

Sleeved Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case								Ultimate loads in kN (purlin SW incl)			
			Total	Deflection controlled		Allowable Values in kN/m2(with defl=L/180 max)					Gravity	Uplift	Uplift	Uplift
			Load (kN)	Span/150	Span/180	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	Down	0 rows	1 row	2 rows
3.5	140/14	3.06	11.11	17.93	14.94	2.64	2.27	1.98	1.76	1.59	17.77	14.44	18.02	
	140/16	3.48	13.22	20.34	16.95	3.15	2.70	2.36	2.10	1.89	21.15	17.17	21.43	
	170/15	3.62	14.91	30.15	25.12	3.55	3.04	2.66	2.37	2.13	23.85	19.34	24.15	
4.0	140/14	3.06	9.69	13.73	11.44	2.02	1.73	1.51	1.35	1.21	15.51	12.66	15.80	
	140/16	3.48	11.54	15.58	12.98	2.40	2.06	1.80	1.60	1.44	18.46	15.06	18.79	
	170/15	3.62	13.01	23.08	19.23	2.71	2.32	2.03	1.81	1.63	20.82	16.96	21.16	
	170/16	3.86	14.27	24.54	20.45	2.97	2.55	2.23	1.98	1.78	22.83	18.59	23.20	
4.5	140/14	3.06	8.59	10.85	9.04	1.59	1.36	1.19	1.06	0.95	13.75	11.20	14.07	
	140/16	3.48	10.10	12.31	10.26	1.87	1.60	1.40	1.25	1.12	16.36	12.68	16.73	
	170/15	3.62	11.54	18.24	15.20	2.14	1.83	1.60	1.42	1.28	18.46	14.46	18.85	
	170/16	3.86	12.65	19.39	16.16	2.34	2.01	1.76	1.56	1.41	20.25	15.46	20.65	
	170/18	4.33	14.80	21.67	18.06	2.74	2.35	2.06	1.83	1.64	23.68	17.34	24.14	
	200/16	4.48	16.01	31.34	26.12	2.96	2.54	2.22	1.98	1.78	25.61	20.91	26.09	
5.0	140/14	3.06	7.17	8.79	7.32	1.20	1.02	0.90	0.80	0.72	12.33	8.65	12.69	
	140/16	3.48	8.14	9.97	8.31	1.36	1.16	1.02	0.90	0.81	14.68	9.79	15.09	
	170/15	3.62	10.36	14.77	12.31	1.73	1.48	1.29	1.15	1.04	16.57	11.08	17.00	
	170/16	3.86	11.36	15.71	13.09	1.89	1.62	1.42	1.26	1.14	18.17	11.84	18.63	
	170/18	4.33	13.28	17.55	14.63	2.21	1.90	1.66	1.48	1.33	21.25	13.28	21.76	
5.5	140/14	3.06	5.89	7.26	6.05	0.89	0.76	0.67	0.59	0.54	11.17	6.74	11.57	
	140/16	3.48	6.68	8.24	6.87	1.01	0.87	0.76	0.67	0.61	13.30	7.65	13.75	
	170/15	3.62	9.38	12.21	10.17	1.42	1.22	1.07	0.95	0.85	15.02	8.61	15.48	
	170/16	3.86	10.29	12.98	10.82	1.56	1.34	1.17	1.04	0.94	16.47	9.20	16.97	
	170/18	4.33	11.86	14.51	12.09	1.80	1.54	1.35	1.20	1.08	19.27	10.33	19.83	
	200/16	4.48	13.03	20.98	17.48	1.97	1.69	1.48	1.32	1.18	20.84	15.46	21.42	
	200/18	5.03	15.56	23.47	19.56	2.36	2.02	1.77	1.57	1.41	24.89	17.48	25.54	
6.0	140/14	3.06	4.90	6.10	5.08	0.68	0.58	0.51	0.45	0.41	10.20	5.35	10.63	
	140/16	3.48	5.56	6.92	5.77	0.77	0.66	0.58	0.52	0.46	12.15	6.08	12.64	
	170/15	3.62	8.34	10.26	8.55	1.16	0.99	0.87	0.77	0.69	13.72	6.81	14.23	
	170/16	3.86	8.86	10.91	9.09	1.23	1.05	0.92	0.82	0.74	15.05	7.29	15.59	
	170/18	4.33	9.90	12.19	10.16	1.38	1.18	1.03	0.92	0.83	17.60	8.19	17.85	
	200/16	4.48	11.90	17.63	14.69	1.65	1.42	1.24	1.10	0.99	19.05	12.32	19.68	
	200/18	5.03	14.22	19.72	16.44	1.97	1.69	1.48	1.32	1.18	22.75	13.93	23.46	
	200/20	5.58	16.49	21.79	18.16	2.29	1.96	1.72	1.53	1.37	26.39	15.52	27.18	
	240/18	5.77	17.51	31.76	26.47	2.43	2.08	1.82	1.62	1.46	28.02	19.59	28.83	
6.5	170/15	3.62	7.05	8.74	7.28	0.90	0.78	0.68	0.60	0.54	12.61	5.49	12.86	
	170/16	3.86	7.50	9.29	7.74	0.96	0.82	0.72	0.64	0.58	13.84	5.88	13.74	
	170/18	4.33	8.38	10.39	8.66	1.07	0.92	0.81	0.72	0.64	16.19	6.61	15.42	
	200/16	4.48	10.95	15.02	12.52	1.40	1.20	1.05	0.94	0.84	17.52	9.95	18.21	
	200/18	5.03	13.08	16.81	14.00	1.68	1.44	1.26	1.12	1.01	20.93	11.26	21.70	
	200/20	5.58	15.12	18.57	15.47	1.94	1.66	1.45	1.29	1.16	24.28	12.55	25.14	
	240/18	5.77	16.12	27.06	22.55	2.07	1.77	1.55	1.38	1.24	25.79	15.86	26.67	
	240/20	6.39	18.89	29.92	24.94	2.42	2.08	1.82	1.61	1.45	30.23	17.72	31.21	
	240/25	7.94	25.67	36.94	30.79	3.29	2.82	2.47	2.19	1.97	41.07	22.16	42.29	
7.0	170/15	3.62	6.03	7.54	6.28	0.72	0.62	0.54	0.48	0.43	11.66	4.51	10.97	12.26
	170/16	3.86	6.41	8.01	6.68	0.76	0.65	0.57	0.51	0.46	12.80	4.83	11.73	13.43
	170/18	4.33	7.17	8.96	7.46	0.85	0.73	0.64	0.57	0.51	14.98	5.44	13.16	15.54
	200/16	4.48	10.13	12.95	10.79	1.21	1.03	0.90	0.80	0.72	16.21	8.15	16.95	16.95
	200/18	5.03	11.73	14.49	12.08	1.40	1.20	1.05	0.93	0.84	19.37	9.23	20.20	20.20
	200/20	5.58	12.96	16.01	13.34	1.54	1.32	1.16	1.03	0.93	22.48	10.30	22.96	23.39
	240/18	5.77	14.92	23.34	19.45	1.78	1.52	1.33	1.18	1.07	23.87	13.00	24.82	24.82
	240/20	6.39	17.49	25.80	21.50	2.08	1.78	1.56	1.39	1.25	27.98	14.53	29.04	29.04
	240/25	7.94	23.77	31.86	26.55	2.83	2.43	2.12	1.89	1.70	38.03	18.19	38.72	39.34
	240/30	9.47	29.64	37.75	31.46	3.53	3.02	2.65	2.35	2.12	47.42	21.49	45.64	47.86



Sleeved Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case								Ultimate loads in kN (purlin SW incl)			
			Total	Deflection controlled		Allowable Values in kN/m <sup>2</sup> (with defl=L/180 max)					Gravity	Uplift	Uplift	Uplift
			Load (kN)	Span/150	Span/180	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	Down	0 rows	1 row	2 rows
7.5	200/16	4.48	9.07	11.28	9.40	1.01	0.86	0.76	0.67	0.60	15.07	6.78	15.86	15.86
	200/18	5.03	10.15	12.62	10.52	1.13	0.97	0.85	0.75	0.68	18.01	7.68	18.08	18.90
	200/20	5.58	11.21	13.95	11.62	1.25	1.07	0.93	0.83	0.75	20.90	8.57	20.14	21.89
	240/18	5.77	13.88	20.33	16.94	1.54	1.32	1.16	1.03	0.93	22.20	10.80	23.22	23.22
	240/20	6.39	16.27	22.48	18.73	1.81	1.55	1.36	1.21	1.08	26.03	12.08	27.16	27.16
	240/25	7.94	22.12	27.75	23.12	2.46	2.11	1.84	1.64	1.47	35.39	15.14	34.33	36.79
8.0	200/16	4.48	7.91	9.92	8.26	0.82	0.71	0.62	0.55	0.49	14.07		13.90	14.91
	200/18	5.03	8.85	11.09	9.25	0.92	0.79	0.69	0.61	0.55	16.82		15.72	17.77
	200/20	5.58	9.78	12.26	10.21	1.02	0.87	0.76	0.68	0.61	19.52		17.51	20.57
	240/18	5.77	12.96	17.87	14.89	1.35	1.16	1.01	0.90	0.81	20.74		21.60	21.82
	240/20	6.39	15.20	19.75	16.46	1.58	1.36	1.19	1.06	0.95	24.32		24.14	25.53
	240/25	7.94	19.70	24.39	20.32	2.05	1.76	1.54	1.37	1.23	33.07		30.18	34.48
8.5	200/16	4.48	6.95	8.78	7.32	0.68	0.58	0.51	0.45	0.41	13.18		12.05	14.08
	200/18	5.03	7.77	9.83	8.19	0.76	0.65	0.57	0.51	0.46	15.76		13.63	16.77
	200/20	5.58	8.58	10.86	9.05	0.84	0.72	0.63	0.56	0.50	18.30		15.19	19.09
	240/18	5.77	12.15	15.83	13.19	1.19	1.02	0.89	0.79	0.71	19.44		18.88	20.59
	240/20	6.39	14.05	17.50	14.58	1.38	1.18	1.03	0.92	0.83	22.81		21.10	24.08
	240/25	7.94	17.34	21.60	18.00	1.70	1.46	1.28	1.13	1.02	31.02		26.37	31.86
9.0	200/16	4.48	6.95	8.78	7.32	0.68	0.58	0.51	0.45	0.41	13.18		12.05	14.08
	200/18	5.03	7.77	9.83	8.19	0.76	0.65	0.57	0.51	0.46	15.76		13.63	16.77
	200/20	5.58	8.58	10.86	9.05	0.84	0.72	0.63	0.56	0.50	18.30		15.19	19.09
	240/18	5.77	12.15	15.83	13.19	1.19	1.02	0.89	0.79	0.71	19.44		18.88	20.59
	240/20	6.39	14.05	17.50	14.58	1.38	1.18	1.03	0.92	0.83	22.81		21.10	24.08
	240/25	7.94	17.34	21.60	18.00	1.70	1.46	1.28	1.13	1.02	31.02		26.37	31.86
9.5	240/18	5.77	11.25	14.12	11.76	1.04	0.89	0.78	0.69	0.63	18.28		16.48	19.51
	240/20	6.39	12.44	15.61	13.01	1.15	0.99	0.86	0.77	0.69	21.45		18.41	22.81
	240/25	7.94	15.36	19.27	16.06	1.42	1.22	1.07	0.95	0.85	29.19		23.03	29.41
	240/30	9.47	18.20	22.84	19.03	1.68	1.44	1.26	1.12	1.01	36.42		27.15	34.71
	300/25	10.02	26.60	38.48	32.07	2.46	2.11	1.85	1.64	1.48	42.56		44.68	44.68
	300/30	11.97	34.45	45.73	38.10	3.19	2.73	2.39	2.13	1.91	55.11		57.03	57.65
10.0	240/18	5.77	10.02	12.67	10.56	0.88	0.75	0.66	0.59	0.53	17.24		14.41	18.53
	240/20	6.39	11.08	14.01	11.67	0.97	0.83	0.73	0.65	0.58	20.24		16.10	21.62
	240/25	7.94	13.67	17.30	14.41	1.20	1.03	0.90	0.80	0.72	27.55		20.15	27.08
	240/30	9.47	16.20	20.50	17.08	1.42	1.22	1.07	0.95	0.85	34.38		23.79	31.93
	300/25	10.02	25.12	34.54	28.78	2.20	1.89	1.65	1.47	1.32	40.18		42.43	42.43
	300/30	11.97	32.53	41.04	34.20	2.85	2.45	2.14	1.90	1.71	52.05		51.85	54.73
10.5	240/18	5.77	8.96	11.43	9.53	0.75	0.64	0.56	0.50	0.45	16.30		12.65	17.66
	240/20	6.39	9.91	12.64	10.54	0.83	0.71	0.62	0.55	0.50	19.14		14.14	19.85
	240/25	7.94	12.23	15.61	13.01	1.02	0.87	0.76	0.68	0.61	26.07		17.72	24.84
	240/30	9.47	14.49	18.50	15.42	1.21	1.03	0.91	0.80	0.72	32.53		20.94	29.27
	300/25	10.02	23.78	31.17	25.98	1.98	1.70	1.49	1.32	1.19	38.04		38.90	40.40
	300/30	11.97	29.69	37.04	30.87	2.47	2.12	1.86	1.65	1.48	49.29		46.86	52.11
11.0	300/25	10.02	22.53	28.27	23.56	1.79	1.53	1.34	1.19	1.07	36.10		35.02	38.57
	300/30	11.97	26.76	33.59	28.00	2.12	1.82	1.59	1.42	1.27	46.78		42.19	49.74
11.5	300/25	10.02	20.39	25.76	21.47	1.54	1.32	1.16	1.03	0.93	34.32		31.47	36.92
	300/30	11.97	24.22	30.61	25.51	1.83	1.57	1.38	1.22	1.10	44.49		37.92	46.78
12.0	300/25	10.02	18.51	23.57	19.64	1.34	1.15	1.01	0.89	0.80	32.69		28.29	35.41
	300/30	11.97	21.99	28.01	23.34	1.59	1.37	1.20	1.06	0.96	42.40		34.09	43.92
12.5	300/25	10.02	16.86	21.65	18.04	1.17	1.00	0.88	0.78	0.70	31.20		25.48	34.03
	300/30	11.97	20.02	25.72	21.43	1.39	1.19	1.04	0.93	0.83	40.47		30.72	41.17
12.5	300/25	10.02	15.40	19.95	16.62	1.03	0.88	0.77	0.68	0.62	29.81		23.01	31.93
	300/30	11.97	18.29	23.70	19.75	1.22	1.04	0.91	0.81	0.73	38.69		27.76	38.50



Butted Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case								Ultimate loads in kN (purlin SW incl)			
			Total	Deflection controlled		Allowable Values in kN/m2(with defl=L/180 max)					Gravity	Uplift	Uplift	Uplift
			Load (kN)	Span/150	Span/180	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	Down	0 rows	1 row	2 rows
3.5	140/14	3.06	8.00	10.76	8.97	1.90	1.63	1.43	1.27	1.14	12.79	10.46	13.04	
	140/16	3.48	9.52	12.21	10.18	2.27	1.94	1.70	1.51	1.36	15.22	12.43	15.51	
	170/15	3.62	10.89	18.10	15.08	2.59	2.22	1.94	1.73	1.56	17.42	14.20	17.72	
4.0	140/14	3.06	6.75	8.24	6.87	1.41	1.21	1.05	0.94	0.84	11.15	9.18	11.44	
	140/16	3.48	7.66	9.35	7.79	1.60	1.37	1.20	1.06	0.96	13.28	10.91	13.60	
	170/15	3.62	9.50	13.86	11.55	1.98	1.70	1.48	1.32	1.19	15.19	12.46	15.53	
	170/16	3.86	10.34	14.73	12.28	2.15	1.85	1.62	1.44	1.29	16.54	13.56	16.91	
	170/18	4.33	12.01	16.47	13.72	2.50	2.14	1.88	1.67	1.50	19.22	15.73	19.62	
4.5	140/14	3.06	5.29	6.51	5.43	0.98	0.84	0.73	0.65	0.59	9.88	8.13	10.20	
	140/16	3.48	6.00	7.39	6.16	1.11	0.95	0.83	0.74	0.67	11.76	9.20	12.13	
	170/15	3.62	8.41	10.95	9.12	1.56	1.34	1.17	1.04	0.93	13.46	10.63	13.84	
	170/16	3.86	9.16	11.64	9.70	1.70	1.45	1.27	1.13	1.02	14.66	11.29	15.07	
	170/18	4.33	10.64	13.01	10.84	1.97	1.69	1.48	1.31	1.18	17.02	12.57	17.48	
	200/16	4.48	11.81	18.82	15.68	2.19	1.87	1.64	1.46	1.31	18.89	15.54	19.37	
5.0	140/14	3.06	4.25	5.27	4.40	0.71	0.61	0.53	0.47	0.42	8.85	6.28	9.21	
	140/16	3.48	4.82	5.98	4.99	0.80	0.69	0.60	0.54	0.48	10.54	7.12	10.95	
	170/15	3.62	7.21	8.87	7.39	1.20	1.03	0.90	0.80	0.72	12.06	8.16	12.49	
	170/16	3.86	7.67	9.43	7.86	1.28	1.10	0.96	0.85	0.77	13.14	8.66	13.59	
	170/18	4.33	8.57	10.54	8.78	1.43	1.22	1.07	0.95	0.86	15.27	9.65	15.77	
	200/16	4.48	10.59	15.24	12.70	1.77	1.51	1.32	1.18	1.06	16.95	14.02	17.47	
	200/18	5.03	12.47	17.05	14.21	2.08	1.78	1.56	1.39	1.25	19.95	16.23	20.55	
	240/18	5.77	14.30	18.84	15.70	2.38	2.04	1.79	1.59	1.43	22.88	17.88	23.54	
5.5	240/18	5.77	15.72	27.46	22.88	2.62	2.25	1.96	1.75	1.57	25.15	20.72	25.83	
	170/15	3.62	5.91	7.33	6.11	0.90	0.77	0.67	0.60	0.54	10.92	6.35	11.39	
	170/16	3.86	6.29	7.79	6.49	0.95	0.82	0.71	0.63	0.57	11.90	6.75	12.39	
	170/18	4.33	7.02	8.71	7.26	1.06	0.91	0.80	0.71	0.64	13.82	7.53	14.27	
	200/16	4.48	9.59	12.60	10.50	1.45	1.25	1.09	0.97	0.87	15.35	11.51	15.93	
	200/18	5.03	11.30	14.09	11.74	1.71	1.47	1.28	1.14	1.03	18.07	12.84	18.73	
	200/20	5.58	12.67	15.57	12.97	1.92	1.65	1.44	1.28	1.15	20.73	14.15	21.45	
	240/18	5.77	14.24	22.69	18.91	2.16	1.85	1.62	1.44	1.29	22.79	18.36	23.54	
6.0	240/20	6.39	16.46	25.09	20.91	2.49	2.14	1.87	1.66	1.50	26.33	20.23	27.16	
	170/15	3.62	4.92	6.16	5.13	0.68	0.59	0.51	0.46	0.41	9.96	5.04	10.34	
	170/16	3.86	5.23	6.55	5.46	0.73	0.62	0.54	0.48	0.44	10.85	5.36	10.98	
	170/18	4.33	5.84	7.32	6.10	0.81	0.70	0.61	0.54	0.49	12.61	5.98	12.24	
	200/16	4.48	8.56	10.58	8.82	1.19	1.02	0.89	0.79	0.71	14.01	9.19	14.64	
	200/18	5.03	9.57	11.84	9.87	1.33	1.14	1.00	0.89	0.80	16.50	10.25	17.21	
	200/20	5.58	10.57	13.08	10.90	1.47	1.26	1.10	0.98	0.88	18.93	11.30	19.72	
	240/18	5.77	13.01	19.07	15.89	1.81	1.55	1.36	1.20	1.08	20.81	14.73	21.63	
6.5	240/20	6.39	15.03	21.08	17.57	2.09	1.79	1.57	1.39	1.25	24.05	16.23	24.95	
	240/25	7.94	20.02	26.03	21.69	2.78	2.38	2.09	1.85	1.67	32.03	19.89	33.15	
	200/16	4.48	7.23	9.02	7.52	0.93	0.79	0.70	0.62	0.56	12.87	7.44	13.56	
	200/18	5.03	8.09	10.09	8.41	1.04	0.89	0.78	0.69	0.62	15.17	8.31	15.94	
	200/20	5.58	8.93	11.15	9.29	1.15	0.98	0.86	0.76	0.69	17.40	9.16	17.99	
	240/18	5.77	11.96	16.25	13.54	1.53	1.31	1.15	1.02	0.92	19.14	11.94	20.02	
	240/20	6.39	13.82	17.96	14.97	1.77	1.52	1.33	1.18	1.06	22.12	13.16	23.10	
7.0	240/25	7.94	17.98	22.18	18.48	2.30	1.98	1.73	1.54	1.38	29.46	16.14	30.29	
	240/30	9.47	21.30	26.29	21.91	2.73	2.34	2.05	1.82	1.64	36.74	19.04	35.71	
	200/16	4.48	6.17	7.78	6.48	0.73	0.63	0.55	0.49	0.44	11.89	6.12	12.63	12.63
	200/18	5.03	6.90	8.70	7.25	0.82	0.70	0.62	0.55	0.49	14.02	6.83	14.20	14.84
	200/20	5.58	7.63	9.61	8.01	0.91	0.78	0.68	0.61	0.54	16.08	7.54	15.65	17.00
	240/18	5.77	11.06	14.01	11.67	1.32	1.13	0.99	0.88	0.79	17.69	9.81	18.64	18.64
	240/20	6.39	12.47	15.49	12.91	1.48	1.27	1.11	0.99	0.89	20.45	10.82	21.51	21.51
240/25	7.94	15.39	19.12	15.94	1.83	1.57	1.37	1.22	1.10	27.25	13.29	26.66	28.56	
240/30	9.47	18.24	22.67	18.89	2.17	1.86	1.63	1.45	1.30	33.99	15.70	31.40	34.32	



## Butted Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case								Ultimate loads in kN (purlin SW incl)			
			Total	Deflection controlled		Allowable Values in kN/m <sup>2</sup> (with defl=L/180 max)					Gravity	Uplift	Uplift	Uplift
			Load (kN)	Span/ 150	Span/ 180	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	Down	0 rows	1 row	2 rows
7.5	240/18	5.77	9.75	12.20	10.17	1.08	0.93	0.81	0.72	0.65	16.44	8.17	17.19	17.46
	240/20	6.39	10.77	13.49	11.24	1.20	1.03	0.90	0.80	0.72	19.00	9.02	18.95	20.13
	240/25	7.94	13.30	16.66	13.88	1.48	1.27	1.11	0.99	0.89	25.33	11.09	23.23	26.69
8.0	240/30	9.47	15.76	19.74	16.45	1.75	1.50	1.31	1.17	1.05	31.60	13.12	27.35	31.55
	240/18	5.77	8.49	10.73	8.94	0.88	0.76	0.66	0.59	0.53	15.33		14.89	16.42
	240/20	6.39	9.38	11.86	9.88	0.98	0.84	0.73	0.65	0.59	17.73		16.41	18.94
8.5	240/25	7.94	11.58	14.64	12.20	1.21	1.03	0.90	0.80	0.72	23.64		20.12	24.56
	240/30	9.47	13.72	17.35	14.46	1.43	1.22	1.07	0.95	0.86	29.50		23.71	29.01
	240/18	5.77	7.44	9.50	7.92	0.73	0.62	0.55	0.49	0.44	14.35		12.88	15.51
9.0	240/20	6.39	8.22	10.51	8.75	0.81	0.69	0.60	0.54	0.48	16.60		14.20	17.88
	240/25	7.94	10.15	12.97	10.81	0.99	0.85	0.75	0.66	0.60	22.14		17.42	22.57
	240/30	9.47	12.02	15.37	12.81	1.18	1.01	0.88	0.79	0.71	27.64		20.55	26.64
9.5	300/25	10.02	20.62	25.90	21.58	2.02	1.73	1.52	1.35	1.21	32.99		35.00	35.00
	300/30	11.97	24.65	30.78	25.65	2.42	2.07	1.81	1.61	1.45	41.87		43.43	44.27
	240/20	6.39	7.24	9.37	7.81	0.67	0.57	0.50	0.45	0.40	15.60		12.33	16.84
10.0	240/25	7.94	8.94	11.57	9.64	0.83	0.71	0.62	0.55	0.50	20.81		15.14	20.69
	240/30	9.47	10.59	13.71	11.43	0.98	0.84	0.74	0.65	0.59	25.97		17.88	24.40
	300/25	10.02	18.37	23.10	19.25	1.70	1.46	1.28	1.13	1.02	31.02		33.14	33.15
10.5	300/30	11.97	21.82	27.45	22.88	2.02	1.73	1.52	1.35	1.21	39.39		39.17	41.92
	300/25	10.02	16.35	20.74	17.28	1.43	1.23	1.08	0.96	0.86	29.26		29.73	31.50
	300/30	11.97	19.42	24.64	20.53	1.70	1.46	1.28	1.14	1.02	37.15		35.12	39.83
11.0	300/25	10.02	14.61	18.71	15.59	1.22	1.04	0.91	0.81	0.73	27.66		26.56	30.02
	300/30	11.97	17.36	22.24	18.53	1.45	1.24	1.08	0.96	0.87	35.14		31.38	37.82
	300/25	10.02	13.11	16.97	14.14	1.04	0.89	0.78	0.69	0.62	26.21		23.71	28.69
11.0	300/30	11.97	15.57	20.17	16.81	1.24	1.06	0.93	0.82	0.74	33.30		28.02	35.43
	300/25	10.02	11.81	15.47	12.89	0.89	0.77	0.67	0.60	0.54	24.88		21.19	27.48
11.0	300/30	11.97	14.02	18.38	15.31	1.06	0.91	0.80	0.71	0.64	31.63		25.07	33.14

Heavy End Bay Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case						Ultimate loads in kN (purlin SW incl)							
			Total Loads (kN)		Deflection controlled				Gravity		Uplift		Uplift		Uplift	
			End Bay	Inner Bay	Span/150		Span/180		Down		0 rows		1 row		2 rows	
					End	Inner	End	Inner	End	Inner	End	Inner	End	Inner	End	Inner
3.5	140/14	3.06	11.11	14.32	17.07	25.98	14.22	21.65	17.77	22.90	14.44	18.55	18.02	23.16		
	140/16	3.48	13.22	17.03	19.36	29.48	16.14	24.56	21.15	27.25	17.17	22.06	21.43	27.54		
	170/15	3.62	14.91	19.48	28.69	43.68	23.91	36.40	23.85	31.16	19.34	25.19	24.15	31.46		
4.0	140/14	3.06	9.69	12.50	13.07	19.89	10.89	16.58	15.51	20.00	12.66	16.26	15.80	20.29		
	140/16	3.48	11.54	14.88	14.83	22.57	12.35	18.81	18.46	23.80	15.06	19.33	18.79	24.13		
	170/15	3.62	13.01	17.01	21.97	33.44	18.31	27.87	20.82	27.22	16.96	22.08	21.16	27.56		
	170/16	3.86	14.27	18.52	23.36	35.55	19.46	29.63	22.83	29.64	18.59	24.03	23.20	30.00		
170/18	4.33	16.69	21.51	26.11	39.74	21.75	33.12	26.70	34.42	21.72	27.89	27.11	34.83			
4.5	140/14	3.06	8.47	11.09	10.32	15.72	8.60	13.10	13.75	17.74	11.20	14.37	14.07	18.06		
	140/16	3.48	9.61	13.19	11.71	17.83	9.76	14.86	16.36	21.11	12.68	16.27	16.73	21.48		
	170/15	3.62	11.54	15.09	17.36	26.42	14.46	22.02	18.46	24.15	14.46	18.82	18.85	24.53		
	170/16	3.86	12.65	16.44	18.45	28.09	15.38	23.41	20.25	26.30	15.46	19.97	20.65	26.70		
	170/18	4.33	14.80	19.09	20.63	31.40	17.19	26.17	23.68	30.54	17.34	22.25	24.14	31.00		
200/16	4.48	16.01	21.17	29.83	45.41	24.86	37.84	25.61	33.88	20.91	27.52	26.09	34.35			
5.0	140/14	3.06	6.82	9.95	8.36	12.73	6.97	10.61	12.33	15.93	8.65	11.08	12.69	16.29		
	140/16	3.48	7.74	11.85	9.49	14.44	7.91	12.04	14.68	18.96	9.79	12.55	15.09	19.36		
	170/15	3.62	10.36	13.55	14.06	21.40	11.72	17.84	16.57	21.69	11.08	14.39	17.00	22.11		
	170/16	3.86	11.36	14.76	14.95	22.75	12.46	18.96	18.17	23.62	11.84	15.28	18.63	24.07		
	170/18	4.33	13.28	17.14	16.71	25.43	13.92	21.19	21.25	27.43	13.28	17.03	21.76	27.94		
200/16	4.48	14.37	19.02	24.16	36.78	20.14	30.65	22.99	30.43	18.86	24.81	23.52	30.96			
5.5	140/14	3.06	5.59	8.60	6.91	10.52	5.76	8.77	11.17	14.44	6.74	8.63	11.57	14.83		
	140/16	3.48	6.35	9.76	7.84	11.94	6.53	9.95	13.30	17.19	7.65	9.78	13.75	17.64		
	170/15	3.62	9.38	12.29	11.62	17.69	9.68	14.74	15.02	19.67	8.61	11.16	15.48	20.14		
	170/16	3.86	10.09	13.39	12.35	18.81	10.30	15.67	16.47	21.42	9.20	11.86	16.97	21.92		
	170/18	4.33	11.27	15.55	13.81	21.02	11.51	17.52	19.27	24.88	10.33	13.22	19.83	25.44		
	200/16	4.48	13.03	17.25	19.97	30.40	16.64	25.33	20.84	27.61	15.46	20.32	21.42	28.19		
	200/18	5.03	15.56	20.31	22.34	34.01	18.62	28.34	24.89	32.49	17.48	22.66	25.54	33.15		
	200/20	5.58	18.04	23.29	24.68	37.58	20.57	31.31	28.87	37.26	19.47	24.97	29.59	37.98		
6.0	140/14	3.06	4.66	7.19	5.81	8.84	4.84	7.37	10.20	13.19	5.35	6.84	10.63	13.63		
	140/16	3.48	5.29	8.15	6.59	10.03	5.49	8.36	12.15	15.71	6.08	7.76	12.64	16.20		
	170/15	3.62	7.92	11.24	9.76	14.86	8.14	12.39	13.72	17.98	6.81	8.82	14.23	18.49		
	170/16	3.86	8.42	12.24	10.38	15.80	8.65	13.17	15.05	19.58	7.29	9.37	15.59	20.13		
	170/18	4.33	9.41	14.22	11.60	17.66	9.67	14.72	17.60	22.75	8.19	10.46	17.85	22.90		
	200/16	4.48	11.90	15.78	16.78	25.54	13.98	21.29	19.05	25.25	12.32	16.17	19.68	25.88		
	200/18	5.03	14.22	18.58	18.77	28.58	15.64	23.81	22.75	29.72	13.93	18.04	23.46	30.43		
	200/20	5.58	16.49	21.30	20.74	31.57	17.28	26.31	26.39	34.08	15.52	19.88	27.18	34.87		
240/18	5.77	17.51	23.41	30.23	46.02	25.19	38.35	28.02	37.45	19.59	25.97	28.83	38.26			
6.5	170/15	3.62	6.70	10.32	8.32	12.66	6.93	10.55	12.61	16.55	5.49	7.10	12.86	16.70		
	170/16	3.86	7.13	10.97	8.85	13.46	7.37	11.22	13.84	18.03	5.88	7.54	13.74	17.73		
	170/18	4.33	7.96	12.27	9.89	15.05	8.24	12.54	16.19	20.94	6.61	8.43	15.42	19.75		
	200/16	4.48	10.95	14.53	14.30	21.77	11.92	18.14	17.52	23.24	9.95	13.03	18.21	23.93		
	200/18	5.03	13.01	17.10	16.00	24.35	13.33	20.29	20.93	27.37	11.26	14.55	21.70	28.14		
	200/20	5.58	14.37	19.61	17.67	26.90	14.73	22.42	24.28	31.38	12.55	16.04	25.14	32.24		
	240/18	5.77	16.12	21.56	25.76	39.21	21.47	32.68	25.79	34.49	15.86	20.98	26.67	35.38		
	240/20	6.39	18.89	24.90	28.48	43.36	23.73	36.13	30.23	39.85	17.72	23.13	31.21	40.83		
	240/25	7.94	25.67	33.15	35.16	53.53	29.30	44.61	41.07	53.04	22.16	28.36	42.29	54.25		
240/30	9.47	32.00	41.32	41.68	63.44	34.73	52.87	51.20	66.11	26.13	33.45	51.09	65.55			
7.0	170/15	3.62	5.73	8.85	7.17	10.92	5.98	9.10	11.66	15.32	4.51	5.81	10.97	14.24	12.26	15.92
	170/16	3.86	6.09	9.41	7.63	11.61	6.36	9.67	12.80	16.69	4.83	6.18	11.73	15.11	13.43	17.32
	170/18	4.33	6.81	10.52	8.52	12.98	7.10	10.81	14.98	19.39	5.44	6.91	13.16	16.84	15.54	19.89
	200/16	4.48	9.97	13.45	12.33	18.77	10.27	15.64	16.21	21.53	8.15	10.66	16.95	22.26	16.95	22.26
	200/18	5.03	11.15	15.84	13.79	21.00	11.49	17.50	19.37	25.35	9.23	11.90	20.20	26.18	20.20	26.18
	200/20	5.58	12.32	18.17	15.24	23.20	12.70	19.33	22.48	29.07	10.30	13.14	22.96	29.43	23.39	29.99
	240/18	5.77	14.92	19.97	22.21	33.81	18.51	28.18	23.87	31.95	13.00	17.17	24.82	32.90	24.82	32.90
	240/20	6.39	17.49	23.07	24.56	37.38	20.47	31.15	27.98	36.92	14.53	18.93	29.04	37.97	29.04	37.97
	240/25	7.94	23.77	30.71	30.32	46.15	25.27	38.46	38.03	49.14	18.19	23.25	38.72	49.65	39.34	50.45
240/30	9.47	29.29	38.29	35.93	54.70	29.95	45.58	47.42	61.26	21.49	27.45	45.64	58.53	47.86	61.38	



Heavy End Bay Purlins

Span	Section	Weight (kg/m)	Allowable Working Loads for Gravity Case						Ultimate loads in kN (purlin SW incl)							
			Total Loads (kN)		Deflection controlled				Gravity		Uplift		Uplift		Uplift	
			End Bay	Inner Bay	Span/150		Span/180		Down		0 rows		1 row		2 rows	
					End	Inner	End	Inner	End	Inner	End	Inner	End	Inner	End	Inner
7.5	200/16	4.48	8.62	12.52	10.74	16.35	8.95	13.62	15.07	20.03	6.78	8.84	15.86	20.82	15.86	20.82
	200/18	5.03	9.64	14.74	12.01	18.29	10.01	15.24	18.01	23.59	7.68	9.88	18.08	23.41	18.90	24.48
	200/20	5.58	10.65	16.43	13.27	20.21	11.06	16.84	20.90	27.06	8.57	10.91	20.14	25.79	21.89	28.04
	240/18	5.77	13.88	18.59	19.35	29.45	16.12	24.54	22.20	29.75	10.80	14.23	23.22	30.76	23.22	30.76
	240/20	6.39	16.27	21.48	21.39	32.56	17.83	27.14	26.03	34.37	12.08	15.70	27.16	35.50	27.16	35.50
	240/25	7.94	21.43	28.60	26.41	40.21	22.01	33.50	35.39	45.76	15.14	19.31	34.33	44.00	36.79	47.16
	240/30	9.47	25.39	35.66	31.30	47.65	26.09	39.71	44.13	57.05	17.91	22.84	40.44	51.82	44.13	56.56
8.0	200/16	4.48	7.51	11.62	9.44	14.37	7.87	11.97	14.07	18.72			13.90	18.23	14.91	19.56
	200/18	5.03	8.40	13.00	10.56	16.07	8.80	13.40	16.82	22.05			15.72	20.34	17.77	23.00
	200/20	5.58	9.29	14.36	11.67	17.76	9.72	14.80	19.52	25.29			17.51	22.41	20.57	26.34
	240/18	5.77	12.96	17.38	17.01	25.89	14.17	21.57	20.74	27.81			21.60	28.60	21.82	28.90
	240/20	6.39	15.17	20.09	18.80	28.62	15.67	23.85	24.32	32.14			24.14	31.52	25.53	33.34
	240/25	7.94	18.72	26.75	23.21	35.34	19.35	29.45	33.07	42.80			30.18	38.64	34.48	44.17
	240/30	9.47	22.18	33.35	27.51	41.88	22.93	34.90	41.25	53.36			35.53	45.50	40.75	52.20
8.5	200/16	4.48	6.59	10.23	8.36	12.73	6.97	10.61	13.18	17.56			12.05	15.78	14.08	18.46
	200/18	5.03	7.38	11.45	9.35	14.24	7.80	11.87	15.76	20.68			13.63	17.61	16.77	21.69
	200/20	5.58	8.15	12.65	10.34	15.73	8.61	13.11	18.30	23.73			15.19	19.41	19.09	24.41
	240/18	5.77	12.07	16.31	15.06	22.93	12.55	19.11	19.44	26.10			18.88	24.97	20.59	27.25
	240/20	6.39	13.35	18.85	16.66	25.35	13.88	21.13	22.81	30.16			21.10	27.52	24.08	31.44
	240/25	7.94	16.47	25.11	20.56	31.30	17.14	26.08	31.02	40.17			26.37	33.74	31.86	40.79
	240/30	9.47	19.52	30.12	24.37	37.10	20.31	30.91	38.70	50.10			31.07	39.74	37.64	48.17
9.0	240/18	5.77	10.69	15.36	13.44	20.45	11.20	17.04	18.28	24.57			16.48	21.76	19.51	25.79
	240/20	6.39	11.82	17.75	14.86	22.61	12.38	18.85	21.45	28.40			18.41	23.99	22.81	29.76
	240/25	7.94	14.58	22.57	18.34	27.92	15.28	23.27	29.19	37.83			23.03	29.42	29.41	37.62
	240/30	9.47	17.28	26.74	21.74	33.09	18.12	27.58	36.42	47.19			27.15	34.69	34.71	44.39
	300/25	10.02	26.60	35.15	36.63	55.76	30.52	46.46	42.56	56.24			44.68	58.36	44.68	58.36
	300/30	11.97	34.45	44.58	43.52	66.25	36.27	55.21	55.11	71.32			57.03	73.07	57.65	73.86
9.5	240/18	5.77	9.51	14.50	12.06	18.36	10.05	15.30	17.24	23.20			14.41	19.00	18.53	24.49
	240/20	6.39	10.52	16.32	13.33	20.30	11.11	16.91	20.24	26.82			16.10	20.95	21.62	28.17
	240/25	7.94	12.98	20.14	16.46	25.06	13.72	20.88	27.55	35.74			20.15	25.72	27.08	34.59
	240/30	9.47	15.38	23.87	19.51	29.70	16.26	24.75	34.38	44.58			23.79	30.36	31.93	40.78
	300/25	10.02	25.12	33.21	32.87	50.04	27.39	41.70	40.18	53.14			42.43	55.39	42.43	55.39
	300/30	11.97	31.44	42.13	39.06	59.46	32.55	49.55	52.05	67.41			51.85	66.38	54.73	70.09
10.0	240/18	5.77	8.50	13.24	10.88	16.57	9.07	13.81	16.30	21.96			12.65	16.65	17.66	23.32
	240/20	6.39	9.40	14.64	12.03	18.32	10.03	15.26	19.14	25.39			14.14	18.36	19.85	25.83
	240/25	7.94	11.60	18.07	14.86	22.62	12.38	18.85	26.07	33.84			17.72	22.57	24.84	31.70
	240/30	9.47	13.74	21.41	17.61	26.80	14.67	22.34	32.53	42.22			20.94	26.68	29.27	37.33
	300/25	10.02	23.74	31.47	29.67	45.16	24.72	37.64	38.04	50.35			38.90	50.74	40.40	52.71
	300/30	11.97	28.20	39.92	35.25	53.66	29.38	44.72	49.29	63.88			46.86	59.95	52.11	66.70
10.5	300/25	10.02	21.39	29.89	26.91	40.96	22.43	34.14	36.10	47.82			35.02	45.64	38.57	50.30
	300/30	11.97	25.41	37.92	31.98	48.67	26.65	40.56	46.78	60.68			42.19	53.92	49.74	63.64
11.0	300/25	10.02	19.35	28.45	24.52	37.32	20.43	31.10	34.32	45.51			31.47	40.97	36.92	48.11
	300/30	11.97	22.99	35.67	29.14	44.35	24.28	36.96	44.49	57.76			37.92	48.41	46.78	59.81
11.5	300/25	10.02	17.56	27.12	22.43	34.15	18.69	28.46	32.69	43.40			28.29	36.77	35.41	46.11
	300/30	11.97	20.86	32.46	26.66	40.58	22.21	33.81	42.40	55.09			34.09	43.47	43.92	56.12
12.0	300/25	10.02	15.99	24.96	20.60	31.36	17.17	26.14	31.20	41.46			25.48	33.07	34.03	44.29
	300/30	11.97	18.99	29.65	24.48	37.27	20.40	31.06	40.47	52.63			30.72	39.11	41.17	52.56
12.5	300/25	10.02	14.59	22.86	18.99	28.90	15.82	24.09	29.81	39.66			23.01	29.82	31.93	41.52
	300/30	11.97	17.33	27.15	22.56	34.34	18.80	28.62	38.69	50.36			27.76	35.29	38.50	49.11



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