



FORSCHUNG

BERATUNG

MESSTECHNIK

WEITERBILDUNG

Paper Technology Specialists
Services in the paper value chain

Services offered by the PTS Pilot Plant

Optimising the additive system for the use of broke

Objectives and Methodology

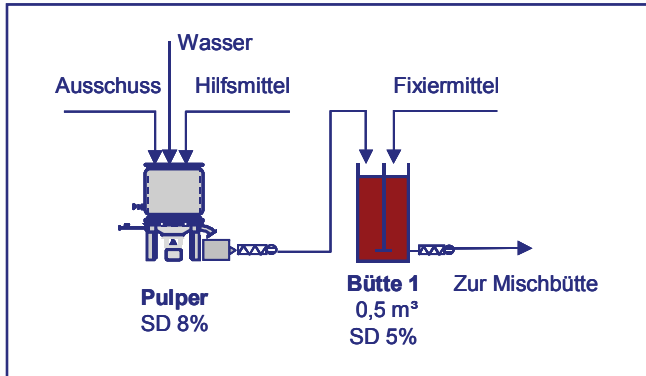
Objectives

- To determine the effect of using coated broke on runnability and paper properties while taking into account the use of process chemicals

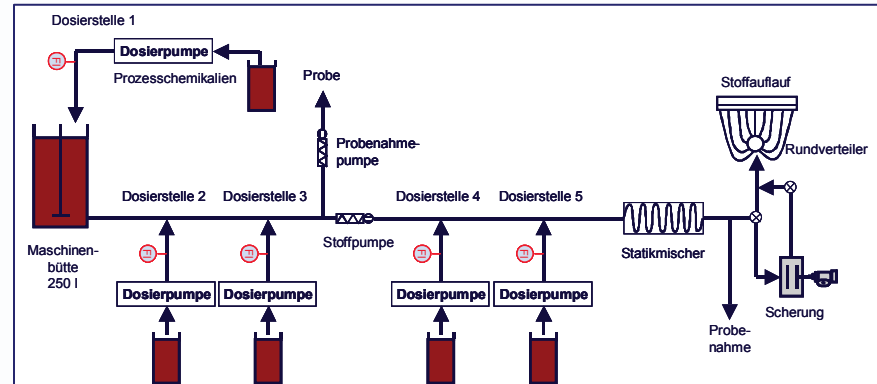
Methodology

- Produce paper on the pilot paper machine with closure
- Add proportions of the prepared broke to a maximum of 20%
- Use fixing and retention agents
- Add the retention agents continuously upstream of the headbox using dosage pumps
- Determine retention and examine the paper properties

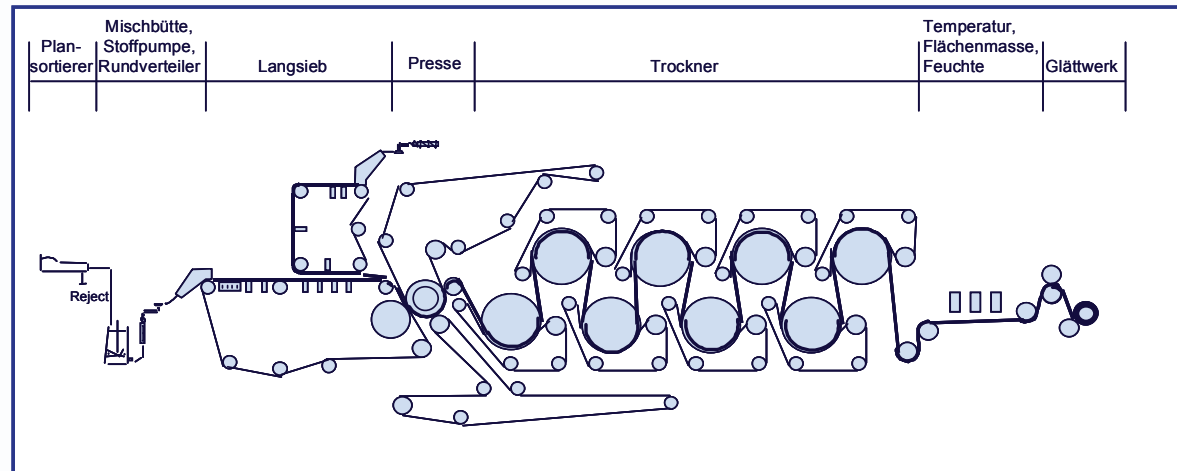
Test benches



Broke preparation



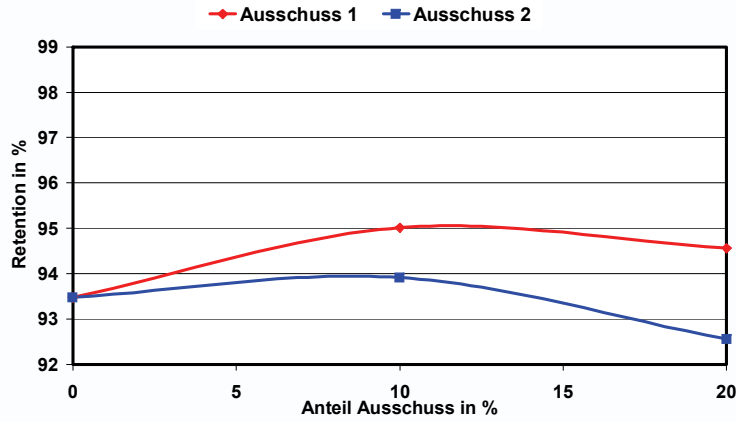
Dosing of process chemicals



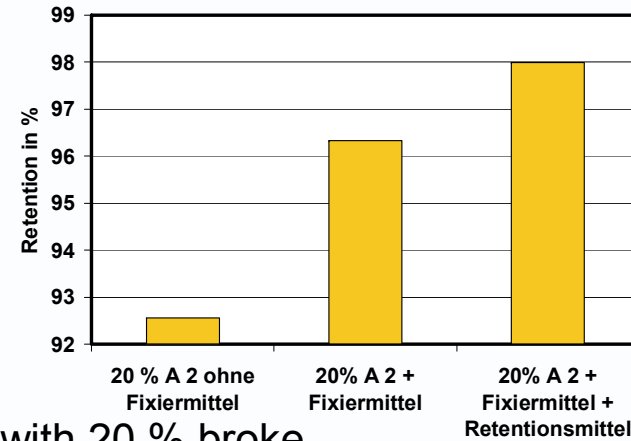
Pilot paper machine

Results

Einfluss des Ausschussanteils auf die Retention



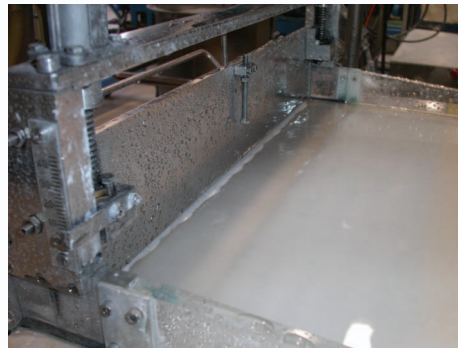
Einfluss der Zugabe von Fixiermittel und Retentionsmittel auf die Retention



Observations with 20 % broke



Foam in the chests and headbox



Dust on the doctor blades

Nutzen

- Findings relating to the effect of the share of broke on retention and on paper properties in preparation of scale-up for commercial production
- Pointing out possibilities of using process chemicals to increase the share of broke without having any negative effects on runnability nor on the paper properties
- Cost savings by reducing the risk of large-scale testing and by quicker production launch

Ansprechpartner

Herbert Berger

Phone: +49 (0) 3529 551 660

Fax: +49 (0) 3529 551 899

E-mail: herbert.berger@ptspaper.de

PTS

Pirnaer Strasse 37

01809 Heidenau

www.ptspaper.de