

Your Trusted Partner
in Quality Assurance and
Material Testing Excellence



07⁺

Years of Experience

15000⁺

Sq. Ft. of High-Tech Lab

500⁺

Types of Material Testing

1500⁺

NABL Accredited
Lab Tests Parameters

100⁺

Types of Field Tests

About us

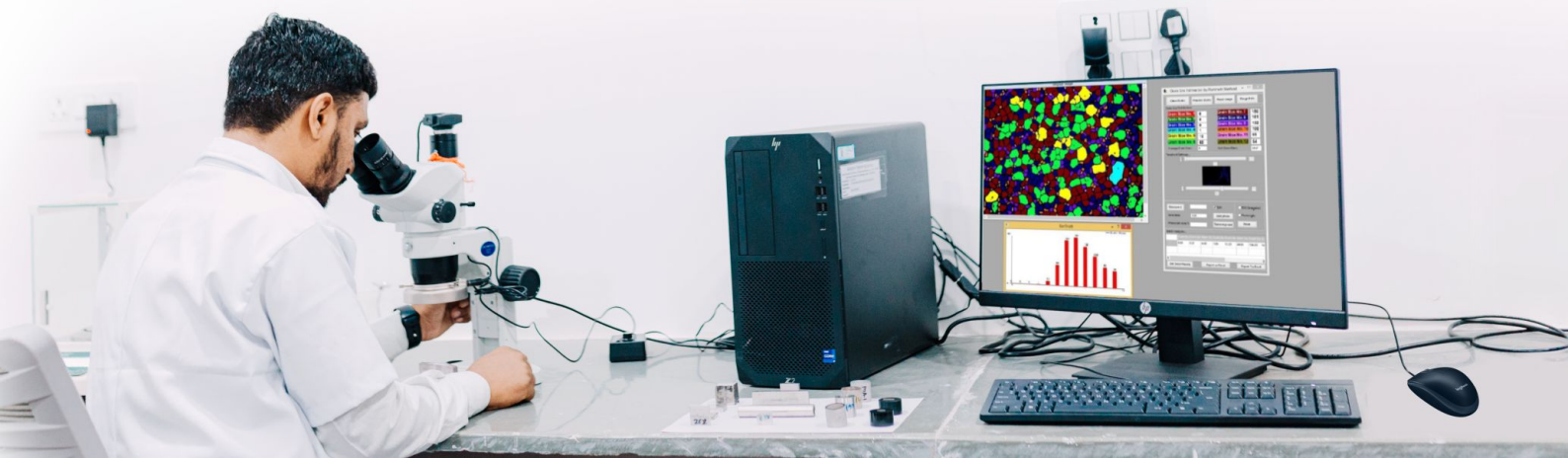
Welcome to Milestone Engineering Services (MES), where excellence meets versatility. MES is not just a company; it's a dynamic conglomerate encompassing major verticals, seamlessly weaving together all critical facets of the engineering & infrastructure industries. Our unwavering commitment to quality shines through our diverse array of services, which include material testing services, meticulous inspection, insightful consulting, collaborative contract work, and pioneering research initiatives. These major verticals form the bedrock of our expertise, enabling us to span the entire spectrum of industries, from construction to manufacturing.

Our Purpose

At MES, our purpose is clear: to enlighten the world about the critical importance of testing in ensuring the creation of high-quality products. We believe that testing is the cornerstone of quality assurance and the foundation of durable, reliable, and safe structures and products.

Vision

Our vision is to be a world-class commercial testing laboratory, setting the industry standard and being the laboratory of choice for clients who rely on precise material testing results to uphold the quality and integrity of their products.



One-Stop Solution for Material Testing



Core Values



Integrity



Growth



Communication



Quality



Team Spirit



Accountability

MES Core Services

- Field Test
- In-House Laboratory Services
- Calibration Services
- Consultancy & Other Technical Services

Construction



Road & Bridge
Testing & Survey

Metal
Industry

Mining

Glass
Production

Water & Chemical
Treatment

Petroleum

Power
Plant

Agriculture



FIELD TEST SERVICES

Pile Load Test

- Vertical Load Test on Pile
- Lateral Load Test on Pile
- Pull Out Test on Pile
- Low Strain Impact Integrity Testing of Pile (PIT)
- High Strain Dynamic Pile Test
- Ultrasonic Cross-Hole Sonic Logging Testing (CHSL)

Geo Physical Investigations

- Electrical Resistivity Test (ERT)
- Seismic Refraction Test (SRT)
- Multi-Channel Analysis of Surface Wave (MASW)
- Spectral Analysis of Surface Wave (SASW)
- Cross-Hole Seismic Test (CHST)
- Down-Hole Seismic Test (DHST)
- Nuclear Density Test
- Non-Nuclear Density Test

Geo-Technical/ Sub Soil Investigation

- Standard Penetration Test (SPT)
- Cone Penetration Test (CPT)
- Plate Load Test
- Field Density & Moisture Content
- Field CBR
- Dynamic Cone Penetration Test (DCPT)
- Modules of Subgrade Reaction (EV_2 Test)
- Subgrade Reaction - K Value
- Pressure Meter Test
- Field Permeability Test
- In-situ Vane Shear Test
- Block Vibration Test

Geomatic Survey

- Topography & Contour Survey
- Reconnaissance Survey
- Road / Canal / Railway Survey
- Catchment Survey
- Aerial Survey
- LiDAR Survey
- Cadastral Survey
- Pipeline Survey
- GIS Survey
- Bathymetric Survey

Surveying & Planning

- Property Line Survey
- Site Topography
- Construction Layout
- Land Title Survey
- TBM Marking
- Field Survey
- Roadway Layout
- Land Acquisition Survey

Pavement Tests

- Network Survey Vehicle (NSV)
- Skid Resistance
- Benkelman Beam Deflection
- Retro Reflectivity Test (RL- Road Marking)
- Luminance Test (Qd-Road Marking)
- Co-efficient of retro Reflection
- Bump Integrator
- Falling Weight Deflectometer (FWD)
- Crust Thickness
- Core Cutting & Sampling





Non-Destructive Test

A. Building Materials- Reinforced Concrete Structures

- Rebound Hammer Test
- Ultrasonic Pulse Velocity (UPV)
- Half-cell potential different Test
- Crack Depth Measurement
- Carbonation Test
- Rebar Scanning and Cover Meter Survey
- Concrete Resistivity
- Span/Superstructure Load Test

B. Metallic Materials

- Portable Hardness Test
- Positive Material Identification (PMI)
- Portable Coating Thickness Test
- Ultrasonic Thickness Measurement Test
- Ultrasonic Test (UT)
- Radiography Testing (RT)
- Dye Penetration Testing (DPT)
- Magnetic Particle Testing (MPT)
- Eddy Current Testing (ECT)
- Visual Inspection Testing (VT)
- Replica Testing (In Situ-Metallography)
- Surface Roughness Testing
- Ferritoscope for Measurement of % Ferrite in ASS & Duplex Steel

Airport, Port & Harbour Design

- Runway Design
- Taxiway Design
- Jetty Design





IN-HOUSE LABORATORY SERVICES

Metals & Alloys Testing

A. Physical Testing

- Tensile Testing of Ferrous and Non-Ferrous Material
- Elevated Temperature Tensile Test (Up to 1000 °C)
- Bend - Reband Test
- Impact Testing
- Hardness Test (Rockwell Cum Superficial, Brinell, Vickers)
- Nick Break Test/Fracture Test
- Flattening/Reverse Flattening, Flaring Test
- WPS/ PQR/ WQT Testing
- Welding Rod, Electrodes and Filler Wire Testing
- Stud, High Tension Bolt, Rivet, Fasteners and Nut Testing
- Shear Stud Connector Testing
- All types Structural Steel Testing
- Steel Plate & Steel Round Bar Testing
- All Diameter TMT Bar Testing
- TMT Bar with Coupler (Static Tensile Test, Slip Test)
- Steel Tubes & Pipes Testing
- Casting material Testing (Cast Iron, S.G Iron etc.)
- Prestressing Components Test (Anchor Heads, Wedges, etc)
- Steel Tube to Steel Plate Joint Testing (Mockup Test, Pull Out Test etc.)
- HT Strand Wire Test
- Wire Rope Tensile Test

B. Chemical Testing

- Chemical Analysis by Spectroscopy Method
 - Carbon Steel, Low Alloy Steel & S.S Material Testing
 - Brass, Bronze & Copper Base Material Testing
 - Cast Iron, S.G Iron Material Testing
 - Aluminum and Its Alloy Testing
- Positive Material Identification (PMI)
- Wet Analysis for Ferrous and Non-Ferrous Metal

C. Corrosion Testing

- Intergranular Corrosion Test
 - Huey Test (ISO 3651-1) for Austenitic Steel Products
 - ASTM A 262 IGC Practice- A,B,C,E,F for Austenitic Steel Products
- Susceptibility to Intergranular Attack
 - ASTM A 763 Practice- W,X,Y,Z for Ferritic Steel Products
- Intermetallic phases Test for all Products
 - ASTM A 923 Method- A,B,C for Duplex Steel Products
- Salt Spray Testing
- Hydrogen Induced Cracking Test (HIC)
- Sulphide Stress Corrosion Cracking test (SSCC)
- Pitting Corrosion Test as per ASTM G-48
- Crevice Corrosion Test as per ASTM G-48

D. Metallography Testing

- Macro/ Micro Structure Examination
- Macro/ Micro Etch Test
- Macro Examination of Rolled & Forged Sample
- Macro Examination of Welded Sample
- Grain Size Measurement
- Graphite Size, Type & Distribution in Cast Irons
- Nodularity, Nodule Count in S.G Irons
- Inclusion Rating
- Depth of Decarburization
- Case Depth Measurement
- Mass of Zinc Coating
- Coating Thickness Measurements
- Volume Fraction of Phases
- Failure Analysis & Investigation
- Heat Treatment for all Material



Bitumen Testing

- › Bitumen | Bituminous Mix/ Core
- › Bitumen Emulsion
- › Polymer Modified Bitumen (PMB)
- › Natural Rubber Modified Bitumen
- › Crumb Rubber Modified Bitumen (CRMB)
- › Bitumen Mastic

Soil & Rock Testing

- › Grain Size Analysis (Dry & Wet)
- › Index Properties of Soil
- › Tri-Axial Test (UU, CU, CD)
- › Direct Shear Test (UU, CU)
- › Laboratory Vane Shear Test
- › Consolidation Test (C_c , A_v , m_v)
- › Modulus of Elasticity of Rock
- › Point Load Index

- › Standard and Modified Proctor Test (MDD & OMC)
- › California Bearing Ratio Test (CBR)
- › Relative Density
- › Unconfined Compressive Strength (UCS)
- › All Types of Bentonites & Polymers Testing

Electrical Wires & Cables

- › Armoured Cable - SWA & AWA
- › Control Cable | Optical Fibre Cable
- › Solar Cable | Fixed Wiring Cable
- › LSZH Cable | Tri-Rated Cable
- › PE Cable | PVC & XLPE Cable
- › Halogen Free Flame Retardant (HFFR) Cables | Veriflex Cable
- › Railway & Metro Cable- (Power, Telecom, Rolling Stock)
- › Fire Performance Cable

- › High Temperature Cable
- › Welding Cable | Industrial Cable
- › Aerial Bunched Cables
- › Polyethylene Insulation and Sheath of Electric Cables
- › Polyvinyl Chloride Insulated Unsheathed and Sheathed Cables/ Cords
- › PVC Insulation and Sheath of Electric Cables

- › Thermoplastic and Elastomeric Insulation and Sheath of Electric Cables
- › Dielectric Material of Electric Cables
- › Elastomeric Material of Electric Cables
- › Aluminum Wire
- › Low Carbon Galvanized Steel Formed Wires

Electrical Transmission & Conductors

- › Aluminum Alloy Stranded Conductor
- › Aluminum Conductor for Overhead Transformation

- › Aluminum Conductor - Galvanized Steel Reinforced
- › Aluminum Stranded Conductors for Overhead Power Transmission

- › PVC-covered Conductors for Overhead Powerlines
- › Covered Conductors for Overhead Lines Aluminum-Magnesium-Silicon Alloy Wires

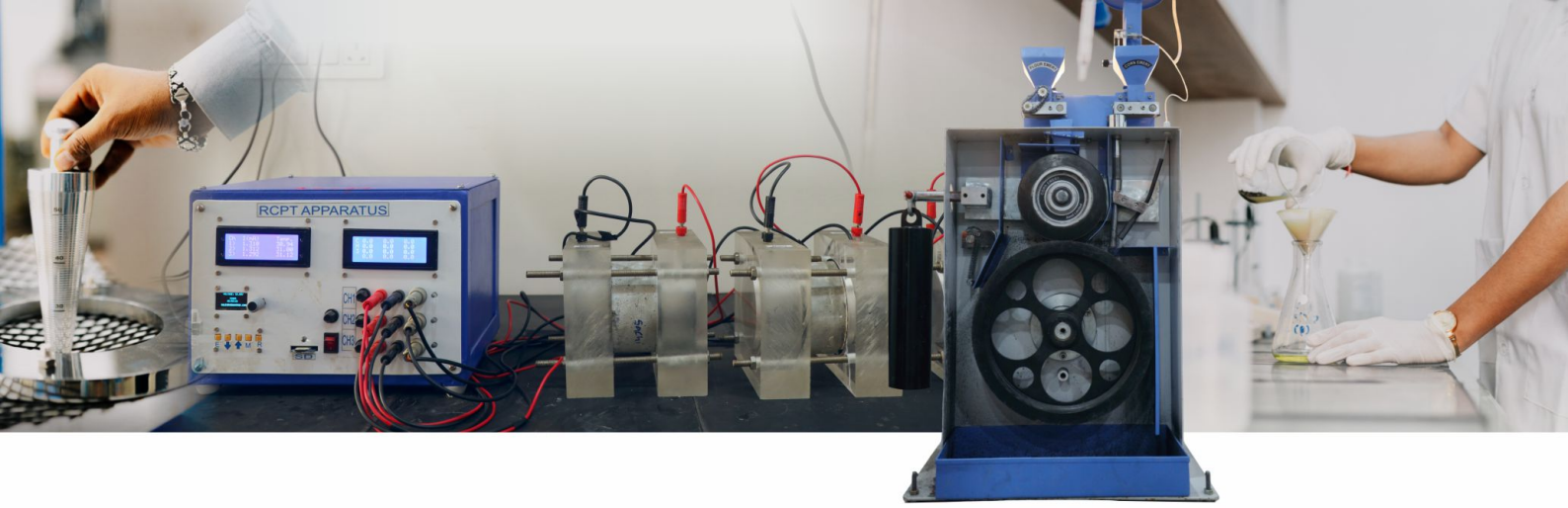
Rubber & Rubber Products

- › Tensile & Elongation Test
- › Hardness Test (Shore A, Shore D)
- › Density Measurement
- › Ageing Tensile Test & Hardness Test

Paint Products

- › Vitreous Ename
- › Acrylic Paint
- › Oil Paint
- › Metallic Paint
- › Bituminous Paint

- › Anti Corrosive Paint
- › Emulsion Paint
- › Distemper
- › Whitewash
- › Semi & High Gloss



Geo-Synthetics Material Testing

- ▶ Woven Geo-Textile
- ▶ Non-Woven Geo-Textile
- ▶ Uni-axial & Bi-axial Geo-Grid
- ▶ Geo-Membrane | Geo-Composite
- ▶ Geo-Cell | Geo-Strips | Geo-Net
- ▶ Prefabricated Vertical Drains (PVDs)
- ▶ Mass per Unit Area Testing
- ▶ Dynamic Perforation Test (Cone Drop Test)
- ▶ Grab Method | Wide width Method
- ▶ Strip Method | Thickness Test
- ▶ Trapezoid Tear Resistance Test
- ▶ CBR & Index Puncture Test
- ▶ Carbon Black Content Test
- ▶ Specific Gravity Test
- ▶ Melt Flow Index Test

Building Material Testing

A. BM Physical Testing

- ▶ Concrete Mix Design
- ▶ Hardened Concrete (Cube, Beam, Cylinder, Solid, Hollow, etc.)
- ▶ Concrete Core | Concrete Permeability
- ▶ Modulus of Elasticity of Concrete
- ▶ Concrete Kerbing Block
- ▶ Autoclave Cellular Aerated Concrete Blocks (AAC)
- ▶ Precast Concrete Blocks for Paving
- ▶ Natural Stone (Granite, Kota, Marble)
- ▶ Chequered Cement Concrete Tiles
- ▶ Ceramic Tiles, Flooring Tiles, Vitrified and Related Products
- ▶ Stone Core | Coarse & Fine Aggregate
- ▶ Petrography of Aggregates
- ▶ Bricks (Earthen & Fly ash)
- ▶ Cement (OPC, PPC, PSC, SRPC, White Portland)
- ▶ Cement Mortar & Block Joining Mortar
- ▶ Curing Compound
- ▶ Heat of Hydration for Low Heat Cement
- ▶ Teak Wood | Plywood/ Timber
- ▶ Wooden Flush Door Shutter
- ▶ Fly Ash, GGBS, UGGBS, Micro Silica, Silica Fumes, etc.
- ▶ Block Joining Mortar
- ▶ GSB, WBM, WMM, Stone Metal
- ▶ Glass Beads
- ▶ Polish Stone Value
- ▶ Thermal Conductivity
- ▶ Concrete Man Hole Cover & Frame
- ▶ Rapid Chloride Permeability Test (RCPT)

B. BM Chemical Testing

- ▶ GGBS | Bentonite & Polymer
- ▶ Soil | Rock/ Stone
- ▶ Concrete | Tiles
- ▶ Coarse and Fine Aggregate
- ▶ Unportable Water for Construction Purpose
- ▶ Curing Compound
- ▶ Concrete Admixture
- ▶ Cement & Mortar
- ▶ Fly Ash, Micro Silica, Silica Sand
- ▶ Lime Stone/ Dolomite
- ▶ Portable Drinking Water

Plastic & Plastic Products

- ▶ Tensile & Elongation Test
- ▶ Density & Specific Gravity
- ▶ Izod & Charpy Impact Test
- ▶ Melt Flow Index Test
- ▶ Carbon Black Content Test
- ▶ Ash Content/ Sulphate Ash Content Test
- ▶ Flexural Strength Test
- ▶ Vicat Softening Test
- ▶ Shore A & D Hardness Test
- ▶ Water Absorption Test
- ▶ Fibre Reinforced Polymer Composite Bar Testing
- ▶ Cats Eye Testing
- ▶ All Types of Tests for PVC/ UPVC/ CPVC Pipes
- ▶ PP, LDPE, HDPE, ABS, PU Sheets and Bars Testing
- ▶ Sheathing Ducts HDPE Pipe Testing



CALIBRATION FACILITIES

- All Types of Pressure Gauge
- Vacuum Gauge | Dial Gauge Bore Gauge
- Temperature Gauge
- Feeler Gauge | Radius Gauge | Height Gauge
- Thickness Gauge & Ultrasonic Thickness Gauge
- Chamfer Gauge
- Test Sieves
- All Types of Micrometres
- All Types of Vernier Calliper
- Digital Extensometer
- Proving Ring | Manometer | CTM/ UTM
- RPM Measurement
- Angel Protractor / Bevel Protractor
- Linear Probe/ LVDT
- Rubber Hardness Tester (Shore A & Shore D)
- Digital Thermometer | Glass Thermometer
- All types of Temperature Sensors
- Thermocouple & Pyrometer
- Temperature Indicator with Sensor of Furnace (400 to 1200°C)
- Cannon Manning Vacuum Viscometer Tube (Size No-6, 12 & 13)
- RTD Sensor With Indicator (-196°C)
- Thermo Hygrometer | Weighing Balance | Weight Box
- All types of Glassware Items

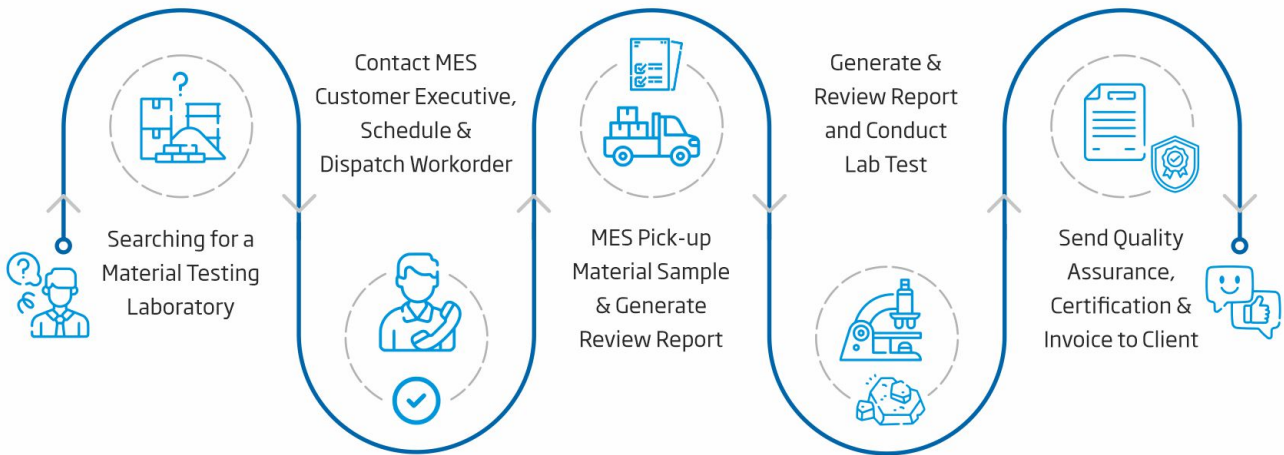
CONSULTANCY & OTHER TECHNICAL SERVICES

- Ground Improvement
- Slope Stability Analysis
- Project Management
- Third Party Inspection
- Safety Audit
- Environmental Audit
- Structural Health Monitoring
- Structural Health Assessment
- Repair, Rehabilitation and Retrofitting of Structures
- Pre COD Tests as per MORTH Requirement





A MES Simplifies the Testing Process



Some of Our Esteemed Clients



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Calibration Laboratory

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