

Title (en)
Turbomolecular pump

Title (de)
Turbomolekularpumpe

Title (fr)
Pompe turbomoléculaire

Publication
EP 1580435 B2 20201118 (DE)

Application
EP 05003720 A 20050222

Priority
DE 102004012713 A 20040316

Abstract (en)
[origin: EP1580435A2] A housing (1) is divided into a high vacuum side (2) and a vacuum side (3). Groups of rotor discs (8) and stator discs (9) are located adjacent to the pump outlet and to an outlet flange (3), each disc having blades. The blades located in the vicinity of the high vacuum side has a steeper angle than the blades at the vacuum side, the blade angle at the vacuum side amounting less than 8 degrees. The blades have an axial thickness of less than 5 millimeters, and have a cross-section that resembles the shape of a parallelogram. An independent claim is also included for a method of manufacturing rotor and stator discs.

IPC 8 full level
F04D 29/32 (2006.01); **F04D 19/04** (2006.01); **F04D 29/54** (2006.01)

CPC (source: EP US)
F04D 19/042 (2013.01 - EP US); **F04D 29/324** (2013.01 - EP US); **F04D 29/544** (2013.01 - EP US); **F05D 2250/70** (2013.01 - EP US)

Citation (opposition)
Opponent :

- US 3644051 A 19720222 - SHAPIRO ASCHER H
- US 3969039 A 19760713 - SHOULDERS KENNETH R
- CHANDRAN M AND KRISHNA MURTHI M V: "A Markov chain model for a turbomolecular pump - theory and experiments", VACUUM, vol. 48, no. 11, 1997, pages 899 - 911

Cited by
EP3002459A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
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DOCDB simple family (application)
EP 05003720 A 20050222; AT 05003720 T 20050222; DE 102004012713 A 20040316; JP 2005058364 A 20050303; US 7964905 A 20050314