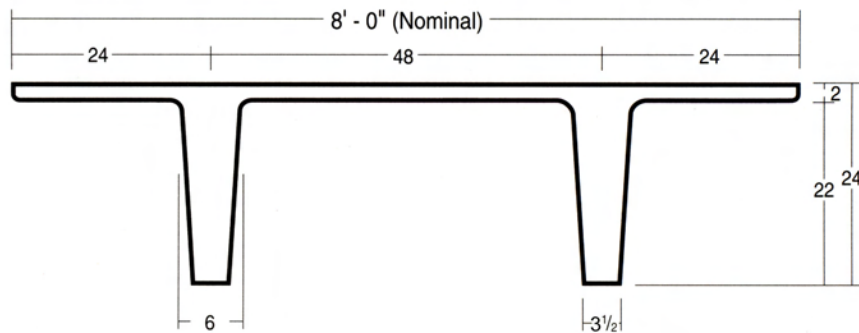




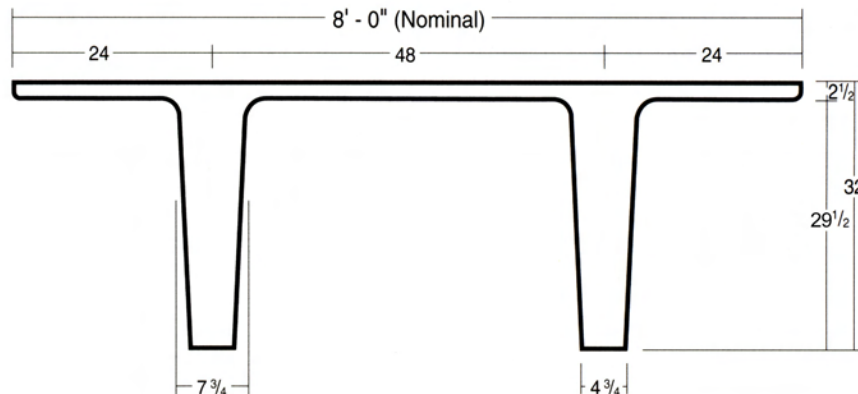
CEMENT INDUSTRIES, INC.

DOUBLE TEE CROSS SECTIONS

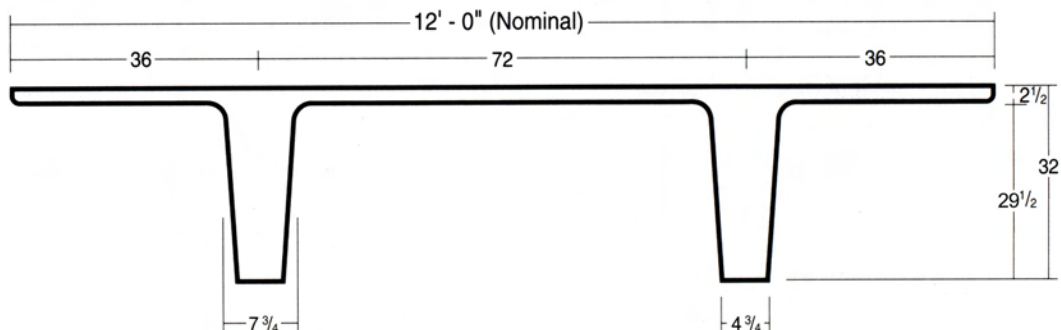
8'-0" x 24" DOUBLE TEE WEIGHS 412 PLF



8'-0" x 32" DOUBLE TEE WEIGHS 626 PLF



12'-0" x 32" DOUBLE TEE WEIGHS 750 PLF





CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES SERIES EXPLANATION AND DESIGN CRITERIA

Series explanation

10 DT-20 C 4 8 S

Width in Feet

Double Tee

Depth in Inches

2" Bonded Structural Topping

(N = No Structural Topping)

Straight Strand
(H = Harped Strand)

Prestress Strand Diameter in 1/16"

Number of Prestressed Strands

Design criteria

Notations

- A** Cross Sectional Area of Double Tee (in²)
- I** Moment of Inertia about Center of Gravity of Section (in⁴) (The transformed moment of inertia is listed for topped sections)
- Y_t** Distance from Top Surface to Center of Gravity of Section (in)
- Y_b** Distance from Bottom Surface to Center of Gravity of Section (in)

The load tables on the following pages have been designed in accordance with ACI 318. The concrete has a 28 day compressive strength of 6,000 PSI for the precast tees and 3,000 PSI for the concrete topping. The prestressed reinforcement is 1/2" diameter, 270,000 PSI low relaxation strands, stressed to 75% of their ultimate strength. The value given for ϕM_n is calculated at midspan.

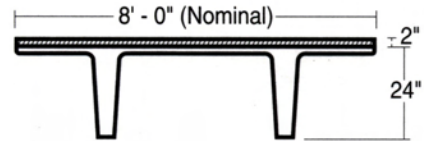
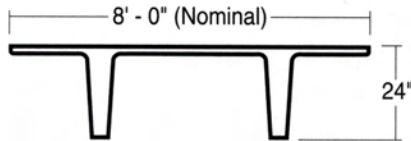
All tees with topping show transformed properties.



CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES

8'-0" x 24" DOUBLE TEE



No Structural Topping					
Dead Load Weight of Tee = 412 plf					
SECTION PROPERTIES					
A = 400 in. ²		Y _t = 7.08 in.			
I = 22,187 in. ⁴		Y _b = 16.92 in.			
SERIES		8DT24-N68S	8DT24-N88S	8DT24-N108S	
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQUARE FOOT				
24					
26					
28					
30					
32		186			
34		161			
36		140	185		
38		122	162	197	
40		106	143	174	
42		93	126	155	
44		81	112	138	
46		71	99	123	
48		62	88	110	
50		55	78	98	
52		48	70	88	
54		42	62	79	
56		36	55	71	
58		31	49	64	
60		27	43	57	
62			38	51	
64			33	45	
66			29	39	
68				34	

2" Bonded Structural Topping					
Dead Load Weight of Tee w/ Topping = 612 plf					
SECTION PROPERTIES					
A = 591 in. ²		Y _t = 7.12 in.			
I = 28,936 in. ⁴		Y _b = 18.88 in.			
SERIES		8DT24-C68S	8DT24-C88S	8DT24-C108S	
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQUARE FOOT				
24					
26					
28					
30					
32		189			
34		161			
36		138	188		
38		118	163		
40		101	142	176	
42		87	124	155	
44		74	108	136	
46		64	94	120	
48		54	82	104	
50		45	71	90	
52		38	62	77	
54		30	52	66	
56			42	56	
58			33	47	
60				39	
62				31	
64					
66					
68					

1"-1 1/2"
Camber



1 1/2" or More
Camber



CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES

8'-0" x 32" DOUBLE TEE



No Structural Topping Dead Load Weight of Tee = 626 plf									
SECTION PROPERTIES									
A = 608 in. ² I = 58,050 in. ⁴					Y _t = 11.08 in. Y _b = 20.92 in.				
φ M _n ft - k	513	656	785	900	1000	1087	1160		
SERIES	8DT32-N68S	8DT32-N88S	8DT32-N108S	8DT32-N128S	8DT32-N148S	8DT32-N168S	8DT32-N188S		
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQ FOOT								
34	199	271							
36	171	235	294						
38	147	205	257						
40	126	179	226	268					
42	109	156	199	238	271				
44	94	137	176	211	242	268	284		
46	80	120	156	188	216	240	255		
48	69	105	138	167	193	215	229		
50	58	92	122	149	173	193	206		
52	49	80	108	133	155	174	185		
54	41	70	96	119	139	157	167		
56		61	85	106	125	142	151		
58		52	75	95	113	128	136		
60		45	66	85	101	115	123		
62			58	75	91	104	111		
64			50	67	81	94	100		
66			44	59	73	84	91		
68				52	65	76	82		
70				46	58	68	73		
72				40	51	61	66		
74					45	54	59		
76						48	53		
78						43	47		
80							41		

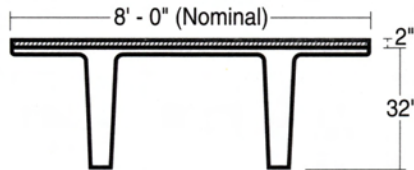
1" - 1 1/2" Camber  1 1/2" or More Camber 



CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES

8'-0" x 32" DOUBLE TEE TOPPED



2 Inch Bonded Structural Topping Dead Load Weight of Tee with Topping = 826 plf										
SECTION PROPERTIES										
A = 799 in. ²					Y _t = 10.80 in.					
I = 74,159 in. ⁴					Y _b = 23.20 in.					
Φ M _n ft - k	543	694	828	947	1051	1139	1213			
SERIES	8DT32-C68S	8DT32-C88S	8DT32-C108S	8DT32-C128S	8DT32-C148S	8DT32-C168S	8DT32-C188S			
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQUARE FOOT									
30	272									
32	229									
34	194	270								
36	164	232	293							
38	138	200	254							
40	117	172	221	265						
42	98	148	193	233	267	297				
44	82	128	169	205	236	263	285			
46	68	110	147	180	209	234	254			
48	56	94	128	159	185	208	227			
50	45	80	112	140	164	185	202			
52		68	97	123	146	165	181			
54		57	84	108	129	147	162			
56		47	72	95	114	131	144			
58			62	83	101	116	129			
60			52	72	89	103	115			
62			44	62	78	91	102			
64				53	68	81	90			
66				45	59	71	79			
68					51	62	68			
70					43	53	59			
72						45	50			
74							42			
76										

1" - 1 1/2"
Camber



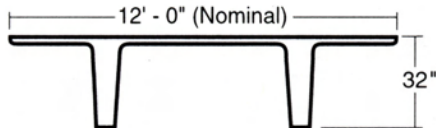
1 1/2" or More
Camber



CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES

12'-0" x 32" DOUBLE TEE



No Structural Topping Dead Load Weight of Tee = 750 plf										
SECTION PROPERTIES										
A = 728 in. ² I = 74,970 in. ⁴					Y _t = 9.36 in. Y _b = 23.14 in.					
φ Mn ft-k	673	807	928	1036	1130	1210	1277			
SERIES	12DT32.5 N88S	12DT32.5 N810S	12DT32.5 N812S	12DT32.5 N814S	12DT32.5 N816S	12DT32.5 N818S	12DT32.5 N820S			
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQ FOOT									
30	239	297								
32	203	255								
34	174	219	260	297						
36	149	190	226	259	287					
38	128	165	197	227	252	274	292			
40	110	143	173	199	222	242	258			
42	95	125	152	176	196	214	229			
44	82	109	133	155	174	190	204			
46	70	95	117	137	155	170	182			
48	60	83	103	122	138	151	163			
50	51	72	91	108	123	135	146			
52	43	62	80	96	109	121	131			
54		54	70	85	97	108	117			
56		46	61	75	87	97	105			
58			54	66	77	86	94			
60			46	58	68	77	84			
62			40	51	61	69	76			
64				44	53	61	68			
66					47	54	60			
68					41	48	54			
70						42	48			
72							42			
74										

1" - 1 1/2"
Camber



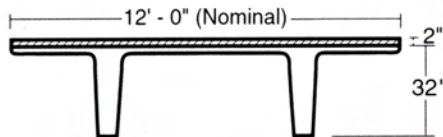
1 1/2" or More
Camber



CEMENT INDUSTRIES, INC.

DOUBLE TEE LOAD TABLES

12'-0" x 32" DOUBLE TEE TOPPED



2 Inch Bonded Structural Topping Dead Load Weight of Tee with Topping = 1050 plf										
SECTION PROPERTIES										
$A = 1016 \text{ in.}^2$					$Y_t = 9.18 \text{ in.}$					
$I = 92,299 \text{ in.}^4$					$Y_b = 25.32 \text{ in.}$					
$\phi \text{ Mn}$ ft-k	719	863	994	1111	1214	1302	1377			
SERIES	12DT32.5 C88S	12DT32.5 C810S	12DT32.5 C812S	12DT32.5 C814S	12DT32.5 C816S	12DT32.5 C818S	12DT32.5 C820S			
Span in Feet	ALLOWABLE SUPERIMPOSED LOAD IN POUNDS PER SQUARE FOOT									
30	238									
32	200	255								
34	169	218	262							
36	142	186	226	261	292					
38	120	159	195	226	254	278	299			
40	101	136	168	197	222	244	262			
42	84	117	146	172	195	214	231			
44	70	100	126	150	171	189	204			
46	58	85	109	131	150	166	180			
48	47	72	94	114	131	146	159			
50		60	81	99	115	129	141			
52		50	69	86	101	114	124			
54		41	58	74	88	100	110			
56			49	64	76	88	97			
58			41	54	66	77	85			
60				46	57	67	75			
62					49	58	65			
64					41	49	57			
66						42	49			
68							42			
70										
72										

1"-1½"
Camber



1½" or More
Camber