

Lawson-Hemphill, Inc. DFT-HT Version 1.0 Oct 14 2015 Page: 1/2

### DFT-HT REPORT

File Name : 500m-min 350C      Test Speed (m/min) : 500      Test Type : Draw Force  
 Test :      Test Mode : Continuous      Pre-tension : 10.00  
 Operator :      Sample Length (m) : 1.00      Draw Ratio : 1.65  
 Date :      Sample / Test : 10      Tension Unit : g  
 Shift :      Total Tests : 25      Heater Temperature (°C) : 350  
 Producer :      Test Length (m) : 10.00      Acquisition Rate(mm) : 100.0  
 Machine :      Total Test Length(m) : 250.00  
 Yarn Count :      Waste Length (m) : 25      Summary ID # : 4  
 Merge :  
 Lot :  
 Material :  
 Comments :

Test #	Pkg. ID	Tension g	SD	CV%	MIN	MAX	LIMIT	SPEED	TEMP
1		89.27	2.70	3.03	83.65	93.48		500	349
2		88.13	2.74	3.11	83.41	93.40		500	349
3		87.64	3.57	4.07	80.33	92.95		500	350
4		88.00	2.59	2.94	83.93	93.14		500	351
5		87.54	2.97	3.40	82.57	91.01		500	350
6		87.96	3.18	3.61	84.44	94.87		500	349
7		86.91	2.93	3.37	81.96	90.47		500	349
8		88.49	1.76	1.99	86.27	92.03		500	350
9		87.49	2.59	2.96	82.92	91.47		500	350
:									
25		88.38	4.04	4.57	79.25	93.66		500	350

Summary

ALL : 25	GOOD : 25
Tension g : 87.93	Tension g : 87.93
SD : 0.82	SD : 0.82
CV% : 0.93 %	CV% : 0.93 %
MIN : 86.19	MIN : 86.19
MAX : 89.44	MAX : 89.44
Pre-tension g : 10.00	Pre-tension g : 10.00

Test Graph

Histogram

Test Header, including test parameter value

Test Result, for individual packages including statistical report

Summary of GOOD and ALL packages with group statistics

### DFT-HT PRODUCTION TEST REPORT

#### TECHNICAL SPECIFICATIONS

Machine Speed 10-1000m/min  
 Heater Temperature 25-500°C  
 Heater Length 1000mm  
 Load Cell 1000 grams  
 Pretension Range 5-50 grams  
 Yarn Types POY, MOY or LOY yarns

\*All specifications are subject to change.

#### MODEL

LH-160  
 Draw Force Tester High Temperature and High Speed  
 Electrical 110-220 Vac 50-60 Hz, 3.3Kw  
 Air 60 psi, clean air required  
 Dimensions 940 x 673 x 1905mm (37 x 26.5 x 75 inches)  
 Weight 295kg (650 lbs)



## HIGH TEMPERATURE & HIGH SPEED DFT

#### INSTRUMENT FEATURES

- High Speed and High Temperature precision Draw Force Tester with Electronic Drive System
- Testing Speeds between 20-1000 meters/minute with electronic servo motors
- Heater Temperature between 25-500°C
- Real-time Draw Force Measurement for partially oriented yarn under constant extension
- Software controlled, Electronic Pre-tension applied for the entire duration of the yarn testing
- Automatic Yarn Guides to move the yarn in and out of the heater after test
- Continuous operation with Automatic or Manual Splice Yarn Package Changers for maximum test efficiency
- Ability to start the test from both sides of the machine
- Closed door application for maximum safety
- Effectively used to test POY, MOY and LOY
- DFT-HT complies with ASTM D5344

DFT-HT is the newest addition to Lawson Hemphill line of Draw Force Testers. The instrument features 1000 meters/minute test speed and 500°C hot air temperature on the running yarn. It complies with ASTM D 5344.

The system is Software Controlled to set the required Draw Ratio and Pre-Tension while maintaining constant air test temperature throughout the test. It is equipped with yarn guides that move the yarn in-out of the heater when testing is completed. For maximum safety, DFT-HT doors remain closed during the test.

The operator can start the test from either side of machine by pressing Quick Start Blue button or a single keyboard click. When equipped with Automatic or Manual Splice Package Changers, the DFT-HT operates continuously.

Contact us today for more information on any Lawson-Hemphill product!

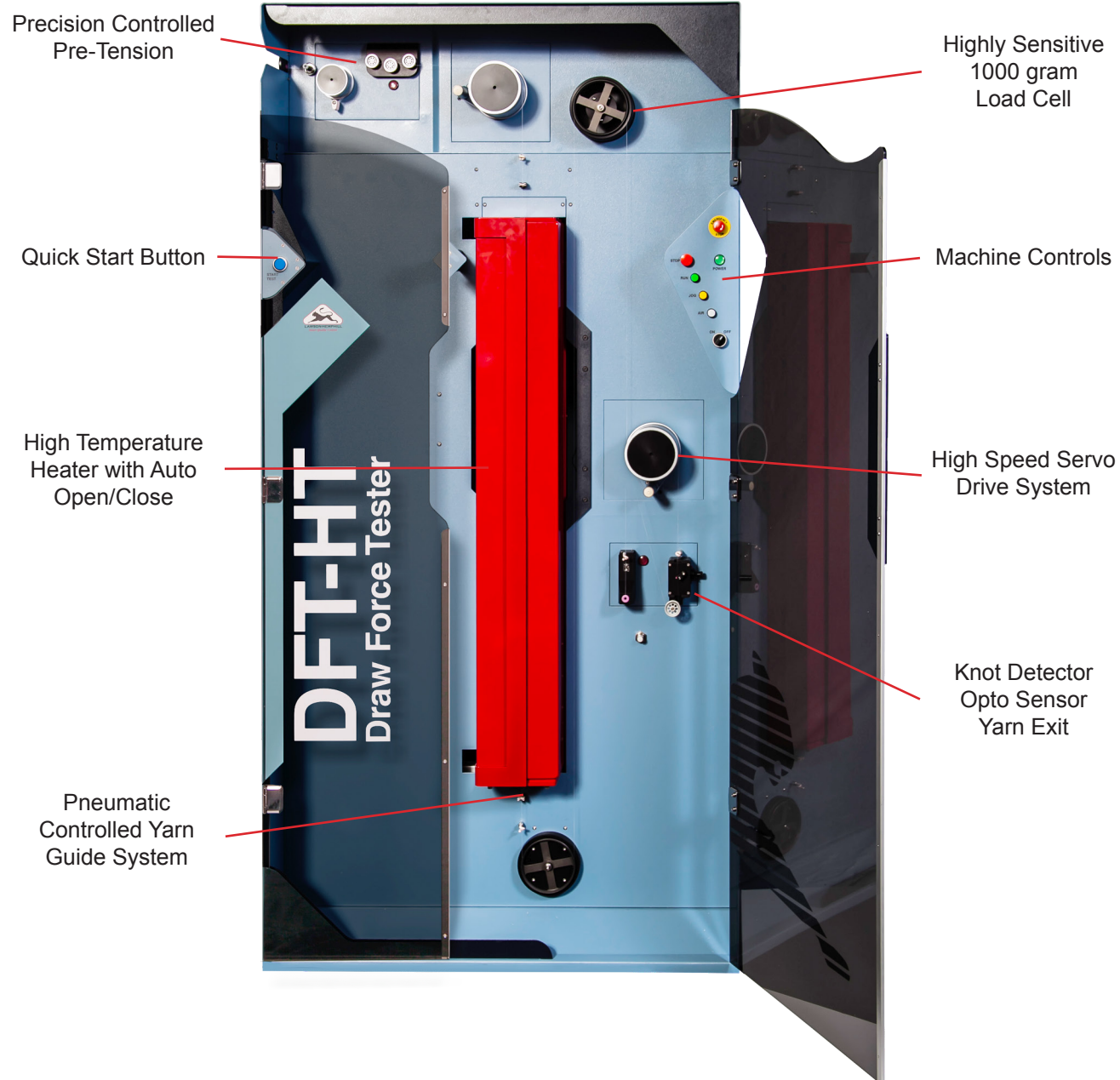
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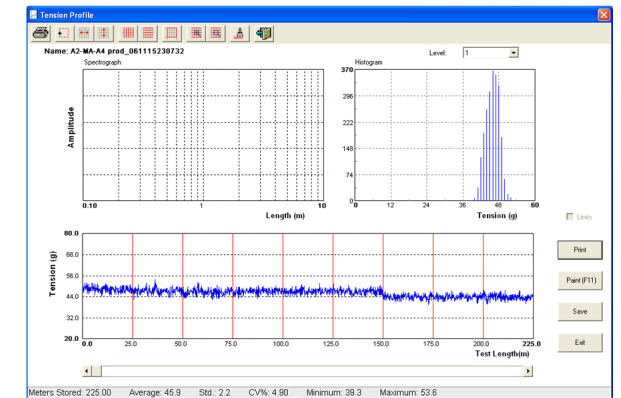
**ULTIMATE DRAW FORCE TESTER  
for your high speed testing needs**



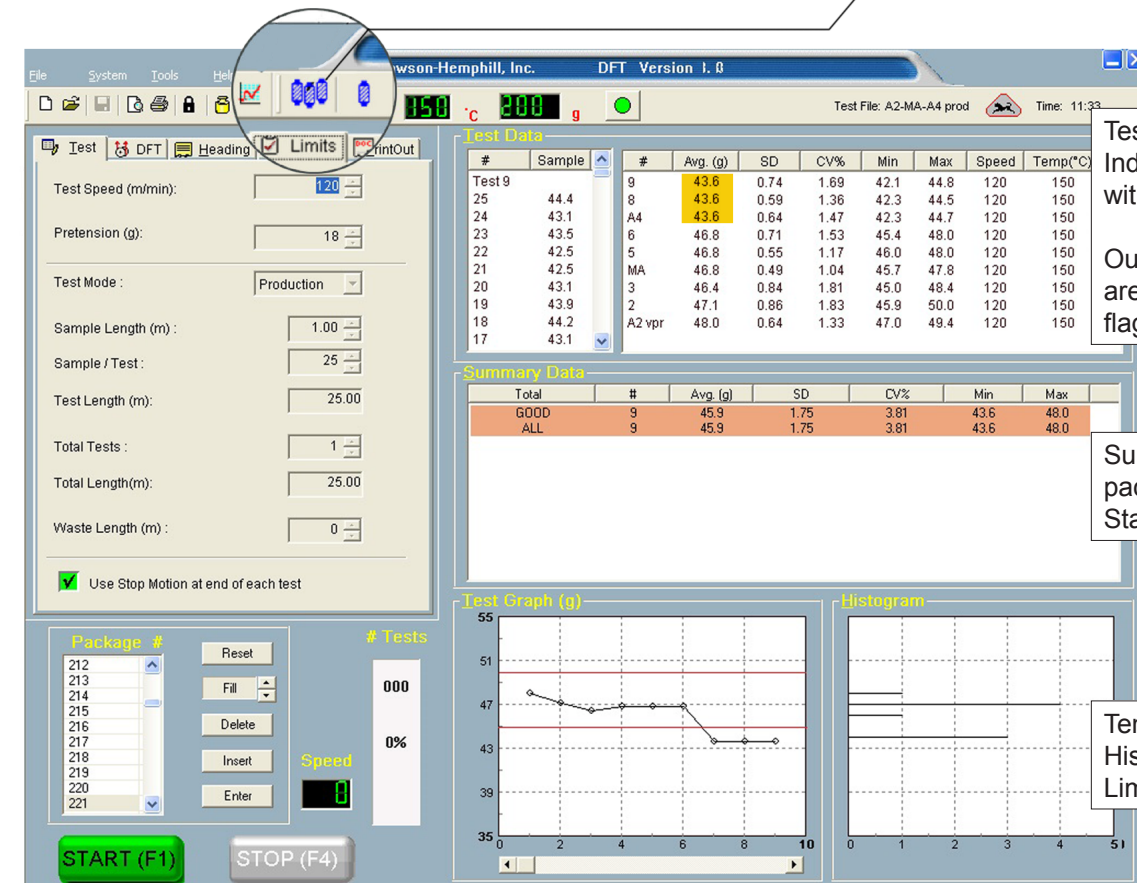
**SOFTWARE FEATURES**

- Continuous monitoring and detection of changes in yarn draw tension with real time tension graph display
- Automatic application of the Draw Ratio and Pre-tension
- Draw Force statistics for Average, Minimum and Maximum Tension readings, Standard Deviation and CV%
- Production or Continuous modes of operation for group or single package analysis
- Accept/Reject limits to sort out the yarn packages
- Knot Detector input to begin data collection
- Simple File Structure and automatic saving of test settings, results and yarn tension graphs
- Export all test data automatically or operator initiated
- Data archiving of multiple or single package test data
- Auto Export function for sharing tension data with factory main database

**View Tension Data for each Package**



Tension Graph, Histogram and Spectrograph for each package



Test Results for Individual Packages with Statistics

Out of Limit results are highlighted and flagged

Summary of all packages with Statistical Analysis

Tension Graph and Histogram with Limits

DFT Software Main Screen