

DOUBLE TEE

TYPE "A" LOAD TABLE

10DT 32

Table of safe superimposed live load (psf)

Normal Weight Concrete

No Topping

10'-0" x 32" Double Tee

Strand Pattern	Span, ft																							
	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	
88-S	91*	79*	68*	58*	50*	42*	36*																	
108-S		104*	92*	80*	70*	61*	53*	46*	39*															
128-S				102*	90*	80*	70*	62*	54*	47*	41*	36*												
148-S					99*	88*	78*	69*	61*	54*	47*	41*												
128-D1						102*	92*	82*	73*	66*	59*	52*	46*	41*	36*									
148-D1							100*	91*	82*	74*	66*	60*	53*	48*	43*	38*								
168-D1								107*	97*	88*	80*	72*	65*	59*	53*	48	42	37						
188-D1									101*	93*	84*	77*	70	63	56	50	45	40						
208-D1										105*	95	87	78	71	64	58	52	46	41	37				
Dead Load	f_t	312	341	371	403	435	470	505	542	580	619	660	702	745	790	835	882	931	980	1031	1084	1137	1192	1248
	f_b	-684	-748	-814	-884	-956	-1031	-1109	-1189	-1273	-1359	-1448	-1540	-1635	-1733	-1833	-1936	-2042	-2151	-2263	-2378	-2495	-2615	-2738
	a	0.252	0.301	0.357	0.421	0.492	0.572	0.662	0.762	0.872	0.994	1.129	1.277	1.439	1.616	1.808	2.018	2.245	2.491	2.756	3.043	3.350	3.681	4.036
100 plf Live Load	f_t	48	53	57	62	68	73	78	84	90	96	103	109	116	123	130	137	145	153	161	169	177	186	194
	f_b	-106	-116	-127	-138	-149	-160	-173	-185	-198	-212	-226	-240	-255	-270	-286	-302	-318	-335	-353	-371	-389	-408	-427
	a	0.033	0.039	0.047	0.055	0.064	0.075	0.086	0.099	0.114	0.130	0.147	0.167	0.188	0.211	0.236	0.264	0.293	0.325	0.360	0.397	0.438	0.481	0.527

*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)

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

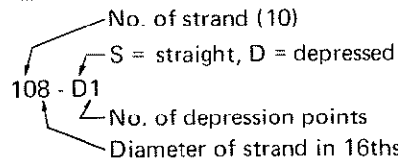
a = center deflection, in.

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

l = span (ft)

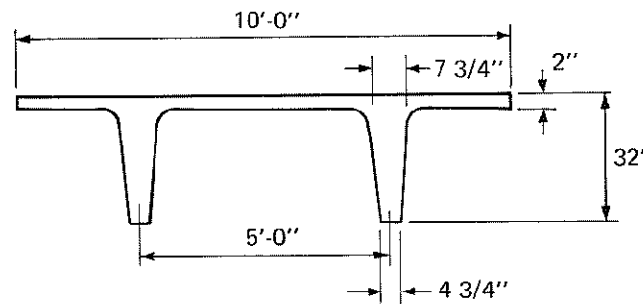
M_u = ult. moment capacity, in.-kips

Strand Pattern Designation



Section Properties

- A = 615 in.²
- I = 59,720 in.⁴
- V_b = 21.98 in.
- Y_t = 10.02 in.
- Z_b = 2717 in.³
- Z_t = 5960 in.³
- wt = 641 plf
- 64 psf



Normal Weight Concrete
No Topping
10'-0" x 32" Double Tee
10DT 32

Strand Pattern	Eccentricity in.		Prestress alone					M_u
			end		center		α	
	end	ctr	f_t	f_b	f_t	f_b		
88-S	14.48	14.48	-145	1255	-145	1255	0.254	7115
108-S	13.58	13.58	-147	1495	-147	1495	0.297	8505
128-S	12.98	12.98	-149	1734	-149	1734	0.341	9874
148-S	11.12	11.12	-75	1807	-75	1807	0.341	10,478
128-D1	12.98	18.73	-149	1734	-410	2307	0.442	12,423
148-D1	11.12	18.48	-75	1807	-465	2662	0.491	14,105
168-D1	9.23	18.23	27	1813	-517	3010	0.533	15,672
188-D1	7.76	17.98	131	1820	-564	3349	0.574	17,187
208-D1	6.38	17.73	250	1793	-608	3679	0.610	18,618