

## Application note

### Charge measurement reduces chemical consumption in towel production

- Reduced chemical consumption
- Improved quality and runnability
- Reduced downgrades of final tissue due to stabilized tensile strength
- Stabilized fiber recovery

#### CUSTOMER BACKGROUND

The tissue machine produces 35.000 t/year of towel and toilet paper. In 80 % of the produced tissue a wet strength agent is used. The raw material is recycled paper which is treated onsite.

#### CUSTOMER CHALLENGE

With DIP being the raw material, the mill had to deal with variations coming from the stock preparation. Changes in paper quality were not recognized until the final paper was produced and quality tests in the laboratory performed. Several times this led to paper which had to be downgraded because it did not reach the target specs.

#### SOLUTION

A PCT-20 was installed at the outlet of the machine chest, mixing chest, white water and inlet to the fiber recovery (Poseidon). The purpose was to recognize the variations coming from the DIP plant in the mixing chest. Furthermore, to control the addition of chemicals between mixing chest and machine chest according to the needs and avoiding overdosage of the flocculant at the fiber recovery.

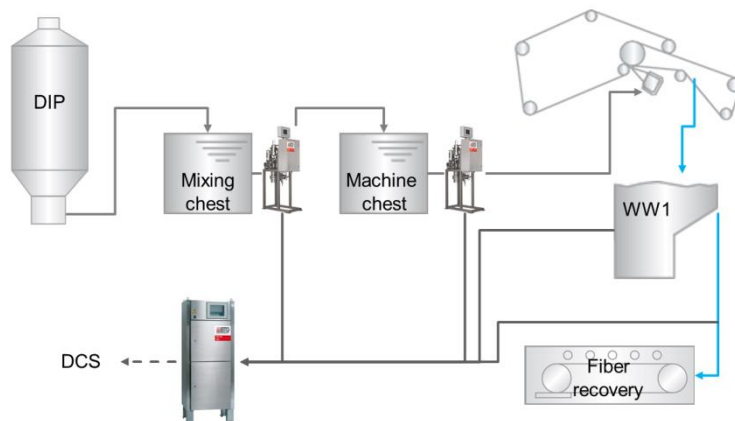


Figure 1: Sample points

#### RESULTS

The outlined targets have been reached. Flocculant dosage to the fiber recovery was reduced. Now operators know early enough once quality of the raw material from the DIP plant is going down and they do not add more wet strength agent anymore as it does not have an additional effect. With this deposits at machine have been reduced as well as downgrades of produced paper.

- WSA reduced by 35 % = 60 k€
- Flocculant reduced by 40 % = 10 k€
- Dye reduced by 18 % = 140 k€