

2025

BESMAK

SERVO HYDRAULIC UNIVERSAL TEST MACHINE

WITH DOUBLE TEST AREA



BMT-SD

This series material testing machine product group was primarily developed for standardized tests on materials and components.

Test Typical: wide range of tension, compression, bending, shearing and low cycle test. include metal, building components, rubber, plastic, spring, high strength steel (HSS), aerospace and automotive structures, screws, nuts, large fasteners, wood products etc.

DESCRIPTION

BESMAK SERVO series Universal Testing Machine, designed with a rigid frame in Column type construction and double workspace. Load measurement is made by a Load Cell. It is suitable for testing long samples or the samples having high strain capacity with its long-range piston stroke.

BESMAK SERVO Series Computer-Controlled Hydraulic Universal Testing Machine is suitable to test various metallic & non metallic materials for tension, compression, bending and shearing testing.



COMPRESSION TEST



TENSILE TEST



SHEARING TEST



BEND TEST

TYPE OF SPECIMENS AND MATERIALS

METALS

(wire, rod, tube, strip, plate, strip)

FASTENERS

(tensile, proof, single and double shear)

CONSTRUCTION MATERIALS

(reinforcement bar, wire, mesh, folding, compression of concrete and components)

APPLIED STANDARDS

Load meets exceeds the following standards :

✓ ASTM E4

✓ ISO7500-1

✓ EN 10002-2

✓ BS1610

✓ DIN 51221

Strain measurement meets or exceeds the following standards :

✓ ASTM E83

✓ ISO 9513

✓ BS 3846

✓ EN 10002-4

TECHNICAL SPECIFICATIONS

- Up to 2000kN axial force capacity according to customers or/and test application requirement
- Special Electro-magnetic displacement sensor accurately measures actuator travel at the center of the load string
- An ideal system for testing common sized specimen with non-adjustable crosshead design
- Convenient working height and ergonomic controls improve operator productivity and comfort
- Long-stroke, high-speed actuator is well-suited for tension applications requiring repetitive testing of similar-sized specimens
- Anti-rotation system prevents the actuator from rotating during test stroke
- Choice of hydraulic configuration and machine performance to suit application

LOAD MEASUREMENT AND CONTROL

Load measurement and control with a load cell of class 0.5, 2.5 kHz data accusation Close-loop electronic controller "EDC", The electronic control unit of system is with 2500 samples per second data acquisition speed.

Max. Load(kN)	1000
Tensile space(mm)	980
Compression space(mm)	700
Distance between two columns	580
Piston stroke(mm)	250
Piston no-load speed(mm/min)	120

FRAMES	
BMT-400S/FR	Hydraulic Universal Testing Machine Frame Only, 400 kN Capacity
BMT-1000S/FR	Hydraulic Universal Testing Machine Frame Only, 1000 kN Capacity
BMT-1200S/FR	Hydraulic Universal Testing Machine Frame Only, 1200 kN Capacity
BMT-2000S/FR	Hydraulic Universal Testing Machine Frame Only, 2000 kN Capacity
BMT-5000S/FR	Hydraulic Universal Testing Machine Frame Only, 5000 kN Capacity

HANDHELD UNIT

Handheld unit to move machine up and down without use of computer and to control jaws to fix sample into the machine easily accurately and safely, Load channel with a resolution of 20 bit, adjustable load control in between 0.01kN/s-25kN/s, adjustable displacement control in between 0.1-100 mm/min.

ELECTRONIC CONTROL UNIT

Electronic control unit is feasible to attach and control video extensometer, laser extensometer, LVDT, automatic extensometer, strain gauge, load cell, SSI and TTL type sensors (optional cards and plugs may required). Special Eeprom sensor plugs can store calibration and sensor data inside it. Due to this feature control unit can read sensor and calibration data even if user change it with new unit.

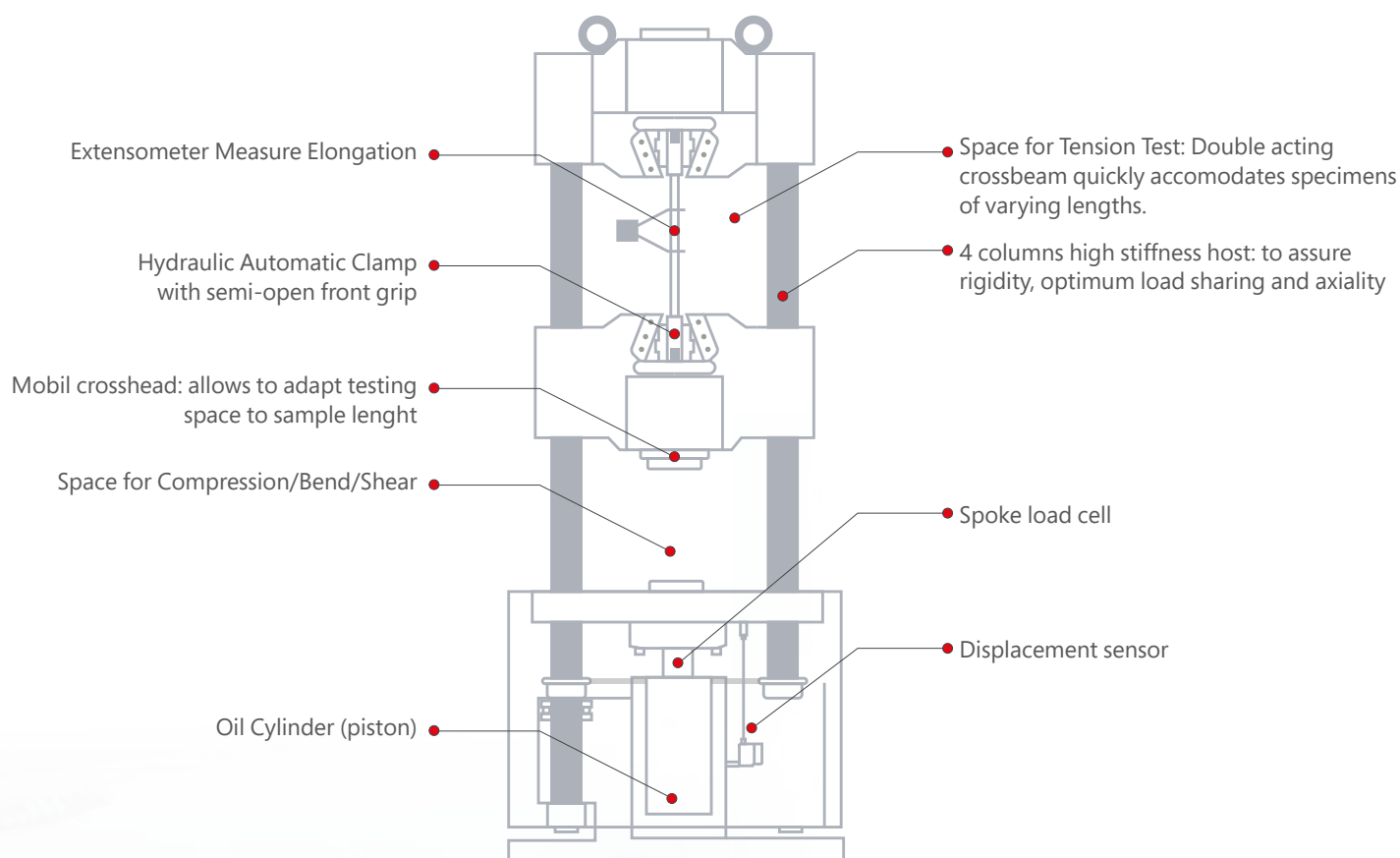


High Temperature Electric Furnace

- Temperature range: 200-1100°C
- Heating method:
 - Three sections of electric wire heating, Segment control
 - Thermometric Element :
 - K Type Temperature Measuring Thermocouple
- Dimension: $\Phi 300 \times 420 \text{mm}$
- Heat Inner Diameter: $\Phi 80 \text{mm} \times 360 \text{mm}$

High and Low Temperature Test Chamber

- Temperature range:
 - -40/-70°C~150/300/350°C (compressor or liquid nitrogen)
 - -190°C~300°C/350°C (liquid nitrogen)
- Inner chamber size: according to customer's requirement



ACCSESORIES



MECHANICAL JAW SIDE ACTION

BMT-PJS



WEDGE TYPE MECHANICAL JAW

BMT-MJV



LONG TRAVEL EXTENSOMETER

BMT-LTE



WEDGE TYPE PNEUMATIC JAW

BMT-PJW



PNEUMATIC JAW SIDE ACTION

BMT-PJS

**BESMAK is
the representative of
largest companies in industry
which are the active in
many countries around
the world and sales of
Construction Laboratory
Testing Equipments**

In the construction sector soil, asphalt, concrete, aggregates, cement, rock mechanics and construction materials for quality control testing laboratories aimed to provide high quality products using advanced technology and experience since it was established. In this way it's been one of the pioneering company in the international sector.

Our company imports, exports and technical support and has been producing hi-tech CNC machines on the 6300 m² closed area. We keep going R&D with our experienced engineers and we produced new design products in sector. Also electronic control units and software design made by our company too.



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MATERIAL TESTING MACHINES



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