



Bending Resistance Tester

Model 79-56

The 79-56 is a user-friendly microprocessor controlled instrument designed to determine the bending resistance of paper, paperboard, plastic film, medical tubing and wire. Bending stiffness is a characteristic associated with the rigidity of a material. This property is related to the modulus of elasticity of the material's stiffness. The 79-56 was developed to produce a more concise, consistent measurement for the paper industry but is also used in a variety of industries including personal products, paper, films, packaging and non-wovens.

The two-point testing method secures the specimen into a pneumatic clamp and bends the sample up to 90° against a force transducer.

What makes our 79-56 instrument so unique is its versatility and accuracy. Bending forces are measured at selectable bending angles from 5.0 to 90°. The instrument is available with a 100 or 1000 gram precision load cell. The advanced data acquisition system senses forces down to 0.5g. Materials can range from 1 to 50mm in length, up to 2.5mm thick.

HARDWARE FEATURES

- Direct sample to load cell contact for accurate measurement
- Easy selection of test parameters from a comprehensive range through a setup menu
- Motorized test length setting
- Pneumatic clamps with fast release provide consistent clamping pressures for fast, repeatable results
- Large, clear display showing peak value and angle
- Load cells are fitted with overload protection
- Direct data output via RS-232 to printer or optional GraphMaster™ analysis software
- Calculates Taber Stiffness, Youngs Modulus, Gurley Stiffness units
- Can be directly calibrated to traceable national standards

BENEFITS

- Very flexible for performing different types of tests and for different standards
- Pre-certified weights and sample cutter options
- Ability to add special formulas to meet unique bending stiffness requirements
- Competitive advantages for accuracy and usability
- Motorized testing and pneumatic clamping eliminates operator influence

Optional GraphMaster™ Software

MESSMER BÜCHEL		mN		Statistics	
	Peak	Angle	F@Ret		
Ave	: 322.5	10.64	171.1	Show Results	
Max	: 544.6	15.00	544.6	End Tests	
Min	: 191.7	3.41	-222.08		
Stdev	: 193.3	6.30	383.7		
Cvar	: 59.95	59.22	224.3		
Bending_Angle	15.0°				
Test_Length	50 mm				
Delay_Time	0 s				
Bending_Speed	5°/sec		Samples 10		Return
Tests	: 3		Excluded tests	: 0	



The 79-56 can perform five tests: Score Bend, Score Perforation, Break Force, Taber Stiffness, Bending Resistance, and Spring Back.

GRAPHMASTER™ FEATURES

- One click on the Database feature allows the operator to select a favorite format to save critical test information using Microsoft® compatible programs such as Clipboard®, Excel® or other standard file types
- The software automatically captures, graphs and reports force, position and time during a testing sequence.
- A library of calculations is available to report commonly used test results based on international standards
- GraphMaster™ test reports include single and multiple test curves, sample information and statistics
- GraphMaster™ software includes a language database of 8 languages to select; additional languages can be easily added by request

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SPECIFICATIONS

Model	79-56-00 Series
Measuring units	Mn, Nmm, Taber
Ranges	0- 1000 mN or 0-10 mN (Please specify)
Min. force sensitivity	0.5mN with 1000mN load cell
Accuracy	+/- 1%
Specimen Width Bend Angle	Up to 38 mm, 4 mm opening 5.0 – 90.0 degrees (selectable in 0.1 steps)
Accuracy	± 0.1 degree
Speed	5°/second
Bending length	Motorized setting with 7 automatic stops
Bending positions	1mm - 5mm - 10mm - 15mm - 20mm - 25mm and 50mm.
Clamp	Pneumatic operated , 38mm wide with 4mm gap.
Electronic Output	GraphMaster™ compatible RS232 serial data output with 9 pin, printer output and optional analog signal output
Electrical	120 V/60 Hz or 220V/50 Hz
Air connection	6mm OD plastic hose
Dimensions	Length : 490 mm Width : 425 mm Height : 260 mm Weight : ± 20 kg
Tests Performed	Score Bend Score Perforation Break Force Taber Stiffness Bending Resistance Spring Back

OPTIONAL ACCESSORIES

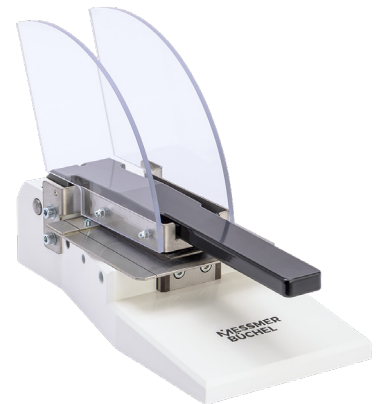
Certified dead weight set to meet ISO requirements
Sample Cutter
Load cell in 1 Newton or 10 Newton (Please specify)
GraphMaster™ software
Analog signal output (use for X-Y recorder)

INCLUDED ACCESSORIES

Clear plastic table for dead weight calibration

STANDARDS

ISO 2493
AS/NZ 1301-4535
BS 3748
DIN 53121
SCAN P29
TAPPI T556
Can be directly calibrated to traceable national standards



Optional Sample Cutter

