

Title (en)  
STAVE PROTECTION SYSTEM

Title (de)  
PLATTENKÜHLERSCHUTZSYSTEM

Title (fr)  
SYSTÈME DE PROTECTION DE DOUVE

Publication  
**EP 3765641 B1 20220713 (EN)**

Application  
**EP 19709512 A 20190313**

Priority  
• EP 18161897 A 20180315  
• EP 2019056289 W 20190313

Abstract (en)  
[origin: EP3540080A1] A stave protection system for a metallurgical furnace comprises: a stave (300) comprising a front face (302) having an X direction and a Y direction which is perpendicular to the X direction such as to define an X-Y plane, the front face (302) comprising rows of grooves (312) which extend in the X direction; and inserts (100) which are slidably received by the grooves (312), the inserts (100) so received by each respective groove (312) being spaced apart from each other along the groove (312), the centres of the inserts (100) which are received by one of the grooves (312) being offset in each of the X and Y directions from the centres of the inserts (100) which are received by an adjacent groove (312), each of the inserts (100) projecting from the front face (302) of the stave (300) and comprising flow guiding surfaces (102c1, 102c3, 102c4, 102c6) which are inclined with respect to each of the X and Y directions in the X-Y plane.

IPC 8 full level  
**C21B 7/02** (2006.01); **C21B 7/10** (2006.01); **C21C 5/46** (2006.01); **F27B 1/24** (2006.01); **F27B 3/24** (2006.01); **F27D 1/00** (2006.01); **F27D 1/12** (2006.01); **F27D 9/00** (2006.01)

CPC (source: CN EP KR)  
**C21B 7/02** (2013.01 - EP KR); **C21B 7/10** (2013.01 - CN EP KR); **C21C 5/4646** (2013.01 - EP KR); **F27B 1/24** (2013.01 - EP KR); **F27B 3/24** (2013.01 - EP KR); **F27D 1/0033** (2013.01 - EP KR); **F27D 1/12** (2013.01 - EP KR); **F27D 9/00** (2013.01 - EP KR); **F27D 2009/0032** (2013.01 - EP KR); **F27D 2009/0043** (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)  
**EP 3540080 A1 20190918**; CN 110273035 A 20190924; CN 210796514 U 20200619; EP 3765641 A1 20210120; EP 3765641 B1 20220713; JP 2021518521 A 20210802; JP 2023014120 A 20230126; JP 7486876 B2 20240520; KR 20200130294 A 20201118; RU 2020127871 A 20220415; RU 2020127871 A3 20220415; WO 2019175244 A1 20190919

DOCDB simple family (application)  
**EP 18161897 A 20180315**; CN 201910198047 A 20190315; CN 201920330503 U 20190315; EP 19709512 A 20190313; EP 2019056289 W 20190313; JP 2020548927 A 20190313; JP 2022181152 A 20221111; KR 20207026130 A 20190313; RU 2020127871 A 20190313