

Title (en)

DEVICE FOR SPLITTING A TWO-PHASE STREAM INTO TWO OR MORE STREAMS WITH THE DESIRED VAPOR/LIQUID RATIOS

Title (de)

VORRICHTUNG ZUM TEILEN EINES ZWEPHASIGEN STROMS IN ZWEI ODER MEHR STRÖME MIT DEN GEWÜNSCHTEN DAMPF-/FLÜSSIGKEITSVERHÄLTNISSSEN

Title (fr)

DISPOSITIF PERMETTANT DE SEPARER UN FLUX A DEUX PHASES EN AU MOINS DEUX FLUX A RAPPORTS VAPEUR/LIQUIDE SOUHAITES

Publication

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Application

EP 04738943 A 20040624

Priority

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Abstract (en)

[origin: WO2004113788A1] The invention is a device (30) for splitting a two-phase inlet stream (41) into two or more outlet streams (42, 43). The device can be designed to maintain close to identical vapor to liquid ratio in each of the outlet streams. The inlet stream to the device is routed via an inlet pipe (32) to a separator vessel (31). Below the inlet pipe entrance in the vessel an impingement plate (33) is provided to break down the high velocity of the stream and to direct the stream towards the inner walls of the separator where liquid will impinge and separate from the vapor phase. In the separator vessel, separation of the liquid and vapor phases is achieved. Inside the separator two vertical suction channels (34, 35) are located. These suction channels are in fluid communication with the two outlet pipes (44, 45) through which the outlet streams are leaving the separator. The lower ends of the suction channels are submerged in the liquid phase (39). The suction channels are provided with apertures (36) in the side walls. Vapor is flowing through the fraction of the apertures that are above the liquid surface in the separator. When vapor is flowing through these apertures a pressure drop across the wall of the suction channel is generated. Consequently liquid is lifted up into the suction channel. The liquid is mixed with the vapor inside the suction channel and the two-phase mixture is flowing upwards through the channel and is leaving the separator and two-phase stream splitter through the outlet pipes.

IPC 8 full level

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