



PRESTRESSED CONCRETE SLAB

Safe Load Table

12" x 24" SECTION

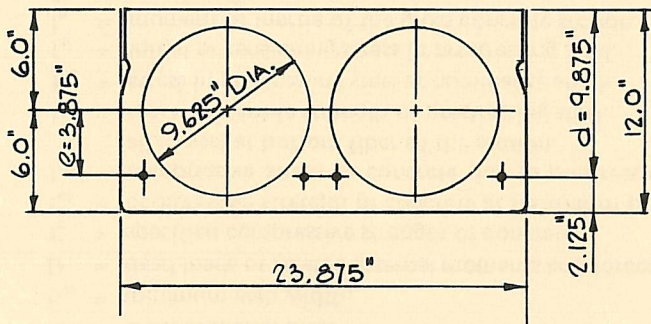
See instructions on back side of sheet for using this table.

UNIFORMLY DISTRIBUTED SUPERIMPOSED* LOAD IN PSF

| Standard Designation | Strands No. & Size | Strand Area Sq. In. | M in Ft.-Kips per Unit | ϕM_n in Ft.-Kips per Unit | Span Length (l) in Ft. | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------------|---------------------|------------------------|---------------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|
| | | | | | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 1224B-D58 | 4-1/2 | 0.576 | 60.79 | 96.22 | 220 | 209 | 199 | 190 | 181 | 173 | 166 | 156 | 145 | 135 | 124 | 114 | 105 | 95 | 87 | 79 | 72 | 65 | 59 | 53 | 47 |
| 1224B-D50 | 2-1/2 & 2-7/16 | 0.504 | 55.10 | 85.25 | 213 | 203 | 193 | 184 | 175 | 162 | 148 | 135 | 124 | 113 | 103 | 94 | 86 | 78 | 71 | 65 | 58 | 52 | 46 | | |
| 1224B-D43 | 4-7/16 | 0.432 | 49.41 | 73.99 | 212 | 197 | 178 | 162 | 147 | 133 | 121 | 110 | 99 | 90 | 82 | 74 | 67 | 60 | 54 | 48 | | | | | |
| 1224B-D38 | 2-7/16 & 2-3/8 | 0.376 | 44.99 | 65.02 | 184 | 166 | 149 | 135 | 121 | 110 | 99 | 89 | 80 | 72 | 64 | 58 | 51 | 45 | | | | | | | |
| 1224B-D32 | 4-3/8 | 0.320 | 40.57 | 55.79 | 150 | 134 | 120 | 107 | 96 | 85 | 76 | 68 | 60 | 53 | 47 | 41 | | | | | | | | | |
| 1224B-D29 | 2-1/2 | 0.288 | 38.04 | 50.41 | 129 | 115 | 102 | 91 | 81 | 71 | 63 | 55 | 48 | 42 | | | | | | | | | | | |
| 1224B-D28 | 2-3/8 & 2-5/16 | 0.276 | 37.09 | 48.39 | 122 | 108 | 96 | 85 | 75 | 66 | 58 | 51 | 44 | | | | | | | | | | | | |

*TABULATED LOADS ARE BASED ON $U = 1.4D + 1.7L$ AND WITH ALL LOAD SUPERIMPOSED ON THE STRUCTURAL SECTION CONSIDERED AS LIVE LOAD. (ALSO SEE NOTE 6)

PHYSICAL PROPERTIES OF STRUCTURAL SECTION AND SPECIFICATIONS



$A = 141.0 \text{ in.}^2$ $f'_c = 5000 \text{ psi}$ $f_{pu} = 250 \text{ ksi}$
 $b_w = 4.625 \text{ in.}$ $f'_{ci} = 3500 \text{ psi}$ $f_{si} = 175 \text{ ksi}$
 $I_g = 2595.4 \text{ in.}^4$

NOTES:

1. Grouted weight of structural unit is 73 psf or 146 plf based on concrete unit weight of 150 pcf.
2. Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI 318-77)."
3. For spans in shaded area consult your local manufacturer.
4. No shear reinforcement is required for the tabulated loads.
5. Tabulated loads to the left of solid stepped line are controlled by shear strength of the concrete. Shear reinforcement may be added to increase the safe loads.
6. Tabulated loads to the right of dashed stepped line are controlled by permissible flexural tension at service loads.
7. For longer spans and conditions not covered in the load table, consult your local manufacturer.