



STEELBONE

the edge in  
building systems



## The bird proof purlin!

Enclosed steel section - completely bird and vermin proof with no visible roof or wall fixings.

- able to span up to 10m - reduces construction costs by eliminating intermediary supports in roof and wall frames.
- angled section edges also remove grip surfaces for birds and vermin.
- simple to install and 100% locally manufactured.

**FREE CALL: 0800 115 000**  
[www.steelbone.co.nz](http://www.steelbone.co.nz)

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**StructureWise**  
DESIGN & CONSTRUCTION

# The Steelbone Building System

Steel sheds, whilst having the advantages of greater spans and durability, have had the distinct disadvantage of access for birds and vermin - UNTIL NOW!

The unique Steelbone building system offers a superior value proposition to owners of rural, commercial, industrial or residential property. By eliminating intermediary supports for the roof and wall frames, Steelbone is able to deliver much cleaner design options whilst also reducing labour and machinery costs during construction. Ideal for dairy sheds and other buildings where enclosed walls are not always viable, Steelbone is also an excellent choice for commercial and residential wall framing.



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## Purlin Design Charts: Single Span

- Uniformly Distributed Loads (kN/m)

Span (m)	100 x 0.75			100 x 0.95			150 x 0.75			150 x 0.95			150 x 1.2			200 x 0.95			200 x 1.2			200 x 1.5		
	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>	Inward	Outward	W <sub>s</sub>
2.00	7.70	7.70	11.43	13.04	12.22	14.45	9.08	8.85	12.39	14.22	12.89	15.65	18.08	17.14	19.72	17.14	17.14	33.77	28.43	27.37	42.59	35.77	35.69	53.14
2.25	6.09	6.09	8.03	10.31	9.65	10.15	7.17	6.99	8.70	11.24	10.18	10.99	14.29	13.54	13.85	13.54	13.54	23.72	22.47	21.63	29.91	28.27	28.20	37.32
2.50	4.93	4.93	5.85	8.35	7.82	7.40	5.81	5.66	6.34	9.10	8.25	8.01	11.58	10.97	10.10	10.97	10.97	17.29	18.20	17.52	21.81	22.90	22.84	27.21
2.75	4.08	4.08	4.40	6.90	6.46	5.56	4.80	4.68	4.77	7.52	6.82	6.02	9.57	9.07	7.59	9.07	9.07	12.99	15.04	14.48	16.38	18.92	18.88	20.44
3.00	3.43	3.43	3.39	5.80	5.43	4.28	4.04	3.93	3.67	6.32	5.73	4.64	8.04	7.62	5.84	7.62	7.62	10.01	12.64	12.17	12.62	15.90	15.86	15.75
3.25	2.92	2.92	2.66	4.94	4.63	3.37	3.44	3.35	2.89	5.39	4.88	3.65	6.85	6.49	4.60	6.49	6.49	7.87	10.77	10.37	9.93	13.55	13.52	12.38
3.50	2.52	2.52	2.13	4.26	3.99	2.70	2.97	2.89	2.31	4.65	4.21	2.92	5.91	5.60	3.68	5.60	5.60	6.30	9.29	8.94	7.95	11.68	11.66	9.92
3.75	2.19	2.19	1.73	3.71	3.48	2.19	2.58	2.52	1.88	4.05	3.67	2.37	5.15	4.88	2.99	4.88	4.88	5.12	8.09	7.79	6.46	10.18	10.15	8.06
4.00	1.93	1.93	1.43	3.26	3.06	1.81	2.27	2.22	1.55	3.56	3.23	1.96	4.52	4.29	2.46	4.29	4.29	4.22	7.11	6.85	5.32	8.95	8.93	6.64
4.25	1.71	1.71	1.19	2.89	2.71	1.51	2.01	1.96	1.29	3.15	2.86	1.63	4.01	3.80	2.06	3.80	3.80	3.52	6.30	6.07	4.44	7.93	7.91	5.54
4.50	1.53	1.53	1.00	2.58	2.42	1.27	1.80	1.75	1.09	2.81	2.55	1.37	3.58	3.39	1.73	3.39	3.39	2.96	5.62	5.41	3.74	7.07	7.05	4.67
4.75	1.37	1.37	0.85	2.32	2.17	1.08	1.61	1.57	0.92	2.53	2.29	1.17	3.21	3.04	1.47	3.04	3.04	2.52	5.04	4.86	3.18	6.35	6.33	3.97
5.00	1.24	1.24	0.73	2.09	1.96	0.92	1.46	1.42	0.79	2.28	2.07	1.00	2.90	2.75	1.26	2.75	2.75	2.16	4.55	4.38	2.73	5.73	5.71	3.40
5.25	1.12	1.12	0.63	1.90	1.78	0.80	1.32	1.29	0.69	2.07	1.87	0.86	2.63	2.49	1.09	2.49	2.49	1.87	4.13	3.98	2.35	5.20	5.18	2.94
5.50	1.02	1.02	0.55	1.72	1.61	0.69	1.20	1.17	0.60	1.88	1.71	0.75	2.40	2.27	0.95	2.27	2.27	1.62	3.76	3.62	2.05	4.73	4.72	2.56
5.75	0.94	0.94	0.48	1.57	1.47	0.61	1.10	1.07	0.52	1.72	1.56	0.66	2.19	2.08	0.83	2.08	2.08	1.42	3.44	3.32	1.79	4.33	4.32	2.24
6.00	0.86	0.86	0.42	1.43	1.34	0.54	1.01	0.99	0.46	1.58	1.43	0.58	2.01	1.91	0.73	1.91	1.91	1.25	3.16	3.05	1.58	3.98	3.97	1.97
6.25	0.79	0.79	0.37	1.32	1.23	0.47	0.93	0.91	0.41	1.45	1.32	0.51	1.85	1.75	0.65	1.76	1.76	1.11	2.92	2.81	1.40	3.67	3.66	1.74
6.50	0.73	0.73	0.33	1.21	1.14	0.42	0.86	0.84	0.36	1.34	1.21	0.46	1.70	1.61	0.57	1.63	1.63	0.98	2.69	2.59	1.24	3.39	3.38	1.55
6.75	0.68	0.68	0.30	1.12	1.05	0.38	0.79	0.78	0.32	1.23	1.12	0.41	1.57	1.49	0.51	1.51	1.51	0.88	2.49	2.39	1.11	3.13	3.12	1.38
7.00	0.63	0.63	0.27	1.03	0.97	0.34	0.74	0.73	0.29	1.14	1.04	0.36	1.45	1.38	0.46	1.40	1.40	0.79	2.30	2.22	0.99	2.90	2.89	1.24
7.25	0.59	0.59	0.24	0.96	0.90	0.30	0.68	0.68	0.26	1.06	0.96	0.33	1.35	1.28	0.41	1.31	1.31	0.71	2.14	2.06	0.89	2.69	2.68	1.12
7.50	0.55	0.55	0.22	0.89	0.84	0.27	0.64	0.63	0.23	0.99	0.90	0.30	1.25	1.19	0.37	1.22	1.22	0.64	1.99	1.92	0.81	2.50	2.50	1.01
7.75	0.52	0.52	0.20	0.83	0.78	0.25	0.59	0.59	0.21	0.92	0.84	0.27	1.17	1.11	0.34	1.15	1.15	0.58	1.86	1.79	0.73	2.33	2.33	0.91
8.00	0.49	0.49	0.18	0.78	0.73	0.23	0.56	0.56	0.19	0.86	0.78	0.24	1.09	1.04	0.31	1.08	1.08	0.53	1.73	1.67	0.67	2.18	2.18	0.83
8.25	0.46	0.46	0.16	0.73	0.68	0.21	0.52	0.52	0.18	0.81	0.73	0.22	1.02	0.97	0.28	1.01	1.01	0.48	1.62	1.57	0.61	2.04	2.04	0.76
8.50	0.43	0.43	0.15	0.68	0.64	0.19	0.49	0.49	0.16	0.76	0.69	0.20	0.96	0.91	0.26	0.95	0.95	0.44	1.52	1.47	0.55	1.91	1.92	0.69
8.75	0.41	0.41	0.14	0.64	0.60	0.17	0.59	0.47	0.15	0.71	0.65	0.19	0.90	0.86	0.24	0.90	0.90	0.40	1.43	1.38	0.51	1.80	1.80	0.63
9.00	0.39	0.39	0.13	0.60	0.57	0.16	0.56	0.44	0.14	0.67	0.61	0.17	0.85	0.81	0.22	0.85	0.85	0.37	1.35	1.30	0.47	1.69	1.70	0.58
9.25	0.36	0.36	0.12	0.57	0.53	0.15	0.52	0.42	0.13	0.63	0.57	0.16	0.80	0.76	0.20	0.81	0.81	0.34	1.27	1.23	0.43	1.60	1.60	0.54
9.50	0.35	0.35	0.11	0.53	0.50	0.13	0.49	0.40	0.12	0.59	0.54	0.15	0.75	0.72	0.18	0.76	0.76	0.32	1.20	1.16	0.40	1.51	1.51	0.50
9.75	0.33	0.33	0.10	0.51	0.48	0.12	0.47	0.38	0.11	0.56	0.51	0.14	0.71	0.68	0.17	0.73	0.73	0.29	1.13	1.10	0.37	1.42	1.43	0.46
10.00	0.31	0.31	0.09	0.48	0.45	0.12	0.36	0.36	0.10	0.53	0.49	0.13	0.67	0.64	0.16	0.69	0.69	0.27	1.07	1.04	0.34	1.35	1.35	0.43

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