

Title (en)  
Integrated process for air separation and energy generation

Title (de)  
Integriertes Verfahren zur Luftzerlegung und Energieerzeugung

Title (fr)  
Procédé intégré de séparation d'air et de génération d'énergie

Publication  
**EP 1223396 B1 20040414 (FR)**

Application  
**EP 01403287 A 20011218**

Priority  
FR 0100402 A 20010112

Abstract (en)  
[origin: EP1223396A1] The procedure for producing oxygen-rich and optional nitrogen-rich fluids uses a plant comprising at least one air separator with two distillation columns, and first and second air compressors, combustion chambers and expansion chambers, and a third air compressor. At least 20 per cent of the air processed by the first separator comes from the third compressor in nominal operating conditions, and at least 80 per cent during reduced operating conditions. The procedure for producing oxygen-rich and optional nitrogen-rich fluids uses a plant comprising at least one air separator with two distillation columns, and first and second air compressors (13, 15), combustion chambers (17, 23) and expansion chambers (19, 25), and a third air compressor (21). The first two air compressors deliver compressed air to the two combustion chambers and the first air separator, while compressed air from the third compressor also goes to the first separator. Combustion gas (27, 29) is fed to the first and second expansion turbines from the two combustion chambers, and nitrogen-rich gas, optionally pressurized, is fed from the second air separator to a point upstream of the first expansion turbine and/or the second expansion turbine. At least 20 per cent of the air processed by the first separator comes from the third compressor in nominal operating conditions, and at least 80 per cent during reduced operating conditions. An Independent claim is included for a plant in which the above process is performed.

IPC 1-7  
**F25J 3/04**

IPC 8 full level  
**F25J 3/04** (2006.01)

CPC (source: EP US)  
**F25J 3/04169** (2013.01 - EP US); **F25J 3/04545** (2013.01 - EP US); **F25J 3/04575** (2013.01 - EP US); **F25J 3/04606** (2013.01 - EP US); **F25J 3/04818** (2013.01 - EP US); **F25J 3/04951** (2013.01 - EP US); **F25J 3/04957** (2013.01 - EP US); **F25J 2205/62** (2013.01 - EP US); **F25J 2240/80** (2013.01 - EP US)

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CN104040274A; CN102859303A; FR2961586A1; CN103250019A; US9534836B2; WO2011157431A3; WO2011030050A3

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)  
**EP 1223396 A1 20020717; EP 1223396 B1 20040414; EP 1223396 B2 20130306**; AT E264488 T1 20040415; DE 60102788 D1 20040519; DE 60102788 T2 20050331; DE 60102788 T3 20130801; ES 2218353 T3 20041116; ES 2218353 T5 20130703; FR 2819583 A1 20020719; FR 2819583 B1 20030307; JP 2002250586 A 20020906; US 2002092305 A1 20020718; US 6612113 B2 20030902

DOCDB simple family (application)  
**EP 01403287 A 20011218**; AT 01403287 T 20011218; DE 60102788 T 20011218; ES 01403287 T 20011218; FR 0100402 A 20010112; JP 2002004991 A 20020111; US 4148302 A 20020110