

Title (en)

A BURNER AND A PROCESS FOR THE GASIFICATION OF A SOLID FUEL

Title (de)

BRENNER UND VERFAHREN ZUR VERGASUNG EINES FESTEN BRENNSTOFFS

Title (fr)

BRÛLEUR ET PROCÉDÉ POUR LA GAZÉIFICATION D'UN COMBUSTIBLE SOLIDE

Publication

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Application

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Abstract (en)

[origin: WO2013150008A1] The invention is directed to a burner (1) for the gasification of a solid fuel, comprising a burner front (2) having an annular opening (13) for discharging a solid fuel and a central opening (11) for discharging an oxygen containing gas, wherein the fuel discharge opening (13) is fluidly connected to a central passage way (5) and wherein the opening (11) for discharging the oxygen containing gas is fluidly connected to an annular passage way (6) for passage of oxygen positioned co-axial with the central passage way (5). The central passage way (5) has a downstream part (6) wherein the diameter of the passage way (5) increases over a first length (7) and subsequently decreases over a second length (8) terminating at the burner front (2). Inside the downstream part (6) a hollow member (9) is positioned which is closed at one end (10) and has an opening (11) at or near the burner front (2). The hollow member (9) has an increasing diameter and decreasing diameter aligned with the increasing and decreasing diameter of the central passage way (5) to form an annular passage (12). The hollow member (9) is fluidly connected with the annular passage way (6) for the oxygen containing gas by means of one or more connecting conduits (14).

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