Joint and column behaviour of slotted cold-formed steel studs

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Slotted cold-formed steel studs are used in loadbearing external plasterboard walls. The cold-formed steel studs in these walls are supported by and joined to track sections at the top and the bottom. This paper describes the compression testing of the loadbearing studs in order to observe the behaviour of the studs and the track joints. The experiments included a joint design with a special web stiffener used in practice. The studs were C-sections and the tracks were U-sections. Eight different test series were performed. Each test series had different column lengths and thicknesses, both with and without web stiffeners, in order to establish the influence of these on the joint behaviour and loadbearing capacity of the slotted cold-formed steel studs.

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