

# Wedge-All® Wedge Anchors

The Wedge-All® wedge anchors are a non-bottom bearing, wedge-style expansion anchor for use in solid concrete or grout-filled concrete masonry. A one-piece clip ensures uniform holding capacity that increases as tension is applied. The threaded stud version is available in eight diameters and multiple lengths. A single size tie-wire version is available for wire supported fixtures. Threaded studs are set by tightening the nut. Tie-wire anchors are set with the claw end of a hammer.

**WEDGE-ALL SPECIAL FEATURES:**

- One piece wrap around clip
- Threaded end is chamfered for ease of starting nut
- Most sizes feature full thread for added versatility

**MATERIAL:** Carbon and stainless steel

**FINISH:** Carbon steel anchors are available zinc plated or mechanically galvanized.

**CODES:** ICC-ES ESR-1396 (CMU); City of L.A. RR24682; Factory Mutual 3017082, 3031136, and 3043442; Florida FL 11506.8; Underwriters Laboratories File Ex3605; Meets requirements of Federal Specifications A-A-1923A, Type 4. The Tie-Wire anchor is not code listed.

**⚠** The load tables list values based upon results from the most recent testing and may not reflect those in current code reports. Where code jurisdictions apply, consult the current reports for applicable load values.

**TEST CRITERIA:** The Wedge-All anchor has been tested in accordance with ICC-ES's Acceptance Criteria for Expansion Anchors (AC01) for the following:

- Static tension and shear loading
- Seismic and wind loading
- Combination tension and shear loading
- Critical and minimum edge distance

**INSTALLATION:**

- Holes in metal fixtures to be mounted should exceed nominal anchor diameter by 1/16" for 1/4" thru 5/8" diameter anchors, and by 1/8" for all other diameters.
- Do not use an impact wrench to set or tighten the Wedge-All.

**⚠** Caution: Oversized holes in the base material will make it difficult to set the anchor and will reduce the anchor's load capacity.

**Threaded studs:**

- Drill a hole in the base material using a carbide drill bit the same diameter as the nominal diameter of the anchor to be installed. Drill the hole to the specified embedment depth and blow it clean using compressed air. Overhead installations need not be blown clean. Alternatively, drill the hole deep enough to accommodate embedment depth and dust from drilling.
- Assemble the anchor with nut and washer so the top of the nut is flush with the top of the anchor. Place the anchor in the fixture and drive into the hole until washer and nut are tight against fixture.
- Tighten to the required installation torque.

**Tie-Wire:**

- Drill a hole at least 1 1/2" deep using a 1/4" diameter carbide tipped bit.
- Drive the anchor into the hole until the head is seated against the base material.
- Set the anchor by prying/pulling the head with the claw end of the hammer.

**SUGGESTED SPECIFICATIONS:**

Wedge anchors shall be a threaded stud with an integral cone expander and a single piece expansion clip. The stud shall be carbon steel with a minimum 70,000 psi tensile strength, or type 303, 304 or 316 stainless steel, as called for on the drawings. Anchors shall meet Federal Specification A-A-1923A, Type 4. Anchors shall be Wedge-All® anchors from Simpson Strong-Tie, Pleasanton, CA. Anchors shall be installed following the Simpson Strong-Tie instructions for Wedge-All anchors.

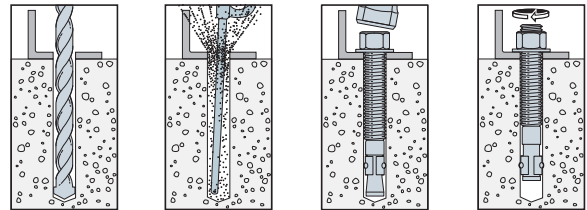


Wedge-All® Anchor

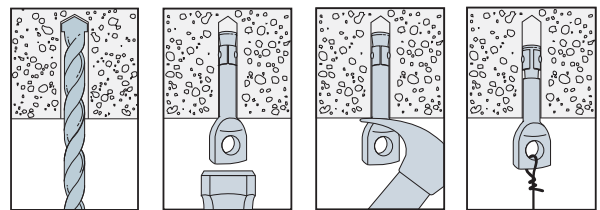


Tie-Wire Anchor (Zinc plate only)

**Wedge-All® Anchor Installation Sequence**



**Tie-Wire Anchor Installation Sequence**



**Wedge-All® Anchor Installation Data**

Wedge-All Dia. (in.)	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4
Bit Size (in.)	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4
Min. Fixture Hole (in.)	5/16	7/16	9/16	11/16	7/8	1	1 1/8	1 3/8
Wrench Size (in.)	7/16	9/16	3/4	15/16	1 1/8	1 5/16	1 1/2	1 7/8

**Length Identification Head Marks on Wedge-All® Anchors (corresponds to length of anchor – inches).**

Mark	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
From	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	11	12	13	14	15	16	17	18
Up To But Not Including	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	11	12	13	14	15	16	17	18	19

**Wedge-All®** Carbon-Steel Wedge Anchors

**Wedge-All® Anchor Product Data**  
Carbon Steel: Zinc Plated and Mechanically Galvanized

Size (in.)	Carbon Steel Model No.	Mechanically Galvanized Model No.	Drill Bit Dia. (in.)	Thread Length (in.)	Quantity		
					Box	Carton	
1/4 x 1 1/2	TWD25112 <sup>4</sup>	•	1/4	Hole dia. is 5/32	100	500	
1/4 x 1 3/4	WA25134	WA25134MG		15/16	100	500	
1/4 x 2 1/4	WA25214	WA25214MG		1 1/16	100	500	
1/4 x 3 1/4	WA25314	WA25314MG		2 7/16	100	500	
3/8 x 2 1/4	WA37214	WA37214MG	3/8	1 1/8	50	250	
3/8 x 2 3/4	WA37234	WA37234MG		1 5/8	50	250	
3/8 x 3	WA37300	WA37300MG		1 7/8	50	250	
3/8 x 3 1/2	WA37312	WA37312MG		2 1/2	50	250	
3/8 x 3 3/4	WA37334	WA37334MG		2 5/8	50	250	
3/8 x 5	WA37500	WA37500MG		3 7/8	50	200	
3/8 x 7	WA37700	WA37700MG		5 7/8	50	200	
1/2 x 2 3/4	WA50234	WA50234MG		1/2	1 5/16	25	125
1/2 x 3 3/4	WA50334	WA50334MG	2 5/16		25	125	
1/2 x 4 1/4	WA50414	WA50414MG	2 9/16		25	100	
1/2 x 5 1/2	WA50512	WA50512MG	4 1/16		25	100	
1/2 x 7	WA50700	WA50700MG	4 5/16		25	100	
1/2 x 8 1/2	WA50812	WA50812MG	6		25	50	
1/2 x 10	WA50100	WA50100MG	6		25	50	
1/2 x 12	WA50120	WA50120MG	6		25	50	
5/8 x 3 1/2	WA62312	WA62312MG	5/8		1 7/8	20	80
5/8 x 4 1/2	WA62412	WA62412MG			2 7/8	20	80
5/8 x 5	WA62500	WA62500MG		3 3/8	20	80	
5/8 x 6	WA62600	WA62600MG		4 3/8	20	80	
5/8 x 7	WA62700	WA62700MG		5 3/8	20	80	
5/8 x 8 1/2	WA62812	WA62812MG		6	20	40	
5/8 x 10	WA62100	WA62100MG		6	10	20	
5/8 x 12	WA62120	WA62120MG		6	10	20	
3/4 x 4 1/4	WA75414	WA75414MG		3/4	2 3/8	10	40
3/4 x 4 3/4	WA75434	WA75434MG			2 7/8	10	40
3/4 x 5 1/2	WA75512	WA75512MG	3 5/8		10	40	
3/4 x 6 1/4	WA75614	WA75614MG	4 3/8		10	40	
3/4 x 7	WA75700	WA75700MG	5 1/8		10	40	
3/4 x 8 1/2	WA75812	WA75812MG	6		10	20	
3/4 x 10	WA75100	WA75100MG	6		10	20	
3/4 x 12	WA75120	WA75120MG	6		5	10	
7/8 x 6	WA87600	WA87600MG	7/8		2 1/8	5	20
7/8 x 8	WA87800	WA87800MG			2 1/8	5	10
7/8 x 10	WA87100	WA87100MG		2 1/8	5	10	
7/8 x 12	WA87120	WA87120MG		2 1/8	5	10	
1 x 6	WA16000	WA16000MG	1	2 1/4	5	20	
1 x 9	WA19000	WA19000MG		2 1/4	5	10	
1 x 12	WA11200	WA11200MG		2 1/4	5	10	
1 1/4 x 9	WA12590	WA12590MG	1 1/4	2 3/4	5	10	
1 1/4 x 12	WA12512	WA12512MG		2 3/4	5	10	

1. The published length is the overall length of the anchor. Allow one anchor diameter for the nut and washer thickness plus the fixture thickness when selecting the minimum length.
2. Special lengths are available on request. Load values are valid as long as minimum embedment depths are satisfied.
3. Tie-Wire Wedge-All® anchor, overall length is 2".
4. Tie-Wire Wedge-All® anchor also available in bulk quantity of 2,000, model TWD25112B.
5. Bulk packaged Wedge-All® anchors available, call Simpson Strong-Tie® for details.

**Material Specifications**

Carbon Steel - Zinc Plated			
Component Materials			
Anchor Body	Nut	Washer	Clip
Material Meets minimum 70,000 psi tensile strength	Carbon Steel ASTM A 563, Grade A	Carbon Steel	Carbon Steel



**Application:** Interior environment, low level of corrosion resistance. See page 11 for more corrosion information.



**Material Specifications**

Carbon Steel - Mechanically Galvanized <sup>1</sup>			
Component Materials			
Anchor Body	Nut	Washer	Clip
Material Meets minimum 70,000 psi tensile strength	Carbon Steel ASTM A 563, Grade A	Carbon Steel	Carbon Steel

1. Mechanical Galvanizing meets ASTM B695, Class 55, Type 1.



**Application:** Exterior unpolluted environment, medium level of corrosion resistance. Well suited to humid environments. See page 11 for more corrosion information.