

Title (en)
Fluidized bed heat exchanger

Title (de)
Wirbelbett-Wärmetauscher

Title (fr)
Échangeur de chaleur à lit fluidisé

Publication
EP 2884164 A1 20150617 (EN)

Application
EP 13197419 A 20131216

Priority
EP 13197419 A 20131216

Abstract (en)
A fluidized bed heat exchanger with a chamber (24) comprises a solid particles inlet port (22), a solid particles outlet port (30), arranged at a distance to the inlet port (22), means (46) for introducing a fluidizing gas from a bottom area into the chamber (24), and at least one heat transfer means (28) arranged within the chamber (24). The chamber walls (24a, 14w, 24w) are at least partially water-cooled. The heat exchanger comprises distribution means (22w) arranged in a transition region between the inlet port (22) and the chamber (24) and upstream of the heat transfer means (28) to allow distribution of the solid particles. The distribution means (22w) may be provided as the following construction elements: bar, knob, prism, grid, grate, pyramid, spiral, saw tooth, dowel, nib, and nozzle.

IPC 8 full level
F23C 10/00 (2006.01); **F22B 31/00** (2006.01); **F23C 10/04** (2006.01); **F28D 13/00** (2006.01); **F28F 9/02** (2006.01); **F28F 9/22** (2006.01)

CPC (source: EP)
F01K 5/02 (2013.01); **F23C 10/00** (2013.01); **F23C 10/04** (2013.01); **F28D 7/087** (2013.01); **F28D 13/00** (2013.01); **F28F 9/026** (2013.01); **F28F 9/22** (2013.01); **F23C 2206/103** (2013.01)

Citation (applicant)
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• US 4615715 A 19861007 - SESHAMANI VENKATRAMAN [US]

Citation (search report)
• [XY] US 4521976 A 19850611 - STEWART ROBERT D [US], et al
• [YA] US 2602647 A 19520708 - MILLER ROY W
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CN113843246A; CN111688086A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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