

Title (en)

APPARATUS, SYSTEM, AND METHOD FOR COMPRESSING A PROCESS FLUID

Title (de)

VORRICHTUNG, SYSTEM UND VERFAHREN ZUR KOMPRIMIERUNG EINER PROZESSFLÜSSIGKEIT

Title (fr)

APPAREIL, SYSTÈME ET PROCÉDÉ DE COMPRESSION D'UN FLUIDE DE TRAITEMENT

Publication

**EP 3274592 A4 20181114 (EN)**

Application

**EP 16773751 A 20160322**

Priority

- US 201562139027 P 20150327
- US 201615073820 A 20160318
- US 2016023568 W 20160322

Abstract (en)

[origin: US2016281727A1] A supersonic compressor including an inlet configured to receive and flow therethrough a process fluid. The supersonic compressor may further include a rotary shaft and a centrifugal impeller coupled therewith. The centrifugal impeller may be configured to impart energy to the process fluid received and to discharge the process fluid therefrom in at least a partially radial direction at an exit absolute Mach number of about one or greater. The supersonic compressor may further include a static diffuser circumferentially disposed about the centrifugal impeller and configured to receive the process fluid therefrom and convert the energy imparted. The supersonic compressor may further include a collector fluidly coupled to and configured to collect the process fluid exiting the diffuser, such that the supersonic compressor is configured to provide a compression ratio of at least about 8:1.

IPC 8 full level

**F04D 29/44** (2006.01); **F04D 17/08** (2006.01); **F04D 17/10** (2006.01); **F04D 21/00** (2006.01); **F04D 25/06** (2006.01)

CPC (source: EP US)

**F04D 1/00** (2013.01 - EP US); **F04D 13/06** (2013.01 - EP US); **F04D 17/10** (2013.01 - EP); **F04D 21/00** (2013.01 - EP); **F04D 25/06** (2013.01 - EP); **F04D 27/0292** (2013.01 - EP US); **F04D 29/441** (2013.01 - EP US)

Citation (search report)

- [X] US 2014341706 A1 20141120 - LARDY PASCAL [US], et al
- [A] DE 1097615 B 19610119 - RHEINISCHE MASCHINEN UND APP G
- [A] US 3904308 A 19750909 - RIBAUD YVES
- See references of WO 2016160419A1

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)

**US 2016281727 A1 20160929**; EP 3274592 A1 20180131; EP 3274592 A4 20181114; JP 2018510289 A 20180412; WO 2016160419 A1 20161006

DOCDB simple family (application)

**US 201615073820 A 20160318**; EP 16773751 A 20160322; JP 2017550574 A 20160322; US 2016023568 W 20160322