Title (en)

METHOD OF AND PRESSURE COOLING APPARATUS FOR COOLING A CONTINUOUS PRODUCT

Publication

EP 0287503 B1 19930728 (DE)

Application

EP 88730063 A 19880314

Priority

DE 3708128 A 19870313

Abstract (en)

[origin: EP0287503A2] The method described uses a pressure cooling apparatus for the guided cooling of shaped, heavy to light, hot continuous production material of steel and metal in pressurised water. In the method, use is made of one or more pressure chambers, the volume of which can be specified in accordance with production requirements. The volume is in each case delimited by two sharp-edged orifices or constrictions which form the latter. At least one cooling, one guiding and/or one condensation inlet for pressurised water is provided for each pressure chamber. The material to be cooled is subjected to a quantity of pressurised water which is necessary to remove heat from the production material, the pressurised water for cooling which flows into the pressure cooling apparatus - into the convection cooling part - being heated in the said part, together with the pressurised water for guiding, which flows in next to the cooling water, preferably to the boiling point. In the directly adjoining evaporation cooling part, the resulting hot water/steam mixture removes further heat from the production material by virtue of the required heat of evaporation from the hot water/steam mixture. The feed lines carrying pressurised water for cooling and condensation to the pressure cooling apparatus are dimensioned in such a way that the pressure losses in them are small, for which purpose flow-controllable valves with actuators are arranged in the feed lines concerned. <IMAGE>

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CPC (source: EP)

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