



ZETABRAU profile

Steel profiles

BASIC MECHANICAL CHARACTERISTICS											REFERENCE
H [mm]	e [mm]	b [mm]	c [mm]	p [kg/m]	A [cm ²]	I _y [cm ⁴]	I _z [cm ⁴]	W _y [cm ³]	I _t [cm ⁴]	I _w [cm ⁶]	
150	2	70	20	5.071	6.31	232.76	82.79	31.03	.08	2,965.98	150 × 2
150	2.5	70	20	6.339	7.87	288.13	101.29	38.42	.16	3,605.27	150 × 2.5
150	3	70	20	7.607	9.41	341.92	118.77	45.59	.27	4,200.34	150 × 3
175	2	70	20	5.464	6.80	331.55	82.79	37.89	.09	4,184.97	175 × 2
175	2.5	70	20	6.830	8.49	410.91	101.29	46.96	.17	5,093.26	175 × 2.5
175	3	70	20	8.195	10.15	488.21	118.78	55.80	.30	5,941.26	175 × 3
200	2	70	20	5.856	7.29	451.59	82.79	45.16	.09	5,639.10	200 × 2
200	2.5	70	20	7.320	9.10	560.22	101.29	56.02	.18	6,869.13	200 × 2.5
200	3	70	20	8.784	10.89	666.22	118.78	66.62	.32	8,020.02	200 × 3
200	4	70	20	11.712	14.41	870.48	150.85	87.05	.75	10,095.25	200 × 4
225	2	70	20	6.249	7.78	594.42	82.79	52.84	.10	7,332.82	225 × 2
225	2.5	70	20	7.811	9.72	737.96	101.30	65.60	.20	8,938.33	225 × 2.5
225	3	70	20	9.373	11.63	878.27	118.79	78.07	.34	10,442.97	225 × 3
225	4	70	20	12.497	15.40	1149.32	150.87	102.16	.81	13163.05	225 × 4
250	2	70	20	6.641	8.27	761.57	82.79	60.93	.11	9269.52	250 × 2
250	2.5	70	20	8.301	10.33	946.08	101.30	75.69	.21	11,304.97	250 × 2.5
250	3	70	20	9.932	12.37	1126.68	118.80	90.13	.36	13,214.91	250 × 3
250	4	70	20	12.282	16.39	1476.30	150.88	118.10	.86	16,674.53	250 × 4
275	2	70	20	7.034	8.76	954.56	82.80	69.42	.11	11,451.83	275 × 2
275	2.5	70	20	8.792	10.95	1,186.48	101.30	86.29	.22	13,972.26	275 × 2.5
275	3	70	20	10.550	13.11	1,413.75	118.80	102.82	.38	16,339.60	275 × 3
275	4	70	20	14.067	17.38	1,854.51	150.89	134.87	.91	20,634.36	275 × 4
300	2	70	20	7.426	9.25	1,174.93	82.80	78.33	.12	13,881.84	300 × 2
300	2.5	70	20	9.283	11.56	1,461.08	101.30	97.41	.23	16,942.73	300 × 2.5
300	3	70	20	11.139	13.85	1,741.80	118.81	116.12	.40	19,819.96	300 × 3
300	4	70	20	14.852	18.37	2,287.06	150.91	152.47	.96	25,046.21	300 × 4
325	2.5	70	20	9.773	12.18	1,771.83	101.31	109.04	.25	20,218.38	325 × 2.5
325	3	70	20	11.728	14.59	2,113.14	118.81	130.04	.43	23,658.33	325 × 3
325	4	70	20	15.637	19.36	2,777.02	150.92	170.89	1.01	29,913.02	325 × 4
350	2.5	70	20	10.264	12.79	2,120.62	101.31	121.18	.26	23,800.84	350 × 2.5
350	3	70	20	12.317	15.33	2,530.08	118.82	144.58	.45	27,856.60	350 × 3
350	4	70	20	16.422	20.35	3,327.49	150.93	190.14	1.06	35,237.13	350 × 4
375	2.5	70	20	10.755	13.41	2,509.39	101.31	133.83	.27	27,691.44	375 × 2.5
375	3	70	20	12.905	16.07	2,994.93	118.82	159.73	.47	32,416.32	375 × 3
375	4	70	20	17.207	21.34	3,941.57	150.94	210.22	1.12	41,020.46	375 × 4
400	3	70	20	13.494	16.81	3,510.02	118.83	175.50	.49	37,338.74	400 × 3
400	4	70	20	17.992	22.33	4,622.36	150.96	231.12	1.17	47,264.59	400 × 4

H Total profile height

e Profile thickness

b Flange width

c Tab width

p Profile weight per linear metre

A Profile crude section

I_y Crude section moment of inertia with respect to the principal y-y axis

I_z Crude section moment of inertia with respect to the principal z-z axis

W_z Crude section resistant module with respect to the z-z axis

I_t Crude section moment of inertia in torsion

I_w Crude section warp module

[mm ²]	[mm ⁴]	[mm ⁴]	[mm ³]	[mm ⁴]	[mm ⁶]
× 10 ²	× 10 ⁴	× 10 ⁴	× 10 ³	× 10 ⁴	× 10 ⁶

* For further effective mechanical characteristics, please contact BRAUSA.

Proof strength
used 250 N/mm²

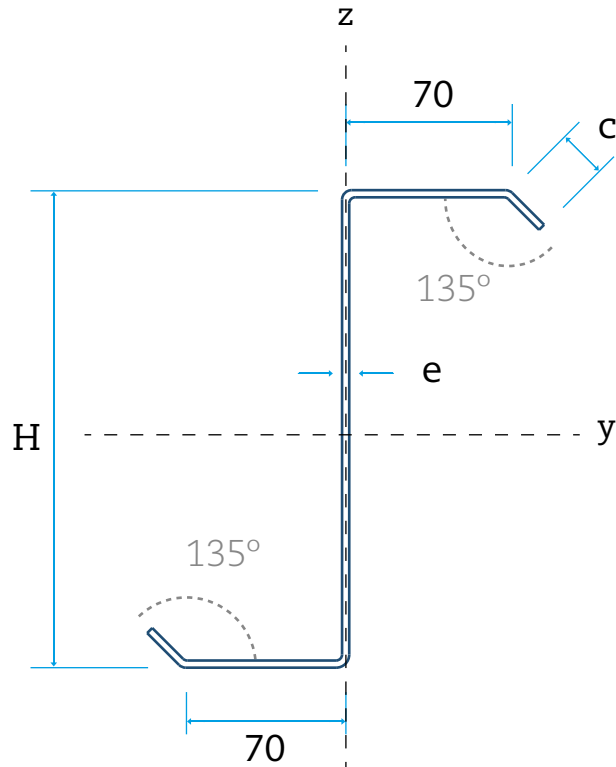
**EUROCODE
CHARACTERISTICS**

REFERENCE	A _{eff.} [cm ²]	I _{eff.y} [cm ⁴]	W _{eff.y} [cm ³]
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150 × 2	4.62	217.58	27.77
150 × 2.5	6.41	275.19	35.60
150 × 3	8.31	331.57	43.32
175 × 2	4.62	308.80	33.76
175 × 2.5	6.46	391.06	43.32
175 × 3	8.42	471.77	52.75
200 × 2	4.61	419.41	40.11
200 × 2.5	6.48	531.61	51.49
200 × 3	8.50	641.94	62.74
200 × 4	12.87	856.33	84.77
225 × 2	4.60	548.69	46.48
225 × 2.5	6.49	698.64	60.12
225 × 3	8.55	844.23	73.29
225 × 4	13.05	1,127.87	99.12
250 × 2	4.59	688.35	51.63
250 × 2.5	6.49	893.95	69.22
250 × 3	8.58	1,080.85	84.41
250 × 4	13.19	1,445.71	114.25
275 × 2	4.57	845.29	56.77
275 × 2.5	6.49	1,119.36	78.79
275 × 3	8.60	1,353.98	96.09
275 × 4	13.30	1,812.82	130.14
300 × 2	4.55	1,019.75	61.92
300 × 2.5	6.48	1,358.30	86.64
300 × 3	8.61	1,665.84	108.35
300 × 4	13.38	2,232.15	146.81
325 × 2.5	6.47	1618.06	93.98
325 × 3	8.62	2018.63	121.18
325 × 4	13.44	2706.71	164.25
350 × 2.5	6.46	1,903.02	101.35
350 × 3	8.62	2,400.49	133.15
350 × 4	13.50	3,239.46	182.47
375 × 2.5	6.45	2,213.51	108.74
375 × 3	8.62	2,796.37	142.99
375 × 4	13.54	3,833.42	201.48
400 × 3	8.61	3,226.25	152.87
400 × 4	13.57	4,491.57	221.27

[mm ²]	[mm ⁴]	[mm ³]
× 10 ²	× 10 ⁴	× 10 ³

- A_{eff.} Profile cross section under uniform compression
- I_{eff.y} Cross section moment of inertia under bending with respect to the y-y axis
- W_{eff.y} Cross section resistant module under bending with respect to the y-y axis



Manufacturing possibilities

H: 150 to 450 mm

e: 1.5 to 4 mm

Parametric verification of the purlins used in the roof and facade enclosures. Analysis in line with European standard Eurocode-3 Part 1-3 EN 1993-1-3 "Design of steel structures. Supplementary rules for cold formed thin gauge members and sheeting" (version 2006).