



# News HIGHLIGHTS

15 - 19 October 2018  
SHANGHAI CHINA

Visit us at ITMA ASIA + CITME 2018

# PLEVA

Sensors and Controls

## Hall H5 - F15

## Ready for Industrie 4.0



Visit us at Hall H5 - F15

and find out how PLEVA can support you

### Drying- and Fixation Process

Straightening machine

Camera technology

Solutions for :

Dryer / Stenter

Coating line

Sizing

CPB / Continuous Dyeing

Minimal application



### Application moisture

Exhaust humidity

Size pick-up

Residual moisture

### Fabric temperature

Oxygen

Dye pick-up

Distortion

Pick / course density

### Measurements of moisture, application and coating

- AF 120 Single point measurement
- AF 310 Side-Center-Side measurement
- MP 120 Traversing microwave measurement

### Sensors to measure production process

- TDS sensor for fabric temperature
- FS sensor for air humidity
- RR sensor for residual moisture

### Camera structure detection systems

- SD 300 Distortion analysis and pick/course density
- SL1 / 2 High-tech automatic straightening system

### Optimising and Control of manufacturing process

- CIMATIC with standard software
- PLEVATEC with modular software for special applications



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### 30 years of successful cooperation between Pleva and Cintex

The most successful cooperation of the companies Pleva GmbH and Cintex AG continuous already for 30 years. Pleva GmbH as the manufacturer of sensors and systems, and Cintex AG as a sales and support company for the PLEVA products in Asia, and as a strong developer of automation software for the textile industry.



Dr. Ralf Pleva and Rolf Schoch congratulate each other on the 30 years of successful cooperation. (Dr. Ralf Pleva right side, Rolf Schoch left side)

The Managing Directors of the two companies, Dr. Ralf Pleva and Rolf Schoch, congratulated each other on the auspicious occasion and the successful partnership, and agreed to expand the presence of the PLEVA brand in all countries of the Asian market, together with our long-standing local representatives, to serve the ever more demanding market even better.

At the same time, it was decided that the full range of our control systems will become a new generation of touchscreen panels. For this purpose the application software will be upgraded to these new panels. PLEVA is therefore optimally positioned for the future and „Ready for Industrie 4.0“.

The presence of PLEVA in all countries is being gradually expanded by strengthening the team with young, new specialist from the PLEVA headquarter in Germany. In this context, the responsibilities for each country will be reorganized and implemented from the beginning of the year 2019.

Markets such as Taiwan and Thailand continue to be supervised and dealt by Cintex with Rolf Schoch and Hans Peter Kull.

The remaining Asian markets will then become supported by the PLEVA team from Germany, in close cooperation with our local representatives.

### New traversing unit for the structure detectors with camera SD300



The new structure detector SD300 uses a new mechanism with linear drive technology, which allows a dynamic speed adjustment of the traverse to the speed of the production machine. This capability allows for data evaluation proportional to the production rate.

The mechanical construction is designed for use in harsh and dirty conditions. Intensive testing in unusually harsh and dirty conditions has shown that traversing under these conditions requires no special maintenance.

### Traversing contactless moisture measurement MP120



The new traversing moisture measurement type MP 120 is developed for contactless online measurement of pick-up of water based applications up to 2000g (H<sub>2</sub>O)/m<sup>2</sup> across the width.

The system is equipped with automatic adaption to detect the product width on traversing function.

Measurement works at traversing mode or with adjustable measuring points over the fabric width. The system can be used for textile, non-woven, carpet, foil, paper, cardboard, wood, building board, etc.

### Multiple sensors for dryer and stenter at one process box PPB



The PLEVA Process Box is designed to connect multiple PLEVA sensors to one micro processor box fitted outside of the heat treatment machine:

- up to 8 fabric/air temperature sensors TDS
- 1 air humidity sensor FSX
- 1 residual moisture sensor RR

The process box is equipped with the latest state of processor technology and improved EMC protection. This process box with the sensors is currently part of the basic equipment of a tentering frame.

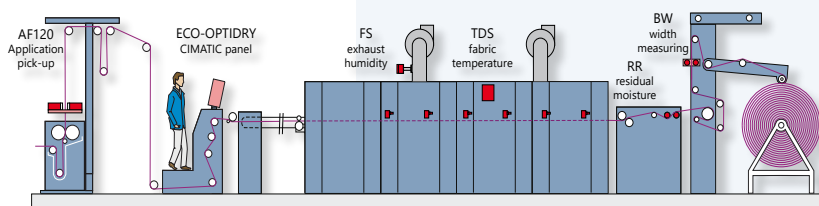
## ECO-OptiDry CIMATIC

The ECO-OPTIDRY® control system is optimizing the process requirements on dryers in terms of drying- and fixation process as well exhaust air volume for highest possible savings on energy and production costs.

First time ever, an advanced function is integrated in the control, such as consumption meter for actual energy consumption measurement and calculation of energy saving out of the production at your drying and stenter machine.

A great feature is the integrated "Auto-Setting" function of set values of running process. This makes it easy to use for operators.

## Heat Treatment Process



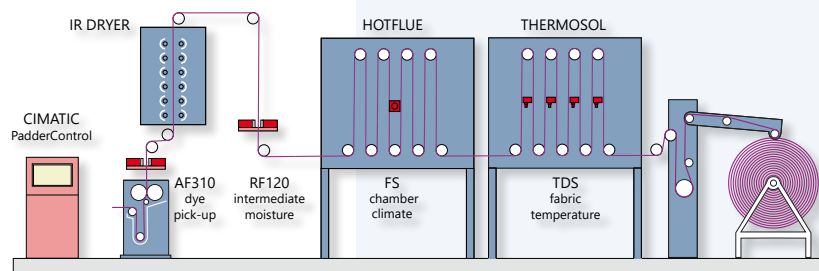
## PadderControl CIMATIC

The uniform dye bath distribution over the length and the width of the fabric is essential for a perfect dyeing result on continuous dyeing process Pad-Dry / Pad-Steam and CPB.

The system measures online the dye bath pick-up by microwave measurement AF310 and if required regulates the pressure for left side, ride side and center on dye padder.

Supervision of predrying after infrared dryer and control of thermo fixation can be integrated as an option.

## Continuous Dyeing

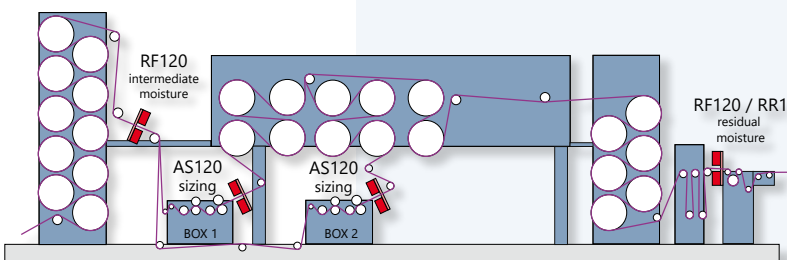


## SizeControl PLEVATEC

Uniform size pick-up on warps increases the efficiency of the sizing looms crucially. The desired degree of size pickup is controlled by a combined pressure steering and control system varying the pressure of the slasher squeezing rollers in size box 1 and 2.

The result is increasing and stabilization of weaving efficiency from 1.5 up to 4 % as well as reducing the amount of applied size by 10 up to 25 % savings over conventional sizing.

## Size Application

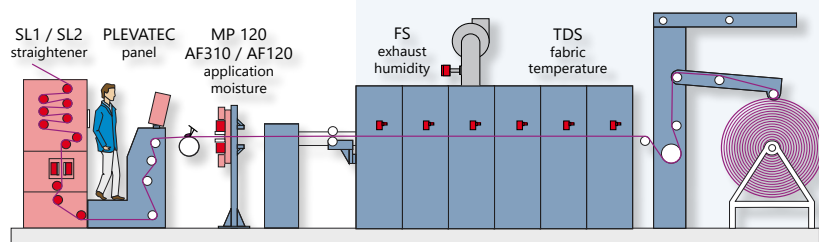


## Add'nDry PLEVATEC

The successful implementation of coating technologies is a big challenge for the textile industry to get the process controlled. PLEVA supplies the textile finisher and carpet industry with well proven measuring and control systems.

The water based coating is measured in g/m<sup>2</sup> or %. The water content is measured contactless, continuously and accurately by the microwave system. The following drying and curing process is controlled through fabric temperature measurement.

## Coating Application

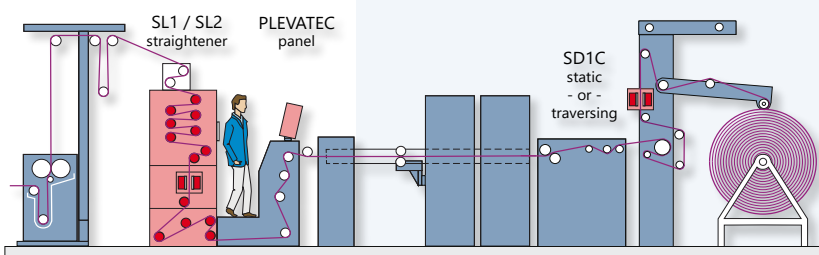


## StraightLiner PLEVATEC

The PLEVA straightliners are equipped with the new traversing structure detector SD1C with a high-resolution digital CCD camera. The system is working with highest detection capability for all kind of fabrics and allows precise calculation of distortion analysis over the fabric width. Different camera types are available, as well for Black Denim.

Automatic width adjustment after changing of fabric as well as high and fast straightening action by servo drives are advantages for high quality results in production.

## Straightening





### TDS



Fabric temperature

### Fabric and air temperature measurement TDS



Fabric temperature sensors TDS are used to supervise continuous and discontinuous heat treatment process e.g., drying, heat-setting, curing, vulcanisation, shrinking, ageing and cross linking of textiles, carpet, paper, fibreboard, timber, plastics, etc.

### FS



Air humidity

### Air humidity measurement FS



The air humidity measurement FS is used to minimise the energy consumption of drying processes in dryers and stenter.

The maintenance free exhaust humidity sensors type FSX measures the humidity of the process air to control the exhaust air rate for an economic efficiency on drying process.

### RR



Residual moisture

### Residual moisture measurement RR Tandem roller • RR W



The measuring device RR and RR W measures the residual moisture on drying process.

The type RR Tandem roller is used for lower moisture values or the measurement of synthetics or mixed fibres with synthetics.

The type RR W measures the residual moisture over the full fabric width on two rollers at knitted fabric or at surface sensitive fabrics.

### AF



Application moisture

### Application moisture AF 120 • AF 310



The application moisture measurement is based on microwave for contactless online measurement of moisture application, coating, continuous dyeing and residual moisture in planiform webs.

The type AF 120 is a single head measurement, the type AF 310 with 3 heads to measure left side, center, right side.

### SD1C



Pick / course density

### Structure detector SD 1C distortion analysis and pick/course density



The structure detector SD 1C with high resolution CCD camera as static or traversing types allows advanced structure analysis, pick/course density on running fabrics.

Cameras systems are available for special applications to detect reliable the distortion for all kind of fabrics.

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### Panels and controls



#### CIMATIC Touch panels PP70 • PP100 • PP150

PC based panel, with separate PLC and standard software.

#### PLEVATEC Touch panels 15"

PC based panel, with separate PLC and modular software for special applications.

### Available monitoring and control systems for different applications

- **ECO-OPTIDRY®** with energy consumption meter for drying process
- **Add'nDry** for coating process
- **PadderControl** for continuous dyeing process
- **SizeControl** for controlled size pick-up
- **DensityControl** for pick/course density
- **StraightLine** for automatic straightening and distortion analysis
- **StructureDetector** for distortion analysis