

An ISO : 9001 : 2015 Certified Company

**LUCY**<sup>TM</sup>

**ENGINEERING WORKS PVT. LTD.**

*Techno Savy Innovative Manufacturing*

# About

Lucy Engineering has started its operations in 650 sq. meter workshop in 1985 with small workforce of only seven people. Earlier the company was manufacturing only spares parts required for stenter & other machineries. In 1992 company manufactured its 1<sup>st</sup> Stenter Machine and from then onwards company never look back. Company's Stenter was accepted by market and in 1992 company moved in another plant having 3000 sq. meter area in Sachin G.I.D.C., Surat. Up till now company has manufactured around 800 Stenters & other processing machines. In 2008, to meet the growing demand of Stenter & other machineries and company had doubled its productions.

Since over 25 years - Lucy has designed and manufactured textile machinery with most advanced technology for finishing for the textile machinery.

Lucy today continuous its appreciable success story offering a range of dry processing machines & its accessories for textile finishing with all in house manufactured facility.

Lucy Engineering is currently and industrial establishment that provides employment to thousands of peoples, manufacturing machines with best quality, users friendly equipments with ISO - 9001 : 2015 certificates. In future also company is committed to give its best with continuous R & D and fulfill the needs of the industry

We are very much thankful to all of our customers and other individuals who has guided us, motivated us to give the best possible to the industry.

CERTIFIED BY:



SMERA RATINGS LIMITED



## Our Vision for the 21<sup>st</sup> Century

- Our products must give the best quality and maximum satisfaction to our valued customers.
- To increase our capability to accept the growing challenges and to take the company to the sky high.
- Our assets are innovation, initiate the spirit and power to change the world.

## Our Aim

- **Technological Revolution:** To grow with the industry by developing to - notch technologies through continuous R & D efforts, and to welcome voluntarily from all corners of the world and try to fulfill the needs of the world.
- **To bring perfection into reality:** Customer satisfaction is our top priority and we seek the perfect satisfaction for the customers by establishing perfect and quick responding business structure covering from technological R & D to quality production to timely delivery and last but not the least, quick & effective A/S services.





1993 EST.



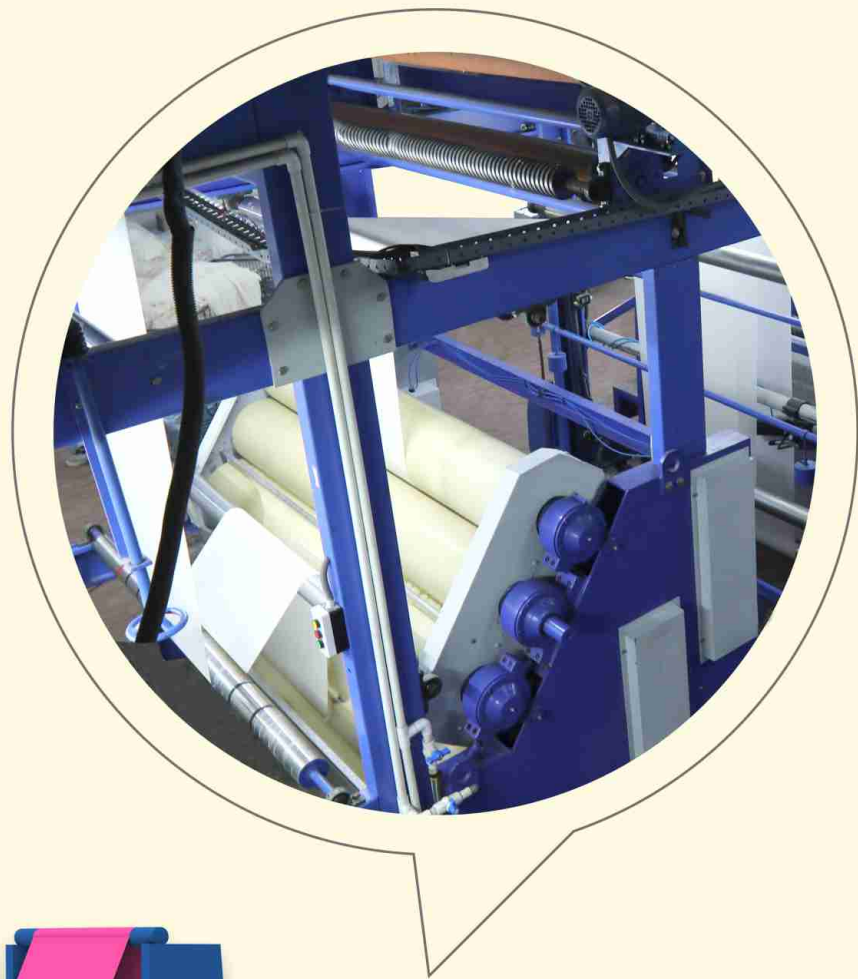
Lucy's Innovation and Initiative Spirit always strive for contribution to industry in terms of new product development and efforts to give most efficient & users friendly products.

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## Close Circuit Having Radial Fan, Two Radiators Per Chamber



### Technical Data

- ★ Mechanical Speed Range : 0 to 20 - 60 - 100 - 140 meters / min
- ★ Nominal Width : 1200mm w.w. to 4000mm w.w. in step of 200mm
- ★ Heating arrangement : Thermic Fluid / direct gas heating / steam
- ★ Temperature : up to 230°C
- ★ Chamber : 10 Feet / 16 Feet (on request)
- ★ Evaporation Capacity : upto 120kg of water / chamber / hour for bleached cloth
- ★ Outlet arrangement : Plaiter, big / friction batching
- ★ Stenter Chain : Pin chain, Clip Chain, Pin & Clip Chain
- ★ High efficiency motor IE 3 & IE 4 standard as per requirement (on request)

### Applications



Drying



Heat Setting



Curing



Finishing



Coating

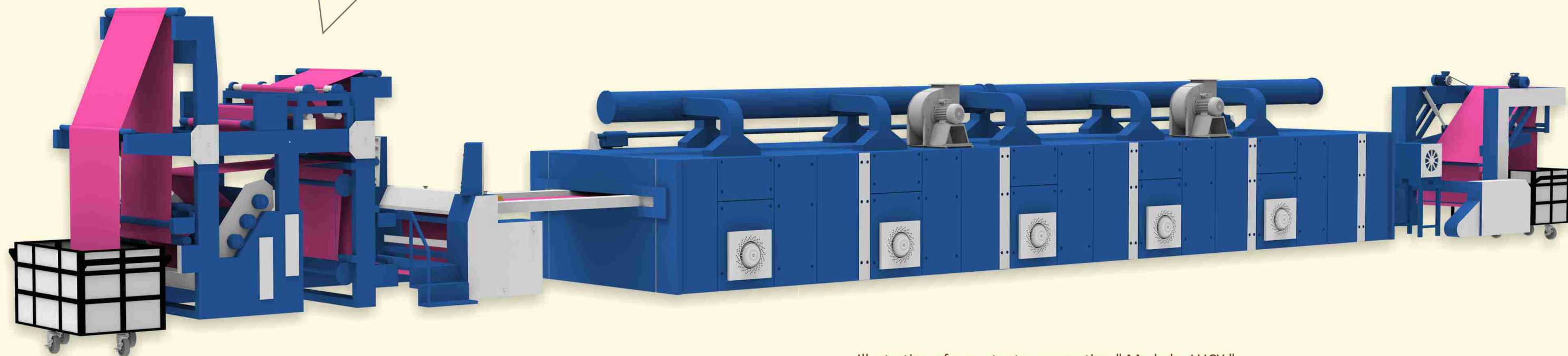
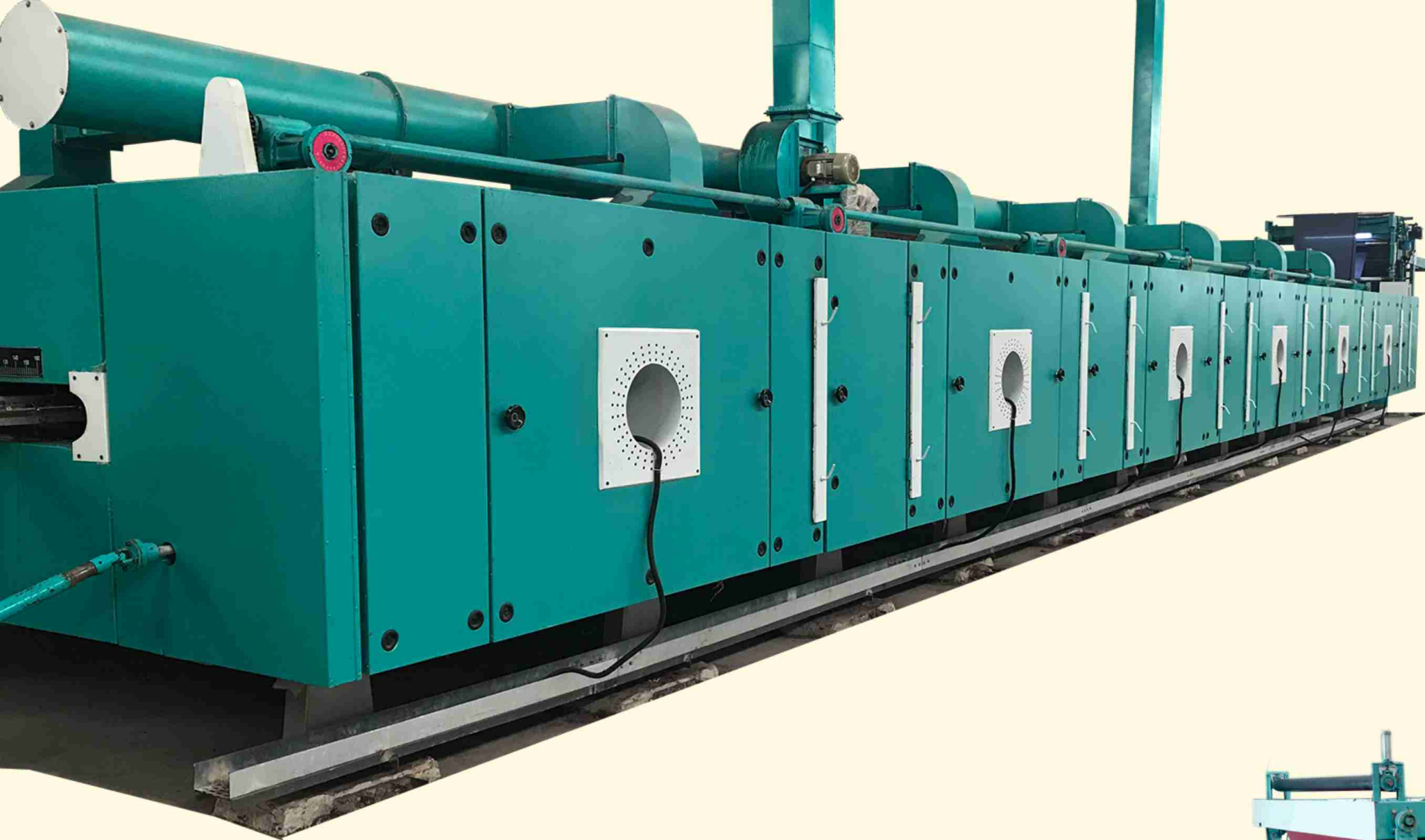
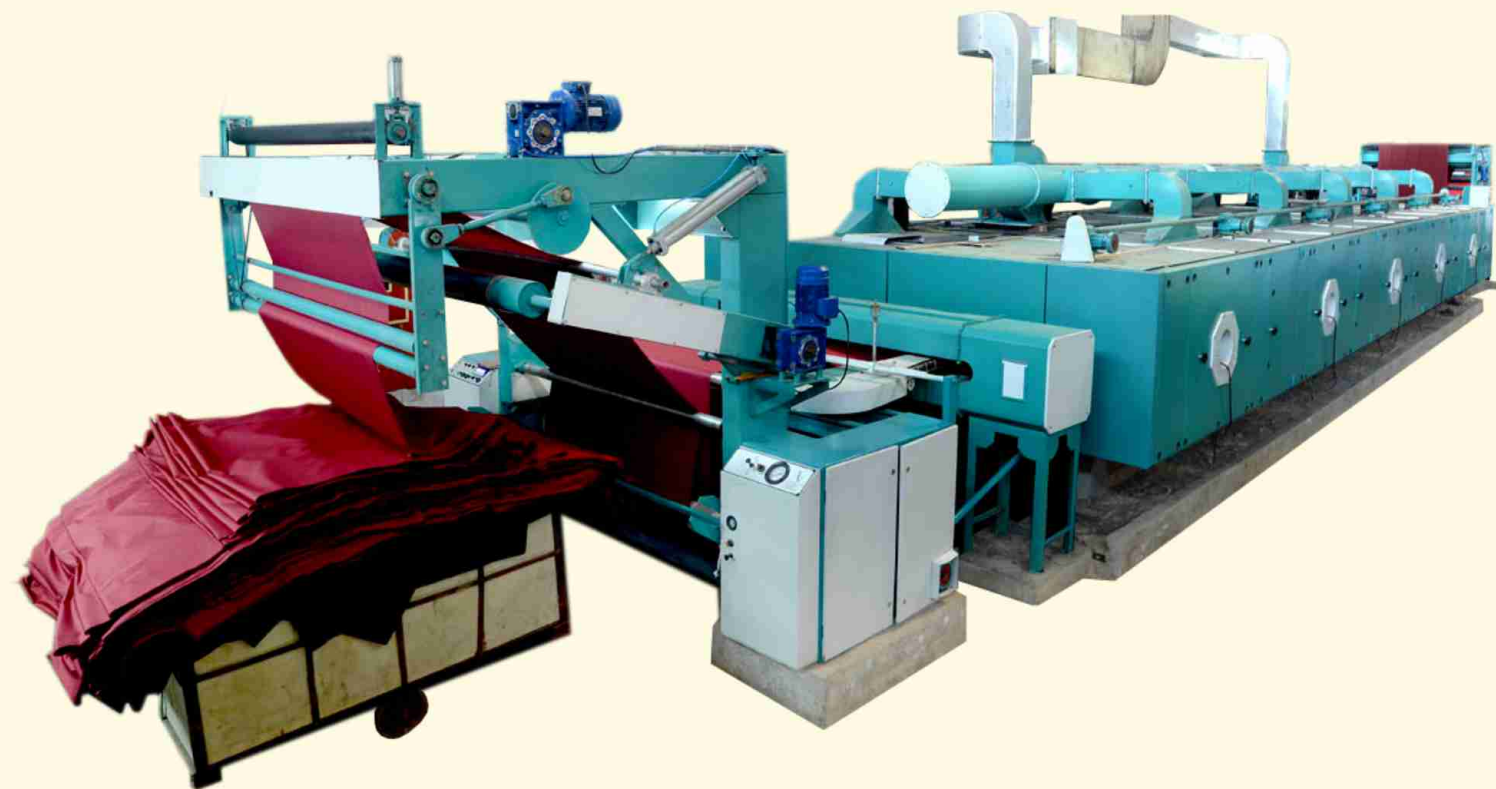


Illustration of new stenter generation " Made by LUCY "





Open Circuit Having Axial Fan,  
Four Radiator Per Chamber





Standard Inlet arrangement  
with Cloth tensioning assembly

Inlet arrangement with centering device suitable for  
knitted & delicate fabric.

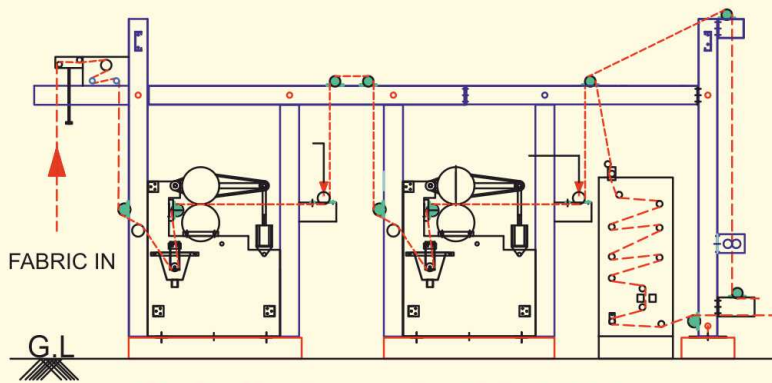




## 2 / 3 - Bowl Padding Mangle

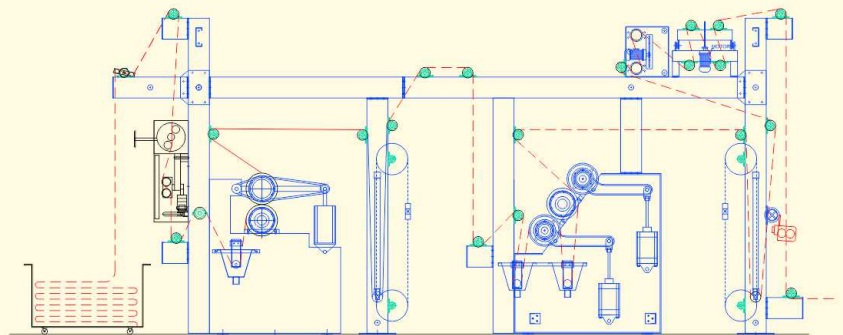
- ★ Used for water squeezing & Finishing / Padding for woven & knitted fabric.
- ★ M.S. Frame structure (Inside S.S. Cladded) to avoid corrosion / rusting, thus long life span.
- ★ Upto 100 shore a hardness available with different combination for the same.
- ★ Bow roller before nip for woven fabric on request.
- ★ Positive driven scroll roller before each dip & also before each nip for knitted / delicate fabric.
- ★ Load cell / pneumatic compensator is provided for padder speed synchronization with stenter.
- ★ Jacked through with temp. controller is also supplied on request.
- ★ J- scary unit & unwinder can be supplied as per requirement.

### Various Line Diagram



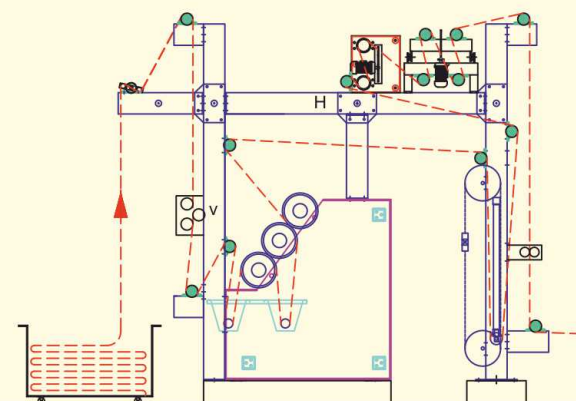
Wet To Wet Process For Knitted Fabrics

Two bowl + Two Bowl Padding Mangle



Wet To Wet Process For Woven Fabrics

Two Bowl + Three Bowl Padding Mangle



Three Bowl Padding Mangle



## Inlet Desk

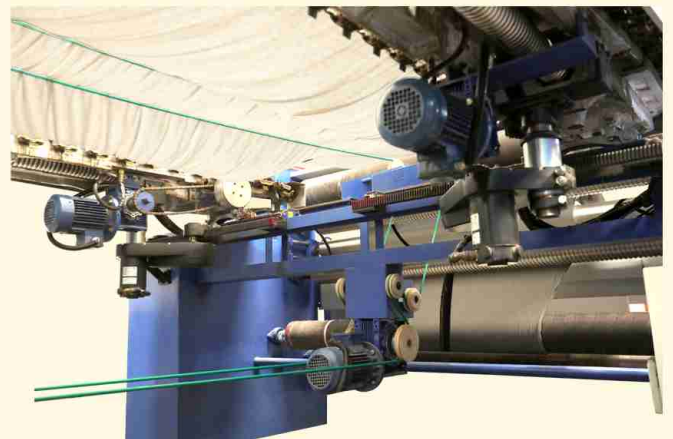
- ★ The control board “**COCKPIT**” gives all the information regarding machine controls.
- ★ Auto cut - off of blower when machine stops.
- ★ T.V. Camera with mic & speakers for communications.
- ★ User friendly machine controls.
- ★ Manual + Fully PLC, both supplied for break free operation in case of emergency.



### Stenter Infeeding View:

Inlet desk equipped with guide rollers, scroll rollers with overfeed - underfeed roller assembly with required geared motor.

Centre support s.s rod or driven rope assembly available on request to avoid fabric slagging and for controlling the bowing.



### S. S. Scroll Roller

Specialized motorised driven S.S Scroll Rollers for woven & knitted fabrics

## Overfeed & Pinning System

- ★ **Overfeeding Performance:** It can be controlled with - 15% to 70% according to the chain speed.
- ★ Individual driven overfeeding, underfeeding & separate selvedge controlled in synchronization or through PLC.
- ★ Pneumatically lifted & lowered of the pinning rubber wheel.

## Edge spreader for knitted fabrics



3/4 Finger un-curlers for woven fabrics

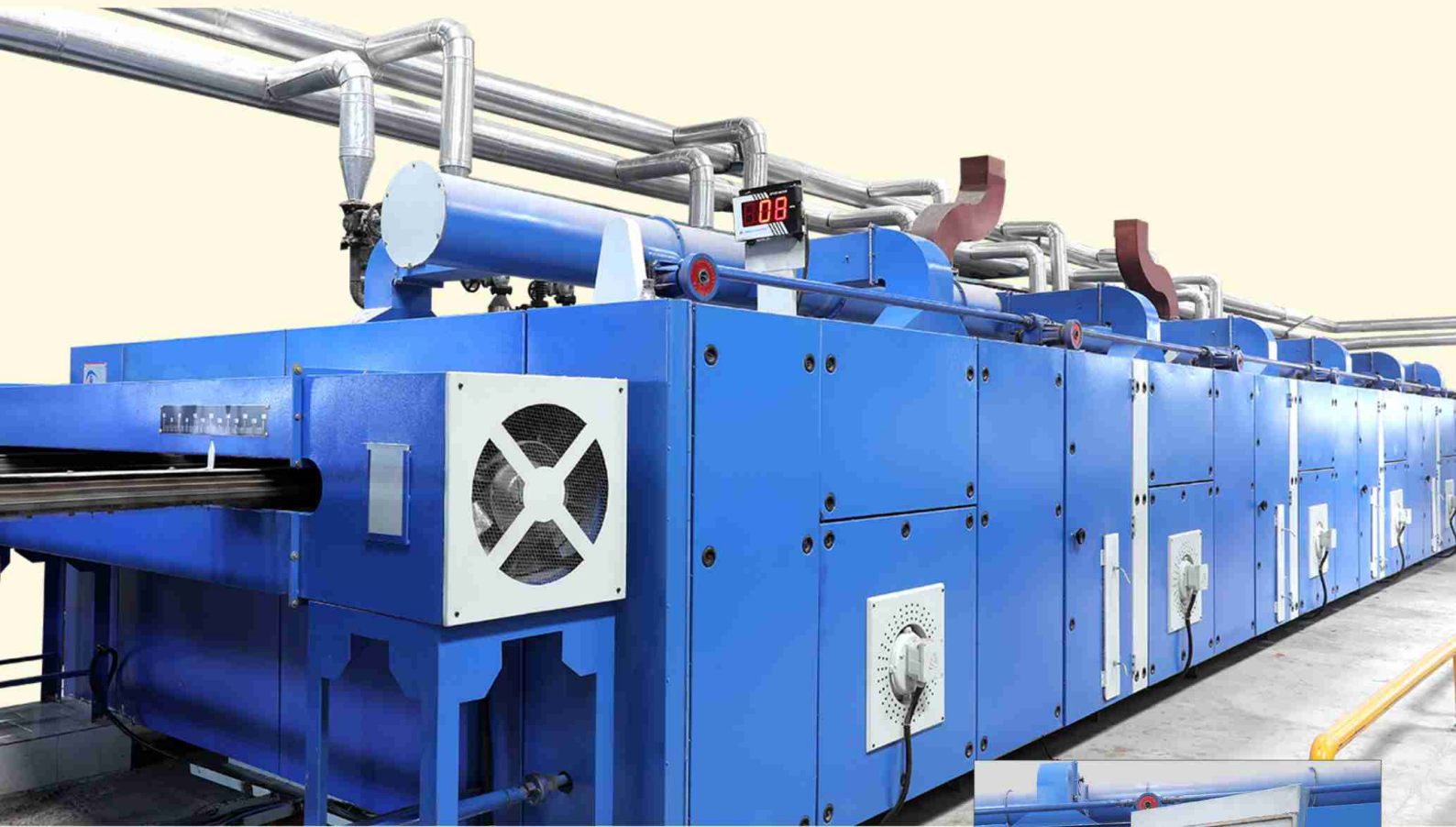


Extra extended chain length as 1.5m, 3m, 6m as per finishing process requirement.



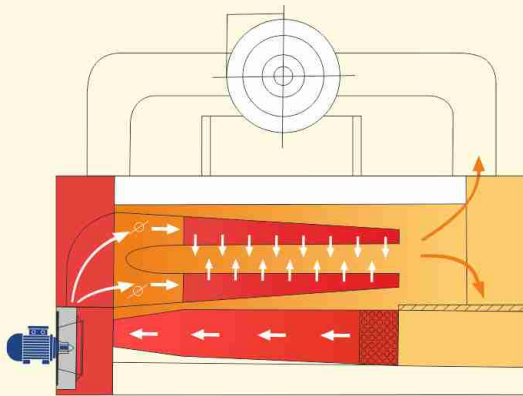
# Chamber View

Heavy duty frame structure & sealed design of chamber with thick insulation, helping in reduction of heat loss & saving of energy.

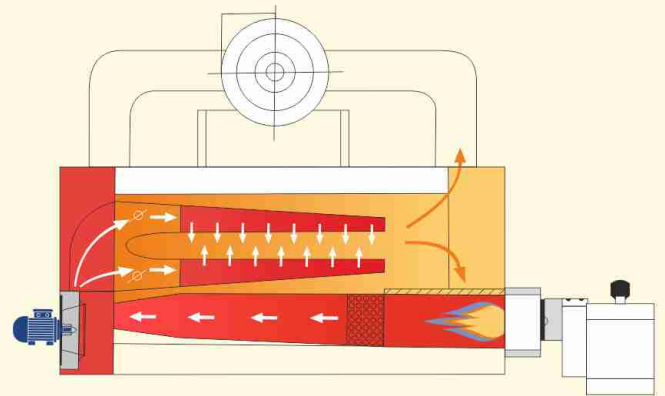


## View of Burner Mounting in Chamber





Thermal Oil Heating System

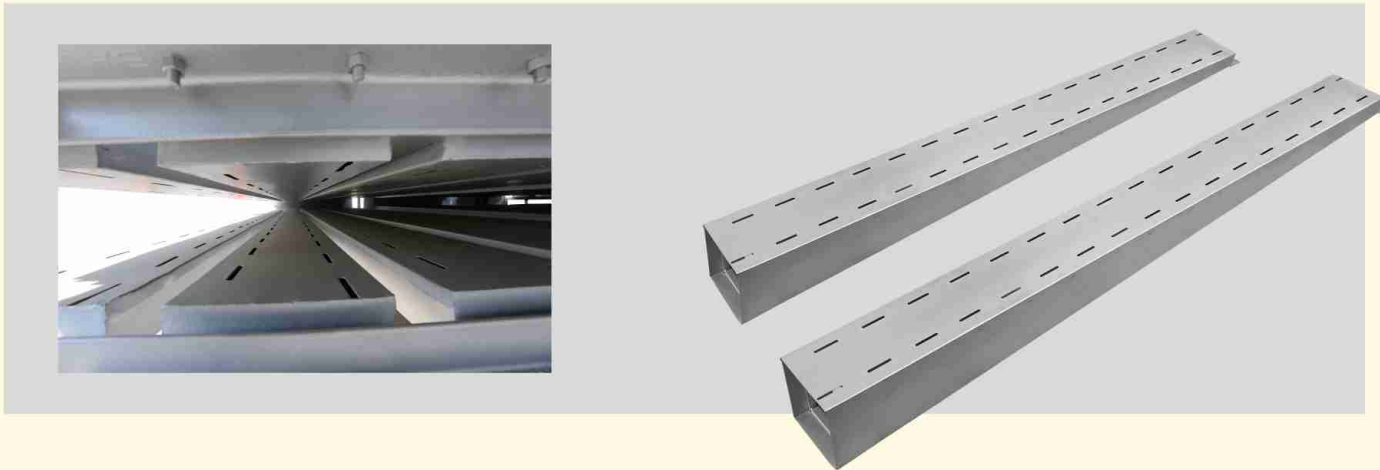


Gas Directing Heating System

## Nozzles Box (Suitable for all kind of fabrics)

Specially designed alternate slit type nozzle, giving maximum uniform distribution of hot air & is effected on best drying course. It is detachable, each finger can be removed, cleaned & fitted in short time of span, thus help in keeping machine drying efficient constant.

Individual blowers for top - bottom nozzle available on requirement (for coating and non woven application) / on request.



## Benefits of Lucy's Stenter chamber

- ★ Large heat exchanger in terms of length to increase suction area.
- ★ Air filter net, can be cleaned while machine is in operation.
- ★ High density insulative material for reduction of heat losses.
- ★ Maximum possible sealing of chamber, thus helping in reducing heat losses.
- ★ Through out the width of nozzle uniform distribution of air flow with even temprature.
- ★ Lower the energy consumption, higher the evaporation capability.



## Outlet Desk

- ★ Delivery of fabric from the stenter machine can be through plaiter, big batching & friction batching / surface winder.
- ★ Static eliminator also provided at plaiter on request.



## Cooling Zone

Excellent cooling effect on fabric by blow of ambient air through directly foot motor.



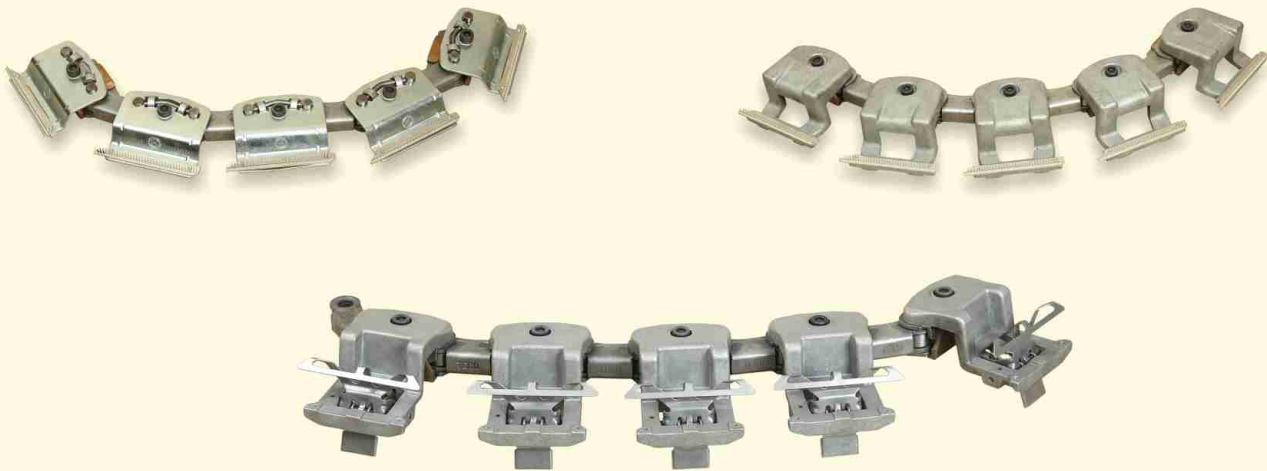
## Exhaust System

- ★ Easy to clean in maintenance.
- ★ Chamber vice manual adjustable damper for control of exhaust air.
- ★ Inverter driven exhaust fan is provided for run as per requirement.



## High - Tech Stenter Chain

- ★ Chain link made of high carbon steel with high tensile strength.
- ★ Sintered bronze liners.
- ★ Pressure dry cast aluminum alloy pin block / M. S. Pin blocks.
- ★ Hard chrome plated pin bar.
- ★ Pressure dry cast aluminum pin & clip type blocks / only clip type block.

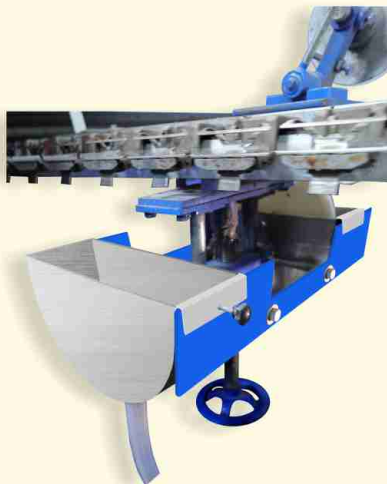


Fabric Protection Flapper System For Pin Chain.



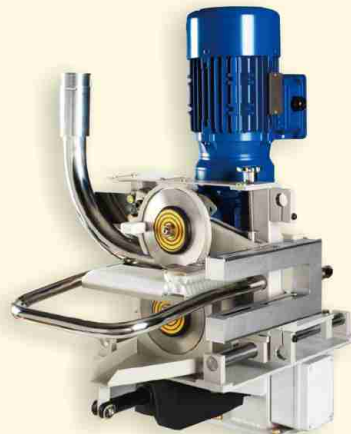
## Gumming Unit

As the name suggest, It is used to avoid wastage of selvage loss and prevent selvage curling by apply gum on it. It is mainly suitable for circluar knitted fabric application.



## Edge cutter with suction device

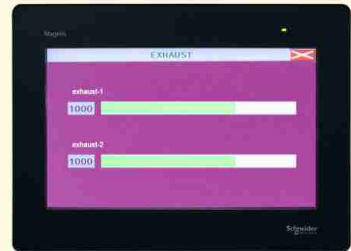
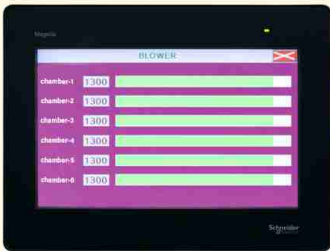
It is used in pairs on the outlet of the stenter for cutting the glued edges of the web. The extraction of the waste strips is undertaken using a silenced side channel compressor with nozzle minimum edge material outting setting is possible.



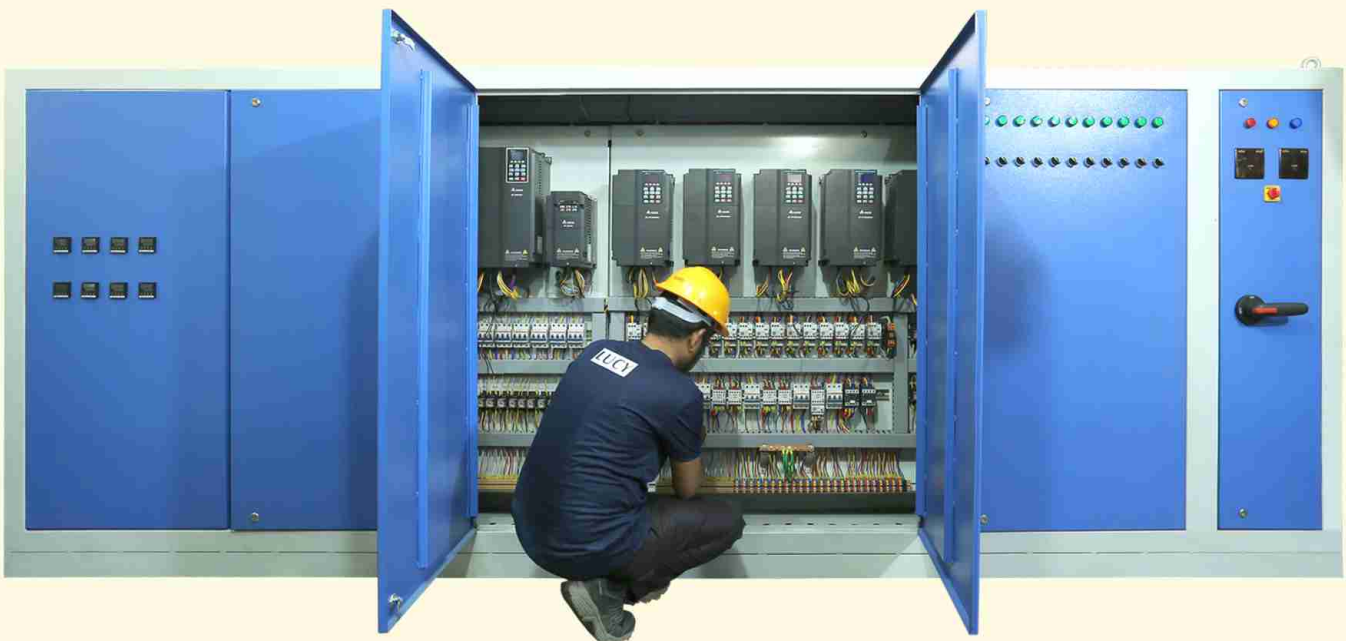


# PLC System

- ★ PLC with touch screen for smooth operation of synchronization of overfeed, fabric tension & selvedge tension
- ★ Blower / Exhaust RPM indicator & controller, temperature indicator & controller with emergency stop.
- ★ Width adjustment system screen available on request.
- ★ Production data history, electric fault indication features on request.
- ★ Machine running hours, meter run & other features available as per requirement.
- ★ Fabric temp. sensor & dwell time controller on request.
- ★ Easy to connect through ethernet on request.
- ★ Machine maintenance schedule & records.

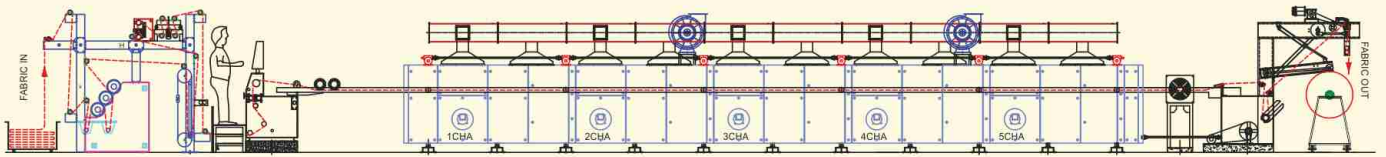


# Electronic Control Panel

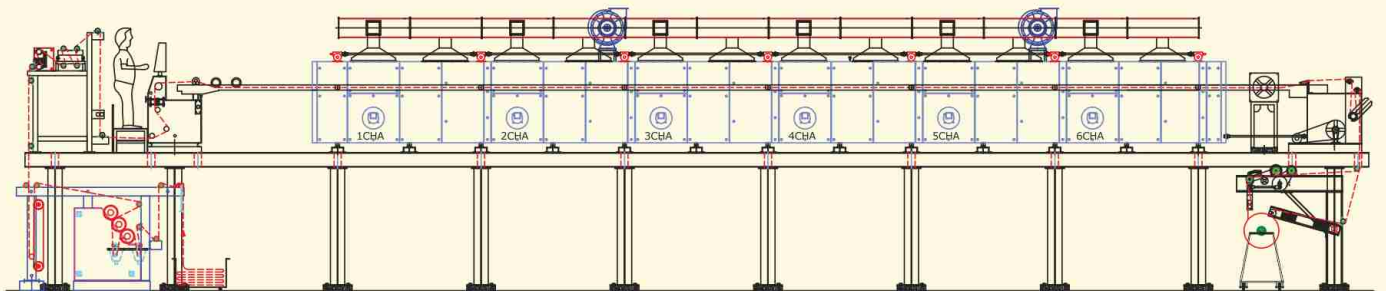


# Stenter Machine Line Diagram

## Stenter Line Diagram for Woven Fabric on Ground



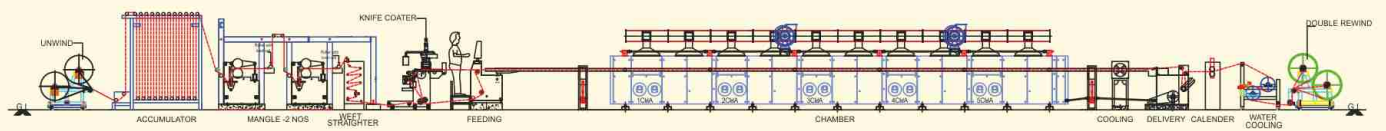
## Stenter Line Diagram for Woven Fabric on Scaffolding



## Stenter Line Diagram for Knitted Fabric



## Stenter Line Diagram for Coating Application

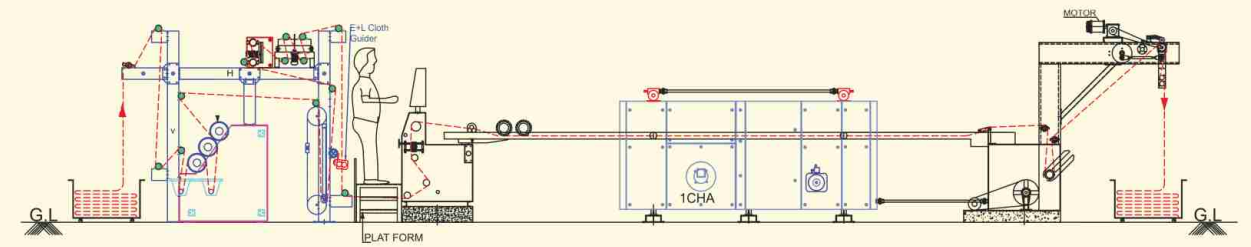




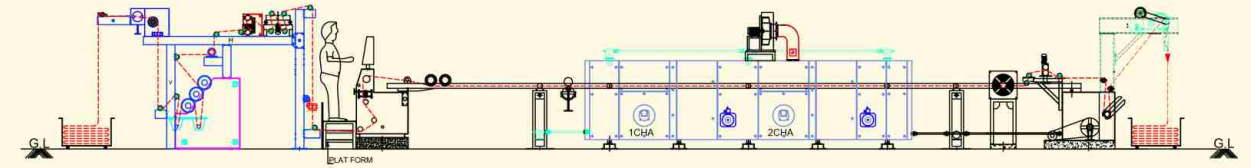
# Padding / Coating & Finishing Stenter M/C for Digital Printed Cloth

## Points

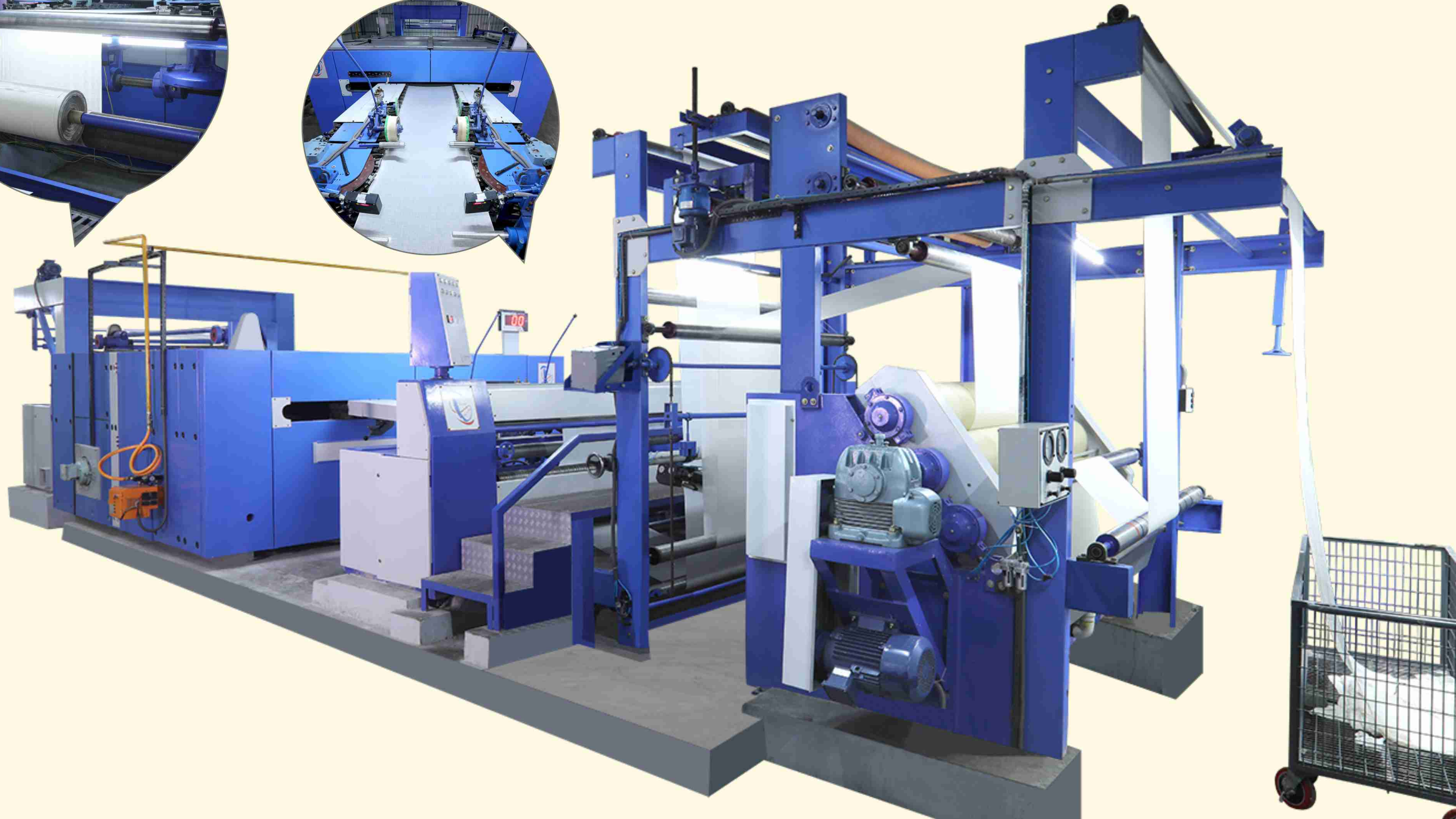
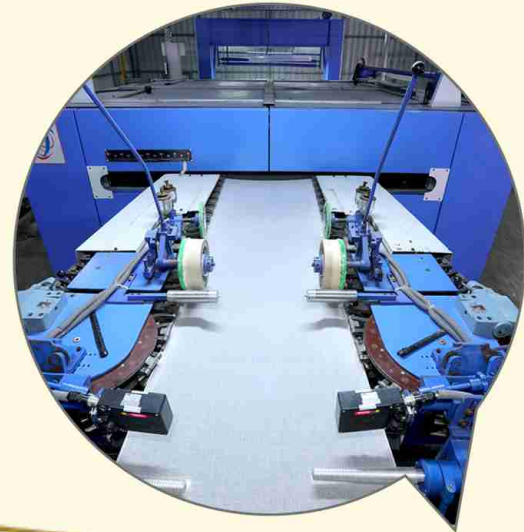
- ★ Double Dip & Double Nip mangle for even coating / squeezing in fabric.
- ★ Bow can be avoided with certain time lag.
- ★ Uniform distribution of heat throughout the width to avoid coating problems



1 Chamber 10' feet Gas Heated Stenter Machine & 3 Bowl Mangle



2 Chamber 10' feet Gas Heated Stenter Machine & 3 Bowl Mangle





# Lucy Conveyor Relax Dryer Machine

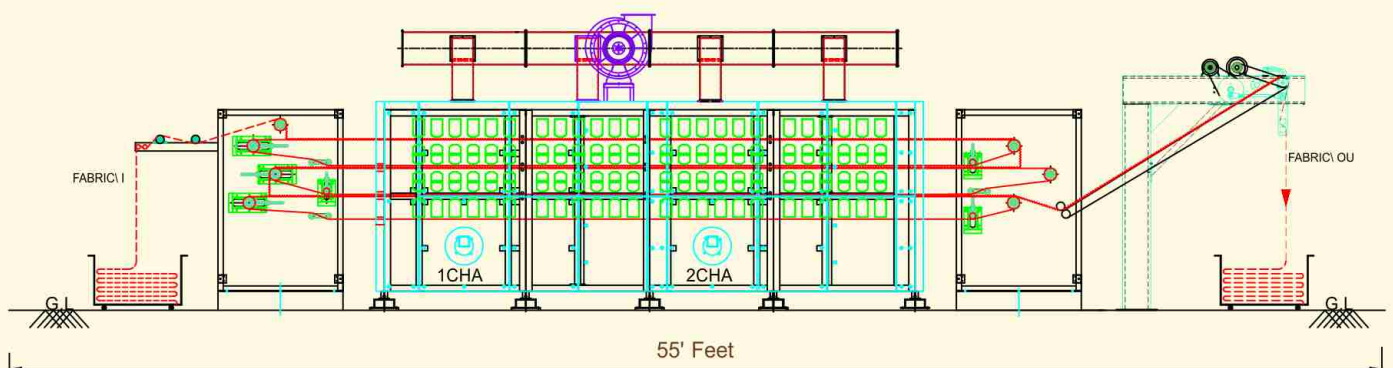
The key to tension less drying of knitted & woven fabrics

## Technical Data of Lucy Relax Dryer

- ★ Working Width : 600mm - 3800mm in step of 200mm
- ★ No. of passes : 1 / 2 / 3
- ★ Temperature : up to max. 225°C
- ★ Evaporation Capacity : up to 230 kg. of water / chamber / hour
- ★ Heating system : Thermic fluid / direct gas heating / steam
- ★ No. of Chamber : up to 6 chamber

It can be used for

- ★ Drying / Partical Drying
- ★ Achieving Controlled Shrinkage



2 Chamber 3 Pass Relax Dryer

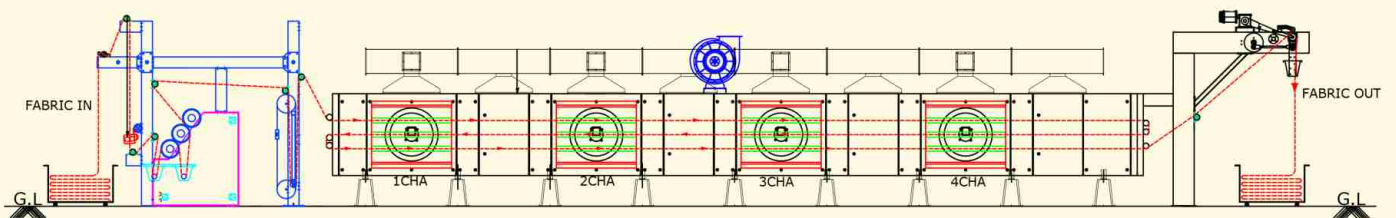


### 3 - Bowl Mangle With Float Dryer



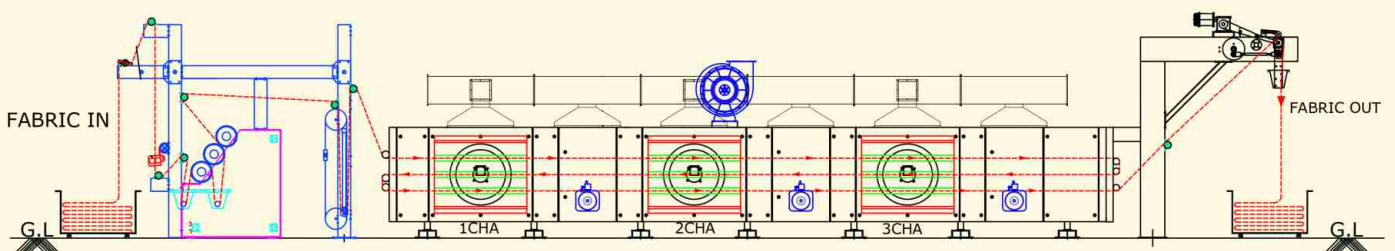
Two, Three & Four chamber three pass Float Dyer Machine with 3 bowl inclined type padding mangle with plaiter & batching unit.

4 Chamber Float Dryer Machine Oil heated with 3 Bowl mangle line Diagram



Total Length 70' Feet

3 Chamber Float Dryer Machine Gas heated with 3 Bowl mangle line Diagram



Total Length 60' Feet



## **Lucy Engineering Works Pvt. Ltd.**

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