

SAMSON METALS Ltd.

(Imperial - L.S.D. S136-07)

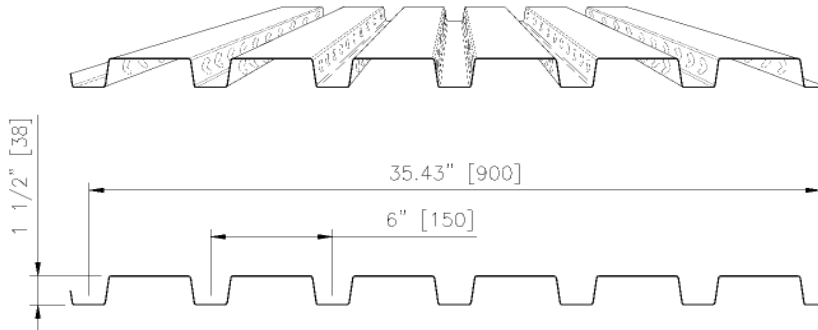
MODULAR RATIO n = 9

Standard Weight Concrete - 145 PCF

(Z-275 Galvanized)

COMPOSITE

SM900FD-CL



Properties for SM900FD-DL

(Z-275)

(per foot width)

BASE STEEL THICKNESS		NONCOMPOSITE								Conc. Cover "A"	COMPOSITE				
		As	Ysb	Sm	Ss	Isd	Br	Br	Wd		lc	d	Regress. coef.	W1	VOC
GA.	THK.					(Mid)	(Ext)	(Int)							
	in	in2/ft	in	in3/ft	in3/ft	in4/ft	ib / ft	ib / ft	psf	in	in4/ft	in	k values	psf	ft3/100 ft2
22	0.030	0.4710	0.8720	0.1786	0.1817	0.1567	767	1158	1.660	2	2.700	2.628	k1 = 5767 psi	34.2	23.4
										2.5	4.100	3.128	k2 = 339 lb/in	40.2	28.3
										3	5.800	3.628	k3 = 2.225 lb/in ³	46.2	31.6
										3.5	7.900	4.128	k4 = 0 psi	52.3	36.5
20	0.036	0.5660	0.8760	0.2178	0.2290	0.1954	1076	1631	1.992	2	2.900	2.624	k1 = 5767 psi	34.2	23.7
										2.5	4.400	3.124	k2 = 339 lb/in	40.2	27.9
										3	6.200	3.624	k3 = 2.225 lb/in ³	46.2	32.0
										3.5	8.500	4.124	k4 = 0 psi	52.3	36.2
18	0.048	0.7520	0.8830	0.2954	0.3017	0.2665	1809	2782	2.642	2	3.300	2.617	k1 = 5767 psi	34.2	23.7
										2.5	4.900	3.117	k2 = 339 lb/in	40.2	27.9
										3	6.900	3.617	k3 = 2.225 lb/in ³	46.2	32.0
										3.5	9.400	4.117	k4 = 0 psi	52.3	36.2
16	0.060	0.9410	0.8910	0.3722	0.3733	0.3327	2782	4228	3.285	2	3.600	2.609	k1 = 5767 psi	34.2	23.4
										2.5	5.300	3.109	k2 = 339 lb/in	40.2	27.9
										3	7.500	4.128	k3 = 2.225 lb/in ³	46.2	32.0
										3.5	10.300	4.109	k4 = 0 psi	52.3	36.2

Load Table Notes for SM900FD-CL

- 1) The loads indicated in the tables are for superimposed specified live and dead loads. The weights of steel deck, wet concrete and 20.9 psf uniformly distributed construction load or a 137 lb / ft transverse live load have been included within the load tables.
- 2) The load tables are based on the design of ONE-WAY composite slabs, in the direction of the flutes, carrying uniformly distributed loads on simple span basis.
- 3) Load values are based on Normal Weight Concrete (density of 145 pcf) with a minimum compressive strength of 2900 psi.
- 4) No additional reinforcing is required for the slab thickness shown on these tables. For temperature steel recommendations see the Samson Engineering Notes.
- 5) Properties and loads are based on A653 structural quantify Grade 33 steel with a minimum yield stress of 33 ksi and a maximum stress under Factored loads of 29.7 ksi.
- 6) **The load table has not been limited.** However, heavy loads above 200 psf or in structures, or portions thereof, where loads are maintained for lengthy periods, such as warehouses, computer rooms, libraries or other conditions, where the effect of creep must be considered, contact Samson Metals Ltd.
- 7) K1, K2, K3 and K4 values have been derived through testing.
- 8) Composite load capacities are dependent on the material finish of the steel floor form.
- 9) **Heavy concentrated loads, moving and vibratory loads are not recommended on a composite floor system without additional negative and transverse reinforcing.**

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(Imperial - L.S.D. S136-07)

MODULAR RATIO n = 9

Standard Weight Concrete (2350 kg/m³)

(Z-275 Galvanized)

COMPOSITE

SM900FD-CL

Specified Load Tables - psf

(3 span form)

Span ft	2" Concrete Cover Depth "A"				2.5" Concrete Cover Depth "A"				3" Concrete Cover Depth "A"				3.5" Concrete Cover Depth "A"			
	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
4.0	286	335	377	417	346	399	448	497	405	463	520	577	465	527	592	657
4.5	220	265	298	330	267	316	354	393	314	366	411	456	362	417	468	520
5.0	173	215	241	267	211	256	287	318	249	297	333	370	287	338	379	421
5.5	138	178	199	221	169	211	237	263	201	245	275	306	233	279	313	348
6.0	111	149	167	186	138	178	199	221	164	206	231	257	191	235	263	292
6.5	90	127	143	158	113	151	170	188	136	176	197	219	158	200	225	249
7.0	74	110	123	136	94	131	147	163	113	151	170	189	133	172	194	215
7.5	61	96	107	119	78	114	128	142	95	132	148	164	112	150	169	187
8.0	50	84	94	104	65	100	112	124	80	116	130	145	95	132	148	165
8.5	41	74	84	93	54	89	99	110	68	103	115	128	81	117	131	146
9.0	33	66	75	83	45	79	89	98	57	92	103	114	69	104	117	130
9.5	27	60	67	74	38	71	80	88	48	82	92	103	59	94	105	117
10.0	22	54	60	67	31	64	72	80	41	74	83	93	50	85	95	105
10.5	17	49	55	61	26	58	65	72	34	67	76	84	43	77	86	96

Allowable Superimposed Load Tables - psf

(2 span form)

Span ft	2" Concrete Cover Depth "A"				2.5" Concrete Cover Depth "A"				3" Concrete Cover Depth "A"				3.5" Concrete Cover Depth "A"			
	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
4.0	286	335	377	417	346	399	448	497	405	463	520	577	465	527	592	657
4.5	220	265	298	330	267	316	354	393	314	366	411	456	362	417	468	520
5.0	173	215	241	267	211	256	287	318	249	297	333	370	287	338	379	421
5.5	138	178	199	221	169	211	237	263	201	245	275	306	233	279	313	348
6.0	111	149	167	186	138	178	199	221	164	206	231	257	191	235	263	292
6.5	90	127	143	158	113	151	170	188	136	176	197	219	158	200	225	249
7.0	74	110	123	136	94	131	147	163	113	151	170	189	133	172	194	215
7.5	61	96	107	119	78	114	128	142	95	132	148	164	112	150	169	187
8.0	50	84	94	104	65	100	112	124	80	116	130	145	95	132	148	165
8.5	41	74	84	93	54	89	99	110	68	103	115	128	81	117	131	146
9.0	33	66	75	83	45	79	89	98	57	92	103	114	69	104	117	130
9.5	27	60	67	74	38	71	80	88	48	82	92	103	59	94	105	117
10.0	22	54	60	67	31	64	72	80	41	74	83	93	50	85	95	105
10.5	17	49	55	61	26	58	65	72	34	67	76	84	43	77	86	96

Allowable Superimposed Load Tables - psf

1 span form

Span ft	2" Concrete Cover Depth "A"				2.5" Concrete Cover Depth "A"				3" Concrete Cover Depth "A"				3.5" Concrete Cover Depth "A"			
	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
4.0	286	335	377	417	346	399	448	497	405	463	520	577	465	527	592	657
4.5	220	265	298	330	267	316	354	393	314	366	411	456	362	417	468	520
5.0	173	215	241	267	211	256	287	318	249	297	333	370	287	338	379	421
5.5	138	178	199	221	169	211	237	263	201	245	275	306	233	279	313	348
6.0	111	149	167	186	138	178	199	221	164	206	231	257	191	235	263	292
6.5	90	127	143	158	113	151	170	188	136	176	197	219	158	200	225	249
7.0	74	110	123	136	94	131	147	163	113	151	170	189	133	172	194	215
7.5	61	96	107	119	78	114	128	142	95	132	148	164	112	150	169	187
8.0	50	84	94	104	65	100	112	124	80	116	130	145	95	132	148	165
8.5	41	74	84	93	54	89	99	110	68	103	115	128	81	117	131	146
9.0	33	66	75	83	45	79	89	98	57	92	103	114	69	104	117	130
9.5	27	60	67	74	38	71	80	88	48	82	92	103	59	94	105	117
10.0	22	54	60	67	31	64	72	80	41	74	83	93	50	85	95	105
10.5	17	49	55	61	26	58	65	72	34	67	76	84	43	77	86	96