

Mould design optimization for beam blank production

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One of the typical quality problems of near-net-shape products such as the beam blank is the appearance of surface and sub-surface cracks. The complex shape of the mould makes the casting of crack sensitive grades particularly challenging. This paper describes the process of modifying an existing beam blank section to improve its quality performance. It starts with the analysis carried out to identify the root cause of the problem, then explains the design principles and finally presents the industrial results obtained with the new design and its optimization.

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