

Title (en)

Spray nozzle and a method for spraying fluids in droplets for processing fibrous webs

Title (de)

Sprühdüse und Verfahren zum Sprühen von Flüssigkeiten in Tröpfchen zur Verarbeitung von Faservlies

Title (fr)

Buse de pulvérisation et procédé de pulvérisation de fluides dans des gouttelettes pour traiter des bandes fibreuses

Publication

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Application

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Priority

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Abstract (en)

The invention is related to a spray nozzle (20, 30) for spraying fluids in droplets for processing fibrous webs. The nozzle comprises a housing having a first longitudinal central channel (24, 34) for the fluid to be sprayed and a second coaxially extending outer channel (21, 31) for a dispersing fluid. The velocity vector of the fluid to be sprayed exiting from the opening of the first channel has mainly a linear component, that is the fluid exiting from the nozzle has essentially rectilinear motion, whereas the velocity vector (V1, V2) of the dispersing fluid exiting from the opening of the second channel has both rotational and linear components, that is the dispersing fluid exiting from the nozzle has spiral motion. The nozzle (20, 30) is provided with means (25, 35) for feeding the dispersing fluid tangentially at the infeed end of the second channel (21, 31), the second channel having inner (22, 32) and outer walls (23, 33) defining an annular space therebetween. The space is dimensioned (\pm , 2 , D1, D2, H1, H2) such that the rate between the rotational and linear components of the velocity (V1, V2) of the dispersing fluid increases before it leaves the channel (21, 31) and contacts the fluid to be sprayed. The invention is related also to a method for spraying fluids in droplets for processing fibrous webs.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

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Citation (search report)

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