

COLD FINISHED WELDED SQUARE AND RECTANGULAR HOLLOW SECTIONS EN 10219

THE NORM EN 10219

It defines the technical delivery conditions for cold finished square, rectangular and circular hollow sections.



DIMENSIONAL TOLERANCES

Shape

Outside dimension:

sides < 100 mm $\pm 1\%$ with a minimum of ± 0.5 mm
 $100 \leq \text{sides} \leq 200$ mm $\pm 0.8\%$
sides > 200 mm $\pm 0.6\%$.

Wall thickness:

w.t. ≤ 5 mm $\pm 10\%$
w.t. > 5 mm ± 0.5 mm.

Concavity and convexity of sides

On external sides: 0.8% with a minimum of 0.5 mm.

Twist

Up to max. 2 mm, plus 0.5 mm for each meter on the whole tube length.

Squareness of sides

$90^\circ \pm 1^\circ$.

External corner radius

w.t. ≤ 6 mm: from 1.6 to 2.4 times the w.t.
 $6 < \text{w.t.} \leq 10$ mm: from 2 to 3 times the w.t.
w.t. > 10 mm: from 2.4 to 3.6 times the w.t.

Straightness

The max tolerance must be $\leq 0.15\%$ on the whole tube length.

Deviations on the local straightness: max 3 mm on each meter length.

Mass

$\pm 6\%$ on the single section.