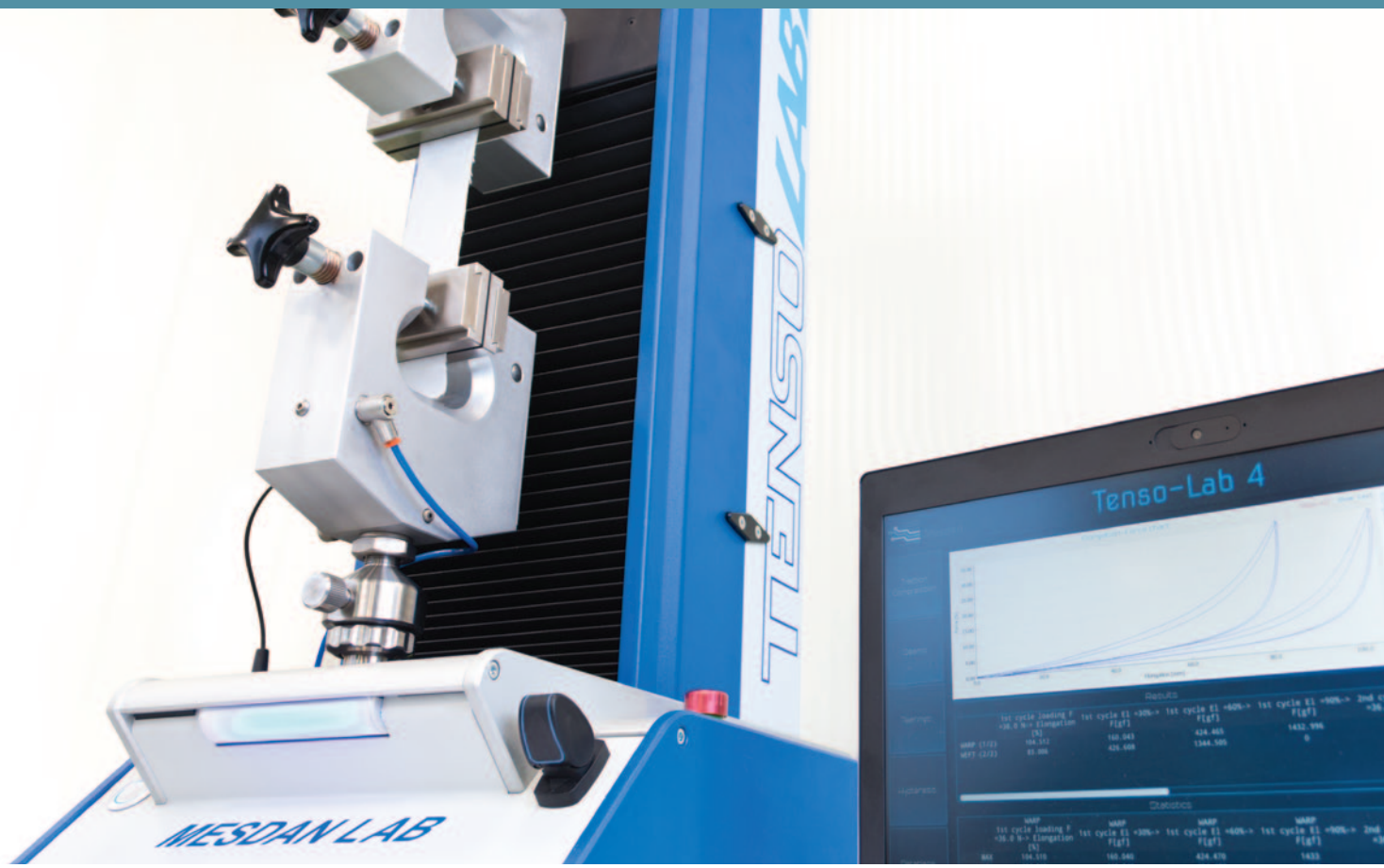
SEMI-AUTOMATIC TENSILE STRENGTH TESTER

TENSO-LAB 4



Tenso-Lab 4 is the latest generation of the well-known Tenso-Lab semi-automatic tensile tester. The new model is distinguished by:

- **New hardware**: high sensibility and robustness (can be used to test both fibres and high tenacity fabrics), direct-drive ball bearing screw, low speed operation available, extended capacity to 5000N, …
- **New components**: improved load cells performances (higher accuracy level and new capacity load cell added), quick load cell & clamps/jaws exchange, …
- **New open software**: more intuitive and easy to operate, SQL database and standard Ethernet machine connection to data export, no restriction on testing routines (can be created by the enduser, no special skills needed).

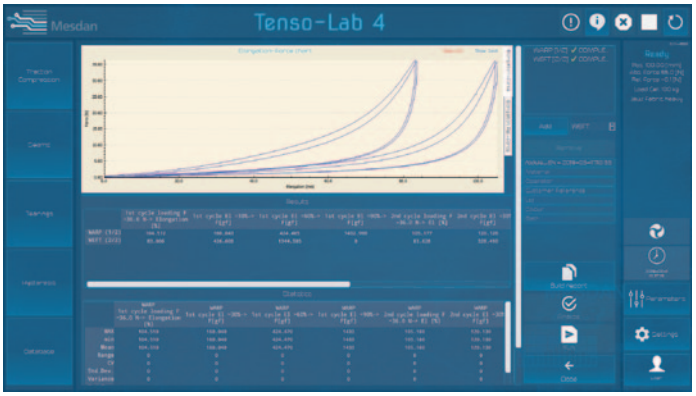
MESDAN LAB

COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =

TENSO-LAB 4 CODE 2512E

Features:

- Built according to the CRE (Constant Rate of Extension) testing principle
- Belt free, direct-drive ball bearing screw
- Automatic pretension and automatic load cell and clamp recognition
- Top quality load cells (manufactured by HBM – Germany), accuracy class ± 0,02%
- High resolution sensor integrated into the motor ensures accurate clamp position (less than 0,02 mm
- Possibility to perform tests at extremely low speed
- Automatic reset of force values when load cell/clamps are changed
- High resolution of acquired data
- High return speed (1800 mm/min)
- Quick load cell exchange (only 10 sec. compared to 2 min. of other models)
- Advanced alarm system prevents accidents; safety clamp movement
- The Software is modern, flexible and easy to use, it includes a series of standard testing routines. New testing routines can be created by the enduser; no special skills needed.



Load cell	Load Accuracy [cN]	Resolution [cN]
20 N	0,4	0.0002
100 N	2	0.001
500 N	10	0.005
1000 N	20	0.01
5000 N	100	0.05



TECHNICAL FEATURES

Single column tensile strength tester, CRE testing principle

Load Capacity	5000 N
Speed range mm/min	0.001 to 1000 mm/m
Crosshead travel	1000 mm
Position resolution	0.0001 mm
Max force at full speed	5000 N
Force measure accuracy	± 0.03%
Force maximum resolution (load cell of 20 N)	0.0002 cN
Force minimum resolution (load cell of 5000 N)	0.05 cN
Operating temperature	from 0°C to +50°C
Frame stiffness kN/mm	5000 N/mm
Operating humidity	+10 to +90% non-condensing
Machine Configuration:	Table top, base cabinet available

Speed accuracy:	± 0.01% under stable conditions
Crosshead guidance	double linear slide with four skates integrated within the column
Available load cells	20 N, 100 N, 500 N, 1000 N, 5000 N
HBM 6 wire load cell system with high sensitivity (2mV/V)	accuracy class ± 0,02% (5000 division)

Maximum of eight load cells up to capacity of machine

Max force at full speed	5000 N
Max speed at full load mm/min	1000 mm/m
Max returning speed	1800 mm/m

Overload avoided via control software

Maximum power	kW 0.7

A full machine control via dedicated controller with real-time operating system

User interface for Windows/Linux PC with universal test program

DIMENSIONS / POWER SUPPLY

Weight: 75 kg
Dimensions: (L) 480 x (W) 370 x (H) 1415 mm
Power supply: 230 Vac, 50/60 Hz, single-phase

Officially approved by Mark & Spencer
ISO 17025 Calibration Certificate (Accredia - ILAC) available on demand

Photographs and descriptions of the present leaflet have to be considered as purely indicative and not binding

OPTIONAL / ACCESSORIES

- A wide range of interchangeable load cells (see above table)
- A wide range of interchangeable pneumatic and mechanical clamps complying with relevant international standards
- Foot switch (necessary for pneumatic clamps)
- PC and Printer, or built-in PC (to be defined at order)
- Compressor
- UPS

Mesdan

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