

DEVICE FOR AGITATING A LIQUID IN A REACTOR AND FOR
INJECTING A GAS INTO THIS LIQUID

ABSTRACT

This device comprises a drive device (1) arranged above the reactor, provided with a vertical output shaft (2) equipped at its end with an axial-flow mobile assembly such as a propeller (4) immersed in the reactor; the output shaft of the drive device also carries an auto-suction turbine (5) immersed in the reactor and drivable by the output shaft (2), and the latter is enveloped coaxially by a cylinder (6) linked at its upper end to the drive device and whose lower end (6a) opens out into the turbine; in the upper end of the cylinder is drilled an aperture (14) for injecting a gas into an annular gap (15) delimited by the shaft and the cylinder. This device makes it possible to transfer a gas into a liquid efficiently and to ensure agitation whereby particles may be placed in suspension and held there. Application to the biological treatment of industrial effluents.

See Figure 1.