

Title (en)  
Flow-stabilizing volute pump and liner.

Title (de)  
Pumpenvolute und Auskleidung zur Stromstabilisierung.

Title (fr)  
Volute de pompe et revêtement pour la stabilisation de l'écoulement.

Publication  
**EP 0203218 A1 19861203 (EN)**

Application  
**EP 85106700 A 19850530**

Priority  
US 59228984 A 19840320

Abstract (en)  
Uniquely contoured interior surfaces (17, 18, 19) have been found to stabilize the flow patterns through centrifugal pumps of the volute type, especially pumps having wide impellers and wide volutes for pumping slurries. The contoured interior surfaces may be provided in the pump casing, but are preferably defined by a volute liner (10). The interior surfaces comprise a volute region and a discharge nozzle region which both are at least in part contoured interior surfaces and which cooperate to provide a flowingly contoured interior surface of changing axial cross-section.

IPC 1-7  
**F04D 29/44**

IPC 8 full level  
**F04D 29/42** (2006.01); **F04D 29/44** (2006.01)

CPC (source: EP)  
**F04D 29/4286** (2013.01); **F04D 29/445** (2013.01)

Citation (search report)  
• [A] FR 752623 A 19330927  
• [A] FR 1167542 A 19581126  
• [A] US 1585669 A 19260525 - HANSEN GEORGE T  
• [A] DE 29654 C

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CN103912521A; DE4012041A1; CN103307030A

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**EP 0203218 A1 19861203; EP 0203218 B1 19890823; ZA 851063 B 19850814**

DOCDB simple family (application)  
**EP 85106700 A 19850530; ZA 851063 A 19850212**