

Title (en)
METHOD AND DEVICE FOR THE LIQUEFACTION OF A GASEOUS CO2 STREAM

Title (de)
VERFAHREN UND VORRICHTUNG ZUR VERFLÜSSIGUNG EINES GASFÖRMIGEN CO2-STROMS

Title (fr)
PROCÉDÉ ET APPAREIL DE LIQUÉFACTION D'UN COURANT DE CO2 GAZEUX

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Application
EP 15701557 A 20150109

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Abstract (en)
[origin: WO2015104510A2] The invention relates to a device for the liquefaction of a gas flow containing at least 95 mol-% carbon dioxide, comprising at least a first compression stage (C3, C4) in which the feed gas flow (1) is compressed; means for condensing the compressed flow, formed by two in-series phase separators, in order to partially condense said flow and produce a liquid flow; a first heat exchanger (7); a second heat exchanger (9) which is a shell and tube heat exchanger; means for conveying at least part of the liquid flow into the tubes of the first heat exchanger; means for discharging, as a liquid product (11), a first part of the liquid cooled in the second exchanger, said part being subsequently expanded; a valve (V4); means for conveying a second part of the liquid cooled in the second exchanger, said second part being expanded in the valve and vaporised in the shell of the first exchanger in order to form a vaporised flow (15); and means (3A, 3B) for compressing at least part of the vaporised flow and mixing same with the feed gas flow.

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