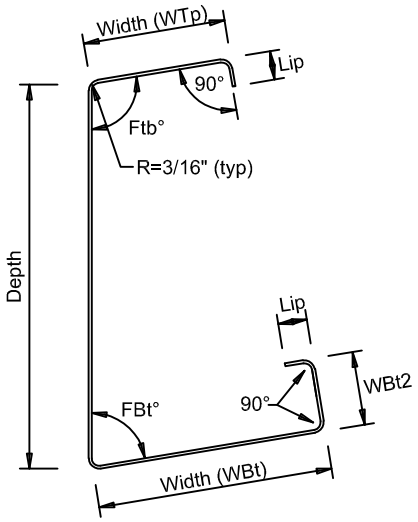
Section Properties
Double Pitch G-Struts



Eave Strut (Odd Leg)

TOLERANCE STANDARDS FOR THICKEST METALS

Accumulation	.....(±) 1/16"
Radii	.....(±) 1/32"
Width	.....(±) 1/16"
Flanges	.....(±) 1/16"
Flare	.....2x THK per side angles
Flange	.....(±) 2 degrees
Lips	.....(±) 3 degrees
Camber	.....1/8" in 10'-0"
Ski	.....1/8" in 10'-0"
Dive	.....1/8" in 10'-0"
Twist	.....1/8" in 10'-0"
(Zee Only)	.....1/4" in 20'-0"

Net variation for combined dimensions
Twist is measured with the Zee laying on a flat surface under its own weight

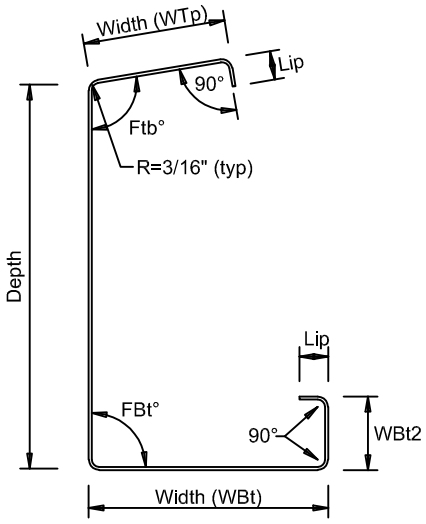
Thk in	Steel Gage
0.060	16
0.075	14
0.105	12

Sectional Properties

Name	Depth	WTp	WBt	WBt2	Thk	Lip	Rad	Ftp	FBt	FB2	LTp	LBt	Area	Wt	Yb	Ixx	SxTop	SxBot	Rxx	IycT	IycB	Syy	Ryy	J	Cw	ro	xo
	in	in	in	in	in	in	in	deg	deg	deg	deg	deg	in2	lb/ft	in	in4	in3	in3	in	in4	in4	in3	in	in4	in6	in	in
6GE-1-16	6.00	3.50	5.00	1.750	0.06	0.820	0.188	95	85	90	90	90	1.028	3.500	2.76	5.81	1.65	2.12	2.38	0.94	2.39	1.07	1.80	0.00	30.74	5.28	-3.79
6GE-1-14	6.00	3.50	5.00	1.750	0.08	0.870	0.188	95	85	90	90	90	1.284	4.370	2.76	7.21	2.06	2.63	2.37	1.18	2.96	1.33	1.79	0.00	38.72	5.28	-3.81
6GE-1-12	6.00	3.50	5.00	1.750	0.11	0.960	0.188	95	85	90	90	90	1.798	6.120	2.77	9.96	2.85	3.63	2.35	1.64	4.05	1.85	1.78	0.01	54.97	5.27	-3.83
6GE-2-16	6.00	3.50	5.00	1.750	0.06	0.830	0.188	99	81	90	90	90	1.028	3.500	2.92	5.68	1.57	1.98	2.35	0.90	2.32	1.05	1.77	0.00	30.54	5.35	-3.76
6GE-2-14	6.00	3.50	5.00	1.750	0.08	0.870	0.188	99	81	90	90	90	1.284	4.370	2.92	7.05	1.95	2.45	2.34	1.12	2.87	1.31	1.76	0.00	38.49	5.35	-3.77
6GE-2-12	6.00	3.50	5.00	1.750	0.11	0.970	0.188	99	81	90	90	90	1.798	6.120	2.94	9.74	2.71	3.38	2.33	1.56	3.94	1.81	1.75	0.01	54.73	5.34	-3.80
6GE-3-16	6.25	3.25	5.00	1.750	0.06	0.840	0.188	104	76	90	90	90	1.027	3.500	3.12	5.90	1.53	1.94	2.40	0.78	2.26	1.00	1.72	0.00	28.60	5.36	-3.48
6GE-3-14	6.25	3.25	5.00	1.750	0.08	0.880	0.188	104	76	90	90	90	1.284	4.370	3.12	7.33	1.90	2.41	2.39	0.98	2.80	1.24	1.71	0.00	36.09	5.36	-3.50
6GE-3-12	6.25	3.25	5.00	1.750	0.11	0.980	0.188	104	76	90	90	90	1.798	6.120	3.14	10.13	2.64	3.33	2.37	1.36	3.84	1.72	1.70	0.01	51.42	5.35	-3.52
6GE-4-16	6.25	3.25	5.00	1.750	0.06	0.850	0.188	108	72	90	90	90	1.027	3.500	3.26	5.82	1.48	1.85	2.38	0.73	2.14	0.97	1.67	0.00	28.18	5.42	-3.42
6GE-4-14	6.25	3.25	5.00	1.750	0.08	0.890	0.188	108	72	90	90	90	1.284	4.370	3.27	7.23	1.84	2.30	2.37	0.91	2.64	1.20	1.66	0.00	35.59	5.42	-3.43
6GE-4-12	6.25	3.25	5.00	1.750	0.11	0.990	0.188	108	72	90	90	90	1.798	6.120	3.28	9.99	2.56	3.17	2.36	1.27	3.63	1.67	1.65	0.01	50.82	5.41	-3.46
8GE-1-14	8.00	3.50	5.00	1.750	0.08	0.870	0.188	95	85	90	90	90	1.434	4.880	3.63	14.08	3.04	3.90	3.13	1.28	3.30	1.39	1.79	0.00	59.63	5.59	-3.55
8GE-1-12	8.00	3.50	5.00	1.750	0.11	0.960	0.188	95	85	90	90	90	2.008	6.830	3.64	19.53	4.22	5.40	3.12	1.79	4.53	1.93	1.77	0.01	84.38	5.57	-3.57
8GE-2-14	8.13	3.38	5.00	1.750	0.08	0.870	0.188	99	81	90	90	90	1.434	4.880	3.80	14.09	2.91	3.76	3.13	1.18	3.22	1.35	1.75	0.00	57.17	5.64	-3.41
8GE-2-12	8.13	3.38	5.00	1.750	0.11	0.970	0.188	99	81	90	90	90	2.008	6.830	3.81	19.55	4.06	5.21	3.12	1.65	4.42	1.87	1.74	0.01	81.03	5.63	-3.44
8GE-3-14	8.25	3.25	5.00	1.750	0.08	0.880	0.188	104	76	90	90	90	1.434	4.880	3.96	14.10	2.81	3.64	3.14	1.07	3.09	1.29	1.70	0.00	54.36	5.70	-3.26
8GE-3-12	8.25	3.25	5.00	1.750	0.11	0.980	0.188	104	76	90	90	90	2.008	6.830	3.97	19.58	3.92	5.04	3.12	1.50	4.25	1.80	1.69	0.01	77.20	5.69	-3.28
8GE-4-14	8.38	3.13	5.00	1.750	0.08	0.890	0.188	108	72	90	90	90	1.434	4.880	4.10	14.13	2.73	3.54	3.14	0.97	2.94	1.24	1.65	0.00	51.34	5.76	-3.10
8GE-4-12	8.38	3.13	5.00	1.750	0.11	0.990	0.188	108	72	90	90	90	2.008	6.830	4.12	19.61	3.81	4.91	3.13	1.36	4.04	1.72	1.64	0.01	73.08	5.74	-3.12
10GE-1-14	10.00	3.50	5.00	1.750	0.08	0.870	0.188	95	85	90	90	90	1.584	5.390	4.52	23.78	4.14	5.29	3.87	1.35	3.59	1.44	1.77	0.00	87.75	6.01	-3.31
10GE-1-12	10.00	3.50	5.00	1.750	0.11	0.960	0.188	95	85	90	90	90	2.218	7.550	4.53	33.06	5.77	7.34	3.86	1.89	4.93	1.99	1.75	0.01	123.92	5.99	-3.33
10GE-2-14	10.13	3.38	5.00	1.750	0.08	0.870	0.188	99	81	90	90	90	1.584	5.390	4.68	23.73	3.98	5.13	3.87	1.25	3.49	1.39	1.73	0.00	83.52	6.09	-3.18
10GE-2-12	10.13	3.38	5.00	1.750	0.11	0.970	0.188	99	81	90	90	90	2.218	7.550	4.69	33.00	5.56	7.12	3.86	1.74	4.80	1.93	1.72	0.01	118.16	6.07	-3.20
10GE-3-14	10.25	3.38	5.00	1.750	0.08	0.820	0.188	104	76	90	90	90	1.584	5.390	4.85	23.90	3.88	5.01	3.88	1.17	3.33	1.34	1.68	0.00	80.66	6.15	-3.08
10GE-3-12	10.25	3.38	5.00	1.750	0.11	0.910	0.188	104	76	90	90	90	2.218	7.550	4.87	33.26	5.43	6.96	3.87	1.64	4.57	1.86	1.67	0.01	114.38	6.13	-3.10
10GE-4-14	10.50	3.00	5.00	1.750	0.08	0.890	0.188	108	72	90	90	90	1.584	5.390	4.97	23.93	3.74	4.93	3.89	0.98	3.19	1.26	1.62	0.00	70.55	6.28	-2.79
10GE-4-12	10.50	3.00	5.00	1.750	0.11	0.990	0.188	108	72	90	90	90	2.218	7.550	4.99	33.30	5.23	6.85	3.88	1.37	4.39	1.75	1.61	0.01	100.30	6.25	-2.81
12GE-1-14	12.00	3.50	5.00	1.750	0.08	0.870	0.188	95	85	90	90	90	1.734	5.900	5.43	36.62	5.36	6.77	4.60	1.40	3.84	1.47	1.74	0.00	123.64	6.53	-3.10
12GE-1-12	12.00	3.50	5.00	1.750	0.11	0.960	0.188	95	85	90	90	90	2.428	8.260	5.45	50.99	7.48	9.41	4.58	1.97	5.28	2.04	1.73	0.01	174.43	6.51	-3.12
12GE-2-14	12.13	3.38	5.00	1.750	0.08	0.870	0.188	99	81	90	90	90	1.734	5.900	5.58	36.50	5.17	6.61	4.59	1.29	3.73	1.42	1.70	0.00	117.08	6.63	-2.97
12GE-2-12	12.13	3.38	5.00	1.750	0.11	0.970	0.188	99	81	90	90	90	2.428	8.260	5.59	50.84	7.22	9.19	4.58	1.81	5.12	1.97	1.69	0.01	165.45	6.60	-2.99
12GE-3-14	12.38	3.13	5.00	1.750	0.08	0.880	0.188	104	76	90	90	90	1.734	5.900	5.73	36.76	5.01	6.51	4.60	1.12	3.59	1.34	1.65	0.00	104.91	6.78	-2.75
12GE-3-12	12.38	3.13	5.00	1.750	0.11	0.980	0.188	104	76	90	90	90	2.428	8.260	5.75	51.22	7.00	9.06	4.59	1.57	4.94	1.87	1.64	0.01	148.63	6.75	-2.77
12GE-4-14	12.63	3.00	5.00	1.750	0.08	0.830	0.188	108	72	90	90	90	1.734	5.900	5.90	37.25	4.91	6.44	4.64	0.99	3.39	1.27	1.59	0.00	95.51	6.91	-2.56
12GE-4-12	12.63	3.00	5.00	1.750	0.11	0.930	0.188	108	72	90	90	90	2.428	8.260	5.92	51.94	6.87	8.97	4.63	1.39	4.67	1.77	1.58	0.01	135.78	6.88	-2.58

*Thickness indicated represents design thickness. Minimum deliverable bare steel equals 0.095 x design thickness in accordance with section A3.4 of AISI Specification of minimum steel thickness in inches.

Section Properties
Flat Bottom G-Struts



Eave Strut (Odd Leg)

TOLERANCE STANDARDS FOR THICKEST METALS

Accumulation	.....(±) 1/16"
Radii	.....(±) 1/32"
Width	.....(±) 1/16"
Flanges	.....(±) 1/16"
Flare	.....2x THK per side angles
Flange	.....(±) 2 degrees
Lips	.....(±) 3 degrees
Camber	.....1/8" in 10'-0"
Ski	.....1/8" in 10'-0"
Dive	.....1/8" in 10'-0"
Twist	.....1/8" in 10'-0"
(Zee Only)	.....1/4" in 20'-0"

Net variation for combined dimensions
Twist is measured with the Zee laying on a flat surface under its own weight

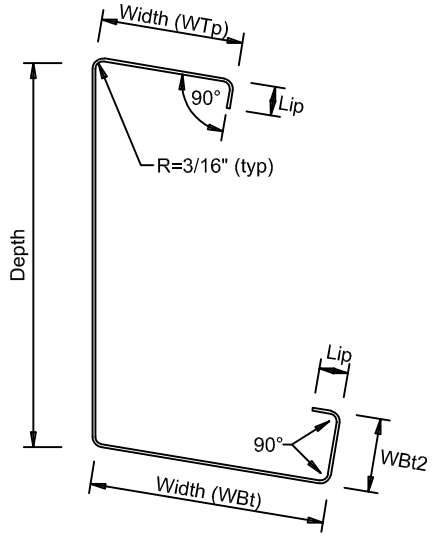
Thk in	Steel Gage
0.060	16
0.075	14
0.105	12

Sectional Properties

Name	Depth	WTp	WBt	WBt2	Thk	Lip	Rad	Ftp	FBt	FB2	LTp	LBt	Area	Wt	Yb	Ixx	SxTop	SxBot	Rxx	IycT	IycB	Syy	Ryy	J	Cw	ro	xo
	in	in	in	in	in	in	in	deg	deg	deg	deg	deg	in2	lb/ft	in	in4	in3	in3	in	in4	in4	in3	in	in4	in6	in	in
6GEF-1-16	6.00	3.50	5.00	1.750	0.06	0.810	0.188	95	90	90	90	90	1.028	3.500	2.64	6.27	1.73	2.38	2.47	0.97	2.44	1.09	1.82	0.00	29.45	5.25	-3.79
6GEF-1-14	6.00	3.50	5.00	1.750	0.08	0.850	0.188	95	90	90	90	90	1.284	4.370	2.65	7.79	2.15	2.95	2.46	1.21	3.01	1.35	1.81	0.00	37.07	5.24	-3.81
6GEF-1-12	6.00	3.50	5.00	1.750	0.11	0.940	0.188	95	90	90	90	90	1.798	6.120	2.65	10.77	2.98	4.06	2.45	1.68	4.13	1.87	1.80	0.01	52.56	5.24	-3.83
6GEF-2-16	6.00	3.50	5.00	1.750	0.06	0.800	0.188	99	90	90	90	90	1.028	3.500	2.68	6.57	1.71	2.45	2.53	0.95	2.45	1.08	1.82	0.00	28.02	5.28	-3.76
6GEF-2-14	6.00	3.50	5.00	1.750	0.08	0.840	0.188	99	90	90	90	90	1.284	4.370	2.69	8.16	2.12	3.04	2.52	1.19	3.03	1.34	1.81	0.00	35.27	5.28	-3.77
6GEF-2-12	6.00	3.50	5.00	1.750	0.11	0.930	0.188	99	90	90	90	90	1.798	6.120	2.70	11.29	2.95	4.19	2.51	1.65	4.15	1.86	1.80	0.01	50.02	5.27	-3.80
6GEF-3-16	6.00	3.50	5.00	1.750	0.06	0.790	0.188	104	90	90	90	90	1.028	3.500	2.72	6.86	1.69	2.52	2.58	0.93	2.46	1.07	1.82	0.00	26.52	5.30	-3.71
6GEF-3-14	6.00	3.50	5.00	1.750	0.08	0.840	0.188	104	90	90	90	90	1.284	4.370	2.73	8.53	2.10	3.13	2.58	1.16	3.04	1.33	1.81	0.00	33.39	5.30	-3.72
6GEF-3-12	6.00	3.50	5.00	1.750	0.11	0.920	0.188	104	90	90	90	90	1.798	6.120	2.74	11.82	2.93	4.31	2.56	1.61	4.17	1.85	1.79	0.01	47.36	5.30	-3.75
6GEF-4-16	6.00	3.50	5.00	1.750	0.06	0.790	0.188	108	90	90	90	90	1.028	3.500	2.76	7.15	1.68	2.59	2.64	0.90	2.47	1.07	1.81	0.00	25.01	5.32	-3.65
6GEF-4-14	6.00	3.50	5.00	1.750	0.08	0.830	0.188	108	90	90	90	90	1.284	4.370	2.77	8.89	2.09	3.21	2.63	1.13	3.06	1.32	1.81	0.00	31.48	5.32	-3.66
6GEF-4-12	6.00	3.50	5.00	1.750	0.11	0.910	0.188	108	90	90	90	90	1.798	6.120	2.78	12.33	2.91	4.44	2.62	1.57	4.20	1.83	1.79	0.01	44.68	5.31	-3.69
8GEF-1-14	8.00	3.50	5.00	1.750	0.08	0.850	0.188	95	90	90	90	90	1.434	4.880	3.52	14.92	3.14	4.23	3.23	1.31	3.37	1.41	1.81	0.00	57.78	5.57	-3.55
8GEF-1-12	8.00	3.50	5.00	1.750	0.11	0.940	0.188	95	90	90	90	90	2.008	6.830	3.53	20.70	4.37	5.86	3.21	1.82	4.62	1.95	1.79	0.01	81.68	5.56	-3.57
8GEF-2-14	8.00	3.50	5.00	1.750	0.08	0.840	0.188	99	90	90	90	90	1.434	4.880	3.56	15.41	3.10	4.33	3.28	1.28	3.38	1.40	1.80	0.00	55.40	5.61	-3.52
8GEF-2-12	8.00	3.50	5.00	1.750	0.11	0.930	0.188	99	90	90	90	90	2.008	6.830	3.57	21.40	4.32	5.99	3.26	1.79	4.64	1.94	1.79	0.01	78.34	5.60	-3.54
8GEF-3-14	8.00	3.50	5.00	1.750	0.08	0.840	0.188	104	90	90	90	90	1.434	4.880	3.60	15.90	3.07	4.42	3.33	1.25	3.39	1.39	1.80	0.00	52.78	5.65	-3.48
8GEF-3-12	8.00	3.50	5.00	1.750	0.11	0.920	0.188	104	90	90	90	90	2.008	6.830	3.61	22.09	4.28	6.12	3.32	1.75	4.65	1.93	1.79	0.01	74.67	5.64	-3.50
8GEF-4-14	8.00	3.50	5.00	1.750	0.08	0.830	0.188	108	90	90	90	90	1.434	4.880	3.64	16.37	3.04	4.50	3.38	1.22	3.40	1.38	1.80	0.00	50.02	5.69	-3.42
8GEF-4-12	8.00	3.50	5.00	1.750	0.11	0.910	0.188	108	90	90	90	90	2.008	6.830	3.65	22.76	4.24	6.24	3.37	1.70	4.67	1.91	1.78	0.01	70.82	5.68	-3.44
10GEF-1-14	10.00	3.50	5.00	1.750	0.08	0.850	0.188	95	90	90	90	90	1.584	5.390	4.42	24.88	4.26	5.62	3.96	1.37	3.67	1.45	1.78	0.00	85.70	6.01	-3.31
10GEF-1-12	10.00	3.50	5.00	1.750	0.11	0.940	0.188	95	90	90	90	90	2.218	7.550	4.43	34.60	5.93	7.80	3.95	1.92	5.04	2.01	1.77	0.01	120.94	5.99	-3.33
10GEF-2-14	10.00	3.50	5.00	1.750	0.08	0.840	0.188	99	90	90	90	90	1.584	5.390	4.46	25.49	4.20	5.72	4.01	1.35	3.68	1.44	1.78	0.00	82.64	6.06	-3.28
10GEF-2-12	10.00	3.50	5.00	1.750	0.11	0.930	0.188	99	90	90	90	90	2.218	7.550	4.47	35.47	5.86	7.93	4.00	1.89	5.05	2.00	1.77	0.01	116.68	6.04	-3.30
10GEF-3-14	10.00	3.50	5.00	1.750	0.08	0.840	0.188	104	90	90	90	90	1.584	5.390	4.50	26.09	4.15	5.80	4.06	1.32	3.69	1.43	1.78	0.00	79.13	6.11	-3.25
10GEF-3-12	10.00	3.50	5.00	1.750	0.11	0.920	0.188	104	90	90	90	90	2.218	7.550	4.51	36.32	5.79	8.06	4.05	1.84	5.06	1.98	1.76	0.01	111.79	6.10	-3.27
10GEF-4-14	10.00	3.50	5.00	1.750	0.08	0.830	0.188	108	90	90	90	90	1.584	5.390	4.53	26.67	4.11	5.89	4.10	1.28	3.70	1.42	1.77	0.00	75.31	6.17	-3.20
10GEF-4-12	10.00	3.50	5.00	1.750	0.11	0.910	0.188	108	90	90	90	90	2.218	7.550	4.54	37.15	5.74	8.18	4.09	1.79	5.08	1.97	1.76	0.01	106.48	6.15	-3.22
12GEF-1-14	12.00	3.50	5.00	1.750	0.08	0.850	0.188	95	90	90	90	90	1.734	5.900	5.34	37.98	5.48	7.11	4.68	1.42	3.93	1.48	1.76	0.00	121.41	6.54	-3.10
12GEF-1-12	12.00	3.50	5.00	1.750	0.11	0.940	0.188	95	90	90	90	90	2.428	8.260	5.35	52.89	7.65	9.88	4.67	1.98	5.39	2.05	1.74	0.01	171.19	6.52	-3.12
12GEF-2-14	12.00	3.50	5.00	1.750	0.08	0.840	0.188	99	90	90	90	90	1.734	5.900	5.38	38.71	5.41	7.20	4.72	1.39	3.93	1.47	1.75	0.00	117.58	6.60	-3.08
12GEF-2-12	12.00	3.50	5.00	1.750	0.11	0.930	0.188	99	90	90	90	90	2.428	8.260	5.39	53.94	7.56	10.01	4.71	1.95	5.40	2.04	1.74	0.01	165.88	6.58	-3.09
12GEF-3-14	12.00	3.50	5.00	1.750	0.08	0.840	0.188	104	90	90	90	90	1.734	5.900	5.41	39.42	5.34	7.29	4.77	1.36	3.94	1.46	1.75	0.00	113.02	6.66	-3.04
12GEF-3-12	12.00	3.50	5.00	1.750	0.11	0.920	0.188	104	90	90	90	90	2.428	8.260	5.42	54.95	7.47	10.13	4.76	1.91	5.41	2.03	1.74	0.01	159.55	6.64	-3.06
12GEF-4-14	12.00	3.50	5.00	1.750	0.08	0.830	0.188	108	90	90	90	90	1.734	5.900	5.44	40.11	5.29	7.38	4.81	1.32	3.95	1.45	1.74	0.00	107.91	6.73	-3.00
12GEF-4-12	12.00	3.50	5.00	1.750	0.11	0.910	0.188	108	90	90	90	90	2.428	8.260	5.45	55.93	7.40	10.26	4.80	1.85	5.42	2.01	1.73	0.01	152.46	6.70	-3.02

*Thickness indicated represents design thickness. Minimum deliverable bare steel equals 0.095 x design thickness in accordance with section A3.4 of AISI Specification of minimum steel thickness in inches.

Section Properties - Apex Double Pitch G-Struts



Apex Strut (Odd Leg)

TOLERANCE STANDARDS FOR THICKEST METALS

Accumulation	.....(±) 1/16"
Radii	.....(±) 1/32"
Width	.....(±) 1/16"
Flanges	.....(±) 1/16"
Flare	.....2x THK per side angles
Flange	.....(±) 2 degrees
Lips	.....(±) 3 degrees
Camber	.....1/8" in 10'-0"
Ski	.....1/8" in 10'-0"
Dive	.....1/8" in 10'-0"
Twist	.....1/8" in 10'-0"
(Zee Only)	.....1/4" in 20'-0"

Net variation for combined dimensions
Twist is measured with the Zee laying on a flat surface under its own weight

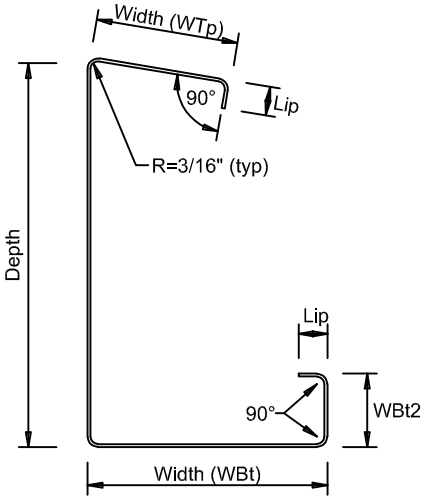
Thk in	Steel Gage
0.060	16
0.075	14
0.105	12

Sectional Properties

Name	Depth	WTp	WBt	WBt2	Thk	Lip	Rad	Ftp	FBt	FB2	LTp	LBt	Area	Wt	Yb	Ixx	SxTop	SxBot	Rxx	IycT	IycB	Syy	Ryy	J	Cw	ro	xo
	in	in	in	in	in	in	in	deg	deg	deg	deg	deg	in2	lb/ft	in	in4	in3	in3	in	in4	in4	in3	in	in4	in6	in	in
6GA-1-16	6.00	3.50	5.00	1.750	0.060	0.820	0.188	85	95	90	90	90	1.028	3.500	2.43	6.20	1.75	2.19	2.46	1.00	2.43	1.06	1.83	0.00	30.57	5.13	-3.80
6GA-1-14	6.00	3.50	5.00	1.750	0.075	0.870	0.188	85	95	90	90	90	1.284	4.370	2.44	7.70	2.17	2.72	2.45	1.25	3.01	1.32	1.82	0.00	38.45	5.13	-3.81
6GA-1-12	6.00	3.50	5.00	1.750	0.105	0.960	0.188	85	95	90	90	90	1.798	6.120	2.44	10.62	3.01	3.75	2.43	1.74	4.12	1.82	1.81	0.01	54.47	5.13	-3.84
6GA-2-16	6.00	3.50	5.00	1.750	0.060	0.830	0.188	81	99	90	90	90	1.028	3.500	2.27	6.46	1.76	2.11	2.51	1.02	2.41	1.03	1.82	0.00	30.18	5.06	-3.77
6GA-2-14	6.00	3.50	5.00	1.750	0.075	0.870	0.188	81	99	90	90	90	1.284	4.370	2.28	8.01	2.18	2.62	2.50	1.27	2.97	1.28	1.82	0.00	37.95	5.06	-3.78
6GA-2-12	6.00	3.50	5.00	1.750	0.105	0.970	0.188	81	99	90	90	90	1.798	6.120	2.28	11.05	3.01	3.62	2.48	1.76	4.07	1.77	1.80	0.01	53.72	5.05	-3.81
6GA-3-16	6.25	3.25	5.00	1.750	0.060	0.840	0.188	76	104	90	90	90	1.028	3.500	2.19	7.23	1.81	2.17	2.65	0.95	2.41	0.98	1.81	0.00	27.76	4.92	-3.49
6GA-3-14	6.25	3.25	5.00	1.750	0.075	0.880	0.188	76	104	90	90	90	1.284	4.370	2.19	8.97	2.25	2.69	2.64	1.18	2.97	1.22	1.80	0.00	34.88	4.92	-3.51
6GA-3-12	6.25	3.25	5.00	1.750	0.105	0.980	0.188	76	104	90	90	90	1.798	6.120	2.19	12.37	3.12	3.71	2.62	1.63	4.07	1.68	1.78	0.01	49.31	4.91	-3.53
6GA-4-16	6.25	3.25	5.00	1.750	0.060	0.850	0.188	72	108	90	90	90	1.027	3.500	2.04	7.56	1.85	2.14	2.71	0.93	2.33	0.94	1.78	0.00	27.03	4.84	-3.42
6GA-4-14	6.25	3.25	5.00	1.750	0.075	0.890	0.188	72	108	90	90	90	1.284	4.370	2.04	9.38	2.29	2.65	2.70	1.16	2.88	1.17	1.77	0.00	33.95	4.84	-3.43
6GA-4-12	6.25	3.25	5.00	1.750	0.105	0.990	0.188	72	108	90	90	90	1.798	6.120	2.04	12.93	3.17	3.66	2.68	1.61	3.93	1.62	1.76	0.01	47.97	4.83	-3.46
8GA-1-14	8.00	3.50	5.00	1.750	0.075	0.870	0.188	85	95	90	90	90	1.434	4.880	3.33	14.83	3.19	3.98	3.22	1.34	3.38	1.38	1.81	0.00	59.51	5.46	-3.56
8GA-1-12	8.00	3.50	5.00	1.750	0.105	0.960	0.188	85	95	90	90	90	2.008	6.830	3.34	20.55	4.43	5.51	3.20	1.86	4.63	1.91	1.80	0.01	84.02	5.45	-3.58
8GA-2-14	8.13	3.38	5.00	1.750	0.075	0.870	0.188	81	99	90	90	90	1.434	4.880	3.21	15.67	3.22	3.92	3.31	1.28	3.38	1.32	1.80	0.00	56.70	5.39	-3.42
8GA-2-12	8.13	3.38	5.00	1.750	0.105	0.970	0.188	81	99	90	90	90	2.008	6.830	3.22	21.70	4.48	5.44	3.29	1.79	4.64	1.83	1.79	0.01	79.98	5.37	-3.44
8GA-3-14	8.25	3.25	5.00	1.750	0.075	0.880	0.188	76	104	90	90	90	1.434	4.880	3.10	16.58	3.27	3.90	3.40	1.22	3.35	1.27	1.78	0.00	53.32	5.32	-3.27
8GA-3-12	8.25	3.25	5.00	1.750	0.105	0.980	0.188	76	104	90	90	90	2.008	6.830	3.11	22.96	4.54	5.41	3.38	1.69	4.59	1.75	1.77	0.01	75.13	5.31	-3.29
8GA-4-14	8.38	3.13	5.00	1.750	0.075	0.890	0.188	72	108	90	90	90	1.434	4.880	3.00	17.55	3.34	3.90	3.50	1.15	3.28	1.21	1.76	0.00	49.51	5.26	-3.10
8GA-4-12	8.38	3.13	5.00	1.750	0.105	0.990	0.188	72	108	90	90	90	2.008	6.830	3.00	24.30	4.63	5.41	3.48	1.59	4.49	1.68	1.74	0.01	69.69	5.25	-3.12
10GA-1-14	10.00	3.50	5.00	1.750	0.075	0.870	0.188	85	95	90	90	90	1.584	5.390	4.25	24.81	4.33	5.35	3.96	1.39	3.69	1.42	1.79	0.00	87.75	5.90	-3.32
10GA-1-12	10.00	3.50	5.00	1.750	0.105	0.960	0.188	85	95	90	90	90	2.218	7.550	4.25	34.47	6.03	7.42	3.94	1.95	5.07	1.97	1.78	0.01	123.66	5.88	-3.34
10GA-2-14	10.13	3.38	5.00	1.750	0.075	0.870	0.188	81	99	90	90	90	1.584	5.390	4.14	25.88	4.36	5.26	4.04	1.32	3.70	1.37	1.78	0.00	83.18	5.87	-3.19
10GA-2-12	10.13	3.38	5.00	1.750	0.105	0.970	0.188	81	99	90	90	90	2.218	7.550	4.14	35.95	6.07	7.31	4.03	1.85	5.07	1.89	1.77	0.01	117.12	5.85	-3.21
10GA-3-14	10.25	3.25	5.00	1.750	0.075	0.880	0.188	76	104	90	90	90	1.584	5.390	4.04	27.04	4.41	5.22	4.13	1.25	3.66	1.31	1.76	0.00	77.74	5.84	-3.05
10GA-3-12	10.25	3.25	5.00	1.750	0.105	0.980	0.188	76	104	90	90	90	2.218	7.550	4.04	37.54	6.13	7.25	4.11	1.73	5.02	1.81	1.74	0.01	109.36	5.82	-3.07
10GA-4-14	10.50	3.00	5.00	1.750	0.075	0.890	0.188	72	108	90	90	90	1.584	5.390	3.97	28.77	4.48	5.26	4.26	1.11	3.61	1.24	1.73	0.00	67.98	5.87	-2.79
10GA-4-12	10.50	3.00	5.00	1.750	0.105	0.990	0.188	72	108	90	90	90	2.218	7.550	3.97	39.93	6.24	7.32	4.24	1.54	4.95	1.71	1.71	0.01	95.49	5.85	-2.81
12GA-1-14	12.00	3.50	5.00	1.750	0.075	0.870	0.188	85	95	90	90	90	1.734	5.900	5.18	37.94	5.58	6.81	4.68	1.43	3.96	1.46	1.76	0.00	123.74	6.44	-3.10
12GA-1-12	12.00	3.50	5.00	1.750	0.105	0.960	0.188	85	95	90	90	90	2.428	8.260	5.19	52.79	7.78	9.47	4.66	2.01	5.43	2.02	1.75	0.01	174.21	6.41	-3.12
12GA-2-14	12.13	3.38	5.00	1.750	0.075	0.870	0.188	81	99	90	90	90	1.734	5.900	5.08	39.25	5.61	6.70	4.76	1.35	3.96	1.40	1.75	0.00	116.79	6.44	-2.99
12GA-2-12	12.13	3.38	5.00	1.750	0.105	0.970	0.188	81	99	90	90	90	2.428	8.260	5.08	54.60	7.82	9.33	4.74	1.89	5.44	1.94	1.74	0.01	164.29	6.41	-3.00
12GA-3-14	12.38	3.13	5.00	1.750	0.075	0.880	0.188	76	104	90	90	90	1.734	5.900	5.00	41.24	5.66	6.70	4.88	1.20	3.94	1.32	1.72	0.00	103.14	6.51	-2.76
12GA-3-12	12.38	3.13	5.00	1.750	0.105	0.980	0.188	76	104	90	90	90	2.428	8.260	5.01	57.36	7.88	9.33	4.86	1.67	5.41	1.83	1.71	0.01	144.94	6.48	-2.77
12GA-4-14	12.63	3.00	5.00	1.750	0.075	0.830	0.188	72	108	90	90	90	1.734	5.900	4.97	43.44	5.76	6.71	5.01	1.09	3.85	1.25	1.69	0.00	93.06	6.57	-2.57
12GA-4-12	12.63	3.00	5.00	1.750	0.105	0.930	0.188	72	108	90	90	90	2.428	8.260	4.97	60.41	8.03	9.35	4.99	1.52	5.28	1.73	1.67	0.01	130.79	6.55	-2.58

*Thickness indicated represents design thickness. Minimum deliverable bare steel equals 0.095 x design thickness in accordance with section A3.4 of AISI Specification of minimum steel thickness in inches.

Section Properties - Apex Flat Bottom G-Struts



Apex Strut (Odd Leg)

TOLERANCE STANDARDS FOR THICKEST METALS

Accumulation	.....(±) 1/16"
Radii	.....(±) 1/32"
Width	.....(±) 1/16"
Flanges	.....(±) 1/16"
Flare	.....2x THK per side angles
Flange	.....(±) 2 degrees
Lips	.....(±) 3 degrees
Camber	.....1/8" in 10'-0"
Ski	.....1/8" in 10'-0"
Dive	.....1/8" in 10'-0"
Twist	.....1/8" in 10'-0"
(Zee Only)	.....1/4" in 20'-0"

Net variation for combined dimensions
Twist is measured with the Zee laying on a flat surface under its own weight

Thk in	Steel Gage
0.060	16
0.075	14
0.105	12

Sectional Properties

Name	Depth	WTp	WBt	WBt2	Thk	Lip	Rad	Ftp	FBt	FB2	LTp	LBt	Area	Wt	Yb	Ixx	SxTop	SxBot	Rxx	IycT	IycB	Syy	Ryy	J	Cw	ro	xo
	in	in	in	in	in	in	in	deg	deg	deg	deg	deg	in2	lb/ft	in	in4	in3	in3	in	in4	in4	in3	in	in4	in6	in	in
6GAF-1-16	6.00	3.50	5.00	1.750	0.060	0.830	0.188	85	90	90	90	90	1.028	3.500	2.55	5.70	1.67	2.24	2.36	0.98	2.42	1.09	1.82	0.00	31.88	5.16	-3.80
6GAF-1-14	6.00	3.50	5.00	1.750	0.075	0.880	0.188	85	90	90	90	90	1.284	4.370	2.56	7.08	2.07	2.77	2.35	1.22	2.99	1.35	1.81	0.00	40.12	5.16	-3.82
6GAF-1-12	6.00	3.50	5.00	1.750	0.105	0.970	0.188	85	90	90	90	90	1.798	6.120	2.56	9.76	2.86	3.81	2.33	1.70	4.10	1.87	1.80	0.01	56.91	5.16	-3.84
6GAF-2-16	6.00	3.50	5.00	1.750	0.060	0.850	0.188	81	90	90	90	90	1.027	3.500	2.51	5.44	1.58	2.17	2.30	0.98	2.42	1.09	1.82	0.00	32.76	5.11	-3.78
6GAF-2-14	6.00	3.50	5.00	1.750	0.075	0.900	0.188	81	90	90	90	90	1.284	4.370	2.51	6.75	1.96	2.69	2.29	1.22	2.99	1.35	1.81	0.00	41.24	5.11	-3.79
6GAF-2-12	6.00	3.50	5.00	1.750	0.105	0.990	0.188	81	90	90	90	90	1.798	6.120	2.51	9.29	2.71	3.70	2.27	1.69	4.09	1.86	1.79	0.01	58.50	5.10	-3.82
6GAF-3-16	6.00	3.50	5.00	1.750	0.060	0.860	0.188	76	90	90	90	90	1.028	3.500	2.46	5.20	1.50	2.11	2.25	0.97	2.41	1.08	1.81	0.00	33.36	5.04	-3.73
6GAF-3-14	6.00	3.50	5.00	1.750	0.075	0.910	0.188	76	90	90	90	90	1.284	4.370	2.47	6.44	1.87	2.61	2.24	1.20	2.98	1.34	1.81	0.00	42.01	5.04	-3.74
6GAF-3-12	6.00	3.50	5.00	1.750	0.105	1.010	0.188	76	90	90	90	90	1.798	6.120	2.47	8.86	2.57	3.59	2.22	1.67	4.08	1.85	1.79	0.01	59.60	5.04	-3.77
6GAF-4-16	6.00	3.50	5.00	1.750	0.060	0.880	0.188	72	90	90	90	90	1.028	3.500	2.42	4.98	1.43	2.06	2.20	0.95	2.41	1.07	1.81	0.00	33.66	4.98	-3.66
6GAF-4-14	6.00	3.50	5.00	1.750	0.075	0.930	0.188	72	90	90	90	90	1.284	4.370	2.42	6.16	1.78	2.55	2.19	1.18	2.98	1.33	1.80	0.00	42.39	4.97	-3.67
6GAF-4-12	6.00	3.50	5.00	1.750	0.105	1.030	0.188	72	90	90	90	90	1.798	6.120	2.42	8.46	2.45	3.49	2.17	1.64	4.08	1.84	1.78	0.01	60.17	4.97	-3.69
8GAF-1-14	8.00	3.50	5.00	1.750	0.075	0.880	0.188	85	90	90	90	90	1.434	4.880	3.44	13.95	3.08	4.06	3.12	1.32	3.36	1.41	1.81	0.00	61.42	5.48	-3.56
8GAF-1-12	8.00	3.50	5.00	1.750	0.105	0.970	0.188	85	90	90	90	90	2.008	6.830	3.45	19.32	4.27	5.61	3.10	1.84	4.60	1.95	1.79	0.01	86.80	5.46	-3.59
8GAF-2-14	8.00	3.50	5.00	1.750	0.075	0.900	0.188	81	90	90	90	90	1.434	4.880	3.40	13.49	2.96	3.97	3.07	1.31	3.35	1.41	1.80	0.00	62.52	5.43	-3.55
8GAF-2-12	8.00	3.50	5.00	1.750	0.105	0.990	0.188	81	90	90	90	90	2.008	6.830	3.40	18.67	4.11	5.49	3.05	1.82	4.60	1.95	1.79	0.01	88.34	5.41	-3.57
8GAF-3-14	8.00	3.50	5.00	1.750	0.075	0.910	0.188	76	90	90	90	90	1.434	4.880	3.36	13.06	2.86	3.89	3.02	1.29	3.35	1.40	1.80	0.00	63.06	5.38	-3.51
8GAF-3-12	8.00	3.50	5.00	1.750	0.105	1.010	0.188	76	90	90	90	90	2.008	6.830	3.36	18.06	3.97	5.38	3.00	1.79	4.60	1.94	1.78	0.01	89.10	5.36	-3.53
8GAF-4-14	8.00	3.50	5.00	1.750	0.075	0.930	0.188	72	90	90	90	90	1.434	4.880	3.31	12.66	2.77	3.82	2.97	1.26	3.36	1.39	1.79	0.00	63.03	5.33	-3.46
8GAF-4-12	8.00	3.50	5.00	1.750	0.105	1.030	0.188	72	90	90	90	90	2.008	6.830	3.32	17.48	3.84	5.27	2.95	1.75	4.60	1.92	1.78	0.01	89.06	5.31	-3.48
10GAF-1-14	10.00	3.50	5.00	1.750	0.075	0.880	0.188	85	90	90	90	90	1.584	5.390	4.35	23.66	4.20	5.44	3.86	1.38	3.66	1.45	1.78	0.00	89.91	5.91	-3.32
10GAF-1-12	10.00	3.50	5.00	1.750	0.105	0.970	0.188	85	90	90	90	90	2.218	7.550	4.35	32.86	5.85	7.55	3.85	1.93	5.03	2.01	1.77	0.01	126.79	5.89	-3.34
10GAF-2-14	10.00	3.50	5.00	1.750	0.075	0.900	0.188	81	90	90	90	90	1.584	5.390	4.31	23.08	4.09	5.36	3.82	1.37	3.66	1.45	1.78	0.00	90.86	5.86	-3.31
10GAF-2-12	10.00	3.50	5.00	1.750	0.105	0.990	0.188	81	90	90	90	90	2.218	7.550	4.31	32.03	5.69	7.43	3.80	1.91	5.03	2.01	1.77	0.01	128.10	5.84	-3.33
10GAF-3-14	10.00	3.50	5.00	1.750	0.075	0.910	0.188	76	90	90	90	90	1.584	5.390	4.27	22.52	3.98	5.28	3.77	1.35	3.67	1.44	1.78	0.00	90.98	5.82	-3.28
10GAF-3-12	10.00	3.50	5.00	1.750	0.105	1.010	0.188	76	90	90	90	90	2.218	7.550	4.27	31.23	5.54	7.31	3.75	1.88	5.03	2.00	1.77	0.01	128.24	5.80	-3.30
10GAF-4-14	10.00	3.50	5.00	1.750	0.075	0.930	0.188	72	90	90	90	90	1.584	5.390	4.23	22.00	3.89	5.21	3.73	1.31	3.67	1.44	1.77	0.00	90.28	5.79	-3.23
10GAF-4-12	10.00	3.50	5.00	1.750	0.105	1.030	0.188	72	90	90	90	90	2.218	7.550	4.23	30.48	5.40	7.21	3.71	1.83	5.04	1.99	1.76	0.01	127.23	5.77	-3.25
12GAF-1-14	12.00	3.50	5.00	1.750	0.075	0.880	0.188	85	90	90	90	90	1.734	5.900	5.27	36.51	5.44	6.93	4.59	1.43	3.92	1.49	1.76	0.00	126.15	6.44	-3.11
12GAF-1-12	12.00	3.50	5.00	1.750	0.105	0.970	0.188	85	90	90	90	90	2.428	8.260	5.28	50.80	7.59	9.63	4.57	2.00	5.39	2.06	1.74	0.01	177.70	6.41	-3.13
12GAF-2-14	12.00	3.50	5.00	1.750	0.075	0.900	0.188	81	90	90	90	90	1.734	5.900	5.23	35.81	5.33	6.85	4.54	1.41	3.93	1.48	1.75	0.00	126.82	6.40	-3.09
12GAF-2-12	12.00	3.50	5.00	1.750	0.105	0.990	0.188	81	90	90	90	90	2.428	8.260	5.24	49.79	7.42	9.51	4.53	1.97	5.39	2.06	1.74	0.01	178.58	6.37	-3.11
12GAF-3-14	12.00	3.50	5.00	1.750	0.075	0.910	0.188	76	90	90	90	90	1.734	5.900	5.19	35.13	5.22	6.77	4.50	1.39	3.93	1.48	1.75	0.00	126.31	6.37	-3.06
12GAF-3-12	12.00	3.50	5.00	1.750	0.105	1.010	0.188	76	90	90	90	90	2.428	8.260	5.20	48.82	7.27	9.39	4.48	1.94	5.40	2.05	1.74	0.01	177.81	6.34	-3.08
12GAF-4-14	12.00	3.50	5.00	1.750	0.075	0.930	0.188	72	90	90	90	90	1.734	5.900	5.16	34.49	5.13	6.69	4.46	1.35	3.94	1.47	1.75	0.00	124.68	6.34	-3.03
12GAF-4-12	12.00	3.50	5.00	1.750	0.105	1.030	0.188	72	90	90	90	90	2.428	8.260	5.16	47.90	7.13	9.29	4.44	1.89	5.41	2.03	1.73	0.01	175.46	6.32	-3.04

*Thickness indicated represents design thickness. Minimum deliverable bare steel equals 0.095 x design thickness in accordance with section A3.4 of AISI Specification of minimum steel thickness in inches.