DRAW FORCE TESTER - HT

LH-160 DFT-HT



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

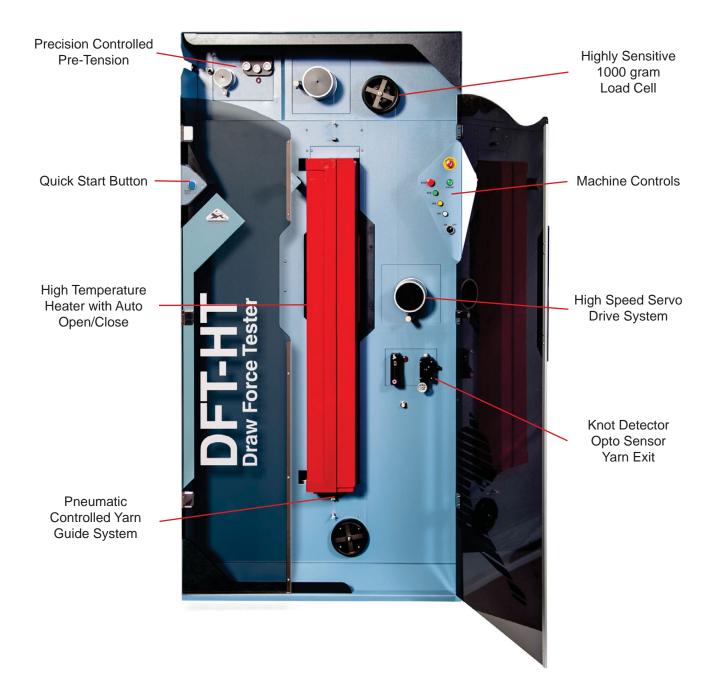
DFT-HT is the newest addition to Lawson Hemphill line of Draw Force Testers. The instrument features 1000 meters/minute test speed and 500°C hot air temperature on the running yarn. It complies with ASTM D 5344.

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 inout 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.



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

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Limits 📑

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25 -

25.00

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25.00

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Production

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Test Speed (m/min):

Sample Length (m)

Sample / Test

Test Length (m)

Total Length(m):

Waste Length (m)

Vse Stop Motion at end of each test

^

×

START (F1)

Reset

Fill 🐥

Delete

Insert

Enter

Total Tests

Pretension (g):

Test Mode

DFT Est 5 DFT Heading

FintOut

358

mphill, Inc

#

Test 9

25

24

23

21 20 19

18

17

55

51

47

35

4

998

Sample 🔺

44.4

43.1

43.5

42.5

42.5

43.1

43.9

44.2

43.1

Total

GOOD

0

#

9

A4

65

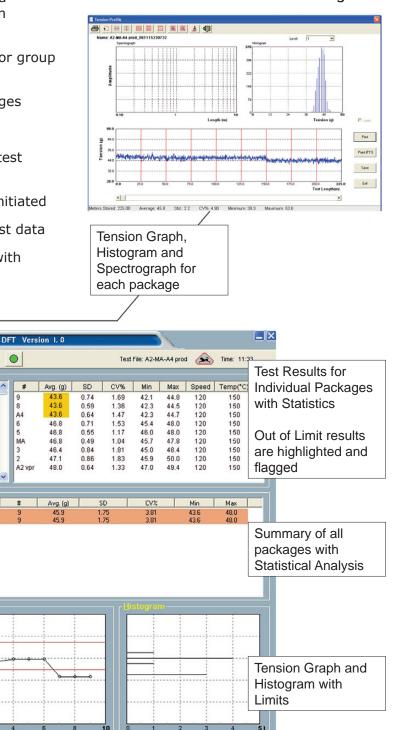
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A2 VD

Auto Export function for sharing tension data with factory main database



DFT Software Main Screen

View Tension Data for each Package

DRAW FORCE TESTER HIGH TEMPERATURE & HIGH SPEED

S	Lawson-Hemphill, Inc.	DFT-HT Version 1.0	Oct 14 2015						Page: 1/2	
LAWSON-HEMPHIL Smart Quality Control	2 2	DFT-H	T REP	ORT						
File Name		Tes	t Speed (m/						Draw Force	
Test				lode : Con				re-tension		Test Lleader
Operator		Sa	mple Length)			aw Ratio :		Test Header,
Date Shift			Sample /	lest: 10 ests: 25		Tension Unit : g Heater Temperature (*C) 350				including test
Producer				esis: 20 h (m): 10.0	00	Acquisition Rate(mm): 100.0				parameter value
Machine		Tota	al Test Leng			requirement reactioning. To be				
Yam Count	t :		aste Length			Summary ID # : 4			4	
Merge	e :									
Lot										
Material										
Comments	5 :									
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	Test Result,
2 3		88.13 87.64	2.74 3.57	3.11 4.07	83.41 80.33	93.40 92.95		500 500	349 350	
4		87.64	2.59	2.94	83.93	92.95 93.14		500	350	for individual packages
5		87.54	2.97	3.40	82.57	91.01		500	350	including statistical report
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	
 Su	ummary									
	ALL: 25				GOOD :	25				
	Tension g: 87.93				Tension g:	87.93				
	SD: 0.82				SD :	0.82				Summary of GOOD and
	CV%: 0.93 %					0.93 %				
	MIN : 86.19					86.19				ALL packages with group
D,	MAX : 89.44 re-tension g: 10.00				MAX : Pre-tension g:	89.44				statistics
FI	Test Graph				Histogram	10.00			I	
	95								7	
	92									
ension g	89	yester of the second	e e e							
	83 80 0 5	10 15	20	25	0 3	6	9	12	15	

yarns

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			

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)					

*All specifications are subject to change.

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

Lawson Hemphill

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