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Voith Paper

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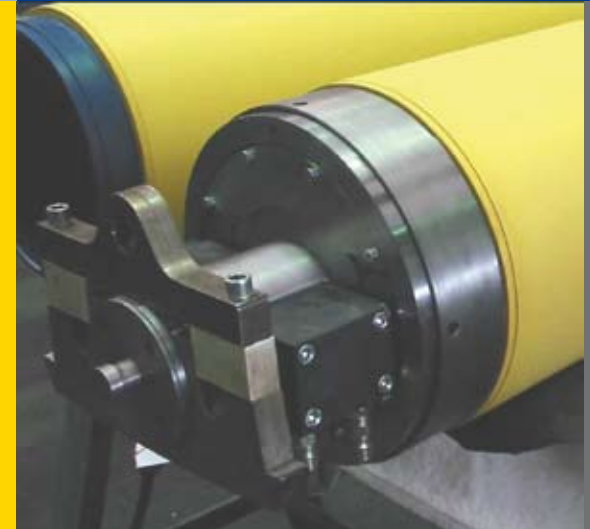


Your benefits

- Better density distribution across the machine direction
- Higher surface density
- Higher bending strength
- Higher transverse tensile strength
- Higher board density
- Increase of production capacity
- Better board quality with increased throughput

VOITH
Engineered reliability.

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NipcoPanel

The Nipco system for fiberboard
and chipboard calender presses

Production of fiberboards and chipboards on the calender press with the NipcoPanel system

The NipcoPanel system sets new benchmarks when used in calender presses. Some of the big press rolls are replaced each by several small diameter NipcoPanel rolls with a soft surface cover.

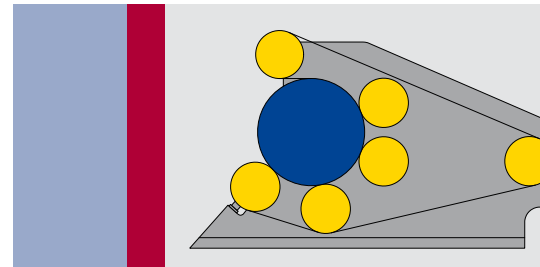
Your requirements

- Improvement of cross tensile strength including better uniformity over the width of the board
- Better control of the thickness and density profile over the width of the board
- Higher production speed

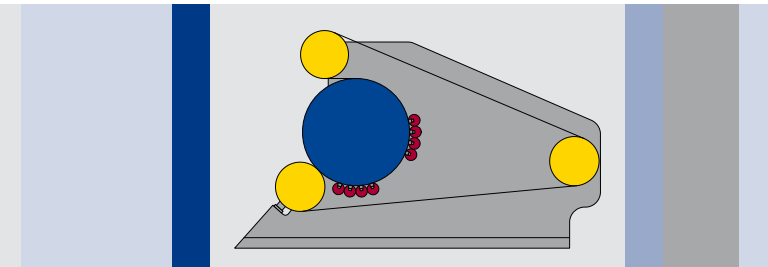
Basis

Up to now, calender presses were equipped with few but relatively large press rolls for pressing the board material. Each of these rolls presses with considerable force on the steel belt at a tightly delimited spot. This means that pressing of the material within the press occurs a few times only, however, with great power.

Calender press with conventional rolls



Calender press with NipcoPanel rolls



Thus, after each press gap the board finds considerable time to slacken. The very powerful but short-time compression may result in breaking up of partially already cured bonds. All this can lead to reduced hardening and hence to insufficient transverse tensile strength or to increased glue consumption.

Our solution

With NipcoPanel rolls in the compression area, several relatively wide, closely spaced press joints are created by the soft roll surface. The material is now pressed less forcefully in each press joint, but practically continuously. With less distance between the NipcoPanel rolls, the material is not able to relax. The result is a significantly better trans-

verse tensile strength. With NipcoPanel rolls in the forming area, the attained material hardening in the infeed area is improved and the thickness profile is optimized.

Installation of NipcoPanel rolls is also possible in existing presses without extensive retrofitting measures. In addition, NipcoPanel rolls are designed to be multi-zone, i.e., the force distribution can be varied over the width, by means of hydraulic support elements. By using several small rolls with elastic covers in every working area, specific load on the steel belt can be kept at a minimum, which results in an extended lifetime.

