

# UNIVERSAL TESTING X250

## UNIVERSAL TESTING MACHINES X250

The **X250 Universal Testing Machine** is the smallest of the models offered by Ray-Ran within the product range. The small footprint single column machine has a range of 5N to 3KN and is used in all industries worldwide for materials testing, product testing, research and development, and quality control applications. Fully automated by advanced computer technology the testing system with high precision control ensures simplicity in operation and highly accurate test results.

The Universal Testing Machine uses feature-rich **WinTest™ Analysis** software for control and testing, with comprehensive onboard test methods that are compliant with all relevant industry standards including advanced, standard and complex multi-stage test procedures which are fully configurable and controlled using a standard PC interface. An optional IPC3 industrial-grade Panel PC with touchscreen control can be supplied making the machine a robust standalone system without the need for an external PC or laptop, or customers can utilize their own desktop computer or laptop to operate the machine.

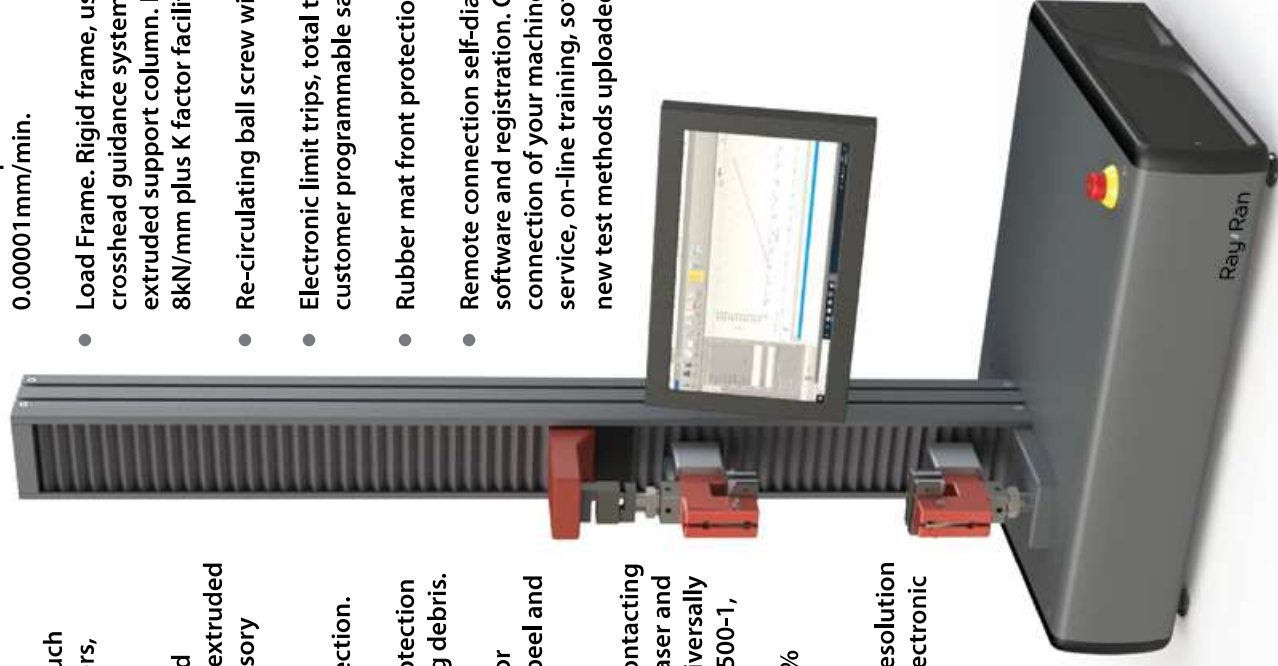


### THE STANDARD FEATURES OF THE MACHINE INCLUDE:

- A fully digital testing system with high precision control and accuracy includes automated computer control of test methods giving simplicity of operation.
- High-resolution auto ranging load cells with accuracies better than  $\pm 0.5\%$  down to 1/1000th of the load cell capacity.
- Automatic recognition and calibration of load cells and extensometers, with instant calibration check facility.
- 800% overload capability of load cells without damage.
- Small footprint design, giving the economy of a bench and floor space.
- High efficiency pre-loaded self-cleaning ball screws for fast, quiet testing. Fitted with sealed for life lubricated end bearings.
- Crosshead guidance system providing precise alignment and smooth running.
- Precision crosshead control via digital AC servo drive and brushless servo motor giving maintenance free operation and 4,000,000 steps per revolution positional control.

- High-speed data collection systems for up to 4 synchronous channels.
- 6 I/O channels for additional devices such as extensometers, micrometers, calipers, balances, etc.
- High stiffness loading frames with solid specialized steel crossheads and rigid extruded support columns with T-slots for accessory mounting.
- Overload, over travel and impact protection.
- Telescopic covers giving additional protection for ball screws against dust and testing debris.
- Extensive range of grips and fixtures for tension, compression, flexural, shear, peel and product testing, etc.
- A wide range of contacting and non-contacting extensometers is available including laser and video models. Force Measurement Universally Calibrated, better than Grade 0.5 EN 7500-1, DIN 51221  
ASTM E-4, AFNOR A03-501. Range 0.4% to 100% minimum.
- Automatic identification of load cell. Resolution 1 part in 500000 with auto-ranging. Electronic load cell protection.
- Extension Measurement. Full frame length to a maximum resolution 0.000001 (selectable). Accuracy  $\pm 0.01$  mm. Absolute, relative and auxiliary modes mm, in and percent. Programmable extension limits.

- Speed Control. Drive system temperature and current protection. Positional jog speed 0.00001mm/min.
- Load Frame. Rigid frame, using dual slide crosshead guidance system and rigid extruded support column. Frame stiffness 8kN/mm plus K factor facility built-in.
- Re-circulating ball screw with bellows.
- Electronic limit trips, total travel trips, and customer programmable safety stops.
- Rubber mat front protection.
- Remote connection self-diagnostics software and registration. Giving direct connection of your machine for remote service, on-line training, software upgrades, new test methods uploaded, etc



## TECHNICAL SPECIFICATION

- Single column machine bench mounted (optional base cabinet available)
- Throat 200mm
- Vertical space 800-1160mm
- Direct connection to extensometers
- A/C servo drive
- Machine Capacity 5N - 3kN
- WinTest™ Analysis software
- Auto Load cell identification
- Load cell protection
- Operating software Ethernet (or USB via adaptor)
- High-resolution load cell
- Supply voltage 230V, 1ph
- User-selectable load and travel limits
- Speed Range 0.00001 to 2500mm/min in steps of 0.00001mm/min
- Power 0.3kW
- Product user manual
- CE declaration certificate
- 1-year return to base warranty
- Crosshead Travel (excluding grips) 630-990mm
- Telescopic lead screw covers

## OPTIONAL ANCILLARIES

- Range of manual grips
- Range of pneumatic grips with a footswitch
- Compression platens, round or square
- 3 & 4 point bending fixtures various spans available
- Up to 4 Load cells can be fitted to a maximum of 3kN
- Various Extensometers for different materials available
- Wide frame extension
- Height extension
- Remote connection software

## WEIGHTS & DIMENSIONS: RR/UTM X250

Net Weight (kg)	65
Width (cm)	69
Depth (cm)	53
Height (cm)	149