

Straightness Meter for Sections



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The tolerances of structural steel H sections for straightness are specified by the relevant EN standard. In general they are within a few millimetres over the whole length. The straightening of sections is carried out by roller straightening machines or various types of presses. The optimum control of these machines requires a method of automatically measuring the straightness. The measurements are then fed back to the machines so that adjustments can be made to the penetration settings.



Traditionally straightness has been estimated by eye or "string line" drawn between the ends in a specified manner, with the sections in a certain orientation to avoid bending due to the bars own weight. As these measurements are labour intensive, only a sample of the sections rolled are tested, and then only when the sections are stationary. The automatic on-line straightness measurement provides information on each bar produced. A database can then be used for quality assurance or the provision of statistical information.

Several of the production "Straightness Meters" have been installed at a number of Corus plants in the UK during recent years.

Signals of load and penetration are to be supplied to the Straightness Meter at Lackenby in order to understand the influence of these factors on the straightening operation.

SCHMATIC OF STRAIGHTNESS METER

