

PRODUCT AND PROCESSES UPDATE

A.T.E. Group forays into Industrial Static Control Products and Solutions Business

THE A.T.E. Group has invested in Valence Electronics (P) Ltd., Bengaluru (India). Valence is in the business of providing world class industrial static control products and solutions - AC static eliminator bars, DC static eliminator bars, power supplies for static eliminators, passive static discharge brushes, ionised air blower, electrostatic meters and anti static touch pads.

The A.T.E. Group's investment in Valence is driven by its strategy to invest in allied product lines to complement its existing product portfolio, which the Group brings to its customers either through its own manufacturing or through representation by its industrial sales and distribution company, A.T.E. Enterprises Private Limited.

Valence's products are designed based on the company's deep domain expertise and are well accepted in the market for their superior performance and high reliability. A.T.E., with its decades of experience in diverse fields, and excellent marketing, sales and service support through its pan-India network, and with a subsidiary company at Dhaka in Bangladesh, hopes to help Valence to scale-up and grow its business.

Act instead of reacting - the new straightening concept from Mahlo

MAHLO GmbH + Co. KG is one of the world's leading manufacturers of monitoring, control and automation systems for the textile finishing industry. With the new Orthopac XRVMC-12 precision straightener, Mahlo has created a novel alternative to the conventional way of straightening fabric and now offers the user better ways and means of increasing output and returns.



In the textile industry, an ORTHOMAT from Mahlo is reputed to be the embodiment of a straightening machine. In 1958, Dr. Heinz Mahlo presented his epochal invention: the very first automatic weft controller. Since then, it has been progressively redesigned, improved and optimized by Mahlo. In the meantime, over 50 years of experience has been put into the straightening systems from the family-owned enterprise. The appliances from Mahlo are 100 % "Made in Germany". They are designed and manufactured to the highest standards in Germany alone. Suppliers are German up-market concerns. Mahlo's sole acquaintance with the out-sourcing of technology is as involuntary supplier of ideas to its competitors.

Orthopac RVMC-12, the current generation of straighteners with process control

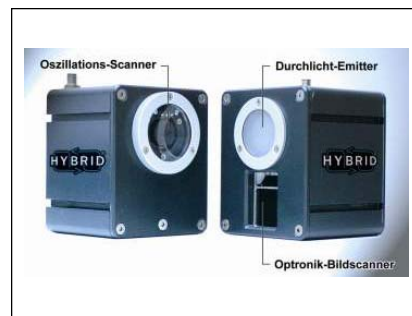
With the detection of distortions by TK12 or hybrid-scanners,



a point has been reached that leaves virtually nothing to be desired. Even the most complex textile structures can be detected. The modular straightening and process-control system Orthopac RVMC-12 combines in a single machine the functionality of an Orthomat straight-

ener with that of an OPTIPAC process-control system. Consequently, in addition to weft realignment, other essential process parameters such as dwell-time, exhaust humidity, residual moisture, etc can be controlled simultaneously.

The current weft scanner (TK-12) for detection of bow and skew is packaged technology in an exceedingly compact form. Mahlo's high-speed detectors plot up to seven times per second a representative image of any distorted weft across the full width of



an online web. They guarantee that even insignificant variations in the lie of the weft are detected instantly. Thanks to the highly refined optics, improvements to the incident and back light system and ingenious software, even the most complex

woven and knitted fabrics can be scanned and distortions detected. The optional Hybrid-scanners allow double-sided scanning and automatic detection of a change from one fabric to another. Measurement of pick density and sectionalized scanning facilities are included as standard. The signals generated by the scanners are processed by a microcontroller and are passed on at once to the auto-control facility. Even high pick-counts and line-speeds in no way restrict the capability of the finely tuned, ultra-responsive components. Data is visualized via an industrial PC on a 15" TFT touchscreen. Audio response in any language of choice is included as standard.

Straightening mechanisms and control represent the very peak of technology. Electro-hydraulic servomechanisms afford precise and instant adjustment in one smooth movement of the bow and skew rollers. Variations in the lie of the weft can thus be corrected the moment they are detected. The progressive rate of roller adjustment adapts the corrective action automatically to product line-speed. The machine's optimized and compact construction ensure a minimum of cloth content, easy installation, a high degree of user-friendliness and low-cost maintenance. Owing to its modular construction and numerous options, an Orthopac is able to meet customer requirements of every description.

If only the name Mahlo would not stand for progress and innovation the company could feel well satisfied with itself.

However, regardless of its superiority in competition, it continues to make every effort to offer its customers the best possible, i.e. advanced technology, not for its own sake but rather as a prerequisite for cost-effective and returns-enhanced production.

Orthopac XRVMC-12 - straightening in a new dimension, with the option of process control

Simultaneous adjustment and control - the Orthopac XRVMC-12 is the very first straightening system to offer this unique combination. This brand new patented concept was designed

specifically for processing up-market textiles that tend to distort dynamically. In order to further improve the machine, the entire straightening concept has been radically



modified. The electronics and scanning system were not the only features to come under scrutiny. The straightening mechanisms and the way in which they work were also reinvented to a certain extent by a process of systematic modification. The now independently adjustable bow and skew rollers ensure optimum control over the straightening process. Particular attention was paid to the interplay between the servo-mechanisms and the scanning system's electronics. As a result, cloth content has been reduced and the intelligent combination of adjustment and control accelerates the process of weft realignment to an unprecedented degree.

The basic Orthopac XRVMC-12 model is provided with three unique, individually adjustable "dual-purpose straightening rollers". In other words, a bow roller built into a swivelling frame which act simultaneously like a bow and skew straightener. This arrangement allows a very fine degree of adjustment of the

straightening action. Guide rollers in the bow and skew roller zone were no longer required, and their removal considerably reduces cloth tension in the machine. In addition, individual adjustment of the three rollers has resulted in a more sensitive control over cloth tension. These aspects, along with the hydraulic, stepless, servomechanisms of the dual purpose rollers account for the ultra-precise and instant response to any variations in the lie of the weft or courses.

Combination of adjustment and control

The parting from the conventional straightener and resultant feasibility of individual adjustment of separate realigning rollers opened up the prospect of a wholly original control concept. A set of scanners (TK12 or hybrid) arranged at the feed-in end of the straightener detects any variations in the weft configuration before the cloth reaches the bow and skew rollers. The moment a distortion is registered, the first two dual-purpose rollers are immediately adjusted to a position computed by the system's electronics. The incoming distortion is then straightened from the very first centimetre onwards.

A second set of scanners (TK12 or hybrid) at the outlet end of the machine spots any residual distortions in the material, and these are then reliably corrected by the last dual-purpose roller. This recently developed concept - a combination of adjustment and control - allows an even more precise and immediate realignment of the lie of the weft.

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