

SIMPLIFIED PROCEDURE FOR CALCULATING LATTICE STRUCTURES MADE OF CHS PROFILES

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Abstract: *This paper presents analysis of carrying capacity calculation of steel lattice CHS web elements. Designing of lattice elements is based on EN1993-1-1, and assumes calculating carrying capacity, taking in to consideration elastic buckling of centrally pressed elements, and calculating carrying capacity of lattice chord welded connection, based on EN1993-1-8 standard. Both of this two criteria are discribed in the paper and some diagrams are developed for better understanding wich of them is critical for designig of lattice web elements. Carrying capacity for centrally compressed elements is presented using carrying capacity diagrams, taking into account buckling and slenderness lenght, as well as joint plastification. Calculating of K-joints is presented. Procedure for calculating web members of latice structures is simplified and it is easy to observed rationality of profile choice.*

Keywords: *Simplified Eurocode 3 calculation, Lattice structures, CHS profiles, K - joints, Carrying capacity*