

Trützschler Nonwovens Group will present its newest innovations in the field of nonwoven technology

At the Techtex 2009, Trützschler Nonwovens Group (Fleissner, Erko- Trützschler and Trützschler Card Clothing) will present on a common booth (hall: 3.0, booth B03) its newest innovations in the field of nonwoven technology.

1. Trützschler Nonwoven Group: Fleissner and Erko Trützschler as system supplier

Fleissner and Erko-Trützschler will present the full capabilities of the Trützschler Nonwovens Group. Erko-Trützschler is specialized in the production of machinery for fiber opening and blending, web formation and needle punching, Fleissner is the specialist for web bonding such as thermobonding, binder bonding and hydroentanglement, finishing, drying of nonwovens. Just after two years after forming the Trützschler Nonwovens Group the results of the joined forces can be seen through new developments in the nonwoven sector.

2. New systems for Hydroentangled products

The first project within the group was to develop a new card for the requirements of hydroentangled products. Target was a high capacity of up to 400 kg/h/m with a good MD/CD ration of 3:1 or better and a weight range of 20-100 gsm which competes with a 3 doffer card. All targets are fulfilled with the **new Random Card EWK413**.

After running various trials with customers it can proudly be said that the EWK413 is especially good for cotton based webs. The web quality and the capacity are outstanding. Capacities of up to 300 kg/h/m have been realized with 100 % bleached comber noils.

At the same time Fleissner and Trützschler worked on a solution for small scale lines. As a result the newest member of the Fleissner water entanglement family is now standardized and commercially available. In combination with the new Trützschler TC-07-H card with web take off it will present a very economical solution for the production of cotton pads and other cotton products. The system serves the need of institutes and companies requiring research and development work, producers in niche markets, as well as "beginners" in the nonwovens world.

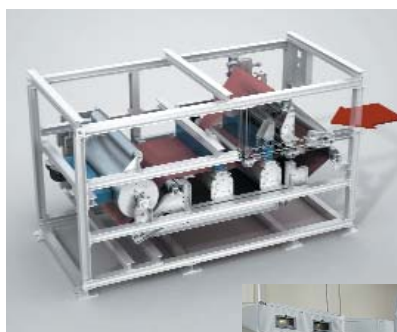
The main features are:

- ❖ Working width of 500 and 1,000 mm.
- ❖ Pressures up to 400 bar.
- ❖ Speeds up to 55 m/min.



New Erko Carding System at the Fleissner Technology Center.

TC-07H for hygienic and nonwoven applications



Line for Hydroentanglement.



TC- 07H with Shoving Unit TC-SU.

Both carding systems (EWK413 and TC07-H) are available in the Fleissner Technology Centre for trials with the Fleissner Hydroentanglement technology.

3. Thermobonding

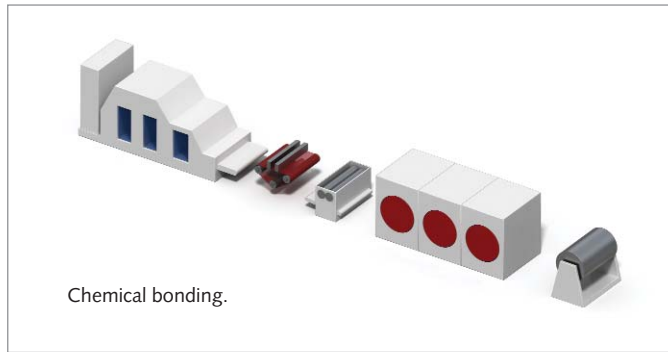
To be able to offer also complete Nonwoven Lines in all different thermobonding applications Fleissner developed a new belt oven. It follows the group's philosophy to be able to provide for every product the best and most economical solution.



Fleissner Belt oven.

In combination with the various webforming systems (Airlay, Roller Card, Cross Lapper and Direct Bonding) available through Erko-Trützschler the machine can be used in various applications such as:

Coating substrates; Fiberfill webs; Upholstery webs; Industrial nonwovens; Geotextiles; Nonwovens for the building industry, for thermal and acoustic insulation; Pressed fibre parts; Textile finishing; Functional clothing; Automotive nonwovens; Shoes and synthetic leather; Household wipes; Medical and sanitary nonwovens.



Chemical bonding.

4. High Speed Chemical Bonding of Nonwovens

Fleissner supplies components for standard chemical bonding processes (~80m/min) such as foam padders and dryers since many decades. Aside from this Fleissner recently developed the high speed chemical bonding process. Thanks to using a small hydro entangling unit of 1-2 jet manifolds production speeds of 200m/min can be achieved. Existing lines can be upgraded.

Process:

- ❖ Light pre-entangling of carded webs with Fleissner Aqualet technology.
- ❖ Chemical bonding with Fleissner foam padder.
- ❖ Drying with Fleissner perforated drum technology.

Advantages:

- ❖ Increase of line speeds and throughput from today's 80 m/min to max. 200 m/min.
- ❖ Higher tensile strength of the web.
- ❖ Better distribution of the binder in the dewatered moist web
- ❖ Less binder pick-up necessary due to pre-entanglement of carded webs.

Applications:

- ❖ Hygiene.
- ❖ Technical textiles.
- ❖ Wipes.
- ❖ Medical applications.

5. Needling of Nonwovens

After the successful start 2007 the development of the Erko-Trützschler Needle Looms has been pushed further. The first 6.8 m wide needle looms delivered to a geotextile producer in Germany have been installed to the full satisfaction of the customer. As a result additional orders could be secured.

Today Erko-Trützschler has added the double board needle looms and the tandem machines to the product portfolio.



Needle loom.

All machines can be delivered with different stroke amplitudes of 30, 40 and 60 mm. Depending on the stroke amplitude the stroke frequency can go up to 1.700 rpm. For special applications a suction system for the needle zone can be added.

Special feeding and delivery systems with flexible settings guaranty a wide product range and the production of special needle punch products. The picture below shows the actual production of a 6.8 m wide needle loom and 3 needle looms with 3.8 m width. Both single and double board machines are shown.



Trützschler Card Clothing.

7. Trützschler Card Clothing

Trützschler Card Clothing offers more than 400 different wire types, also available with various possibilities of surface treatment such as mechanical and chemical polishing as well as thermic treatment ("scale free" wire).

Today wires for cylinders and random rollers are also available with a 32 rows per inch interlinked profile and in the new steel quality "Novostar plus" which improves the lifetime of the wires of up to 30%. For processing semi-worsted yarn products and recycled/regenerated fibres, Trützschler Card Clothing offers wires with a special reinforced profile. ♦

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