ISO 9001:2000

Manufacturer of
Rubber Testing Equipment

Microvision Engineering

We are one of India's leading manufacturer & exporters of rubber testing equipment since 1992.

OUR COMPANY

Rubber Testing Equipment

Who We Are

High-Performance Rubber Testing Equipment Since 1992

Microvision Engineering Pvt. Ltd., established in 1992, is a leading manufacturer of high-precision rubber testing instruments. With decades of expertise, we deliver advanced and reliable solutions designed to meet the highest standards of quality and accuracy.Our wide range of equipment, including Universal Testing Machines, Tensile Testing Machines, Muffle Furnace, Hot Air Oven, Extenso Meter, and DIN Abrasion Tester, is engineered for consistent performance, durability, and precise results.

Message From The C.E.O

Microvision is a knowledge-driven organization built on strong R&D and application development. We believe in not just delivering products, but sharing expertise to help our customers achieve the best performance from their processes.

Our vision is to become a global leader in rubber testing equipment, and we are committed to achieving this through continuous innovation, quality excellence, and customer trust.

Rajeev Sharma

Driven by Innovation & Quality

We are committed to continuous research and development, focusing on delivering superior quality products and complete customer satisfaction. Our goal is to provide reliable, efficient, and innovative solutions that add real value to our customers' operations.

30+
Year of Experience

1,500+
Happy Customer

Why We Stand Out

Key Strengths

- High precision and world-class quality standards
- Robust and reliable machine performance
- Continuous innovation with strong R&D focus
- Custom-built solutions for diverse applications
- Trusted by industries for accuracy and consistency

OUR PRODUCTS

Rubber Testing Equipment

Universal Testing Machine

Specifications – Hardware

Parameter	Details
Load Capacity	10 kN
Force Ranges	1 N to 10 kN
Force Accuracy	+/- 0.5 of applied load @ 5–100% of capacity
Crosshead Speeds	0.1 to 100 mm/min (0.004 to 40 in/min)
Speed Precision	+/- 0.5% from 0.1 to 500 mm/min (0.004 to 20 in/min)
	+/- 1.0% from 500 to 1000 mm/min (20 to 40 in/min)
High Speed Return	1000 mm/min (40 in/min) maximum
Crosshead Speed	0.1 to 400 mm/min (0.004 to 16 in/min) upto 10 kN
Force Rating	400 to 1000 mm/min (16 to 40 in/min) upto 5 kN
Testing Width	450 mm (18.5 in)
Crosshead Traverse	1100 (43.3 in)
Crosshead Position	+/- 1 mm of set position

Software

Parameter	Details
Data Sampling Rate	20 ms
Crosshead Speed Units	mm/min
Stress Units	kPa, MPa, GPa, kgf/cm², lbf/in², psi
Strain Units	Actual or percent
Time Units	min/sec or decimal min
Gauge Length	Any length (mm, cm, or in)
Specimen Dimensions	Area, width or thickness using preset constants or operator entry
	Auto entry option for width and/or thickness
	Mean, median, highest or lowest value from up to 6 measurements
Crosshead Speed (Control)	Increments of 1 mm/min
Crosshead Position	Increment of 1 mm
Crosshead Limits	Preset or selected during test
Device Verification	Load cell
Printed Output	Report heading, sampling, specimen details
Operating System	Windows
Operating Mode	Keyboard or mouse

Control

Parameter	Details
Electrical	200/220/240/26 VAC +/- 10%, 50 +/-3 Hz, 5 amp single phase
Air Pressure	5 kg/cm² (500 kPa, 75 psi), clean compressed air
Pneumatic Grips Dimensions	Width 92 cm (36.2 in), height 240 cm (94.5 in), depth 100 cm (39.4 in)
Installed Area	22 x 122 cm (48 x 48 in) including seated operator
Weight	350 kgs approx.

OUR PRODUCTS

Rubber Testing Equipment

Tensile Testing Machine

Specifications – Hardware

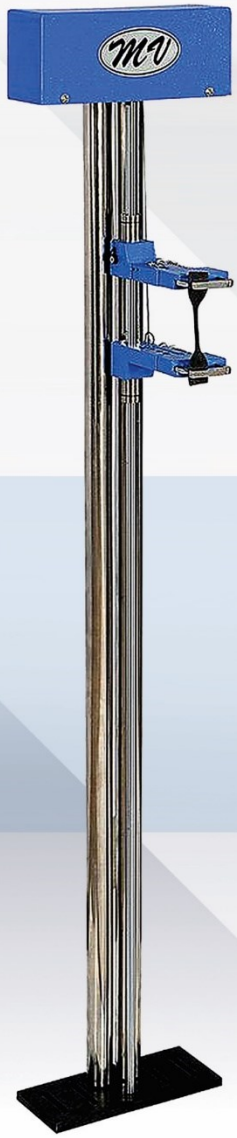
Parameter	Details
Load capacity	Different capacity model from 10 kg (100 N) to 20 tonnes (200 kN)
Load accuracy	Load accuracy as per depend on to capacity of load cell
Mechanical structure	High grade steel gives unmatched accuracy and precision. High axial stiffness reduces machine compliance while increasing speed and displacement accuracy when specimen under load.
Cross head driven	Cross head driven by conventional screw and nut, guided and supported by hardened, ground finished and hard chrome plates tie rods. Gliding on linear bearings allowing the cross head motion. Ball screw driven mechanism is also available on demand.
Travelling length	Maximum travel from grip to grip in 800 mm at extension least count of 0.01 mm. Higher length is also available on demand (optional).
Speed Selection	Speed controlling by variable speed drive and speed range is from 1 mm/min to 200 mm/min, or 1 mm/min to 500 mm/min on demand. For economy application variable speed AC drives is used and in most accuracy application servo control system is also available on demand.
Controlling device	Micro processor based user-friendly with mark identification key operating controlling system.
PC interface facility & software	Machines have serial output for direct connection to computers for testing with Windows software. Profile based software to start the test quicker and run test fast. Gives full control of test parameters with auto set-up of the tester. Full test analysis with statistical and graphical print-out. A report is enhancement package for long term statistics and control charts with exports in Excel data sheet format.
Grips	Choose from a wide range of grips & fixtures for tension, compression, flexural, shear, peel, puncture and product testing.
Result and parameters	Max load, max elongation, yield force, yield elongation, break force, break elongation, gpd, denier other customized at least two direct results. Value facility in corporate with the controlling unit.
Mode of test	Tensile as well as compression test facility available, mode selection via software. No need to change mode every time before starting new test.
Safety features	Over load protection, reverse direction load protection, maximum elongation protection for load cell. Both the side limit switches fitted as an additional facility.

Testing Application	Main Feature (Test Type)
Plastics	Tensile Strength
Packaging	Flexural Strength
Metal	Tensile Modulus
Electronics	Flexural Modulus
Medical Device	Peeling Strength
Manufacturing	Bonding Strength
Automotive	Tear Strength
Machinery & Manufacturing	Elongation
Textiles	Compressive Strength

OUR PRODUCTS

Rubber Testing Equipment

Digital Extensiometer

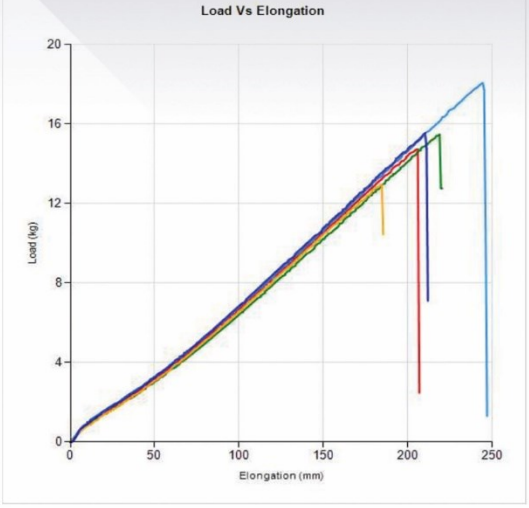


Digital Extensiometer

The MV Extenso Meter by Microvision Engineering Pvt. Ltd. is designed to precisely measure extension and displacement of rubber specimens during tensile testing. Equipped with dual grips for accurate gauge length measurement, it provides reliable elongation results with digital and graphical display through software for precise analysis.

Test Name	Group	Specimen	Shape	LOT. No.
Tensile	TENSILE	RUBBER	Rectangle	1

Test No	264	263	262	261	260	Avg
Test Date	07/18/202	07/18/202	07/18/2025	07/18/202	07/18/2025	
Width	6 mm	6 mm	6 mm	6 mm	6 mm	6
Thickness	2 mm	2 mm	2 mm	2 mm	2 mm	2
Length	50 mm	50 mm	50 mm	50 mm	50 mm	50
Area	12 mm²	12 mm²	12 mm²	12 mm²	12 mm²	12
Test Speed	500	500	500	500	500	500
Peak Load	14.71 kg	18.05 kg	15.46 kg	12.94 kg	15.53 kg	15.338
Elong. at Peak	205.1 mm	244.4 mm	218.8 mm	184.6 mm	210.2 mm	212.62
Elong. at	205.9 mm	246.1 mm	220.5 mm	184.6 mm	211.1 mm	213.64
Test Time	25.7 sec	30.6 sec	27.5 sec	23.1 sec	25.9 sec	26.56
Tensile	12.02 MPa	14.75 MPa	12.63 MPa	10.58 MPa	12.69 MPa	12.534
% Elongation	411.8	492.2	441	369.2	422.2	427.28
Modulus At	2.62	2.68	2.53	2.57	2.73	2.626
Modulus At	5.45	5.54	5.25	5.36	5.58	5.436
Modulus At	8.64	8.7	8.34	8.56	8.83	8.614



Portable UTM

Portable UTM

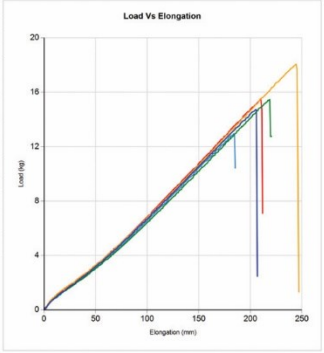
Microvision Engineering Pvt. Ltd. offers Portable UTMs designed for accurate on-site and laboratory testing of materials like metals, plastics, and rubber. Compact and easy to use, it performs tensile and compression tests with reliable accuracy.

Rubber 'O' Ring Grippers

MICROVISION ENGINEERINGPVT. LTD.

Test Date	Test Name	Group	Specimen	Shape	Sample No		
7/18/2025	Tensile	TENSILE	Rubber	Rectangle	Test no.5		

Test No	260	261	262	263	264	Avg
Thickness	2 mm	2 mm	2 mm	2 mm	2 mm	2
Length	50 mm	50 mm	50 mm	50 mm	50 mm	50
Area	12 mm²	12 mm²	12 mm²	12 mm²	12 mm²	12
Test Speed	500 mm/min	500 mm/min	500 mm/min	500 mm/min	500 mm/min	500
Peak Load	15.53 kg	12.94 kg	15.46 kg	18.05 kg	14.71 kg	15.338
Elong. at Peak	210.2 mm	184.6 mm	218.8 mm	244.4 mm	205.1 mm	212.62
Elong. at Break	211.1 mm	184.6 mm	220.5 mm	246.1 mm	205.9 mm	213.64
Test Time	25.9 sec	23.1 sec	27.5 sec	30.6 sec	25.7 sec	26.56
Tensile Strength	12.69 MPa	10.58 MPa	12.63 MPa	14.75 MPa	12.02 MPa	12.534
% Elongation	422.2	369.2	441	492.2	411.8	427.28
Modulus At 100%	2.73 MPa	2.57 MPa	2.53 MPa	2.68 MPa	2.62 MPa	2.626
Modulus At 200%	5.58 MPa	5.36 MPa	5.25 MPa	5.54 MPa	5.45 MPa	5.436
Modulus At 300%	8.83 MPa	8.56 MPa	8.34 MPa	8.7 MPa	8.64 MPa	8.614



Oscillating Disc Rheometer

Oscillating Disc Rheometer shows a typical Cure Curve obtained in the software test screen. The curve of Torque V/s Cure Time depicts all the vulcanization characteristics of the Rubber Compound and that can be determined directly. XY Plot of Torque (F) against real cure time is called Rheometer graph. Rheometer graph is displayed in real time and at the end of test time, software and displayed on the screen.

Benefits

- Defining compound's quality targets
- Designing preliminary compounds that includes selecting specific ingredients and determining each ingredient's quantity.
- Costing
- Individual Testing
- Redesigning the formula till the required quality target is achieved
- Helps reducing the time taken to process and minimum wastage

Prime Rheometer

Moving Die Rheometer

Mooney Viscometer

Ozone Test Chamber

Ozone Test Chamber

The ozone content in the atmosphere is rarely the main factor of rubber cracking, Ozone Aging Test Chamber simulate and strengthen the ozone in the atmosphere conditions, effects of ozone on the law of the rubber, rapid identification and evaluation of rubber anti-aging properties of ozone and antiozonants the method of protection efficacy of anti-aging and then take effective measures to improve the life of rubber products.

Technical Specifications

Parameter	Details
Ozone Concentration	50 – 500 pphm
Temperature	Ambient up to 50°C
Inner Chamber	500 × 500 × 700 mm (304 Stainless Steel)
Humidity	Display (Optional)
Temperature Control	Digital PID / HMI (Optional)
Ozone Display	Digital LED / HMI (Optional)
Test Type	Static and Dynamic
Clamps Stretch	10% to 30%
Data	Data Logging (Optional) via Computer / HMI
Standard	ASTM D1171

Carbon Dispersion Analyzer

Microvision Engineering Pvt. Ltd. offers a fully computerized Carbon Black Dispersion Analyzer for accurate evaluation of dispersion in rubber compounds. It helps detect agglomerates, optimize material mixing, and ensure consistent product quality with reliable visual analysis.

Rubber Din Abrasion Tester

A DIN Abrasion Tester is used to measure the abrasion resistance of rubber, thermoplastic elastomers, and vulcanized materials. It helps evaluate wear performance and durability, ensuring the material's suitability for real-world applications.

Muffle Furnace

A rectangular horizontal electrical muffle furnace designed for uniform heating and high-temperature applications up to 900°C. Built for precision and consistent performance, it is ideal for laboratory and industrial use.

Aging Oven

A Rubber Aging Oven is used for accelerated aging tests to evaluate changes in material properties after heat exposure. Designed for high precision and reliable performance, it ensures accurate temperature control and consistent results while assessing heat resistance and durability.

Lab Moulding Press Automatic

"MV" Lab Mould Press is used for Curing of rubber Specimen/Slab/Button in Laboratory.
In "MV" Mould Press Rubber is cured under specified Temperature, Pressure and Time.

The Rubber Slab/Button is cured with a Standard Mould. The Rubber is put in this mould for specified time and temperature and then we can receive a standard rubber sheet depending the standard size of mould.The standard size of mould is: 150 X150 X2 mm. Here 150mm is Width and Length, 2 mm is the Thickness of rubber sheet. The Rubber Specimen must be prepared carefully under specified parameters such as Pressure, Temperature

Lab Mixing Mill

For Preparing test sample from two or more materials, they have to be mixed homogenously. The Two Roll Mill with its Two heated Rollers, rotating in different directions at slightly different speed is an ideal machine for such a work. Using Hydraulic Hot Press and Dumbell Die etc. can then obtain the test samples

THE INSTRUMENT CONSISTS OF THE FOLLOWING

-Spatula For Mixing Compound.
-Forward /Reverse Switch with Power Cord.
-One 440- volt ,03 Phase motor with Gear Assembly for Rotating the Roller.
-Two Rollers Mounted on a sturdy Frame, rotating in different Directions at a slightly different speed.
-Normal Size of Roller is 6" Dia and 12" Length.

MAIN PARTS OF MACHINE
The following parts of machine are the main parts

-Two Rollers
-Electrical Panel
-Three Phase Geared Motor
-Limit Switch Rod
- Slider

Specimen Cutting Machine

A Specimen Cutting Machine is designed for precise and uniform preparation of test samples from rubber, plastic, and similar materials. It ensures accurate specimen dimensions required for tensile, compression, and other material testing. Built for high precision and ease of operation, the machine delivers consistent cutting quality, making it ideal for laboratory and quality control applications.

Lab Moulding Press

A Lab Moulding Press is used for preparing uniform test specimens by moulding rubber and polymer materials under controlled temperature and pressure. It ensures consistent sample quality for accurate testing results. Designed for high precision and reliable performance, it is ideal for laboratory and quality control applications.

Secant Stiffness Testing Machine

Designed to measure the secant stiffness of rubber and elastomeric materials with high accuracy. It ensures reliable evaluation of stiffness characteristics, making it ideal for quality control and laboratory testing.

Specimen Cutting Machine (Pneumatic)

Designed for quick and precise cutting of rubber and plastic test specimens using pneumatic operation. Ensures uniform samples with high accuracy, ideal for laboratory and quality control use.

Microvision Engineering Pvt. Ltd.

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