

Title (en)

Process and device for cryogenic air separation

Title (de)

Verfahren und Vorrichtung zur Tieftemperaturzerlegung von Luft

Title (fr)

Procédé et dispositif pour la séparation cryogénique des constituants de l'air

Publication

EP 1067345 B1 20040616 (DE)

Application

EP 99121174 A 19991022

Priority

DE 19930731 A 19990705

Abstract (en)

[origin: EP1067345A1] A first side stream (26) is heated in the main heat exchanger (30) upstream of its extraction point (28) at the first intermediate temperature. An Independent claim is included for corresponding plant to carry out the process. Preferred Features: Before heating, the first side stream is introduced into the cold end of the heat exchanger (30). A cooling air flow (23, 24) is cooled down in the main heat exchanger (30). It is extracted (24) at the cold end of the heat exchanger. It is re-supplied, at least in part, to the cold end of the main heat exchanger, as the first side stream (26). The cooling air flow (24), following extraction from the cold end of the heat exchanger is supplied to a phase separator, in a variant design. Further variants based on the foregoing principles are described. A turbine airflow (23, 25) is cooled in the main heat exchanger (30) to a further intermediate temperature, then expanded (36) to produce mechanical energy driving cold compression (29).

IPC 1-7

F25J 3/04

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP US)

F25J 1/0012 (2013.01 - EP); **F25J 1/0224** (2013.01 - EP); **F25J 1/0234** (2013.01 - EP); **F25J 3/04054** (2013.01 - EP US); **F25J 3/0409** (2013.01 - EP US); **F25J 3/04296** (2013.01 - EP US); **F25J 3/04339** (2013.01 - EP US); **F25J 3/04381** (2013.01 - EP US); **F25J 3/04412** (2013.01 - EP US); **F25J 2205/04** (2013.01 - EP US); **F25J 2230/20** (2013.01 - EP US); **F25J 2245/40** (2013.01 - EP US); **F25J 2270/02** (2013.01 - EP US)

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Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1067345 A1 20010110; **EP 1067345 B1 20040616**; AT E269526 T1 20040715; DE 59909750 D1 20040722; US 6336345 B1 20020108

DOCDB simple family (application)

EP 99121174 A 19991022; AT 99121174 T 19991022; DE 59909750 T 19991022; US 60976200 A 20000703