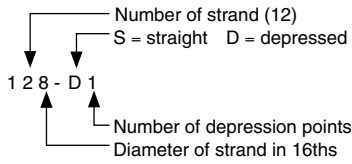
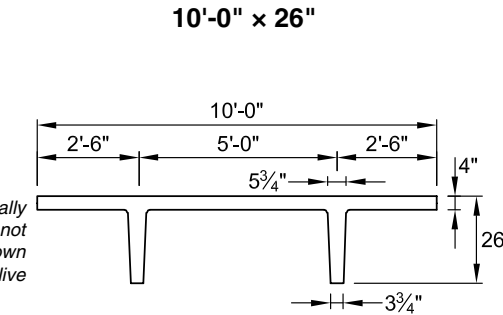


3.5 Pretopped Double-Tee Load Tables

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.



Section Properties

	Normalweight	Lightweight
A	689 in. ²	689 in. ²
I	30,716 in. ⁴	30,716 in. ⁴
y _b	20.29 in.	20.29 in.
y _t	5.71 in.	5.71 in.
S _b	1514 in. ³	1514 in. ³
S _t	5379 in. ³	5379 in. ³
wt	718 lb/ft	550 lb/ft
DL	72 lb/ft ²	55 lb/ft ²
V/S	2.05 in.	2.05 in.

Key
 171 – Safe superimposed service load, lb/ft²
 0.5 – Estimated camber at erection, in.
 0.7 – Estimated long-time camber, in.

$f'_c = 5000$ psi
 $f_{pu} = 270,000$ psi
 1/2-in.-diameter regular strand

Check with regional producers for availability.

10DT26

Table of safe superimposed service load, lb/ft², and cambers, in.

Normalweight — No Topping

Strand pattern	y _s (end) y _s (center) in.	Span, ft																					
		30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
68-S	4.00	171	143	121	102	86	72	61	50	42	34	27											
	4.00	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.3										
		0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.4										
88-S	5.00	196	167	143	123	106	91	78	67	57	48	41	34	28									
	5.00	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.5									
		1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.0	0.9	0.7								
108-S	6.00			180	156	135	118	103	89	78	67	58	50	43	36	30							
	6.00			1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.1	0.9	0.8							
				1.4	1.5	1.6	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.6	1.4	1.2	1.0						
128-S	7.00				184	161	141	123	108	95	83	73	64	56	48	41	35	29					
	7.00				1.3	1.3	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.4	1.3	1.1	0.9					
					1.7	1.8	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.0	1.9	1.7	1.4	1.1					
128-D1	11.67					194	171	151	134	119	105	93	82	73	64	56	50	43	37	31	25		
	3.25					1.4	1.5	1.6	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.6	1.4	1.3	1.0	0.8	0.5		
						2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.4	2.3	2.2	2.1	2.0	1.8	1.6	1.3	0.9	0.4	
148-D1	12.86									127	113	101	89	78	68	59	52	46	40	36	30		
	3.50									2.1	2.1	2.2	2.2	2.2	2.1	2.0	1.9	1.7	1.5	1.3	1.0		
										2.8	2.9	2.9	2.9	2.9	2.7	2.6	2.4	2.2	1.9	1.6	1.1		

10LDT26

Table of safe superimposed service load, lb/ft², and cambers, in.

Lightweight — No Topping

Strand pattern	y _s (end) y _s (center) in.	Span, ft																								
		30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78
68-S	4.00	183	156	133	115	99	85	73	63	54	46	40	33	28												
	4.00	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.0	0.9												
		1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.2											
88-S	5.00			180	156	136	119	104	91	80	70	61	53	46	40	35	30	25								
	5.00			1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.7	1.6	1.4	1.2									
				1.7	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.2	1.9	1.6								
108-S	6.00				192	168	148	130	115	102	90	80	71	63	55	49	43	37	33	28						
	6.00				1.7	1.8	1.9	2.1	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.2	2.0	1.8							
					2.3	2.5	2.6	2.8	2.9	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.1	3.0	2.8	2.4						
128-S	7.00					196	173	153	136	121	108	96	86	76	68	61	54	48	42	37	33	29				
	7.00					2.0	2.2	2.3	2.5	2.6	2.7	2.8	2.9	2.9	3.0	3.0	2.9	2.9	2.8	2.7	2.5	2.2				
						2.8	3.0	3.2	3.3	3.5	3.6	3.7	3.8	3.8	3.9	3.9	3.9	3.8	3.7	3.6	3.3	3.0				
128-D1	11.67									146	131	118	106	95	85	76	68	60	53	46	41	36	33	29	26	
	3.25									2.8	3.0	3.1	3.2	3.3	3.4	3.5	3.4	3.4	3.3	3.2	3.0	2.8	2.5	2.2	1.8	
										3.8	4.0	4.1	4.3	4.4	4.5	4.5	4.4	4.3	4.1	3.9	3.6	3.3	3.0	2.6	2.2	
148-D1	12.86															91	81	72	65	58	51	45	40	34	31	27
	3.50															4.0	4.1	4.2	4.2	4.2	4.1	3.9	3.7	3.4	3.1	2.8
																5.4	5.4	5.4	5.4	5.3	5.1	4.8	4.4	4.0	3.5	3.1

Strength is based on strain compatibility; bottom tension is limited to $12\sqrt{f'_c}$; see pages 3–8 through 3–11 for explanation. Shaded values require release strengths higher than 3500 psi.