

Title (en)  
ROTARY TUBE APPARATUS

Title (de)  
DREHROHRAPPARAT

Title (fr)  
APPAREIL À TUBES ROTATIFS

Publication  
**EP 3794295 B1 20230726 (DE)**

Application  
**EP 19727590 A 20190510**

Priority  
• DE 102018003840 A 20180514  
• EP 2019000140 W 20190510

Abstract (en)  
[origin: WO2019219233A1] The invention relates to a rotary tube apparatus for cooling or heating pourable bulk materials, in particular a sectional cooler (8) for cooling a pourable solid, having structures attached to the walls thereof for increasing the heat conduction. The invention is characterized in that the structures comprise hollow tubes (10).

IPC 8 full level  
**F27B 7/40** (2006.01); **F26B 11/04** (2006.01); **F27D 9/00** (2006.01); **F27D 15/02** (2006.01); **F28D 11/04** (2006.01); **F28F 1/40** (2006.01)

CPC (source: EP KR RU US)  
**F27B 7/40** (2013.01 - EP KR RU US); **F27D 9/00** (2013.01 - KR); **F27D 15/0273** (2013.01 - EP KR); **F27D 15/028** (2013.01 - EP KR US); **F28D 11/04** (2013.01 - KR US); **F28F 1/40** (2013.01 - KR); **F27D 2009/0051** (2013.01 - EP KR US); **F27D 2009/0078** (2013.01 - EP KR US); **F28D 11/04** (2013.01 - EP); **F28F 1/40** (2013.01 - EP)

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

DOCDB simple family (publication)  
**WO 2019219233 A1 20191121**; AU 2019268508 A1 20201224; CA 3099902 A1 20191121; CL 2020002937 A1 20210409; EP 3794295 A1 20210324; EP 3794295 B1 20230726; EP 3794295 C0 20230726; ES 2957358 T3 20240117; JP 2021523339 A 20210902; JP 7286901 B2 20230606; KR 20210008082 A 20210120; MX 2020012246 A 20210413; PE 20210532 A1 20210317; RU 2771058 C1 20220425; US 12000655 B2 20240604; US 2021215428 A1 20210715; ZA 202007283 B 20210825

DOCDB simple family (application)  
**EP 2019000140 W 20190510**; AU 2019268508 A 20190510; CA 3099902 A 20190510; CL 2020002937 A 20201112; EP 19727590 A 20190510; ES 19727590 T 20190510; JP 2020560949 A 20190510; KR 20207035707 A 20190510; MX 2020012246 A 20190510; PE 2020001861 A 20190510; RU 2020139313 A 20190510; US 201917054873 A 20190510; ZA 202007283 A 20201123