

Title (en)

Apparatus for the cryogenic separation of a gaseous mixture in particular of air

Title (de)

Vorrichtung zur Tieftemperaturzerlegung eines Gasgemischs, insbesondere von Luft

Title (fr)

Installation pour la séparation cryogénique d'un mélange gazeux en particulier d'air

Publication

**EP 1672301 B1 20180815 (DE)**

Application

**EP 05024947 A 20051115**

Priority

- EP 04028682 A 20041203
- EP 04028683 A 20041203
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- EP 05024947 A 20051115

Abstract (en)

[origin: US2006156759A1] The apparatus is used to produce a product by low-temperature separation of a gas mixture, in particular air. It includes a direct contact cooler ( 3 ) for cooling the feed mixture, a purification apparatus ( 4 ) for purifying the cooled feed mixture and a low-temperature part ( 7 ). The low-temperature part ( 7 ) includes a main heat exchanger ( 8 a) for cooling the purified feed mixture to approximately dewpoint temperature and a distillation column ( 9 a) for low-temperature separation of the feed mixture. The direct contact cooler ( 3 ), the purification apparatus ( 4 ) and the low-temperature part ( 7 ) are arranged on one line ( 101 ).

IPC 8 full level

**F25J 3/04** (2006.01)

CPC (source: EP US)

**F25J 3/04157** (2013.01 - EP US); **F25J 3/04187** (2013.01 - EP US); **F25J 3/0489** (2013.01 - EP US); **F25J 3/04951** (2013.01 - EP US); **F25J 2205/32** (2013.01 - EP US); **F25J 2205/34** (2013.01 - EP US); **F25J 2290/12** (2013.01 - EP US); **F25J 2290/32** (2013.01 - EP US); **Y10S 62/903** (2013.01 - EP US)

Cited by

FR2962526A1; WO2012004125A2; EP2801777A1; DE102013017590A1; WO2012004125A3; EP2312248A1; EP2520886A1; EP2600090A1; EP2963371A1; EP2963367A1; WO2016005031A1; DE102009034979A1; EP2963369A1; EP2458311A1; DE102010052545A1; DE102011121314A1; EP2784420A1; EP3040665A1; DE102010052544A1; EP2466236A1; EP2568242A1; DE102011112909A1; WO2014154339A2; EP2963370A1

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**US 2006156759 A1 20060720; US 7516626 B2 20090414;** CA 2528735 A1 20060603; CA 2528735 C 20130806; CN 100575838 C 20091230; CN 1782644 A 20060607; EP 1666822 A1 20060607; EP 1666823 A1 20060607; EP 1672301 A1 20060621; EP 1672301 B1 20180815; PL 1672301 T3 20190131; RU 2005137481 A 20070620; RU 2382963 C2 20100227

DOCDB simple family (application)

**US 29228205 A 20051202;** CA 2528735 A 20051202; CN 200510128991 A 20051205; EP 04028681 A 20041203; EP 04028683 A 20041203; EP 05024947 A 20051115; PL 05024947 T 20051115; RU 2005137481 A 20051202