Title (en)

THERMO-KINETIC COMPRESSOR

Title (de)

THERMOKINETISCHER VERDICHTER

Title (fr)

COMPRESSEUR THERMOCINETIQUE

Publication

EP 1269025 B1 20080319 (FR)

Application

EP 01907689 A 20010125

Priority

- FR 0100230 W 20010125
- FR 0001881 A 20000216

Abstract (en)

[origin: US6935096B2] A device for compressing gas using thermal energy. In a subsonic embodiment the heat gas passes through a convergent pipe C 1 where it is provided with operating velocity, a convergent pipe C 2 where it is simultaneously maintained at high speed and cooled by evaporation of liquid sprayed by nozzles R with adjustable position distributed in C 2. In a supersonic embodiment, the gas reaches sonic velocity at the throat of C 2 and supersonic velocity in a divergent DG, then compressed in a convergent CG 1 and simultaneously cooled by evaporation of sprayed liquid. In both embodiments, the gas is finally compressed in a subsonic divergent DG 1. Pipes with variable geometry enable to modify the cross-sections of the throats of the device. The device is essentially designed for thermoelectric power stations.

IPC 8 full level

F04F 5/46 (2006.01)

CPC (source: EP US)

F04F 5/461 (2013.01 - EP US); **F04F 5/462** (2013.01 - EP US); **F04F 5/465** (2013.01 - EP US); **F04F 5/54** (2013.01 - EP US); Y10S 261/78 (2013.01 - EP US)

Cited by

FR2981981A1; US5834093A

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)

WO 0161196 A1 20010823; AT E389811 T1 20080415; AU 3559801 A 20010827; CA 2399580 A1 20010823; CA 2399580 C 20080422; DE 60133268 D1 20080430; DE 60133268 T2 20090423; DK 1269025 T3 20080630; EP 1269025 A1 20030102; EP 1269025 B1 20080319; ES 2303524 T3 20080816; FR 2805008 A1 20010817; FR 2805008 B1 20020531; PT 1269025 E 20080710; RU 2286483 C2 20061027; US 2003012658 A1 20030116; US 6935096 B2 20050830

DOCDB simple family (application)

FR 0100230 W 20010125; AT 01907689 T 20010125; AU 3559801 A 20010125; CA 2399580 A 20010125; DE 60133268 T 20010125; DK 01907689 T 20010125; EP 01907689 A 20010125; ES 01907689 T 20010125; FR 0001881 A 20000216; PT 01907689 T 20010125; RU 2002124608 A 20010125; US 20396102 A 20020815