

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 A3 19990506 (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.

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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)

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F01D 5/186 (2013.01 - EP US); **F01D 5/188** (2013.01 - EP US); **F01D 5/189** (2013.01 - US); **F05D 2260/201** (2013.01 - EP US); **F05D 2260/2212** (2013.01 - EP US)

Citation (search report)

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- [A] US 4153386 A 19790508 - LEOGRANDE JOHN A, et al
- [DA] EP 0258754 A2 19880309 - MTU MUENCHEN GMBH [DE]
- [A] DATABASE WPI Section PQ Week 7832, Derwent World Patents Index; Class Q51, AN 78-G2534A, XP002095933
- [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 154 (M - 038) 28 October 1980 (1980-10-28)
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- [A] PATENT ABSTRACTS OF JAPAN vol. 095, no. 009 31 October 1995 (1995-10-31) & US 5533864 A 19960709 - NOMOTO HIDEO [JP], et al

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