

Title (en)  
Magnetic drive agitator

Title (de)  
Rührwerk mit magnetischem Antrieb

Title (fr)  
Agitateur à entraînement magnétique

Publication  
**EP 0962249 A1 19991208 (FR)**

Application  
**EP 99420128 A 19990604**

Priority  
FR 9807259 A 19980605

Abstract (en)  
A helix (7) is fitted around the sleeve and has a second magnetic coupling which acts together with the first to drive the helix about an axis of rotation X-X'. The helix is fixed to a third magnetic coupling (30) placed near a cell (33) for detecting the passage of the third magnetic coupling. The cell is supported by the union. The agitator is supported by a union (5), mounted in a sealed manner in a wall (2a) of the receiver (1) and provided with a blind sleeve (15) inside which is a drive shaft (11) with a first magnetic coupling (13). The third coupling has at least one permanent magnet. The clearance between the third coupling and the detection cell is perpendicular to that axis of rotation of the helix. The first and second couplings form a magnetic field in directions Y-Y' and Y-Y which are radial about the axis of rotation, whereas the magnetic field from the third coupling is parallel to the axis of rotation. The second and third couplings are mounted on a sheath (23) around the blind sleeve, with the third coupling orientated towards the detection cell. The first and second couplings each contain a permanent magnet with directions of polarization along Y-Y' and Y-Y. The output signal from the detection cell is sent to a treatment unit which determines, by calculation from the signal, the speed of rotation of the helix. The union comprises a blind socket to receive the detection cell, with the opening of the socket turned outwards. The helix has a number of paddles divided over a sheath and a head with a number of branches supporting the sheath. There is an annular space between the branches and an end piece (17) on the sleeve forming the seat.

IPC 1-7  
**B01F 13/08**

IPC 8 full level  
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