

# DOUBLE TEE

## TYPE "A" LOAD TABLE

**8DT 12+2**

Table of safe superimposed live load (psf)

Normal Weight Concrete    2" Normal Weight Topping    8'-0" x 12" Double Tee

Strand Pattern	Span, ft													
	12	14	16	18	20	22	24	26	28	30	32	34	36	
28-S	194*	128*	86*	57*	37*									
48-S			187*	137*	101*	75*	54*	38*						
68-S				188*	143*	109*	78*	54*	35					
68-D1										73	54	38	25	
Dead Load	$f_t$	107	146	191	242	299	361	430	505	586	673	765	864	969
	$f_b$	-342	-466	-609	-770	-951	-1151	-1370	-1608	-1865	-2141	-2436	-2750	-3083
	$a$	0.021	0.039	0.066	0.106	0.162	0.237	0.336	0.463	0.623	0.820	1.062	1.354	1.701
100 plf Live Load	$f_t$	7	10	13	17	21	25	30	35	41	47	54	61	68
	$f_b$	-51	-70	-91	-115	-142	-172	-205	-241	-280	-321	-365	-412	-462
	$a$	0.002	0.005	0.008	0.013	0.019	0.028	0.040	0.055	0.074	0.097	0.125	0.160	0.201

\*Capacity governed by ultimate strength

Values below heavy line require release strengths higher than 3500 psi

$f'_c = 5000$  psi

$f_{pu} = 270,000$  psi

**Notation**

$f_t$  = top fiber stress, psi (after assumed 22% loss) (precast section)

$f_b$  = bottom fiber stress, psi (after assumed 22% loss)

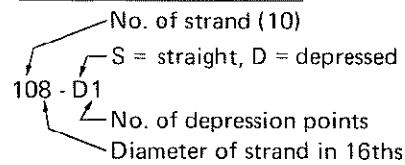
$a$  = center deflection, in.

$0.001 l^2 \alpha$  = initial center camber, in. (after assumed 10% loss)

$l$  = span (ft)

$M_U$  = ult. moment capacity, in.-kips

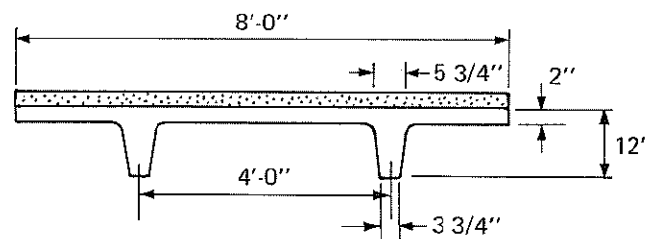
**Strand Pattern Designation**



**Section Properties**

- I = 4389 in.<sup>4</sup>
- $y_b$  = 10.45 in.
- $y_t$  = 3.55 in.
- $Z_b$  = 420 in.<sup>3</sup>
- $Z_t$  = 1236 in.<sup>3</sup>
- wt = 499 plf
- 62 psf

See preceding page for untopped section properties.



Strand Pattern	Eccentricity in.		Prestress alone					$M_U$
			end		center		$\alpha$	
	end	ctr	$f_t$	$f_b$	$f_t$	$f_b$		
28-S	5.13	5.13	-74	893	-74	893	0.463	721
48-S	4.13	4.13	-58	1499	-58	1499	0.745	1249
68-S	3.13	3.13	48	1819	48	1819	0.847	1588
68-D1	3.13	6.63	48	1819	-425	3326	1.479	2302

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2" Normal Weight Topping  
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