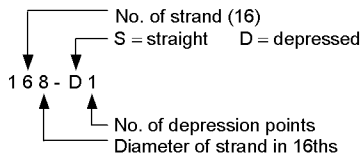


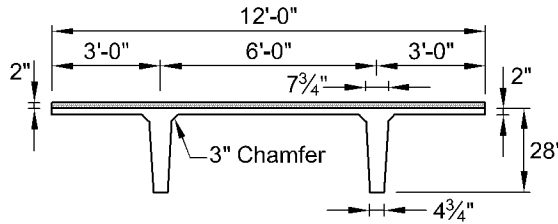
Strand Pattern Designation



Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

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

DOUBLE TEE
12'-0" x 28"
Normal Weight Concrete



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

Section Properties
 Untopped Topped

A =	640 in. ²	–
I =	44,563 in. ⁴	57,323 in. ⁴
y _b =	20.01 in.	22.47 in.
y _t =	7.99 in.	7.53 in.
S _b =	2,227 in. ³	2,551 in. ³
S _t =	5,577 in. ³	7,613 in. ³
wt =	677 plf	977 plf
DL =	56 psf	81 psf
V/S =	1.62 in.	

12DT28

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

No Topping

Strand Pattern	y _s (end) in. y _s (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
108-S	6.00	133	117	102	90	79	70	62	54	47	41	36	31	26										
	6.00	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4										
128-S	7.00	157	139	123	109	96	86	76	67	60	53	47	41	36	31	27								
	7.00	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4								
148-S	8.00	178	158	140	125	111	99	88	79	71	63	56	50	44	39	34	30	26						
	8.00	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.1	1.0	0.9	0.7	0.6	0.3						
168-S	9.00	196	174	155	138	123	110	99	89	79	71	64	57	51	46	40	35	30	26					
	9.00	1.1	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.2	1.1	1.0	0.8	0.6	0.3						
168-D1	13.00				180	162	146	132	119	108	98	89	80	72	64	58	52	47	42	38	34	30	26	
	3.75				2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.6	2.5	2.4	2.3	2.1	1.9	1.7	1.4	1.1	0.7	0.2	
188-D1	14.39							135	122	111	100	90	81	73	66	59	53	47	43	39	35	31	28	
	4.00							2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.1	2.0	1.8	1.6	1.4	1.1	0.8	0.5	

12DT28 + 2

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

2 in. Normal Weight Topping

Strand Pattern	y _s (end) in. y _s (center) in.	Span, ft																					
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72					
108-S	6.00	127	110	95	82	70	60	51	42	35	29												
	6.00	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.6	0.5	0.3	0.1	-0.1							
128-S	7.00	154	134	117	102	88	77	66	57	49	41	32											
	7.00	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.5	0.3	0.0						
148-S	8.00	177	155	136	119	105	92	80	70	60	50	41	32										
	8.00	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.8	0.6	0.3	0.1					
168-S	9.00	197	173	152	134	118	104	90	78	66	56	47	39	31									
	9.00	1.1	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.1	0.9	0.8	0.5	0.3	0.0			
168-D1	13.00				199	177	157	140	125	111	97	84	72	62	52	43	36	30					
	3.75				1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.6	1.4	1.1	0.8	0.5	0.2
188-D1	14.39							143	126	111	97	85	73	63	54	45	37	31					
	4.00							2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.0	1.9	1.7	1.5	1.3	1.0	0.7

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.