

Title (en)
MULTI-STAGE FRICTION VACUUM PUMP

Title (de)
MEHRSTUFIGE REIBUNGSVAKUUMPUMPE

Title (fr)
POMPE À VIDE À FROTTEMENT À PLUSIEURS ÉTAGES

Publication
EP 1706645 A1 20061004 (DE)

Application
EP 04790966 A 20041028

Priority
• EP 2004012196 W 20041028
• DE 10353034 A 20031113

Abstract (en)
[origin: WO2005047707A1] The invention relates to a multi-stage vacuum pump comprising at least one turbocompressor stage (11) and equipped with a circular compressor stage (33) on the pressure side of the turbocompressor stage. Said pump has small axial dimensions, enabling the compression to be increased without significantly increasing the space requirement.

IPC 8 full level
F04D 19/04 (2006.01); **F04D 17/12** (2006.01); **F04D 17/16** (2006.01)

CPC (source: EP US)
F04D 17/02 (2013.01 - EP US); **F04D 17/127** (2013.01 - EP US); **F04D 17/168** (2013.01 - EP US); **F04D 19/046** (2013.01 - EP US)

Citation (search report)
See references of WO 2005047707A1

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
WO 2005047707 A1 20050526; CA 2545566 A1 20050526; CN 100453817 C 20090121; CN 1878962 A 20061213; DE 10353034 A1 20050609; DE 502004008709 D1 20090129; EP 1706645 A1 20061004; EP 1706645 B1 20081217; JP 2007510853 A 20070426; US 2007081889 A1 20070412

DOCDB simple family (application)
EP 2004012196 W 20041028; CA 2545566 A 20041028; CN 200480033429 A 20041028; DE 10353034 A 20031113; DE 502004008709 T 20041028; EP 04790966 A 20041028; JP 2006538704 A 20041028; US 57898904 A 20041028