Title (en)
ROTARY SYPHON FOR REMOVING CONDENSATE FROM THE INTERIOR OF A VAPOUR-HEATED HOLLOW CYLINDER

Publication
EP 0158949 B1 19890315 (DE)

Application
EP 85104201 A 19850406

Priority
DE 3414605 A 19840418

Abstract (en)
[origin: US4606136A] A rotary siphon in the steam-filled internal chamber of the rotating cylindrical shell in a paper or cardboard machine dryer has a hollow conical housing which defines with the internal surface of the shell an annular suction gap and spacedly surrounds a conical insert whose base abuts against the internal surface of the shell. The housing and the insert define an annular channel whose radially outermost portion communicates with the gap and whose radially innermost portion communicates with the interior of a condensate evacuating conduit. The condensate accumulates along the internal surface of the shell and is compelled to flow radially inwardly by way of the gap and channel and into the conduit due to the establishment of a pressure differential between the channel and the internal chamber of the shell. Such pressure differential is established by compressed steam which flows from the internal chamber, through the axially extending bores of screws which center the insert in the housing of the siphon, and through an orifice which is provided in the conical tip of the insert and communicates with the channel close to the locus of communication between the channel and the interior of the conduit. The inner surface of the housing and the outer surface of the insert are curved in such a way that they make a progressively smaller angle with the common axis of the insert and the housing, as considered in a direction from the internal surface toward the axis of rotation of the shell.

IPC 1-7
D21F 5/10

IPC 8 full level
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CPC (source: EP US)
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