

Title (en)  
STATIC MIXERS

Publication  
**EP 0071454 B1 19861217 (EN)**

Application  
**EP 82303951 A 19820727**

Priority  
CA 382702 A 19810728

Abstract (en)  
[origin: EP0071454A1] A static mixer comprises a conduit for transporting flowable material, and a plurality of stationary mixer elements which so deflect the flow of material that a thorough mixing is effected. Each mixer element comprises seven plate members: a diamond-shaped plate (34); two triangular plates (48,50), co-planar and perpendicular to the diamond-shaped plate, the base of one triangular plate providing a leading edge to divide material flow into the conduit into two separate flows; and four deflector plates (66,68,70,72), which join the diamond-shaped and triangular plates and conform to the contours of inner walls of the conduit to provide two separate flow paths. The flow paths are substantially helical and rotate through substantially 180 degrees from the leading edge to trailing edge of each mixer element to rotate and thoroughly mix individual flows through the element. The leading edge of each succeeding mixer element is angled relative to the trailing edge of the immediately preceding mixer element to obtain successive division, mixing and recombination of flows.

IPC 1-7  
**B01F 5/06**

IPC 8 full level  
**B01F 5/06** (2006.01)

CPC (source: EP)  
**B01F 25/43151** (2022.01)

Cited by  
DE19700462C2; US5650173A; US6136272A; CN110869111A; DE19748383C2; US5654008A; US5688801A; US5770231A; US5965168A; US6110921A; WO2011025725A1; US7946753B2; US7645843B2; US8293185B2; EP3241611A1; WO2017191054A1; US10946357B2; US6368632B1; US6544559B2; US6803055B2; US7118763B2; WO2017220425A1; US7547452B2; EP3548829B1

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