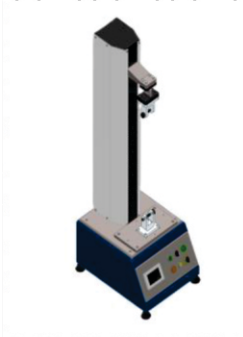




# MetriStat

Testing the future precisely.

## Force Testing Machine



Single Column Force Testing Machine



Double Column Force Testing Machine

Category	Specification (Automotive-Approved)
Capacity Range	100 N to 50 kN
Force Measurement Accuracy	±0.2% of indicated force, aligned with ISO 7500-1 and ASTM E4 verification methodology
Crosshead Speed Range	0.1 – 500 mm/min, closed-loop controlled
Control Modes	Closed-loop Force Control and Closed-loop Position Control with real-time feedback
Drive System	Servo-driven system (stepper option available for specific configurations)
Measurement System	24-bit high-resolution data acquisition with precision load cell signal conditioning
User Interface (HMI)	7" / 10" industrial-grade touch screen, shop-floor suitable
Display Features	Real-time load, displacement and graphical test curves with peak hold and test status
Software Interface	PC-based test software supporting recipe-based testing, monitoring and reporting
Test Modes	Single, cyclic and endurance test modes
Test Capabilities	Performance, durability and life-cycle testing
Safety Features	Emergency stop, safety interlocks, alarm generation with complete alarm history
User Management	Multi-user login with role-based access control for traceability
Data Export Formats	Excel, CSV and PDF (OEM-friendly formats)
Reporting	Automatic single & batch test reports with graphical data
Data Storage	Secure database storage for traceability and audit compliance
Standards Alignment	Designed to perform tests in accordance with applicable ISO, ASTM and SAE standards
Applications	Automotive & EV components (metal, plastic, rubber), electronics, medical & industrial materials

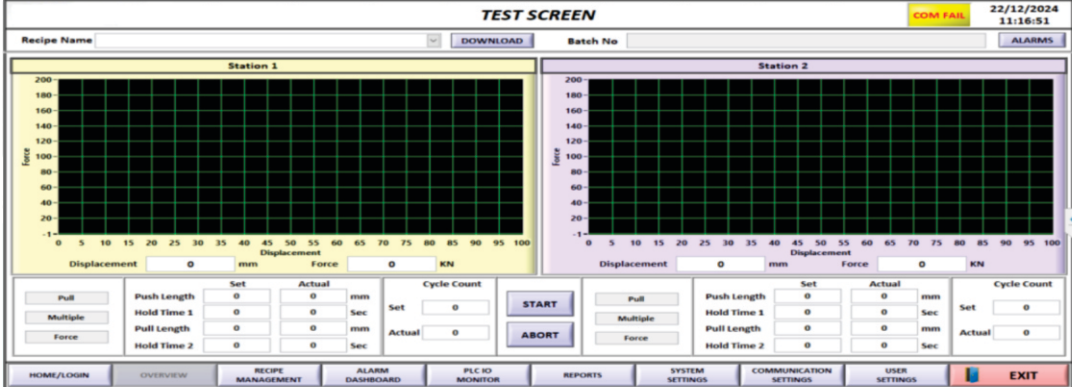
### Understanding of capacity ratings and configuration codes for single- and double-column force testing systems

Model Name	Capacity (N)	Configuration Code	Configuration Code Description
MSFT	100 to 50000	Essential (E)	Base configuration for routine test execution with real-time data display, standard data export and recipe-based operation
		Standard (S)	Heavy-duty configuration with analog load & position feedback, automated reporting, cyclic/endurance testing and event logging
		Pro (P)	Advanced configuration with servo-controlled motion, high-speed data acquisition, multi-channel measurement and calibration-enabled software

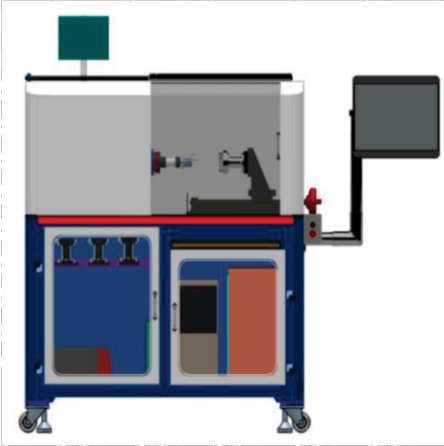
**Order Number Sample: MSFT-1000S** (MSFT denotes Model Name, '1000' denotes Machine Capacity, 'S' denotes Configuration Code as Standard)

*Note: These configuration codes are applicable to both single-column and double-column force testing machines. The machine capacity of single column will be upto 5000N, while that of double column will be upto 50,000N.*

### Test Display Snapshot



**Torque Testing Machine**



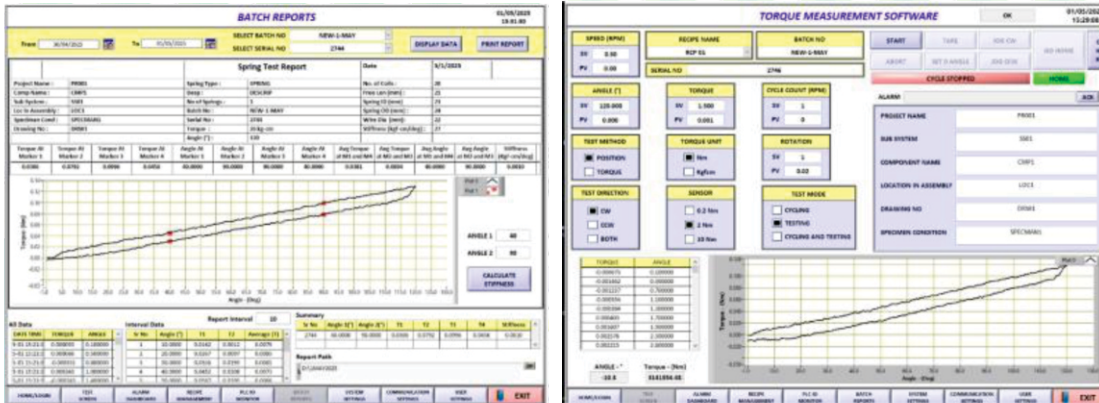
Category	Technical Specification
Torque Capacity Range	0.5 to 25000 N·m (depending on configuration)
Torque Measurement Accuracy	±0.5% to ±1.0% of indicated torque, aligned with automotive torque testing practices
Torque Resolution	High-resolution digital torque measurement
Angle Resolution	0.01° to 0.1° (sensor dependent)
Rotational Speed Range	0.1 – 6000 rpm
Control Modes	Closed-loop torque control and closed-loop angle control
Drive System	Servo-driven rotary system
Measurement System	24-bit high-resolution torque sensor signal conditioning
User Interface (HMI)	4" / 7" industrial-grade touch screen, shop-floor suitable
Display Features	Real-time torque, angle and graphical test curves
Connectivity	Ethernet, analog outputs for PC integration
Software Interface	PC-based test software supporting recipe-based testing, monitoring and reporting
Test Modes	Single and cyclic test modes
Test Capabilities	Performance, durability and endurance testing
Safety Features	Alarm generation with event logging and safety interlocks
User Management	Multi-user login with role-based access control
Data Export Formats	Excel, CSV and PDF
Reporting	Automatic single & batch test reports with graphical data
Data Storage	Secure database storage for traceability
Standards Alignment	Designed to perform tests in accordance with applicable ISO and automotive testing practices
Applications	Automotive & EV components, powertrain & drivetrain systems, torque-angle and torque-time testing, mechatronic assemblies, aerospace & precision components, manufacturing and end-of-line validation

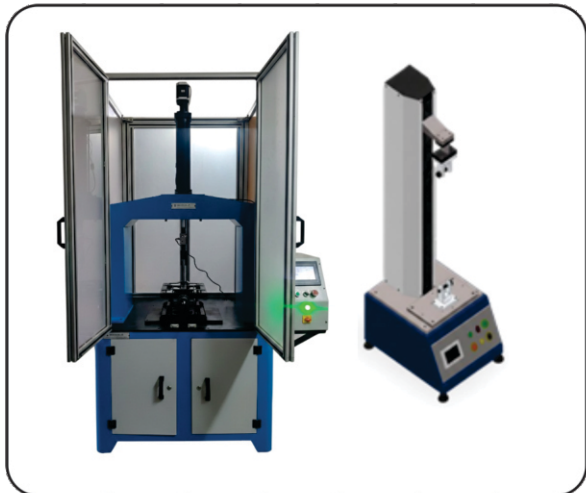
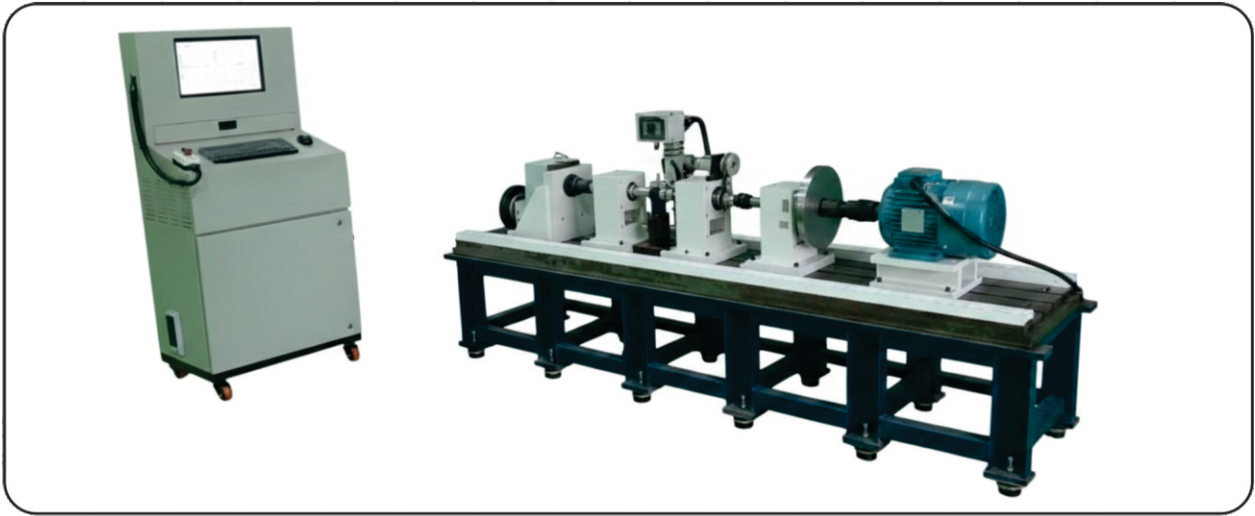
**Understanding of capacity ratings and configuration codes**

Model Name	Capacity (N.m)	Configuration Code	Configuration Code Description
MSTT	0.5 – 25,000	Essential (E)	Torque testing system with standard torque control, real-time torque display, basic reporting and recipe-based operation for routine testing and validation
		Standard (S)	Heavy-duty torque testing system with torque-angle control, enhanced mechanical design, automated & batch reporting, cyclic/endurance testing and event logging for supplier validation and PPAP
		Pro (P)	Advanced torque testing system with high-speed data acquisition, extended analysis capabilities, software-based calibration and comprehensive reporting for OEM, Tier-1 and R&D applications

**Order Number Sample: MSTT-100S** (MSTT denotes Model Name, '100' denotes Machine Capacity, 'S' denotes Configuration Code as Standard)

**Advanced torque measurement software with built-in batch reporting for effortless data management.**





**Precision Measurement Solutions: Sensors & Electronics**

Tension, Compression Load Cell		20,50,100,150,200,300, 500N 1,2,3, 5~ 50kN	Sensitivity: 1.0±20% $mV/V$ Accuracy: ≤0.2%F.S. Cable Size: $\phi 2/3 \times 3000mm$ Material: Stainless Steel
Weight Sensor		0.1, 0.2, 1, 2, 3, 5, 10, 15, 20, 30 ton	Sensitivity: 2.0±0.5% $mV/V$ Accuracy: 0.05%F.S. Cable Size: $\phi 6 \times 5000mm$ Material: Alloy steel
Force Sensor		50, 100, 200, 500, 1000, 2000, 3000, 5000 Kg	Sensitivity: 2.0±0.25% $mV/V$ Accuracy: 0.018%F.S. Cable Size: $\phi 5.4 \times 3m$ Material: Stainless Steel
Static Torque Sensor		0~100;1K , 2K ,5K Nm	Sensitivity: 1.5±10% $mV/V$ Accuracy: ≤0.3%F.S. Cable Size: $\phi 5.2 \times 3m$ Material: Stainless Steel Alloy steel
Dynamic Torque Sensor		0~0.1,0.2,0.3,1,2, 5~5000N.m	Speed Range: 0~8000 rpm Accuracy: ±0.2%F.S. Cable Size: $\phi 6 \times 3000mm$ Material: SS17-4PH, Al shell
Signal Converter		0.4 to 6 $mV/V$	Independent Channels. Strong Load Capacity. Input power reverse protection and output short circuit protection
Amplifier		24 bit- Delta-Sigma/ 24 bits	It has RS232 and Rs485 communication methods. Supports Modbus-RTU protocol.The conversionspeed can be reach up to 1280Hz.

**Our Clients, Our Strength**



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