

No. 553**PENCIL SCRATCH HARDNESS TESTER (MANUAL)****No. 553-M****PENCIL SCRATCH HARDNESS TESTER (ELECTRIC SYSTEM)**

No.553

No.553-M-1

No.553-M-2

JIS-(C3003), C3216-4, D0202, (K5400), K5600-5-4, K5651, K6894, K6902, ASTM-D2197, D3363, ISO-15184, IEC-60521-4

> FEATURE

■ No.553 PENCIL SCRATCH HARDNESS TESTER (MANUAL)

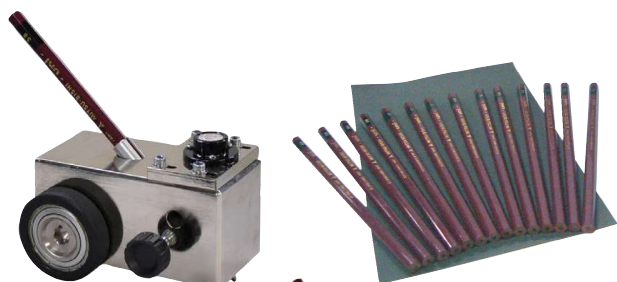
This tester is used to evaluate the hardness of coated film according to the testing machine method. Scratching the paint surface with a pencil attached at a 45° angle, the operator is to determine the hardest pencil that does not tear or damage the coated film. The tester can also be used to evaluate the hardness of decorative sheet and resistance to solvents on enameled wire.

■ No.553-M PENCIL SCRATCH HARDNESS TESTER (ELECTRIC SYSTEM)

Instead of moving the pencil arm manually, this model moves automatically at a constant speed. A double arm model can also be selected, allowing for testing with 2 pencils simultaneously.

> SPECIFICATION

Model	No.553	No.553-M
Specimen Base	100 × 180 mm	M-1: 100 × 180 mm M-2: 150 × 180 mm
Stroke	Left-Right Max. 100 mm, Front-Back Max. 50 mm	
Scratching Angle	45° (60° for Enameled Wire)	
Scratching Speed	Manual 1.75 mm/ 1 turn	Motorized (Standard 0.5 to 1 mm/s)
Test Load	Max. 1 kgf (Balance Weight)	
Accessories	Mitsubishi UNI Pencil (6B to 9H): Total 17 pcs, Needle: 1 pcs, Pencil Sharpener, Abrasive Paper (#400), Spirit Level	
Option	Heating Plate Spec, Conduction Device, Needle (φ3 mm, L23 mm, Top Angle 60°)	
Power Source	-	AC 100 V, 1-Phase, 3 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W500 × D170 × H370 mm/ 8 kg	M-1: W440 × D200 × H440 mm/ 23 kg M-2: W440 × D260 × H440 mm/ 30 kg

No. 553-S**PENCIL SCRATCH HARDNESS TESTER (HAND PUSH)**

No.553-S

No.553-S
(3 Loads Spec)

JIS-K5600-5-4

> FEATURE

This tester is used to evaluate the hardness of coated film with a prescript pencil according to the pencil method. The tester is designed so that the pencil can scratch the testing surface at an angle of 45° and a test load of 750 g. The tester can also be assorted with a 3 load variation specification.

> SPECIFICATION

	1 Load Spec	3 Loads Spec
Scratching Angle	45 ± 1°	
Test Load	750 gf	500 gf, 750 gf, 1,000 gf
Accessories	Mitsubishi UNI Pencil (6B to 9H): Total 17 pcs, Pencil Sharpener, Abrasive Paper (#1000), Wooden Case, Additional weight (3 Loads Spec only)	
Dimensions/ Weight (Approx.)	W116 × D83 × H128 mm/ 2 kg	

No. 553-AUTO**PENCIL SCRATCH HARDNESS TESTER
(FULLY AUTOMATIC)**

No.553-AUTO

JIS-(C3003), C3216-4, D0202, (K5400), K5600-5-4, K5651, K6894, K6902, ASTM-D2197, D3363, ISO-15184, IEC-60851-4

> FEATURE

This tester is the fully automatic version of the PENCIL SCRATCH HARDNESS TESTER, and is used to evaluate the hardness of coated film automatically. Scratching the paint surface with a pencil attached at a 45° angle, the operator is to determine the hardest pencil that does not tear or damage the coated film. The tester can also be used to evaluate the hardness of decorative sheet and resistance to solvents on enameled wire.

> SPECIFICATION

Hangings	2 Hangings
Test Specimens	80 pcs (2 scratch lines on one plate)
Stroke	Max. 60 mm (One line can be divided into three single parts) (Option: 5 Divided Parts)
Scratching Angle	45° (60° for Enameled Wire)
Scratching Speed	Motorized (Standard 0,5 to 1 mm/s)
Test Load	Max. 1 kgf (Balance Weight)
Automatic Device	Automotive Specimen Base Setting Device, Automatic Pencil Rotation Device, Automatic Pencil Sharpening Device, Automatic Pencil Height Correction Device
Power Source	AC 100 V, 1-Phase, 15 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W1,250 × D750 × H1,480 mm/ 250 kg