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Bending Control With Cooling Bed Technology for Typical Alloy Cold Heading Steel Billet.

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During the cooling process on the cooling bed of alloy cold heading steel billet, the quality defect of billet bending exceeding the standard often occurs. In the present work, the reason for its bending is analyzed from the perspective of heat dissipation and phase transition during the cooling process of billet. It is shown that the main reason for the bending of alloy cold heading steel is the billet temperature is too low when transported to the cooling bed. The temperature of the upper cooling bed of the billet can be increased by low superheat, reducing the strength of the secondary cooling or shortening roller residence time of the billet. Production was carried out through the solution provided by present research, and the bending was reduced by more than 90% compared with before the process improvement.

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