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Three-dimension parameter design of vibration device of successive casting machine based on autodesk inventor

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Abstract

Three-dimension part-models of Vibration devices of Successive Casting Machines are built on three-dimensional software, Autodesk Inventor; including the virtual assembly of complex parts. The intervention between parts and mismatched structure can be sought out in the three-dimensional virtual assembly. The powerful three-dimension design of Autodesk Inventor can not only increase the efficiency but also save time and decrease the cost.

Key words: *Three-dimension parameter design, Autodesk Inventor, Virtual assembly*

1. Introduction

Three-dimensional design, one of the most important virtual designs, is the achievement of the globalization of market competition and the fast development of modern technology. Virtual design is very critical in modern designing methods. It processes the design course from conceptualization to the implementation and practice in a computerized virtual environment in which designers can modify and revise the virtual model by means of interaction (Chen and Luo, 2002, Wang *et al.*, 2006). Thus, the model can finally meet the customer's demands through the evaluation and determination of the virtual product.

With the steady development of China's steel industry, the assembly level of continuous casting is increasingly higher than previously, so is the innovating speed of continuous casting. Now, replacing mould casting with continuous casting and substituting continuous casting strand for cogged ingot has become an irreversible

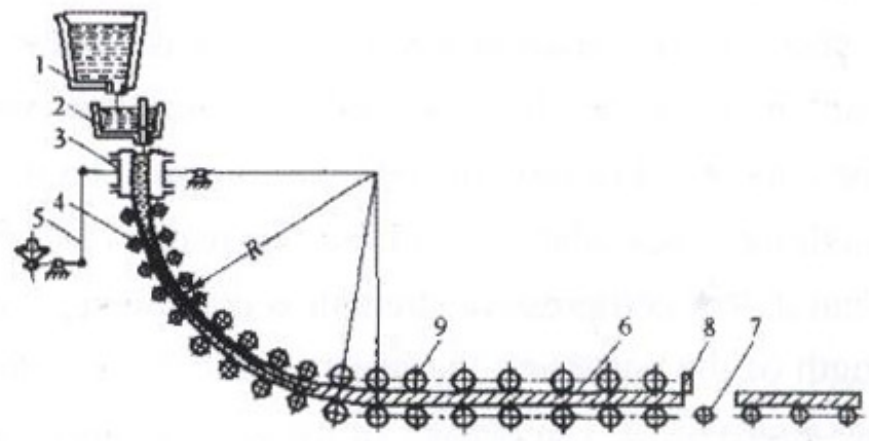

Fig. 1. Working process of arc continuous caster
1-steel-teeming ladle 2-tundish 3- crystallizer 4- secondary cooling zone and slab-driven device 5- vibrating device 6-casting 7-conveying track 8-cutting device 9- straightening machine

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