

Title (en)
Vacuum generating device

Title (de)
Vakuumerzeugervorrichtung

Title (fr)
Dispositif pour l'obtention d'un vide

Publication
EP 1288504 A1 20030305 (DE)

Application
EP 01120843 A 20010830

Priority
EP 01120843 A 20010830

Abstract (en)
The vacuum production device (1) incorporates at least one ejector device (3), which has a radiation nozzle (5) followed by a catchment nozzle (6) and in the transition area between the radiation nozzle and the catchment nozzle has a defined suction zone (21). At the outlet side end of the catchment nozzle a catchment space (23) is provided for the fluid flowing through the catchment nozzle. From this space emerges an outflow channel (24). Devices are provided for influencing the fluid flow through the outflow channel. The outflow channel nominal diameter (dA) at the position of the narrowest cross-section of the outflow channel is greater than the radiation nozzle channel nominal (7) diameter (dS) and is smaller than the catchment nozzle channel nominal diameter (dF) measured at the position of the narrowest cross-section of the catchment nozzle channel.

Abstract (de)
Es wird eine Vakuumerzeugervorrichtung (1) vorgeschlagen, die eine Ejektoreinrichtung (3) mit einer Strahldüse (5) und einer dieser nachgeordneten Fangdüse (6) aufweist. Am austrittsseitigen Ende der Fangdüse (6) befindet sich ein Auffangraum (23) für das durch die Fangdüse (6) hindurchströmende Fluid, von dem ein Abströmkanal (24) abgeht. Dem Abströmkanal (24) sind Drosselmittel (29) zur variablen Vorgabe des über den Abströmkanal abströmenden Fluid-Volumenstromes zugeordnet, um den im Auffangraum (23) herrschenden Druck beeinflussen zu können. <IMAGE>

IPC 1-7
F04F 5/52; **F04F 5/46**

IPC 8 full level
F04F 5/48 (2006.01); **F04F 5/46** (2006.01); **F04F 5/52** (2006.01)

CPC (source: EP US)
F04F 5/461 (2013.01 - EP US); **F04F 5/52** (2013.01 - EP US)

Citation (search report)
• [XAY] US 4380418 A 19830419 - CRAWFORD DANIEL A, et al
• [YA] US 2874989 A 19590224 - REYNOLDS HAROLD C
• [DA] DE 3818381 A1 19881215 - MYOTOKU KK [JP]
• [A] US 5007803 A 19910416 - DIVITO ANTHONY M [US], et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 151 (M - 483) 31 May 1986 (1986-05-31)

Cited by
DE102016215027A1; DE102005025208A1; DE102005025208B4

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1288504 A1 20030305; **EP 1288504 B1 20070523**; AT E363029 T1 20070615; CN 1280549 C 20061018; CN 1407246 A 20030402; DE 50112524 D1 20070705; ES 2283363 T3 20071101; JP 2003083300 A 20030319; US 2003044287 A1 20030306; US 6851936 B2 20050208

DOCDB simple family (application)
EP 01120843 A 20010830; AT 01120843 T 20010830; CN 02132122 A 20020830; DE 50112524 T 20010830; ES 01120843 T 20010830; JP 2002251177 A 20020829; US 23140602 A 20020829