Manufacturer of Rubber Testing Equipment

Micro Vision Enterprises

ALL INDIA RUBBER INDUSTRIES ASSOCIATION AIRIA 1945

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

WHO WE ARE

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

Micro Vision is India's leading rubber testing equipment manufacturer, with more than 30 years of experience and technology.

We specialize in the development and manufacturing of high-quality Oscillating Disc Rheometer, Moving Die Rheometer, Mooney Viscometer, Universal Testing Machine, Carbon (black) Dispersion Analyzers, Ozone Test chambers and other rubber testing instruments.

Micro Vision has been developing, producing, distributing and servicing high quality testing machines, their components, and software solutions for elastomeric materials and component testing. Micro Vision equipment quality and after sale service have built a long-term customer loyalty and is prefered supplier by most of the OEMs in India and other countries.

Micro Vision is a leading manufacturer of machinery and equipment for the rubber industry. We have manufacturing units in India and our head office is based in Rai Industrial Estate, Sonipat (Haryana).

The secrets of our success are very high quality standards of all our products. Micro Vision's strong values and philosophy to put customers first, working with dedication and commitment to come up with best technology and set new standards in testing machines.

30+ Year of Experience

1,500+ Happy Customer

20+ Products

Our company is extensively committed to research & development, focusing on complete customer satisfaction. We always strive to deliver the highest quality with the most reliable and efficient products in the industry.

Message From The C.E.O

"Micro Vision is a knowledge-based organization with a strong focus on R&D and application development. We're not just about developing products—we want to give more than just products, we strive to share our knowledge in this field, so that we can help others get the most out of their own products and services.

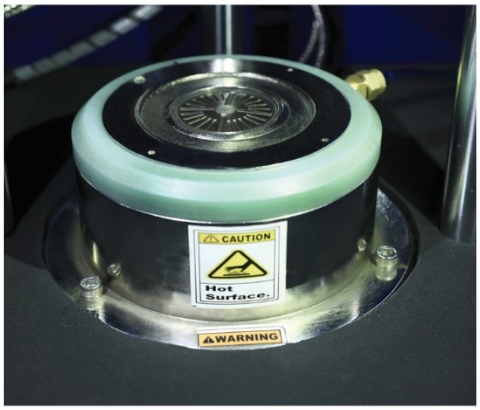
Our goal is to become a global leader in the field of rubber testing equipment's, and we're working hard every day to make it happen."

Ashok Sharma

Moving Die Rheometer (Prime)

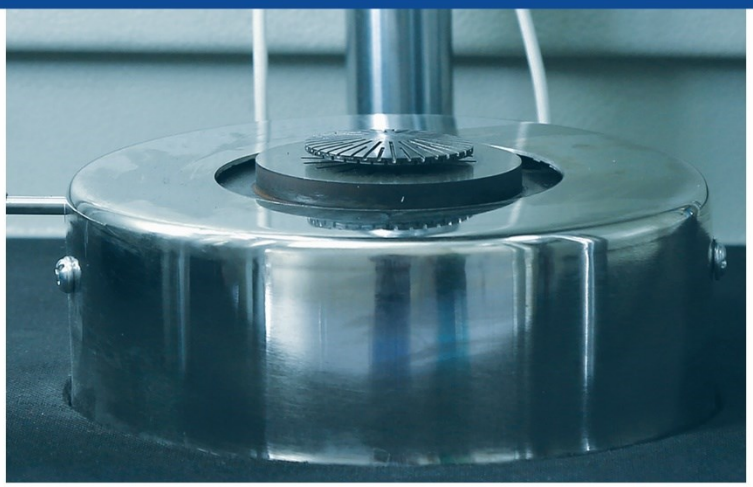
Technical Specifications

Size	1150x610x610mm
Machine Weight	100Kg
Panel Material	Stainless Steel, Powder Coated
ASTM Standard	ISO 6502,ASTM D5289
Die Configuration	Biconical, closed die system, sealed
Oscillation Angle	0.1°/0.2°/0.5° (Standard) 1°/3° Mechanical optional
Oscillation Degree Selection	Manually
Torque Transducer (sensor)	High accuracy aluminum torque sensor (USA MAKE)
Torque Range	0.01-200Lbin
Torque Sensor Mounting	Direct Die Mounted
PCB Controller	MV make advanced (indigenous)
Temperature Control System	Ambient to 232° ±0.1°
Calculated Data	S', S", Tan δ, phase angle, cure curve
Data Interface	Ethernet (for better connectivity)
Pneumatic	FESTO Make Cylinders and fittings
Computer System	Windows7/8/10, i5 Processor, HP/Lenovo Brand PC
Single Button operation	Available
Electrical	Single Phase 220V
Sample Volume	4.5cm³
Maintenance	Yearly calibration is required.
Warranty	24 months



Key Features

- Directed Die Mounted high accuracy torque measurement
- Ethernet connectivity
- Die cooling technology
- Closed, sealed and bioconical die set
- Low maintenance
- Direct heating
- Accurate sample temperature measurement
- High repeatability and result correlation
- Low maintenance and high accuracy
- Multiple test in single screen



Oscillating Disc Rheometer

Technical Specifications

Standards	In compliance with ASTM D2084, ISO3417
Main Power Supply	AC 175-275 V, 50 Hz, 20 Amp. maximum
Compresses Air	60 psi (4.2 Kg./Sq. Cm.) minimum Operating pressure controlled by Integral Regulator with Gauge.
Frequency of Oscillating Disc	100 cycles/min. (1.66 Hz)
Oscillating Amplitude	±1°, 3°, 5° (Half Cycle)
Temperature Control	Microprocessor Controlled Calibrated Range: 100-200 Degree C Independent Upper & Lower Platen Control
Temperature Sensor	PT- 100, Platinum Resistant
Torque Transducer	Directly shaft mounted in line with Oscillating Disc (Reaction Torque Sensor).
Recording & Display	Directly On-Line Display on Monitor through software and saved in computer memory
Environment	Free from Dust & Humidity
Net Weight and Dimensions	Weight : 125Kg Main Panel: 1200 x 660 x 480 mm

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.

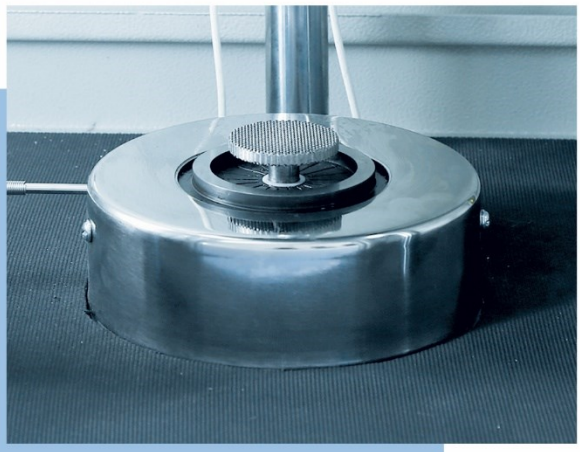
Benefits

- 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

Mooney Viscometer

Technical Specifications

Standards	In compliance with ASTM D1646, ISO289
Main Power Supply	AC 175-275 V, 50 Hz, 20 Amp. maximum
Rotor Speed	2.0 ± 0.02 RPM
Mooney Measurements	ML(1+4), Stress relaxation test, Mooney Scorch test
Temperature	PT 100 Platinum resistor microprocessor controlled Calibration range 50° to 200° C. Independent Upper and Lower Platen Control
Torque Transducer	Reaction torque sensor. Four Arm temperature compensated semi-conductor strain gage bridge.
Recording & Display	Computer Controlled testing through software, Data logging in computer memory.
Printed Data and format	As per your printer, Data in: PDF,Excel,Word.
Compressed Air Supply	60pdi (4.2 kg/sq.cm) minimum operating pressure.
Environment	Dust free reasonably controlled ambient temperature and humidity
Net Weight and Dimensions	Main machine 150 kg Main Panel 1200 x 660 x 480 mm



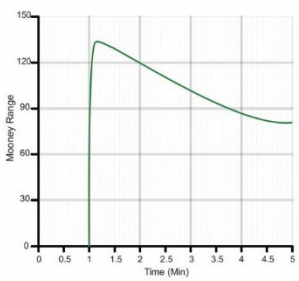
It is an instrument consisting of a motor driven disk within a die cavity formed by two dies maintained at specified conditions of temperature and die closure force. It measures the effect of temperature and time on viscosity of rubber or compound.

MOONEY REPORTS

VI	135.61		
VM	80.08		
ML(1+4)	80.08		
ML(1+8)	----		

TIME REPORTS

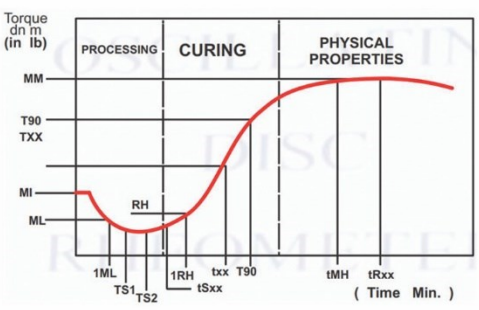
T5	----		
T35	----		
ΔT30	----		
Stop Time	5		
End Time.	100.4		
Status	Pass		



Moving Die Rheometer

Technical Specifications

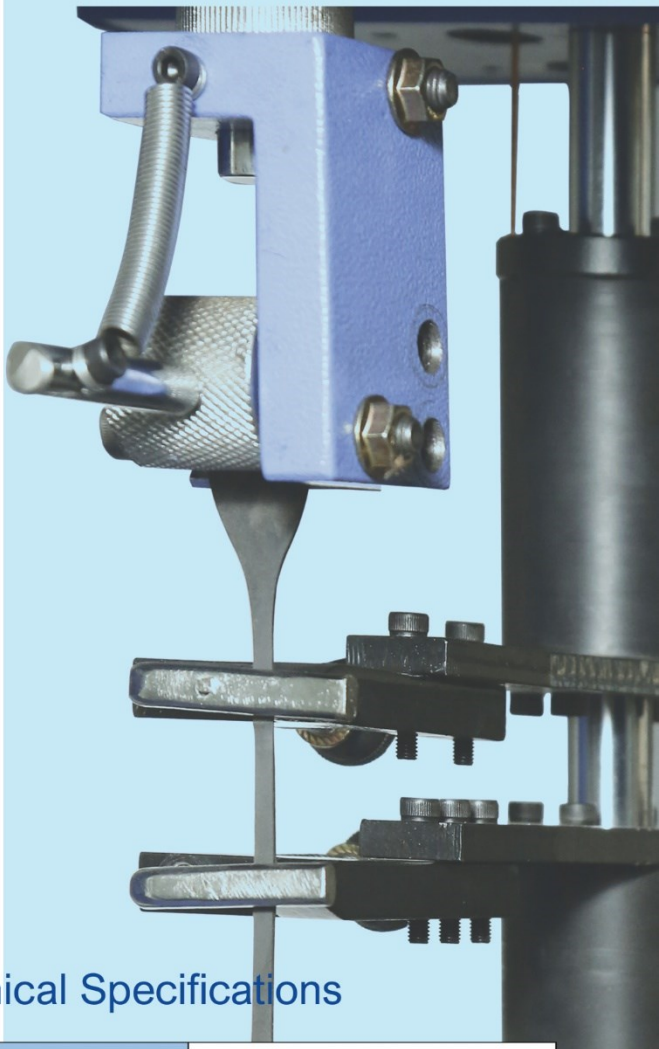
Oscillation Frequency	100 cycles per minute (1.66Hz)
Oscillating Amplitude	± 0.5, 1, 3 (half cycle)
Sample Value	Approximately 6 cm
Temperature	Microprocessor Controlled, Calibrated Range 100-200 Degree Independent Upper & Lower Platen Control
Electrical	220 Volts AC 60Hz, Simple Phase
Air Pressure	60psi minimum
Printed Data	Torque S', @ML, S"@ML, Tan Deha@ML, S'@MH, S"@MH, Tan Delta@MH, T_s1, T_s2, T_s5, T_c10, T_c50, T_c90
Computer Specification	(PC) any Dual Core
Panel	Weight : 125Kg Main Panel: 1200 x 660 x 480 mm



Micro Vision's high precision instrument – Moving Die Rheometer offers sensitivity and reliability of measurement for the evaluation of Vulcanization properties of rubber.

Using world class technology, it has been developed to determine the elasticity of vulcanization, the cure rate, cure speed and examine the behavior of rubber mixture post. vulcanization, All the more, with MV's Moving Die Rheometer , the viscous and elastic fraction of the rubber mixture. With the help of our product, an expert can easily monitor the initial trough ie. processing behavior of the compound and the final shape of the curve.

Tensile Testing Machine



Technical Specifications

Model	MV 1000
Force Measuring Range	1N To 10000N
Traverse Speed	50-500mm/Min.
Force Measurement Accuracy	+/- 0.5% of Test Value
Safety Limit Switch	Incorporated
Power Supply	230V,50Hz, Single
Grip Separation	Min.25mm, Max 700mm.
Least count	0.1% of Applied load

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

Ozone Concentration	50-500 pphm
Temperature	Ambient up to 50° C
Inner Chamber	500 x 500 x 700mm (304 Stainless steel)
Humidity	Display (Optional)
Temperature	Digital PID/HMI (Optional)
Ozone Display	Digital LED/HMI (Optional)
Test	Static and Dynamic
Clamps Stretch	10 to 30%
Data	Data logging optional in computer/HMI
Standard	ASTM D1171

Carbon Black Dispersion Analyzer

The New Millennium brings new challenges and new parameter this to meet the same, accurate testing methods have become an essential prerequisite to meet the enhanced quality challenges. Micro vision Enterprises presents you the DISPERSION ANALYZER. The internationally accepted technology is totally computerized controlled and is the only one of its kind in the rubber industries which helps you to identify the perfect mix of material and doze to suit the end product and its parameter .Since Dispersion of Carbon black in rubber is directly related to quality, it is important that the best possible dispersion be obtained. Agglomerates of black in the range of 10 mm or greater are of the most damaging. A visual photograph can easily pickup this poor dispersion of black in the compound.

Rubber Din Abrasion Tester

A DIN abrasion tester is a machine that measures the abrasion resistance of rubbers, including thermoplastic elastomers and vulcanized thermoset rubbers. The abrasion resistance of different types of rubbers is measured in order to quantify how well they resist wear and tear during their actual service

Bale Cutter

The compact MV pneumatic laboratory bale cutter is the most convenient table top solution to cut and slice smaller polymer bales, blocks, and rubber sheets. Fit with a two-hand safety operation system provides the highest operator convenience.

Slab Mould Press

MV Lab Slab Mould Press is specially designed to prepare slabs for laboratory pupose only. It is a Bonsai Model of Press which have two platens directly heated by pencils type heaters of 500watts each and a ram beneath attached with hydraulic pressure pump which manually operated for user friendly operation of this equipment.between two platen (7"x7") a book type mould (150x150mm) is placed with rubber compound in it .A steardy lead screw on the top to maintain hydraulic pressure.An electric panel is placed on the press which have switches digital temperature controller with digital display on front.Glow sign indicators are also provided. There is a large Round shape Pressure Gauge displays the hydaulic pressure maintained during slab curing process time

Lab Mould Press

Digital Specific Gravity Balance Machine

A specific gravity balance is used to measure the buoyancy of an object by weighing that object in air and then in water.

Aging Oven

Rubber Aging Oven, which is also named Aging Oven, is used to test the accelerated aging process in oven. It is mainly used to know materials change before and after the aging oven test (heat resistance test).

Aging Oven Tester Key Specification

-Made of Outer M.S. Material and inner Stainless Steel Material
-Duly powder coated , two shelves , TemperatureRange: 0 – 200 C
-Temperature Regulator
-Chamber Size: 18”x18”x18” With above Specifications
-Digital Tempertaure indicator cum Sensor for above mode
38 inch height , 26 inch width, 32 inch length
45 kg weight
- ASTM D471 and ISO 1817.

Hardness Tester

The Shore durometer is an instrument used for measuring the material’s hardness, generally rubbers, elastomers, and polymers. The Shore A hardness measurement is called ”durometer”. Tests are carried out on cured rubber according to ASTM D2240, and on a complete O Ring according to ASTM D1414.

The Shore A Hardness Scale measures the hardness of flexible mold rubbers that range in hardness from very soft and flexible, to medium and somewhat flexible, to hard with almost no flexibility at all.

Muffle Furnace

Rectangular horizontal electrical muffle furnace working temperature 900OC complete with control gears. Bulb Mins, lead wire, thermocouple and thermal fuse working on 230 V AC single phase.

Specifications

Muffle size 9’’x4’x4’
Ratting Watts 1600
105OC Maximum with Digital
Display Control Indicator

Lab Mixing Mill

Micro Vision

Mfg. Of Rubber Testing Equipment

• Oscillating Disc Rheometer • Moving Die Rheometer • Mooney Viscometer • UTM • Tensile Testing Machines
• Ozone Test Chamber • Automatic Carbon Dispersion Analyzer • Din Abrasion • Plunger Tester • Lab Bale Cutter
• Lab Mixing Mill • Oxygen Index Apparatus • Computerized Oven • Muffle Furnace • Slab Mould Press
• Doumble Cutting Machine • Load Deflection • Digital Specific Gravity Balance • IRHD Hardness Tester
• Ageing Oven • Carbon Black Content Test (CBC Test) • Demattia Flex Tester • Izod Impact Test
•Torsion Tester • Melting Flow Index (MFI) • Drum Friction Test • Flammability Tester

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