



Safe Load Table

8" x 24" SECTION

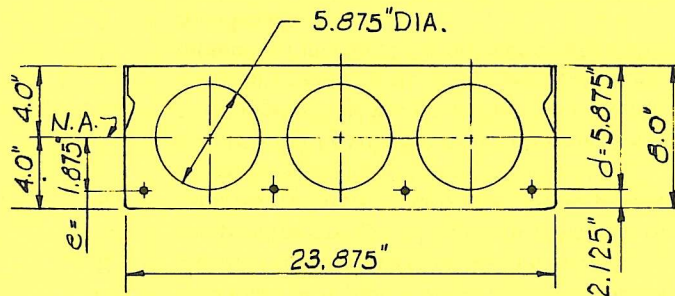
See instructions on back side of sheet for using this table.

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
824C-D58	4-1/2	0.576	32.33	53.41	363	337	314	294	276	251	227	206	188	168	150	135	121	108	97	87	78	70	62
824C-D50	2-1/2 & 2-7/16	0.504	29.22	47.77	353	328	306	285	255	230	208	185	164	146	130	116	104	92	82	73	65	58	51
824C-D43	4-7/16	0.432	26.11	41.83	351	326	291	257	226	199	176	156	139	124	110	98	87	77	68	59	52	45	
824C-D38	2-7/16 & 2-3/8	0.376	23.69	37.01	340	293	254	222	194	171	150	133	118	104	92	82	72	64	56	49			
824C-D32	4-3/8	0.320	21.27	32.01	288	247	214	185	162	141	124	109	95	84	73	64	56	49					
824C-D29	2-1/2	0.288	19.89	29.08	250	220	190	164	143	124	108	94	82	72	62	54	47						
824C-D28	2-3/8 & 2-5/16	0.276	19.37	27.97	245	210	181	156	135	117	102	89	77	67	58	50	43						
824C-D23	4-5/16	0.232	17.47	23.81	202	172	147	126	108	93	80	69	59	50	43								
824C-D22	2-7/16	0.216	16.78	22.27	186	158	134	115	98	84	72	61	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



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

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 318-83)."
- 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.

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