

Title (en)  
Process to remove nitrogen from natural gas

Title (de)  
Verfahren zur Entfernung von Stickstoff aus Erdgas

Title (fr)  
Procédé pour éliminer l'azote à partir de gaz naturel

Publication  
**EP 0725256 B1 19990609 (EN)**

Application  
**EP 96300725 A 19960201**

Priority  
GB 9502126 A 19950203

Abstract (en)  
[origin: EP0725256A1] Nitrogen is removed from a natural gas feed stream by a cryogenic distillation process in which the feed stream (101) is separated in a distillation column (11); a methane-rich bottoms liquid (103) is recovered as a methane-rich product (104), preferably after being pumped (21) to increase its pressure; a nitrogen-rich overhead vapour (105) is warmed in heat exchange (4) with intermediate vapour stream(s) (112, 114) to at least partially condense said stream(s) for return (113, 115) to the distillation column (11) to provide reflux; and a portion (108) of the warmed nitrogen-rich overhead vapour (105) is utilized as a recycle nitrogen-rich heat pump stream (109, 110, 111) above the critical pressure of nitrogen to provide at least part of the reboil (2) to the distillation column and to produce a mixed vapour-liquid stream, which is returned to the distillation column (11) to provide reflux.

IPC 1-7  
**F25J 3/02**; **F25J 3/08**; **C10L 3/10**

IPC 8 full level  
**F25J 3/02** (2006.01)

CPC (source: EP)  
**F25J 3/0209** (2013.01); **F25J 3/0233** (2013.01); **F25J 3/0257** (2013.01); **F25J 3/029** (2013.01); **F25J 2200/02** (2013.01); **F25J 2200/50** (2013.01); **F25J 2200/76** (2013.01); **F25J 2210/06** (2013.01); **F25J 2235/60** (2013.01); **F25J 2240/12** (2013.01); **F25J 2240/30** (2013.01); **F25J 2270/04** (2013.01); **F25J 2270/42** (2013.01)

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Designated contracting state (EPC)  
DE GB NL

DOCDB simple family (publication)  
**EP 0725256 A1 19960807**; **EP 0725256 B1 19990609**; DE 69602771 D1 19990715; DE 69602771 T2 19991021; GB 2297825 A 19960814; GB 9502126 D0 19950322; NO 308628 B1 20001002; NO 960429 D0 19960201; NO 960429 L 19960805

DOCDB simple family (application)  
**EP 96300725 A 19960201**; DE 69602771 T 19960201; GB 9502126 A 19950203; NO 960429 A 19960201