

Title (en)
INJECTOR MIXER UNDER PRESSURE

Publication
EP 0305251 B1 19920708 (FR)

Application
EP 88402000 A 19880801

Priority
FR 8711273 A 19870807

Abstract (en)
[origin: JPH01159038A] PURPOSE: To increase a flow rate and to uniformly inject air bubbles to liquid by supplying air toward a tangent direction by an air injection space which is parallel and is perpendicular to pressurized liquid inlet conduits and forming an inlet conduit, a mixing cylinder and an outflow conduit to the respectively specified sizes. CONSTITUTION: This mixer is provided with a pressurized liquid supplying means, an atm. air supplying means 9 and at least one inlet conduits 3 and is provided with a converging inflow conduit 6, the air injection space 8, a cylindrical mixing cylinder 7 and a diverging truncated outflow conduit 5 in this order as the component elements of the respective inlet conduits 3. The air injection space 8 is formed flat and perpendicular to the ordinate line 24 of the inlet conduits and supplies the air toward the tangent direction. The diameter 13 of the mixing cylinder 11 is constant and is slightly larger than the diameter 14 of the inflow conduit 6. The length of the mixing cylinder 11 is set much larger than the diameter 13 and to about 4 to 9 times and the length of the outflow conduit 5 is set equal to or longer than the length of the cylinder 11. The diversion angle α of the truncated part is set at about 1 to 3 deg..

IPC 1-7
B01F 5/04

IPC 8 full level
B01F 3/04 (2006.01); **B01F 5/00** (2006.01); **B01F 5/04** (2006.01); **C02F 1/24** (2006.01); **D21C 5/02** (2006.01)

CPC (source: EP US)
B01F 25/3121 (2022.01 - EP US); **Y10S 261/75** (2013.01 - EP US)

Cited by
EP0715018A1; EP1234611A3; US5650044A; US5979665A; EP2128452A1; FR2727441A1; US5624609A; US6843471B2; US6197153B1; WO2016193604A1; WO2010149958A3; WO2021204306A1

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 0305251 A1 19890301; **EP 0305251 B1 19920708**; DE 3872624 D1 19920813; DE 3872624 T2 19930225; ES 2034320 T3 19930401; FR 2619023 A1 19890210; FR 2619023 B1 19910412; JP H01159038 A 19890622; JP H0730122 Y2 19950712; JP H07519 U 19950106; US 4842777 A 19890627

DOCDB simple family (application)
EP 88402000 A 19880801; DE 3872624 T 19880801; ES 88402000 T 19880801; FR 8711273 A 19870807; JP 19621888 A 19880808; JP 2412192 U 19920323; US 22663888 A 19880801