

Title (en)

PRINthead FOR A 3D PRINTER AND METHOD FOR OPERATING A PRINthead

Title (de)

DRUCKKOPF FÜR EINEN 3D-DRUCKER UND VERFAHREN ZUM BETREIBEN EINES DRUCKKOPFES

Title (fr)

TÊTE D'IMPRESSION POUR IMPRIMANTE 3D ET PROCÉDÉ DE FONCTIONNEMENT D'UNE TÊTE D'IMPRESSION

Publication

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Application

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Abstract (en)

[origin: WO2022194694A1] The invention relates to a printhead (100) for a 3D printer, comprising an actuator device (110) which is arranged in a housing (1) of the printhead (100) for actuating a piston (3), a supply device (2) for a printable material (10), a flange (5) which is arranged on the housing (1) and the supply device (2) and which comprises a cooling device (50), a nozzle head (6) with heating elements (61, 63) in order to convert the material (10) from a solid phase (10) to a liquid phase (12) via a plastic phase (11), and a nozzle (8) for discharging the liquid phase (12) of the material (10) out of the nozzle head (6). According to the invention, a pocket piece (7) is arranged on a lower sub-region (42) of a separate piston bushing (4), wherein the pocket piece (7) has a centrally running bore (70) for receiving a piston needle (32) of the piston (3), and the pocket piece (7) has concentrically arranged openings (71) which form a fluidic connection between a cavity (40) arranged in the piston bushing (4) and a melt chamber (81) arranged in a lower part (62) of the nozzle head (6). The invention additionally relates to a method (200) for operating a printhead (100) according to the invention.

IPC 8 full level

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