

FLEISSNER



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Textiles **Carpet line**

Continuous Processing Lines

Since the early seventies, Fleissner has been supplying continuous processing lines for printing and dyeing of tufted floor coverings.

Line components:

- Unwinding and feeding systems
- Slub removal unit
- Prewashing and dwelling section
- Presteamer for relaxation
- Dye liquor applicator without pile contact
- Printing machine operating on the rotary printing principle or JetPrint technology of various manufacturers
- Steamer for dyestuff fixation
- High-performance multiple-stage washing tower
- Circular stenter with perforated drum
- Outlet combinations with fabric accumulator, inspection area, winder or plaiter
- Advanced PLC control system for the complete line with remote maintenance function for trouble-free production

Line features:

- **Working widths:**
4,600 mm, 5,400 mm
- **Production speeds:**
Up to 30 m/min
- **Fiber types:**
Polyamide, polyester, wool
- **Liquor application quantities:**
80-800 l/min
- **Application precision:**
< +/- 1% for 5,000 mm fabric width
- **Steamer temperature:** 100 °C
- **Drying temperatures:** 120-160 °C
- **Water evaporation rates:**
Up to 100 kg/h per m² of covered drum surface

Dye Liquor Applicator

The application system operates on the pouring principle and pours the dye liquor onto the carpet as an even film without pile contact.

The TWIN system uses two computer-controlled application heads operated alternately so that the color change can be reduced to a few centimeters.

Main features and advantages:

- Operation in continuous dyeing lines
- Dye liquor application without pile contact
- High-precision dye liquor application over the entire working width
- PLC-controlled rapid color change
- Application quantities from 12 to 160 liters per meter of carpet width per minute
- Adjustable pouring width
- Dyeing of two widths with undyed center strip



Carpet Steamer

Dyestuff fixation during dyeing or printing is done in a continuous steamer at atmospheric pressure.

Loop-type and horizontal steamers or combinations of modular design are available for all kinds of printing methods such as screen printing or jet printing.

Main features and advantages:

- Uniform temperature distribution over length, width and height
- Sump boxes with indirect heating and direct steam injection
- Automatic steam quantity and steam level control
- Welded steam-tight construction
- No condensate drops
- Crease-free fabric passage



High-Performance Washing Machine

Residual dyestuff and chemicals or thickener from drying or printing are washed out after dyestuff fixation. Depending on requirements and capacities, 2 or 3-stage counter-flow washing towers are used.

Main features and advantages:

- Optimized washing performance
- Low water consumption
- Controlled fabric tension through load cell controlled drives
- Control of suction beam vacuum depending on carpet quality
- Cold or hot operation at controlled temperatures
- Online metering of washing liquor in last washing stage
- Compact stainless steel design

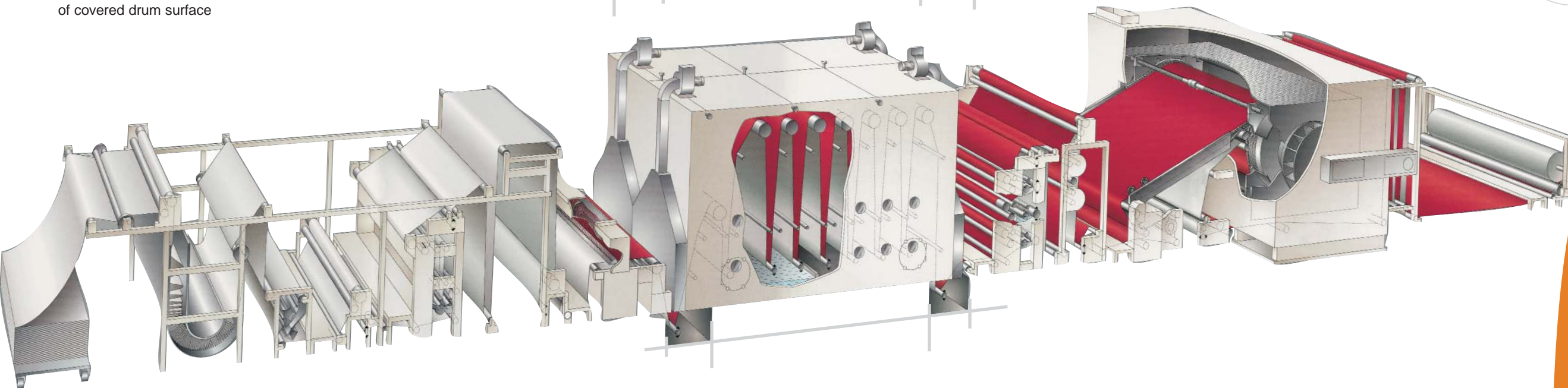
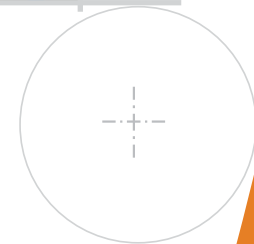


Circular Stenter

Based on perforated drum technology, the circular stenter has been the drying unit with the highest drying rates in the carpet industry for the last 30 years. The newly developed "circular stenter 3000" offers new drive technology and increased drying rates.

Main features and advantages:

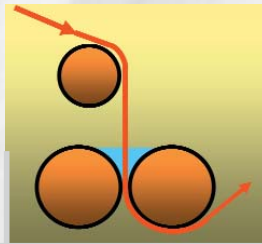
- Maximum performance in minimum space
- Low specific heat and power requirements
- Optimum performance for different fabric widths
- Gentle drying process
- Low-tension and draft-free fabric transport
- Separate drives for perforated drum and tensioning chain
- Compact sturdy construction, easy to clean and service
- New design with increased drying capacity and 3,000 mm drum diameter



Foam Padder

Chemicals for stain-release finishing can be applied by full-bath impregnation, spraying or pouring.

The most energy and cost saving method is foam impregnation as supplied by Fleissner.



Impregnating Line for Needle Felt Carpets

Needle felt carpets make up some 25-30% of all textile floor coverings. The required strength and dimensional stability is obtained by impregnation of needled carpet back or full-depth impregnation with binder.

Impregnation of carpet back and stain-release finishing of carpet face can be applied at the same time in the Fleissner foam padder.

Main features and advantages:

- Simultaneous two-sided application of two different chemicals
- Uniform chemicals application
- Adjustable penetration depth
- Little water added allows higher drying rates and saves drying energy



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