

Title (en)  
ALL-SECONDARY AIR COOLED INDUSTRIAL STEAM CONDENSER

Title (de)  
KOMPLETT SEKUNDÄRLUFTGEKÜHLTER INDUSTRIELLER DAMPFKONDENSATOR

Title (fr)  
CONDENSEUR DE VAPEUR INDUSTRIEL REFROIDI PAR AIR TOUT SECONDAIRE

Publication  
**EP 3472545 B1 20211215 (EN)**

Application  
**EP 17816130 A 20170621**

Priority

- US 201662353030 P 20160621
- US 201662430345 P 20161205
- US 2017038514 W 20170621

Abstract (en)  
[origin: US2017363358A1] A new design for large scale field erected industrial steam condensers in which all of the bundles are constructed as secondary bundles, in A-frame or V-Shape configuration, with tubes oriented 25-35 degrees from the vertical, steam fed from the bottom and condensate is collected from the bundles from the bottom using a combination/hybrid manifold that both delivers steam to the tubes and collects condensate from the tubes and which is constructed so that the condensate is prevented from returning down the steam delivery riser(s) and in which the cross-sectional dimensions of the tubes are 125 mm wide with a cross-section height of less than 10 mm with fins that are 9.25 mm in height, arranged at 9 to 12 fins per inch.

IPC 8 full level  
**F28F 9/26** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP KR RU US)  
**F28B 1/06** (2013.01 - EP KR RU US); **F28D 1/0426** (2013.01 - EP KR US); **F28F 9/02** (2013.01 - EP KR); **F25B 39/04** (2013.01 - EP US); **F25B 2339/04** (2013.01 - EP US); **F28B 2001/065** (2013.01 - EP KR US); **F28F 2009/0287** (2013.01 - EP KR)

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)  
**US 2017363358 A1 20171221**; AU 2017280203 A1 20190117; AU 2017280203 B2 20220714; AU 2022252840 A1 20221110; BR 112018076415 A2 20190625; BR 112018076415 B1 20221018; CA 3027566 A1 20171228; CN 109328290 A 20190212; EP 3472545 A1 20190424; EP 3472545 A4 20200318; EP 3472545 B1 20211215; ES 2904829 T3 20220406; JP 2019525109 A 20190905; JP 2022078027 A 20220524; JP 2023098904 A 20230711; JP 7019612 B2 20220215; JP 7254983 B2 20230410; JP 7506217 B2 20240625; KR 102417605 B1 20220705; KR 102597977 B1 20231102; KR 20190020739 A 20190304; KR 20220100094 A 20220714; KR 20230156160 A 20231113; MX 2018015799 A 20190321; MX 2023005241 A 20230518; PL 3472545 T3 20220221; RU 2018144943 A 20200723; RU 2018144943 A3 20200817; RU 2734089 C2 20201012; WO 2017223185 A1 20171228; ZA 201900139 B 20190828

DOCDB simple family (application)  
**US 201715629205 A 20170621**; AU 2017280203 A 20170621; AU 2022252840 A 20221014; BR 112018076415 A 20170621; CA 3027566 A 20170621; CN 201780039592 A 20170621; EP 17816130 A 20170621; ES 17816130 T 20170621; JP 2018566935 A 20170621; JP 2022014775 A 20220202; JP 2023053055 A 20230329; KR 20197000923 A 20170621; KR 20227022625 A 20170621; KR 20237037527 A 20170621; MX 2018015799 A 20170621; MX 2023005241 A 20181214; PL 17816130 T 20170621; RU 2018144943 A 20170621; US 2017038514 W 20170621; ZA 201900139 A 20190109