

250kN,300kN robotic automated tensile testing machine



Picture is for reference only

Application:

This robotic provides fully automatic tensile test, including specimen loading, cross-section measuring, testing, specimen unloading, and data processing.

Operators prepare specimens and position specimen on specimen rack. All processes are automatic: Robot will pick up specimen to measure cross-section, align the specimen and mount on grip, extensometer automatic gauge length adjusting, test, test data judging and processing, and collect broken specimens. Without changing any accessories (such as fixtures, etc.) of the test machine and without any adjustment or setting by the operator, the test specimens of various specifications can be continuously tested under different tensile conditions.

Specification:

Item	Name	HST-E250-AR	HST-E300-AR
Machine	Capacity	250kN	300
	Force range	0.4%-100%FS	
	Accuracy	Class 0.3	
	Force reading accuracy	±0.3%	
	Reversibility	±0.75%	
	Repeatability	±0.3%	
	Force resolution	0.6N	
	Overload	120%	
	displacement accuracy	±0.5%	

	Position resolution	0.02 μ m
	Force loading rate	0.005~5%FS/s
	Force loading accuracy	$\pm 1\%$ of setting
	Horizontal test space	650mm
	Vertical test space	700mm
	Crosshead speed	0.001~500mm/min
	Crosshead speed accuracy	Speed<0.01mm/min, within $\pm 1\%$ of setting, Speed ≥ 0.01 mm/min, within $\pm 0.2\%$ of setting
	Constant force and displacement control range	0.5%~100%FS/s
	Constant force and displacement control accuracy	Setting value $\geq 10\%$ FS, within $\pm 0.1\%$ of setting, Setting value<10%FS, within $\pm 0.1\%$ of setting
Automatic axial Extensometer	Gauge length	15~205mm
	Gauge length accuracy	0.5% or 0.1mm, whichever is bigger
	Maximum travel	80mm
	Resolution	0.0005mm
	Specimen clamping range	5~50mm
	Accuracy	Class 0.5
Pneumatic shoulder grip	Clamp type	Shoulder type, pneumatic action
	Center alignment accuracy	0.2mm
	Clamping range	Gripping end: $\Phi 20 \sim \Phi 25$ mm
Specimen rack	Maximum specimen quantities	60 pieces
	Specimen rack numbers	4
	Specimen length	120~250mm
Broken specimen rack	Maximum specimen quantities	60
	Specimen rack numbers	4
Robot	Type	ABB joint type
	Handling weight	6kg
	Maximum reach	1450mm
	Degree of freedom	6
	Positioning repeatability	0.02mm
	Speed	21 pcs/hour
Cross-section measurement device	Measuring range	$\Phi 5 \sim \Phi 25$ mm
	Resolution	0.02mm
Specimen	Round specimen	Gripping end: $\Phi 20 \sim \Phi 25$ mm, parallel length $\Phi 10$, $\Phi 14$ mm, Length: 120~250mm