

ECCS TECHNICAL NOTE N°4 – February 2016

By Cécile Haremza, Technical Secretary

Important note from our Technical Committee 9 – Manufacturing and Erection Standards
(Chairman: Kjetil Myhre) Based on the meeting held on 9 November 2015 in the ECCS offices in Brussels:

WELD ISSUES WITH IMPORTED COLD-FORMED TUBULAR SECTIONS

ECCS recommends to check very carefully the longitudinal weld thickness of imported cold-formed tubular sections, according to the limits that can be found in EN 10219 (Cold formed welded structural hollow sections of non-alloy and fine grain steels).

During TC9 meeting, ECCS has been alerted that the longitudinal weld of some imported cold-formed steel tubular sections has only 50% of required thickness, which is not allowed.

According to EN 10219-1 section 6.9.1, the weld thickness must be at least the minimum allowed wall thickness of the product. Recommended values of the minimum tube wall thickness is given in Table 2 of EN 10219-2:

Characteristic	Circular hollow sections	Square and rectangular hollow sections
Thickness (T)	For $D \leq 406,4$ mm: $T \leq 5 \text{ mm} \pm 10 \%$ $T > 5 \text{ mm} \pm 0,5 \text{ mm}$ For $D > 406,4$ mm: $\pm 10 \%$ with a maximum of ± 2 mm	$T \leq 5 \text{ mm} \pm 10\%$ $T > 5 \text{ mm} \pm 0,5 \text{ mm}$

A conformity assessment of these imported cold-formed tubular sections showed a non-conformity with a risk of sudden/brittle failure (Bauforumstahl, 2015).

Cécile Haremza, 25/02/2016

References:

Bauforumstahl, "Marktüberwachung europäisch harmonisierter Bauprodukte in NRW", June 2015.

EN 10219-1, "Cold formed welded structural hollow sections of non-alloy and fine grain steels – Part 1: Technical delivery conditions", April 2006.

EN 10219-2, "Cold formed welded structural hollow sections of non-alloy and fine grain steels – Part 2: Tolerances, dimensions and sectional properties", April 2006.