



Brückner heat-setting stenter at Textilwerke Todtnau Bernauer KG.

Textilwerke Todtnau Bernauer invests in leading stenter technology

Well-established textile company plans with a tailor-made Brückner line for technical textiles, brand name BERATEX® far into the future.

The origins of company Bernauer can be traced back as far as 1829. At that time already coloured yarn and woven fabric were produced in several factories. Since the early 1970s, the company is active in the field of technical textiles and developed together with a leading tyre producer a special woven release/separation liner for the tyre industry. This fabric serves as release liner/textile for the production of tyres reducing the long the process costs of the processing costs.

The BERATEX® fabric as such is woven with special polyethylene ribbons, made of a polyethylene film produced by the company itself. Depending on the

quality it can be used up to more than 20 years without interruption. To increase the dimensional stability of this product, a heat-setting process is indispensable. For several years this had been made by different German commission finishers.

Hanspeter Bernauer, owner of Textilwerke Todtnau Bernauer KG is aware that the key to company sustainable success is the quality of the products. Therefore, aiming at a further control and optimisation of the products it was for Mr Bernauer a logical conclusion to integrate the final finishing of the fabric into the company. With the new heat-setting line made by Brückner the company reached now a 100%

value-creating chain: from the granulate to the woven high-quality PE fabric and to the international marketing in more than 46 countries.

Textilwerke Todtnau Bernauer KG decided to buy a state-of-the-art Brückner stenter because only a line with the alternately arranged thermo zones, which is typical for Brückner machines, ensures the required temperature accuracy across the entire length and width of the dryer. Temperature differences of a few degrees Celsius have an enormous influence on the heat-setting result and thus to the technical characteristics of the final product.

In the conceptual design of the line, the project team TWT Bernauer & Brückner turned the highest possible attention to an accurate fabric flow of the rigid and thus delicate articles, and an operation which is not to be interrupted by batch changes. Given the firmly installed unwinding unit with two positions, a generously dimensioned fabric accumulator allows connecting the batch ends by sewing without interrupting the production process. An automatic width control of the entering fabric controls the centred entry into the stenter and protects the transport system from critical mechanical loads. The use of sensitive traction measurement systems for an accurate tension control between the individual draw rollers and a sophisticated tension control software

prevent too high fabric tensions in each individual production step.

The stenter with a horizontal low-lubrication roller chain and a maintenance-free chain rail system has a direct gas heating system which allows adjusting the process temperatures exactly every 1.5 metres.

Another fabric accumulator with following two-position winder is located at the stenter exit and allows to change the batches without machine downtime. This optimised installation makes it in addition possible to operate the line with a minimum number of operators and increases thus the economic efficiency of the line. The service personnel which never before had worked with a stenter was trained during the start-up period as machine operators. After two weeks

already they were able to handle this complex machine and finish technically sophisticated fabric.

Already now Textilwerke Todtnau Bernauer KG made all arrangements to allow on short notice an integration of further finishing units, e.g. a coating unit or a calender in case the market requirements change.

Mr. Bernauer opted in this process for Brückner because of the following points:

- ❖ Competent advice before submission of the offer.
- ❖ Extensive test facilities and trials in Brückner's Technology Center.
- ❖ Training and education of the operators until the acceptance of the line.
- ❖ Intensive support service during the warranty period. ◆

Mr. Hanspeter Bernauer and Mrs. Regina Brückner.

