





## THERMEX 6500

连续染色机 焙烘机

for continuous dyeing / curing process
用于连续染色 / 焙固工艺



## **>**Thermex

## The leading dimension in continuous dyeing



## >Thermex 连续染色的领导者

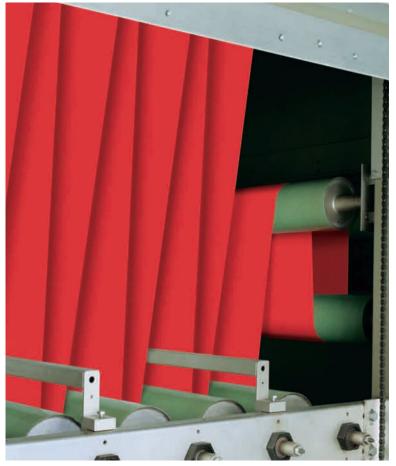
Thermex 6500 是模块式设计, 可于最短时间完成安装调试. 裂缝式喷风咀可确保均匀送风. 高效 150mm厚保温层可减少热能损失. 宽大的窗口可直视箱内实情. 容布量: B箱 140mm导辊 35m, 180mm导辊 31m; C箱140mm导辊 52m, 180mm导辊 46m.



所有图片只供参考;实际情况以报价单描述为准

All photos for reference only; product description in quotation conclusive.





## **▶**Application

Thermex hotflue for thermosoling and condensing. Application as a predryer.

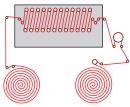
Thermex hotflue for drying after dye application combined with infrared predrying zone.

Pad/dry process
Expansion into a continuous
thermosol range consisting of
padder, air passage, infrared predrying zone, drying and
thermosoling hotflues

Pad/batch process using an additional batching device.

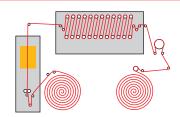




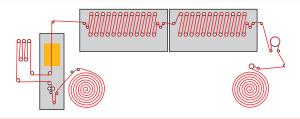


## >用途

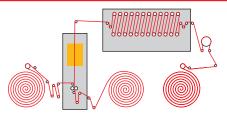
Thermex 热烘箱用于热熔及凝固工艺. 也可用于预烘.



Thermex 热烘箱用于染色后烘干配轧车及红外预烘.



轧染/烘干工艺 扩展至连续轧染生产线 包含轧车,透风区,红外预烘, 烘干箱,热熔箱.



轧/卷工艺 增加打卷器于轧车后

## ➤Innovative technology

For migration- and crease-free drying.

The two air circulation fans in each Thermex unit are arranged symmetrically and designed to provide the perfect match for the various - likewise symmetrically arranged - heating systems used in the treatment processes drying, thermosoling and curing.

## ▶创新技术

染料不泳移,不起皱的烘干工序 每个烘箱的两个循环风机排列左右对称, 加热系统也是如此设计, 有利于烘干,热熔及焙固工艺。

### >Chamber construction

Reproducible quality:

Uniform air flow

Uniform temperature

Uniform fabric finish

Migration protection thanks to Thermo-Cut system

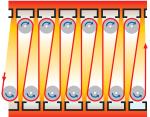
## >箱体结构

### 高重现性:

均匀气流 均匀温度 均匀整理效果

Thermo-Cut系统防止泳移





>Single loop version

>单环布道



**>**Double loop version

>双环布道

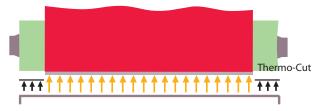




## ▶Thermo-Cut system

Migration protection thanks to heat dissipation in the selvedge area of the fabric.

Homogeneous and gentle drying by using the looper chamber as drying zone with tangential air flow across the whole fabric web.



## ▶Thermo-Cut 系统

防泳移的方法是阻挡两箱的热风。

箱内的送风是直吹至织物全幅度,从而得到均匀与柔和的烘干效果。

## >Heating systems

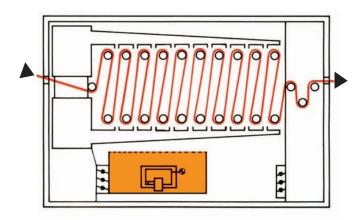
All standard types of heating system can be employed.

The circulating air is always uniformly heated, irrespective of the heating system employed. The heating chamber extends over the whole width of the machine.

### >加热方法

各种标准的加热方法都可以采用

不管采用哪种加热法,循环中的空气是均匀地被加热, 加热面横跨整个箱体宽度。



- ➤Direct gas burner heating, one burner at each side of the machine
- ➤Steam or oil circulation heating, one heat exchanger per Thermex unit
- >Electric heating, one heat exchanger per Thermex unit
- >Combined steam and electrical heating system
- >燃气直接燃烧器,箱体两边各一个燃烧器
- >饱和蒸气或载热油加热,每个箱一个热交换器
- >电加热,每个箱一个热交换器
- >饱和蒸气与电加热组合

# Exxotherm indirect gas heating

The innovative concept for indirect gas heating developed by Monforts is now available also for Thermex hotflues. No mixing of the combustion gases with the circulating air. Can also be used in modern reactive and naphthol dyeing process. No neutralisation of the alkali. No destruction of the naphthol body. No gas fading problem. Severe yellowing of elastomer fibres is avoided.



## >燃气间接燃烧器

创新概念的间接燃烧法是门富士公司研发,现在已可应用于Thermex设备上,燃烧的气体不会与循环空气混合,适用于现代的活性染料与纳夫脱染料,不会中和碱性,没有气体淡化问题,避免氨纶纤维变黄。





## >Dyeing padders

Perfectly balanced engineering for minimum dyestuff consumption and optimum dyeing results

## >染色均匀轧车

完美平衡设计工程,减低染料耗用, 及优化染色效果



## ➤Infrared predryers

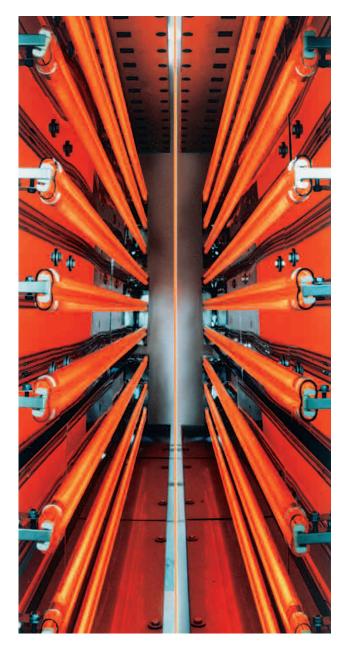
- Either electrically or gas heated
- High specific evaporation efficiency
- Variable radiation intensity and constant output
- High operational safety and reliability
- Low maintenance
- Several IR predryers can be arranged in-line to meet production speed requirements

## >红外预烘

- ■可选电加热或燃气加热
- ■高效蒸发能力
- 可调幅射密度, 稳定输出
- 操作高度安全及可靠
- ■低维护
- 多个预烘串连排列以满足生产速度需求

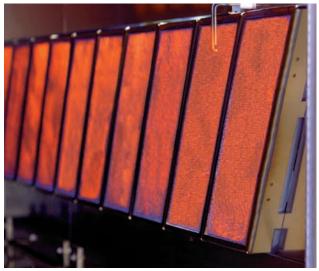


## >IR predryers



- ➤ Electrically heated radiator, Type VTE Pivoted quartz glass radiators with gold-plated reflectors. Edge zone shutdown for narrow fabrics (option).
- ▶ 电加热红外预烘 VTE 悬挂式石英玻璃放射管配镀金反射板 处理窄幅布时,两端可关闭 (可选件)

## >红外预烘



>Gas-heated radiators, Type VTG
With ignition and operation monitoring system. With selvedge shutdown for adaption to the fabric width.
Heating and cooling within 2 seconds. Unaffected by splashing water and fluctuating gas qualities.
Exclusively at Monforts:
Radiator elements made of metal foam in rhombic

shape. Mechanically and thermally extremely stable.

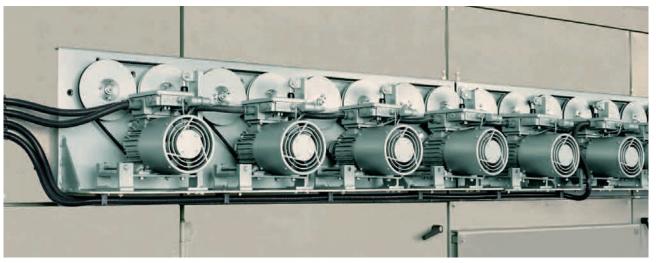
➤燃气加热红外预烘 VTG 设有燃点与操作监控系统 处理窄幅布时,两端可关闭 升温与降温只须两秒 水滴与不稳定供气不会影响功能 门富士公司专设: 放射板用泡沫金属制造,成菱形

机械结构与温度十分稳定



## >Treatment chamber Roller drive

## > 热烘箱 导布辊的驱动



▶3-phase AC drives with frequency converter

>三相交流驱动配变频器

▶Roller diameter ▶导辊直径

Ø 140 mm Ø 180 mm

#### THERMEX B

- ➤ Fabric capacity 35 m (59) 31 m (49)
- ➤ Double Loop Version
- > Working Width

#### THERMEX C

- ➤ 容布量 52 m (86) 46 m (73)
- > 双环布道
- ▶工作宽度 160-360 cm (B箱), 160-260cm (C箱)



**>**Maintenance

The lint filters can be pulled from outside the machine for cleaning during production.

>维护工作

过滤网于设备运转时,可拉出来清洁,不影响生产

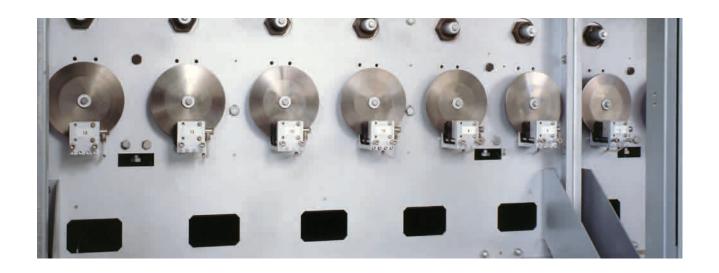


## ▶ Fast cleaning (option)

The guide and feed rollers in the hotflue can be cleaned automatically. This is effected by individually braking the guide rollers during passage of the feeder.

## ▶快速清洁 (可选件)

烘箱内导辊与送布辊可自动清洁表面。导辊可分批短暂 独立刹停,头子布经过时清洁其表面。



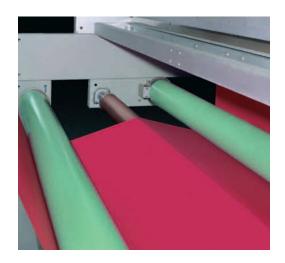
## ➤ Short liquor changeover times

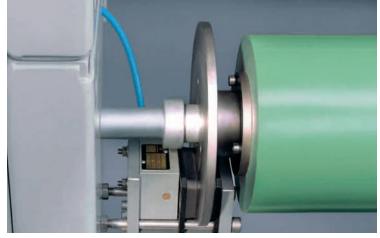
During liquor changeover, the feeder sewn to the fabric batch can be wetted in a moisture applicator outside the liquor trough before it is threaded through the running machine. The machine thus remains ready for operation during the liquor changeover. Reheating after the liquor changeover is therefore not necessary.

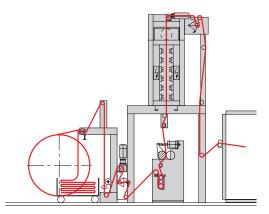
## >缩短更换染料时间

#### 缩短更换染料时间

更换染料时,将头子布缝在布尾,不经料槽,改走另设的给湿槽。 湿润的头子布运行,将所有布辊清洁的同时,更换染料, 省却烘箱再升温的时间。



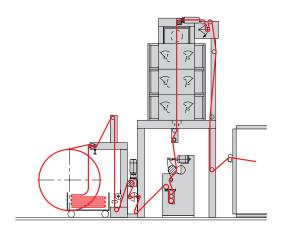




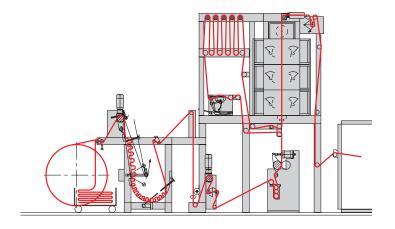
## >Fabric inlet combinations

## >进布系统

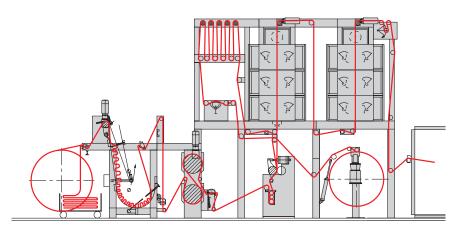
- ➤ Fabric inlet combination with padder and electrically heated IR predryer
- >烘箱前配轧车与电加热红外预烘



- >Fabric inlet combination with padder and gas-heated IR predryer
- >烘箱前配轧车与燃气加热红外预烘



- >Fabric inlet combination with fabric scray, padder, air passage and gas-heated IR predryer
- ▶烘箱前配储布箱、轧车、透气区与燃 气加热红外预烘

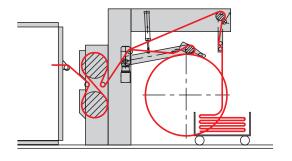


- >Fabric inlet combination with fabric scray, fabric cooling section, padder, air passage and gas-heated IR predryers
- ▶烘箱前配储布箱、冷水滚筒、 轧车、透 气区与两组燃气加热红外预烘

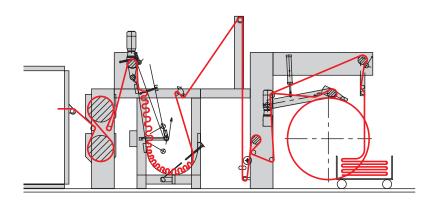


## >Fabric outlet combinations

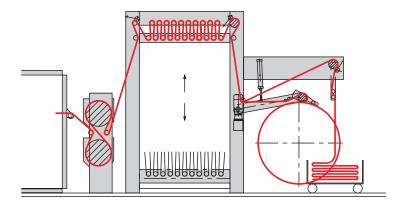
### ▶出布系统



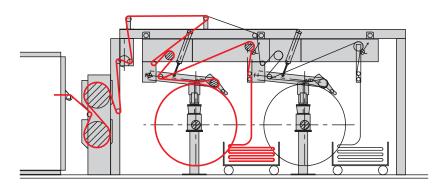
- >Fabric outlet combination with cooling drum and folder/surfacedriven winder combination
- >烘箱后配冷水滚筒 落布架与表面驱动打卷器



- >Fabric outlet combination with cooling drum, fabric scray and folder/surfacedriven winder combination
- >烘箱后配冷水滚筒,储布箱 落布架与表面驱动打卷器



- ➤ Fabric outlet combination with cooling drum, feed compensation device and folder/surface-driven winder combination
- >烘箱后配冷水滚筒,升降架储布器 落布架与表面驱动打卷器



- >Fabric outlet combination with cooling drum, mobile folder/ centre-drive winder combination and two take-up positions
- >烘箱后配冷水滚筒,两个位置移动 式落布架与中心驱动打卷器



## ➤ Monforts Process technology

Modular system technology:

Basic configuration:

PLC. Visualisation and operation at a large, sturdy touchscreen monitor. Automatic set-up, documentation of production processes, detailed error messages.

## >门富士工艺技术

### 模块式系统:

标准配置:

PLC. 视像与操作集于广大和坚固的触摸屏,自动设定, 生产工艺文件化, 详尽错误信息。









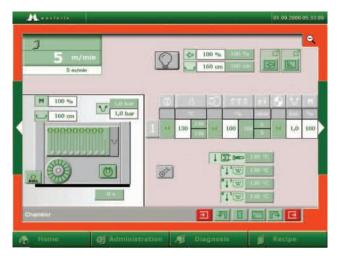


### **>**Monformatic

Monformatic-Plus is the monitor system for exact maintenance of the dwell time in combined treatment processes (drying and heat-setting). During curing processes the dwell time is controlled automatically after reaching the curing temperature. A further contribution to greater cost-effectiveness.

### **▶** Monformatic

Monformatic-Plus 监控系统负责准确保持综合工艺 (烘干与焙固) 的高温逗留时间,于焙固达到设定温度时,自动控制以达到逗留时间。进一步降低生产成本,





### Function:

- Measuring the fabric temperature at several positions in the hotflues.
- Determination of the exact dwell-time even with varying parameters such as initial moisture content, reduced circulating air due to clogged filters or fan failure.

### Benefit:

■ The exact determination of the heat-setting point is the reliable basis for optimum speed control and thus for cost-effective machine utilisation. Optimum exhaust air conditions at all times.

#### Payback:

Energy consumption is under control. Always knowing the right heat-setting point eliminates the need for allowances to avoid the risk of insufficent heat-setting.

### 功能:

- ■测量织物在箱内多个位置的温度。
- ■判断准确的逗留时间,不受其它数据的变化而影响, 例如入布含湿量,循环风量因滤网堵塞或坏风扇。

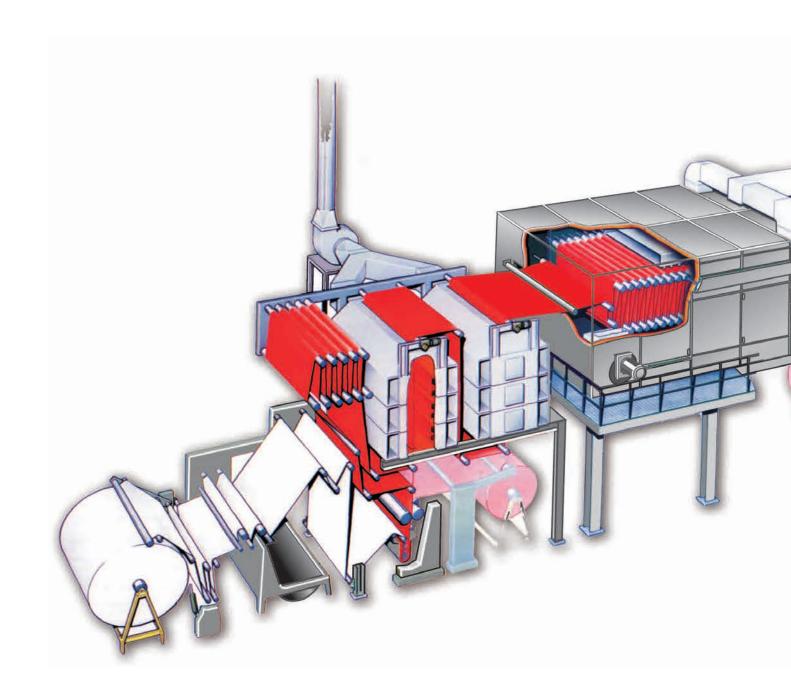
#### 效益:

■ 准确找到定形点是优化速控的最可靠基础,从而控制成本效益,随时监控排风情况。

### 回报:

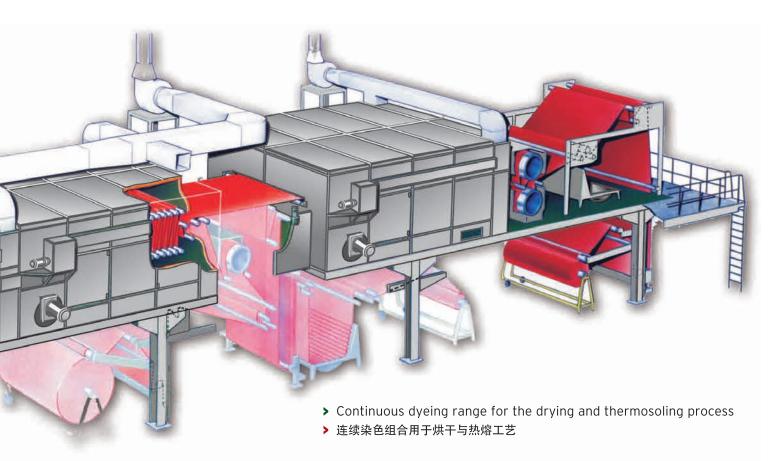
■ 能耗受监控,经常得悉正确的定形点,避免定形不 足的发生。

## ➤ Continuous dyeing range for the drying and thermosoling process

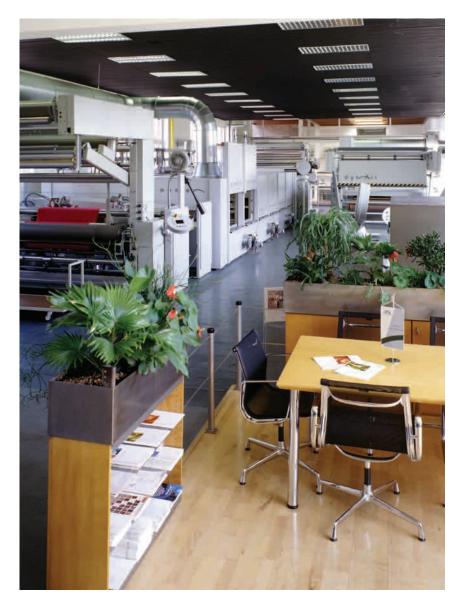




## ▶连续染色组合 用于烘干与热熔工艺







## ➤ The Monforts technical laboratory

With an all-embracing range of machines, the Monforts technical laboratory offers customers and potential customers the possibility of carrying out extensive fabric trials under real production conditions. For absolute reliability in the finishing result and tailored machine engineering.

▶ 门富士技术实验室 门富士技术实验室设有各类形的设备,欢迎客户来料试机, 以实际生产的条件作广泛的试验,从而得到可靠的整理效果 及专门选定的配置。

### ➤ Technical consultation

Any enquiry is welcome, and please contact:

Monforts Fong's Textile Machinery (Macao Commercial Offshore) Co. Ltd.

Unit J, 10 / F , Ed. China Plaza 762-804 Avenida da Praia Grande, Macau

Tel: (853) 2871 7013 Fax: (853) 2871 7016

## 技术咨询

欢迎咨询,并请与我们联系。

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