EV DRYING SECTION Optimization™

EVsf web stabilizer

eliminates sheet flutter in single felted dryer sections

Situation

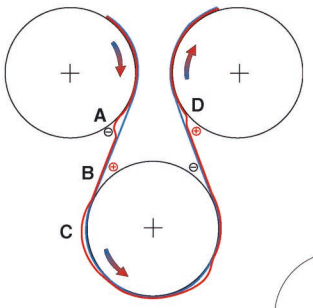
Optimum air permeability and fabric caliper and structure are important on single felted sections to minimise surface speed differences that may arise. Sheet flutter as a result of speed variations will cause unnecessary stresses to be imposed on the sheet.

The moving surfaces create vacuum in the nip (A) between the sheet and the upper cylinder. This vacuum produces air flows which lift the paper web upwards from the fabric. The air flows directed from the edges towards the centre of the machine cause the edge flutter.

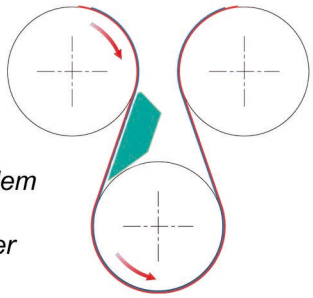
The moving surfaces create overpressure in the nip (B) between the fabric and the lower cylinder.

The air flows through the fabric and lifts the sheet from it, often across the entire width of the sheet (C), if the fabric permeability is too high.

If the fabric has too low permeability, the air between the sheet and the fabric cannot flow out quickly enough and an air bubble is formed in the nip (D). This leads to sheet creasing in the section.



Sheet flutter problem



Sheet flutter problem is eliminated by EVsf web stabilizer

Solution

You can easily stabilize the web with EVsf web stabilizer which blows air out from the area between the upper cylinder (A) and the lower cylinder (B).

The secondary air, which is evacuated, creates vacuum and the web is pressed effectively against the fabric in the entire area.

The air is prevented from building up between the web and fabric and no air bubble will form in the upper nip (C).

As a result

- Desired balance between drying efficiency and runnability is achieved
- Higher paper machine speed is possible
- Fewer web breaks
- Easier tail threading
- Lower draw - less chemical pulp and easier to achieve strength requirements
- Better paper quality

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