

Title (en)
RADIAL NOZZLE SOLID FUEL GASIFICATION HEATER

Title (de)
FESTBRENNSTOFF-VERGASUNGSERHITZER MIT RADIALER DÜSE

Title (fr)
CHAUDIÈRE DE GAZÉIFICATION DE COMBUSTIBLE SOLIDE À TUYÈRE RADIALE

Publication
EP 4209708 B1 20240515 (DE)

Application
EP 22215893 A 20221222

Priority
CZ 20221 A 20220103

Abstract (en)
[origin: CZ309513B6] A gasifier for solid fuels with a jet nozzle contains a gasification chamber (4) with a bottom (10), and a combustion chamber (9) is located below the gasification chamber. The bottom (10) of the gasification chamber (4) slopes towards its centre by four inclined walls (11) which form a pyramidal shape with the apex pointing to the combustion chamber (9) or form a trough, the gasification chamber (4) and the combustion chamber (9) are separated by a partition (5), which on the side of the gasification chamber (4) forms the bottom (10) of this gasification chamber and on the side of the combustion chamber (9) forms the upper inner wall (7) of this combustion chamber, the partition (5) being guided nozzle (2) the inlet opening (1) of which is in the bottom of the gasification chamber (4) and the outlet opening (3) is in the wall (7) of the combustion chamber (9). The inlet opening (1) of the nozzle (2) consists of a rectangular or square central slot (13) and rectangular radial slots (14), which are formed in the edges (12) between the inclined walls (11) of the bottom (10) of the gasification chamber (4). Under the central slot (13) there is a central vent (15) of nozzles (2) forming a through hole, and the radial slots (14) are connected by channels (8) which go into the central vent (15) which forms in the wall (7)) combustion chamber (9) outlet hole (3). The channels (8) are sloped towards the central vent (15) at an angle of at least 40°, and the side walls (16) of the channels (8) are mutually opened towards their lower walls (17).

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