

控制系统用于
连续染色加工
轧-烘/轧-蒸

CONTROL SYSTEM FOR
CONTINUOUS DYEING PROCESS
PAD-DRY / PAD-STEAM



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均匀的染液分布
控制边一中带液量

评估施加湿度
以织物重量的百分比标识

Uniform dye bath distribution
Control of side variation
to the centre pick-up
Evaluation of application moisture
in percentage % of fabric weight

连续染色加工
织物整个长度和宽度上的均匀染液分布是完美染色效果的必要条件。

进一步的红外线烘干装置后中间湿度、热熔烘房内气候、在热熔固色加工中的织物温度，都在严格控制下。

Continuous dyeing process

The uniform dye bath distribution over the length and the width of the fabric is essential for a perfect dyeing result.

Further the intermediate moisture behind the IR-dryer, the chamber atmosphere of the hotflue and the fabric temperature during the thermo fixation process has to be under strict control.



Model PP100 with 10,4" Display - Model PP150 with 15" Display

模块控制系统CIMATIC

现代的彩色图形操作盘带强大的PLC系统和先进控制软件保证优化染色轧车和连续染色加工的控制。

Modular Control System CIMATIC

Modern colour graphic operating panel with powerful PLC system and advanced control software guarantees optimised process control on dye padder and continuous dyeing process.

新的操作盘使用触摸屏和流行的图像显示，配方储存和带接口连接到网络。

The new panels use touch screens and have trend graphic display, recipe memory and interfaces to connect to a network by Ethernet.

施加湿度以百分比标识

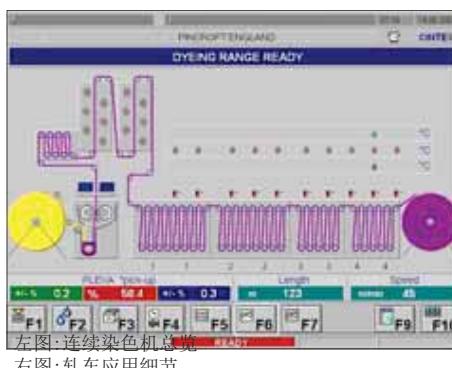
染液施加量通过PLEVA的AF310微波测量单元测量和织物重量百分比进行计算。

Application moisture in percentage

The dye liquor application is measured by the microwave measurement AF310 in PLEVA scale units and new calculated in to percentage of fabric weight by the area weight.

边-中偏离以百分比计算。
因此很容易定义边-中带液量的偏差。

The side deviation on edge is calculated in percentage to the centre. Consequently it's easy to define the tolerance of side pick-up to the centre application.



左图:连续染色机总览
右图:轧车应用细节



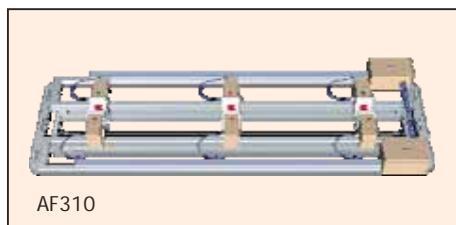
Left side: Overview of a continuous dyeing range
Right side: Detail view of padder application.

轧车染色应用

通过微波测量装置AF310无滞后地测量染液带液量和调节染色轧车左中右的压力，如果需要。

Dye application on padder

The system measures by the microwave measurement AF310 without delay the dye bath pick-up and if required regulates the pressure for left - centre - right side on dye padder.



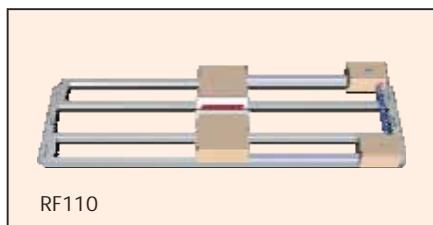
AF310

红外线预烘后

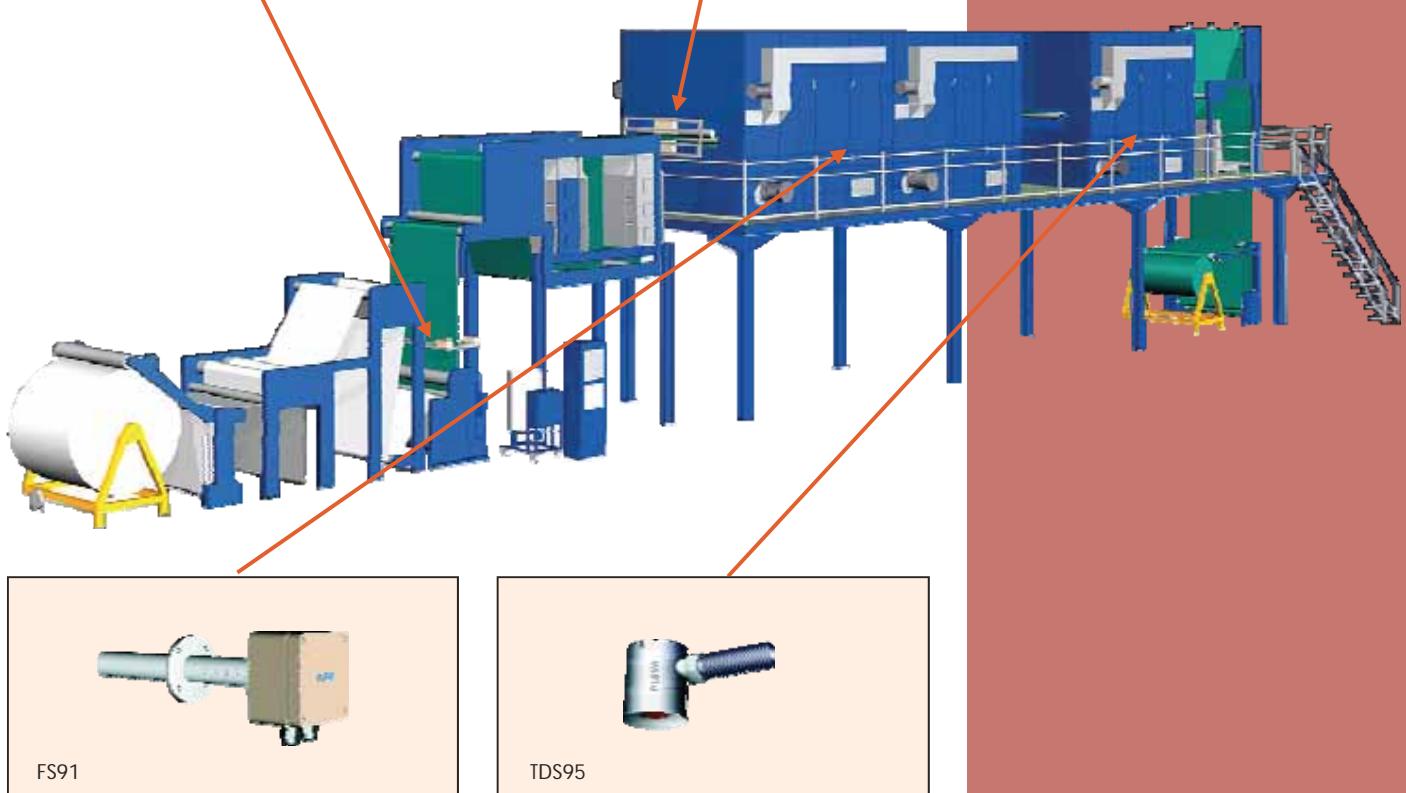
中间湿度测量和显示，带非接触式微波测量装置RF110。

Predrying behind IR-dryer

The intermediate moisture is measured and displayed with the contactless microwave measurement RF110.



RF110



烘房气候

已设定的热熔烘房气候由空气湿度传感器FS91进行测量。

Chamber atmosphere

The defined chamber atmosphere in the hot flue is measured by the air humidity sensor FS91.

热熔固色

几个织物温度传感器TDS95放置于热熔烘房长度方向，用于控制固色参数。

轧车染色应用

热熔烘房气候

热熔固色控制

Dye application on padder

Chamber atmosphere hot-flue

Control of thermofixation

用于全新和现有的染色轧车

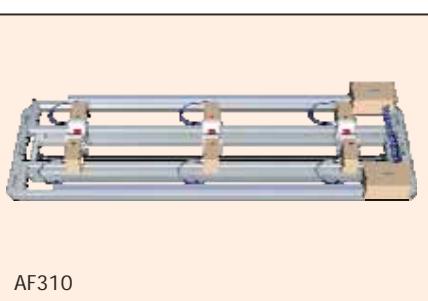
For new and existing dye padder



PaddeControl CIMATIC

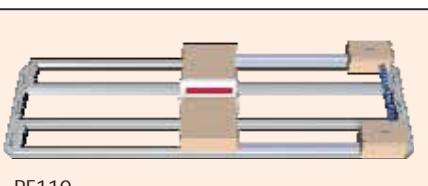
避免色差
“边-中-边” 和 “前-后”

Avoids shade variations
"side-centre-side" and "start-finish"

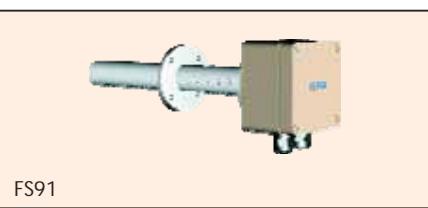


AF310

OPTIONEN / OPTIONS:



RF110



FS91



TDS95

轧车控制系统CIMATIC

轧车-控制系统准备用于现有和全新的连续染色机自动化。

控制电柜包括1个电脑操作盘带彩色图像显示，PLC模块单元和气动包用于相关染色轧车。

PaddeControl system CIMATIC

The Padde-Control system is prepared to automate existing and new continuous dyeing ranges.

The control cabinet includes a PC based operator panel with coloured graphic display, the modular PLC unit and a pneumatic package for the corresponding dye padder.

施加湿度传感器 AF310

置于染色轧车后的左-中-右微波高湿度传感器非接触式测量运行织物，用于控制染液带液量。

Application moisture AF310

Contactless measurement of application moisture on running fabrics behind the dye padder left side-centre-right side by microwave absorbtion to control the dye pick-up.

织物湿度传感器 RF110

置于红外线预烘后的非接触式织物中间湿度测量，用于控制预烘。

Material moisture sensor RF110

Contactless measurement of intermediate moisture behind infrared dryer to control predrying.

空气湿度传感器 FS91

测量和控制已设定的热熔烘房气候。

Process air humidity sensor FS91

Measurement and control of a defined climate in the part of the hot-flue.

织物温度传感器TDS95

测量织物温度和控制热熔烘房内的热熔固色加工。

Fabric temperature sensors TDS95

Measurement of the fabric temperature and control of thermo fixation in the thermosol section.