

Title (en)

DEVICE FOR STIRRING A LIQUID AND INJECTING A GAS INTO SAID LIQUID WITH LIMITED CLOGGING

Title (de)

VORRICHTUNG ZUM RÜHREN EINER FLÜSSIGKEIT UND ZUM EINSPRITZEN EINES GASES IN DIESE FLÜSSIGKEIT MIT EINER BESCHRÄNKTEN SPERRUNG

Title (fr)

DISPOSITIF D'AGITATION D'UN LIQUIDE ET D'INJECTION D'UN GAZ DANS CE LIQUIDE A ENGORGEMENT LIMITE

Publication

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Application

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Priority

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Abstract (en)

[origin: FR2848472A1] The surface of a lower disk of a turbine is lower than the surface of an upper disk. The lower disk has a smaller diameter than the upper disk and a diameter which is greater than or equal to the diameter of an annular space. A device for agitating a liquid in a reactor and injection of a gas into a liquid has a driving device above a receiver, with a vertical output axle with at least one movable device with axis flow immersed in the liquid, and a self-drawing turbine immersed in the reactor which can be driven by the output shaft. The output shaft is enclosed by a coaxial cylinder the lower end of which opens in the turbine and the upper end of which is connected in a sealed manner to the driving device. The cylinder is pierced with a hole for injecting gas in an annular space between the shaft and the cylinder. The turbine is made of two superimposed disks and an assembly of radial blades placed between the disks and fixed to them. The upper disk is pierced with a central hole into which fits the bottom end of the cylinder to describe an annular space between the cylinder and the edge of the hole by which liquid is drawn into the turbine. The gas-liquid dispersion expelled radially by the turbine is directed towards the axial flow device. The lower disk is at least partly hollow in the form of a ring. The axial flow moving device is a helix. An annular casing forms a deflector to send the gas- liquid dispersion ejected radially by the turbine to the axial flow moving device, pierced with two opposing central holes coaxial with the shaft. No additional agitator is placed on the output shaft below the axial flow device.

IPC 8 full level

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