Title (en)
Method and device for mixing suspensions

Title (de)
Verfahren und Vorrichtung zum Vermischen von Suspensionen

Title (fr)
Procédé et dispositif pour mélanger des suspensions

Publication
EP 1657356 B1 20080903 (DE)

Application
EP 05022328 A 20051013

Priority
DE 102004054236 A 20041110

Abstract (en)
[origin: EP1657356A1] A watery dilution fluid (2), e.g. recycled papermaking water, is mixed with thicker fibrous suspension (1) arising as reject material (12) from suspension preparation. A closed mixer (4) is used. This has no mechanically-driven components to assist mixing. Its mixing tube includes at least two inlets and at least one outlet. The thick suspension (1) feed, flows more slowly into the watery dilution fluid. The latter enters at a velocity which is at least 5 m/s, preferably at least 10 m/s greater than the main flow velocity. After mixing-in the dilution fluid, the flow enters a straight cylindrical pipe section (6) with a length 5 times its diameter. The dilution fluid is fed along the axis of the pipe as a central driving jet, into the flow of thicker suspension. No pump is used to transfer the mixture into the next processing stage, which takes place in closed apparatus. The diluted suspension is fed to a pressurized screen (7, 8) without using a further pump. The thicker fibrous suspension is supplied to a cleaning plant (e.g. cyclones removing heavy contaminants) using a pulp suspension pump (9). It is fed for dilution into the mixing unit and thence to a further cleaning plant. In neither of these cases is a further pump used. An independent claim is included for the corresponding mixing equipment.

IPC 8 full level
D21B 1/34 (2006.01)

CPC (source: EP)
D21B 1/342 (2013.01); **D21D 5/02** (2013.01)

Cited by
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