AMERICAN BUILDING COMPONENTS®

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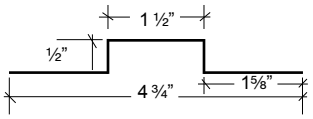
TECHNICAL BULLETIN

LIGHT GAUGE FRAMING SECTION PROPERTIES

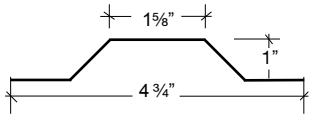
½" Sub-Girt



SECTION PROPERTIES									
				TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	NOM. THICK (IN.)	WT. (PLF)	Fy (KSI)	I_x ($in.^4$)	S_x ($in.^3$)	F_b (KSI)	I_x ($in.^4$)	S_x ($in.^3$)	F_b (KSI)
18	.049	0.50	33.0	.0060	.0233	18.1	.0060	.0253	18.1

ALLOWABLE UNIFORM LOADS IN POUNDS PER LINEAL FOOT									
	LIVE LOAD (STRESS)			LIVE LOAD (DEFL.)			WIND UPLIFT		
SPAN TYPE	2'	3'	4'	2'	3'	4'	2'	3'	4'
Simple Span	70	31	18	66	20	8	101	45	25
2 Spans	76	34	19	160	49	20	93	41	24
3 or More Spans	96	42	24	125	37	15	117	52	29

1" Sub-Girt

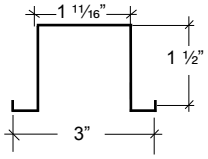


SECTION PROPERTIES									
				TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	NOM. THICK (IN.)	WT. (PLF)	Fy (KSI)	I_x ($in.^4$)	S_x ($in.^3$)	F_b (KSI)	I_x ($in.^4$)	S_x ($in.^3$)	F_b (KSI)
18	.049	0.97	33.0	.0471	.0949	19.8	.0471	.0853	19.8

ALLOWABLE UNIFORM LOADS IN POUNDS PER LINEAL FOOT															
	LIVE LOAD (STRESS)					LIVE LOAD (DEFL.)					WIND UPLIFT				
SPAN TYPE	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
Simple Span	313	139	78	50	35	313	139	65	33	19	375	167	94	60	42
2 Spans	271	123	70	45	31	271	123	70	45	31	399	182	103	66	46
3 or More Spans	312	143	81	52	36	312	143	81	52	36	458	210	120	77	54
.049 Nom. Thk. Allow Int. Bearing @ 3" = 1.488 K/Ft. Allow End Bearing @ 2" = 0.873 K/Ft.															

Notes: 1. Section Properties and allowable stresses are calculated in accordance with the 1980 AISI specification for light gauge structural members.
2. Steel minimum yield strength is 33 KSI conforming to ASTM A446, Grade A.
3. Allowable loads for wind have been increased by 33%. Panel weight has not been deducted. Minimum bearing length must be checked.
4. Above live loads are limited by stress and meet or exceed deflection ratio of L/180 of span.

Hat Section

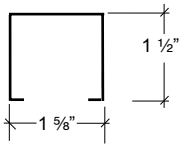


SECTION PROPERTIES									
				TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	NOM. THICK (IN.)	WT. (PLF)	Fy (KSI)	I_x (in.^{4})	S_x (in.^{3})	F_b (KSI)	I_x (in.^{4})	S_x (in.^{3})	F_b (KSI)
26	.0198	0.43	50.0	.0365	.0417	21.3	.0468	.0609	28.5
24	.0258	0.53	50.0	.0465	.0545	30.0	.0570	.0744	28.7
22	.0318	0.70	50.0	.0599	.0730	30.0	.0591	.0776	29.1

ALLOWABLE UNIFORM LOADS IN POUNDS PER LINEAL FOOT

SPAN TYPE	GA	LIVE LOAD (STRESS)					LIVE LOAD (DEFL.)					WIND UPLIFT				
		2'	3'	4'	5'	6'	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
Simple Span	26	148	66	37	24	16	148	66	37	24	15	386	172	96	61	43
	24	273	121	68	44	30	273	121	64	33	19	475	211	119	76	53
	22	365	162	91	58	41	365	162	81	42	24	502	223	125	80	56
2 Spans	26	289	129	72	46	32	289	129	72	46	32	197	88	49	32	22
	24	356	158	89	57	40	356	158	89	57	40	364	161	91	59	40
	22	376	167	94	60	42	376	167	94	60	42	487	216	121	77	55
3 or More Spans	26	362	160	90	58	40	362	161	90	48	28	246	110	62	39	27
	24	445	198	111	71	49	445	198	111	67	39	455	202	113	73	50
	22	470	209	118	75	52	470	209	118	75	46	608	270	152	97	68

Channel Section



SECTION PROPERTIES									
				TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	NOM. THICK (IN.)	WT. (PLF)	Fy (KSI)	I_x (in.^{4})	S_x (in.^{3})	F_b (KSI)	I_x (in.^{4})	S_x (in.^{3})	F_b (KSI)
18	.049	0.81	33.0	.077	.095	19.2	.077	.124	15.1

ALLOWABLE UNIFORM LOADS IN POUNDS PER LINEAL FOOT

	LIVE LOAD (STRESS)					LIVE LOAD (DEFL.)					WIND UPLIFT				
SPAN TYPE	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
Simple Span	304	135	76	49	34	304	135	76	49	32	416	185	104	67	46
2 Spans	312	139	78	50	35	312	139	78	50	35	405	180	101	65	45
3 or More Spans	392	174	98	63	44	392	174	98	63	44	474	214	121	78	54

.049 Nom. Thk. Allow Int. Bearing @ 3" = 1.896 K/Ft. Allow End Bearing @ 2" = 1.107 K/Ft.

Notes: 1. Section Properties and allowable stresses are calculated in accordance with the 1980 AISI specification for light gauge structural members.
2. Steel minimum yield strength is 33 KSI conforming to ASTM A446, Grade A.
3. Allowable loads for wind have been increased by 33%. Panel weight has not been deducted. Minimum bearing length must be checked.
4. Above live loads are limited by stress and meet or exceed deflection ratio of L/180 of span.