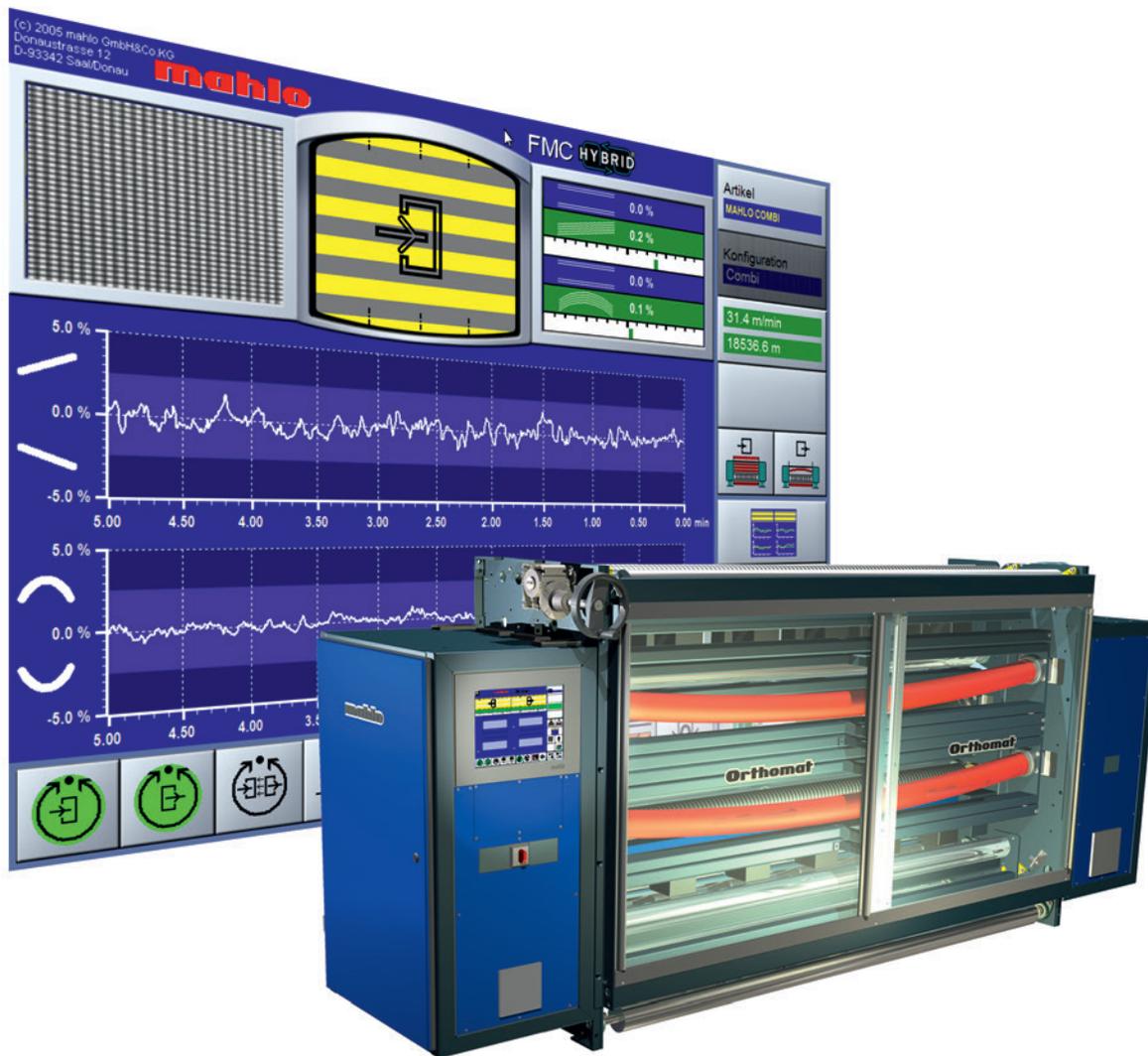


ORTHOPAC® XRVMC-12

High-end straightening and process control system



ORTHOPAC XRVMC-12





BASIS

VISUALIZATION

EVERYTHING AT A GLANCE

Product highlights

- ✓ Clearly arranged presentation of the distortion characteristic
- ✓ Menu-controlled service settings
- ✓ Two-part combination image for simultaneous monitoring of two scanner units
- ✓ Distortion default as percentage, adjustable (left: skew, right: bow)
- ✓ Direction of product flow and momentary characteristic of the web
- ✓ Current web distortion as percentage (left: skew, right: bow)
- ✓ Trend diagrams (top: skew, bottom: bow) freely scalable
- ✓ Image scale of histogram, selectable, e.g. -5...0...+5 (top: skew, bottom: bow)
- ✓ Password protection – unauthorised users are prevented from accessing the operating software
- ✓ Recipe management

Benefits for the customer

- ✓ Menu guide in all common languages
- ✓ Very user-friendly
- ✓ Ergonomic user prompting
- ✓ Ease of operation

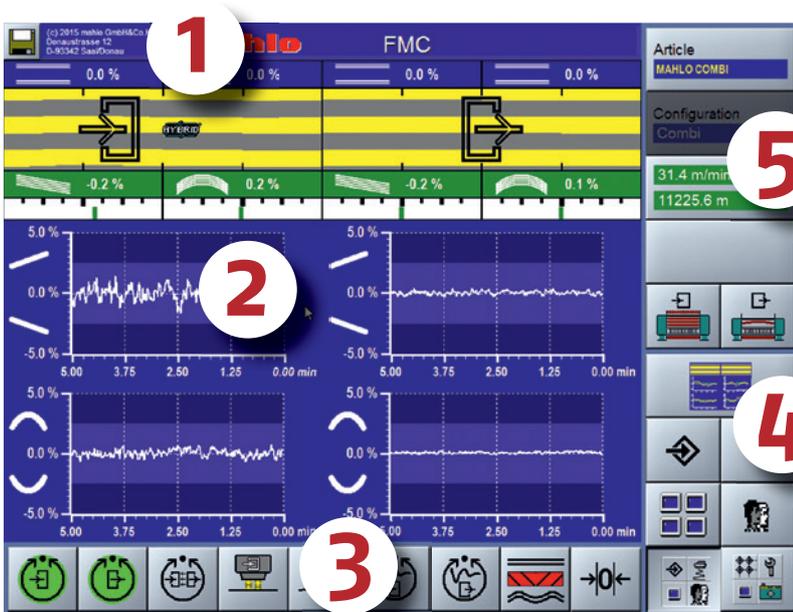
Use of the touchscreen technology replaces a control unit with pushbuttons and switches. All entries are made directly on the screen using large, ergonomic buttons. Operation is simple and intuitive. All key information is visible at a glance.



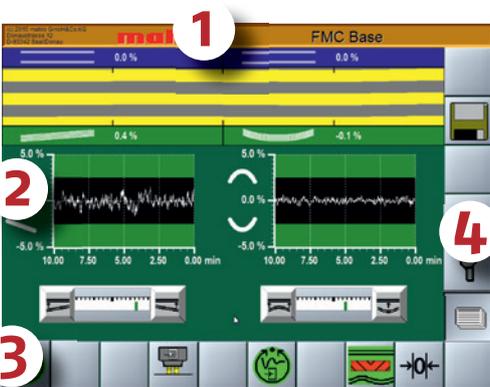
Visualization and operation per touchscreen

Various versions of the operating software are available for individual use:

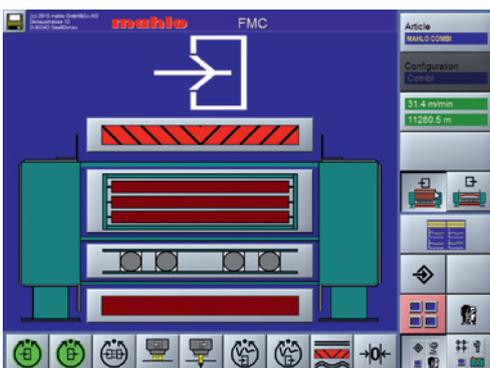
- The FMC full version offers all setting capabilities and options to the entire depth. The full potential of the straightening system can thus be utilized.
- The FMC Base version focuses on the essential functions of the system and offers a compact and simple overview for the control of the processes.



User interface FMC full version



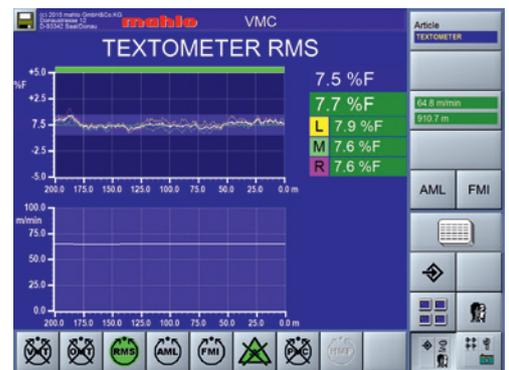
User interface FMC Base version



Device overview Orthopac with active and inactive elements



Main page for sensor selection with integrated process control (option)



Trend display of residual moisture when featuring integrated process control (example)

The user interface consists of five areas:

1. Title line: General information (including alarm bar)
2. Display area: Selectable screen pages (display forms)
3. Horizontal block: Operating buttons for basic functions and submenu
4. Selection block: Navigation within the operating software
5. Vertical block: Operating buttons for the menu selection

MECHANICAL



TEXTILE



NONWOVEN



COATING &
CONVERTING



PAPER



EXTRUSION

ORTHOPAC **X**RVMC

THE NEXT GENERATION

Control and actuation at the same time – the Orthopac XRVMC is the first straightening system to offer this unique combination. This completely new concept was developed for processing high-value textiles with widely fluctuating distortions. The independently controllable straightening rollers guarantee maximum possible control of the straightening process.



Applications

Confronted by the most stringent demands with respect to permissible levels of residual distortion, as experienced by amongst others suppliers to the automotive industry or other manufacturers of high-value textiles, a completely new kind of straightening concept has been developed.

The new Orthopac XRVMC straightening concept placed special emphasis on the realigning mechanics and its interaction with the analytical electronics of the scanning system. Product content has been further reduced and the intelligent combination of control and actuation accelerated correction of the measured distortion to a previously unheard of degree.

Manufacturers of high-value textiles for both traditional sectors (clothing, domestic and automotive textiles) and new technical applications are most enthusiastic about the performance of and straightening results attainable by the Orthopac XRVMC straightening concept.

Orthopac XRVMC on the feed side of the stenter





INNOVATIONS

We love being technological leaders. And our R&D team works every day to make sure it remains so. Innovations, inventive talent and future-oriented thinking – to guarantee your success.

Fundamentals

The Orthopac XRVMC straightener in its basic configuration features three individually driven „dual-function straightening rollers“. These are cambered rollers mounted in a pivoted frame, which enables them to function as both a bow and skew straightener. Additional dual-function straightening rollers for special applications are available as an option. Correction of bow and skew can be accomplished in small increments. This arrangement allows a very fine adjustment of the straightening rollers. Since parallel rollers are no longer needed, the assembly's physical dimensions have been reduced considerably. Owing to its compact size, the required amount of cloth passing through the assembly has been reduced by more than thirty percent. Along with the stepless, hydraulic actuators which adjust the position of the dual-function straightening rollers, this has resulted in an ultra-precise and fast response to measured distortions.

The separation and individual positioning of the respective straightening rollers has brought about an entirely new kind of actuation concept. A scanner assembly (TK12 or hybrid) located at the inlet of the straightening machine detects variations in distortion even before they reach the correcting rollers. Via the processing electronics, the two initial dual-function straightening rollers run to a computed position immediately after the change in distortion occurs. The incoming distortion is thus realigned from the very first centimetre of product.

A scanner assembly (TK12 or hybrid) located at the outlet of the straightener detects any possible residual distortion in the product, and this is corrected with absolute reliability by the last dual straightening roller.

This newly developed actuation concept – a combination of control and actuation – enables an even more precise and faster response to distortions. The overriding advantage of the Orthopac XRVMC is demonstrated in particular when it is confronted by products with high distortion dynamics.

Product-highlights

- ✓ Smart feed-forward control concept
- ✓ Minimum possible product content
- ✓ Combination of control and actuation
- ✓ Quick-reacting servo-controller
- ✓ Dual-function straightening roller

Customer benefits

- ✓ Maintains the tightest distortion-related tolerances
- ✓ Helps avoid complaints
- ✓ Improves customer relationships
- ✓ High standards of repeatability
- ✓ Short payback times
- ✓ Highly reliable / long service life

TECHNICAL DATA | ORTHOPAC XRVMC



TEXTILE



NONWOVEN



COATING &
CONVERTING



PAPER



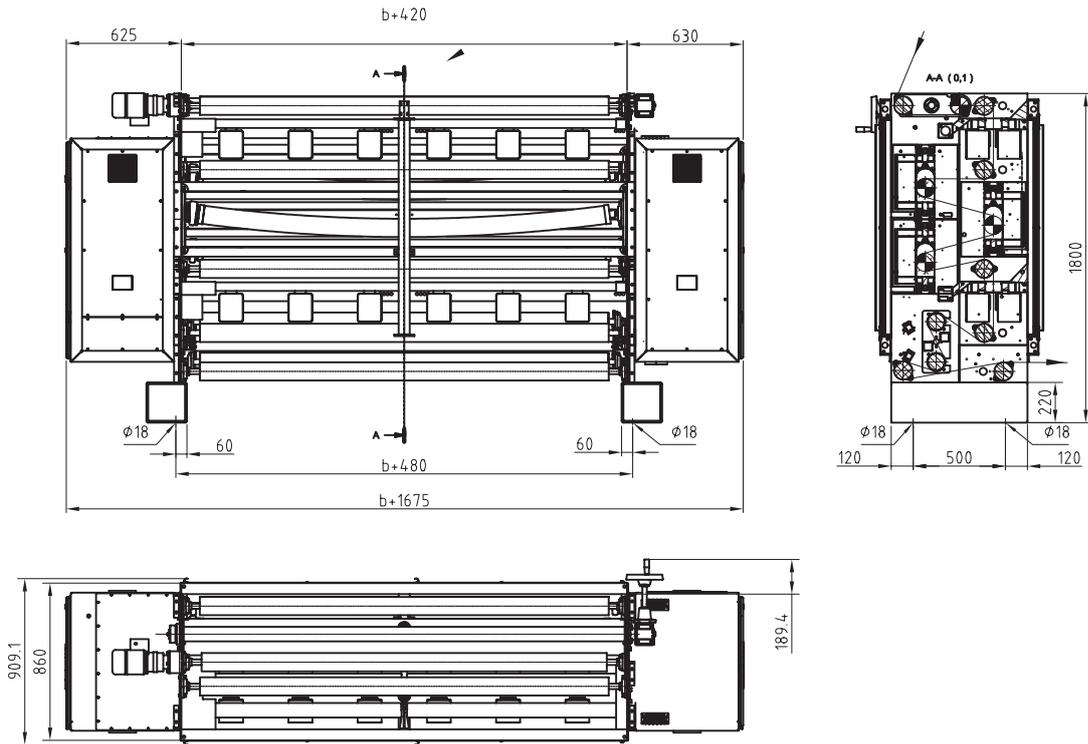
EXTRUSION

Straightening device

Orthopac XRVMC

Straightener	3-skew rollers, 2- bow rollers (3rd optional)
Drive mechanism	Hydraulic; controlled by a servo system
Rate of roller adjustment	Bow/skew adjustable, minimum of 4-5 seconds at maximum displacement
Max. fabric width	3400 mm
Max. fabric line-speed	250 m/min (no tension control), 150 m/min (with tension control)
Fabric capacity (basic machine with scanner assembly)	3-skew and 3-skew rollers: ~ 2900 mm
Scanner assembly	4-12 scanners, scanners positioned optimally by auto-controlled motor and edge sensors or manually positioned via high-grade linear guides with lock-in points
Dimensions	See diagrams
Weight (at w = 1800mm)	~ 2500 kg
Power supplies	3~ 380V/50Hz, 3~ 400V/50Hz, no neutral; transformer available for other voltages
Power consumption	Max. 6,4 kVA (by fully furnished combi-installations)
Ambient temperature	Max. 45°C (no air conditioner)
Display and control terminal	12,1" TFT touchscreen in separate enclosure; available as stand alone or semi-stand alone

Dimensions



- \oplus = Antrieb (actuator)
- b = Nennbreite (nominal width)

ORTHOPAC XRVMC
91-014439



CONTINUANCE

Our decades of experience has made us the reliable partner which we are today. Independent, determined and forward-thinking. So that we can also be here for you tomorrow.

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