

Roll Forming Strategies for Welded Tubes

Steel Research Int., 79 (2008), No.1, 40-46 DOI: 10.2374/SRI07SP048

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Tubes are used as semi-finished products as well as final components in almost all areas of the engineering industry. Roll forming of tubes with longitudinally oriented welding lines is one of the most efficient and economic tube production processes. However, numerous roll forming strategies already exist. Each strategy involves a characteristic change of the material properties from the initial slit strip to the final tube. A classification of the different roll forming strategies, which is given in this paper, aims to provide a systematic overview. A finite element analysis of the roll forming process is presented to identify specific forming loads and property changes.

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