

# Flexicore Hollow Core

PRESTRESSED CONCRETE SLAB

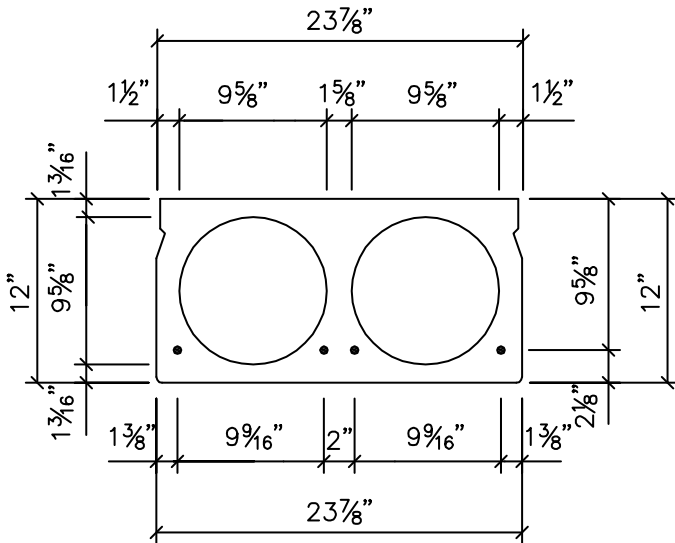
## 12" X 24" Section

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.																				
					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1224B-60*	4 -1/2	0.612	68.0	109.4	246	234	223	213	204	196	187	180	173	162	149	137	126	115	106	97	89	81	74	67	61
1224B-58	4 -1/2	0.576	68.8	96.7	246	234	223	213	204	196	187	180	167	154	143	132	122	113	104	96	89	82	76	69	63
1224B-50	2 -1/2 & 2 -7/16	0.504	62.8	85.7	246	234	223	213	200	183	168	154	142	131	120	111	102	94	86	79	73	67	61	56	51
1224B-43	4 -7/16	0.432	56.8	74.4	243	220	200	182	166	152	139	127	116	106	97	89	81	74	67	61	56	51			
1224B-38	2 -7/16 & 2 -3/8	0.376	52.2	65.3	207	187	169	154	139	127	115	105	95	87	79	71	65	58	53						
1224B-32	4 -3/8	0.320	47.5	56.1	170	153	138	124	112	101	91	82	74	67	60	54									

controlled by: ultimate  shear  service



$$\begin{aligned}
 A \text{ (in}^2\text{)} &= 141 \text{ in}^2 & f'_c &= 6000 \text{ psi} \\
 b_w \text{ (in)} &= 4.625 \text{ in} & f'_{ci} &= 3500 \text{ psi} \\
 I_g \text{ (in}^4\text{)} &= 2594.4 \text{ in}^4 & f_{pu} &= 250 \text{ ksi} \\
 y_b \text{ (in)} &= 6.000 \text{ in} & f_{pu}^* &= 270 \text{ ksi}
 \end{aligned}$$

\* Strand Stressed to 60% of Ultimate

### 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 (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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