

Division

Nonwovens



**FELLEISSENER**



# Tradition

## History

Fleissner is an internationally operating, innovative and customer-oriented technology company committed to tradition. Founded in Asch/Bohemia in 1848, the company's headquarters have been located in Egelsbach near Frankfurt/Main since 1951.

Since December 2006, continuation of the company's successful history is ensured by its integration into family-owned Trützschler group, which also has a prominent position in international textile machinery construction.

Fleissner is the leading system supplier and machinery manufacturer for man-made fiber and nonwovens lines, finishing equipment for all natural and synthetic fibers including textile floor coverings, and for heavy-duty dryers for tissue and filter papers.

It was in 1929 that Hans Fleissner obtained his first through-air dryer patent. The innovative strength of our nonwovens department is further illustrated by perforated drum dryers for impregnated automobile carpets, delivered for the first time in 1968, the foam impregnation padder introduced in 1973, a complete production line for roofing felts with product guarantee, delivered for the first time in 1985, the HighTech dryer for filter papers and tissue introduced in 1988, and the two Fleissner spunlacing systems AquaJet and LeanJet launched on the market in 1995 and 2005, respectively.

Together with customers, suppliers and other cooperation partners from the industry and research sectors, we are working on new technologies, thus continuously adding to the know-how of our products, processes and systems.

In our modern technical center we can demonstrate the entire process from melt polymers to finished nonwoven rolls at operating conditions. In addition, various machines for finishing of textiles and nonwovens are available for trials.

The dialog with our customers will ensure continued success for both sides.



# Vision

# FLEISSNER

# Nonwovens Technology

Fleissner today is the leading manufacturer of equipment for the nonwovens industry, supplying continuous finishing lines for dry-laid and wet-laid nonwovens, spunbonds and airlaid webs, including high-speed lines of 600 m/min.

Our product range covers both standard machines and special-purpose solutions, as well as complete systems tailor-made to customers requirements.

**Complete nonwovens production lines for all kind of applications include:**

#### Bonding of Nonwovens

- Spunlacing
- Chemical bonding
- Thermal bonding by hot air

#### Finishing of Nonwovens

- Impregnation
- Heatsetting
- Dyeing
- Printing
- Finish application
- Washing

#### Drying



#### Applications in Various Industries

- **Household**  
Example: Wiping cloths
- **Personal hygiene**  
Example: Light-weight webs for diapers
- **Medicine**  
Examples: Surgical sheets, dressing gauze
- **Apparel and shoes**  
Examples: Interlinings, working clothes, coating substrates
- **Automotive sector**  
Example: Insulating webs
- **Decoration**  
Examples: Wall paper, fiberfill webs, textile floor coverings
- **Construction sector**  
Examples: Roofing felts, geotextiles
- **Technical nonwovens**  
Examples: filters, glass fiber webs

[www.FLEISSNER.de](http://www.FLEISSNER.de)

## FLEISSNER AquaJet

After decades of experience supplying chemical and thermal bonding lines and Fleissner AquaJet lines, Fleissner is now leading in this technology all over the world.

We have supplied more than 1,000 non-wovens lines to our customers, including 75 spunlace lines with working widths up to 5,400 mm (see photo).

Fleissner is the market leader for complete processing lines from fibers to finished rolls, including spunlace system and dryer.

Together with our textile department, we can present references for cotton processing lines from bleaching to spunlaced nonwovens.

### Advantages of FLEISSNER AquaJet Lines:

- High production outputs
- Low energy costs
- Top product quality
- High manufacturing depth
- Patents covering processes for the production of multi-layer products with pulp
- Optimum strength and softness of nonwovens
- Great variety of perforation and structuring patterns
- Minimum maintenance requirements
- Low downtime while exchanging drums or jet strips
- Custom-made filtration systems
- Ecologically harmless



Spunlace  
AquaJet

## FLEISSNER LeanJet

The FLEISSNER LeanJet was developed for smaller capacities and special-purpose applications.

LeanJet lines are not intended to replace FLEISSNER AquaJet lines, but rather to complement the existing product range.

They meet the requirements also of such companies that wish to enter the booming nonwovens market at attractive investment costs.

### Advantages of FLEISSNER LeanJet Lines:

- Attractive investment costs
- Modular design with a number of specific options
- Low energy costs
- Low engineering costs
- Low production costs
- Low costs for installation and start-up



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LeanJet  
Spunlace

## Thermal Bonding of Nonwovens

Our thermal bonding lines are based on the through-air principle developed by Fleissner.

Webs made of fibers with different melting points are bonded on perforated drums by means of hot air.

This technology allows excellent product qualities to be produced at low investment costs.

### Advantages of Fleissner Thermal Bonding Lines:

- Compact modular design
- Low energy costs
- Quick and uniform heating and cooling of webs
- Infinitely adjustable gap setting for calibration unit
- Large weight range up to 2,000 g/m<sup>2</sup>
- Optimum settings for each web quality due to infinitely variable fan speeds
- High production speeds



## Chemical Bonding

Fleissner began supplying machines and complete processing lines for chemical bonding in the early 1960s.

We can combine various technologies, from binder impregnation through preliminary and final drying up to curing, into optimum customized solutions.

### Advantages of Chemical Bonding:

- Great variety of products on one line
- Production speeds up to 500 m/min
- Working widths up to 7,000 mm
- High softness of products
- Textile hand of nonwovens
- One-sided binder application or through-impregnation
- Uniform binder distribution even for small pick-up
- Suitable for web weights from 15 - 2,000 g/m<sup>2</sup>
- Binder application with addition of dyestuff
- Hydrophilic and hydrophobic or other finishing/enhancement treatments
- Foam application and immersion finishing, kiss roller, high-speed padder



## Finishing and Drying

Apart from bonding processes for nonwovens, Fleissner for decades has been using various other methods for nonwoven finishing:

- Impregnation
- Heatsetting
- Calibration
- Drying

The name Fleissner has become a synonym of through-air technology for drying of nonwovens.

Fleissner dryers are very successfully used in the nonwovens industry for spunlaced and chemically bonded nonwovens and for thermal bonding/heatsetting of staple fiber webs or spunbonds, wet-laid or airlaid webs.



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Binder  
Bonding  
Thermal

# Nonwovens

## Textiles

### Man-Made Fibers

### Paper & Tissue

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