

**TYPE "HF" HEAVY DUTY FORM DECK  
TYPE "HVF" HEAVY DUTY SLOT VENTED FORM DECK**



**SECTION PROPERTIES** FY=60 KSI (GRADE 80)

ASD ( $\Omega = 1.67$ )

DECK TYPE	DESIGN THICKNESS	WT PSF	I <sup>P</sup> IN. <sup>4</sup>	I <sup>N</sup> IN. <sup>4</sup>	S <sup>P</sup> IN. <sup>3</sup>	S <sup>N</sup> IN. <sup>3</sup>	M <sup>P</sup> / $\Omega$ IN. - LBS. PER FT.	M <sup>N</sup> / $\Omega$ IN. - LBS. PER FT.
26	.0179 IN.	1.0	.035	.034	.063	.065	1894	1945
24	.0239 IN.	1.2	.049	.048	.095	.098	3419	3514
22	.0295 IN.	1.5	.061	.060	.123	.122	4406	4372
20	.0358 IN.	1.8	.076	.073	.148	.147	5313	5289

DECK-SPAN	DECK TYPE	DESIGN THICKNESS	DECK SUPPORT SPACING (FT. - IN.)						POUNDS PER SQUARE FOOT				
			3-0	3-06	4-0	4-06	5-0	5-06	6-0	6-06	7-0	7-06	8-0
SIMPLE	26	STRESS DOWNWARD	140	103	79	62	50	42	35	30	26	22	20
		DEFLECTION L/240	83	52	35	24	18	13	10	8	7	5	4
	24	STRESS DOWNWARD	253	186	142	113	91	75	63	54	47	41	36
		DEFLECTION L/240	117	74	49	35	25	19	15	11	9	7	6
	22	STRESS DOWNWARD	326	240	184	145	117	97	82	70	60	52	46
		DEFLECTION L/240	147	92	62	44	32	24	18	14	12	9	8
	20	STRESS DOWNWARD	394	289	221	175	142	117	98	84	72	63	55
		DEFLECTION L/240	178	112	75	53	39	29	22	18	14	11	9

DOUBLE	26	STRESS DOWNWARD	173	127	97	77	62	51	43	37	32	28	24
		DEFLECTION L/240	199	125	84	59	43	32	25	20	16	13	10
	24	STRESS DOWNWARD	260	191	146	116	94	77	65	55	48	42	37
		DEFLECTION L/240	281	177	119	83	61	46	35	28	22	18	15
	22	STRESS DOWNWARD	324	238	182	144	117	96	81	69	59	52	46
		DEFLECTION L/240	354	223	149	105	76	57	44	35	28	23	19
	20	STRESS DOWNWARD	392	288	220	174	141	117	98	83	72	63	55
		DEFLECTION L/240	429	270	181	127	93	70	54	42	34	27	23

TRIPLE	26	STRESS DOWNWARD	216	158	121	96	78	64	54	46	40	35	30
		DEFLECTION L/240	156	98	66	46	34	25	19	15	12	10	8
	24	STRESS DOWNWARD	325	239	183	145	117	97	81	69	60	52	46
		DEFLECTION L/240	220	138	93	65	48	36	27	22	17	14	12
	22	STRESS DOWNWARD	405	297	228	180	146	120	101	86	74	65	57
		DEFLECTION L/240	277	174	117	82	60	45	35	27	22	18	15
	20	STRESS DOWNWARD	490	360	275	218	176	146	122	104	90	78	69
		DEFLECTION L/240	336	212	142	100	73	55	42	33	26	22	18

LOAD TABLES AND SECTION PROPERTIES WERE GENERATED BY THE SDI.

\* Type "HVF" shall be vented in lower flutes with a .5% open area. .75% and 1.5% open areas available upon request.

FOR LOADS THAT CAUSE L/120 DEFLECTION, MULTIPLY BY 2.0. FOR LOADS THAT CAUSE L/180 DEFLECTION, MULTIPLY BY 1.5. FOR LOADS THAT CAUSE L/360 DEFLECTION, MULTIPLY BY 0.667.

The design stress for Grade 80 is 0.75 times the 80 ksi due to the low ductility of the steel.

## TYPE "HF" HEAVY FORM DECK

### SLAB INFORMATION

Total Slab Depth, inches	W.W.F	Mp	Mn	Theo. Concrete Volume	
				yd <sup>3</sup> /100ft <sup>2</sup>	ft <sup>3</sup> /ft <sup>2</sup>
2.5	6x6- W1.4 x W1.4	1.14	1.85	0.632	0.172
3	6x6- W1.4 x W1.4	1.52	2.23	0.789	0.213
3.5	6x6- W2.0 x W2.0	5.28	4.32	0.944	0.255
4	6x6- W2.9 x W2.9	9.11	7.63	1.10	0.297
4.5	6x6- W4.0 x W4.0	14.6	12.38	1.25	0.338
5	6x6- W4.0 x W4.0	16.7	14.5	1.41	0.380
5.5	6x6- W4.0 x W4.0	18.9	16.7	1.56	0.422

Total Slab Depth	Deck	NW Concrete N=9 145 PCF			LW Concrete N=14 115 PCF		
		1 Span	2 Span	3 Span	1 Span	2 Span	3 Span
2.5 (t=1.50) 26 PSF NW 20PSF L/W	26	3-3	3-11	4-0	3-5	4-1	4-2
	24	5-3	6-2	6-3	5-7	6-7	6-8
	22	5-11	7-6	7-7	6-5	8-0	8-1
	20	6-4	8-7	8-8	6-11	9-2	9-4
3.0 (t=2.00) 32 PSF NW 24 PSF L/W	26	3-2	3-9	3-1	3-4	3-12	4-0
	24	5-0	5-10	5-11	5-4	6-4	6-5
	22	5-6	7-1	7-2	6-1	7-8	7-9
	20	5-11	8-0	8-2	6-6	8-9	8-10
3.5 (t=2.50) 38 PSF NW 29 PSF L/W	26	3-0	3-7	3-8	3-3	3-10	3-11
	24	4-7	5-11	6-0	5-0	6-5	6-6
	22	5-2	6-8	6-9	5-8	7-3	7-4
	20	5-7	7-7	7-8	6-1	8-3	8-5
4 (t=3.00) 44 PSF NW 34 PSF L/W	26	2-11	3-6	3-6	3-1	3-8	3-9
	24	4-7	5-4	5-5	4-11	5-9	5-10
	22	4-11	6-5	6-6	5-5	6-11	7-0
	20	5-4	7-3	7-4	5-10	7-11	8-0
4.5 (t=3.50) 50 PSF NW 38 PSF L/W	26	2-10	3-5	3-5	3-0	3-7	3-8
	24	4-5	5-2	5-3	4-9	5-7	5-8
	22	4-9	6-2	6-2	5-2	6-8	6-9
	20	5-1	6-11	7-0	5-7	7-7	7-8
5 (t=4.00) 56 PSF NW 43 PSF L/W	26	2-9	3-3	3-4	2-11	3-6	3-7
	24	4-3	5-0	5-0	4-7	5-5	5-6
	22	4-7	5-11	6-0	5-0	6-5	6-6
	20	4-11	6-8	6-9	5-4	7-4	7-5

Slab Depth	Reinforcement		Superimposed Uniform Load (psf) – 3 Span Condition												
			Clear Span (ft-in.)												
	W.W.F	As	2-0	2-6	3-0	3-6	4-0	4-6	5-0	5-6	6-0	6-6	7-0	7-6	8-0
2.5 (t=1.50)	6x6- W1.4 x W1.4	0.028	223	143	99	73	56	44	36	30	25	21	18	16	14
	6x6- W2.0 x W2.0	0.040	314	201	140	103	79	62	50	42	35	30	26	22	20
	6x6- W2.9 x W2.9	0.058	*	285	198	145	111	88	71	59	49	42	36	32	28
3 (t=2.00)	6x6- W1.4 x W1.4	0.028	298	190	132	97	74	59	48	39	33	28	24	21	19
	6x6- W2.0 x W2.0	0.040	*	269	187	137	105	83	67	56	47	40	34	30	26
	6x6- W2.9 x W2.9	0.058	*	383	266	195	150	118	96	79	66	57	49	43	37
3.5 (t=2.50)	6x6- W2.0 x W2.0	0.040	*	*	282	207	159	125	102	84	71	60	52	45	40
	6x6- W2.9 x W2.9	0.058	*	*	396	291	223	176	143	119	99	84	73	63	56
	6x6- W4.0 x W4.0	0.080	*	*	*	387	296	234	190	157	132	112	97	84	74
4 (t=3.00)	6x6- W2.9 x W2.9	0.058	*	*	*	366	281	222	180	148	125	106	92	80	70
	6x6- W4.0 x W4.0	0.080	*	*	*	*	376	297	240	199	167	142	123	107	94
	4x4- W2.9 x W2.9	0.087	*	*	*	*	*	329	266	220	185	158	136	118	104
4.5 (t=3.50)	6x6- W4.0 x W4.0	0.080	*	*	*	*	*	360	291	241	202	172	149	129	114
	4x4- W2.9 x W2.9	0.087	*	*	*	*	*	397	321	266	223	190	164	143	126
	4x4- W4.0 x W4.0	0.120	*	*	*	*	*	*	*	356	299	255	220	192	168
5 (t=4.00)	6x6- W4.0 x W4.0	0.080	*	*	*	*	*	*	342	283	238	202	175	152	135
	4x4- W2.9 x W2.9	0.087	*	*	*	*	*	*	377	311	262	223	192	167	147
	4x4- W4.0 x W4.0	0.120	*	*	*	*	*	*	*	*	352	300	259	225	198
5.5 (t=4.50)	6x6- W4.0 x W4.0	0.080	*	*	*	*	*	*	393	325	273	232	200	175	153
	4x4- W2.9 x W2.9	0.087	*	*	*	*	*	*	*	357	300	256	220	192	169
	4x4- W4.0 x W4.0	0.120	*	*	*	*	*	*	*	*	*	345	298	259	228

WEB CRIPPLING AND SHEAR HAVE NOT BEEN ACCOUNTED FOR ON THESE TABLES. REQUIRED BEARING SHOULD BE DETERMINED BASED ON SPECIFIC SPAN CONDITIONS. \* INDICATES LIVE LOADS IN EXCESS OF 400 P.S.F.

**SHEAR AND WEB CRIPPLING (BARE DECK) TYPE “HF” FORM DECK FY=60 KSI (GRADE 80)**

DECK TYPE	V <sup>N</sup> / <u>Ω</u> LBS PER FT	WEB CRIPPLING (R <sup>N</sup> / <u>Ω</u> ), LBS/FT. ONE FLANGE LOADING END BEARING			WEB CRIPPLING (R <sup>N</sup> / <u>Ω</u> ), LBS/FT. ONE FLANGE LOADING INTERIOR BEARING		
		1.5”	2”	3”	1.5”	2”	3”
26	1547	508	563	654	692	757	867
24	2530	860	948	1096	1210	1318	1498
22	3332	1259	1384	1593	1810	1964	2221
20	4034	1787	1958	2245	2615	2827	3183

ALL SECTION PROPERTIES AND ASD FLEXURAL STRENGTHS ARE 1318CALCULATED IN ACCORDANCE WITH ANSI/SDI NC-2017, ANSI/SDI SD-2022 AND AISI S100-2012 AND AISI S100-19642016