge is ready to use – no need to buy a second instrument.

For added flexibility the AFG is able to recognise data from a range of external 'Smart' force and torque transducers, so you can use it as a universal display for remote applications, (see pages 5 to 9).

The dual level design of the keypad ensures that operation of this powerful gauge is kept simple, thereby making it ideal for use from shop floor production to R&D.

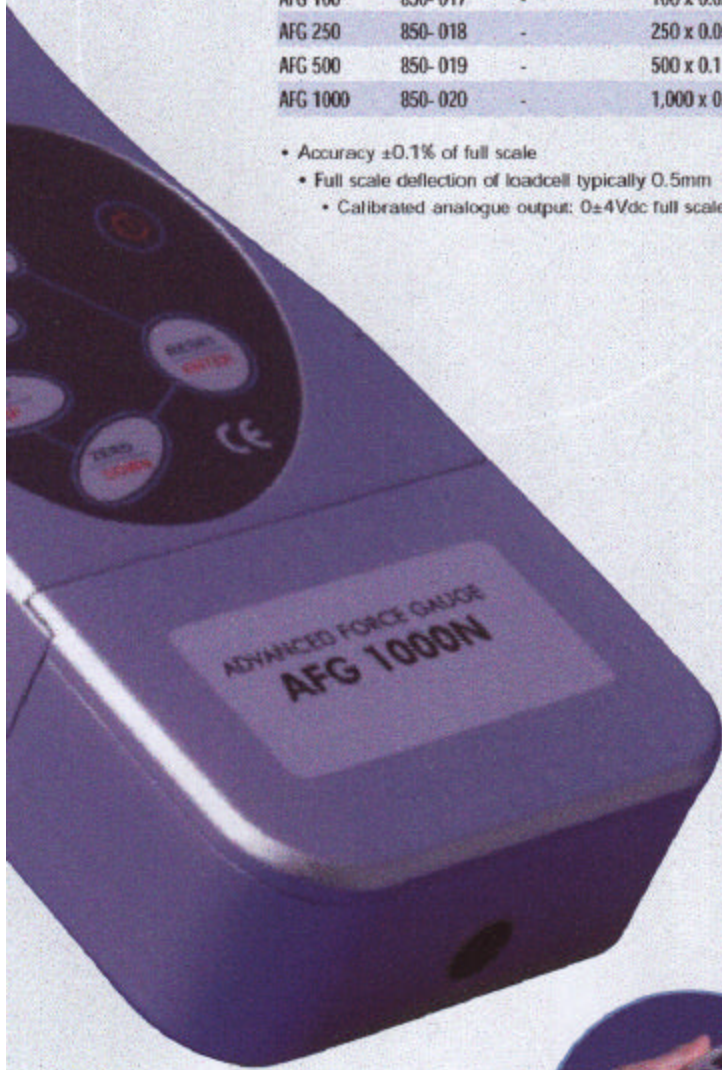


The Advanced Force Gauge

AFG Specification Table

Model	Part No.	mN	N	kN	gf	kgf	ozf	lbf
AFG2.5	850-012	2,500 x 0.5	2.5 x 0.0005	-	250 x 0.05	-	9 x 0.002	0.55 x 0.0001
AFG 5	850-013	5,000 x 1	5 x 0.001	-	500 x 0.1	0.5 x 0.0001	18 x 0.005	1.1 x 0.0002
AFG 10	850-014	10,000 x 2	10 x 0.002	-	1,000 x 0.2	1 x 0.0002	35 x 0.01	2.2 x 0.0005
AFG 25	850-015	25,000 x 5	25 x 0.005	-	2,500 x 0.5	2.5 x 0.0005	90 x 0.02	5.5 x 0.001
AFG 50	850-016	50,000 x 10	50 x 0.01	-	5,000 x 1	5 x 0.001	180 x 0.05	11 x 0.002
AFG 100	850-017	-	100 x 0.02	-	10,000 x 2	10 x 0.002	350 x 0.1	22 x 0.005
AFG 250	850-018	-	250 x 0.05	-	25,000 x 5	25 x 0.005	900 x 0.2	55 x 0.01
AFG 500	850-019	-	500 x 0.1	-	50,000 x 10	50 x 0.01	1,800 x 5	110 x 0.02
AFG 1000	850-020	-	1,000 x 0.2	1 x 0.0002	-	100 x 0.02	3,500 x 1	220 x 0.05

- Accuracy $\pm 0.1\%$ of full scale
- Full scale deflection of loadcell typically 0.5mm
 - Calibrated analogue output: 0 \pm 4Vdc full scale



Key features

- Tension and compression measuring
- Accuracy $\pm 0.1\%$ of full scale
- 1st and ultimate peak capture
- Data output RS232, Mitutoyo, analogue
- Peak data sampling rate 5000 Hz
- Interchangeable 'Advanced Loadcell Cartridge'
- External 'Smart' Force & Torque transducer
- Ability to invert display on gauge
- Test Stand Mountable
- Full unit conversion of displayed value
- Overload warning with trend bar
- On-board memory 100 readings
- Pass/Fail alarms
- External trigger (freeze reading of switch contact)
- Diagnostic check of load cell
- Wide range of grips and fixtures



AFG showing interchangeable loadcell



Crimp Terminal Test, AFG with motorised test stand



The AFG with carry case (see page 13 for accessories included)

Accessories

Each Mecmesin gauge comes with standard accessories to help perform basic tension or compression tests.

Choose from a wide selection of standard grips and fixtures to hold your test samples. Alternatively make use of our experienced team of engineers to provide a customised grip to solve your particular problem.

A collection of accessories exclusive to Mecmesin is available. See our Accessories Catalogue for an extensive range of grips and fixtures, to enable you to complete thousands of different tests.

- A 6mm ϕ 5-16 UNC thread
- B 6mm ϕ M6
- C 3.2mm ϕ M6
- D 12mm ϕ M6
- E 19mm ϕ M6
- F 19mm ϕ 5-16UNC
- G 130mm Long M6
- H 30mm Long 5-16 UNC
- I 30mm Long M6
- J Rotary coupling M6 thread



Model	A	B	C	D	E	F	G	H	I	J
AFG2.5										
AFG5										
AFG10										
AFG25										
AFG50										
AFG100										
AFG250										
AFG500										
AFG1000										
BFG10										
BFG50										
BFG200										
BFG500										
BFG1000										
BFG2500										
CFG50										
CFG200										

Service Repair and Calibration from Mecmesin

Mecmesin, the UK leading supplier of Force and Torque measurement equipment, believes that all customers deserve the highest level of on-going service and support. As we recognise the value of a quick and efficient service we have set up an on-site calibration service to complement our comprehensive existing in-house capability. Our qualified engineer will come to you to carry out the calibration procedure. The service is managed from our head office situated in Slinfold, West Sussex where, whichever the preferred option on or off site calibration, we guarantee a prompt and cost-effective service.

Test Stands

To ensure repeatable testing under controlled conditions, mount your Mecmesin gauge to a motorised or manual test stand.

Software Systems

From a simple mini-printer to full computer-controlled testing systems, Mecmesin can offer you a complete solution. Call our sales department to arrange a demonstration at your facility.



AFG mounted on Ultratest Stand



Imperial computer-controlled testing system