

LIPPED CHANNEL SECTIONS & PURLINS



Contact Clotan Steel for [price options on lipped channel](#) products.

Clotan Steel invested in state-of-the-art slitting and rollforming facilities in order to manufacture a full range of cold formed lipped channel and lipped angle. By investing in modern equipment Clotan Steel is able to provide the following benefits to the construction industry:

- Quick setup facilities on our equipment facilitate short lead times and a flexible service;
- Orders can be precision cut to length at high speed in order to eliminate length variances;
- Cutting the material to length before the profile is formed eliminates unwanted burs on the ends of the sections;
- An unique “camber corrector” guarantees tight dimensional tolerances, thus eliminating twist, camber and straightness problems.
- Can be supplied in various finished like Z275 Pre-Galvanized, Hot Dip Galvanized, Magnesium Zinc or plain black steel.
- In-line punching can be done to customers specifications, subject to certain dimensional limitations

All cold formed sections are manufactured to customers’ specifications from prime quality hot rolled steel that complies with the requirements of SANS 10162:

SANS 10162: (PART ONE) REGULATES:

Cold-formed sections made of commercial quality steel, which does not have a guaranteed minimum yield stress. On part one of the above standard the minimum yield stress is 200 mPa and tensile strength of 365 mPa can be used for commercial quality steel. Cold-formed sections with a specified yield strength can be supplied on request according to SANS 1062:

SANS 10162: (PART TWO) GOVERNS THAT:

Cold formed sections conform to the following thickness tolerances:

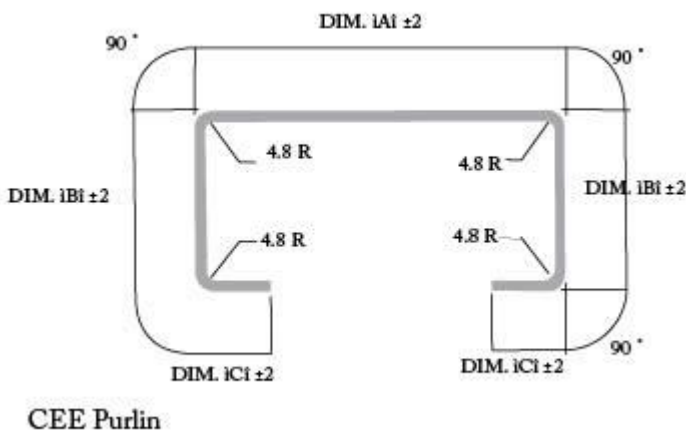
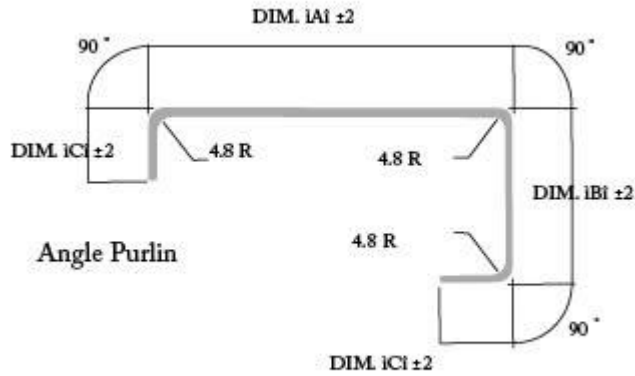
2.0 mm	± 0.18 mm
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2.5 mm	± 0.18 mm
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3.0	± 0.20
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2.0 mm	± 0.18 mm
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mm	mm
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ADDITIONAL SERVICES

Purlins can be supplied in the following finishes: Z275 Pre galvanized, hot dipped galvanizing and magnesium zinc. Services such as painting with Zinc Chromate, Red Oxide or customers' own paint specifications are available. Clotan Steel can also punch all lipped channel and lipped angles to customers' specifications subject to certain dimensional limitations.

This design table is a guideline only, it is important to get engineer approvals on all your designs. Clotan Steel cannot be held responsible if you use these values wrongly or without engineer approvals.



DESIGN GUIDELINES

Section	t	m	Z _c	C _w	J	f _b (MPa) Unl
h x b x c x t mm	mm	kg/m	10 ³ mm ³	10 ⁹ mm ⁶	10 ³ mm ⁴	1
75 x 50 x 20 x	2	3.14	9.59	0.27	0.53	1153
	2.5	3.85	11.50	0.32	1.02	1172
	3	4.54	13.30	0.37	1.73	1185
100 x 50 x 20 x	2	3.53	14.10	0.44	0.60	1046
	2.5	4.35	17.10	0.53	1.15	1043
	3	5.13	19.80	0.60	1.96	1048
100 x 75 x 20 x	2	4.32	18.90	1.14	0.73	1993
	2.5	5.33	23.00	1.36	1.41	1988
	3	6.30	26.90	1.57	2.41	1988
125 x 50 x 20 x	2	3.93	19.10	0.67	0.67	981
	2.5	4.48	23.20	0.80	1.28	974
	3	5.72	27.00	0.91	2.18	976
125 x 65 x 20 x	2	4.40	22.70	1.23	0.75	1522
	2.5	5.42	27.70	1.48	1.44	1510
	3	6.42	32.30	1.71	2.45	1506
125 x 75 x 20 x	2	4.71	25.10	1.73	0.80	1926
	2.5	5.82	30.70	2.08	1.54	1910
	3	6.89	35.90	2.40	2.63	1904

Section	t	m	Z _e	C _w	J	f _b (MPa) Unl
150 x 50 x 20 x	2	4.32	24.50	0.97	0.73	943
	2.5	5.33	29.80	1.15	1.41	935
	3	6.30	34.80	1.32	2.41	927
150 x 65 x 20 x	2	4.79	28.80	1.78	0.81	1480
	2.5	5.92	35.20	2.14	1.57	1466
	3	7.01	41.30	2.47	2.47	1452
150 x 75 x 20 x	2	5.10	31.80	2.49	0.87	1874
	2.5	6.31	38.80	3.00	1.67	1864
	3	7.48	45.60	3.47	2.86	1847
175 x 50 x 20 x	2	4.71	30.30	1.33	0.80	912
	2.5	5.82	36.90	1.60	1.54	907
	3	6.86	43.20	1.83	2.63	897
175 x 65 x 20 x	2	5.18	35.40	2.45	0.88	1443
	2.5	6.41	43.30	2.95	1.70	1434
	3	7.60	50.80	3.41	2.90	1421
175 x 75 x 20 x	2.5	6.80	47.60	4.14	1.80	1828
	3	8.07	55.90	4.80	3.08	1815
200 x 75 x 20 x	2.5	7.29	56.80	5.51	1.93	1808
	3	8.66	66.90	6.40	3.31	1786
225 x 75 x 20 x	2.5	7.78	66.60	7.13	2.06	1782
	3	9.25	78.40	8.29	3.53	1766
250 x 65 x 20 x	2.5	7.88	70.70	6.42	2.09	1353
	3	9.37	83.30	7.45	3.58	1335
250 x 75 x 20 x	2.5	8.27	76.90	9.01	2.19	1756
	3	9.84	90.50	10.50	3.76	1735
275 x 65 x 20 x	2.5	8.37	80.90	7.95	2.22	1331
	3	10.00	95.40	9.23	3.80	1312

Section	t	m	Z _e	C _w	J	f _b (MPa) Unl
275 x 75 x 20 x	2.5	8.76	87.70	11.10	2.33	1734
	3	10.40	103.00	12.40	3.98	1686
300 x 65 x 20 x	2.5	8.86	92.00	9.67	2.35	1310
	3	10.50	108.00	11.20	4.03	1290
300 x 75 x 20 x	2.5	9.25	99.00	13.60	2.46	1712
	3	11.00	117.00	15.80	4.21	1689

DESIGN GUIDELINES

For following thicknesses: 2,0 / 2,5 / 3,0 mm

.	1,1 m	1,2 m	1,3 m	1,4 m	1,5 m	1,6 m	1,7 m
3,0 m	5x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 0x2	75x50x 20x2	75x50x 20x2
3,5 m	75x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 20x2	75x50x 20x2
4,0 m	75x50x 20x2	75x50x 20x2	75x50x 20x2	100x50x 20x2	100x50x 20x2	100x50x 20x2	125x50x 20x2
							75x50x 20x2,5
4,5 m	100x50x 20x2	125x50x 20x2	125x50x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2
		75x50x 20x2,5	75x50x 20x2,5	100x50x 20x2,5	100x50x 20x2,5		
5,0 m	100x75x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2	100x75x 20x2
	100x50x 20x2,5						
5,5 m	100x75x 20x2	100x75x 20x2	125x75x 20x2	125x75x 20x2	150x75x 20x2	150x75x 20x2	150x75x 20x2
6,0 m	125x75x 20x2	150x75x 20x2	175x75x 20x2	175x75x 20x2	200x75x 20x2	200x75x 20x2	175x75x 20x2,5

.	1,1 m	1,2 m	1,3 m	1,4 m	1,5 m	1,6 m	1,7 m
	100x75x 20x2,5	100x75x 20x2,5	125x75x 20x2,5	125x75x 20x2,5	150x75x 20x2,5	150x75x 20x2,5	125x75x 20x3
6,5 m	175x75x20x2	200x75x 20x2	175x75x 20x2	175x75x 20x2	200x75x 20x2	200x75x 20x2	225x75x 20x2,5
	125x75x 20x2,5	150x75x 20x2,5	125x75x 20x3	125x75x 20x3	150x75x 20x3	150x75x 20x3	175x75x 20x3
7,5 m	225x75x 20x2,5	250x75x 20x2,5	250x75x 20x2,5	225x75x 20x3	225x75x 20x3	225x75x 20x3	225x75x 20x3
	150x75x 20x3	175x75x20x3	200x75x 20x3				
8,0 m	200x75x 20x3	225x75x 20x3	250x75x 20x3	275x75x 20x3	300x75x 20x3	-	-
8,5 m	250x75x 20x3	300x75x 20x3					