

## Orthomax RFMB-12 – Fusion of pin wheel and roller straightening system

### Everybody talks about hybrid technology

Since Dr. Heinz Mahlo registered the first automatic weft thread straightener for patent in 1958 the Mahlo brand has been unparalleled in the textile industry when it comes to straightening machines. Mahlo is primarily known for roller straightening machines, that is, machines that correct warped products via adjustable rollers. Few people know that Mahlo also manufactures pin wheel straighteners. Fabric is needled here along the product edges and straightened by spreading the pin wheels.

Gradually the industry becomes aware that Mahlo has very successfully created a cross-over of a needle straightening machine with a roller straightener already in 2013. In botany this is referred to as hybrid breeding – combining the advantages of two types of plants.

The **Orthomax RFMB-12**, a fusion of pin wheel and roller straightening system „*can be compared to*“ such a hybrid plant. The machine has been received by customers with much enthusiasm and excellently stood the test in the tough everyday routine in the textile industry.

### Removing all types of distortions



Asymmetrical distortions (wavy, S-shaped, etc.) in textiles have always represented a huge challenge in the textile industry. Distortion always means that the perpendicular structure of warp and weft threads is distorted resembling something like a parallelogram.

### Solution

To restore the warp and weft threads to their original state, a defined lateral tension is generated in the Orthomax using freewheeling pin wheels inclined toward each other. This cross-tension stretches the warp threads. The distortion, no matter whether wavy or S-shaped, will be corrected. The residual distortions are eliminated with the subsequent roller straightening system.

### Special Mahlo Know-How

Inclined positioning of the wheels is carried out pneumatically, which ensures a constant straightening effect. A counter-force – generated by a spring – compensates friction losses and causes the uniform and symmetrical wheel alignment. Elaborate lever constructions requiring intensive maintenance and typically used here are not required. On wet fabric teflon-coated feed rollers are used.

## Special features



Fig. 1: The "Coffee break" function preserves the product during standstill

The fusion of pin wheel and roller straightening technology perfectly combines the advantages of both technologies and provides amazing straightening results.

**Unclipping roller with infinitely variable adjustment:** Minimises residual bow and edge distortions.

Intelligent drive station with special tension control for smallest product tension activates or deactivates automatically (e.g. in case of blockages). A **bypass function** is available at the push of a button for products that cannot be straightened with the pin wheel.

**Intelligent wheel following:** Product loss is nearly prevented entirely. The control immediately compensates product offset, poor seams, fringes and dents on the edges.

**Width jump function:** New wider products do not need to be pulled in separately when changing products. Sew the new product to the old one, pull in, done! No more downtime!

**Break function:** Reduces the lateral tension to a preselected level when the line is stopped, e.g. during breaks or when working on other machines in the line. Preserves the product!

## Orthomax RFMB-12 - all benefits at a glance



### Produkt-Highlights

- Fusion of pin wheel and roller straightening system
- High lateral tension possible
- Adjustable unclipping device
- Bypass function
- Intelligent drive
- Comprehensive software with touchscreen control
- Pinning width adjustable during operation with software



### Customer benefits

- Reliable, quick distortion correction
- Effective also with asymmetric distortions
- Less waste

## "Sustainability" - already back in 1945 Dr. Mahlo developed technologies for this magic word

Due to the exorbitant rising costs for raw material, energy and water as well as the high expenses for pollution control it is more important than ever to keep an eye on these issues. The products of Mahlo are designed to set new standards in quality assurance and process optimization.

Quite some capital can meanwhile be generated by saving energy. Additionally it can shield one from resultant problems which are often associated with environmental issues.

The aim is to work together with the customer to identify the most competitive and cost-effective production solutions. The ultimate purpose of this strategy is to maximize ROI by reducing the usage of energy, raw material and human resources while optimizing quality, equipment utilization and work flow.

# Press release ORTHOMAX RFMB-12

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**Mahlo - trendsetting technology. worldwide.**

Mahlo GmbH + Co. KG is one of the world's leading manufacturers of monitoring, control and automation systems for not only the textile and allied finishing industries but also the paper, foil and coating sectors. This long-established company in Bavaria was founded in 1945 by Dr. Heinz Mahlo, and has remained up to now a family-owned concern that has steadfastly maintained its standing in the global marketplace.

Through a worldwide network of agencies and service centres and a high standard of quality allied to strong customer ties, the individual requirements of Mahlo's clientele are satisfied in full.

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