

Title (en)

Process and apparatus for the preparation of a homogeneous mixture in continuous way

Title (de)

Verfahren und Vorrichtung zur kontinuierlichen Herstellung homogener Mischungen

Title (fr)

Procédé et dispositif pour la préparation d'un mélange homogène à action continue

Publication

**EP 0945168 B1 20030702 (DE)**

Application

**EP 99102503 A 19990210**

Priority

DE 19806934 A 19980219

Abstract (en)

[origin: EP0945168A1] The mixing of difficult-to-mix materials, e.g. water and polyacrylamide suspension, comprises injecting air into both components and providing variable mixing stream profiles in a static mixer. When components are difficult to mix, e.g. water and polyacrylamide suspension, air is injected into both components as they enter a mixing chamber. The gas enters through a nozzle (3) at the top and water is fed into the base. Air connections (6,7) enter the nozzle, and a water bath through an aerator (10). The water passes upward through a floor (11) to be put into rotation by a fixed vane (12). An indirect level sensor (2) and the position of the vane, whose level is variable, automatically control the profile of the rotating water. The gas/air mixture passes through a water-free zone (1) and, when mixed, passes through a perforated floor (13) to an outlet (9). The process can be carried out at elevated pressure or partial vacuum. The capacity of the smallest mixer is about 1 liter and the mixing time is measured in seconds.

IPC 1-7

**B01F 3/08**; **B01F 3/12**; **B01F 7/16**

IPC 8 full level

**B01F 3/08** (2006.01); **B01F 3/12** (2006.01); **B01F 7/16** (2006.01); **B01F 13/06** (2006.01); **B01F 13/10** (2006.01); **B01F 15/00** (2006.01)

CPC (source: EP US)

**B01F 23/49** (2022.01 - EP); **B01F 23/59** (2022.01 - EP); **B01F 33/70** (2022.01 - EP); **B01F 33/81** (2022.01 - EP); **B01F 35/20** (2022.01 - EP); **B01F 35/21** (2022.01 - EP US); **B01F 35/2112** (2022.01 - EP)

Cited by

CN106457172A; WO2015117739A1

Designated contracting state (EPC)

AT CH DE ES FI FR GB IT LI NL SE

DOCDB simple family (publication)

**EP 0945168 A1 19990929**; **EP 0945168 B1 20030702**; AT E244056 T1 20030715; DE 19806934 A1 19990930; DE 59906142 D1 20030807

DOCDB simple family (application)

**EP 99102503 A 19990210**; AT 99102503 T 19990210; DE 19806934 A 19980219; DE 59906142 T 19990210