

Title (en)  
Granular material cooler

Title (de)  
Vorrichtung zum Temperieren von Schüttgut

Title (fr)  
Refroidisseur de matériau granulaire

Publication  
**EP 1637824 A3 20061227 (DE)**

Application  
**EP 05016930 A 20050804**

Priority  
DE 102004044586 A 20040913

Abstract (en)  
[origin: EP1637824A2] The machine for tempering of bulk materials has a through flow passage (2) for the material under gravity. The through flow passage extends between input (1) and discharge (3) headers and has a heat exchange function. There is a bypass pipe (27) for the heat exchange section, which extends between the input header and the outlet side of the discharge header funnel.

IPC 8 full level  
**F28D 13/00** (2006.01)

CPC (source: EP)  
**F28D 7/1607** (2013.01); **F28D 13/00** (2013.01); **F28D 2021/0045** (2013.01)

Citation (search report)

- [A] JP H09104020 A 19970422 - MATSUI MFG CO
- [A] WO 0236255 A1 20020510 - BUEHLER AG [CH], et al
- [A] WO 9845238 A1 19981015 - DU PONT [US], et al
- [A] EP 0836921 A2 19980422 - SINCO ENG SPA [IT]
- [A] DE 3031008 A1 19810625 - FORTSCHRITT VEB K [DD]

Cited by  
EP2378230A3; WO2022214118A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1637824 A2 20060322; EP 1637824 A3 20061227; EP 1637824 B1 20090318**; AT E426138 T1 20090415; DE 102004044586 A1 20060330; DE 502005006864 D1 20090430

DOCDB simple family (application)  
**EP 05016930 A 20050804**; AT 05016930 T 20050804; DE 102004044586 A 20040913; DE 502005006864 T 20050804