

No.218 Strograph AP4

Fully automated tensile testing machine for plastic specimens



OPTION

Thermometer & Hygrometer



■ APPLICATION

Toyoseiki Strograph AP4 is a fully automated tensile testing machine for plastic specimens meeting the testing requirements of ISO527-2 (1A) and ASTM D638 (Type I & II). The machine automatically operates a sequential operation from feeding of specimens, dimensional measurement, tensile testing and data processing.

■ FEATURES

- Applicable from fine-elongation to large deformation
- Automatic measurement of specimen width and thickness
- Space-saving design
- Data is saved in the data processing unit and measurement data with graph can be printed-out.
- Tray type specimen rack makes it easy to manage specimens. (Up to 200 specimens can be loaded)

■ SPECIFICATIONS

Kind of specimens	
<ul style="list-style-type: none"> ■ ISO 527-2 (JIS K 7161-2) Dumbbell specimen 1A ■ ASTM D638 TYPE I, TYPE IV 	
Multiple choices possible	

Main unit	
Capacity	20kN
Speed	0.0005 to 500mm/min.
Return speed	Max. 500mm/min.
Effective stroke	Approx. 700mm (When B-1 chuck is used)

Measurement part	
Load cell	<ul style="list-style-type: none"> ■ 20kN ■ 10kN ■ 5kN To be selected upon order
Force range	Range-less (Equivalent to x1 to x100)
Force display unit	N
Zeroing	One-touch operation
Sag correction	Automatic

Chucks (Grips)	
Pneumatic (Air pressure 0.4MPa or more)	

Specimen thickness and width measurement part	
Thickness gauge	Digital thickness gauge Resolution: 1/100mm Accuracy: $\pm 2/100$ mm
Measurement points	3 points (Within gauge length)
Anvils	Tip $\varnothing 2.4$ mm (Sphere) Fix side $\varnothing 2$ mm (Flat)

Extensometer	
Tracking system	Contact system
Gauge length	50mm
Tracking accuracy	Fine range: $\pm 1\mu\text{m}$ (0 to $100\mu\text{m}$), $\pm 1.5\mu\text{m}$ ($150\mu\text{m}$) Large range: $\pm 1\%$ (10mm or more)
Effective stroke	350mm

Specimen feeder	
Specimen cartridge	Tray system
Number of trays	Max. 40 trays
Number of specimens per tray	Max. 5 specimens

Data processing unit	
Data processing unit	<ul style="list-style-type: none"> ■ Personal computer ■ LCD monitor ■ Printer (Optional)
Test condition setting items	<ul style="list-style-type: none"> ■ Date ■ Operator name ■ Specimen shape name ■ Specimen lot ■ Grade name ■ Load range ■ Test speed etc.
Data processing items	<ul style="list-style-type: none"> ■ Thickness ■ Width ■ Elastic modulus ■ Yield point strength ■ Yield point strain ■ Maximum point strength ■ Maximum point strain ■ Fracture point strength ■ Fracture point strain ■ Fracture point nominal strain ■ Average value of the same lot ■ Standard deviation of the same lot
Print-out items	<ul style="list-style-type: none"> ■ Thickness ■ Width ■ Elastic modulus ■ Yield point strength ■ Yield point strain ■ Maximum point strength ■ Maximum point strain ■ Fracture point strength ■ Fracture point strain ■ Fracture point nominal strain ■ Average value of the same lot ■ Standard deviation of the same lot ■ Stress-strain curve

Safety guards

- Rod type limiter
- Emergency stop switch

Dimensions, Weight and Utilities

Dimensions	W1500 x D900 x H2000mm
Weight	Approx. 620kg
Power supply	<ul style="list-style-type: none">■ Single-phase, AC100V, 50Hz or 60Hz, 1.0kVA (Main unit)■ Single-phase, AC100V, 50Hz or 60Hz, 0.5kVA (PC)
Compressed air	0.5MPa, 40L/min.

Specifications are subject to change without notice.



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