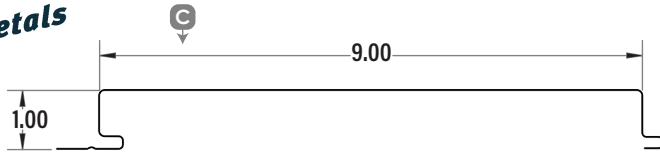




WF-HF-9 WALL



All dimensions are in inches

SECTION PROPERTIES (PER FOOT OF WIDTH)

IMPERIAL	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Sec. Modulus		Deflection Moment of Inertia (in ⁴)	Specified Web Crippling Data			
				Midspan	Support		P _{e1} End (lb)	P _{e2} End (lb)	P _{i1} Interior (lb)	P _{i2} Interior (lb)
				(in ³)	(in ³)					
	0.0180	1.12	33	0.0326	0.0556	0.0208	104	26.0	207	35.2
	0.0240	1.47	33	0.0513	0.0732	0.0309	191	47.8	377	64.0
	0.0300	1.82	33	0.0734	0.0904	0.0428	306	76.4	598	102
	0.0360	2.17	33	0.0938	0.107	0.0561	447	112	871	148

Live load factor = 1.4; Importance factor = 0.75; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (PSF)

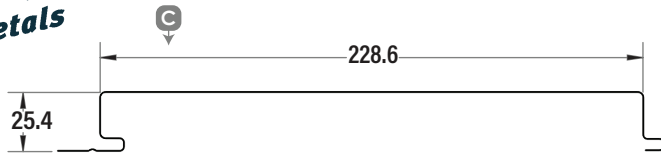
SPAN LENGTH (ft)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)			
		0.024	0.030			0.024	0.030			0.024	0.030		
3.0	S	81	115			115	142			126	177		
	D	266	369			638	886			503	698		
3.5	S	59	85			85	104			92	130		
	D	167	232			402	558			316	439		
4.0	S	45	65			65	80			71	100		
	D	112	156			269	374			212	294		
4.5	S	36	51			51	63			56	79		
	D	79	109			189	263			149	207		
5.0	S	29	42			41	51			45	64		
	D	57	80			138	191			109	151		
5.5	S	24	34			34	42			37	53		
	D	43	60			104	144			82	113		
6.0	S	20	29			29	35			31	44		
	D	33	46			80	111			63	87		
6.5	S	17	25			25	30			27	38		
	D	26	36			63	87			49	69		
7.0	S	15	21			21	26			23	33		
	D	21	29			50	70			40	55		
7.5	S	13	18			18	23			20	28		
	D	17	24			41	57			32	45		
8.0	S	11	16			16	20			18	25		
	D	14	19			34	47			27	37		

- Notes:**
- 1 Based on ASTM A 653 structural steel. Coating can also be AZ50.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of L/90.
 - 4 For L/180, multiply values in row "D" by 0.50.
 - 5 Web crippling not included in strength calculations. See Example.
 - 6 Limit States Design principles were used in accordance with CSA S136-16.
 - 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.





WF-HF-9 WALL



All dimensions are in millimeters

SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Mass Z275 (kg/m ²)	Yield Stress (MPa)	Sec. Modulus		Deflection Moment of Inertia (x10 ⁶ mm ⁴)	Specified Web Crippling Data			
				Midspan	Support		P _{e1} End (kN)	P _{e2} End (kN)	P _{i1} Interior (kN)	P _{i2} Interior (kN)
				(x10 ³ mm ³)	(x10 ³ mm ³)					
	0.457	5.47	230	1.75	2.99	0.0284	1.54	0.384	3.05	0.519
	0.610	7.19	230	2.75	3.94	0.0421	2.82	0.705	5.56	0.944
	0.762	8.89	230	3.93	4.86	0.0583	4.51	1.13	8.82	1.50
	0.914	10.6	230	5.04	5.75	0.0764	6.60	1.65	12.8	2.18

Live load factor = 1.4; Importance factor = 0.75; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (kPa)

SPAN LENGTH (mm)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)			
		0.610	0.762			0.610	0.762			0.610	0.762		
1000	S	3.25	4.65			4.66	5.75			5.08	7.18		
	D	9.71	13.5			23.3	32.3			18.4	25.5		
1200	S	2.26	3.23			3.23	3.99			3.53	4.99		
	D	5.62	7.80			13.5	18.7			10.6	14.7		
1400	S	1.66	2.37			2.38	2.93			2.59	3.66		
	D	3.54	4.91			8.49	11.8			6.69	9.28		
1600	S	1.27	1.82			1.82	2.24			1.98	2.81		
	D	2.37	3.29			5.69	7.89			4.48	6.22		
1800	S	1.00	1.44			1.44	1.77			1.57	2.22		
	D	1.67	2.31			4.00	5.54			3.15	4.37		
2000	S	0.81	1.16			1.16	1.44			1.27	1.80		
	D	1.21	1.68			2.91	4.04			2.29	3.18		
2200	S	0.67	0.96			0.96	1.19			1.05	1.48		
	D	0.91	1.27			2.19	3.04			1.72	2.39		
2400	S	0.56	0.81			0.81	1.00			0.88	1.25		
	D	0.70	0.97			1.69	2.34			1.33	1.84		
2600	S	0.48	0.69			0.69	0.85			0.75	1.06		
	D	0.55	0.77			1.33	1.84			1.04	1.45		
2800	S	0.41	0.59			0.59	0.73			0.65	0.92		
	D	0.44	0.61			1.06	1.47			0.84	1.16		
3000	S	0.36	0.52			0.52	0.64			0.56	0.80		
	D	0.36	0.50			0.86	1.20			0.68	0.94		

- Notes:**
- 1 Based on ASTM A 653M structural steel. Coating can also be AZM150.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of L/90.
 - 4 For L/180, multiply values in row "D" by 0.50.
 - 5 Web crippling not included in strength calculations. See Example.
 - 6 Limit States Design principles were used in accordance with CSA S136-16.
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