

Title (en)
A CONTINUOUS CASTING AND ROLLING METHOD FOR MEDIUM PLATE

Title (de)
STRANGGUSS- UND WALZVERFAHREN FÜR MEDIUMPLATTE

Title (fr)
PROCEDE DE COULAGE ET DE LAMINAGE EN CONTINU D'UNE TOLE MOYENNE

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Application
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Abstract (en)
Disclosed herein is a continuous casting and rolling process for medium plate comprising following steps: continuous casting, during molten steel passing through molds, to form casting billets having section thickness of 100mm-170mm and width of 900-2000mm by hydraulic oscillating, continuously bending and continuously straightening; direct rolling, hot feeding and hot charging by two casters with four streams and four-streams-merging-one technique, achieving rapid hot feeding and hot charging or direct rolling for continuous casting billets; roughing by a rough rolling mill with front and back vertical rolls; finishing rolling using speed-up rolling by finishing rolling mill, each stand of the rolling mill is provided with a device for axial shifting and bending device working rollers, wherein the maximum speed is 22.8m/s and the speed of roller table is up to 5.89m/s; stream cooling using three-stage stream cooling control technique; coiling with hydraulic coiler controlled by stepping-controlled technique. The invention provides improvements on layout, device, production process etc., improving production capacity, development of new grades, product quality and production organization.

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Cited by
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