

Safe Load Table

flexicore®

PRESTRESSED CONCRETE SLAB

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

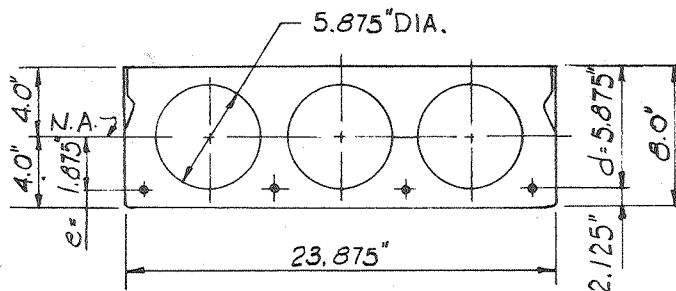
8" x 24" SECTION

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-DB54	2-1/2 & 2-7/16	0.536	32.46	53.63	363	337	315	295	277	252	228	207	188	169	151	135	121	109	98	88	78	70	63
824C-DB46	4-7/16	0.460	28.91	47.19	362	336	313	282	253	228	205	182	162	144	128	114	102	91	81	72	64	56	50
824C-DB40	2-7/16 & 2-3/8	0.400	26.11	41.83	351	326	291	257	226	199	176	156	139	124	110	98	87	77	68	59	52	45	
824C-DB34	4-3/8	0.340	23.31	36.23	332	286	248	216	189	166	146	129	114	101	89	79	70	62	54	47			
824C-DB31	2-1/2	0.306	21.73	32.96	267	239	215	192	168	147	129	113	100	88	77	68	59	52	45				
824C-DB23	2-7/16	0.230	18.18	25.37	213	186	160	137	118	102	88	76	66	57	48	41							

*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



$$\begin{aligned}
 A &= 109.7 \text{ in.}^2 & f'_c &= 5000 \text{ psi} & f_{pu} &= 270 \text{ ksi} \\
 b_w &= 6.25 \text{ in.} & f'_{ci} &= 3500 \text{ psi} & f_{si} &= 189 \text{ ksi} \\
 I_g &= 843.2 \text{ in.}^4 & \zeta_B &= 20.8 & \zeta_T &= 20.8
 \end{aligned}$$

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 318-77)."
- 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 loads in italics are controlled by bond.
- For longer spans and conditions not covered in the load table, consult your local manufacturer.

Composite Design Safe Load Table

flexicore

PRESTRESSED CONCRETE SLAB

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

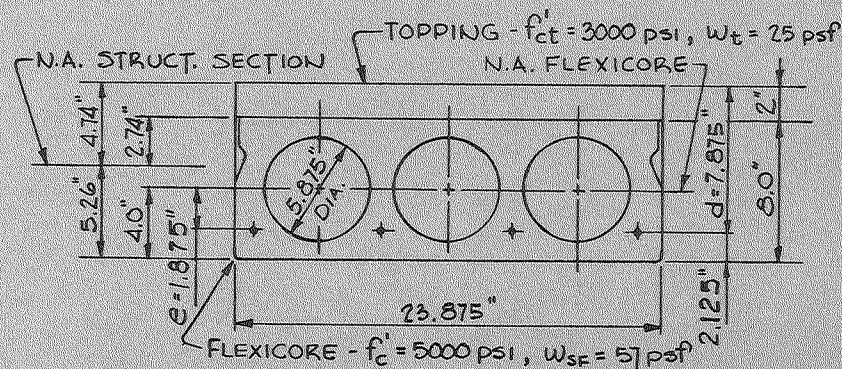
8" x 24" SECTION PLUS 2" STRUCTURAL TOPPING

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
T824C-DB54	2-1/2 & 2-7/16	0.536	45.28	68.69	433	402	374	350	328	308	285	256	228	200	175	153	134	116	101	87	74	62	52
T824C-DB46	4-7/16	0.460	40.33	61.14	433	402	374	350	320	285	251	219	190	166	144	124	107	91	77	65	53	43	
T824C-DB40	2-7/16 & 2-3/8	0.400	36.43	54.47	430	399	371	328	287	250	216	186	161	138	119	101	85	71	59	47			
T824C-DB34	4-3/8	0.340	32.52	47.41	428	368	318	277	241	211	180	154	131	111	94	78	64	51	40				
T824C-DB31	2-1/2	0.306	30.31	43.23	344	308	276	246	214	187	160	136	115	96	79	65	52	40					
T824C-DB23	2-7/16	0.230	25.37	33.46	276	240	205	175	150	129	111	95	77	62	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



$$\begin{aligned}
 A &= 109.7 \text{ in.}^2 & I_g &= 843.2 \text{ in.}^4 & f'_c &= 5000 \text{ psi} & f_{pu} &= 270 \text{ ksi} \\
 b_w &= 6.25 \text{ in.} & I_{gc} &= 1547.1 \text{ in.}^4 & f'_{ci} &= 3500 \text{ psi} & f_{si} &= 189 \text{ ksi} \\
 S_T &= 210.8 & S_B &= 210.8 & S_{TC} &= 326.4 & S_{BC} &= 294.1 \\
 & & & & & & & \sqrt{S} = 1.8
 \end{aligned}$$

NOTES:

- Grouted weight of structural unit is 82 psf or 164 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 loads in italics are controlled by bond.
- For longer spans and conditions not covered in the load table, consult your local manufacturer.

Safe Load Table

flexicore

PRESTRESSED CONCRETE SLAB

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

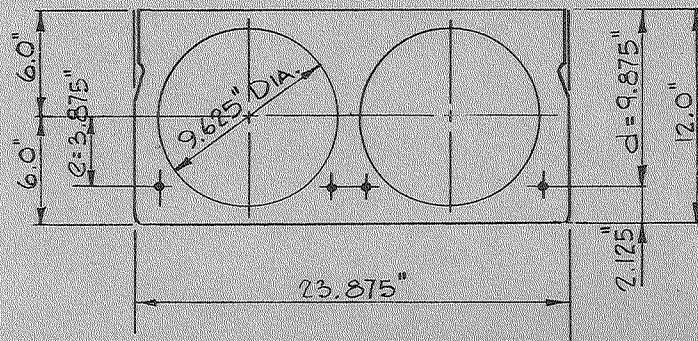
12" x 24" SECTION

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-DB54	2-1/2 & 2-7/16	0.536	61.01	96.66	220	210	200	190	182	173	166	157	146	135	126	115	105	96	88	80	72	65	59	53	48
1224B-DB46	4-7/16	0.460	54.53	84.14	219	209	199	189	175	159	146	133	121	111	101	92	84	77	70	63	57	51			
1224B-DB42	2-1/2 & 1-7/16	0.421	51.21	77.57	209	198	189	172	157	142	129	118	107	97	89	80	73	66	60	54	48				
1224B-DB40	2-7/16 & 2-3/8	0.400	49.41	73.99	212	197	178	162	147	133	121	110	99	90	82	74	67	60	54	48					
1224B-DB38	1-1/2 & 2-7/16	0.383	47.96	71.07	205	187	169	153	138	125	114	103	93	84	76	69	62	55	49						
1224B-DB35	3-7/16	0.345	44.72	64.47	182	164	148	133	120	108	97	88	79	71	63	57	50	45							
1224B-DB32	2-7/16 & 1-3/8	0.315	42.16	59.16	162	145	130	117	105	94	84	75	67	60	53	47	41								
1224B-DB31	2-1/2	0.306	41.40	57.54	156	140	125	112	101	90	80	72	64	57	50	44									
1224B-DB29	1-7/16 & 2-3/8	0.285	39.60	53.74	142	127	113	101	90	80	71	63	56	49	43										
1224B-DB26	3-3/8	0.255	37.05	48.29	121	108	95	84	75	66	58	50	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



$$A = 141.0 \text{ in.}^2 \quad f'_c = 5000 \text{ psi} \quad f_{pu} = 270 \text{ ksi}$$

$$b_w = 4.625 \text{ in.} \quad f'_{ci} = 3500 \text{ psi} \quad f_{si} = 189 \text{ ksi}$$

$$I_g = 2595.4 \text{ in.}^4$$

$$S_B = S_T = 432.6$$

$$V/S = 2.5$$

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.

Copyright 1978

THE FLEXICORE CO., INC., DAYTON, OHIO

Composite Design Safe Load Table

flexicore[®]

PRESTRESSED CONCRETE SLAB

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

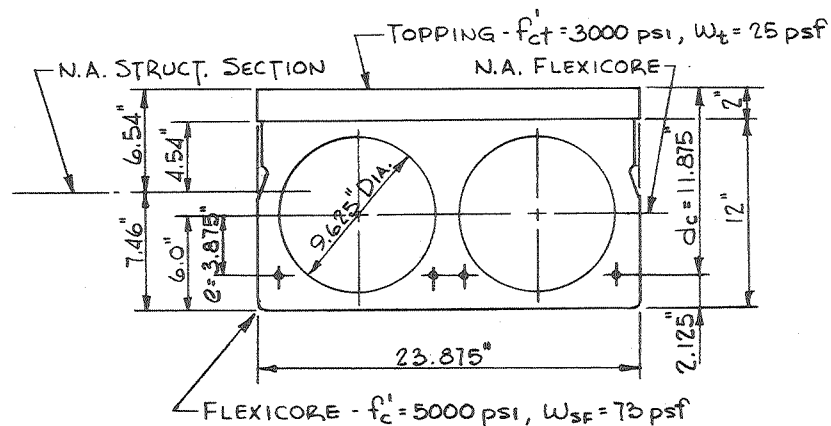
12" x 24" SECTION PLUS 2" STRUCTURAL TOPPING

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.																				
					23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
T1224B-DB54	2-1/2 & 2-7/16	0.536	76.51	112.02	286	271	257	244	232	221	210	200	189	174	158	141	126	113	100	89	78	68	59	50	42
T1224B-DB46	4-7/16	0.460	68.38	98.04	285	270	256	243	231	213	193	175	159	144	128	113	100	88	76	66	56	48			
T1224B-DB42	2-1/2 & 1-7/16	0.421	64.21	90.63	271	256	243	230	211	191	172	156	141	127	112	99	86	75	64	54	45				
T1224B-DB40	2-7/16 & 2-3/8	0.400	61.96	86.57	276	261	245	220	198	179	161	145	131	118	104	91	79	68	58	48	40				
T1224B-DB38	1-1/2 & 2-7/16	0.383	60.14	83.25	266	251	232	209	188	169	152	137	123	110	97	85	73	62	52	43					
T1224B-DB35	3-7/16	0.345	56.08	75.73	256	228	204	183	163	146	131	117	104	93	83	71	60	50	40						
T1224B-DB32	2-7/16 & 1-3/8	0.315	52.87	69.67	229	204	181	161	144	128	114	101	90	79	69	60	49	40							
T1224B-DB31	2-1/2	0.306	51.91	67.84	221	196	174	155	138	123	109	96	85	75	66	56	46								

*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



$$A = 141.0 \text{ in.}^2 \quad I_g = 2595.4 \text{ in.}^4 \quad f'_c = 5000 \text{ psi} \quad f_{pu} = 270 \text{ ksi}$$

$$b_w = 4.625 \text{ in.} \quad I_{gc} = 4043.6 \text{ in.}^4 \quad f'_{ci} = 3500 \text{ psi} \quad f_{si} = 189 \text{ ksi}$$

$$S_B = S_T = 432.6 \quad S_{BC} = 542 \quad S_{TC} = 618.3$$

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.

Copyright 1978

THE FLEXICORE CO., INC., DAYTON, OHIO