

Title (en)
MIXING ELEMENT AND MOTIONLESS MIXER

Publication
EP 0084180 B1 19860903 (EN)

Application
EP 82112101 A 19821229

Priority
• JP 402382 A 19820116
• JP 959682 A 19820126

Abstract (en)
[origin: EP0084180A2] Mixing elements (11), (12) for a motionless mixer comprise passage tubes (13), (17) through which fluids flow and helical blades (14), (18) formed in the passage tubes so as to be integral therewith. The interior of the passage tubes (13), (17) are partitioned by the blades (14), (18) to form a plurality of fluid passages (15, 16), (19, 20). The blade extends from one end of the passage tubes (13), (17) to the other in the longitudinal direction of the passage tube to be twisted helically clockwise (right-handed) or counterclockwise (left-handed). The corner portions (22) of the fluid passages are rounded. The end edges (21) of the blade (14), (18) are curved in the direction of the thickness and rounded. The motionless mixer is formed by alternately and longitudinally coupling right- and left-handed rotation type mixing elements (11), (12). The mixing elements (11), (12) are so arranged that the facing end edges of the blades (14), (18) of each two adjacent mixing elements (11), (12) cross at right angles.

IPC 1-7
B01F 5/06

IPC 8 full level
B01F 5/06 (2006.01)

CPC (source: EP)
B01F 25/43141 (2022.01)

Citation (examination)
Bulletin KMOD-40 from Kenics Corporation, 1973

Cited by
EP0678329A1; US4884894A; EP1149626A1; EP0145134A3; EP0214860A3; CH713229A1; US5399015A; GB2271725A; GB2271725B; CN114749082A; WO2010099920A2; US6585407B2; WO9409892A1; WO0232561A3

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
EP 0084180 A2 19830727; EP 0084180 A3 19840425; EP 0084180 B1 19860903; DE 3273078 D1 19861009

DOCDB simple family (application)
EP 82112101 A 19821229; DE 3273078 T 19821229