



# Aggre-Gator® 300 Series Stainless Bi-Metal Masonry Fasteners

The corrosion resistance of 300 series stainless steel in a threaded concrete anchor

## Approvals:

Miami-Dade NOA No. 08-0813.06 High Velocity Hurricane Zone

## Performance Data

### Substrate: 2220 psi Concrete

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Tension (lbs)
1/4"	1.25"	3.0"	1.000"	118
	2.50"	1.5"	1.000"	195
	1.25"	3.0"	1.375"	289
	2.50"	1.5"	1.375"	343
	1.25"	3.0"	1.750"	517
2.50"	1.5"	1.750"	465	

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	1.50"	3.0"	1.000"	204
	3.00"	1.5"	1.000"	259
	1.50"	3.0"	1.375"	259
	3.00"	1.5"	1.375"	413
	1.50"	3.0"	1.750"	318
3.00"	1.5"	1.750"	488	

### Substrate: 3275 PSI Concrete

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Tension (lbs)
1/4"	1.25"	3.0"	1.000"	248
	2.50"	1.5"	1.000"	263
	1.25"	3.0"	1.375"	389
	2.50"	1.5"	1.375"	251
	1.25"	3.0"	1.750"	295
2.50"	1.5"	1.750"	319	

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	1.50"	3.0"	1.000"	255
	3.00"	1.5"	1.000"	226
	1.50"	3.0"	1.375"	319
	3.00"	1.5"	1.375"	511
	1.50"	3.0"	1.750"	306
3.00"	1.5"	1.750"	515	

### Substrate: 1x4 (3/4" Thick) Treated No. 2 SYP attached to 2220 psi Concrete

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	2.50"	3.0"	1.5"	200

### Substrate: 2x4 (1-1/2" Thick) Treated No. 2 SYP attached to 2220 psi Concrete

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	2.50"	3.0"	1.75"	199

### Substrate: Concrete Masonry Hollow Block

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Tension (lbs)
1/4"	2.00"	3.0"	1.250"	195
	4.00"	3.0"	1.250"	221

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	2.00"	3.0"	1.250"	234
	4.00"	3.0"	1.250"	264

### Substrate: Grout-Filled Concrete Block

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Tension (lbs)
1/4"	2.00"	3.0"	1.250"	208
	4.00"	1.5"	1.250"	186
	2.00"	3.0"	2.00"	407
	4.00"	1.5"	2.00"	504

Anchor Dia.	Min. Edge Dist.	Min. Spacing	Min. Embedment	Allowable Shear (lbs)
1/4"	2.00"	3.0"	1.250"	259
	4.00"	1.5"	1.250"	352
	2.00"	3.0"	2.00"	591
	4.00"	1.5"	2.00"	597

## NOTES

- Edge distances denoted herein shall be measured from the center of the anchor to the edge of the substrate in the direction of, as well as perpendicular to, the direction of the load. Spacing between anchors denoted herein shall be measured center-to-center of anchors.
- Allowable loads suggested herein are only valid when both the minimum anchor center-to-center spacing and the minimum edge distances are complied with.
- Allowable loads suggested herein equal 25% of the average ultimate laboratory test values obtained during testing performed as part of the requirements to obtain this NOA. Final determination of the appropriate working/design loads to be used in a specific project are the sole responsibility of the engineer of record or of the architect of record specifying the use of the product.
- No increase in allowable stress has been incorporated into the values provided in the tables contained herein.
- Anchors approved under this product approval document have not been tested for use under combined loading.
- The concrete substrate into which these anchors will be attached shall conform to ACI 301 specifications with strength properties as specified herein.
- The hollow and grout-filled concrete block substrate into which these anchors will be attached shall be medium weight or normal weight concrete block conforming to ASTM C-90.
- Combination wood and concrete substrate shall consist of 1 x 4 nominal (3/4" thick) treated No. 2 Southern Yellow Pine attached to concrete substrate conforming to ACI 301 specifications with strength properties as specified herein, or 2 x 4 nominal (1-1/2" thick) treated No. 2 Southern Yellow Pine attached to concrete substrate conforming to ACI 301 specifications with strength properties as specified herein.

**NOTE:** All performance data shown is based on tests performed under laboratory conditions at independent construction testing facilities. The appropriate safety factor should be applied and code requirements factored into specification and use of these fasteners. A safety factor of 4:1 or 25% of the ultimate average values shown is generally accepted as an appropriate working load. Final determination of the appropriate safety factor and use of these fasteners is the sole responsibility of the user, specifying Engineer, Architect or other responsible person designing the connection. Due to a wide variety of application conditions or intervening factors not under our control, we assume no liability for the use of the information provided in this document.