

Title (en)
TURBO COMPRESSOR

Title (de)
TURBOVERDICHTER

Title (fr)
TURBOCOMPRESSEUR

Publication
EP 2513488 A2 20121024 (DE)

Application
EP 10795284 A 20101209

Priority
• DE 102009054771 A 20091216
• EP 2010069320 W 20101209

Abstract (en)
[origin: WO2011082942A2] The invention relates to a turbo compressor which comprises a compressor housing in which an incoming gas volume flow is supplied to a bladed wheel channel through an inlet channel, is compressed in the bladed wheel channel by a bladed wheel and is carried away by the bladed wheel through an outlet channel. The turbo compressor further comprises a flow deviation channel provided in the compressor housing which flow deviation channel extends outside the bladed wheel channel and the inlet channel and an inlet-side opening of which runs into the inlet channel and a bladed wheel-side opening runs into the bladed wheel channel, said flow deviation channel carrying a deviation volume flow depending on a pressure difference between the openings. In order to improve said turbo compressor such that it can be optimally operated at volume flows that lie far below the values of volume flow for which the turbo compressor is designed, the flow deviation channel, starting from the bladed wheel-side opening, has a flow area that increases towards the inlet-side opening.

IPC 8 full level
F04D 27/02 (2006.01); **F04D 29/42** (2006.01); **F04D 29/44** (2006.01)

CPC (source: EP US)
F04D 27/0207 (2013.01 - EP US); **F04D 27/0215** (2013.01 - EP US); **F04D 29/4213** (2013.01 - EP US); **F04D 29/444** (2013.01 - EP US); **F04D 29/685** (2013.01 - EP US); **F05D 2250/51** (2013.01 - US)

Citation (search report)
See references of WO 2011082942A2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2011082942 A2 20110714; WO 2011082942 A3 20111201; CN 102695881 A 20120926; CN 102695881 B 20160309;
DE 102009054771 A1 20110622; EP 2513488 A2 20121024; EP 2513488 B1 20160720; HK 1171491 A1 20130328;
US 2013058762 A1 20130307; US 8926264 B2 20150106

DOCDB simple family (application)
EP 2010069320 W 20101209; CN 201080057550 A 20101209; DE 102009054771 A 20091216; EP 10795284 A 20101209;
HK 12112231 A 20121128; US 201213523507 A 20120614