

Title (en)

System and device to cool a wall which is heated on one side by hot gas

Title (de)

Vorrichtung und Verfahren zur Kühlung einer einseitig von Heissgas umgebenen Wand

Title (fr)

Système et dispositif pour refroidir une paroi chauffée d'un côté par un gaz chaud

Publication

EP 0798448 B1 20030507 (DE)

Application

EP 97810115 A 19970303

Priority

DE 19612840 A 19960330

Abstract (en)

[origin: EP0798448A2] The surface is subjected to hot gas on one side and has a coolant duct (5) on the inside. The coolant duct is connected to the outside of the surface (3) by angled openings (10) through which coolant, namely air, is ducted over the outer surface. To enhance the outflow, deflectors (15) lie in the duct upstream of the openings and inside of the surface. This deflects the coolant away from the surface to an inward directed shape of the duct. This guides the coolant flow into the openings. The remainder of the duct has other flow control inserts (21) as well as supports (20) between the outer surface and the inner duct wall. The supports are rod shaped while the flow deflectors can be ribbed. The coolant forms a film over the outer surface.

IPC 1-7

F01D 5/18; **F01D 25/12**

IPC 8 full level

F01D 5/18 (2006.01); **F01D 9/02** (2006.01); **F01D 25/12** (2006.01); **F02C 7/18** (2006.01)

CPC (source: EP US)

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Citation (examination)

JP S55104507 A 19800811 - ISHIKAWAJIMA HARIMA HEAVY IND

Cited by

EP2233693A4; EP2815079A4; US9133717B2; WO2013123115A1; EP2815078A4; CN105401983A; EP3176374A1; WO2016178689A1; US10344598B2; US11208901B2

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