

Title (en)
HYDROCARBON GAS PROCESSING

Title (de)
BEHANDLUNG VON KOHLENWASSERSTOFFGAS

Title (fr)
TRAITEMENT DE GAZ D'HYDROCARBURES

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Abstract (en)
[origin: WO2010144172A1] A process and an apparatus are disclosed for the recovery of propane, propylene, and heavier hydrocarbon components from a hydrocarbon gas stream in a compact processing assembly. The gas stream is cooled, expanded to lower pressure, and supplied as the bottom feed to an absorbing means inside the processing assembly. A first distillation liquid stream is collected from the lower region of the absorbing means and supplied as the top feed to a mass transfer means inside the processing assembly. A first distillation vapor stream is collected from the upper region of the mass transfer means and cooled sufficiently to at least partially condense it, forming a residual vapor stream and a condensed stream. The condensed stream is supplied as the top feed to the absorbing means. A second distillation vapor stream is collected from the upper region of the absorbing means and directed into one or more heat exchange means inside the processing assembly to heat it while cooling the first distillation vapor stream. The heated second distillation vapor stream is combined with any of the residual vapor stream and the combined stream is directed into the one or more heat exchange means inside the processing assembly to heat it while cooling the gas stream. A second distillation liquid stream is collected from the lower region of the mass transfer means and directed into a heat and mass transfer means inside the processing assembly to heat it and strip out its volatile components. The quantities and temperatures of the feeds to the absorbing means are effective to maintain the temperature of the upper region of the absorbing means at a temperature whereby the major portions of the desired components are recovered in the stripped second distillation liquid stream.

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