Toyo Seiki Seisaku-sho, Ltd. 5-15-4, Takinogawa, Kita-ku, Tokyo 114-8557, Japan

No.210 Strograph, model E3

(Single Column Table-top Universal Testing Machine)

(Model E3-SC, E3-LC)

Operation panel

SPECIFICATIONS

Model name	**E3-S** **(E3-SC…conforms to CE marking)**	**E3-L** **E3-LC…conforms to CE marking)**
Load cell capacity	Max. 1kN (Selectable from 5N, 50N, 100N, 500N, 1kN)	
Force accuracy	Within ±1% of indicated value (in the range 1/1 to 1/500 of load cell related capacity) Conforms to ISO 7500-1 (JIS B 7721) Class 1	
Force magnification	Range-less (x1 to x100 equivalent)	
Crosshead speed range	0.05~1500mm/min., 22 steps 0.05, 0.5, 1, 1.5, 2, 2.5, 3, 5, 10, 15, 20, 25, 30, 50, 100, 150, 200, 250, 300, 500, 1000, 1500mm/min.)	
Crosshead speed accuracy	±0.5% (0.5~1000mm/min)	
Crosshead return speed	50~1500mm/min.	
Crosshead travel distance	490mm	990mm
Effective stroke (using J-3 chuck)	330mm	830mm
Interface	RS-232C	
Power supply	Single-phase, AC100~115V or AC200~240V, 50/60Hz, 0.3kVA	
Dimensions	W435 x D460 x H900mm	W435 x D460 x H1400mm
Weight	Approx. 47kg	Approx. 62kg

OPTIONS…Chucks (Grips)

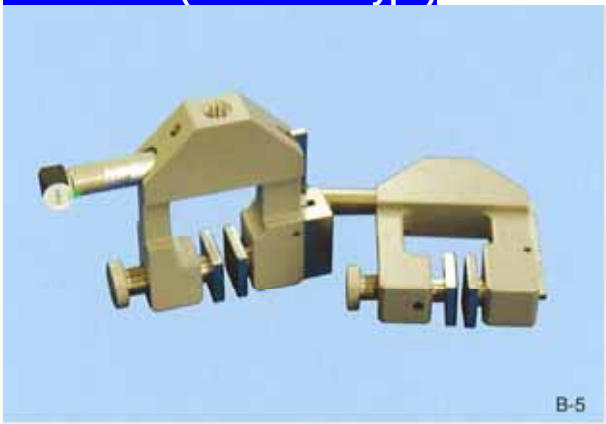
Application

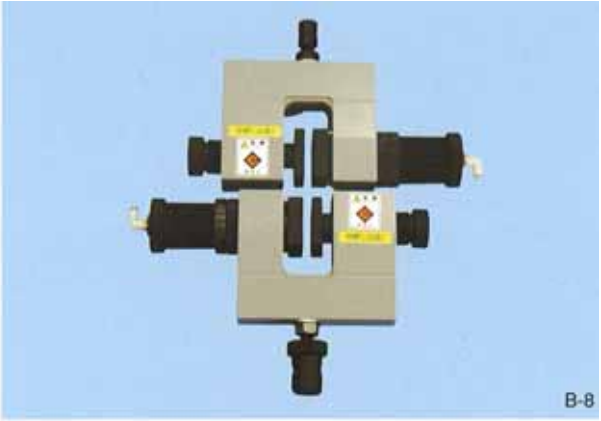
Vise chuck (Screw clamp)	50N~1kN	Plastic sheet, Cloth, Paper etc.
Vise chuck (Pneumatic)	5N~1kN	Plastic sheet, Plastic film, Rubber (dumbbell), Thread, Cloth, Paper etc.
Wedge chuck (Spring clamp)	300N~1kN	Plastic sheet etc.
Wedge chuck (Fixed position)	200N~1kN	Plastic sheet etc.
Dumbbell chuck	500N~3kN	Rubber(dumbbell) etc.
Wide range box chuck	100N~500N	Plastic film, Paper etc.
Eccentric chuck	1kN	Rubber(dumbbell) etc.
Box chuck	200N~500N	Paper etc.
Cord chuck	300N~1kN	Thread etc.

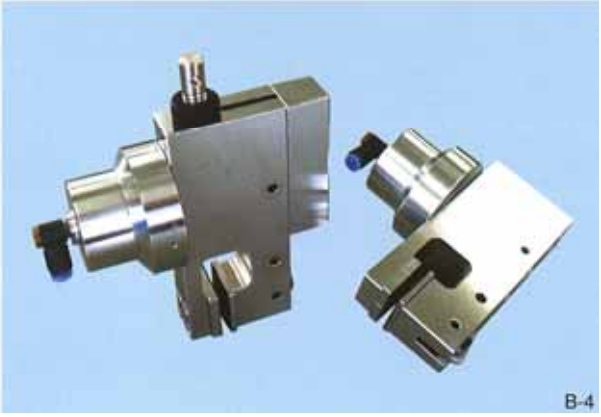
Vise chuck (Screw clamp type)

Model	Max load	W x H	Clearance	Surface
A-3	1kN	50 x 40mm	16mm	Filling or rubber sheet
A-4	200N	30 x 30mm	9mm	Filling or rubber sheet
A-5	100N	30 x 30mm	9mm	Filling or rubber sheet
A-6	50N	20 x 20mm	9mm	Filling or rubber sheet

Vise chuck (Pneumatic type)







Model	Max load	W x H	Clearance	Surface
B-3	1kN	50 x 40mm	8 + 8mm	Filling or rubber sheet
B-4	500N	25 x 25mm	3mm	Filling or rubber sheet
B-5	50N	20 x 20mm	2.5 + 2.5mm	Filling or rubber sheet
B-6	20N	18 x 18mm	3 + 3mm	Filling or rubber sheet
B-12	1kN	30 x 24mm	10mm	Filling or rubber sheet
B-13	500N	30 x 20mm	10mm	Filling or rubber sheet
B-14	5N	8 x 20mm	2mm	Flat
B-16	100N	25 x 25mm	3 + 5mm	Filling or rubber sheet
B-17	100N	25 x 20mm	8mm	Filling or rubber sheet

Wedge chuck (Spring clamp type)

Model	System	Max load	W x H	Clearance	Surface
D-4	Lever guide	1kN	30 x 25mm	4.5mm	Filling
D-7	Pin guide	1kN	10 x 30mm	5.0mm	Filling
D-8	Pin guide	300N	10 x 30mm	5.0mm	Filling

Wedge chuck (Fixed position type)

Model	Max load	W x H	Clearance	Surface
C-4	1kN	26 x 30mm	7.5mm	Filling
C-5	200N	26 x 30mm	7.5mm	Filling

Dumbbell chuck

Model	Max load	Width	Roll diameter	Clearance	Surface
H-1	3kN	35mm	Ø8mm	4mm	Rod
H-2	500N	35mm	Ø8mm	4mm	Rod
H-3	3kN	35mm	Ø8mm	4mm	Knurling
H-4	500N	35mm	Ø8mm	4mm	Knurling

Wide range box chuck

Model	Max load	W x H	Clearance	Surface
J-2	500N	50 x 30mm	6mm	Flat or Rubber sheet or Filling
J-3	100N	50 x 20mm	6mm	Flat or Rubber sheet or Filling

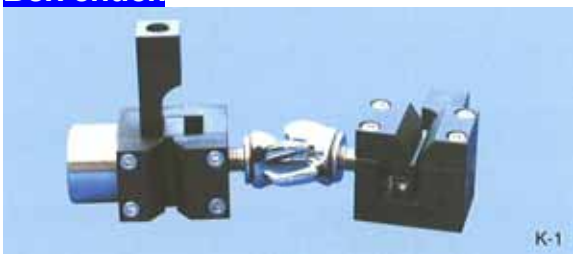
Strip chuck

Model	Max load	W x H	Clearance	Surface
L-2	500N	60 x 30mm	6mm	Corrugated rubber or filing

Eccentric chuck

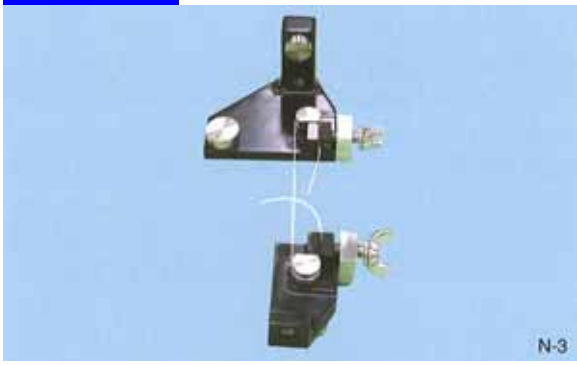
Model	Max load	Width	Clearance	Surface
I-2	1kN	26mm	6mm	Knurling

Box chuck



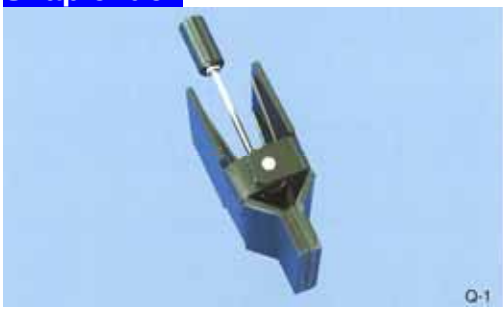
Model	Max load	W x H	Clearance	Surface
K-1	500N	16 x 30mm	3mm	Flat or Rubber sheet
K-2	200N	16 x 30mm	3mm	Flat or Rubber sheet

Cord chuck



Model	Max load	Clearance	System
N-2	1kN	3mm	Manual
N-3	300N	3mm	Manual
N-4	1kN	3mm	Pneumatic

Snap chuck



Model	Max load	W x H	Clearance	Surface
Q-1	10N	32 x 10mm	1mm	Rubber sheet

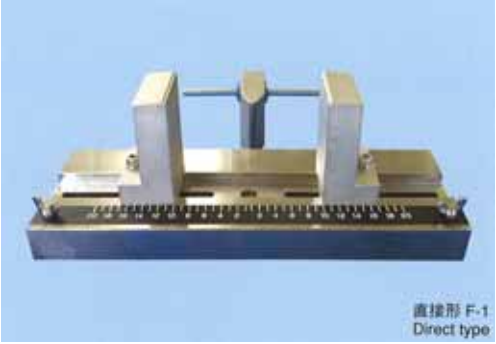
Grab chuck

Model	Max load	W x H	Clearance	Surface
M-2	1kN	25.4 x 25.4mm	4mm	Flat

Compression tool

Model	Max load	Diameter	System	Max diameter of specimen
G-11	500N	Ø80mm	Direct type	Ø80mm

Bending tool



Model	Max load	Standard	Span	Indenter	Fulcrum	System
F-7	500N	JIS	20~150mm	R5mm	R5mm	Direct type

90° peeling tool

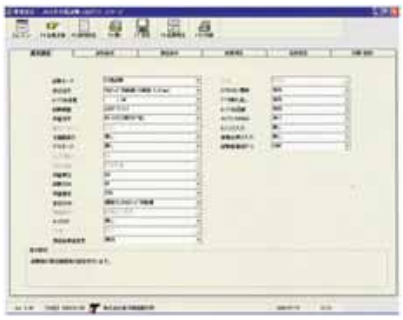
Model	Max load	Size of base material	Exfoliation Width
R-1	50N	25 x 109mm	19mm

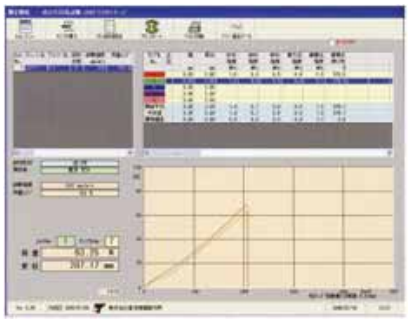
Slide test tool

Model	Standard	Table size	Sled dimensions	Sled contact face	Sled weight	Spring	Sliding speed
S-1	ASTM	160 x 380mm	63.5 x 63.5mm	Sponge	200g	N/A	150mm/min
S-2	J.TAPPI	200 x 450mm	60 x 100mm	Metal	1000g	N/A	10mm/min
S-3	JIS/ISO	160 x 380mm	63 x 63mm	Felt	200g	Use for static friction	100mm/min

OPTIONS…Data processing software, Extensometer etc.

Data processing software
Model WD





1. In measuring, Measured values of load and stroke between chucks are displayed on computer's CRT screen during measurement.
2. Up to 20 tests of 1 lot can be plotted together on same screen.
3. Maximum 50 samples of same testing conditions can be registered and continuously measured.
4. Processing items are indicated on pattern, allowing you to see them at a glance.
5. Detailed data processing is also possible by pressing the "Detailed Setting" button.
6. Testing conditions can be registered and retrieved.
7. By selecting kind of sample (plastic, rubber, etc.) and specifying standard sample, chuck span, distance between bench marks and standard sample dimensions are automatically set.

DATA PROCESSING ITEMS:

1. Tensile test
2. Tear test
3. Compression test
4. Bending test
5. Peeling test

Mini thermal printer
Model S-PR1

1. Printing system: Heat-sensitive serial dot system
2. Character configuration: 7x5 dot matrix
3. Print paper: 80mm x 20m

Contact type extensometer
Model DE-C

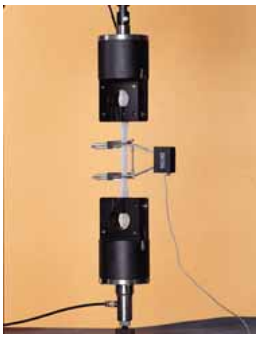
Tracks elongation between the marks by clipping it directly to the marked part of sample.

1. Detecting system: Pulse type encoder
2. Marks span: 20mm or more
3. Tracking range: Max. 1000mm (effective stroke)
4. Resolution: 0.01mm (minimum)
5. Thickness of sample: 0.01-5.0mm
6. Measuring range: 10, 20, 50, 100, 200, 500, 1000mm full scale (analog output)
7. Power supply: Single-phase, AC100V, 0.3kVA

(Others on request)

Dimensions: W270 x D300 x H1390mm

Strain gauge type extensometer
(For measuring modulus of elasticity)



Calibration device

Stroke detection: Strain gauge system

1. Marks span: 50mm
2. Stroke range: 0.25, 0.5, 1, 2, 5mm
3. Zero calibration: One touch auto zero system
4. Full calibration: Electrical calibration or stroke calibrator (Option)
5. Accuracy: Within ±0.5%
6. Output: DC10V F.S. (each range)
7. Power supply: Single-phase, AC100V, 0.1kVA
8. Dimensions: W135 x D390 x H230mm

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