

Title (en)  
MULTI-STAGE EJECTOR PUMP

Title (de)  
MEHRSTUFIGE EJEKTORPUMPE

Title (fr)  
POMPE A EJECTEUR A ETAGES MULTIPLES

Publication  
**EP 1131562 B1 20050608 (DE)**

Application  
**EP 00962511 A 20000920**

Priority  

- DE 29916531 U 19990920
- EP 0009208 W 20000920

Abstract (en)  
[origin: WO0121961A1] A multi-stage ejector pump has an ejector nozzle system (18) whose nozzles are situated coaxially behind each other and are axially set apart from each other (compressed gaz nozzle (18A) and diffusors (18B, 18C)). Said ejector nozzle system can be axially sealingly pushed into a nozzle-receiving shaft (14) of a housing element (12). The housing wall is interrupted in the area of the suction gas inlet gap (24A, 24B) between adjacent nozzles to provide a fluid connection to suction chambers. The aim of the invention is to provide a multi-stage ejector pump of this type which has a compact construction, interchangeable nozzles and a high degree of efficiency. To this end, the ejector nozzle systems (18) are made up of a set of individual nozzles and nozzle spacers (22A, 22B) and each of the individual nozzles is provided with support elements on its outer periphery. Said support elements are axially set apart and provide tilt-free or low-tilt support in relation to the wall of the nozzle-receiving shaft (14). The nozzles and the nozzle spacers are held in contact with each other.

IPC 1-7  
**F04F 5/46; F04F 5/22**

IPC 8 full level  
**F04F 5/22** (2006.01); **F04F 5/46** (2006.01); **F04F 5/52** (2006.01)

CPC (source: EP US)  
**F04F 5/467** (2013.01 - EP US); **F04F 5/52** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**DE 29916531 U1 20010208**; DE 50010514 D1 20050714; EP 1131562 A1 20010912; EP 1131562 B1 20050608; US 6582199 B1 20030624;  
WO 0121961 A1 20010329

DOCDB simple family (application)  
**DE 29916531 U 19990920**; DE 50010514 T 20000920; EP 0009208 W 20000920; EP 00962511 A 20000920; US 85611101 A 20010604