

Title (en)
APPARATUS FOR THE SEPARATION OF A GAS MIXTURE BY RECTIFICATION

Publication
EP 0019905 B1 19830105 (DE)

Application
EP 80102953 A 19800527

Priority
DE 2922028 A 19790530

Abstract (en)
[origin: US4337070A] In the fractionation of a gaseous mixture, e.g., air, by rectification, wherein liquid in the sump of a rectifying column is heated and thereby partially vaporized; and simultaneously sump liquid is withdrawn from a lower zone of the sump liquid bath, and is recycled into the bath above the point of withdrawal, the improvement, prior to the recycle step, of passing the withdrawn sump liquid from the lower zone into a heat exchanger disposed in the sump, said heat exchanger having a substantially sealed bottom end at a level below the liquid level of the sump, and an open top end at a level higher than the liquid level of the sump; said withdrawn sump liquid being passed into the bottom end of said heat exchanger and partially vaporized therein, and removing resultant liquid-vapor mixture from the heat exchanger at the top end above the level of the liquid bath. This system provides pump-free circulation of the sump liquid and the use incorporates an on-line adsorber to remove deleterious impurities from the sump liquid, e.g., hydrocarbons from oxygen.

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