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ORTHOPAC® GRVMC-12

Modular straightening and process control system for heavyweight materials

ORTHOPAC GVRMC-12

Quality made in Germany

TEXTILE NONWOVEN COATING & CONVERTING PAPER EXTRUSION

BASIS

VISUALIZATION

EVERYTHING AT A GLANCE

TEXTILE NONWOVEN COATING & CONVERTING PAPER EXTRUSION

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 weft
- ✓ 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

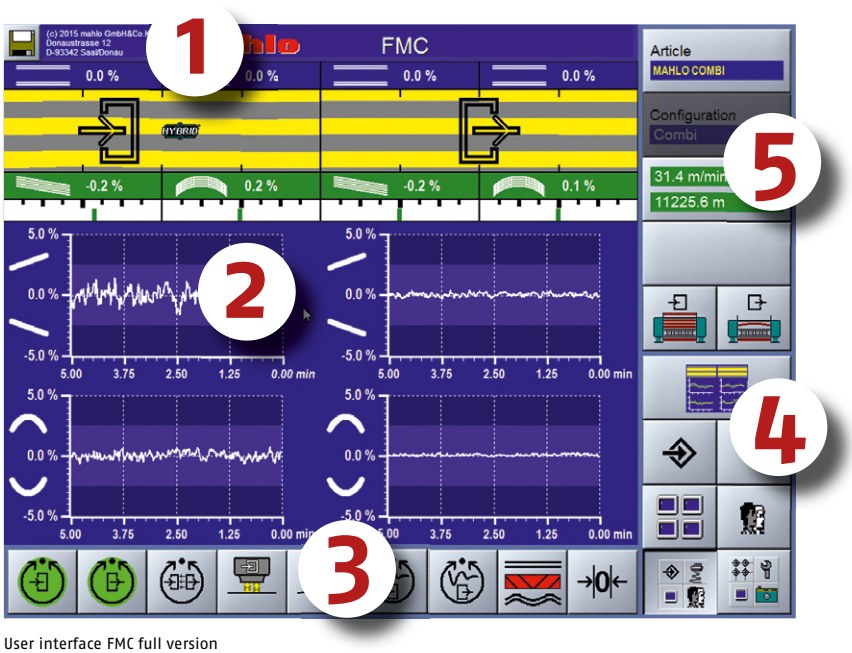
- ✓ Menu guide in all common languages
- ✓ Very user-friendly
- ✓ Ergonomic user prompting
- ✓ Ease of operation

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.

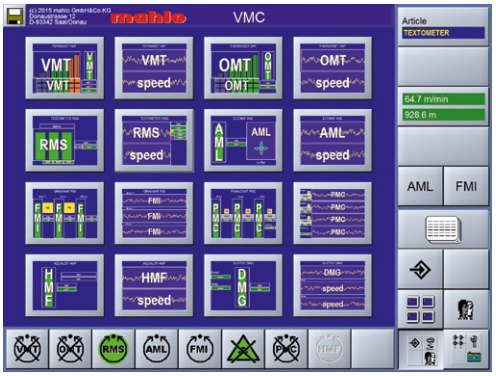
Visualization and operation per touchscreen

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

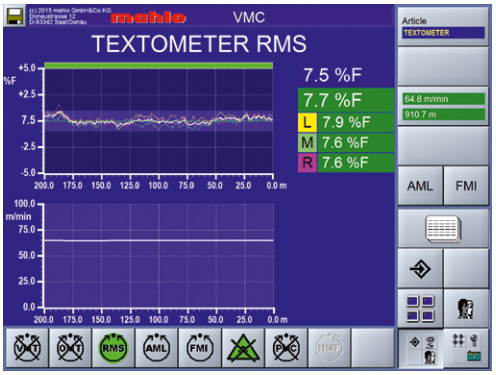
- The **FMC** full version offers all setting capabilities and options to the entire depth. The full potential of the straightening system can thus be utilized.
- The FMC Base version focuses on the essential functions of the system and offers a compact and simple overview for thecontrol of the processes.



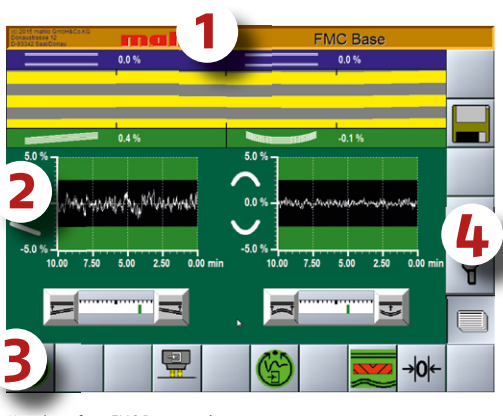
User interface FMC full version



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



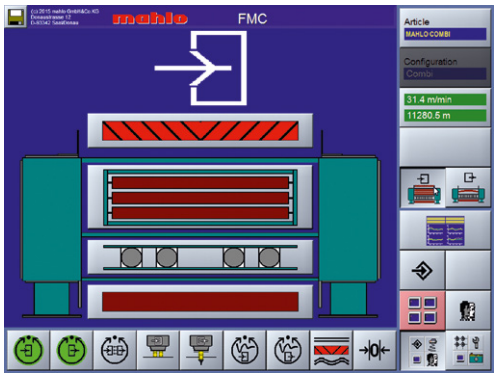
Trend display of residual moisture when featuring integrated process control (example)



User interface FMC Base version

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



Device overview Orthopac
with active and inactive elements

MECHANICAL

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ORTHOPAC GRVMC

THE JUMBO OF STRAIGHTENERS

The Orthopac GRVMC is especially designed to withstand high mechanical loads. Thanks to reinforced components, it is ideal for processing really wide, heavyweight materials such as carpeting and denim.

Product-highlights

- ✓ Heavy-duty construction
- ✓ Suitable for tensional forces of up to 500 kg
- ✓ Working widths of up to 5500 mm
- ✓ Compact construction
- ✓ Low product content

Customer benefits

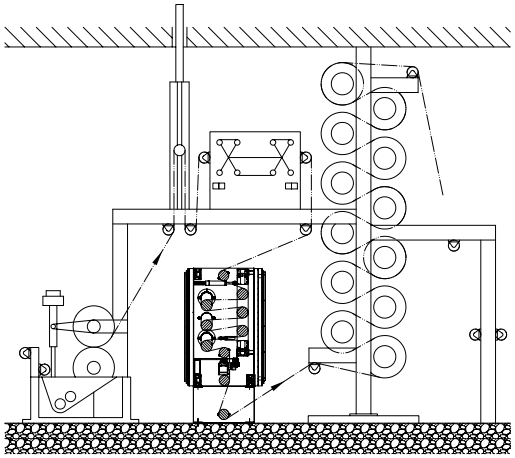
- ✓ Maintains tight distortion-related tolerances
- ✓ Helps avoid complaints
- ✓ Improves customer relationships
- ✓ High standard of reproducibility
- ✓ Short payback times
- ✓ Documentation of residual distortion

Use on industrial fabric

Applications

Distortions impair a product's visual features and/or practical value, both of which are of particular significance in the case of decorative or industrial materials. Orthopac GRVMC straighteners are used wherever products are likely to subject machinery to exceedingly high tensional stress.

Denim:
Heavyweight denim qualities (> 350 g/m²), on account of their dimensional stability, and the need to apply skew bias (to counteract a denim's tendency to twist). In this case, a back-tension of up to 400 kg is often required.



Typical installation on a denim application

Industrial fabric:
Extra-wide industrial fabric (= 3400 mm product width).

Raschel curtaining:
Wide Raschel curtaining (= 3400 mm product width)

PROMPT INSTALLATION
Our service team ensures that the installation of our appliances runs smoothly and on time. So that your investment is turned quickly into profit.

Glass-/carbon fibre wovens:
Woven constructions of glass or carbon fibre. To prevent damage to the individual filaments, rollers with a diameter of 150 mm are required.

Carpeting:
Owing to the pattern join at the beginning and end of each roll, wall-to-wall carpeting requires a high degree of straightness. If the tight tolerance requirements are not met, the result is either costly claims or debarred access to a more lucrative market segment.

Owing to the often special nature of the applications, we would advise you to consult our sales and applications engineers.

Orthopac GRVMC on a denim line

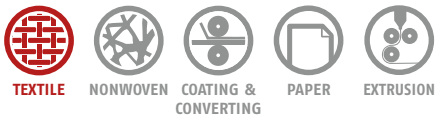
Straightening fitted carpeting

Fundamentals

The Orthopac GRVMC is specifically constructed to withstand high mechanical loads. In particular, the specially reinforced hydraulic units for positioning the rollers ensure perfect straightening even under maximum tension-induced loading. The straightener also features a solid, reinforced frame, reinforced roller bearings and larger diameter bow and skew rollers; : A jumbo among straighteners. The scanners, electronics, display and control terminal, etc. correspond to the standard configuration of an Orthopac RVMC.

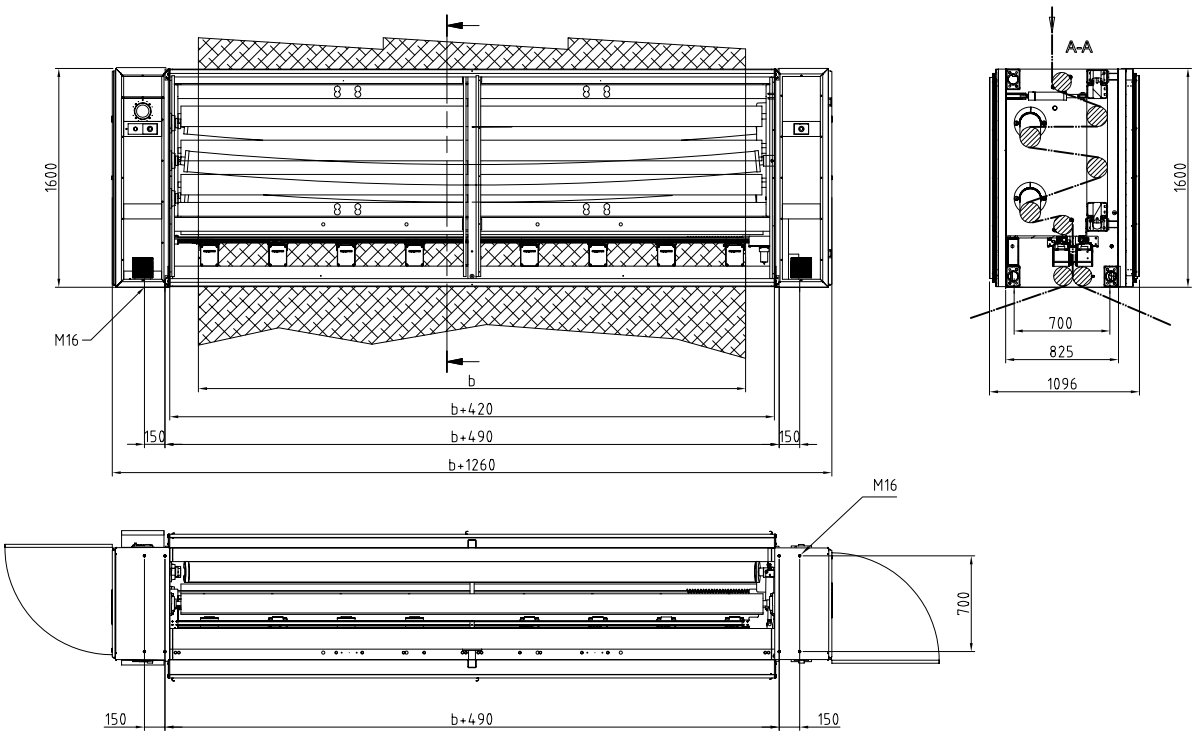
On the GR version too, all the scanners are still laterally adjustable. Processing speeds range from approx. 3 m/min (carpeting) to 150 m/min (industrial fabric). The unit is available for use in conjunction with a PCS Pattern Control System either as a manually controlled straightener, or with provision for the addition of a retrofit scanning system. As with the standard Orthopac RVMC, it can be supplied in all forms of combi-systems. The Orthopac GRVMC is available in working widths of 1600 to 5500 mm.

TECHNICAL DATA | **ORTHOPAC GRVMC**



Straightening device	Orthopac GRVMC
Straightener	2-skew rollers (3rd optional), 2-bow rollers (3rd optional)
Drive mechanism	Hydraulic; contolled by a servo system;
Straightening capacity	Max. skew ± 540 mm; max. bow ± 300 mm (2-bow rollers), (with 3-bow or skew rollers +50% each)
Rate of roller adjustment	Bow/skew adjustable, minimum of 4-5 seconds at maximum displacement
Fabric line-speed	Max. 150 m/min
Fabric capacity	2-bow and 2-skew rollers: ~ 3500 mm 3-bow and 3-skew rollers: ~ 4900 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
Max. fabric width	5500 mm
Dimensions	See diagrams
Weight (at w = 5000 mm)	~ 3900 kg
Power supplies	3~ 380V/50Hz, 3~ 400V/50Hz, no neutral; transformer module 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 only in semi-stand-alone form (control terminal separate)

Dimensions



b = Nennbreite (nominal width)

Orthopac GRVMC
91-013588

PERSONALITY
You're not just a number to us. Your individual needs and special requirements are our highest priority. We are there for you with our expertise, our leading technology and full dedication. So you can always play to win.

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