



## Testing machines

# UH Series

## Hydraulic method of force generation

### Wide range of applied loads

Standard equipment with a capacity of 200, 300, 500, 1000 kN, as well as particularly powerful equipment up to 4000 kN for tensile, compression and bending tests can be supplied.

### TRAPEZIUM X series software

The software allows full control of the testing process via PC.

### Open Front Clamps (UH-FX Only)

The equipment is available in two modifications: UH-X and UH-FX. The standard equipment of the UH-FX series machine includes front-type hydraulic clamps.

### LCD control panel

The testing machine is equipped with a touch LCD panel to control and monitor the testing process. SS curve during testing displayed on the LCD screen in real time.

### Crossbeam speed up to 450 mm/min

Possibility of setting different detection speeds.

### Two accuracy classes 1 and 0.5

The equipment is produced in two accuracy classes with an error of 1% and 0.5%.

### Highly rigid frame

The rigidity of the main frame guarantees the reliability and trouble-free operation of the equipment. Equipment with different frame heights can be supplied to increase the working test area.

### Safety

Overload protection  
Emergency stop button  
Piston stroke limiter

### Large selection of additional accessories

Devices for various types of testing (tensile, compressive and bending). Additional accessories (extensometers, thermal chambers).

## Specification. [UH control and measuring unit].

<b>1. Loading method</b>	Computer controlled electro-hydraulic servo system	
<b>2. Measuring force</b>		
<i>a) Method</i>	Measuring the internal pressure of the cylinder using a high-precision pressure sensor	
<i>b) Accuracy: Standard type</i>	Within $\pm 1\%$ of force value (1/1 to 1/250 of nominal value) Conforms to JIS B7721 Class 1; ISO 7500/1 Class 1; ASTM E4	
High precision	Within $\pm 0.5\%$ of force value (1/1 to 1/250 of nominal value) Conforms to JIS B7721 Class 0.5; ISO 7500/1 Class 0.5; ASTM E4	
<i>c) Strengthening</i>	Smooth, no ranges	
<b>3. Display of power</b>		
<i>Operating room</i>	Digital display	Resolution: 1/200000
<i>Analog indicator (option)</i>	Analog display	Dial diameter: 450 mm Min. scale: 1/1000
	Digital display	Display resolution: 1/200000
<b>4. Display stroke measurements</b>	Measurement using an optical coding device Fully closed automatic load control; units: mm, inches	
<b>5. Automatic load management</b>	<i>Method</i>	Digital display (display resolution: 0.01mm)
	<i>Test management functions</i>	Single test control, cyclic test control (triangular wave, trapezoidal wave), stress control (tensile test of metal), strain control (tensile test of metal according to ISO 6892-2009/JIS 72241), 3-step speed control, concrete test control (compression, bending, etc.).
	<i>Range</i>	Control of the ram stroke Speed range: 0.1 mm/min to max. load speed Control range: ram returns to max. stroke point Speed range: 0.2% to 500% of full scale/min Control range: 0.4 to 100% of full scale force Speed range: 0.1 to 80%/min
	Power control	
	Deformation control	Control range: 5 to 100% of full scale elongation
<b>6. Input/output connection</b>	External analog input: 2CH External digital input: 2CH (optional) External analog output: 2CH Output to external recording device: USB interface Possibility of using two amplifiers for displacement measuring devices (optional)	
<b>7. Standard functions</b>	<ul style="list-style-type: none"> <li>• Auto-zeroing of force</li> <li>• Definition of a gap</li> <li>• Auto return</li> <li>• Setting arbitrary running speed</li> <li>• Cycle counting</li> <li>• Display of Peak/Break value</li> <li>• Speed display</li> </ul>	<ul style="list-style-type: none"> <li>• Display of displacement value</li> <li>• Manual load control</li> <li>• Auto-calibration of force</li> <li>• Display of voltage value</li> <li>• Test conditions file (100 files)</li> <li>• SS curve display function</li> <li>• Automatic deformation control</li> </ul>
<b>8. Devices security</b>	Automatic overload stop function (when the force value reaches 102% of the full scale value, loading is automatically stopped). Setting limits via software (automatically stops testing when the set limit is reached). Emergency stop button.	



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