

Title (en)

METHOD AND DEVICE FOR THE CRYOGENIC DECOMPOSITION OF AIR

Title (de)

VERFAHREN UND VORRICHTUNG ZUR TIEFTEMPERATURZERLEGUNG VON LUFT

Title (fr)

PROCEDE ET DISPOSITIF CRYOGENIQUES DE SEPARATION D'AIR

Publication

EP 2963369 B1 20180502 (DE)

Application

EP 15001881 A 20150625

Priority

- EP 14002310 A 20140705
- EP 15001881 A 20150625

Abstract (en)

[origin: US2016003535A1] A method and apparatus serve for the cryogenic separation of air in an air separation plant which has a main air compressor, a main heat exchanger and a distillation column system with a high-pressure column and a low-pressure column. All of the feed air is compressed in the main air compressor to a first air pressure which is at least 3 bar higher than the operating pressure of the high-pressure column. A first part of the compressed total air flow, as first air flow at the first air pressure, is cooled and liquefied or pseudo-liquefied in the main heat exchanger, then expanded and introduced into the distillation column system. A second part of the compressed total air flow, as second air flow, is post-compressed in a turbine-driven post-compressor to a second air pressure.

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP RU US)

F25J 3/04054 (2013.01 - EP RU US); **F25J 3/04084** (2013.01 - EP RU US); **F25J 3/0409** (2013.01 - EP RU US);
F25J 3/04175 (2013.01 - EP RU US); **F25J 3/04296** (2013.01 - EP RU US); **F25J 3/04393** (2013.01 - EP RU US);
F25J 3/04412 (2013.01 - EP RU US); **F25J 3/04678** (2013.01 - EP RU US); **F25J 3/04727** (2013.01 - EP RU US);
F25J 3/04812 (2013.01 - EP RU US); **F25J 2205/04** (2013.01 - EP US); **F25J 2245/50** (2013.01 - EP US)

Cited by

EP4151940A1; US10794630B2; US10866024B2

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)

EP 2963369 A1 20160106; EP 2963369 B1 20180502; CN 105318661 A 20160210; CN 105318661 B 20190806; PL 2963369 T3 20181031;
RU 2015126802 A 20170113; RU 2015126802 A3 20190208; RU 2698378 C2 20190826; TW 201629415 A 20160816; TW I663373 B 20190621;
US 11175091 B2 20211116; US 2016003535 A1 20160107

DOCDB simple family (application)

EP 15001881 A 20150625; CN 201510389073 A 20150703; PL 15001881 T 20150625; RU 2015126802 A 20150703;
TW 104121533 A 20150702; US 201514789171 A 20150701