

digistRENGTH I Nx™(For Fabrics)
 (Digital Tensile Strength Tester for Textiles)

INTRODUCTION

Tensile property of textile fabrics is a prime important parameter in determining the suitability for any particular application. It is therefore of utmost importance to determine these characteristics accurately. Paramount digiSTRENGTH I Nx is suitable equipment to determine this property. It works on Constant Rate of Elongation (CRE) principle.

EQUIPMENT

PARAMOUNT digiSTRENGTH I Nx is ergonomically designed equipment, which works on the Constant Rate of Elongation (CRE) principle. The equipment main body is completely made of mild steel with two clamps to hold yarns. The upper clamp is movable & the lower clamp is stationary. The upper clamp or jaw is made to move at a preset speed with the help of Geared Motor and Lead Screw arrangement. Speed can be selected 75 mm per minuet and 300 mm per minute manually by changing the belt. The load exerted on the movable jaw is sensed by load cell attached with upper clamp, which directly indicates the load digitally in kgf in the display in the control panel. The result of elongation is indicated directly on the calibrated scale with the help of a sharp pointer.

It is a multi-Purpose Tensile Strength Tester as Two Type of Tests can be conducted on this unit.

1. Fabric Tensile Strength & Elongation of Fabrics.
2. Seam Slippage Testing.

The equipment has an in-built provision for safety arrangement; it has a provision to prevent over travel of the moving jaw. It has an in-built line filter arrangement to check any fluctuations in power supply so that it does not have any effect on the result generated, thereby giving accurate result. The Frame of the Tester is fabricated from heavy Mild Steel sections to give the required rigidity and strength.

The exclusive feature of **digiSTRENGTH I Nx™** is its Control Panel that houses all the controls and is very user friendly and easy to operate due to its convenient location.

The Equipment is finished in special P.U. Grey, Blue & Orange Paint the other parts are made with stainless steel to give a Corrosion resistant Long life finish.

SALIENT FEATURES

- Specially designed instrument to determine tensile strength of fabrics.
- Maximum capacity 250Kg with 100gms accuracy.
- The equipment works on CRE principle.
- With user friendly Digital control panel.
- Maximum jaw separation 450mm & minimum jaw separation 25mm.
- Control panel has peak & zero setting option.
- Special handle is provided to adjust the jaw separation distance.
- One inch & four inch jaws supplied to conduct grab test & seam slippage respectively.
- Complete with all accessories-templates, 6 mm gauge etc.
- Supplied with inspection & calibration certificates.

digiSTRENGTH I Nx™ is supplied complete with below accessories.

Main Unit with Digital Controls	: 01 Set.
Jaws for Fabric Tensile Strength & Elongation (1" x 1") A	: 01 Set (Set of 2 Nos).
Jaws for Seam Slippage Testing (4" x 1") B	: 01 Set (Set of 2 Nos).
S. Steel (Small) Pins for fixing the Jaws (Grip)	: 01 Set (Set of 2 Nos).
Handle for Jaws Tightening	: 01 No.
Seam Slippage Template	: 01 No.
Grab Test Template	: 01 Nos
Seam Slippage Testing Gauge (6 mm)	: 01 No.
Fine Scissors	: 01 No.
Marking Pen	: 01 No.
This User's Manual	: 01 No.
Calibration Certificate (Traceable to NPL)	: 01 No.
Inspection and Conformance Certificate	: 01 No.



TECHNICAL DETAILS

Capacity of the Tester	: 0 - 250 Kg.
Sensitivity	: 100 Gms. (0.1 kg)
Speed of Machine	: 75 mm / Minutes 300 mm / Minutes
Minimum jaw separation	: 25 mm
Maximum jaw separation	: 450 mm
Motor	: ½ HP, Single Phase, 230 + 10% AC Supply.
Load measurement	: Digital display indicates the max. Load exerted on the load exerted on the load cell during the test with peak value & zero setting switch.
Elongation Measurement	: Calibrated Stainless Steel scale with sharp Pointer indicating continuous elongation.
Movement Controls	: Push switch for LOAD, UNLOAD and STOP Function.
Over Load Protection	: Micro switches for over-travel protection. Overall
Dimensions of the unit	: 700(L) x 390(W) x 1650(H) mm 27.5(L) x 15.5(W) x 65(H) Inch
Net Weight of the unit	: 189 Kg (416 lbs)

RELATED STANDARDS

ASTM E - 4, ASTM D 5035, ASTM D 1578
 ASTM D 5034, ASTM D 434

REFERENCE STANDARDS

BS EN 1002 - 3
 BS 1610
 DIN 51221



AATCC
CORPORATE MEMBER



Patron Member



Member Bureau of Indian Standards