

## **digISTRENGTH II 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 II Nx is suitable equipment to determine this property. It works on Constant Rate of Elongation (CRE) principle.

### **EQUIPMENT**

**PARAMOUNT digISTRENGTH II 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 from 0 to 375 mm per minute by the speed regulator knob in control panel. 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 digitally indicated directly on the display. It is a multi-Purpose Tensile Strength Tester as Three Type of Tests can be conducted on this unit.

1. Fabric Tensile Strength & Elongation of Fabrics.
2. Seam Slippage Testing.
3. Lea Strength 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 reading 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 II Nx™** is its Control Panel, which 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 500Kg with 100gms accuracy, works on CRE principle.
- Digital control panel with digital elongation meter.
- Control panel has peak & zero setting option.
- Variable speed control from 0 to 375 mm/minute by a drive.
- Maximum jaw separation 850mm & minimum jaw separation 25mm.
- 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 II 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 4 Nos).
Jaws (4" x 1") B	: 01 Set (Set of 4 Nos).
S. Steel (Big) Pins for fixing the Jaws (Holder)	: 01 Set (Set of 2 Nos).
Handle for Jaws Tightnig	: 01 No.
S. Steel (Small) Pins for fixing the Jaws (Grip)	: 01 Set (Set of 4 Nos).
Seam Slippage Testing Gauge (6 mm)	: 01 No.
Grab Test Template	: 01 Nos.
Seam Slippage Template	: 01 No.
Fine Scissors	: 01 No.
Marking Pen	: 01 No.
Calibration Certificate (Traceable to NPL)	: 01 No.
Inspection and Conformance Certificate	: 01 No.



### **TECHNICAL DETAILS**

Capacity of the Tester	: 0 - 500 Kg.
Sensitivity	: 100 Gms.
Speed of Machine	: 0 to 375 mm (Can be set by fine speed Regulator)
Minimum jaw separation	: 25 mm
Maximum jaw separation	: 850 mm
Motor	: 1 HP, 3 Phase, controlled by fine frequency drive. (Microprocessor Based )
Load measurement	: Digital display indicates the max. Load exerted on the load cell during the test with peak value & zero setting switch.
Elongation Measurement	: Digital Display Indicates the continous elongation in Millimeter.
Electric Controls	: By Rotary switch's Controls load & unload movement and also stopping with the help of a frequency drive.
Power Supply	: 230 + 10 % volts AC, Single Phase, 50/60 Hz
Overload Protection	: Micro switches for over-travel protection.
Dimensions	: 700(L), 390(W), 1650(H)mm 27.5(H), 15.5(W), 65(H)inch.
Weight	: 189kgs/416lbs

### **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**