

# Composite Design Safe Load Table



PRESTRESSED CONCRETE SLAB

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

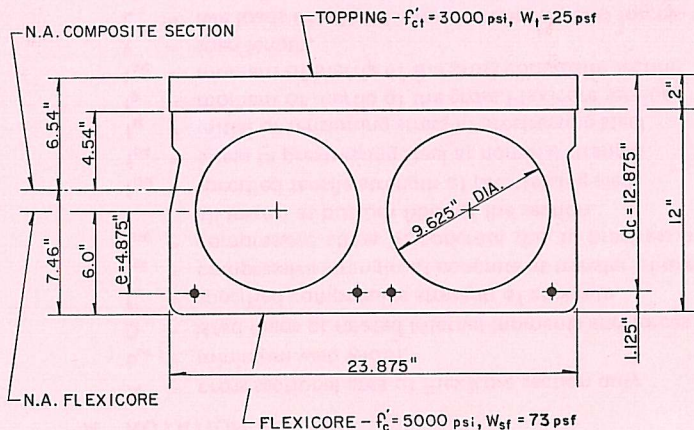
UNIFORMLY DISTRIBUTED SUPERIMPOSED\* LOAD IN PSF

12" x 24" SECTION PLUS  
2" STRUCTURAL TOPPING

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M in Ft.-Kips per Unit	$\phi M_n$ 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
T1224D-D58	4-1/2	0.576	84.44	122.00	285	271	258	246	234	224	214	199	183	167	152	137	123	110	99	88	78	68	59	51	43
T1224D-D50	2-1/2 & 2-7/16	0.504	76.28	108.56	276	262	249	238	223	203	185	168	153	140	126	112	99	88	77	67	58	50	42		
T1224D-D43	4-7/16	0.432	68.13	94.55	275	248	224	203	183	166	150	136	123	111	99	87	76	65	56	47					
T1224D-D40	2-1/2 & 1-7/16	0.396	64.05	87.37	248	223	201	181	163	147	133	120	108	97	86	74	64	54	45						
T1224D-D38	2-7/16 & 2-3/8	0.376	61.78	83.33	233	209	188	169	152	137	123	110	99	89	78	67	57	48							
T1224D-D36	1-1/2 & 2-7/16	0.360	59.97	80.07	220	198	177	159	143	128	115	103	92	82	72	62	52	43							
T1224D-D32	4-3/8	0.320	55.44	71.81	189	169	151	134	120	107	95	84	74	65	57	48									

\*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



$$A = 141.0 \text{ in.}^2 \quad I_g = 2595.4 \text{ in.}^4 \quad f'_c = 5000 \text{ psi} \quad f_{pu} = 250 \text{ ksi}$$

$$b_w = 4.625 \text{ in.} \quad I_{gc} = 4044.2 \text{ in.}^4 \quad f'_{ci} = 3500 \text{ psi} \quad f_{si} = 175 \text{ ksi}$$

### NOTES:

1. Grouted weight of structural unit is 98 psf or 196 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.