

Title (en)
DEVICE FOR COOLING A HOT PRODUCT GAS

Publication
EP 0171351 B1 19890621 (DE)

Application
EP 85730082 A 19850611

Priority
DE 3427088 A 19840718

Abstract (en)
[origin: US4874037A] An apparatus for cooling a hot product gas, the latter is passed through a tubular zone. The product gas contains particles which, on entering the tubular zone, are tacky, but lose their tackiness through cooling in said zone. Within said zone a cooling gas flow forms a gas wall, which prevents contact between the product gas or the tacky particles contained therein, and one of the fixed walls in the tubular zone. Thus within an outlet connection (2) forming the tubular zone is provided an annular insert (3), which forms a gap (4) with the outlet connection. A cooling gas is blown into this gap counter to the flow direction of the product gas. At the end of the insert, this cooling gas is deflected by the product gas and flows within the insert in the same direction as the product gas and protects the inner wall of the insert from the latter. This product gas is cooled to such an extent by the action of the cooling gas that the particles in the product gas have lost their tackiness at the outlet-side end of the insert.

IPC 1-7
C10J 3/84; F28C 3/02

IPC 8 full level
F27D 17/00 (2006.01); **C10J 3/82** (2006.01); **C10J 3/84** (2006.01); **F28C 3/02** (2006.01); **F28F 19/00** (2006.01)

CPC (source: EP KR US)
C10J 3/84 (2013.01 - EP US); **C10K 1/04** (2013.01 - EP US); **F27D 17/00** (2013.01 - KR); **F28C 3/02** (2013.01 - EP KR US); **F28F 19/00** (2013.01 - EP US); **F28F 2265/00** (2013.01 - EP US); **Y10S 48/02** (2013.01 - EP US)

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EP0347986A1; EP0662506A1; EP0716138A1; US5824121A; EP0291115A3; AU598128B2

Designated contracting state (EPC)
AT BE DE FR GB IT LU NL SE

DOCDB simple family (publication)
EP 0171351 A1 19860212; EP 0171351 B1 19890621; AT E44162 T1 19890715; AU 4384085 A 19860123; AU 581897 B2 19890309; BR 8503406 A 19860408; CA 1274086 A 19900918; CS 255888 B2 19880315; CS 517585 A2 19870716; DD 237544 A5 19860716; DE 3427088 A1 19860130; DE 3427088 C2 19870507; DE 3571145 D1 19890727; IN 164913 B 19890708; JP H0474635 B2 19921126; JP S6183878 A 19860428; KR 860001333 A 19860226; KR 940001781 B1 19940305; SU 1384205 A3 19880323; US 4874037 A 19891017; ZA 854610 B 19860226

DOCDB simple family (application)
EP 85730082 A 19850611; AT 85730082 T 19850611; AU 4384085 A 19850619; BR 8503406 A 19850717; CA 486942 A 19850717; CS 517585 A 19850711; DD 27869585 A 19850717; DE 3427088 A 19840718; DE 3571145 T 19850611; IN 475CA1985 A 19850625; JP 13920685 A 19850627; KR 850005122 A 19850718; SU 3920677 A 19850710; US 75629485 A 19850718; ZA 854610 A 19850619