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Elastic-Plastic Behaviour and Design of Beam-to-Column Connections Reinforced by Increasing Thickness of Columns

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Synopsis :

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With regard to connections of cold-formed square tube and beam, behavior and design of the connection reinforced by increasing thickness of column have been investigated. Sub-assemblage tests were carried out under cyclic loadings. Test results show that the connection can absorb sufficient seismic energy and that yield strengths predicted by yield line theory agree well with experimentals. Parametric study using FE method as succeeded in obtaining empirical formulae and made it possible to estimate rotational rigidity of the connection.

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