Thick Wall Hollow Section

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Thick-wall hollow sections are the heavy end of the EN 10219 range: 5, 6, 8 and 10 mm walls in 100×100 to 250×250 mm square and 120×200 to 200×300 mm rectangular, rolled from hot-rolled plate-gauge strip in S235JRH or S355J2H. They are the columns, crane-runway posts, machine bases, mast sections and truss chords that replace welded box girders and rolled H-beams. Our Dilovası mill rolls to 8 mm; 10 mm and larger sections come from partner mills; 6 and 12 m.

Wall 5–10 mm | 100×100 – 250×250 · 120×200 – 200×300 | S355J2H structural | 6 and 12 m | EN 10219 / EN 10210 option

When a hollow section stops being a frame member and becomes a column, the wall thickens: 100×100×5 for a mezzanine post, 150×150×6 for a warehouse column, 200×200×8 for a crane gantry, 250×250×10 for a mast. The closed section beats an H-beam on buckling and on looks, and thick-wall tube is where the heavy end of our mill and our partner mills meet.

SQUARE SIZES — SEE 5–10 MM WALLS

Size (mm)	Wall (mm)	kg/m	kg per 6 m bar	Bars per ton
15 × 15	1.5	0.64	3.84	260
15 × 15	2	0.82	4.92	203
16 × 16	1.5	0.68	4.1	244
20 × 20	1.5	0.85	5.1	196
20 × 20	1.9	1.04	6.24	160
20 × 20	2	1.09	6.54	153
20 × 20	2.5	1.37	8.22	122
25 × 25	1.5	1.07	6.42	156
25 × 25	1.9	1.32	7.92	126
25 × 25	2	1.38	8.28	121
25 × 25	2.5	1.73	10.38	96
25 × 25	3	2.05	12.3	81
30 × 30	1.5	1.26	7.56	132
30 × 30	1.9	1.56	9.36	107

First 14 of 130 rows — the full table is on the product page.

Nominal mass per EN 10219-2 with corner radii; 6 m standard length, 12 m on request.

RECTANGULAR SIZES — SEE 5–10 MM WALLS

Size (mm)	Wall (mm)	kg/m	kg per 6 m bar	Bars per ton
10 × 20	1.5	0.64	3.84	260
10 × 20	2	0.82	4.92	203
10 × 30	1.5	0.85	5.1	196
10 × 30	1.9	1.08	6.48	154
10 × 30	2	1.09	6.54	153
10 × 30	2.5	1.37	8.24	121
10 × 40	1.5	1.11	6.64	151
10 × 40	2	1.44	8.66	115
10 × 40	2.5	1.77	10.6	94
10 × 50	1.5	1.34	8.05	124
10 × 50	2	1.76	10.55	95
15 × 25	1.5	0.85	5.1	196
15 × 25	1.9	1.08	6.48	154
15 × 25	2	1.09	6.54	153

First 14 of 306 rows — the full table is on the product page.

Nominal mass per EN 10219-2; 6 m standard length, 12 m on request.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
S355J2H — EN 10219-1	≥ 355	the structural grade for thick-wall sections; 27 J at −20 °C

Grade / standard	Yield (MPa)	Note
S235JRH	≥ 235	stock in 5–6 mm walls
S275J0H	≥ 275	to order
S355J2H hot-finished (EN 10210)	≥ 355	sharper corners, no cold-work stress; to order, +20 %
ASTM A500 Gr. C	≥ 345	ASTM projects

EN 10219-2 tolerances; corner radius 2.0–3.0 t on thick walls; strip certificates 3.1; sections CE-marked for EN 1090 fabrication.

SECTION PROPERTIES OF THE COMMON THICK-WALL SIZES

Size (mm)	kg/m	A (cm²)	I (cm⁴)	W (cm³)	i (cm)
100 × 100 × 5	14.7	18.7	271	54.2	3.81
100 × 100 × 6	17.4	22.2	311	62.3	3.74
120 × 120 × 6	21.2	27.0	562	93.7	4.56
150 × 150 × 6	26.8	34.2	1 160	154	5.82
150 × 150 × 8	35.1	44.7	1 470	196	5.73
200 × 200 × 8	47.7	60.7	3 660	366	7.76
200 × 200 × 10	58.8	74.9	4 390	439	7.66
250 × 250 × 10	74.5	94.9	8 940	715	9.70
100 × 200 × 6	26.8	34.2	1 700 / 570	170 / 114	7.05 / 4.08
150 × 250 × 8	47.7	60.7	4 990 / 2 220	399 / 296	9.07 / 6.05
200 × 300 × 10	74.5	94.9	11 500 / 6 100	767 / 610	11.0 / 8.02

Rectangular: values about the strong / weak axis. Design to EN 1993-1-1 with the cold-formed section class; buckling curve c.

STANDARDS

EN 10219-1/2 — cold-formed structural hollow sections · EN 10210 — hot-finished (on request) · Grades S235JRH, S275J0H, S355J2H · EN 10204 3.1; CE marking