

力根定型機 OPEN WIDTH STENTER

Environmental Protection
Energy Saving



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誠信 穩健 品質 創新 溝通

Integrity, Steady, Quality, Innovation, Communication

CONTENTS



INDEX

■ 公司簡介 Company History	3
■ 全球布局圖 Marketing distribution and serviced nets	5
■ 構造說明 Construction figuration	7
■ 上將機 Paddle mangle	9
■ 入布裝置 Infeed devices	11
■ 入口箱組件中央控制面板 Entrance box and central control panel	13
■ 縮碼上針入布系統 Overfeed pinning on system	14
■ 軌道幅寬調整鏈條及針板鋁座 Rails width adjustment device, Chain and Pin plate holder	15
■ 高效能熱風循環系統 High efficiency air circulation system	17
■ 加熱系統 Heating system	19
■ 出口裝置 Exit devices	21
■ 機器尺寸圖及電力需求表 Machine dimension and power requirement	23
■ 熱回收系統 Heat recovery system	25
■ 選用配備 Optionals	26

公司簡介

Company History

誠信 穩健 品質 創新 溝通

SINCE 1960

力根實業股份有限公司成立於1960年，本著推動台灣染整機械本土化之責任與義務，全心全力研究開發定型機、烘乾機及熱煤油爐，即時提供客戶服務需求，以強化台灣染整加工業之世界競爭力；繼往開來，更積極參與國際性展覽，將力根產品拓展國際，行銷遍及四十餘國，享譽國際，遂使力根蛻變為國際最專業定型機及烘乾機製造商。

力根秉持創新求變之精神，結合人性化操作與科技化運用設計理念，順應染整多元化加工與使用者需求之方向，注重與客戶之互動及溝通，精心規劃生產最具效益之機台設備，以符合客戶生產需求。無論在專業技術、產能效率及售後服務網，力根永遠是走在第一線上與客戶研究開發；在21世紀的今日，力根將持續創新研發，持續保持最專業定型機及烘乾機製造領導廠商之地位，提供高科技、省能源的綠色革命性產品，讓客戶以擁有力根產品為驕傲。



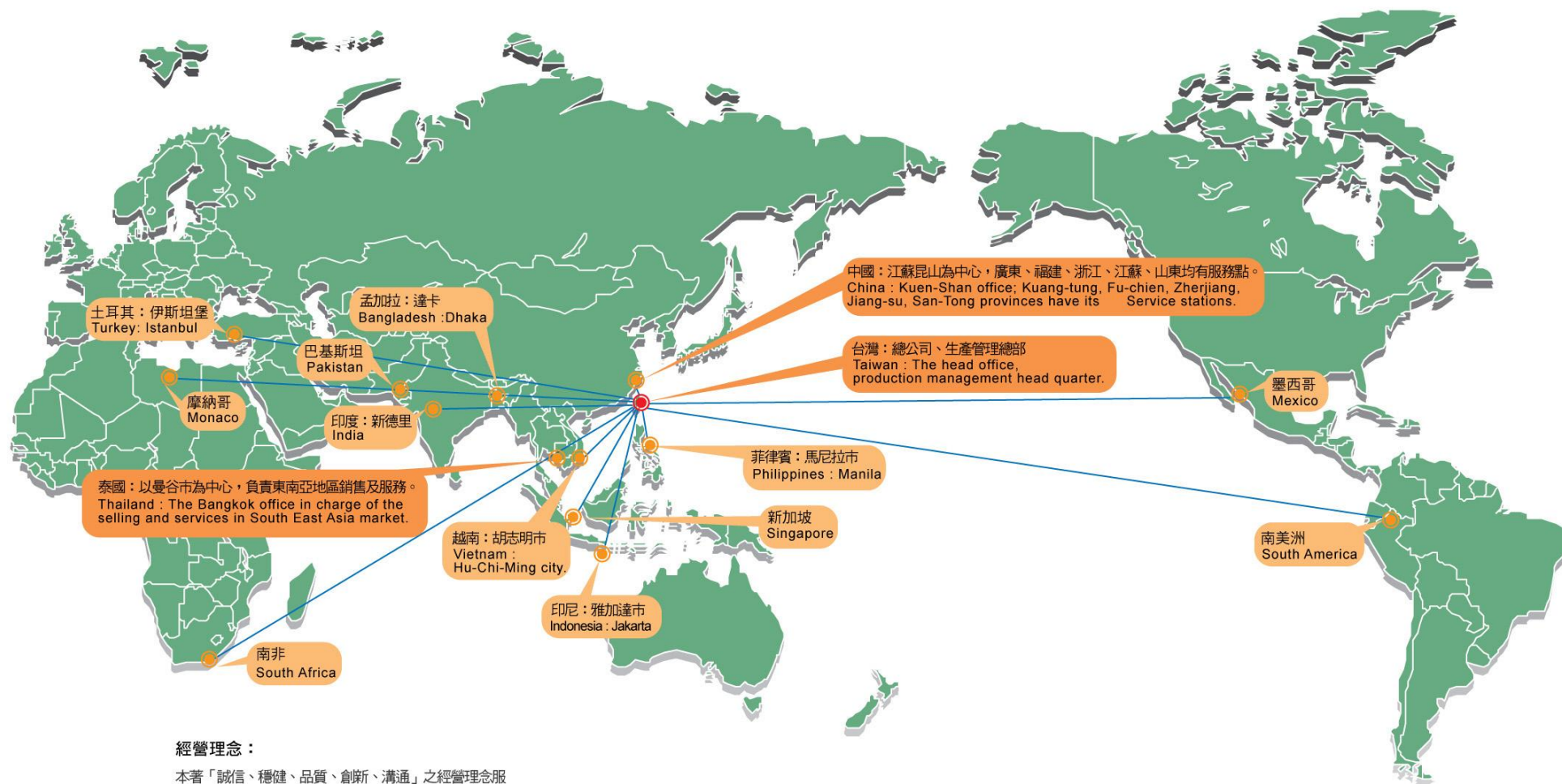
Company History

>> Integrity | Steady | Quality | Innovation | Communication

The Company was found on 1960, the pioneer of promoting the principals of textile finishing machinery made in Taiwan, carry out his duty and obligation to fully concentrate in developing the Stenter , Dryer and Thermo-boiler , to fit for the wide variety requirement of our customers, enhance the competitive ability of Taiwan textile finishing machinery in worldwide marketing. They working hard to promote LK machines up to worldwide market, now LK machines have sold more than 40 countries , LK brand are notable of Stenter and Dryer specialized manufacturer up to international level.

To incorporate humanized operation and scientific technology, LK is always persists on innovative and creative spirits, to fit for multiple choices of fabric finishing demands, and easy operation as operator requests, also emphasizing the mutual communications between the customers and maker, to make the best interests for the various requirements of fabric demands. In technology fields, production efficiency or afterward services net, LK always offers the best performance in competing with other makers. On 21 century nowadays, LK will maintain the Stenter specialized manufacturer leading roles in this fields, to create the high techs , energy saving productions for the various innovation, LK will be proud for his products.



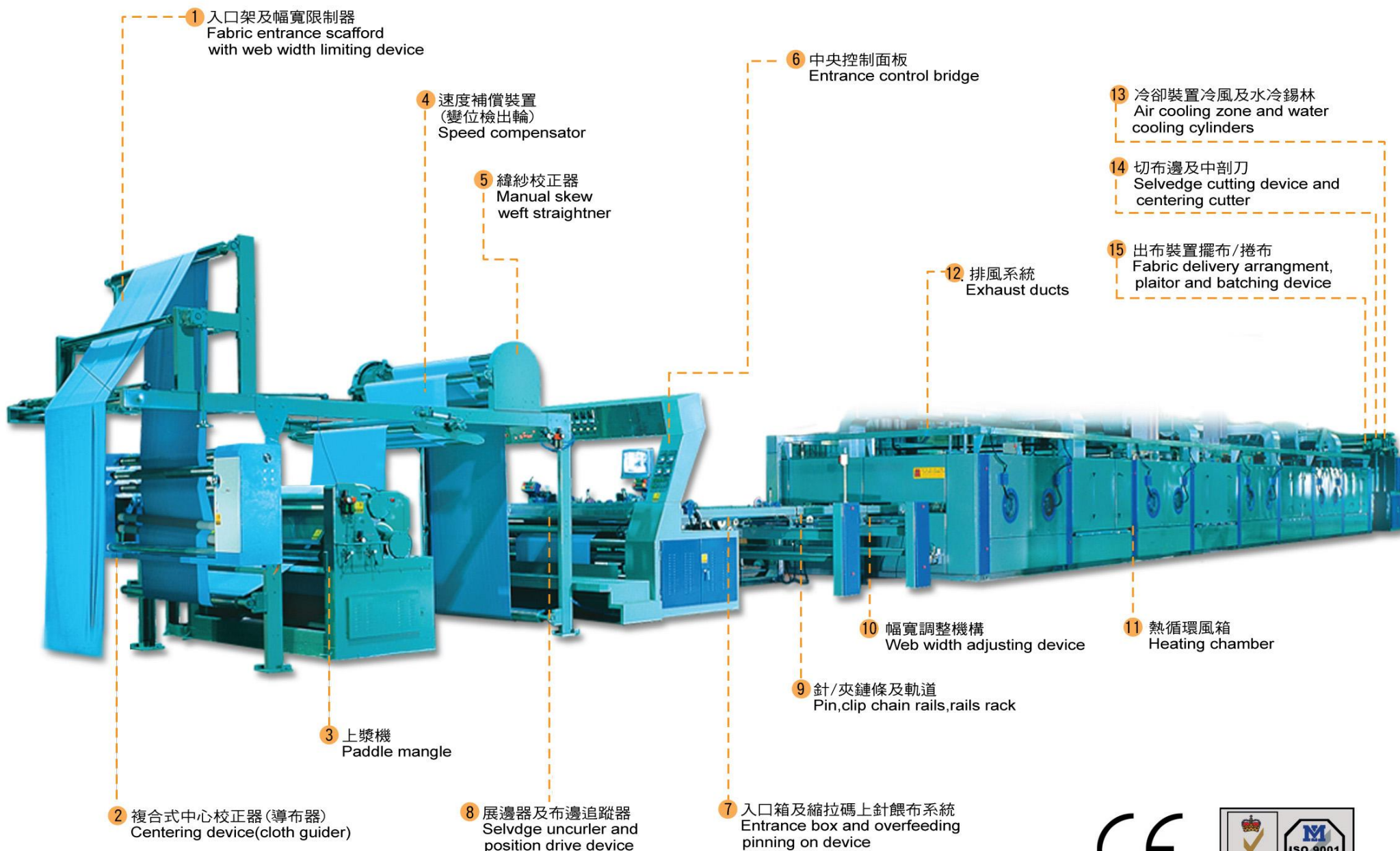


經營理念：

本著「誠信、穩健、品質、創新、溝通」之經營理念服務客戶，以客戶需求為依歸，創新求變致力於產品開發，提供客戶穩定與最具效益之設備。

Principals of management :

To keep INTEGRITY, STEADY, QUALITY, INNOVATION, COMMUNICATION principals to serve our customers.
To satisfy the demands of our customer first, to keep innovative and create the new products, offer the best efficiency of the machine equipments.



1 入口架及幅寬限制器
Fabric entrance scaffold
with web width limiting device

4 速度補償裝置
(變位檢出輪)
Speed compensator

5 緯紗校正器
Manual skew
weft straightner

6 中央控制面板
Entrance control bridge

13 冷卻裝置冷風及水冷錫林
Air cooling zone and water
cooling cylinders

14 切布邊及中剖刀
Selvage cutting device and
centering cutter

15 出布裝置擺布/捲布
Fabric delivery arrangement,
plaitor and batching device

12 排風系統
Exhaust ducts

3 上漿機
Paddle mangle

2 複合式中心校正器(導布器)
Centering device(cloth guider)

8 展邊器及布邊追蹤器
Selvage uncurler and
position drive device

7 入口箱及縮拉碼上針餵布系統
Entrance box and overfeeding
pinning on device

9 針/夾鏈條及軌道
Pin,clip chain rails,rails rack

10 幅寬調整機構
Web width adjusting device

11 熱循環風箱
Heating chamber

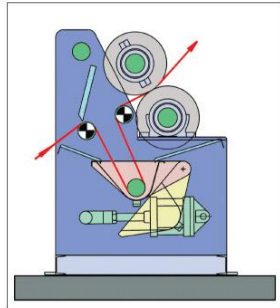


各式上漿機 Various paddle mangle

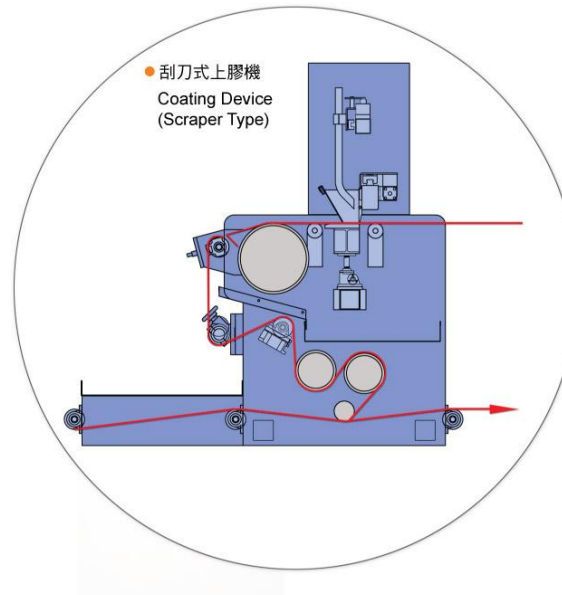
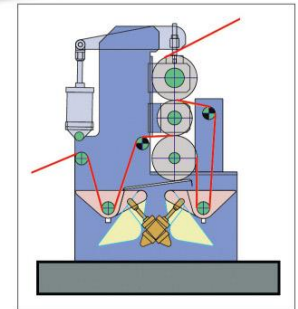


●斜輥式 Skew roller type

- 人性化之操作介面。
- 體積小、節省空間。
- 低液量及傾倒式液槽，方便保養、清洗。
- 高效能且均勻之壓吸率。
- 針織布---展布牙輪。
- 平織布---展布彎輪。
- Humanized designed operation panel.
- Small dimension and save the spaces.
- Low level and dumping type trough, easy to maintenance, clean.
- High efficiency and uniformly pick up.
- Knitting fabric---Scroll roller
- Woven fabric---Expand bow roller

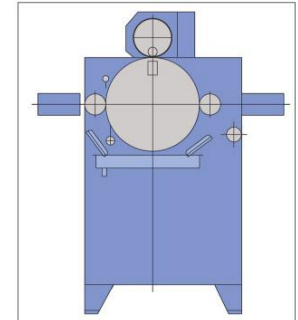


●三輥式(選用配備)
3-Rollers type(Optional)

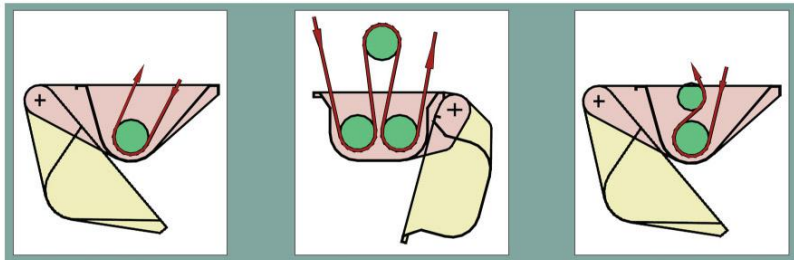


●刮刀式上膠機
Coating Device
(Scraper Type)

●圓網式上漿機 (Rotary Screen Type)



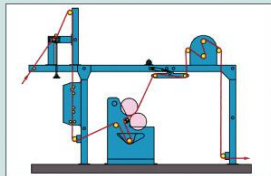
■ 漿槽之排列方式/Trough arrangement



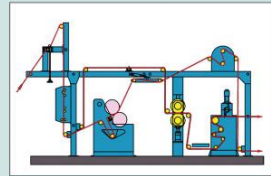
- 單輪可傾倒式 (標準型)
低液量設計
Single roll trough
(Standard type)
designed for low chemical volume.
- 兩浸一壓式極低液量設計
2-dipping trough-designed for
minimum resin volume
- 雙輪可傾倒式
Double rolls trough



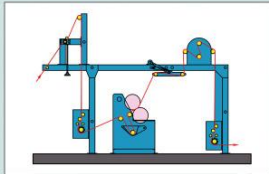
■ 入布組合：
Infeed combination



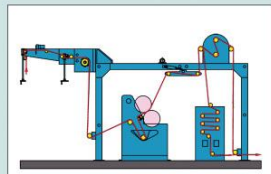
- 標準入布 (標準配備)
- Normal infeed (Standard)



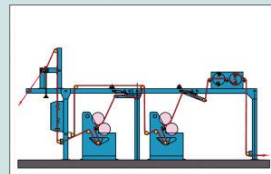
- 結合上膠機 (選用配備)
- Incorporate with coating device (Optional)



- LK雙滑條導布器 (選用配備)
- LK low tension double centering device (Optional)



- 滑條式入布結合自動緯紗機 (選用配備)
- Slat type centering device incorporate with automatic weft straightener (Optional)

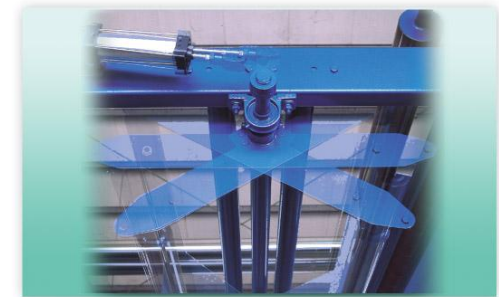


- 雙上漿機 (選用配備)
- Incorporate with double paddle mangle (Optional)

- 複合式中心校正器：
全幅式開幅及校正裝置，針/平織布適用。
- **Centering combination device**：
Full width, cut-open width and calibration device.
Suitable for knitted and woven fabrics.



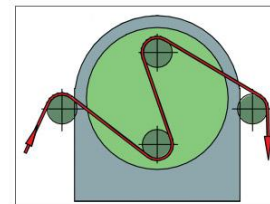
- S型氣動式補償裝置：張力範圍可調。
- **“S” Type pneumatic**：
Speed compensator-Tension can be adjusted.



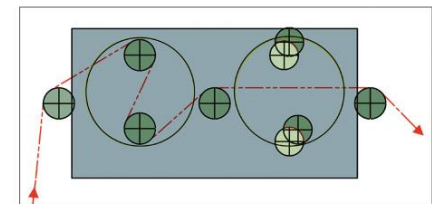
- 滑條式導布器 (選用配備)
- **Slat type centering device (Optional)**



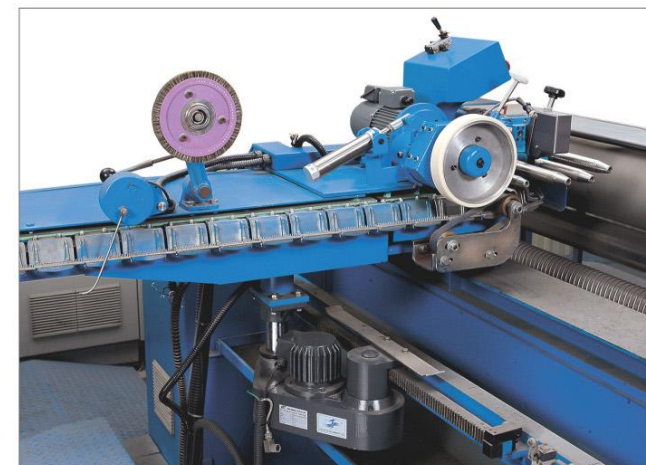
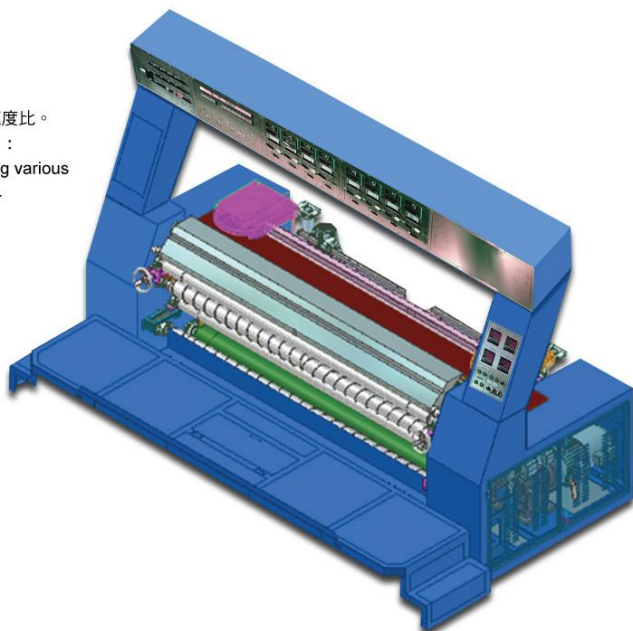
- 電動斜紗調整器
- **Push button skew weft straightener**



- 斜弧紗裝置 (選用配備)
- **Combinations of skew roller and bow straightener (Optional)**



- 中央控制面板：
數位表顯示各組拉布輪之速度比。
- **Central control bridge** :
Digital indicators for showing various speed ratio of feeding roller.

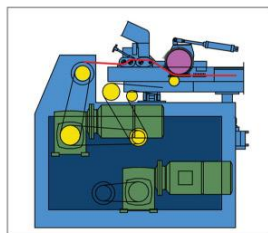


縮碼上針機構：

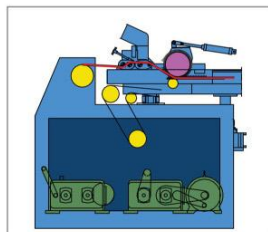
- 單輪式針 (標準配備) / 平織適用
- 下皮帶式壓布輪，結合托板組，易於展布上針。
- 左、右縮碼採伺服馬達獨立控制，便於操作、調整，確保縮碼品質穩定性。
- 採LK專型運動比例設定及迴授控制表，以閉迴路方式精準控制縮碼系統。
- 採人性化氣壓式縮碼控制，方便操作又美觀。

Overfeeding Pinning on device :

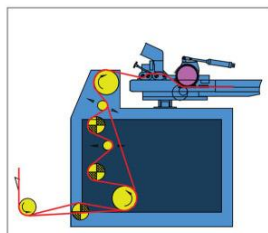
- single roller type (Standard accessories) suitable for both woven and knitted fabrics
- Belt driven type press roll , to combine with belt driven, easy for fabric pinning on.
- Left, right overfeeding device by servo motor controls individually, for easy to operate, adjust, make sure overfeeding quality is stable.
- Adopted LK specialized model for auto modulating setting, re-set controller, closed cycle to accurately control the overfeeding system.
- By virtue of humanized pneumatic control, easy to operate and smooth looking.



- 同步傳動之型式 (標準配備)
- Synchronizing transmission type (Standard)



- 超喂率檢出方式：
直接以譯碼器檢出各拉布輪之轉速，計算出正確的百分率。
- Overfeeding rate indicating method :
All feeding roller running speed can be detected via encorder conversion directly , through micro-processor calculations and then produce the correct percentage rate.



- 同步傳動之型式：
— 一般針織布。
--- 不需展布之平織布。
... 捲邊特別嚴重之布匹
- Various fabrics running procedure :
— For normal knitted fabrics.
--- For woven fabrics.
... For selvage curling fabrics

選配 Optional



- 斜溝板展邊器 (選用配備)
- Tandematic decurler (Optional)



- 吹氣式展邊器 (選用配備)
- Pneumatic opener (Optional)



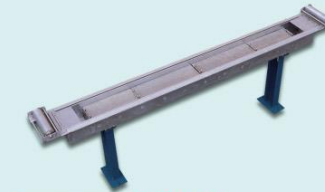
- 戰車式展邊器 (選用配備)
- Rollers type uncurler (Optional)



- 刷針裝置 (選用配備)
- Optional for motorized pin brush device (Optional)



- 布邊追蹤器 (選用配備)
- Position drive (Optional)



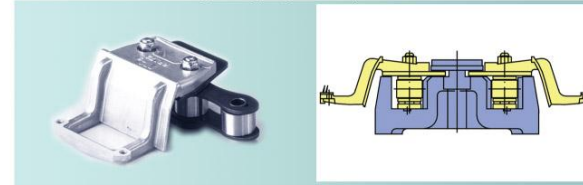
- 蒸氣給濕裝置 (選用配備)
- Steam moisture wedding devic (Optional)



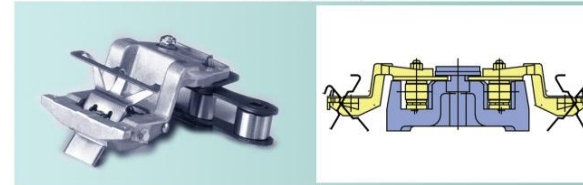
- 每室軌道寬窄藉傳動馬達做同時調整。
- 加裝手動調整裝置於圖示橫條，可單獨調整。
- 出入口之軌道可依織物之處理特性加以延長。
- 在調幅範圍內，迅速及靈活地調整全機軌道寬窄。
- 調整螺桿係由定型室外縱向之長軸傳動。

- Each rail width of setting chamber to be adjusted by a driving motor at the same time.
- Each ail width of setting chamber, optionally arranged for adjusting it independently.
- The infeed to delivery zone can be extended by variable fabrics treatment required.
- All the rails width adjustment are quickly and easily accessible across the entire width of the machine.
- The spindles are driven as standard by a longitudinal shaft located outside of the heating chamber.
- Optionally, we also make separate width adjustable unit and with guage of each chamber.

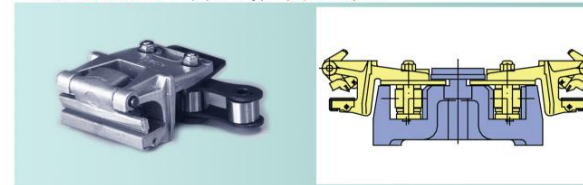
- 針板式(標準配備) Pin plate type (standard)



- 防脫針式(選用配備) Pin lock type (Optional)



- 夾板式(選用配備) Clip plate type (Optional)



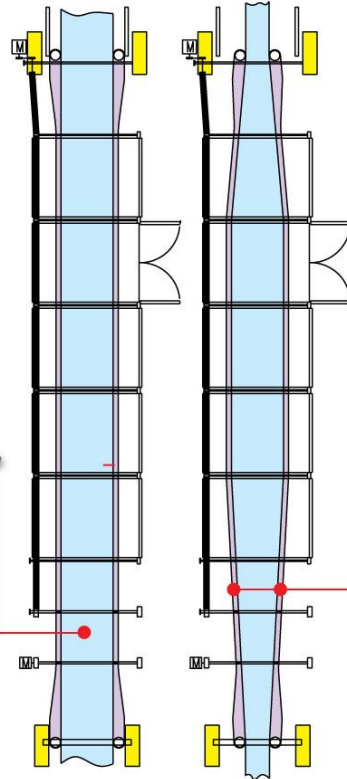
- 針夾板兩用式(選用配備) Pin & Clip combination type (Optional)



- 耐磨碳纖維(可選用鋼製滑板)
- 碳鋼滾柱
- 不銹鋼針
- 鋁合金針板座
- 耐磨性加之含油碳纖維
- 合金鋼襯套及軸心
- 鑄鐵軌到最佳化設計

- Endurable carbonized fiber plate.
- Carbonized stainless steel screw shaft.
- Pin plate (German made pin) .
- Aluminum alloy pin plate bass.
- Resistant oil carbonite plate.
- SCM chrome coated steel (interlining) .
- Die casting chain rack.

- 蒸氣給濕裝置
- Steam moisture wedding device



- 鏈條軌道潤滑裝置:
裝置於烘乾定型室前
- Lubricaton device:
Equipped at entrance of setting and drying chamber for Lubricating rail Chain of stenter



針板形式

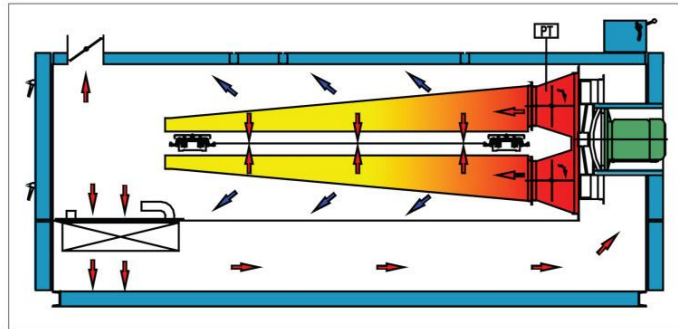
- 鋼針規格為20#34針
- 另可選用21#x42針,17#x18針等規格

Pin carrier type

- Block distance:101.6mm Specification:20#x34Pins
- Optional:21#X42Pins,17#x18Pins,etc.,



ST 型烘箱/ST type heating chamber



- 排風口 (附風門)
- 針板鏈條及軌道
- 上下噴嘴調整風門
- 鋁合金風車葉片
- 進氣口附風門
- 熱交換器
- Exhaust outlet (with air flap)
- Pin plate & chain rails.
- Air damper for nozzle.
- Aluminum alloy ventilator.
- Fresh air inlet with air damper.
- Heat exchanger.



- 熱風調節系統
- Hot air volume control system



- 烘箱尾端可張開，便於清掃、維修。
- The jet nozzle rear side door can be opened for easy cleaning and maintenance of inside heating chamber.



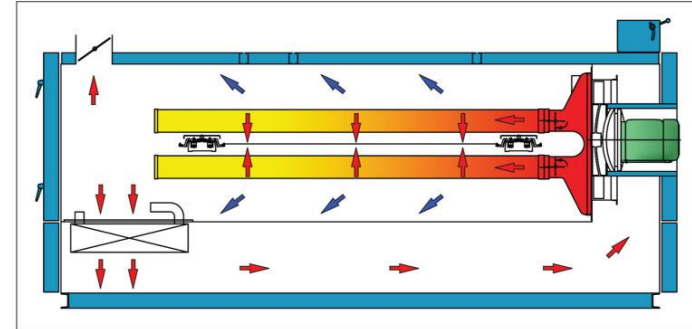
● 長孔型 (工業用料)



● 圓孔型 (成衣用料)

- 電腦設計噴嘴
- 漸縮式風管
- 精密折製無毛邊
- 鍍鋅鋼板
- 末端可拆易於清除
- Computer designed for nozzle hole.
- Down streamline nozzle shape.
- Sophisticated multiple layers assembling, no hairy.
- Galvanized steel plate.
- Openable at rear.

AC 型烘箱/AC type heating chamber

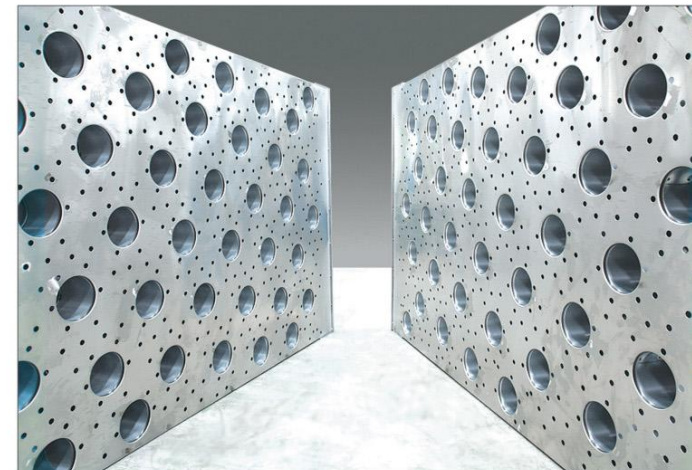


熱循環風系統：

- 採風壓大之循環系統，確保風量及溫度之均勻性。
- 上下風管可升降式，易於人員進入保養及維修。
- 風車馬達採變頻控制，可針對各織物之風量需求適時調整循環風量。

Hot air circulation system :

- By virtue of strong air pressurized circulation system, to assure the air volume and temperature uniformly.
- The upper and bottom jet-nozzle can be life up, is easy for operators to enter inside of the maintenance servicing.
- Fan motor by inverter controls can fit for various kind of fabric air volume requirements.



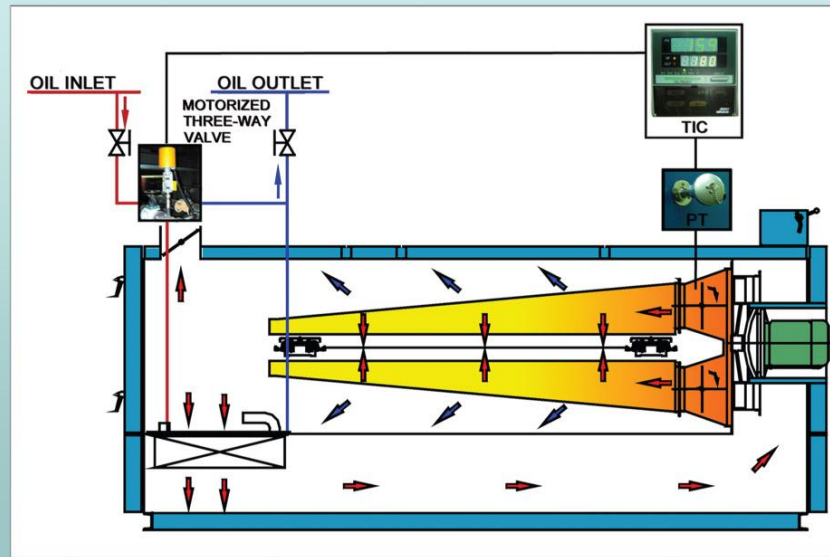
氣墊式風管：

- 氣墊式風管，能將布匹飄浮上下風管間，確保能源最有效利用。
- 專用風刀導流結構，風向垂直性佳且易於清理。
- 融入細緻化微積分設計理念，氣流全面深入織物，提昇布匹品質及手感。
- 此風房機構(含氣墊式風管)系統已受專利保護中。

Air cushion type nozzle :

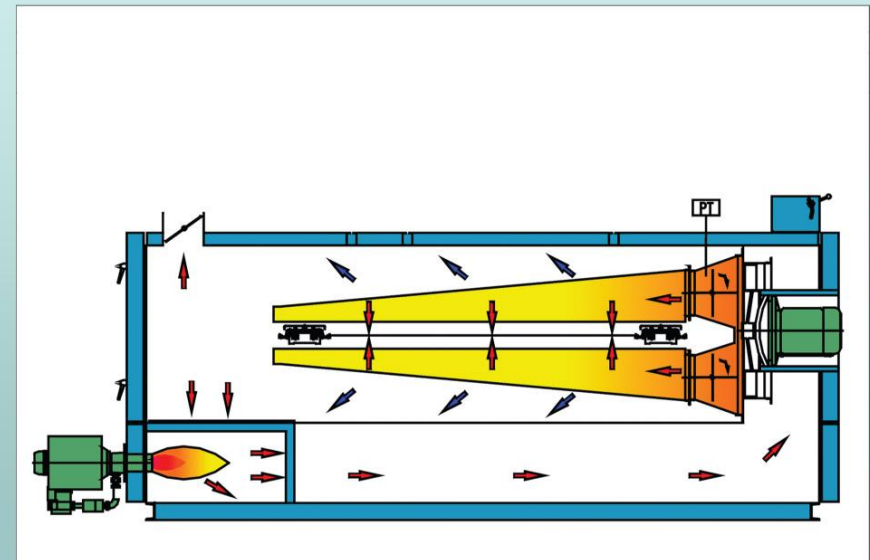
- Air cushion nozzle: Energy control effectively.
- Specialized slit ducting structure; ensure the air volume, in perfect straight blowing, easy to clean.
- Incorporating the sophisticated integral designs principal, to promote the quality of fabric and handling.
- **This heating chamber construction (with air-cushion nozzles) system are patent protected by LK.**

■ 熱煤油加熱控制系統/Thermo oil circulation heating system

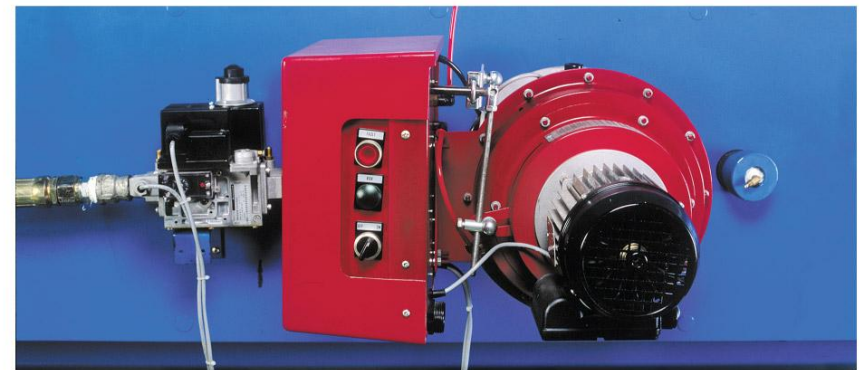


- 熱煤油加熱控制系統，以PID數位表搭配PT100Ω感溫棒控制電動三向閥之啟閉。
- 熱交換器為鱗管式，散熱面積大，蓄熱質低，加熱散熱快。
- 最高使用溫度220℃。
- Thermo oil circulations heating system , by means of PID digital temperature controller with PT100 Ohm temperature sensor , to control 3-way motorized valves in open or close.
- Heat exchanger is Fin type , heating transmission in large dimension , lower heat reserved values , but fast reheating and heat dispersing.
- The maximum working temperature is 220℃.

■ 瓦斯直接加熱系統/Gas direct heating system



- 瓦斯直接加熱系統。
- 設有多重安全設施。
- 最高使用溫度220℃。
- Gas direct heating system , by means of PID digital temperature controller with Pt100 Ohm temperature sensor , to control temperature in heating chamber.
- The maximum working temperature is 220℃.





切邊裝置 (選用配備) :

- 機台運行中，免停車即時調整設計，可安全地隨時可調整，確保布邊損耗最低。
- 獨特切邊及吸邊設計，可有效清除布條，防止捲入軌道。

Sselge cutter device (Optional) :

- During the machine running period, Non-stop real-time adjusting designs, can be adjusted anytime to assure the fabric sselge waste to minimum.
- Sselge trimming device, can clearly cut off the stripes, to prevent these stripes stuck-in the rails.



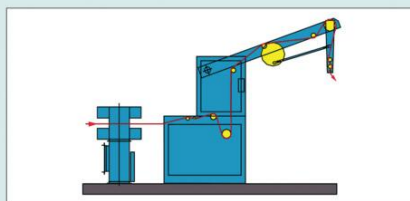
冷風裝置 :

- 棉屑過濾組，可清潔過濾棉絮，並防止灰塵污染布匹。
- 電腦設計之冷卻風管，可加速布匹的冷卻時間，避免布匹高溫摺痕。

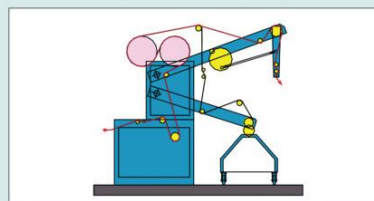
Air cooling zone :

- Screen filter can clean the fluffs and prevent the dusts to pollute the fabrics.
- Computer designed cooling air jet-nozzle, can accelerate the cooling time of treated fabrics, to avoid the folding mark of the fabric due to high temperature setting.

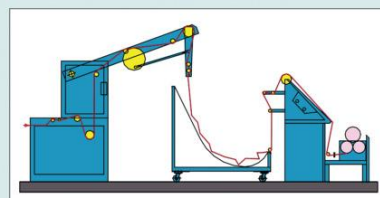
■ 出布區組合 Exit section combinations



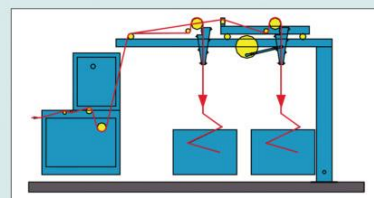
- 單組冷風
- One air cooling zone.



- 中捲布(最大直徑1.8m) 表面捲取(附游移輪)
- Middle batching (dia. less than 1.8m) for surface winding (removable roller)



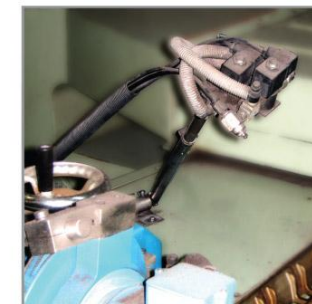
- 後接積布槽直接包裝
- Air cooling zone combinations.



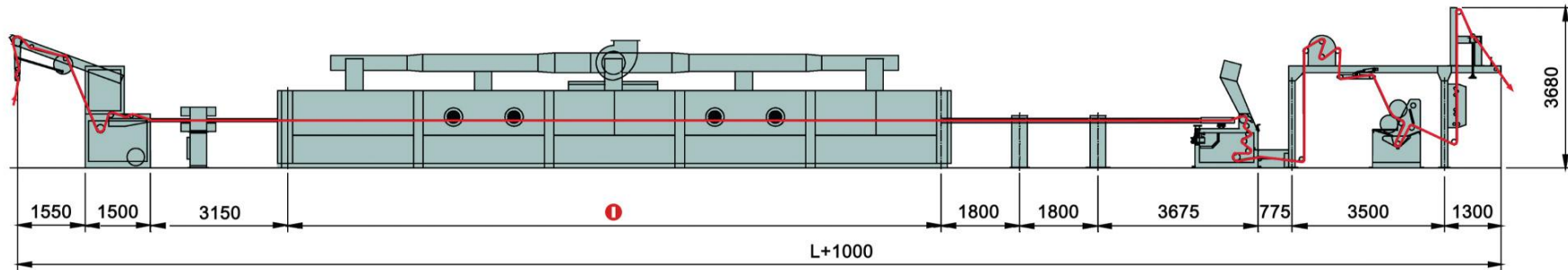
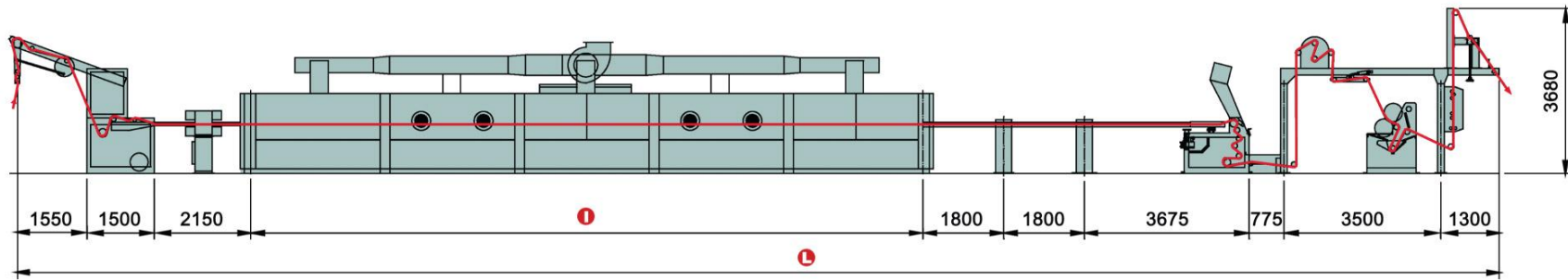
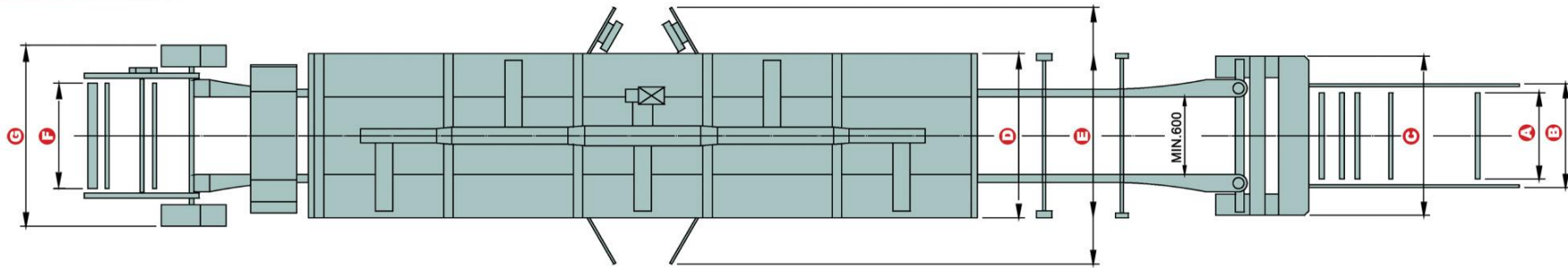
- 移動式擺布架
- Movable type plaiting frame.



- 冷卻輪裝置 (選用配備)
- Cooling cylinder (Optional)



- 噴霧回潮裝置 (選用配備)
- Mists spraying device (Optional)



CHAMBER	l(m m)	L(m m)	MAIN MOTOR KW	HP	HEATER ELECTRIC,OIL,GAS	CIRCULATING FAN MOTOR
2	6000	24010	7.5	10	2 SETS	4 SETS
3	9000	27010	11.25	15	3 SETS	6 SETS
4	12000	30010	11.25	15	4 SETS	6 SETS
5	15000	33010	15	20	5 SETS	10 SETS
6	18000	36010	15	20	6 SETS	12 SETS
7	21000	39010	18.75	25	7 SETS	14 SETS
8	24000	42010	18.75	25	8 SETS	16 SETS
9	27000	45010	22	30	9 SETS	18 SETS
10	30000	48010	30	40	10 SETS	20 SETS

MODEL NO.	A	B	C	D	E	F	G
2000	2000	2415	3700	3860	6860	2250	4200
2300	2300	2715	4000	4210	7210	2600	4550
2500	2500	2915	4200	4410	7410	2800	4750
2700	2700	3115	4350	4560	7560	2950	4900
2800	2800	3215	4450	4660	7660	3050	5000
3000	3000	3415	4650	4860	7860	3250	5200
3200	3200	3615	4850	5060	8060	3450	5400
3400	3400	3815	5050	5260	8260	3650	5600
3600	3600	4015	5250	5460	8460	3850	5800



熱回收系統：

- 提升烘箱溫度穩定性，尤其是第一和最後一室的設定溫度及實際溫度的溫差縮小。
- 延長烘箱可定型段，提升布速及產能。
- 廢油氣降溫凝結預處理，降低後端空污設備負荷，整體提升空污的處理效率。
- 降低供熱設備容量及成本。
- 鍋爐出油溫度可調降，延長熱媒油使用壽命。
- 節能減排，減少二氧化碳排放量，響應國際環保節能趨勢。

Heat Recovery System：

- Raise up the temperature stability of drying oven, especially for the first and last chamber temperature setting, to minimize the difference (delta T) from the actual running temperature.
- Extend the stenter setting zone of drying oven to increase the fabric speed and production.
- Decrease the air pollution equipment load at the late stage and promote the air pollution treatment efficiency by the waste oil mists reducing the temperature to cause condensational pre-treatment,
- Reduce the heat supply equipment capacity and cost.
- Reduce the oil outlet temperature of boiler, extend the life time of thermo oil boiler.
- Save energy and reduce the exhausting air to minimize the carbon-dioxide emission, and respond to the international trend of energy saving.

Optionals 選用配備

1.	自動緯紗調整器	Automatic weft straightener
2.	水洗槽	Wash trough
3.	儲布架	Accumulator
4.	弧紗校正裝置	Bow weft straightener
5.	大型斜弧紗複合式裝置	Skew/ Bow weft straightener
6.	蒸氣給濕裝置	Steam moisture wedding device
7.	熱循環風急停裝置	Emergency stop device for motor of fan
8.	水冷卻輥輪	Water cooling cylinder
9.	漿邊及切邊裝置	Gumming device and Selvedge trimming device
10.	中心捲取裝置	Central batching device
11.	雙輪式捲取裝置	Twin roller surface batching device
12.	緯密偵測器	Pick counter
13.	碼重控制器	Fabrics weight controller
14.	布面溫度控制器	Fabrics temperature controller
15.	出布殘留溼度控制器	Residual moisture controller
16.	排氣溼度控制器	Exhaust air humidity controller
17.	節能廢熱回收系統	Heat recovery system