

# Flexicore Hollow Core

PRESTRESSED CONCRETE SLAB

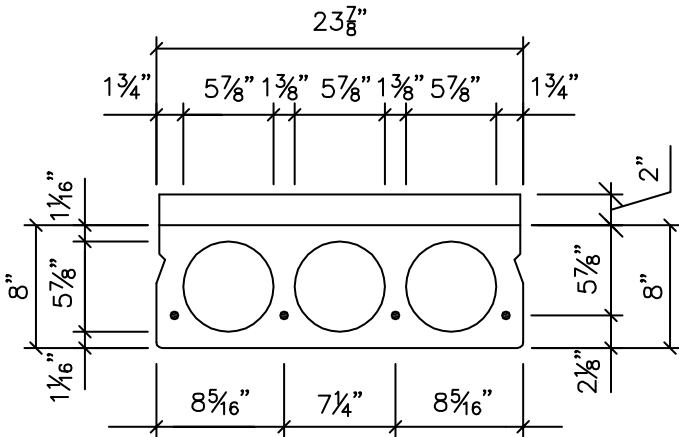
# 8" X 24" Section 2" Structural Topping

Safe Load Table

UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M Ft.-Kips per Unit	$\phi M_n$ 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-60*	4 -1/2	0.612	49.4	74.6	491	457	426	399	375	353	333	296	261	230	204	180	158	139	122	107	93	80	69												
T824C-58	4 -1/2	0.576	50.0	67.3	491	457	426	399	375	353	320	286	256	230	207	183	162	142	125	110	95	83	71												
T824C-50	2 -1/2 & 2 -7/16	0.504	45.5	60.6	491	457	426	399	358	317	282	252	225	202	179	157	137	119	104	90	77	65	54												
T824C-43	4 -7/16	0.432	41.0	53.5	491	457	401	351	309	273	242	215	191	171	150	130	112	96	82	70	58														
T824C-38	2 -7/16 & 2 -3/8	0.376	37.5	47.7	468	404	351	306	268	236	209	185	164	145	127	109	93	79	66	54															
T824C-32	4 -3/8	0.320	34.0	41.5	399	344	297	259	226	198	174	153	135	119	104	89	74	61																	
T824C-29	2 -1/2	0.288	32.0	37.8	359	308	266	230	200	175	153	134	117	103	90	77	63	51																	

controlled by: ultimate  shear  service



A =	109.7 in <sup>2</sup>	f <sub>c</sub> =	6000 psi
A <sub>c</sub> =	143.64 in <sup>2</sup>	f <sub>ci</sub> =	3500 psi
b <sub>w</sub> =	6.25 in	f <sub>ct</sub> =	3000 psi
I <sub>g</sub> =	843.2 in <sup>4</sup>	f <sub>pu</sub> =	250 ksi
I <sub>gc</sub> =	1502.5 in <sup>4</sup>	f <sub>pu</sub> * =	270 ksi
y <sub>b</sub> =	4.000 in		
y <sub>bc</sub> =	5.180 in		

\* Strand Stressed to 60% of Ultimate

**NOTES:**

- 1) Grouted weight of topped structural unit is 82 psf or 164 plf based on concrete unit weight of 150 pcf.
- 2) Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI318)."
- 3) No shear reinforcement is required for the tabulated loads to the right of the heavy stepped line.
- 4) Tabulated loads are based on U=1.2D+1.6L and with all load superimposed on the structural section considered as live load.
- 5) Tabulated loads in the blue area may be achieved by adding shear reinforcing.
- 6) Tabulated loads in yellow are controlled by permissible flexural tension at service loads.
- 7) Tabulated loads in bold font have deflections in excess of L/360.
- 8) All strand stressed to 70% of ultimate.
- 9) For longer spans and conditions not covered in the load table, consult Molin.



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