



No. 169

## MANUAL WATER PROOF TESTER



No.169

JIS-K6404-7, L1092, ISO-811

## ➤ FEATURE

This tester is used to conduct water proof tests on rubber and plastic cloth. The test specimen is tightened onto the clamp and is applied prescript water pressure, and the operator is to leave the test specimen for 1 minute. After 1 minute has passed, the operator is to check for water leakage and other abnormalities to the test specimen. The tester is also capable of conducting water proof tests (hydrostatic fluid pressure method and B method; high water pressure).

## ➤ SPECIFICATION

Specimen	150 × 150 mm
Clamp	Inner φ100 mm
Pressure Gauge	Max. 0.3 MPa (Scale 0.002 MPa) or 0.6 MPa (Scale 0.005 MPa)
Perforated Plate	φ140 mm, Spot φ3 mm: 45 pcs
Dimensions/ Weight (Approx.)	W420 × D500 × H700 mm/ 45 kg

No. 197

## FLEXO-METER



No. 197-L

## FLEXO-METER (WITH REFRIGERATING MACHINE)



No.197



No.197-L

JIS-K6542, K6545

## ➤ FEATURE

## ■ No.197 FLEXO-METER

This tester is used to evaluate bend-endurance of thin leather such as the upper leather of shoes. The test specimen is folded and attached to a chuck while being applied a 22.5° bending stress for a prescript number of times. The operator is then to see and evaluate the damage visible on the test specimen.

■ No.197-L FLEXO-METER  
(WITH REFRIGERATING MACHINE)

A low temp. chamber installed type is also available for low temperature testing.

## ➤ SPECIFICATION

Model	No.197	No.197-L
Hanging	12 Hangings	
Specimen	70 × 45 mm	
Flexing Angle	22.5°	
Flexing Speed	100 ± 5 times/min	
Counter	6 Digits Preset Counter	
Temperature Range	-	-35 to 60 °C (Refrigerator)
Power Source	AC 100 V, 1-Phase, 10 A, 50/60 Hz	AC 200 V, 3-Phase, 30 A, 50/60 Hz
Dimensions/ Weight (Approx.)	[No.All in One Model] W520 × D710 × H470 mm/ 60 kg [No.Separate Model] Main Body: W520 × D710 × H470 mm/ 60 kg Control Box: W210 × D340 × H270 mm/ 5 kg	W1,310 × D830 × H980 mm/ 300 kg

\*Power source, dimensions, weight may differ by specifications.



## No. 201 VINYL LEATHER CLOTH COLD PROOF TESTER



## No. 201-R VINYL LEATHER CLOTH COLD PROOF TESTER (WITH REFRIGERATING MACHINE)



No.201



No.201-R

JIS-K6404-13, K6772, ISO-4675

### ➤ FEATURE

#### ■ No.201 VINYL LEATHER CLOTH COLD PROOF TESTER

This tester is used to conduct cold temperature resistance tests on vinyl leather cloth, plastic and rubber cloth.

By dropping a falling body on to the test specimen, which that has been attached to an anvil placed in a low temperature oven for 5 minutes, the operator is to check for cracks formed on the test specimen.

Dry Ice is used for cooling and 6 tests can be tested in a row by rotating the specimen holder.

#### ■ No.201-R VINYL LEATHER CLOTH COLD PROOF TESTER (WITH REFRIGERATING MACHINE)

This model is equipped with a refrigerator, completely removing the need of dry ice.

### ➤ SPECIFICATION

Model	No.201	No.201-R
Hanging	6 Hangings	
Specimen	W20 mm, L100 mm (Folded)	
Chuck	W20 mm, D5 mm	
Falling Weight	Gross 2.5 kg	
Falling Height	50 mm	
Temperature Range	Normal to -40 °C (Dry Ice & Refrigeration Medium)	Normal to -40 °C (Refrigerator & Refrigeration Medium)
Power Source	AC 100 V, 1-Phase, 3 A, 50/60 Hz	AC 200 V, 3-Phase, 20 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W535 × D350 × H550 mm/ 40 kg	W970 × D620 × H1,250 mm/ 230 kg

## No. 202 LEATHER CONTRACTION TEMPERATURE TESTER



No.202

JIS-K6550, K6552

### ➤ FEATURE

This tester is used to measure the submerge heat shrinkage temperature of leather.

The operator is to attach the test specimen to the upper and lower chuck with a prescript load and submerge the specimen into water. The operator is to then raise the water temperature at a constant rate and read the temperature at which shrinkage occurs.

### ➤ SPECIFICATION

Specimen	50 × (2 ± 0.5) mm
Shrinkage Scale	Left - Right: 0 to 90° (1° = 0.25 mm)
Test Load	5 gf, 10 gf, 20 gf and 30 gf
Heat-Up Speed	3 to 5 °C/min
Accessories	Glass Beaker, L-shape Thermometer: 2 pcs
Power Source	AC 100 V, 1-Phase, 10 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W330 × D350 × H750 mm/ 23 kg



No. 203

## LEATHER WATER VAPOUR PERMEABILITY TESTER



No.203

DIN-53333, ISO-14268

## ➤ FEATURE

This tester is used to evaluate the permeability of leather. The operator is to cover the mouth of the container with the test specimen which is filled with silica gel. The container then put on a turn table that turns at a constant speed, and the surface of the test specimen is to be blown with air by a fan for a certain amount of time. The permeability is to be calculated from the difference in weight of the container before and after the test.

## ➤ SPECIFICATION

Hanging	6 Hangings
Container	Opening $\phi 30 \pm 3$ mm, L75 mm
Turn Table	Rotation Speed $75 \pm 5$ rpm, Container Setting Position: $67 \pm 2$ mm
Fan	Rotation Speed $1,400 \pm 100$ rpm, Outer Diameter $\phi 224 \pm 1$ mm, Propeller $75 \times 90$ mm, Length from Container Top $10 \pm 5$ mm
Timer	99 hr 99 min 99 sec
Accessories	Silica Gel
Power Source	AC 100 V, 1-Phase, 15 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W400 × D650 × H460 mm/ 30 kg

PLASTIC - RUBBER

ELECTRIC WIRE - CORD

No. 236

## LEATHER BALL-BURSTING TESTER



No.236

JIS-K6548

## ➤ FEATURE

This tester is used to conduct ball bursting tests on upper leather of shoes and other thin leather. The surrounding area of the test specimen is set on to the clamp is applied force on the grain side of the test specimen. The height and force when the grain crack appears is then measured.

## ➤ SPECIFICATION

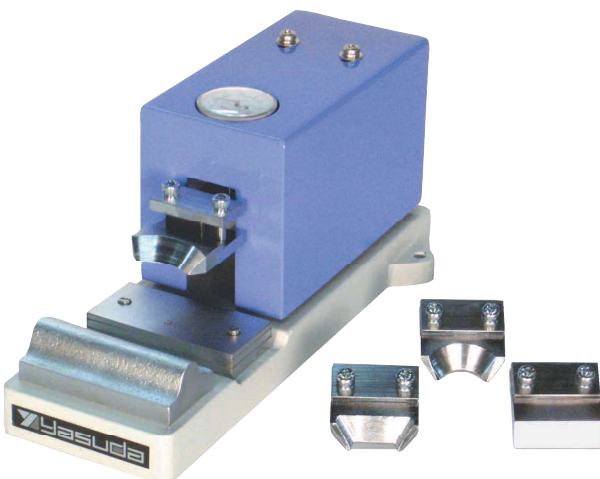
Specimen	$\phi 40$ mm
Clamp	Inner $\phi 25 \pm 0.1$ mm
Steel Ball	$\phi 6 \pm 0.025$ mm
Push Speed	$12 \pm 4$ mm/min
Pressure Gauge	Max. 1.4 MPa (Scale 0.01 MPa), Max. 4.5 MPa (Scale 0.05 MPa)
Dial Gauge	Scale 1/100 mm, Stroke Max. 20 mm
Accessories	Jig for Lowering Piston, Standard Plate
Dimensions/ Weight (Approx.)	W545 × D340 × H360 mm/ 25 kg

LEATHER - VINYL LEATHER CLOTH

PAPER - PULP

No. 240

## TIPTOE EXFOLIATION TESTER



No.240

JIS-S5050, BS-5131

## ➤ FEATURE

This tester is used to conduct exfoliation tests on the tiptoe of shoes. The operator is to press the exfoliation nail onto the tiptoe and read the scale when the tester is exfoliating the test specimen.

## ➤ SPECIFICATION

Exfoliation Jig	4 kinds
Height Adjusting Plate	T3 mm, 4.5 mm and 6 mm
Dial Gauge	Scale 9.8 N (1 kgf), Max. 490 N (50 kgf)
Dimensions/ Weight (Approx.)	W125 × D270 × H120 mm/ 8 kg

TEXTILE - DYEING

PAINT - PIGMENT - INK

\*Power source, dimensions, weight may differ by specifications.