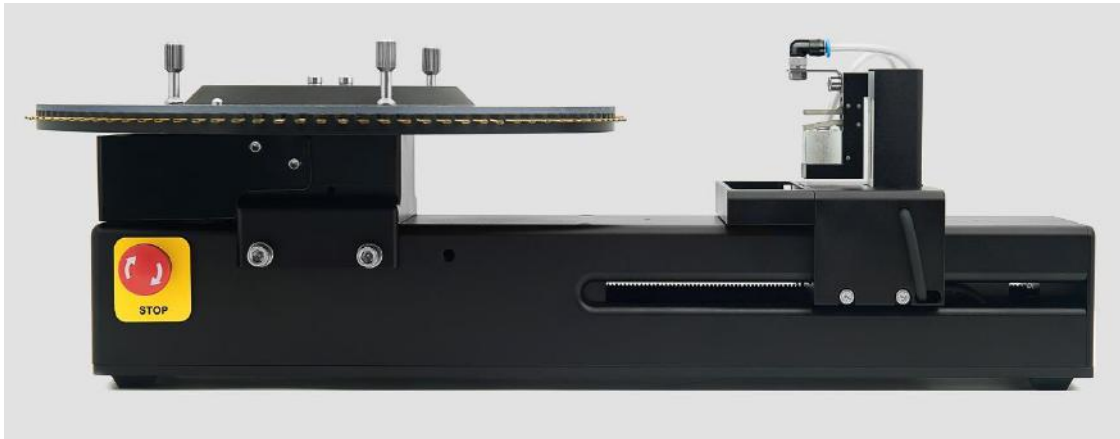


MTT690 – Miniature Tensile Tester



The Dia-Stron MTT690 is a cassette based automated tensile tester designed for single hair fibre measurements.

General Information

Principal benefits

- Automated system
- High throughput, 100 fibre cassette
- Wet & dry tensile measurements
- Small footprint & low weight
- Easy to set-up and to use
- Low maintenance & robust

Application examples

- Hair strength claims
- Hair damage repair/alleviation claims
- Hair hydration claims

System Description

The MTT690 has gained a worldwide standing with many customers for single hair fibre tensile testing. The MTT690 was developed to overcome the low productivity associated with manual testing of mechanical properties of single fibres. The system is based on a circular sample cassette, which allows the automatic measurement up to 100 pre-mounted fibre samples. The MTT690 is supplied as a complete system comprising mechanical unit, control unit, pneumatics unit, Windows software and sample mounting accessories.

UK office

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US office

9 Trenton Lakewood Road | Clarksburg | NJ 08510 | USA
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Specifications

MTT690

Extension range	0-120mm
Speed range	1-2000mm/min
Force range	0 to 20N (2000gmf)
Force resolution	0.05gmf
Displacement resolution	10µm
Sample size	30mm

Programmable Features

- Strain/stress method with break detection
- Stress relaxation
- Hysteresis
- Creep

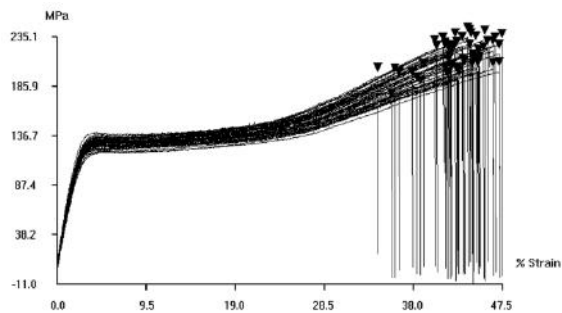
Content

UV1000 Control unit
PU1100 Pneumatic Unit
MTT690 Mechanical Unit
UvWin software for Windows OS

Requirements

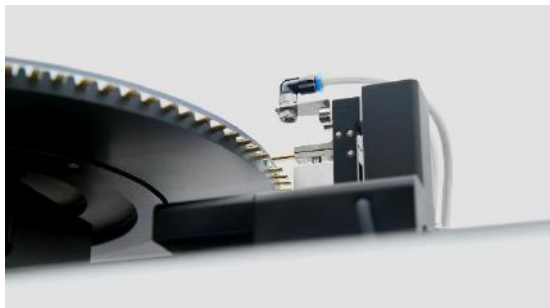
Power Supply	85-265vac 47-63Hz, 50W
Compressed Air	Dry, clean compressed air 4.5bar min, 20l/min
Computer	<ul style="list-style-type: none"> • Windows OS: 7, 8, 10 • USB port

The MTT690 is an automated tensile tester for single hair fibre. Hair fibre samples are mounted using brass crimps and placed onto a 100-slot rotary cassette. A pneumatically operated sample gripper, mounted on a moving bridge, picks up the sample. The gripper is mounted onto a load cell which measures the force being applied to the sample. The MTT690 can also be integrated onto the automated sample loading system (ALS1500) with the FDAS770 to provide both dimensional and tensile data from a single fully automated measurement operation.



Normalised hair fibre tensile data

Normalising tensile data with fibre cross-sectional area reduces data variability up to 80% helping with group significant discrimination.



Dedicated software – UvWin

UvWin offers a number of analysis options: 1 or 3 phase tensile analysis, hysteresis analysis, stress relaxation, etc. The raw data can also be exported as txt file.

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