

Title (en)
AIR SEPARATION METHOD AND APPARATUS

Title (de)
LUFTTRENNVERFAHREN UND -VORRICHTUNG

Title (fr)
PROCÉDÉ DE SÉPARATION D'AIR ET APPAREIL ASSOCIÉ

Publication
EP 2788700 B1 20170719 (EN)

Application
EP 12794600 A 20121114

Priority
• US 201113311038 A 20111205
• US 201213674393 A 20121112
• US 2012065001 W 20121114

Abstract (en)
[origin: US2013139547A1] A method and apparatus to produce oxygen and nitrogen co-products in which a compressed a compressed and purified air stream is cooled, fully or partially condensed and then rectified in a main distillation column to form a nitrogen-rich vapor column overhead and crude liquid oxygen. A crude liquid oxygen stream is depressurized and then stripped in an auxiliary distillation column with a stripping gas to produce an oxygen-rich liquid. The nitrogen-rich vapor column overhead from the main distillation column is used to form a nitrogen product and the crude liquid oxygen is partially vaporized to produce the stripping gas, a residual oxygen-rich liquid and liquid nitrogen reflux to the main distillation column. The oxygen product is formed from the residual oxygen-rich liquid by either providing the heat exchange duty in condensing the compressed and purified air stream or by condensing nitrogen-rich vapor used in refluxing the main distillation column.

IPC 8 full level
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