Wood Connectors

Hurricane Gusset Angles

HGA & HGAM

PRODUCT FEATURES:

Hurricane Gusset Angles (HGA & HGAM) are 90-degree framing angles used to connect truss/rafter joists to the top plate of wood framing walls or to the top of concrete filled CMU walls.
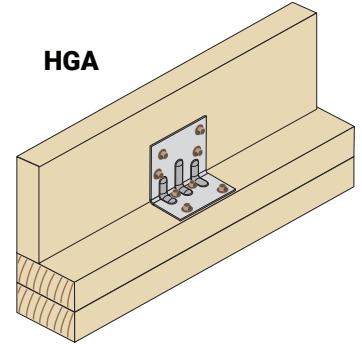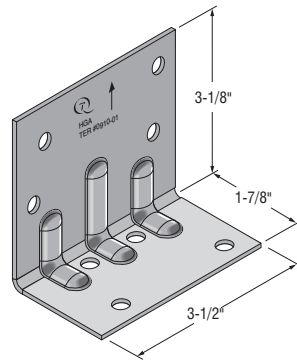
MATERIAL:

HGA & HGAM - 14 Gauge
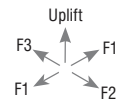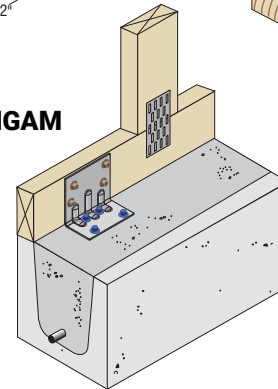
COATING:

Galvanized (G185)

INSTALLATION:

Use all specified fasteners in schedule to achieve values indicated

CODE COMPLIANCE:

TER 0910-01; FL 3557

ALLOWABLE LOADS FOR HGA & HGAM (LB)

Species Group (Specific Gravity)	Fasteners[4]				Allowable Loads (lb)			
					Uplift	F1[1]	F2[2]	F3[3]
	To Rafter/Truss		To Wood or Concrete		Load Duration Factor			
	Type[5]	Quantity	Type[6,7]	Quantity	1.60	1.60	1.60	1.60
Douglas Fir-Larch (0.50)	$1^1/4$" x $1^1/2$" (Note 8)	4	Wood, $^1/4$" x 3" (Note 10)	4	1085	1160	955	1150
			Concrete, $^1/4$" x $2^1/4$" (Note 12)	4	815	1005	955	1005
Spruce-Pine-Fir (0.42)	$1^1/4$" x $1^1/2$" (Note 9)	4	Wood, $^1/4$" x 3" (Note 11)	4	740	805	505	825
			Concrete, $^1/4$" x $2^1/4$" (Note 12)	4	815	805	505	825

NOTES:

1. Loading in the F1 direction indicates shear forces parallel to the plane of the wall.
2. Loading in the F2 direction indicates shear forces perpendicular to the plane of the wall, acting towards the gusset angle.
3. Loading in the F3 direction indicates shear forces perpendicular to the plane of the wall, acting away from the gusset angle.
4. Minimum fastener penetration must be equal to the screw length less the thickness of the metal side plate.
5. Minimum Specified Wood Screw Requirements: Major Diameter = 0.25", Minor (Root) Diameter = 0.185", Thread Length (including tip) = 1.25", Bending Yield Strength = 180,000 psi
6. Minimum Specified Wood Screw Requirements: Major Diameter = 0.25", Minor (Root) Diameter = 0.185", Thread Length (including tip) = 2.25", Bending Yield Strength = 180,000 psi
7. Minimum Specified Masonry Screw Requirements: Major Diameter = 0.25", Thread Length = 1.75", Min. F_y and F_u = 80,000 psi and 100,000 psi
8. Minimum Reference Lateral Design Value (Z) = 182 lbs, Minimum Reference Withdrawal Value (W) = 164 lbs/in
9. Minimum Reference Lateral Design Value (Z) = 136 lbs, Minimum Reference Withdrawal Value (W) = 103 lbs/in
10. Minimum Reference Lateral Design Value (Z) = 244 lbs, Minimum Reference Withdrawal Value (W) = 179 lbs/in
11. Minimum Reference Lateral Design Value (Z) = 210 lbs, Minimum Reference Withdrawal Value (W) = 126 lbs/in
12. Minimum Allowable Tension (T) and Shear (S) Capacities When Installed in Concrete, T = 204 lb and S = 219 lb, Min. Edge Distance = 2", Min. Spacing = 1", Min End Distance = 2.65", Min. Embedment = 1-1/2", Min. Concrete Compression Strength, f"c = 2,500 psi, Load combination 1.2D+1.6L with D = 0.3, L = 0.7 and α = 1.48.