

Title (en)  
HYBRID COOLING NOZZLE APPARATUS, AND METHOD FOR CONTROLLING COOLING NOZZLE OF CONTINUOUS CASTING EQUIPMENT USING SAME

Title (de)  
HYBRIDKÜHLUNGSDÜSENVORRICHTUNG UND VERFAHREN ZUR STEUERUNG EINER KÜHLDÜSE FÜR EINE STRANGGUSSVORRICHTUNG DAMIT

Title (fr)  
APPAREIL DE BUSE DE REFROIDISSEMENT HYBRIDE ET PROCÉDÉ PERMETTANT DE COMMANDER UNE BUSE DE REFROIDISSEMENT D'UN ÉQUIPEMENT DE COULÉE CONTINUE QUI UTILISE CE DERNIER

Publication  
**EP 2937162 A1 20151028 (EN)**

Application  
**EP 13864279 A 20131219**

Priority  
• KR 20120151257 A 20121221  
• KR 2013011854 W 20131219

Abstract (en)  
A hybrid cooling nozzle apparatus is provided. The apparatus includes hybrid nozzles provided in a segment of a continuous casting machine to spray cooling water in a mist-spraying mode or a water-jet spraying mode onto a metal strip passing through the segment. At least one speed sensor is installed in the segment to detect the speed of the metal strip passing through the segment. A controller is configured to select the spraying mode of the hybrid nozzles depending on the received speed of the metal strip, and control a pressure and a flow rate of the cooling water and air, respectively, to be supplied to the hybrid nozzles by controlling a cooling water supply and an air supply.

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CPC (source: EP KR)  
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Cited by  
CN105642854A; CN113165060A; US11577306B2

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