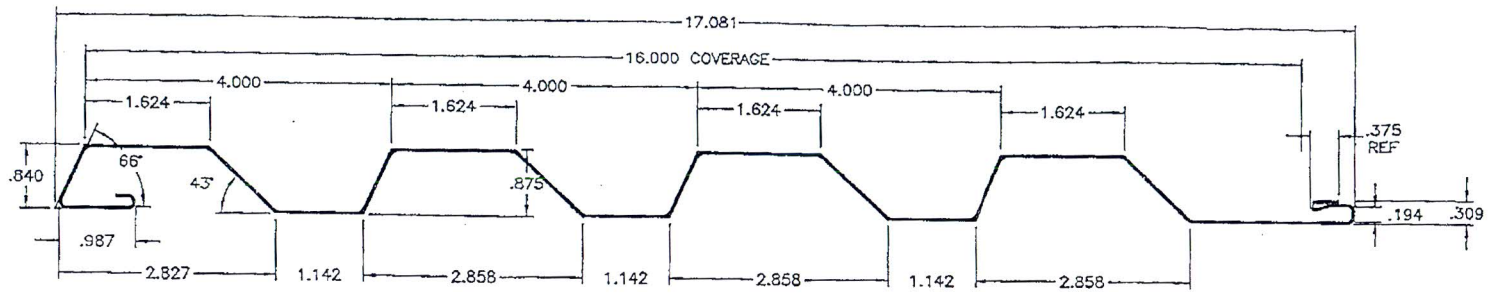
LOAD/SPAN CHART : PETERSEN HWP @ 16 x 24 GA w/CLIP						
Factor-of-Safety = 2.0						
SPAN in feet	TWO EQUAL SPANS			THREE EQUAL SPANS		
	W (psf)	Re	Ri	W (psf)	Re	Ri
1.00	133.60	50.1	167.0	151.82	60.7	167.0
1.25	105.86	49.6	165.4	120.29	60.1	165.4
1.50	87.41	49.2	163.9	99.33	59.6	163.9
1.75	74.24	48.7	162.4	84.36	59.1	162.4
2.00	64.32	48.2	160.8	73.09	58.5	160.8
2.25	56.64	47.8	159.3	64.36	57.9	159.3
2.50	50.50	47.3	157.8	57.387	57.4	157.8
2.75	45.44	46.9	156.2	51.64	56.8	156.2
3.00	41.25	46.4	154.7	46.88	56.3	154.7
3.25	37.71	46.0	153.2	42.85	55.7	153.2
3.50	34.65	45.5	151.6	39.38	55.1	151.6
3.75	32.02	45.0	150.1	36.39	54.6	150.1
4.00	29.72	44.6	148.6	33.77	54.0	148.6

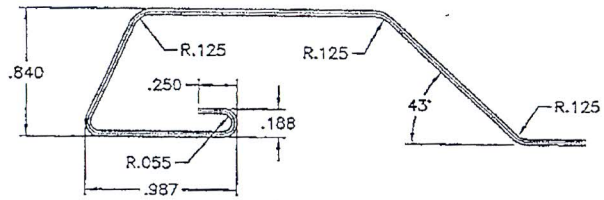
W = Allowable Uniform Wind Load, psf
Re = End Support Reaction, #/ft of panel width
Ri = Interior Support Reaction, #/ft of panel width

LOAD/SPAN CHART : PETERSEN HWP @ 16 x 24 GA w/CLIP						
Factor-of-Safety = 1.65						
SPAN in feet	TWO EQUAL SPANS			THREE EQUAL SPANS		
	W (psf)	Re	Ri	W (psf)	Re	Ri
1.00	162.00	60.8	202.5	184.09	73.6	202.5
1.25	128.38	60.2	200.6	145.89	72.9	200.6
1.50	106.03	59.6	198.8	120.48	72.3	198.8
1.75	90.01	59.1	196.9	102.29	71.6	196.9
2.00	78.00	58.5	195.0	88.64	70.9	195.0
2.25	68.69	58.0	193.2	78.06	70.3	193.2
2.50	61.22	57.4	191.3	69.56	69.6	191.3
2.75	55.10	56.8	189.4	62.61	68.9	189.4
3.00	50.03	56.3	187.6	56.85	68.2	187.6
3.25	45.71	55.7	185.7	51.94	67.5	185.7
3.50	42.01	55.1	183.8	47.74	66.8	183.8
3.75	38.81	54.6	181.9	44.10	66.1	181.9
4.00	36.02	54.0	180.1	40.93	65.5	180.1

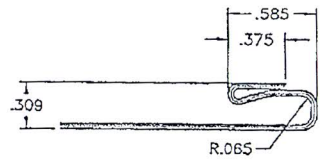
W = Allowable Uniform Wind Load, psf
Re = End Support Reaction, #/ft of panel width
Ri = Interior Support Reaction, #/ft of panel width

INBOARD SIDE

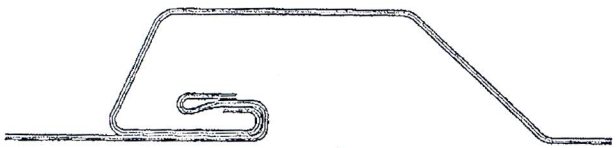




OUTB'D DETAIL



OUTB'D DETAIL



LAP DETAIL

ALL DIMENSIONS ARE BOTTOM OF SHEET INTERCEPTS (U.O.N.).
ALL FORMING RADII ARE 0.125 UNLESS OTHERWISE NOTED

☐ APPROVED ☐ APPROVED AS NOTED

BY DATE

TOLERANCE STANDARDS FOR THICKEST METAL:

*ACCUMULATION -	(+ or -) 1/16in
DEPTH	(+ or -) 1/32in
RADII	(+ or -) 1/32in
ANGLES	(+ or -) 2 degrees
CAMBER	1/8in in 10ft
SKI	1/8in in 10ft
DIVE	1/8in in 10ft

*NET VARIATION FOR COMBINED DIMENSIONS

APPROX. COIL WIDTH:	22.445"
ALUM. THICKNESS RANGE:	.032 & .040
STEEL THICKNESS RANGE:	.024 - .030
GRADE OF MATERIAL:	40 KSI MIN.

PETERSEN ALUMINUM BLDG.

16" SIDING PANEL

9/14/10			
	CLE	PR22862	TP-2029

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Section: PETERSEN HWP 16 x 24 with CLIP.sct
PETERSEN HWP PANEL w/CLIP
16" wide x 24 gage

Rev. Date: 12/26/2011
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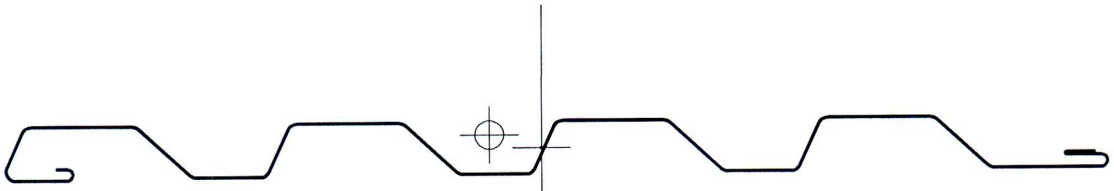
Rev. By:
Phone:
Fax:



$(+)M_{n(allow)} = 0.1958 \text{ k-ft} = 1350 \text{ in-\#/ft}$

$(+)M_{(allow)} = 1763 \text{ in-\#/ft}$
$(+)I_{xx}/ft = 0.034 \text{ in}^4/\text{ft}$
$(+)S_{xx}/ft = 0.073 \text{ in}^3/\text{ft}$

$F_b = 0.60 \times 40 \text{ ksi} = 24 \text{ ksi}$

$(-)M_{(allow)} = 1971 \text{ in-\#/ft}$
$(-)I_{xx}/ft = 0.037 \text{ in}^4/\text{ft}$
$(-)S_{xx}/ft = 0.082 \text{ in}^3/\text{ft}$

$(+)I_{xx(eff.)} = (.71 \times 0.034) + (.29 \times 0.037) = 0.035 \text{ in}^4/\text{ft}$

$(-)I_{xx(eff.)} = (.71 \times 0.037) + (.29 \times 0.034) = 0.036 \text{ in}^4/\text{ft}$

CFS Version 3.03

Section: PETERSEN HWP 16 x 24 with CLIP.sct

PETERSEN HWP PANEL w/CLIP

16" wide x 24 gage

Rev. Date: 12/26/2011

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Rev. By:

Phone:

Fax:

Section Inputs

Material: A653 SQ Grade 40

Apply strength increase from cold work of forming.

Modulus of Elasticity, E 29500 ksi

Yield Strength, Fy 40 ksi

Tensile Strength, Fu 55 ksi

Warping Constant Override, Cw 0 in^6

Torsion Constant Override, J 0 in^4

Part 1, Thickness 0.024 in

Placement of Part from Origin:

X to center of gravity 0 in

Y to center of gravity 0 in

Outside dimensions, Open shape

	Length (in)	Angle (deg)	Radius (in)	Web Coef.	k (in)	Hole Size (in)	Distance
1	0.2500	0.000	0.12500	None	0.000	0.0000	0.1250
2	0.1880	-90.000	0.07000	None	0.000	0.0000	0.0940
3	0.1000	-180.000	0.07000	None	0.000	0.0000	0.0500
4	0.9670	-180.000	0.12500	None	0.000	0.0000	0.4835
5	0.8800	66.000	0.12500	Single	0.000	0.0000	0.4400
6	1.6000	0.000	0.12500	None	0.000	0.0000	0.8000
7	1.1080	-43.000	0.12500	Single	0.000	0.0000	0.5540
8	1.0600	0.000	0.12500	None	0.000	0.0000	0.5300
9	0.8660	66.000	0.12500	Single	0.000	0.0000	0.4330
10	1.6000	0.000	0.12500	None	0.000	0.0000	0.8000
11	1.1080	-43.000	0.12500	Single	0.000	0.0000	0.5540
12	1.0600	0.000	0.12500	None	0.000	0.0000	0.5300
13	0.8660	66.000	0.12500	Single	0.000	0.0000	0.4330
14	1.6000	0.000	0.12500	None	0.000	0.0000	0.8000
15	1.1080	-43.000	0.12500	Single	0.000	0.0000	0.5540
16	1.0600	0.000	0.12500	None	0.000	0.0000	0.5300
17	0.8660	66.000	0.12500	Single	0.000	0.0000	0.4330
18	1.6000	0.000	0.12500	None	0.000	0.0000	0.8000
19	1.1080	-43.000	0.12500	Single	0.000	0.0000	0.5540
20	1.6830	0.000	0.12500	None	0.000	0.0000	0.8415
21	0.2080	90.000	0.08000	None	0.000	0.0000	0.1040
22	0.6300	180.000	0.08000	None	0.000	0.0000	0.3150
23	0.0640	90.000	0.00800	None	0.000	0.0000	0.0320
24	0.0600	0.000	0.00800	None	0.000	0.0000	0.0300
25	0.3750	0.000	0.06000	None	0.000	0.0000	0.1875

Full Section Properties

Area	0.50764 in^2	Wt.	0.0017260 k/ft	Width	21.152 in
Ix	0.051 in^4	rx	0.3184 in	Ixy	-0.025 in^4
Sx(t)	0.1187 in^3	y(t)	0.4336 in	a	89.886 deg
Sx(b)	0.1135 in^3	y(b)	0.4534 in		
Iy	12.413 in^4	ry	4.9449 in	Xo	-0.7480 in
Sy(l)	1.6252 in^3	x(l)	7.6376 in	Yo	0.1889 in
Sy(r)	1.5382 in^3	x(r)	8.0697 in	jx	0.8499 in
				jy	-7.9087 in
I1	12.413 in^4	r1	4.9449 in		
I2	0.051 in^4	r2	0.3183 in		
Ic	12.464 in^4	rc	4.9552 in	Cw	1.3009 in^6
Io	12.767 in^4	ro	5.0149 in	J	0.00009747 in^4

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Fully Braced Strength - 1996 AISI Specification (ASD)

Compression		Positive Moment		Positive Moment	
Pao	9.781 k	Maxo	0.1958 k-ft	Mayo	2.7714 k-ft
Ae	0.44014 in^2	Ixe	0.046 in^4	Iye	11.554 in^4
		Sxe(t)	0.0981 in^3	Sye(l)	1.5643 in^3
Tension		Sxe(b)	0.1076 in^3	Sye(r)	1.3885 in^3
Ta	12.510 k				
		Negative Moment		Negative Moment	
		Maxo	0.2190 k-ft	Mayo	3.0168 k-ft
Shear		Ixe	0.050 in^4	Iye	12.011 in^4
Vay	1.677 k	Sxe(t)	0.1180 in^3	Sye(l)	1.5476 in^3
Vax	1.336 k	Sxe(b)	0.1097 in^3	Sye(r)	1.5114 in^3