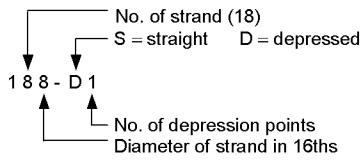


**Strand Pattern Designation**



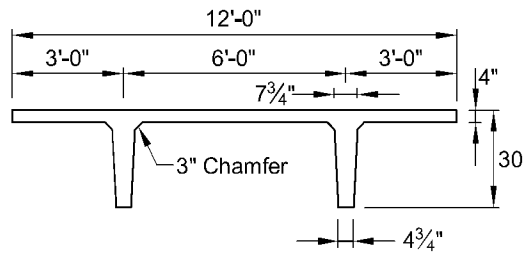
Because these units are pretopped and are typically used in parking structures, safe loads shown do not include any superimposed dead loads. Loads shown are live load. Long-time cambers do not include live load.

**Key**

- 158 – Safe superimposed service load, psf
- 0.8 – Estimated camber at erection, in.
- 1.1 – Estimated long-time camber, in.

**PRETOPPED  
DOUBLE TEE**

**12'-0" x 30"**



$f'_c = 5,000$  psi  
 $f_{pu} = 270,000$  psi

**Section Properties**  
Normal Weight      Lightweight

A =	928 in. <sup>2</sup>	928 in. <sup>2</sup>
I =	59,997 in. <sup>4</sup>	59,997 in. <sup>4</sup>
y <sub>b</sub> =	22.94 in.	22.94 in.
y <sub>t</sub> =	7.06 in.	7.06 in.
S <sub>b</sub> =	2,615 in. <sup>3</sup>	2,615 in. <sup>3</sup>
S <sub>t</sub> =	8,498 in. <sup>3</sup>	8,498 in. <sup>3</sup>
wt =	967 plf	741 plf
DL =	81 psf	62 psf
V/S =	2.30 in.	2.30 in.

**12DT30**

**Table of safe superimposed service load (psf) and cambers (in.)**

**Normal Weight — No Topping**

Strand Pattern	y <sub>s</sub> (end) in. y <sub>s</sub> (center) in.	Span, ft																					
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82
128-S	7.00	158	138	120	105	91	79	69	59	51	43	37	30										
	7.00	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.6	0.5	0.4										
148-S	8.00	182	160	140	123	108	95	83	73	63	55	47	41	34	29								
	8.00	0.9	1.0	1.0	1.0	1.0	1.1	1.0	1.0	0.9	0.8	0.7	0.5	0.3									
168-S	9.00	178	157	139	122	108	95	84	74	65	57	49	42	36	31								
	9.00	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.8	0.6	0.4							
188-S	10.00	194	171	152	134	119	106	93	83	73	64	56	49	43	36	29							
	10.00	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.1	1.0	0.9	0.8	0.6	0.4							
188-D1	14.39				184	165	148	132	119	107	96	86	77	68	61	54	48	42	35	29			
	4.00				1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.7	1.6	1.4	1.2	1.0	0.7	0.4					
208-D1	15.50						166	149	135	121	109	97	86	76	68	61	54	48	43	37	31	26	
	4.25						1.9	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.8	1.7	1.5	1.3	1.1	0.8	0.5	0.1	

**12LDT30**

**Table of safe superimposed service load (psf) and cambers (in.)**

**Lightweight — No Topping**

Strand Pattern	y <sub>s</sub> (end) in. y <sub>s</sub> (center) in.	Span, ft																										
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	
128-S	7.00	172	152	134	119	105	93	83	73	65	57	51	45	39	34	29												
	7.00	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.2	1.0													
148-S	8.00	196	174	154	137	122	109	97	87	77	69	61	55	48	43	38	33	29										
	8.00	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.8	1.7	1.6	1.4	1.1											
168-S	9.00	192	171	153	136	122	109	98	88	79	71	63	57	50	45	40	35	31	27									
	9.00	1.8	1.9	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.0	1.8	1.6	1.3	1.0										
188-S	10.00				185	166	148	133	120	108	97	87	78	70	63	57	51	45	40	36	31	27						
	10.00				2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.1	1.9	1.7	1.4	1.1						
188-D1	14.39						179	162	147	133	121	110	100	90	81	73	65	58	52	46	42	38	35	31	28			
	4.00						2.8	2.9	3.1	3.2	3.3	3.4	3.5	3.5	3.5	3.4	3.4	3.2	3.1	2.9	2.7	2.4	2.1	1.8	1.4			
208-D1	15.50																											
	4.25																											

Strength is based on strain compatibility; bottom tension is limited to  $12\sqrt{f'_c}$ ; see pages 2-7 through 2-10 for explanation. Shaded values require release strengths higher than 3500 psi.