

DOUBLE TEE

TYPE "A" LOAD TABLE

8DT 16+2

Table of safe superimposed live load (psf)

Normal Weight Concrete 2" Normal Weight Topping 8'-0" x 16" Double Tee

| Strand Pattern | Span, ft | | | | | | | | | | | | | | | | |
|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | |
| 28-S | 168* | 121* | 87* | 62* | 43* | 29* | | | | | | | | | | | |
| 48-S | | | 170* | 131* | 101* | 78* | 59* | 44* | 32* | | | | | | | | |
| 68-S | | | | 180* | 142* | 113* | 90* | 71* | 56* | 43 | 29 | | | | | | |
| 68-D1 | | | | | | 176* | 144* | 118* | 97* | 80* | 65* | 53* | 42 | 30 | | | |
| 88-D1 | | | | | | | | | | | | | 66 | 52 | 40 | 29 | |
| Dead Load | f_t | 126 | 160 | 198 | 239 | 285 | 335 | 388 | 446 | 507 | 572 | 642 | 715 | 792 | 874 | 959 | 1048 |
| | f_b | -371 | -470 | -581 | -703 | -836 | -982 | -1138 | -1307 | -1487 | -1679 | -1882 | -2097 | -2324 | -2562 | -2812 | -3073 |
| | a | 0.031 | 0.050 | 0.077 | 0.112 | 0.159 | 0.219 | 0.294 | 0.387 | 0.502 | 0.639 | 0.803 | 0.997 | 1.225 | 1.489 | 1.793 | 2.142 |
| 100 plf Live Load | f_t | 10 | 12 | 15 | 19 | 23 | 27 | 31 | 35 | 40 | 46 | 51 | 57 | 63 | 70 | 77 | 84 |
| | f_b | -55 | -70 | -87 | -105 | -125 | -147 | -170 | -196 | -223 | -251 | -282 | -314 | -348 | -384 | -421 | -461 |
| | a | 0.004 | 0.006 | 0.009 | 0.013 | 0.019 | 0.026 | 0.035 | 0.046 | 0.059 | 0.075 | 0.095 | 0.118 | 0.144 | 0.175 | 0.211 | 0.253 |

*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)

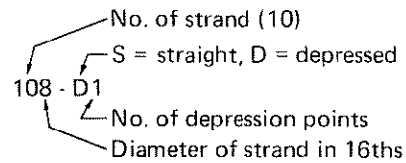
a = center deflection, in.

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

l = span (ft)

M_U = ult. moment capacity, in.-kips

Strand Pattern Designation

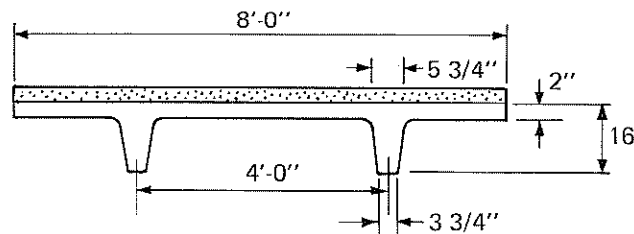


Section Properties

- $I = 9306$ in.⁴
- $y_b = 13.52$ in.
- $y_t = 4.48$ in.
- $Z_b = 688$ in.³
- $Z_t = 2077$ in.³
- wt = 539 plf
- 67 psf

See preceding page for untopped section properties.

| Strand Pattern | Eccentricity in. | | Prestress alone | | | | | M_U |
|----------------|------------------|------|-----------------|-------|--------|-------|----------|-------|
| | | | end | | center | | α | |
| | end | ctr | f_t | f_b | f_t | f_b | | |
| 28-S | 9.93 | 9.93 | -136 | 944 | -136 | 944 | 0.391 | 1167 |
| 48-S | 6.93 | 6.93 | -106 | 1402 | -106 | 1402 | 0.546 | 1844 |
| 68-S | 5.26 | 5.26 | -20 | 1698 | -20 | 1698 | 0.622 | 2329 |
| 68-D1 | 5.26 | 9.43 | -20 | 1698 | -366 | 2713 | 0.951 | 3199 |
| 88-D1 | 3.43 | 9.18 | 175 | 1669 | -461 | 3536 | 1.145 | 4000 |



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