

T70-57L-1058 - Z275 - Perforated - 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/m²].

1.Ultimate limit state (ULS; Q).

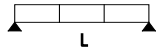
2.Serviceability limit state. Deflection limit $f = L/150$ (SLS; Q_{ch}).

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

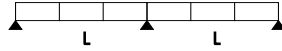


Thick [mm]	State	Span lenght L [m]																				
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00
0.70	1. ULS	17.31	13.83	11.51	9.85	8.61	7.64	6.87	6.24	5.33	4.53	3.89	3.38	2.96	2.61	2.32	2.07	1.86	1.68	1.52	1.38	1.27
	2. L/150	69.33	35.46	20.49	12.87	8.60	6.02	4.37	3.26	2.49	1.94	1.54	1.24	1.01	0.83	0.68	0.57	0.47	0.40	0.34	0.29	0.24
	3. L/200	52.00	26.58	15.35	9.63	6.43	4.49	3.25	2.42	1.85	1.44	1.13	0.90	0.74	0.60	0.49	0.41	0.34	0.29	0.23	0.20	0.16
	4. L/250	41.56	21.25	12.27	7.69	5.13	3.58	2.59	1.93	1.47	1.14	0.90	0.71	0.57	0.46	0.38	0.31	0.26	0.22	0.17	0.14	0.12
	5. L/300	34.62	17.69	10.21	6.40	4.26	2.97	2.15	1.59	1.21	0.93	0.73	0.58	0.47	0.37	0.30	0.25	0.20	0.16	0.13	0.11	0.08
0.75	1. ULS	19.99	15.98	13.29	11.38	9.94	8.83	7.93	7.04	5.90	5.01	4.31	3.74	3.28	2.89	2.57	2.30	2.06	1.86	1.69	1.53	1.40
	2. L/150	74.54	38.15	22.04	13.84	9.25	6.47	4.70	3.51	2.68	2.09	1.66	1.33	1.08	0.89	0.74	0.62	0.52	0.43	0.37	0.31	0.26
	3. L/200	55.90	28.58	16.51	10.36	6.91	4.83	3.50	2.61	1.99	1.56	1.22	0.98	0.79	0.65	0.53	0.43	0.37	0.31	0.26	0.21	0.18
	4. L/250	44.72	22.84	13.19	8.27	5.52	3.85	2.79	2.07	1.57	1.22	0.96	0.77	0.61	0.50	0.41	0.34	0.28	0.23	0.19	0.16	0.13
	5. L/300	37.23	19.03	10.98	6.88	4.58	3.20	2.31	1.71	1.30	1.00	0.78	0.62	0.50	0.40	0.33	0.27	0.22	0.18	0.15	0.11	0.09
0.80	1. ULS	22.83	18.26	15.19	13.01	11.38	10.10	9.08	7.53	6.31	5.37	4.61	4.00	3.51	3.10	2.75	2.45	2.21	1.99	1.80	1.64	1.50
	2. L/150	79.83	40.84	23.59	14.82	9.90	6.93	5.03	3.75	2.87	2.24	1.78	1.42	1.16	0.95	0.79	0.66	0.55	0.46	0.39	0.33	0.28
	3. L/200	59.83	30.61	17.67	11.10	7.41	5.17	3.74	2.79	2.13	1.66	1.31	1.05	0.85	0.69	0.57	0.47	0.38	0.32	0.27	0.22	0.19
	4. L/250	47.85	24.46	14.12	8.86	5.91	4.12	2.98	2.22	1.69	1.31	1.03	0.82	0.66	0.54	0.44	0.36	0.29	0.24	0.21	0.17	0.14
	5. L/300	39.85	20.36	11.75	7.37	4.91	3.42	2.47	1.83	1.39	1.08	0.84	0.67	0.54	0.43	0.35	0.29	0.23	0.19	0.15	0.12	0.10
0.88	1. ULS	27.77	22.20	18.48	15.82	13.83	12.28	10.08	8.31	6.97	5.92	5.09	4.42	3.87	3.42	3.04	2.71	2.44	2.20	1.99	1.82	1.66
	2. L/150	88.22	45.10	26.06	16.38	10.94	7.66	5.55	4.15	3.18	2.48	1.96	1.58	1.29	1.06	0.87	0.73	0.61	0.51	0.44	0.37	0.31
	3. L/200	66.15	33.80	19.52	12.26	8.18	5.72	4.14	3.09	2.36	1.83	1.45	1.16	0.94	0.77	0.63	0.52	0.43	0.36	0.30	0.25	0.21
	4. L/250	52.89	27.03	15.60	9.79	6.53	4.56	3.29	2.45	1.87	1.45	1.14	0.91	0.73	0.59	0.48	0.39	0.33	0.27	0.22	0.19	0.15
	5. L/300	44.07	22.51	12.99	8.14	5.42	3.78	2.73	2.03	1.54	1.18	0.93	0.74	0.59	0.48	0.39	0.32	0.25	0.21	0.17	0.14	0.11
0.90	1. ULS	29.08	23.24	19.35	16.57	14.49	12.77	10.32	8.51	7.13	6.06	5.21	4.52	3.96	3.49	3.10	2.77	2.49	2.25	2.04	1.86	1.70
	2. L/150	90.30	46.21	26.70	16.78	11.21	7.84	5.69	4.25	3.24	2.53	2.01	1.62	1.32	1.08	0.89	0.74	0.63	0.53	0.44	0.38	0.32
	3. L/200	67.70	34.60	19.99	12.55	8.37	5.86	4.24	3.16	2.41	1.87	1.49	1.19	0.96	0.79	0.65	0.53	0.44	0.37	0.30	0.26	0.21
	4. L/250	54.15	27.68	15.98	10.02	6.68	4.66	3.37	2.51	1.91	1.48	1.17	0.93	0.75	0.61	0.50	0.40	0.34	0.28	0.23	0.18	0.15
	5. L/300	45.11	23.04	13.29	8.33	5.55	3.87	2.79	2.08	1.58	1.21	0.95	0.76	0.60	0.49	0.40	0.33	0.26	0.21	0.17	0.14	0.11
	1. ULS	36.02	28.78	23.98	20.52	17.94	14.23	11.50	9.49	7.95	6.76	5.81	5.04	4.42	3.90	3.46	3.10	2.78	2.51	2.27	2.07	1.89
	2. L/150	100.81	51.54	29.78	18.72	12.51	8.75	6.35	4.74	3.63	2.82	2.24	1.80	1.47	1.20	1.00	0.83	0.70	0.59	0.50	0.42	0.36

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1.00	3. L/200	75.56	38.64	22.32	14.00	9.35	6.53	4.73	3.53	2.69	2.10	1.65	1.32	1.08	0.87	0.72	0.60	0.50	0.41	0.34	0.28	0.24
	4. L/250	60.44	30.89	17.83	11.19	7.45	5.20	3.76	2.80	2.14	1.65	1.31	1.04	0.84	0.67	0.55	0.46	0.37	0.31	0.25	0.21	0.17
	5. L/300	50.32	25.72	14.84	9.30	6.20	4.32	3.12	2.32	1.76	1.36	1.06	0.84	0.67	0.55	0.44	0.36	0.30	0.23	0.19	0.16	0.12

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	17.83	13.43	10.42	8.35	6.86	5.74	4.88	4.20	3.65	3.21	2.84	2.53	2.27	2.04	1.85	1.68	1.53	1.40	1.29	1.19	1.10
	2. L/150	166.89	85.33	49.35	31.06	20.78	14.57	10.59	7.94	6.10	4.78	3.81	3.09	2.53	2.10	1.75	1.48	1.26	1.07	0.92	0.80	0.69
	3. L/200	125.11	63.97	37.00	23.26	15.56	10.90	7.93	5.94	4.55	3.57	2.84	2.29	1.88	1.55	1.29	1.09	0.92	0.79	0.67	0.59	0.51
	4. L/250	100.07	51.16	29.58	18.60	12.43	8.71	6.32	4.73	3.63	2.84	2.26	1.82	1.49	1.23	1.02	0.85	0.72	0.61	0.52	0.45	0.38
	5. L/300	83.41	42.62	24.63	15.48	10.34	7.24	5.26	3.93	3.01	2.36	1.87	1.50	1.22	1.00	0.84	0.70	0.59	0.50	0.42	0.36	0.31
0.75	1. ULS	20.35	15.17	11.75	9.40	7.70	6.44	5.47	4.70	4.09	3.59	3.17	2.82	2.53	2.28	2.06	1.87	1.70	1.56	1.43	1.32	1.22
	2. L/150	180.22	92.17	53.32	33.52	22.45	15.73	11.45	8.58	6.59	5.16	4.12	3.33	2.73	2.26	1.89	1.59	1.36	1.16	1.00	0.87	0.75
	3. L/200	135.11	69.13	39.98	25.13	16.80	11.78	8.56	6.41	4.92	3.85	3.06	2.48	2.03	1.68	1.40	1.18	1.00	0.86	0.73	0.63	0.54
	4. L/250	108.07	55.28	31.96	20.09	13.43	9.41	6.83	5.11	3.92	3.07	2.44	1.97	1.60	1.33	1.10	0.93	0.78	0.67	0.57	0.49	0.42
	5. L/300	90.07	46.05	26.62	16.73	11.18	7.83	5.68	4.25	3.25	2.54	2.02	1.62	1.33	1.09	0.90	0.76	0.64	0.54	0.46	0.39	0.33
0.80	1. ULS	23.01	17.03	13.15	10.51	8.61	7.19	6.10	5.24	4.55	3.99	3.53	3.14	2.81	2.52	2.29	2.08	1.90	1.73	1.59	1.47	1.35
	2. L/150	192.96	98.69	57.04	35.90	24.01	16.85	12.25	9.18	7.05	5.52	4.41	3.57	2.92	2.42	2.03	1.71	1.45	1.24	1.07	0.92	0.80
	3. L/200	144.67	74.00	42.77	26.91	17.99	12.60	9.17	6.87	5.26	4.12	3.28	2.65	2.17	1.79	1.50	1.26	1.07	0.91	0.78	0.67	0.58
	4. L/250	115.70	59.16	34.19	21.50	14.37	10.07	7.32	5.48	4.20	3.28	2.61	2.10	1.72	1.42	1.18	0.99	0.83	0.71	0.60	0.52	0.44
	5. L/300	96.37	49.29	28.47	17.90	11.96	8.37	6.08	4.55	3.48	2.72	2.16	1.74	1.42	1.16	0.96	0.81	0.68	0.58	0.49	0.42	0.36
0.88	1. ULS	27.33	20.10	15.50	12.35	10.10	8.42	7.13	6.11	5.31	4.65	4.10	3.64	3.26	2.94	2.65	2.41	2.19	2.01	1.84	1.70	1.57
	2. L/150	213.19	109.00	63.05	39.65	26.54	18.60	13.54	10.15	7.79	6.11	4.87	3.94	3.23	2.68	2.24	1.89	1.61	1.37	1.19	1.03	0.89
	3. L/200	159.85	81.73	47.26	29.71	19.88	13.93	10.13	7.59	5.82	4.55	3.63	2.93	2.40	1.98	1.65	1.39	1.18	1.01	0.87	0.75	0.64
	4. L/250	127.85	65.37	37.79	23.76	15.88	11.12	8.09	6.05	4.64	3.62	2.88	2.32	1.90	1.57	1.30	1.10	0.93	0.78	0.67	0.57	0.50
	5. L/300	106.52	54.47	31.48	19.79	13.23	9.25	6.72	5.02	3.85	3.01	2.39	1.92	1.57	1.29	1.07	0.90	0.75	0.63	0.54	0.46	0.40
0.90	1. ULS	28.42	20.87	16.07	12.80	10.45	8.71	7.37	6.32	5.48	4.80	4.23	3.76	3.37	3.03	2.74	2.48	2.26	2.07	1.90	1.75	1.62
	2. L/150	218.30	111.67	64.57	40.62	27.17	19.06	13.86	10.39	7.98	6.25	4.99	4.03	3.31	2.74	2.29	1.94	1.65	1.41	1.21	1.05	0.91
	3. L/200	163.63	83.74	48.41	30.42	20.34	14.26	10.37	7.77	5.96	4.66	3.72	3.00	2.46	2.03	1.69	1.43	1.21	1.03	0.88	0.76	0.66
	4. L/250	130.89	66.96	38.70	24.33	16.27	11.39	8.28	6.19	4.75	3.71	2.95	2.39	1.95	1.61	1.34	1.12	0.95	0.80	0.68	0.59	0.51
	5. L/300	109.11	55.77	32.23	20.25	13.53	9.47	6.88	5.14	3.94	3.08	2.45	1.97	1.60	1.32	1.09	0.91	0.77	0.65	0.56	0.47	0.40
1.00	1. ULS	33.93	24.79	19.01	15.07	12.26	10.18	8.59	7.35	6.36	5.56	4.90	4.35	3.88	3.49	3.15	2.86	2.60	2.38	2.18	2.01	1.85
	2. L/150	243.56	124.55	72.03	45.30	30.31	21.26	15.47	11.60	8.91	6.98	5.56	4.51	3.69	3.06	2.56	2.16	1.84	1.57	1.35	1.17	1.01
	3. L/200	182.67	93.42	54.01	33.96	22.72	15.93	11.58	8.67	6.65	5.21	4.14	3.35	2.74	2.27	1.89	1.59	1.35	1.15	0.98	0.85	0.73
	4. L/250	146.15	74.71	43.19	27.15	18.15	12.71	9.23	6.91	5.30	4.14	3.29	2.66	2.17	1.80	1.49	1.25	1.06	0.90	0.76	0.66	0.56
	5. L/300	121.70	62.24	35.97	22.60	15.11	10.57	7.68	5.74	4.40	3.43	2.73	2.20	1.79	1.47	1.22	1.02	0.86	0.73	0.62	0.53	0.45

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	20.25	15.79	12.30	9.90	8.15	6.85	5.84	5.04	4.39	3.87	3.43	3.06	2.75	2.49	2.25	2.05	1.88	1.72	1.59	1.46	1.35
	2. L/150	132.44	67.85	39.24	24.71	16.52	11.58	8.42	6.31	4.84	3.79	3.02	2.44	1.99	1.65	1.38	1.16	0.98	0.84	0.72	0.63	0.54
	3. L/200	99.33	50.84	29.42	18.51	12.37	8.66	6.29	4.71	3.61	2.83	2.25	1.81	1.48	1.22	1.01	0.85	0.72	0.61	0.52	0.45	0.38
	4. L/250	79.48	40.69	23.53	14.78	9.88	6.92	5.02	3.75	2.87	2.24	1.79	1.43	1.17	0.96	0.80	0.66	0.56	0.47	0.40	0.34	0.29
	5. L/300	66.22	33.88	19.58	12.32	8.22	5.75	4.17	3.11	2.38	1.86	1.47	1.18	0.95	0.78	0.65	0.54	0.45	0.38	0.33	0.27	0.23

0.75	1. ULS	23.14	17.86	13.89	11.15	9.18	7.70	6.56	5.65	4.93	4.33	3.84	3.42	3.07	2.77	2.52	2.29	2.09	1.92	1.77	1.64	1.52
	2. L/150	142.89	73.14	42.34	26.63	17.81	12.48	9.08	6.80	5.22	4.08	3.25	2.63	2.15	1.78	1.49	1.26	1.06	0.91	0.78	0.67	0.58
	3. L/200	107.11	54.83	31.72	19.96	13.34	9.34	6.79	5.08	3.89	3.04	2.42	1.95	1.60	1.32	1.10	0.92	0.77	0.66	0.56	0.48	0.41
	4. L/250	85.63	43.85	25.36	15.94	10.65	7.46	5.41	4.05	3.10	2.42	1.92	1.55	1.26	1.04	0.86	0.71	0.60	0.51	0.43	0.37	0.31
	5. L/300	71.33	36.53	21.12	13.27	8.86	6.20	4.50	3.36	2.57	2.00	1.59	1.27	1.03	0.85	0.70	0.58	0.49	0.41	0.34	0.30	0.25
0.80	1. ULS	26.17	20.06	15.56	12.48	10.26	8.60	7.32	6.30	5.49	4.82	4.27	3.81	3.41	3.08	2.79	2.54	2.32	2.13	1.96	1.81	1.67
	2. L/150	152.89	78.27	45.31	28.49	19.06	13.36	9.72	7.28	5.58	4.37	3.48	2.81	2.30	1.90	1.59	1.34	1.14	0.97	0.83	0.72	0.62
	3. L/200	114.67	58.69	33.96	21.35	14.27	10.00	7.27	5.43	4.17	3.25	2.59	2.09	1.71	1.40	1.17	0.99	0.83	0.71	0.60	0.52	0.45
	4. L/250	91.70	46.93	27.14	17.06	11.40	7.98	5.79	4.33	3.31	2.59	2.05	1.65	1.35	1.11	0.92	0.76	0.65	0.54	0.46	0.40	0.34
	5. L/300	76.37	39.08	22.60	14.21	9.48	6.64	4.81	3.60	2.75	2.14	1.70	1.36	1.10	0.91	0.75	0.63	0.52	0.44	0.37	0.31	0.27
0.88	1. ULS	31.36	23.73	18.37	14.71	12.06	10.08	8.57	7.36	6.41	5.62	4.98	4.43	3.98	3.58	3.25	2.95	2.70	2.47	2.27	2.09	1.94
	2. L/150	168.96	86.53	50.04	31.51	21.07	14.77	10.73	8.04	6.17	4.83	3.85	3.11	2.55	2.11	1.76	1.48	1.26	1.08	0.92	0.79	0.69
	3. L/200	126.67	64.86	37.51	23.61	15.78	11.05	8.03	6.01	4.60	3.60	2.86	2.31	1.88	1.56	1.30	1.09	0.92	0.78	0.67	0.57	0.49
	4. L/250	101.33	51.86	29.99	18.86	12.60	8.82	6.40	4.78	3.66	2.86	2.27	1.83	1.49	1.23	1.02	0.85	0.71	0.60	0.51	0.43	0.37
	5. L/300	84.44	43.20	24.98	15.71	10.49	7.33	5.32	3.97	3.04	2.37	1.88	1.51	1.23	1.00	0.83	0.69	0.58	0.49	0.41	0.35	0.30
0.90	1. ULS	32.69	24.64	19.06	15.23	12.48	10.44	8.86	7.61	6.62	5.81	5.14	4.58	4.10	3.70	3.35	3.04	2.77	2.55	2.34	2.16	2.00
	2. L/150	172.89	88.54	51.27	32.26	21.57	15.12	10.99	8.24	6.32	4.95	3.93	3.19	2.60	2.16	1.80	1.52	1.29	1.09	0.94	0.81	0.70
	3. L/200	129.70	66.40	38.39	24.15	16.15	11.31	8.22	6.15	4.71	3.69	2.93	2.36	1.93	1.59	1.33	1.11	0.94	0.80	0.68	0.59	0.50
	4. L/250	103.70	53.10	30.71	19.32	12.91	9.03	6.56	4.90	3.75	2.93	2.33	1.87	1.53	1.26	1.04	0.86	0.73	0.62	0.52	0.45	0.38
	5. L/300	86.44	44.23	25.57	16.07	10.73	7.51	5.45	4.06	3.11	2.42	1.92	1.54	1.25	1.03	0.84	0.71	0.59	0.50	0.42	0.36	0.31
1.00	1. ULS	39.83	29.34	22.58	17.99	14.68	12.24	10.36	8.89	7.71	6.75	5.96	5.30	4.74	4.26	3.86	3.51	3.20	2.93	2.69	2.48	2.29
	2. L/150	193.11	98.86	57.18	35.98	24.07	16.87	12.27	9.18	7.05	5.52	4.40	3.55	2.91	2.41	2.01	1.69	1.44	1.23	1.05	0.91	0.78
	3. L/200	144.74	74.13	42.87	26.97	18.03	12.62	9.17	6.87	5.26	4.11	3.27	2.64	2.15	1.78	1.49	1.24	1.05	0.89	0.76	0.65	0.56
	4. L/250	115.78	59.27	34.28	21.55	14.41	10.08	7.31	5.47	4.19	3.27	2.60	2.09	1.70	1.40	1.16	0.97	0.82	0.68	0.58	0.50	0.43
	5. L/300	96.44	49.37	28.54	17.95	11.98	8.38	6.08	4.54	3.47	2.71	2.14	1.72	1.40	1.14	0.95	0.79	0.66	0.56	0.47	0.39	0.34