

# HOT DRAW KNITTER

## LH-123 HDK



### FEATURES

- Precision lab knitting machine that draws and knits partially oriented yarn under constant extension
- Non-contact Vapor Heater (max 205°C) and contact Pin heater (max 250°C) are available to test polyester and nylon yarns on the same machine
- Only lab size knitting machine that maintains constant course, length and constant yarn tension with the Yarn Meterhead and Air Servo/Stitch Cam Regulator to ensure uniform loop size, which is essential for dye shade checks
- Custom made Draw Rolls for specific Draw Ratio levels
- Effectively used to test standard and colored POY, MOY and LOY
- Nine different cylinder sizes to knit yarns from 10-2000d
- Robust design for industrial environment conditions with maximum 160m/min test speed
- Features fabric take-up assembly to collect the fabric sample under controlled tension

The uniformity of POY (Partially Oriented Yarn) is essential. The irregular POY packages need to be identified and prevented from entering the production line. The textile industry relies on the knit-dye-grade method to qualify the POY packages. Preparing uniform knit samples is the most critical step during this process.

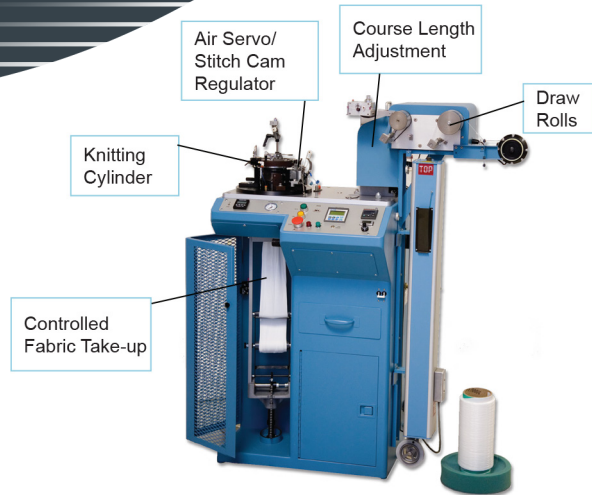
The Hot Draw Knitter, HDK, is a high-speed, precision knitting machine with a built-in stitch control system to check the uniformity and the consistency of the POY production quickly and accurately. It is ideal for use in production control and R&D labs as well as dyeing plants.

POY, MOY and LOY samples from 10d up to 2000d can be knit with the HDK. (Please consult Lawson Hemphill to knit higher or lower denier yarns).

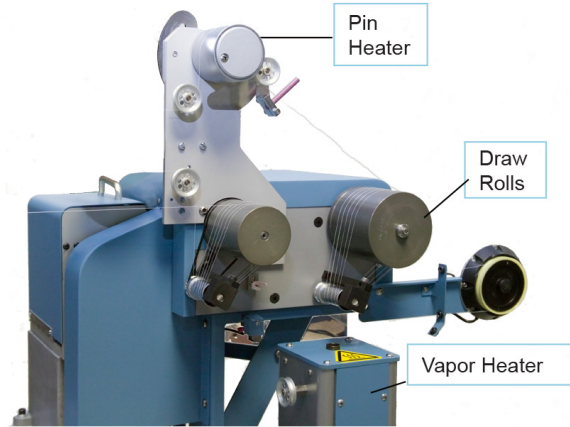
The machine can be equipped with a non-contact Vapor heater and contact Pin heater to allow testing both polyester and nylon yarns. Precision Draw ratios are available from 1:1 to 1:3, with increments of 0.05.

A Draw Force Test option is available to measure the tension on the yarn as it is being drawn and knitted. With the Draw Force measurement, the HDK becomes the only instrument that provides a knit sample and draw force results on a package at the same time. This test complies with ASTM 5344, Standard Method for Extension Force of Partially Oriented Yarn.

# HOT DRAW KNITTER



**Main Components**



**Hot Pin Option**

## CYLINDER SPECIFICATIONS

Cylinder Size	Needles per inch	Needle gauge	denier	dtex
88	8	18	1500-500	1667-556
120	11	24	1000-300	1111-333
160	15	36	850-250	944-278
200	18	48	550-150	611-167
220	20	54	400-100	444-111
260	24	54	300-70	333-78
320	29	70	140-40	156-44
380	35	75	70-10	78-11
420	38	75	30-10	33-11

## OPTIONS

- Continuous operation with feeders for non-stop knitting
- Can be ordered with Draw Force Measurement System for complete analysis of changes in POY yarn tension
- Pin Heater, Inspection Boards and Package Changer
- Complies with ASTM 5344, Standard Method for Extension Force of Partially Oriented Yarn

## MODEL

### LH-123 Hot Draw Knitter

Pretension Range	min-5 grams, max-60 grams
Linear Input Speed	160 m/min. (maximum)
Heater Temperature	Non-contact Vapor Heater (max 205°C) and contact Pin heater (max 250°C)
Draw Ratio Rolls	from 1:1 to 1:3 in increments of 0.05 For other higher or lower draw ratios, contact Lawson-Hemphill
Electrical	115/220 VAC- 50-60 Hz (consult LH for other power supply)
Air	60 psi-clean air required
Dimensions	1054 x 546 x 1346mm (41.5 x 21.5 x 53 inches)
Weight	181kg (400 lbs)

*\*All specifications are subject to change.*

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

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