COASTLINE
POWER SOLUTIONS

ENGINEERING STRUCTURAL CALCULATIONS
For
Gillette 78" Frame Gensets

March 12, 2025

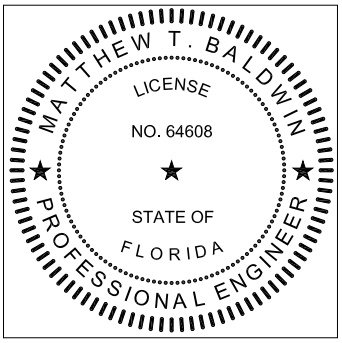
78" Frame Genset Models:

SP-410 SPD-600
SP-620 SPJD-600
PR-550

Location: Florida

Designed in compliance with: **2023 Florida Building Code, 8th Edition**
ASCE 7 - 22 Minimum Design Loads for Buildings and Other Structures
2020 Aluminum Association Design Manual
ANSI/AISC 360-22 - Specification for Structural Steel Buildings

Anchoring: 1/2" Bolt/Anchors - Minimum (3) per side (6) total



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Project Information

Project Name/Model #	- Gillette 78" Frame Gensets
Project Number	-
Project Description	- Sound Attenuated Generator Enclosure
Project Location	- Florida
Customer	-
Mounting Location	- Ground

Enclosure Materials

Roof Panels	- 0.080 Aluminum Panel - 5052-H34
Wall Panels	- 0.060 Aluminum Panel - 5052-H34
Base Frame/Skid	- Aluminum Formed Steel 'C' Channel

Components

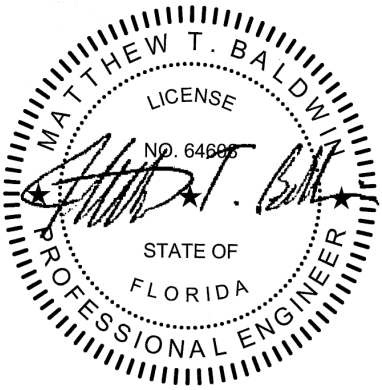
GenSet Manufacturer	- Gillette		
GenSet Size and Model	- SP-410,SP620,PR-550,SPD-600,SPJD-600	Supported by -	Base
Base	- Aluminum Formed Steel 'C' Channel		

Fasteners/Hardware

		Bolt Size	Washer	Nut	Grade/Finish
Roof to Walls	-	5/16" - 18 Bolts	5/16" Washer	Nut Clip	Grade 18-8/SS
Wall to Wall	-	5/16" - 18 Bolts	5/16" Washer	Nut Clip	Grade 18-8/SS
Walls to Base	-	5/16" - 18 Bolts	5/16" Washer	Nut Clip	Grade 18-8/SS
Base to Slab/Tank	-	1/2" Set Bolt Anchors	Flat Washers	Hex Nuts	Grade 5/Galv.

Specification Requirements

Wind Speed	-	200	mph
Exposure Category	-	D	
Risk Category	-	III	
Ground Snow Load (P_g Fig 7.1)	-	0	psf
Ice Thickness (t Fig 10-2 to10-6)	-	0.25	in
and Concurrent Wind Gust (V_c)	-	30	mph
Seismic Site Class		B	



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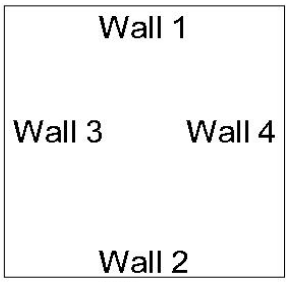
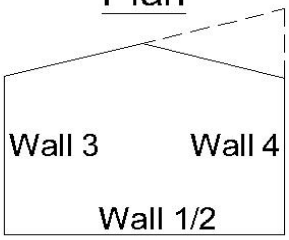
Enclosure Dimensions & Component Weights

Gillette 78" Frame Gensets

Roof Style- Flat



Plan



Elevation

Enclosure Dimensions (ft)

Wall	Length (ft)		Height (ft)
1	3.5	x	4.15
2	3.5	x	4.15
3	7.84	x	4.15
4	7.84	x	4.15

Base Dimensions

Width (Wall 1/2 Side)	=	42	in
Length (Wall 3/4 Side)	=	78	in
Height	=	4	in

Roof/Eave Information

Roof Pitch Angle -	*(θ)*	=	0.0	Degrees
Eave/Roof Height -	*h*	=	4.483	

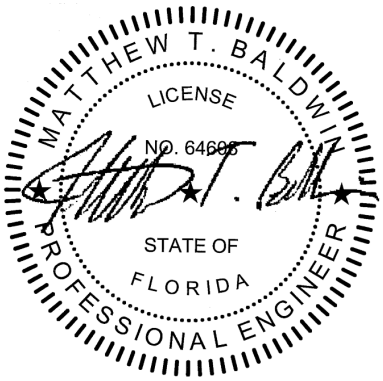
Structure Areas

Walls 1/2 Area -	*(w1)*	=	15.7	ft^2	=	2,260	in^2
Walls 3/4 Area -	*(w3)*	=	35.1	ft^2	=	5,062	in^2
Roof Area -	*(R)*	=	27.4	ft^2	=	3,951	in^2

Base Side 1/2	*(T1)*	=	168.0 in2
Base Side 3/4	*(T3)*	=	312.0 in2

Component Weights (lightest setup for worst case)

Genset	=	0	lbs	(Varies, so will use zero to be conservative/most uplift to resist)
Enclosure	=	150	lbs	(Based on Aluminum to be conserative/most uplift to resist)
Base	=	100	lbs	(Based on Aluminum to be conserative/most uplift to resist)



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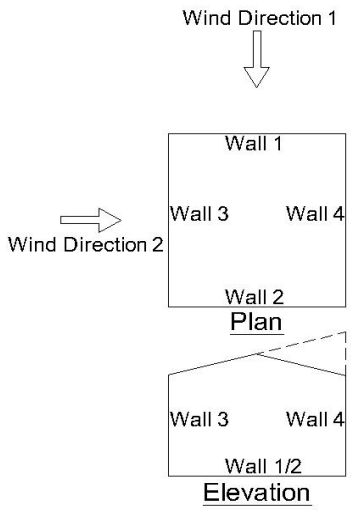
MWFRS Net Pressures

Gillette 78" Frame Gensets

Wind

Analytical Procedure method and Load Combinations from ASCE 7 are utilized in these calculations.

Enclosure Classification	-	Enclosed	
Exposure Category	-	D	
Basic Wind Speed	(V)	200	mph
Importance Factor (Wind)	(I_w)	1.15	
Wind Directionality Factors	(K_d)	0.85	
Internal Pressure Coefficients	(GC_{pi})	± 0.18	
Velocity Pressure Exposure Coefficient	(K_z)	1.03	
Roof Mean Height Above Ground Level	(z)	4.82	ft
Velocity Pressure	(q)	103.12	psf



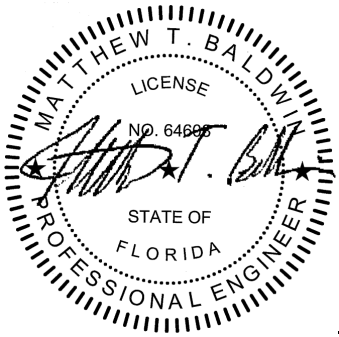
Wind Direction 1

		Enclosure							
		Wall #			Roof				
		1	2	3&4	Parallel to Ridge				
					$(C_p)1$ (Distance From Windward Edge)				$(C_p)2$
		Windward	Leeward	Side	0 to 2.2	2.2 to 4.5	4.5 to 7.8		
Background Response Factor	(Q)	0.98	0.98	0.97	0.98				
Gust Effect Factors	(G)	0.91	0.91	0.91	0.91				
External Pressure Coefficients	(C_p)	0.80	-0.288	-0.70	-0.92	-0.87	-0.53		-0.18
Net Pressures with + (GC_{pi}) - psf	(Net_{p+})	56.9	-45.7	-84.3	-105.3	-100.7	-68.4		-35.5
Net Pressures with - (GC_{pi}) - psf	(Net_{p-})	94.0	-8.6	-47.2	-68.2	-63.6	-31.3		1.6

Wind Direction 2

		Enclosure								
		Wall #			Roof - Normal To Ridge					
		3	4	1&2						
					$(C_p)1$ (Distance From Windward Edge)				$(C_p)2$	
		Windward	Leeward	Side	0 to 2.2	> 2.2				
Background Response Factor	(Q)	0.97	0.97	0.98	0.97					
Gust Effect Factors	(G)	0.91	0.91	0.91	0.91					
External Pressure Coefficients	(C_p)	0.80	-0.5	-0.70	-1.04	-0.70			-0.18	
Net Pressures with + (GC_{pi}) - psf	(Net_{p+})	56.6	-65.5	-84.6	-116.3	-84.3			-35.5	
Net Pressures with - (GC_{pi}) - psf	(Net_{p-})	93.7	-28.4	-47.4	-79.1	-47.2			1.7	

Plus and minus signs signify pressures acting toward or away from the surfaces, respectively.



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Snow

Importance Factor (Snow)	(I_s)	1.1	
Exposure Factor	(C_e)	0.8	
Thermal Factor	(C_t)	1.2	
Slope Factor	(C_s)	1.0	
Flat Roof Snow Load	(p_s)	0	psf

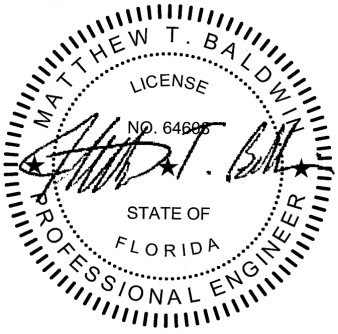
Seismic

Importance Factor (Seismic)	(I_{sm})	1.25		
Mapped Acceleration Parameter	(S_s)	0.14	Figures 22-1 Thru 22-14	
Mapped Acceleration Parameter	(S_1)	0.07	Figures 22-1 Thru 22-14	
Site Coefficient	(F_a)	1		
Site Coefficient	(F_v)	1		
MCE Spectral Resp. Accel. Short Per.	(S_{MS})	0.140		
MCE Spectral Resp. Accel. 1-s Period	(S_{M1})	0.07		
Design Spectral Accel. Short Period	(S_{DS})	0.093		
Design Spectral Accel. 1-s Period	(S_{D1})	0.04667		
Fundamental Period of Structure	(T_a)	0.058	sec	
Long Period Transistion Period	(T_L)	8	sec	Figure 22-15 Thru 22-20
Seismic Design Category	-	A		
Total Effective Seismic Weight	(W_{eff})	326	lbs	
Response Modification Coeficient	(R)	2	Table 12.2-1	
System Overstrength Factor	(Ω_o)	2.5	Table 12.2-1	
Deflection Amplification Factor	(C_d)	2	Table 12.2-1	
Seismic Response Coefficient	(C_s)	0.058		

Resultant Seismic Forces

Horizontal Seismic Load Effect	-	(E_h)	
Force at Base of Base	=	0.0	kips
Force at Top of Base	=	0.0	kips
Force at Top/Bottom of Enclosure	=	0.002	kips
Force on Silencer	=	0	kips

Vertical Seismic Load Effect (E_v) = 0 (Factor, Used With Deadweight in Load Combinations)



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Structural Calculations - Roof

Gillette 78" Frame Gensets

Critical Loads & Pressures

Wind Pressures

Downforce 1.651 psf = 0.01 psi
Uplift -116.3 psf = -0.81 psi

Snow Pressure

0 psf = 0.000 psi

Seismic Load

Horizontal = 2 lbs
Vertical Factor = 0

Roof Live Load

Downforce 20.0 psf = 0.1389 psi or 300 lbs Concentrated Load

Pressures & loads are the numerical maximums to be analyzed for shear, bending tension, and compression.

Section Properties

0.080 Aluminum Panel - 5052-H34

Modulus of Elasticity	(E)	=	1.02E+04 ksi
Safety Factor	(Ω)	=	1.67
Plastic Section Mod. - x	(Z_x)	=	0.18
Plastic Section Mod. - y	(Z_y)	=	0.18
Tensile Ultimate Strength	(F_{tu})	=	34 ksi
Tensile Yield Strength	(F_{ty})	=	26 ksi
Compressive Yield Strength	(F_{cy})	=	24 ksi
Shear Ultimate Strength	(F_{su})	=	20 ksi

Entire Roof Uplift Calculations

Roof Area

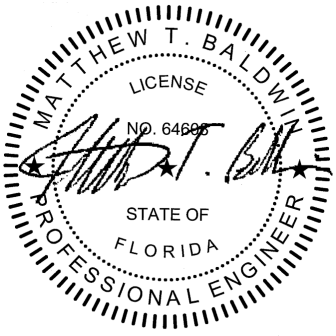
Area of Roof Subjected to Uplift (R) = 3,951 in^2 (not including discharge hood area)

Roof Uplift Calculated Forces

Roof Weight	(ω_a)	=	102 lbs
Wind Load Uplift Force	(w_{ru})	=	-3,190 lbs
Total Roof Design Uplift	(W_{ru})	=	-3,088 lbs

Mounting Hardware - Roof Frame to Wall Panels

Screws Along Length - 1 Side	= 6	5/16" - 18 Bolts
Screws Along Width - 1 Side	= 3	5/16" - 18 Bolts
Total Mounting Screws	= 18	5/16" - 18 Bolts



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Entire Roof Uplift Design Calculations

Grade 18-8/SS Ult. Strength	=	150,000	psi
5/16" Bolt Nominal Diameter	=	0.255	in
5/16" Bolt Effective Area	=	0.051	in^2
5/16" Bolt Threads per Inch	=	18	
Washer Nominal Diameter	=	0.875	in
Wall Panel Tensile Ult. Strength	=	34	ksi
Wall Panel Tensile Yield Strength	=	26	ksi
Safety Factor	=	3	
Wall Panel Nominal Thickness	=	0.0620	in
Maximum Tensile Strength	=	439.2	lbs
Maximum Shear/Bearing Strength	=	408.6	lbs
Max. Tensile Load per Bolt	=	408.6	lbs

Max. Total Screws Tensile Strength (P_{ts}) = 7,354 lbs

Conclusion

(W_{ru}) 3,088 lbs < (P_{ts}) 7,354 lbs **OK**

Roof Panel Uplift Calculations

Roof Panel Critical Member Dimensions

Critical Panel Length	(L_p)	= 78.00	in
Critical Panel Width	(W_p)	= 42.00	in

Roof Panel Uplift Calculated Forces

Distributed Loads

Wind Load Uplift Force (w_{pu}) = 2,645.1 lbs

Mounting Hardware - Roof Panel to Roof Frame

Screws Along Length - 1 Side	=	8	5/16" - 18 Bolts	- Grade 18-8/SS
Screws Along Width - 1 Side	=	4	5/16" - 18 Bolts	- Grade 18-8/SS

Roof Panel Uplift Design Calculations

Grade 18-8/SS Ult. Strength	=	150,000	psi
5/16" Bolt Nominal Diameter	=	0.255	in
5/16" Bolt Effective Area	=	0.051	in^2
5/16" Bolt Threads per Inch	=	18	
Washer Nominal Diameter	=	0.875	in
Roof Panel Tensile Ult. Strength	=	34	ksi
Roof Panel Tensile Yield Strength	=	26	ksi
Safety Factor	=	3	
Roof Panel Nominal Thickness	=	0.0800	in

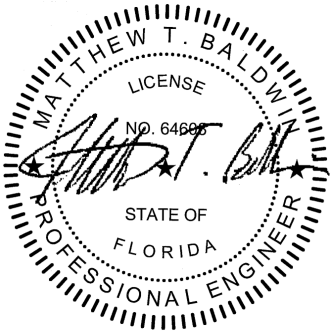
		Roof Frame
Maximum Tensile Strength	=	439.2
Maximum Shear/Bearing Strength	=	408.6
Max. Tensile Load per Screw	=	408.6

(Accounts for screw pull-over and pull-out strengths)

Max. Total Screws Tensile Strength (P_{ts}) = 9,806 lbs

Conclusion

(w_{pu}) 2,645 lbs < (P_{ts}) 9,806 lbs **OK**



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Structural Calculations - Wall Panel

Gillette 78" Frame Gensets

Critical Loads & Pressures

Walls 1 & 2

Maximum Pressures Acting:

Toward	94.0	psf	=	0.6527	psi
Away	-84.6	psf	=	-0.5872	psi

Walls 3 & 4

Maximum Pressures Acting:

Toward	93.7	psf	=	0.6508	psi
Away	-84.3	psf	=	-0.5856	psi

Roof Forces on Critical Panel (From Roof Frame Calculations)

Maximum Downforce	(W_d)	=	651	lbs
Wind Load Uplift Force	(w_{pu})	=	2,645	lbs

Pressures and weights are the numerical maximums to be analyzed for shear, tension, and compression.

Critical Wall Panel Dimensions

Critical/Maximum Panel Width		=	39.50	in
Critical/Maximum Panel Height		=	48.00	in

Section Properties

0.060 Aluminum Panel - 5052-H34

Cross Sectional Area	(A)	=	2.58	in^2
Moment of Inertia - x	(I_x)	=	0.052	in^4
Moment of Inertia - y	(I_y)	=	N/A	in^4
Section Modulus - x	(S_x)	=	0.880	in^3
Section Modulus - y	(S_y)	=	N/A	in^3
Radius of Gyration - x	(r_x)	=	0.140	in
Radius of Gyration - y	(r_y)	=	N/a	in
Weight	(ω)	=	0.026	lbs/in^2
Modulus of Elasticity	(E)	=	1.02E+04	ksi
Safety Factor	(Ω)	=	1.67	
Plastic Section Mod. - x	(Z_x)	=	0.13	
Plastic Section Mod. - y	(Z_y)	=	0.13	

Tensile Ultimate Strength	(F_{tu})	=	34	ksi
Tensile Yield Strength	(F_{ty})	=	26	ksi
Compressive Yield Strength	(F_{cy})	=	23	ksi
Shear Ultimate Strength	(F_{su})	=	20	ksi

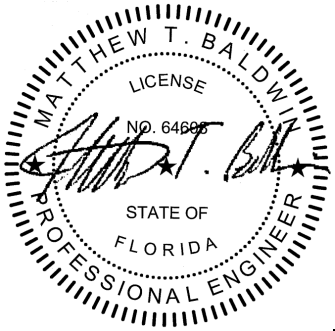
Wall Panel Calculations

Critical Wall Area

Area of Wall Panel	(W)	=	1,896.0	in^2

Mounting Hardware - Roof Frame to Wall Panels

Screws Along Height - 1 Side	=	3	5/16" - 18 Bolts
Screws Along Width - 1 Side	=	6	5/16" - 18 Bolts
Total Mounting Screws	=	18	5/16" - 18 Bolts



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Grade 5 Ultimate Strength	=	150,000	psi
5/16" Bolt Nominal Diameter	=	0.255	in
5/16" Bolt Effective Area	=	0.051	in^2
5/16" Bolt Threads per Inch	=	18	
Washer Nominal Diameter	=	0.875	in
Roof Panel Tensile Ult. Strength	=	34	ksi
Roof Panel Tensile Yield Strength	=	26	ksi
Safety Factor	=	3	
Roof Panel Nominal Thickness	=	0.0800	in

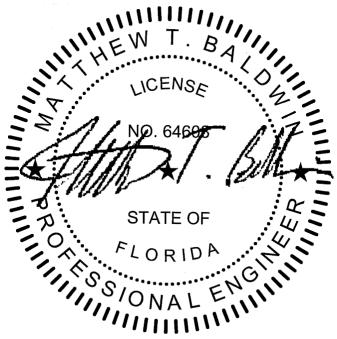
		Roof Frame
Maximum Tensile Strength	=	388.7
Maximum Shear/Bearing Strength	=	300.0
Max. Tensile Load per Bolt	=	300.0

(Accounts for screw pull-over and pull-out strengths)

Max. Total Screws Tensile Strength (P_{ts}) = 4,793 lbs

Conclusion

(w_{pu}) 1,238 lbs < (P_{ts}) 4,793 lbs **OK**



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Structural Calculations - Enclosure to Base

Gillette 78" Frame Gensets

Critical Pressures & Loads

To determine maximum moment forces, pressures are algebraically combined relative to toward or away forces (+ & -) and each wind direction.

Wind Direction 1

To be conservative, roof downforce is neglected.

Net Pressures with + Internal Pressure*(+Gcpi)*

Walls 1 & 2	-	102.6	psf =	0.7124	psi
Wall 3 or 4	-	84.3	psf =	0.5856	psi
Roof Uplift	-	105.3	psf =	0.7313	psi

Net Pressures with - Internal Pressure*(-Gcpi)*

Walls 1 & 2	-	102.6	psf =	0.7124	psi
Wall 3 or 4	-	47.2	psf =	0.3278	psi
Roof Uplift	-	68.2	psf =	0.4735	psi

Wind Direction 2

Net Pressures with + Internal Pressure*(+Gcpi)*

Walls 3 & 4	-	122.1	psf =	0.8482	psi
Wall 1 or 2	-	84.6	psf =	0.5872	psi
Roof Uplift	-	116.3	psf =	0.8074	psi

Net Pressures with - Internal Pressure*(-Gcpi)*

Walls 3 & 4	-	122.1	psf =	0.8482	psi
Wall 1 or 2	-	47.4	psf =	0.3294	psi
Roof Uplift	-	79.1	psf =	0.5496	psi

Seismic

Horizontal Seismic Force (E_h) = 2 lbs

Enclosure Critical Dimensions & Weights

Total Enclosure Weight		(W_t)	=	150	lbs	(Includes all components)
Walls 1/2 Area	-	*(w1)*	=	2259.6	in^2	
Walls 3/4 Area	-	*(w3)*	=	5061.5	in^2	
Roof Area	-	*(R)*	=	3951.4	in^2	

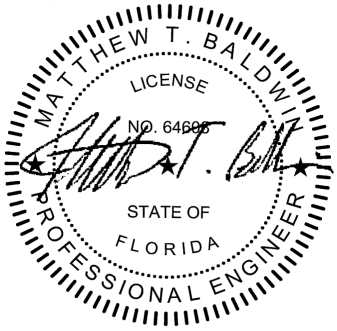
Enclosure Calculated Forces

Maximum Wind Load Forces on Walls

Wind Direction 1

Net Forces with + Internal Pressure*(+Gcpi)*

Walls 1/2	-	=	1,610	lbs
Wall 3 or 4	-	=	2,964	lbs
Roof Uplift	-	=	2,890	lbs



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Net Forces with - Internal Pressure *(-Gcpi)*

Walls 1/2	-	=	1,610	lbs
Wall 3 or 4	-	=	1,659	lbs
Roof Uplift	-	=	1,871	lbs

Wind Direction 2

Net Forces with + Internal Pressure *(+Gcpi)*

Walls 3/4	-	=	4,293	lbs
Wall 1 or 2	-	=	1,327	lbs
Roof Uplift	-	=	3,190	lbs

Net Forces with - Internal Pressure *(-Gcpi)*

Walls 3/4	-	=	4,293	lbs
Wall 1 or 2	-	=	744	lbs
Roof Uplift	-	=	2,172	lbs

Enclosure Overturn Forces (Includes Seismic)

(Postive forces act upward, negative forces act downward)

Wind Direction 1

Net Forces with + Internal Pressure *(+Gcpi)*

Overturn on Walls 1/2	=	1,830	lbs
Overturn on Walls 3/4	=	3,268	lbs

Net Forces with - Internal Pressure *(-Gcpi)*

Overturn on Walls 1/2	=	1,321	lbs
Overturn on Walls 3/4	=	1,923	lbs

Wind Direction 2

Net Forces with + Internal Pressure *(+Gcpi)*

Overturn on Walls 3/4	=	4,270	lbs
Overturn on Walls 1/2	=	1,900	lbs

Net Forces with - Internal Pressure *(-Gcpi)*

Overturn on Walls 3/4	=	3,760	lbs
Overturn on Walls 1/2	=	1,224	lbs

Design Overturn Force (O_E) = 4,270 lbs Acting On Wall 3/4

Mounting Hardware - Enclosure to Base/Tank or Pad

To be conservative, bolt connections along the adjacent walls are neglected.

No. of Bolt Connections Along Wall 3/4 = 6 5/16" - 18 Bolts - Grade 18-8/S

Enclosure Overturn Design Calculations

Grade 18-8 Ultimate Strength	=	150,000	psi
Grade 8.8 Nom. Tensile Stress	=	112,500	psi (Includes Reduction Factor)
5/16" Bolt Effective Area	=	0.051	in^2
Tensile Strength per Bolt	=	2,873	lbs

Total Bolts Tensile Strength = 17,236 lbs

Conclusion

(O_E) 4,270 lbs < (R_v) 17,236 lbs **OK**

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Structural Calculations - Enclosure With Base/Tank to Pad

Gillette 78" Frame Gensets

Critical Wind Load Pressures

To determine maximum moment forces, pressures are algebraically combined relative to toward or away forces (+ & -) and each wind direction.

Wind Direction 1

To be conservative, roof downforce is neglected.

Net Pressures with + Internal Pressure *(+Gcpi)*

Walls 1 & 2	-	102.6	psf =	0.7124	psi
Wall 3 or 4	-	84.3	psf =	0.5856	psi
Roof Uplift	-	105.3	psf =	0.7313	psi

Net Pressures with - Internal Pressure *(-Gcpi)*

Walls 1 & 2	-	102.6	psf =	0.7124	psi
Wall 3 or 4	-	47.2	psf =	0.3278	psi
Roof Uplift	-	68.2	psf =	0.4735	psi

Wind Direction 2

Net Pressures with + Internal Pressure *(+Gcpi)*

Walls 3 & 4	-	122.1	psf =	0.8482	psi
Wall 1 or 2	-	84.6	psf =	0.5872	psi
Roof Uplift	-	116.3	psf =	0.8074	psi

Net Pressures with - Internal Pressure *(-Gcpi)*

Walls 3 & 4	-	122.1	psf =	0.8482	psi
Wall 1 or 2	-	47.4	psf =	0.3294	psi
Roof Uplift	-	79.1	psf =	0.5496	psi

Seismic

Enclosure Horiz. Seismic Force	(EE_h)	=	2	lbs
Base/Tank Horiz. Seismic Force	(EB_h)	=	3	lbs

Enclosure With Base/Tank Critical Dimensions & Weights

Total Enclosure Weight		*(W_t)* =	250	lbs	(Includes all components)
Walls 1/2 Area	-	*(w1)* =	2,428	in^2	(Includes Base/Tank Surface Area)
Walls 3/4 Area	-	*(w3)* =	5,374	in^2	(Includes Base/Tank Surface Area)
Roof Area	-	*(R)* =	3,951	in^2	

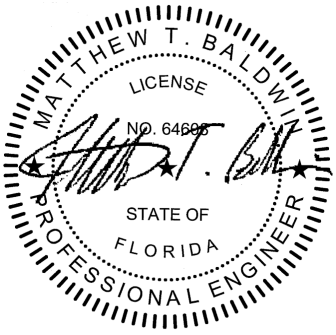
Enclosure With Base/Tank Calculated Forces

Maximum Wind Shear Forces on Walls Including Base/Tank

Wind Direction 1

Net Forces with + Internal Pressure *(+Gcpi)*

Walls 1/2	-	=	1,729	lbs
Wall 3 or 4	-	=	3,147	lbs
Roof Uplift	-	=	2,890	lbs



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Net Forces with - Internal Pressure*(-Gcpi)*

Walls 1/2	-	=	1,729	lbs
Wall 3 or 4	-	=	1,761	lbs
Roof Uplift	-	=	1,871	lbs

Wind Direction 2

Net Forces with + Internal Pressure*(+Gcpi)*

Walls 3/4	-	=	4,558	lbs
Wall 1 or 2	-	=	1,426	lbs
Roof Uplift	-	=	3,190	lbs

Net Forces with - Internal Pressure*(-Gcpi)*

Walls 3/4	-	=	4,558	lbs
Wall 1 or 2	-	=	800	lbs
Roof Uplift	-	=	2,172	lbs

Enclosure with Base/Tank Maximum Wind Force = 4,558 lbs Acting On Wall 3/4

Coefficient of Friction - Steel to Wet Concrete (μ_s) = 0.45
Frictional Resisting Force (Total Weight x μ_s) = 113

Enclosure with Base/Tank Design Shear (V_{EB}) = 4,445

Enclosure With Base/Tank Overturn Forces (Inlcudes Seismic)

Postive forces act upward

Wind Direction 1

Net Forces with + Internal Pressure*(+Gcpi)*

Overturn on Walls 1/2	=	1,852	lbs
Overturn on Walls 3/4	=	3,488	lbs

Net Forces with - Internal Pressure*(-Gcpi)*

Overturn on Walls 1/2	=	1,343	lbs
Overturn on Walls 3/4	=	2,025	lbs

Wind Direction 2

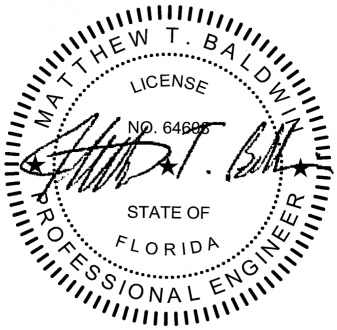
Net Forces with + Internal Pressure*(+Gcpi)*

Overturn on Walls 3/4	=	4,609	lbs
Overturn on Walls 1/2	=	1,909	lbs

Net Forces with - Internal Pressure*(-Gcpi)*

Overturn on Walls 3/4	=	4,099	lbs
Overturn on Walls 1/2	=	1,208	lbs

Design Overturn Force (O_{EB}) = 4,609 lbs Acting On Wall 3/4



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Mounting Hardware - Enclosure With Base/Tank to Pad

No. of Bolt Connections Along Wall 3/4 = 3 Bolts 1/2" Set Bolt Anchors - Grade 5/Galv.

Enclosure With Base/Tank Design Calculations

Mounting Hardware - Shear and Tension

Grade 5	Ultimate Stress	=	120,000	psi
Grade 5	Nom. Shear Stress	=	48,000	psi
Grade 5	Nom. Tensile Stress	=	90,000	psi
1/2" Bolt Nominal Area		=	0.159	in^2
Shear Strength per Bolt		=	3,816	lbs
Tensile Strength per Bolt		=	7,155	lbs
Avail. Tensile Strength per Bolt		=	1,781	lbs (Combined Tension and Shear)

Total Bolts Shear Strength	(R_{vb})	=	11,448	lbs
Total Bolts Tensile Strength	(R_{tb})	=	5,342	lbs

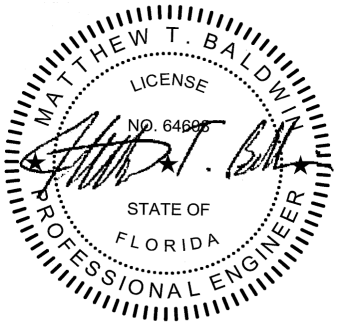
Conclusion

Shear

(V_{EB})	4,445	lbs	<	(R_{tb})	11,448	lbs	**OK**

Tension

(O_{EB})	4,609	lbs	<	(R_{tb})	5,342	lbs	**OK**



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