

Title (en)

Apparatus and method for the on-line control of the filler content of a paper product.

Title (de)

Vorrichtung und Verfahren zur On-Line-Steuerung des Füllstoffanteils einer Papierbahn.

Title (fr)

Appareil et procédé pour le contrôle on-line de la teneur en charge d'une bande de papier.

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Application

EP 92420382 A 19921027

Priority

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Abstract (en)

Apparatus and method for controlling on-line the weight percent of filler in the paper product of a papermaking system, the method comprising: providing a stock slurry to the system, the stock slurry comprising a mixture of water and pulp fibers; introducing the recyclable solution to the system, the recyclable solution comprising a mixture of water, pulp fibers, and filler; mixing the stock slurry and the recyclable solution, thereby forming the system slurry; introducing the system slurry to the headbox (19) and distributing the system slurry therefrom to the means for draining (22); draining solution from the system slurry to thereby form the recyclable solution, and to thereby also form the concentrated system product for processing to form the paper product; computing the concentration of total solids in the system slurry at the headbox; measuring the concentration of total solids in the system slurry at the headbox; computing the weight percent of filler in the system slurry as a function of the computed concentration of total solids in the system slurry and the measurement of concentration of total solids in the system slurry; measuring the total solids concentration of the recyclable solution; computing first pass filler retention as a function of the measurement of concentration of total solids in the system slurry and the measurement of the total solids concentration of the recyclable solution, computing the weight percent of filler in the paper product as a function of the weight percent of filler in the system slurry and the first pass filler retention; comparing the computed weight percent of filler in the paper product to a desired such value of weight percent of filler in the paper product and computing the amount and flow rate of additional filler to add to the system slurry; and adjusting and controlling the amount and flow rate of the additional filler to the system slurry, thereby controlling the weight percent of filler in the paper product of the system. <IMAGE>

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Citation (search report)

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