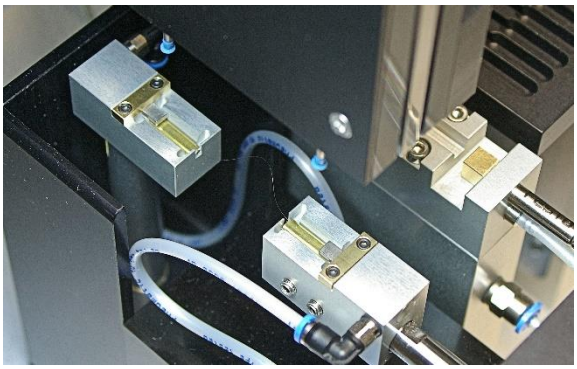
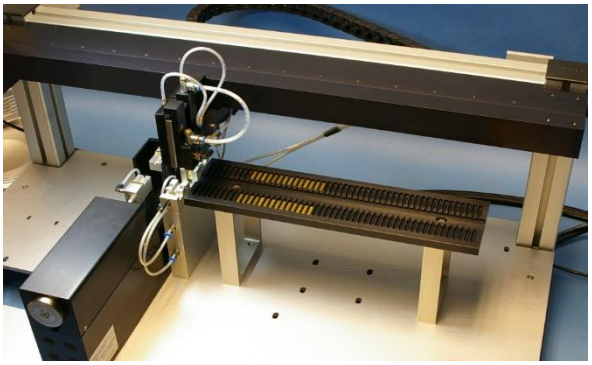
CYC801 Cyclic Module





CYC801 Cyclic Tester: to measure tensile fatigue properties of fibre samples subjected to repeated strain, force or stress.

General Information

Principal benefits

- High throughput testing
- High capacity: 50 fibre linear cassette
- Automated operations and analysis
- Up to four cyclic modules can be integrated on an automated platform
- Multi-tasking allows for simultaneous measurement, reducing resting time

Applications & Claims

- Fatigue testing using repeated strain, force or stress
- Hair root vs tip survival analysis
- Impact of hair treatments
- S/N curves

Overview

The CYC801 Cyclic Tester simulates a realistic approach to everyday hair grooming. Fibres are subjected to repeated cyclic tensile deformations until failure.

Data analysis from the CYC801 shows greater differences between samples than conventional tensile stress/strain experiments.

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Specifications

CYC801 Module

Extension range	28-50mm
Speed range	1-100mm/sec
Force range	0 to 20N (2000gmf)
Force resolution	0.05gmf
Displacement resolution	10μm

Programmable Features

Methods	• Constant force • Constant strain • Constant stress • S-N curve

Content

UV1000 Control unit
PU1100
CYC801 Module
USB & Power cables
UvWin software for Windows OS

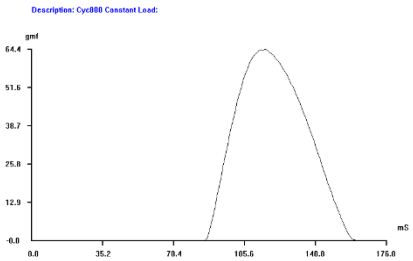
Requirements

Power Supply	Universal 85-265vac 47-63Hz, 100w
Computer	• Windows OS: 7 and 10 • 1 x USB port

The CYC801 fatigue tester is designed around a voice-coil drive to repeatability bring the sample to a pre-determined strain, force or stress. The sample is mounted using Dia-Stron brass crimps and placed within two sample pockets. With the fibre dimensions already captured, the CYC801 brings the sample to a pre-set force before starting the fatigue measurement. Various factors contributing to fibre failure are: presence and propagation rate of flaws depending on ethnicity, chemical or physical damage, including grooming regime and environmental factors such as UV exposure.

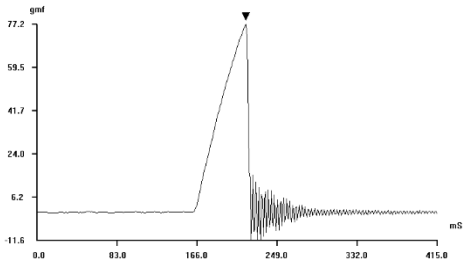
Dedicated software – UvWin

UvWin software controls the CYC801 system. Parameters for these methods can be easily edited within the software. UvWin enables automatic data correction for system compliance.



Above: First Cycle

Below: Failure Cycle



UvWin also offers a number of integrated data processing tools and the raw data can be also exported as a text file, for use in Excel or other statistical packages. UvWin is compatible with the latest versions of the Windows OS.

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