

ALLIGATOR® All-Purpose Anchors

Service
Warehouse

Description

ALLIGATOR anchors are designed to hold high loads in solid walls, ceilings, and floors ... but also hold securely when they encounter an unexpected cavity, such as in hollow brick or hollow block, or even in drywall or, especially, in tile over drywall. The specially formulated polypropylene body flows into and locks up with any undercuts in the hole, bonding the screw to the wall and sealing the hole to prevent moisture from entering. Optimal holding values [measured in tons] are obtained in highly dense substrates by using a screw diameter and a drill diameter of the same size as the anchor diameter. The anchor is available both unflanged for pushthrough mounting and with a flange for use where a cavity is anticipated (drywall, hollow brick, etc.).



ALLIGATOR Anchors: With Flange



ALLIGATOR Anchors: No Flange

Key Features & Benefits

- ▶ Strongest in solid materials — holds up to **2x more** than metal, adhesive, epoxy and chemical anchors with the same screw diameter and embedment depth
- ▶ Anchor **bonds** screw to concrete, brick & stone — **sealing** the hole against moisture
- ▶ Versatile — **holds securely** even in hollow walls / ceilings
- ▶ Uniquely shaped head **prevents spinning & countersink**
- ▶ Accepts **greatest range of screw sizes** in each anchor
- ▶ **High holding strength** even with deviations in screw size and hole diameter, where other anchors fail entirely
- ▶ **Resists vibration & shock** • Non-toxic • Sets instantly
- ▶ Screw can be **removed and reinserted** in same anchor without loss of holding power
- ▶ **Corrosion-proof** when used with stainless steel screws

For Use In:

- ▶ Concrete
- ▶ Brick
- ▶ Stone
- ▶ Masonry
- ▶ Cinder block
- ▶ Aerated concrete
- ▶ Wood
- ▶ Stucco
- ▶ Plaster
- ▶ Tile
- ▶ Drywall
- ▶ Greenboard
- ▶ RTA furniture
- ▶ Tile over drywall
- ▶ Tile over greenboard
- ▶ Composite panels



Specifications, Listings and Approvals

Materials:

Specially formulated, inert grade of self-lubricating, translucent, non-corrodible polypropylene

Screw Specification:

Sheet metal screw or other screw with a sufficiently long thread

Screw Size Range, Diameter:

#4 - #9: AF5 / A5

#6 - #12: AF6 / A6

#8 - #14: AF8 / A8

#10 - #18: A10

Anchor & Drill Diameter:

3/16": AF5 / A5

1/4": AF6 / A6

5/16": AF8 / A8

3/8": A10

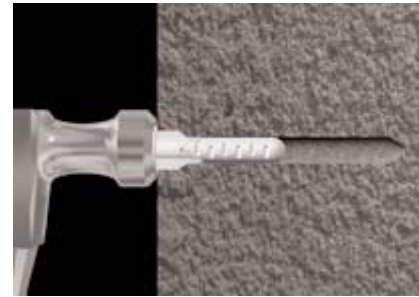
Specs:

- OSHA standard 29 CFR 1910.1200 and DOT standards are not applicable
- No MSDS required

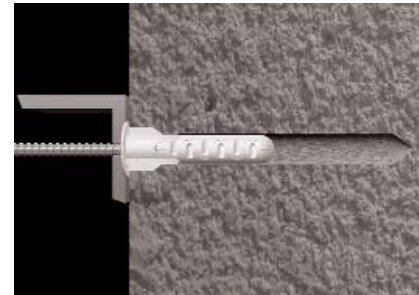
Installation Information

Instructions

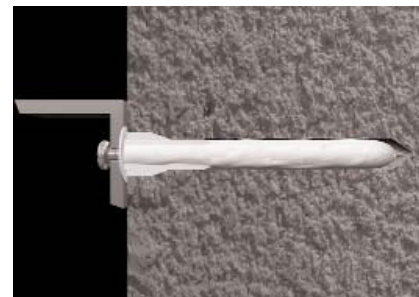
1. Drill hole same diameter as anchor. Push in anchor and tap flush.
2. Place item over anchor. Insert screw and tighten flush with item.
- 3a. Anti-rotation fins prevent spinning while the ALLIGATOR anchor expands along the screw in solid walls ... up to 2x its original length.
- 3b. In unexpected cavities or in hollow walls (hollow brick, hollow block, etc.), the screw thread and anchor teeth lock together to resist vibration and shock.
- 3c. **FLANGED ALLIGATOR** anchors can be installed in hollow walls (e.g., tile over drywall). Review the Installation Data table for required minimum wall thickness. Screw thread and anchor teeth lock together.



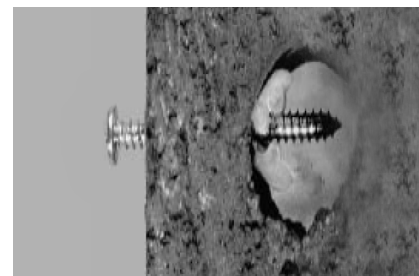
1



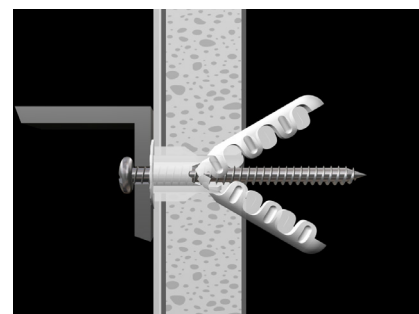
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3a



3b

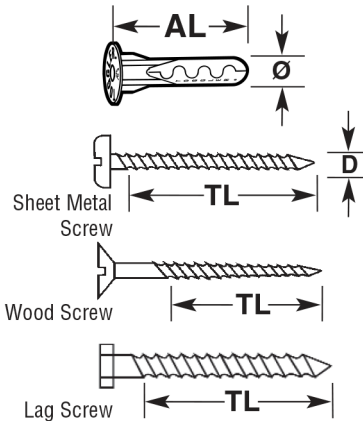
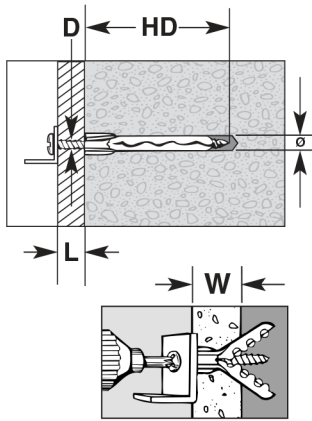


3c

Installation Notes

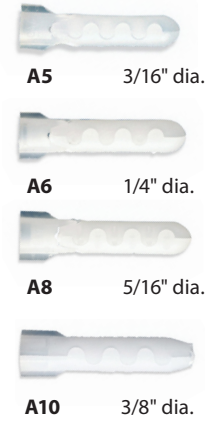
- ▶ The ALLIGATOR anchor is supplied in the closed position, ready for rapid and immediate utilization.
- ▶ The screw used to fasten the item also opens & sets the anchor in place: in both solid & hollow (cavity) walls.
- ▶ It is recommended that the screw be completely set without pause, because of the remolding of the anchor under pressure.
- ▶ Setting the screw head flush with the fixture completes the installation.
- ▶ The uniquely shaped head of the ALLIGATOR anchor prevents the anchor from countersinking into the hole, and its substantial anti-rotation fins wedge against the interior of the hole to prevent spinning even with the use of a screw gun.
- **Note:** The anti-rotation fins cut into drywall.
- ▶ Ordinary plastic plug anchors are liable to spin in a hole, preventing screw insertion. They are also very likely to be pushed to the bottom of the insertion hole, resulting in incomplete screw engagement (the screw is stopped by the bottom of the hole) and very significant loss of holding strength.
- ▶ The structure of the ALLIGATOR anchor is designed to lever and wedge open behind or in hollow walls [3b] and [3c].
- ▶ No other solid-wall anchor provides an additional structure or capability for reliable use in hollow walls.

Installation Data



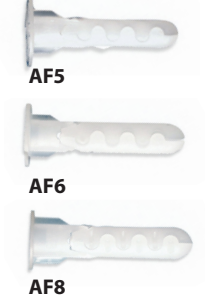
Flush-Mount

For through-the-fixture / push-through installation



Flanged

For hollow brick, drywall, or tile over drywall, etc.



Note: only the threaded portion of the screw should be in the anchor itself; any unthreaded shank portion of the screw may be in the fixture or item being anchored, but not in the anchor.

Anchor Code	Anchor & Drill Diameter (Ø)	Flange Diameter	Screw Sizes (D)	Minimum Screw Thread Length (TL)	Anchor Length (AL)	Minimum Hole Depth (HD)	Min. Wall Thickness (W)
AF5	3/16"	7/16"	#4 - #9	1-3/16" + L	1"	1-1/2"	1/4"
A5		N/A		1-1/8" + L	5/16"		N/A
AF6	1/4"	1/2"	#6 - #12	1-3/8" + L	1-3/16"	1-3/4"	3/8"
A6		N/A		1-5/16" + L	1-1/8"		N/A
AF8	5/16"	9/16"	#8 - #14	1-13/16" + L	1-5/8"	2-1/4"	1/2"
A8		N/A		1-3/4" + L	1-9/16"		N/A
A10	3/8"	N/A	#10-#18	2"+L	1-7/8"	2-1/2"	N/A

Maximum Strength Anchoring Guidelines

The screw diameter changes the compressive force of the anchor assembly. This allows the same diameter anchor, when used with different screw diameters, to work in all kinds of substrates. Small diameter screws should be used in low-strength, easily compressed substrates. Large diameter screws should be used in high-strength substrates. When used in porous masonry materials such as low compressive strength concrete, aerated concrete, small unsupported blocks, or brick, it is recommended that the screw size not exceed those given in the chart above. Use hardened or stainless steel screws to increase shear and tensile strength.

Screws or lag bolts used with ALLIGATOR anchors do not directly engage the surrounding masonry material. As a result, screws anchored with ALLIGATOR anchors have very high residual holding strength and low susceptibility to failure by vibration or shock loads. Even the maximum size screws do little, if any, damage when removed. The same hole can usually be reused without any lessening of anchoring strength.

Drill insertions holes **twice** the anchor length. Drilled hole length + thickness of fixture should exceed screw length by a **minimum of 1/2"**. SMS = Sheet Metal Screw / Lag = Lag Screw or Bolt

Anchor Type	Drill Size	Screw Type	Min. Embedded Thread Length	Minimum Hole Depth
AF5 / A5 (3/16")	3/16"	#10 SMS	2"	2-1/2"
AF6 / A6 (1/4")	1/4"	#14 Lag	2-1/4"	2-3/4"
AF8 / A8 (5/16")	5/16"	5/16" Lag	2-1/2"	3-1/4"
A10 (3/8")	3/8"	3/8" Lag	3"	3-1/2"

Notes:

- The anchors should be installed at least 1.5" from an unsupported edge in high-strength materials, because of the high compression forces exerted by the screw.
- With lag bolts, do not permit the unthreaded portion to enter the anchor. Any unthreaded portion should remain in the item being anchored.
- Use hex head screws wherever possible, because of high back pressure.

Performance Data

Ultimate Tensile Pull-Out Values (lbs.)

Anchor	Anchor Diameter	Drill Diameter	Tested Screw Size	1/2" Drywall	3,500 psi Concrete	Tested Screw Size	4,000 psi Concrete
A5/AF5	3/16"	3/16"	#8 SMS	57	544	#10 SMS	2,316
A6/AF6	1/4"	1/4"	#10 SMS	69	675	#14 SMS	2,633
A8/AF8	5/16"	5/16"	#12 SMS	85	1,025	5/16" Lag	3,083
A10	3/8"	3/8"	#14 SMS	N/A	1,168	3/8" Lag	3,570

Ultimate Shear (lbs.)

Anchor	Anchor Diameter	Drill Diameter	Tested Screw Size	1/2" Drywall
AF5	3/16"	3/16"	#8 SMS	125
AF6	1/4"	1/4"	#10 SMS	153
AF8	5/16"	5/16"	#12 SMS	171
A10	3/8"	3/8"	N/A	N/A

Notes:

- Holding strength for an ALLIGATOR solid-wall anchor varies directly with the strength and condition of the substrate, the screw size, and the extent of the screw engagement—and inversely with variations in hole diameter and the distance of the load from the wall.
- All figures in pounds. Pull-out values based on independent laboratory tests done according to U.S. Government standards. They should be used as guides only and cannot be guaranteed. The age, condition, and capacity of the substrate must be considered.
- Industry standards recommend 1/4 of ultimate test load.

Order Information



ALLIGATOR Anchors: With Flange							
Catalog No.	Style	Min. Wall Thick.	Screw Size Range	Included Screw Size*	Box/ Bag (pcs.)	Inner Carton (pcs.)	Master Carton (pcs.)
13103	AF5	1/4"	#4 – 3/16" SMS	No Screw	200	2000	10000
50445	AF5	1/4"	#4 – 3/16" SMS	#8 x 1-1/4"	6	60	1200
50450	AF5	1/4"	#4 – 3/16" SMS	#8 x 1-1/4"	20	200	2000
13101	AF6	3/8"	#6 – 1/4" lag	No Screw	100	1000	5000
50470	AF6	3/8"	#6 – 1/4" lag	#10 x 1-1/2"	6	60	1200
50475	AF6	3/8"	#6 – 1/4" lag	#10 x 1-1/2"	20	200	2000
13102	AF8	1/2"	#8 – 5/16" lag	No Screw	100	1000	5000
50490	AF8	1/2"	#8 – 5/16" lag	#12 x 1-3/4"	6	60	1200
50500	AF8	1/2"	#8 – 5/16" lag	#12 x 1-3/4"	20	200	2000

* In bags only. SMS: Sheet Metal Screw



ALLIGATOR Anchors: No Flange						
Catalog No.	Style	Screw Size Range	Included Screw Size*	Box/ Bag (pcs.)	Inner Carton (pcs.)	Master Carton (pcs.)
13106	A5	#4 – 3/16" SMS	No Screw	200	2000	10000
13104	A6	#6 – 1/4" lag	No Screw	100	1000	5000
50460	A6	#6 – 1/4" lag	#10 x 1-1/2"	6	60	1200
13105	A8	#8 – 5/16" lag	No Screw	100	1000	5000
13107	A10	#10 – 3/8" lag	No Screw	50	500	2500
41084	A10	#10 – 3/8" lag	#14 x 2-1/4"	4	40	800

* In bags only. SMS: Sheet Metal Screw

For more information, please contact:

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