

DILO GROUP

ENGINEERING FOR NONWOVENS

PRESS RELEASE

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Dilo is the leading equipment supplier of complete lines for staple fibre nonwoven fabric production.

The most recent machine concepts from DiloGroup companies DiloTemafa, DiloSpinnbau and DiloMachines will be promoted with the emphasis on new equipment components which improve product quality and increase line capacity.

DiloTemafa has introduced versions of the Baltromix bale opener and the card willow which are particularly suited to the processing of longer fibres at highest throughput. Longer cleaning intervals and shorter cleaning times also result from the design changes. The DON dosing opener remains as an intermediate between fibre preparation and the card feeder and provides a fine opening stage.

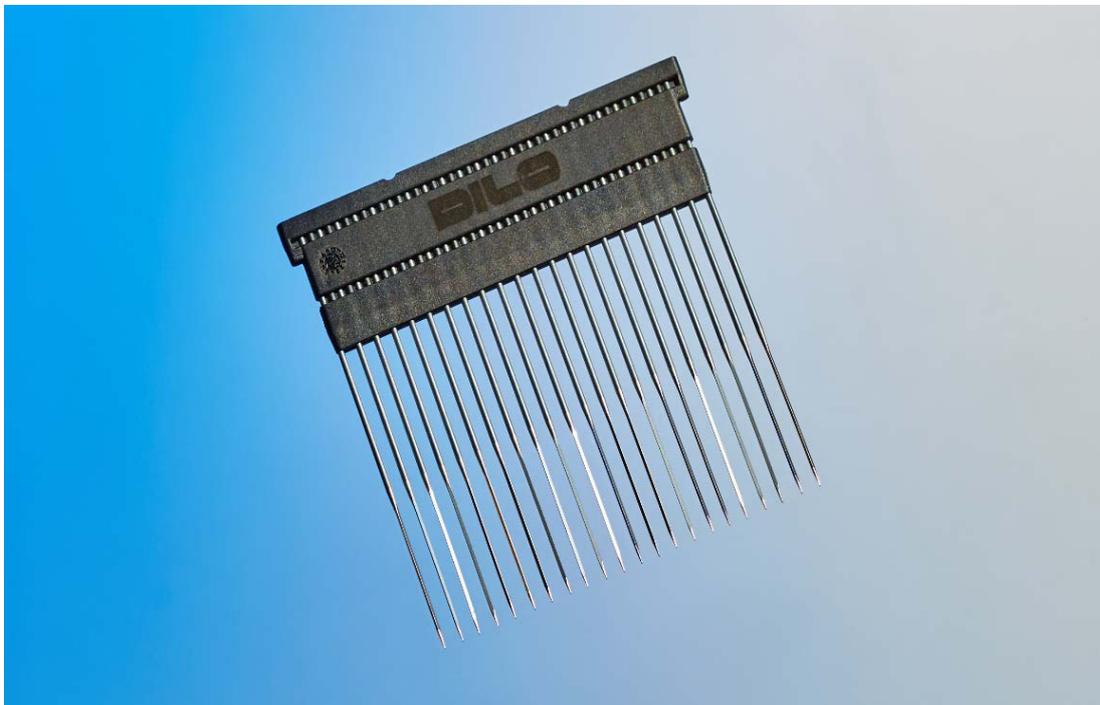
DiloSpinnbau has a new 'Unifeed' card feeder which combines the principle of volumetric charged feeding with the characteristics of a chute feeder but without the conventional overhead trunk which allows for lower ceiling height requirement. The fibre flock matt is condensed by a vacuum delivery apron to give better uniformity of mass distribution. Additional flaps control this over the working width. This feeder can be adapted for medium/fine to coarse and medium to long staple fibres.

The newly developed card 'VectorQuadroCard' incorporates a modular transfer group between breast and main section. The quick change facility of this roller group provides different carding options. The delivery system is also flexible to provide parallel laid, random or condensed web. The preopener section on this card has 4 worker/stripper pairs with five pairs on the main cylinder. Emphasis is on high throughput with good web quality

DiloMachines has a new DLSC horizontal crosslapper version which allows electro-mechanical web infeed speeds up to 200 m/min depending on fibre specification. Such infeed speeds will prevent the lapper being the line bottleneck. This lapper works in conjunction with the proven CV1A web regulation system for improved felt evenness and the potential for fibre savings. This very high web infeed speed has been made possible by a further increase in the drive power within the three apron layering technology. A web guiding system ("extended web guide") can be added to avoid web wrinkles at lapper reversals.



Developments underway relating to the needling process include 'needle module technology' whereby needles are pre-mounted in multiple units of 22 for insertion into very high density boards. Needle insertion and precision will be increased particularly with the possible use of robot technology.



Variopunch needling technology could employ these multi-needle modules to erase bad spots in a felt by a variable needle arrangement in order to achieve a better evenness of the stitching pattern. When fully developed Variopunch is intended to allow a more homogeneous distribution of stitches for superior surface quality.



DCL Dilo Compact Line, working width 2.2 m

In addition to wide needling lines for the economic production of large volume products as in the geotextile industry, Dilo offers a compact line which is designed for the production of small amounts of high quality felts, used e. g. in the medical sector and for specialty felts made from specialty fibres.

This compact line includes fibre opening and blending, card feeding, carding and crosslapping, needling and winding. The working width of the compact carding machine is 1.1 m, the layering width is 2.2 m. The line which was first presented at the ITMA 2015 in Milan, Italy, is characterized by consistent focusing on a compact line layout, a fast adaption to changing production conditions and an economic mode of operation. For this purpose numerous innovations were realized in every single machine. These innovations also facilitate the modifications necessary for the needling of carbon fibre.