

Reliable Testing for
Stronger Materials

DIGICON
Universal Testing Machine

UTM Series 5 kN to 300 kN



High
Accuracy



Wide Speed
Range
0.001 – 500 mm/min



Advanced
PC Software



Flexible
Test Solutions



Model Range

Model	Capacity
DT-UTM-5	5 kN
DT-UTM-10	10 kN
DT-UTM-50	50 kN
DT-UTM-100	100 kN
DT-UTM-150	150 kN
DT-UTM-200	200 kN
DT-UTM-300	300 kN

Maximum Test Speed
500 mm/min
(0.001 – 500 mm/min)

Applications



Industry



Pharma



Plastic



Polymer



Composite



Metal

Technical Specifications

Parameter	DT-UTM-5	DT-UTM-10	DT-UTM-50	DT-UTM-100	DT-UTM-150	DT-UTM-200	DT-UTM-300
Capacity (kN)	5	10	50	100	150	200	300
Number of columns	2 (for all models)						
Speed range (mm/min)	0.001 – 500 (for all models)						
Speed accuracy	±0.1% under stable conditions						
Crosshead travel (mm)	As per model						
Position resolution (mm)	0.001						
Vertical test space (mm)	As per model						
Throat (mm)	As per model						
Frame stiffness (kN/mm)	As per model						
Crosshead guidance	Linear slides integral within columns						

Parameter	Specification (All Models)
Load cell accuracy	±0.5% of reading (down to 1/1000th of load cell capacity)
Load cell resolution	1 part in 500000 (auto ranging)
Data sampling rate	Up to 12 kHz (up to 200 Hz data frames)
Max. force at full speed (kN)	As per model
Max. speed at full load (mm/min)	500
Operating temperature (°C)	-10 to +40
Operating humidity	+10 to +90% non-condensing
Electrical supply	Universal input (de-rate max speed at 115 V)
Power (kW)	As per model
Machine configuration	Table top (base cabinet optional)
Overall dimensions (W x D x H mm)	As per model
Weight (kg)	As per model

Machine Features

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Advanced electromechanical testing platform with PC-based control, precision force measurement, servo motion and flexible accessory integration.



PC-based testing software

Windows test software for method setup, live monitoring, calculations, graphs and result storage.



Real-time test display

Live force and displacement/elongation values with test curves, calculated results and specimen statistics.



Fully digital control

Computer-controlled test sequences for simple, repeatable operation and programmable methods.



High-resolution force measurement

Auto-ranging force measurement; final accuracy depends on the selected load cell and calibration.



Extensometer support

Supports compatible extensometers and auxiliary measurement devices required by the selected method.



Compact machine footprint

Space-efficient frame design for laboratory, quality-control and production environments.



Precision ballscrew drive

Preloaded ballscrew transmission provides smooth, quiet motion and repeatable crosshead positioning.



Crosshead guidance

Two-column guided crosshead system supports accurate alignment and smooth running.



Servo-controlled crosshead

Digital AC servo drive and brushless servo motor provide precise speed and position control.



High-speed data acquisition

Fast acquisition for synchronized force, displacement and optional measurement channels.



Peripheral connectivity

Provision for compatible gauges, extensometers and other test accessories through the control system.



Rigid load frame

High-stiffness two-column construction designed for stable loading and consistent alignment.



Machine protection

Overload, overtravel, emergency-stop and programmable motion-limit protection.



Ballscrew protection

Protective covers help shield the motion system from dust and test debris where fitted.



Wide fixture selection

Interchangeable grips and fixtures can be supplied for a broad range of material and component tests.



Extensometer options

Contacting and non-contacting solutions can be integrated according to application requirements.

PC Software & Reporting

Create and store methods, display real-time curves, capture peak and break values, calculate results, maintain specimen records and configure customer-oriented report/export formats.

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Machine features and options may vary by model and configuration.