

Title (en)
METHOD AND APPARATUS FOR MIXING PULP WITH GASES.

Title (de)
VERFAHREN UND VORRICHTUNG ZUM MISCHEN VON PULPE MIT GASEN.

Title (fr)
PROCEDE ET DISPOSITIF DE MELANGE DE PULPE AVEC DES GAZ.

Publication
EP 0087412 A4 19850610 (EN)

Application
EP 81902540 A 19810904

Priority
US 8101187 W 19810904

Abstract (en)
[origin: WO8300816A1] Process and apparatus for mixing a wood pulp slurry with a chemical at the consistency at which the slurry exits a washer or the subsequent stem mixer, 7 to 15%. The chemicals would include non-condensable or unsaturated gases such as oxygen, ozone, air, chlorine, chlorine dioxide, sulfur dioxide, ammonia, nitrogen, carbon dioxide, hydrogen chloride, nitric oxide or nitrogen peroxide. Highly superheated steam can also be mixed with the pulp. In the process, the pulp slurry would pass through a mixing zone having a swept area in the range of 10,000 to 1,000,000 square meters per metric ton of oven dry pulp. The optimum is considered to be around 65,400 square meters per metric ton of oven dry pulp. An existing extraction stage within the system may be used as a source of alkali. In an existing extraction stage, the mixer (211) and upstream oxygen line (212) would be placed in the line between the steam mixer (206') and the extraction tower (213'). The oxygen may be inserted into the pulp slurry and mixed with the pulp slurry between a pair of washers (71', 91'). The second washer (91') may be a vacuum, pressure or diffusion washer. The oxygen may be inserted into the pulp slurry and mixed with the pulp slurry between a washer (91') and the subsequent storage tank (110'). Washed wood pulp from a continuous digester (14) may be treated with oxygen in the blow line (19) from the digester (14). Most of the treatment occurs within the mixer (40). Following mixing, the pulp may be taken to a subsequent process, a diffusion washer (24), or to a storage tank (24). The pulp is treated several times during a sequence. Some sequences are O-X-O and O-O-X-O in which X may be chlorine, chlorine dioxide, a combination of chlorine and chlorine dioxide and a hypochlorite, a peroxide or ozone. The sequence may be followed by a D stage. Other systems and specific mixer designs are also disclosed.

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IPC 8 full level
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Citation (search report)

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