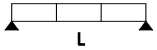
T70-57L-1058 - Z275 - Positive - Narrow flange against support.

Dimensioning tables according to EN 1993-1-3.
End support width: = 60 mm.
Middle support width: = 160 mm.
Compare design load where safety factors must be included to table values (1.ULS).
Serviceability limit state safety factors = 1,0.
Self-weight of the sheet has been taken into account with factor 1,35.
Continuous uniform load in [kN/m^2].
1.Ultimate limit state (ULS; Q).
2.Serviceability limit state. Deflection limit f = L/150 (SLS; Q_{ch}).
3.Serviceability limit state. Deflection limit f = L/200 (SLS; Q_{ch}).
4.Serviceability limit state. Deflection limit f = L/250 (SLS; Q_{ch}).
5.Serviceability limit state. Deflection limit f = L/300 (SLS; Q_{ch}).

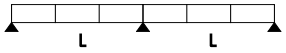
1-Span structure



Thick [mm]	State	Span lenght L [m]																				
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00
0.70	1. ULS	21.93	17.53	14.59	12.49	10.92	9.70	8.17	6.74	5.65	4.80	4.12	3.58	3.14	2.77	2.46	2.20	1.97	1.79	1.62	1.47	1.35
	2. L/150	71.56	36.59	21.13	13.29	8.88	6.21	4.50	3.37	2.58	2.01	1.59	1.28	1.04	0.86	0.71	0.59	0.50	0.42	0.35	0.30	0.26
	3. L/200	53.63	27.42	15.83	9.94	6.64	4.64	3.36	2.51	1.91	1.49	1.18	0.94	0.76	0.62	0.51	0.43	0.35	0.30	0.24	0.21	0.17
	4. L/250	42.89	21.92	12.65	7.94	5.29	3.70	2.67	1.99	1.51	1.17	0.93	0.73	0.59	0.48	0.39	0.32	0.26	0.23	0.18	0.15	0.12
	5. L/300	35.73	18.25	10.53	6.60	4.40	3.07	2.21	1.65	1.25	0.97	0.75	0.60	0.48	0.39	0.31	0.26	0.21	0.17	0.14	0.11	0.09
0.75	1. ULS	25.28	20.21	16.83	14.41	12.60	10.92	8.83	7.28	6.10	5.18	4.46	3.87	3.39	2.99	2.66	2.38	2.13	1.92	1.75	1.59	1.45
	2. L/150	76.91	39.35	22.74	14.29	9.55	6.68	4.84	3.62	2.77	2.16	1.71	1.37	1.12	0.92	0.76	0.64	0.54	0.45	0.38	0.32	0.27
	3. L/200	57.65	29.51	17.03	10.69	7.14	4.99	3.61	2.70	2.06	1.60	1.27	1.02	0.82	0.67	0.55	0.46	0.37	0.32	0.26	0.22	0.18
	4. L/250	46.12	23.57	13.61	8.54	5.69	3.97	2.87	2.15	1.63	1.26	1.00	0.80	0.63	0.51	0.43	0.35	0.29	0.24	0.20	0.17	0.14
	5. L/300	38.42	19.63	11.33	7.10	4.73	3.30	2.38	1.77	1.34	1.03	0.82	0.64	0.52	0.42	0.34	0.28	0.23	0.19	0.15	0.12	0.10
0.80	1. ULS	28.86	23.08	19.23	16.46	14.39	11.68	9.44	7.78	6.52	5.55	4.77	4.14	3.63	3.20	2.84	2.54	2.28	2.06	1.87	1.71	1.55
	2. L/150	82.35	42.12	24.34	15.30	10.22	7.15	5.19	3.88	2.96	2.31	1.83	1.47	1.20	0.99	0.82	0.68	0.57	0.48	0.41	0.35	0.29
	3. L/200	61.75	31.57	18.24	11.45	7.64	5.34	3.86	2.88	2.20	1.71	1.35	1.08	0.88	0.72	0.59	0.48	0.41	0.34	0.28	0.24	0.19
	4. L/250	49.38	25.23	14.57	9.14	6.10	4.26	3.08	2.29	1.74	1.36	1.06	0.85	0.68	0.55	0.45	0.37	0.30	0.25	0.21	0.17	0.15
	5. L/300	41.11	21.01	12.12	7.60	5.06	3.53	2.55	1.89	1.44	1.11	0.87	0.69	0.56	0.45	0.36	0.29	0.24	0.20	0.16	0.13	0.10
0.88	1. ULS	35.09	28.04	23.34	19.99	16.35	12.89	10.42	8.60	7.21	6.12	5.26	4.57	4.00	3.53	3.14	2.80	2.52	2.28	2.06	1.88	1.72
	2. L/150	91.04	46.52	26.89	16.90	11.29	7.90	5.74	4.29	3.28	2.56	2.03	1.63	1.33	1.09	0.90	0.75	0.64	0.54	0.45	0.38	0.32
	3. L/200	68.22	34.89	20.14	12.65	8.45	5.90	4.27	3.19	2.43	1.89	1.49	1.20	0.97	0.79	0.65	0.54	0.45	0.38	0.32	0.26	0.22
	4. L/250	54.54	27.90	16.10	10.10	6.74	4.70	3.40	2.53	1.93	1.49	1.18	0.94	0.75	0.61	0.50	0.41	0.34	0.28	0.23	0.19	0.16
	5. L/300	45.43	23.21	13.40	8.40	5.60	3.90	2.82	2.09	1.59	1.23	0.96	0.76	0.61	0.49	0.40	0.33	0.27	0.22	0.18	0.14	0.12
0.90	1. ULS	36.72	29.35	24.44	20.94	16.74	13.19	10.67	8.80	7.37	6.27	5.39	4.68	4.10	3.62	3.21	2.87	2.58	2.33	2.11	1.92	1.76
	2. L/150	93.14	47.64	27.55	17.30	11.56	8.09	5.87	4.39	3.35	2.61	2.08	1.67	1.36	1.12	0.92	0.77	0.65	0.55	0.46	0.39	0.33
	3. L/200	69.88	35.71	20.62	12.95	8.64	6.04	4.38	3.26	2.49	1.94	1.54	1.23	1.00	0.81	0.67	0.55	0.46	0.38	0.32	0.26	0.22
	4. L/250	55.88	28.54	16.49	10.34	6.90	4.81	3.48	2.59	1.97	1.53	1.21	0.96	0.77	0.63	0.51	0.42	0.35	0.29	0.24	0.20	0.16
	5. L/300	46.54	23.77	13.72	8.60	5.73	3.99	2.89	2.14	1.63	1.26	0.99	0.79	0.63	0.51	0.41	0.33	0.28	0.22	0.18	0.15	0.12
	1. ULS	45.41	36.31	30.22	24.41	18.66	14.72	11.89	9.81	8.22	6.98	6.01	5.22	4.57	4.04	3.59	3.20	2.88	2.60	2.36	2.15	1.96
	2. L/150	104.02	53.20	30.72	19.31	12.90	9.03	6.55	4.90	3.74	2.92	2.32	1.86	1.51	1.25	1.03	0.86	0.73	0.61	0.51	0.44	0.37

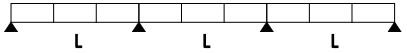
1.00	**3. L/200**	77.95	39.87	23.02	14.46	9.64	6.74	4.88	3.64	2.78	2.16	1.71	1.37	1.11	0.91	0.75	0.62	0.51	0.43	0.36	0.30	0.25
	4. L/250	62.32	31.87	18.40	11.54	7.69	5.37	3.88	2.89	2.21	1.71	1.35	1.08	0.87	0.70	0.57	0.47	0.39	0.32	0.27	0.22	0.18
	5. L/300	51.95	26.53	15.31	9.60	6.40	4.46	3.23	2.40	1.82	1.41	1.10	0.88	0.70	0.57	0.46	0.37	0.30	0.25	0.20	0.17	0.13

2-Span structure



Thick [mm]	State	Span lenght L [m]																				
		1.00	**1.25**	**1.50**	**1.75**	**2.00**	**2.25**	**2.50**	**2.75**	**3.00**	**3.25**	**3.50**	**3.75**	**4.00**	**4.25**	**4.50**	**4.75**	**5.00**	**5.25**	**5.50**	**5.75**	**6.00**
0.70	**1. ULS**	22.17	16.25	12.49	9.94	8.11	6.75	5.71	4.89	4.24	3.71	3.28	2.90	2.60	2.33	2.11	1.92	1.75	1.59	1.46	1.34	1.25
	2. L/150	172.89	88.44	51.12	32.17	21.52	15.09	10.98	8.23	6.32	4.96	3.95	3.20	2.62	2.18	1.82	1.53	1.30	1.12	0.96	0.83	0.73
	3. L/200	129.56	66.32	38.31	24.09	16.12	11.29	8.21	6.15	4.72	3.70	2.95	2.38	1.95	1.61	1.34	1.13	0.96	0.81	0.70	0.61	0.53
	4. L/250	103.70	53.03	30.64	19.27	12.88	9.03	6.56	4.91	3.76	2.94	2.35	1.89	1.54	1.28	1.06	0.89	0.74	0.64	0.54	0.47	0.40
	5. L/300	86.37	44.16	25.53	16.04	10.72	7.51	5.45	4.07	3.12	2.44	1.94	1.56	1.27	1.04	0.87	0.73	0.61	0.52	0.44	0.37	0.33
0.75	**1. ULS**	25.11	18.39	14.12	11.21	9.14	7.60	6.42	5.50	4.76	4.16	3.67	3.25	2.91	2.62	2.36	2.14	1.95	1.79	1.64	1.51	1.39
	2. L/150	185.93	95.15	55.02	34.60	23.15	16.23	11.81	8.85	6.80	5.33	4.25	3.44	2.82	2.34	1.95	1.65	1.41	1.20	1.04	0.89	0.78
	3. L/200	139.41	71.30	41.22	25.92	17.34	12.15	8.84	6.62	5.08	3.98	3.17	2.56	2.09	1.73	1.45	1.22	1.03	0.88	0.75	0.65	0.56
	4. L/250	111.56	57.04	32.95	20.72	13.85	9.70	7.05	5.28	4.04	3.17	2.52	2.03	1.66	1.37	1.14	0.96	0.81	0.68	0.59	0.50	0.43
	5. L/300	92.89	47.53	27.45	17.26	11.53	8.07	5.86	4.38	3.36	2.62	2.08	1.68	1.37	1.12	0.94	0.78	0.66	0.56	0.48	0.41	0.34
0.80	**1. ULS**	28.12	20.51	15.72	12.45	10.14	8.41	7.10	6.07	5.25	4.59	4.04	3.59	3.20	2.88	2.60	2.35	2.14	1.96	1.80	1.65	1.52
	2. L/150	198.89	101.76	58.83	37.01	24.78	17.38	12.64	9.47	7.28	5.71	4.55	3.68	3.02	2.50	2.09	1.77	1.50	1.29	1.11	0.96	0.84
	3. L/200	149.26	76.32	44.11	27.75	18.56	13.01	9.46	7.09	5.44	4.25	3.39	2.74	2.24	1.85	1.55	1.30	1.10	0.94	0.81	0.70	0.60
	4. L/250	119.33	61.03	35.27	22.18	14.83	10.39	7.55	5.65	4.33	3.39	2.70	2.17	1.77	1.47	1.22	1.03	0.86	0.73	0.62	0.54	0.46
	5. L/300	99.48	50.84	29.38	18.47	12.34	8.64	6.28	4.69	3.59	2.81	2.23	1.80	1.46	1.20	1.00	0.84	0.71	0.60	0.51	0.43	0.37
0.88	**1. ULS**	33.01	23.97	18.27	14.42	11.69	9.68	8.15	6.96	6.00	5.24	4.60	4.08	3.64	3.27	2.95	2.67	2.43	2.22	2.03	1.87	1.72
	2. L/150	219.93	112.49	65.05	40.92	27.37	19.20	13.97	10.47	8.04	6.30	5.03	4.07	3.33	2.77	2.31	1.95	1.66	1.42	1.23	1.06	0.92
	3. L/200	164.81	84.33	48.76	30.67	20.51	14.38	10.45	7.83	6.00	4.71	3.74	3.02	2.47	2.05	1.71	1.44	1.22	1.04	0.90	0.77	0.67
	4. L/250	131.93	67.45	38.99	24.50	16.39	11.48	8.34	6.24	4.79	3.74	2.98	2.40	1.96	1.62	1.35	1.13	0.96	0.81	0.69	0.59	0.51
	5. L/300	109.93	56.19	32.48	20.42	13.64	9.55	6.94	5.19	3.97	3.11	2.47	1.99	1.62	1.33	1.10	0.93	0.78	0.66	0.56	0.48	0.41
0.90	**1. ULS**	34.27	24.85	18.93	14.94	12.09	10.01	8.42	7.18	6.20	5.40	4.75	4.20	3.75	3.36	3.03	2.74	2.50	2.28	2.09	1.92	1.77
	2. L/150	225.04	115.20	66.57	41.89	28.03	19.66	14.30	10.72	8.23	6.45	5.15	4.17	3.41	2.83	2.37	2.00	1.70	1.45	1.25	1.09	0.95
	3. L/200	168.81	86.39	49.92	31.41	20.99	14.72	10.70	8.01	6.15	4.81	3.84	3.10	2.54	2.10	1.75	1.48	1.25	1.07	0.91	0.79	0.68
	4. L/250	135.04	69.07	39.92	25.11	16.78	11.75	8.54	6.39	4.90	3.83	3.05	2.46	2.01	1.66	1.38	1.16	0.98	0.83	0.71	0.61	0.53
	5. L/300	112.52	57.53	33.25	20.91	13.96	9.78	7.10	5.31	4.07	3.18	2.53	2.03	1.66	1.37	1.14	0.95	0.80	0.68	0.57	0.49	0.42
1.00	**1. ULS**	40.77	29.38	22.26	17.49	14.11	11.64	9.77	8.31	7.16	6.23	5.46	4.84	4.31	3.86	3.47	3.15	2.86	2.61	2.39	2.19	2.02
	2. L/150	251.19	128.49	74.33	46.76	31.29	21.94	15.96	11.96	9.19	7.20	5.74	4.65	3.81	3.15	2.64	2.23	1.90	1.62	1.40	1.22	1.06
	3. L/200	188.44	96.37	55.73	35.02	23.45	16.43	11.95	8.94	6.86	5.37	4.28	3.46	2.83	2.34	1.96	1.65	1.39	1.19	1.03	0.88	0.76
	4. L/250	150.67	77.07	44.56	28.02	18.73	13.12	9.53	7.13	5.47	4.28	3.40	2.75	2.25	1.85	1.55	1.30	1.10	0.93	0.80	0.67	0.58
	5. L/300	125.56	64.20	37.11	23.32	15.59	10.91	7.92	5.92	4.54	3.55	2.82	2.27	1.85	1.53	1.27	1.06	0.89	0.75	0.64	0.55	0.47

3-Span structure



Thick [mm]	State	Span lenght L [m]																				
		1.00	**1.25**	**1.50**	**1.75**	**2.00**	**2.25**	**2.50**	**2.75**	**3.00**	**3.25**	**3.50**	**3.75**	**4.00**	**4.25**	**4.50**	**4.75**	**5.00**	**5.25**	**5.50**	**5.75**	**6.00**
0.70	**1. ULS**	25.65	19.21	14.84	11.85	9.69	8.09	6.87	5.90	5.12	4.49	3.97	3.54	3.17	2.86	2.58	2.35	2.14	1.96	1.80	1.66	1.54
	2. L/150	137.04	70.15	40.58	25.54	17.08	11.97	8.71	6.52	5.00	3.92	3.12	2.53	2.07	1.71	1.43	1.20	1.02	0.87	0.75	0.64	0.56
	3. L/200	102.74	52.59	30.43	19.14	12.80	8.96	6.51	4.87	3.73	2.92	2.32	1.87	1.53	1.26	1.05	0.88	0.74	0.63	0.54	0.46	0.40
	4. L/250	82.15	42.04	24.33	15.29	10.22	7.15	5.19	3.88	2.97	2.32	1.85	1.48	1.21	1.00	0.82	0.68	0.58	0.49	0.42	0.35	0.30
	5. L/300	68.44	35.03	20.26	12.73	8.50	5.95	4.32	3.23	2.46	1.92	1.52	1.22	1.00	0.81	0.68	0.56	0.47	0.40	0.33	0.29	0.25

0.75	**1. ULS**	29.28	21.74	16.76	13.37	10.94	9.12	7.73	6.64	5.76	5.05	4.46	3.97	3.55	3.20	2.89	2.63	2.40	2.20	2.02	1.86	1.72
	2. L/150	147.33	75.49	43.66	27.47	18.38	12.88	9.36	7.02	5.39	4.22	3.36	2.72	2.22	1.84	1.54	1.29	1.10	0.93	0.80	0.69	0.60
	3. L/200	110.44	56.56	32.71	20.58	13.76	9.64	7.00	5.24	4.02	3.14	2.50	2.02	1.65	1.36	1.13	0.96	0.81	0.68	0.58	0.50	0.42
	4. L/250	88.37	45.24	26.15	16.45	10.99	7.69	5.58	4.17	3.20	2.50	1.98	1.60	1.30	1.07	0.89	0.74	0.62	0.53	0.44	0.38	0.32
	5. L/300	73.63	37.70	21.78	13.69	9.14	6.40	4.64	3.47	2.65	2.07	1.64	1.32	1.07	0.88	0.73	0.60	0.51	0.42	0.36	0.31	0.26
0.80	**1. ULS**	33.09	24.30	18.69	14.87	12.15	10.11	8.55	7.34	6.36	5.57	4.92	4.37	3.91	3.51	3.18	2.89	2.64	2.41	2.21	2.04	1.89
	2. L/150	157.63	80.74	46.73	29.41	19.68	13.78	10.02	7.51	5.76	4.52	3.60	2.91	2.38	1.97	1.64	1.38	1.17	1.01	0.86	0.75	0.64
	3. L/200	118.30	60.54	35.02	22.03	14.73	10.31	7.50	5.61	4.30	3.36	2.67	2.16	1.76	1.45	1.21	1.02	0.86	0.73	0.63	0.54	0.46
	4. L/250	94.59	48.41	27.99	17.60	11.77	8.23	5.98	4.47	3.42	2.67	2.12	1.71	1.39	1.15	0.95	0.79	0.66	0.56	0.48	0.41	0.35
	5. L/300	78.81	40.33	23.31	14.66	9.79	6.85	4.97	3.72	2.84	2.22	1.75	1.41	1.14	0.94	0.78	0.65	0.54	0.46	0.39	0.34	0.28
0.88	**1. ULS**	38.94	28.44	21.78	17.26	14.04	11.66	9.85	8.42	7.29	6.37	5.61	4.99	4.46	4.00	3.62	3.28	2.99	2.73	2.51	2.31	2.13
	2. L/150	174.30	89.25	51.65	32.49	21.73	15.24	11.07	8.30	6.37	4.99	3.97	3.21	2.63	2.18	1.82	1.53	1.30	1.11	0.95	0.82	0.71
	3. L/200	130.67	66.90	38.71	24.34	16.28	11.41	8.29	6.20	4.75	3.71	2.95	2.38	1.95	1.61	1.34	1.12	0.95	0.81	0.69	0.59	0.51
	4. L/250	104.52	53.50	30.95	19.46	13.00	9.10	6.61	4.94	3.78	2.95	2.34	1.89	1.54	1.27	1.05	0.88	0.74	0.62	0.53	0.45	0.38
	5. L/300	87.11	44.57	25.78	16.21	10.82	7.57	5.49	4.10	3.13	2.44	1.94	1.56	1.27	1.03	0.86	0.71	0.60	0.51	0.43	0.36	0.31
0.90	**1. ULS**	40.44	29.49	22.57	17.87	14.54	12.06	10.17	8.70	7.53	6.57	5.79	5.14	4.59	4.13	3.72	3.38	3.08	2.81	2.58	2.38	2.20
	2. L/150	178.44	91.40	52.85	33.28	22.26	15.60	11.34	8.50	6.52	5.11	4.07	3.28	2.69	2.23	1.86	1.57	1.34	1.14	0.98	0.84	0.73
	3. L/200	133.78	68.53	39.63	24.92	16.66	11.68	8.48	6.34	4.86	3.80	3.03	2.44	1.99	1.65	1.37	1.15	0.97	0.83	0.70	0.60	0.52
	4. L/250	107.04	54.79	31.68	19.93	13.31	9.32	6.76	5.06	3.87	3.03	2.40	1.94	1.58	1.30	1.08	0.90	0.76	0.64	0.54	0.46	0.40
	5. L/300	89.19	45.63	26.39	16.58	11.07	7.75	5.62	4.20	3.21	2.50	1.99	1.59	1.30	1.06	0.88	0.73	0.61	0.52	0.44	0.37	0.31
1.00	**1. ULS**	48.25	34.97	26.62	20.99	17.00	14.06	11.83	10.10	8.71	7.60	6.68	5.92	5.29	4.74	4.28	3.87	3.53	3.22	2.96	2.72	2.51
	2. L/150	199.19	101.94	59.02	37.12	24.84	17.41	12.65	9.49	7.28	5.70	4.54	3.67	3.00	2.48	2.08	1.75	1.48	1.27	1.09	0.94	0.81
	3. L/200	149.33	76.45	44.25	27.82	18.61	13.02	9.47	7.08	5.43	4.24	3.38	2.73	2.23	1.84	1.53	1.28	1.09	0.92	0.79	0.68	0.58
	4. L/250	119.41	61.14	35.37	22.24	14.86	10.40	7.55	5.64	4.32	3.38	2.68	2.16	1.76	1.45	1.21	1.01	0.84	0.71	0.60	0.51	0.44
	5. L/300	99.48	50.93	29.46	18.51	12.37	8.65	6.27	4.68	3.59	2.80	2.22	1.78	1.45	1.18	0.98	0.82	0.69	0.58	0.49	0.41	0.35