



PRESTRESSED CONCRETE SLAB

Safe Load Table

8" x 24" SECTION

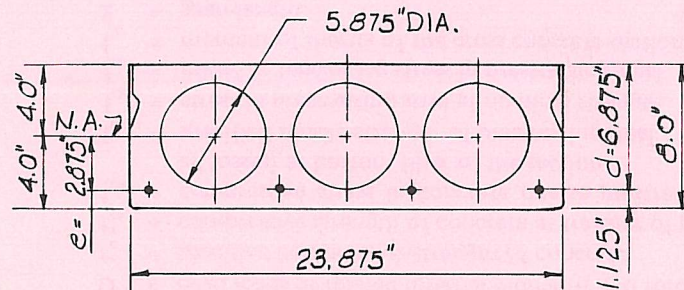
See instructions on back side of sheet for using this table.

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.																		
					15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
824B-D50	2-1/2 & 2-7/16	0.504	34.96	57.13	382	356	332	311	292	274	249	226	206	186	167	150	135	122	110	99	89	80	72
824B-D43	4-7/16	0.432	31.03	49.86	381	354	330	307	275	246	219	195	175	157	141	126	114	102	91	81	73	65	57
824B-D38	2-7/16 & 2-3/8	0.376	27.97	44.00	371	345	311	273	240	212	188	167	149	133	119	106	95	85	76	68	60	53	46
824B-D32	4-3/8	0.320	24.92	37.97	350	302	262	229	200	176	156	138	122	108	96	85	76	67	59	52	46	40	
824B-D29	2-1/2	0.288	23.17	34.45	305	270	233	203	177	156	137	120	106	94	83	73	64	56	49	43			
824B-D28	2-3/8 & 2-5/16	0.276	22.51	33.12	299	257	220	189	160	140	120	111	100	88	78	68	60	52	46	40			
824B-D23	4-5/16	0.282	28.11	28.11	247	211	182	157	136	118	103	90	78	68	59	51	44						
824B-D22	2-7/16	0.216	19.24	26.25	227	194	167	144	124	107	93	81	70	60	52	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



$A = 109.7 \text{ in.}^2$ $f'_c = 5000 \text{ psi}$ $f_{pu} = 250 \text{ ksi}$
 $b_w = 6.25 \text{ in.}$ $f'_{ci} = 3500 \text{ psi}$ $f_{si} = 175 \text{ ksi}$
 $I_g = 843.2 \text{ in.}^4$

NOTES:

- Grouted weight of structural unit is 57 psf or 114 plf based on concrete unit weight of 150 pcf.
- Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI 318-77)."
- For spans in shaded area consult your local manufacturer.**
- No shear reinforcement is required for the tabulated loads.
- 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.
- Tabulated loads to the right of dashed stepped line are controlled by permissible flexural tension at service loads.
- Tabulated load in italics is controlled by bond.
- For longer spans and conditions not covered in the load table, consult your local manufacturer.**