

Title (en)
PROCESS AND UNIT FOR THE SEPARATION OF AIR BY CRYOGENIC DISTILLATION

Title (de)
VERFAHREN UND EINHEIT ZUR TRENNUNG VON LUFT DURCH KRYOGENE DESTILLATION

Title (fr)
PROCEDE ET APPAREIL DE SEPARATION D'AIR PAR DISTILLATION CRYOGENIQUE

Publication
EP 2510294 B1 20140430 (FR)

Application
EP 10776785 A 20101005

Priority
• FR 0958880 A 20091211
• FR 2010052099 W 20101005

Abstract (en)
[origin: WO2011070257A1] An air separation unit comprises a medium-pressure column (39), a low-pressure column (41), an enclosure (141), a heat exchanger (13), a bottom condenser (25) of the low-pressure column and a condenser (15) placed in the enclosure, a line for sending compressed, purified and cooled air from the heat exchanger to the medium-pressure column, a line for sending a heat-generating gas to the condenser placed in the enclosure, a line for sending a nitrogen-enriched gas from the medium-pressure column to the condenser of the low-pressure column, a line for sending an oxygen-enriched stream from the bottom of the medium-pressure column to the low-pressure column, a line for sending oxygen-rich liquid from the bottom of the low-pressure column to the enclosure, a line for withdrawing from the enclosure a fluid richer in oxygen than that sent to the enclosure, a line for sending a gas from the enclosure to the low-pressure column, and a line for withdrawing an overhead gas from the low-pressure column, characterized in that the unit includes an expansion means (51) for expanding the oxygen-rich liquid downstream of the bottom of the low-pressure column and upstream of the enclosure and a compressor (21) for compressing the gas from the enclosure, said compressor being downstream of the enclosure and upstream of the low-pressure column.

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