

Title (en)  
Turbomachine with integrated fluid recirculation system

Title (de)  
Strömungsarbeitsmaschine mit integriertem Fluidzirkulationssystem

Title (fr)  
Turbomachine avec système de recirculation de fluide intégré

Publication  
**EP 1382855 A3 20050323 (DE)**

Application  
**EP 03011631 A 20030522**

Priority  
DE 10233032 A 20020720

Abstract (en)  
[origin: EP1382855A2] The machine which operates with a fluid flow, e.g. at a blower or compressor or fan or pump and the like, has at least one rotor (1) and a freely-selected number of stators (2) in the fluid flow path, with at least one paddle. A system to extract and return fluid into the flow path is at the surface defining the paddle channel, in a bi-functional structure, with at least one feedback channel (4) with throttles (5) to return extracted fluid to an upstream position in the flow path, and at least one additional channel to lead fluid out of a downstream position in the flow path. The fluid can be a gas or a liquid.

IPC 1-7  
**F04D 27/02**; F04D 29/68; F01D 5/14

IPC 8 full level  
**F04D 27/02** (2006.01); **F04D 29/68** (2006.01)

CPC (source: EP US)  
**F04D 27/0207** (2013.01 - EP US); **F04D 29/324** (2013.01 - EP US); **F04D 29/542** (2013.01 - EP US); **F04D 29/682** (2013.01 - EP US); **F04D 29/684** (2013.01 - EP US)

Citation (search report)

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- [A] DE 1301432 B 19690821 - BBC BROWN BOVERI & CIE
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- [A] US 2305226 A 19421215 - STALKER EDWARD A

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