

TOGGLER® ANCHOR SYSTEM

Technical Bulletin



SNAPTOGGLE® HEAVY-DUTY HOLLOW-WALL ANCHORS

The latest generation of the ever-evolving TOGGLER hollow-wall anchor technology...

The SNAPTOGGLE anchor is a heavy-duty hollow wall anchor for use in walls, ceilings, or floors of materials such as gypsum board, drywall with a steel stud, concrete block, tile over drywall, etc. The anchor is pre-assembled and ready for immediate use. The ratcheting strap / locking cap assembly positions the one-piece zinc-plated (or stainless) steel anchoring channel flush against the rear of the wall. The cap slides down the straps to lock flush against the front of the wall. The straps on the outside of the wall are then easily and quickly snapped off by hand flush with the surface of the wall (no extra tools required). Holding is dependent only on a metal bolt to metal channel connection. *The SNAPTOGGLE anchor complies with all existing fire codes for critical applications.*

Benefits compared to wing toggles:

- Holds up to 2x the load
- Solid metal channel resists vibration & shock
- Pre-assembled and ready for immediate use
- Pre-installs without fixture or bolt
- Installs in a significantly smaller hole
- Automatically adjusts to thickness of wall, ceiling, or floor
- Does NOT spin—bolt installs with a screw gun
- Uses a shorter bolt—no need to carry a wing
- New plating is 7 times more corrosion-resistant
- Does NOT fall behind wall when bolt is removed; fixture can be removed and reinstalled as often as desired

TENSILE [lb]									
Anchor	UNC thread	Drill dia.	1/2" Drywall	5/8" Drywall	*1/2" with 25 gauge stud	*5/8" with 25 gauge stud	Concrete block	1/2" steel plate	Stainless in 1/2" steel ³
BA	3/16"-24	1/2"	238	356	412	462	802	918 ¹	1,193 ¹
BB	1/4"-20	1/2"	265	356	425	464	1,080	1,288 ²	1,735 ¹
BE	5/16"-18	3/4"	270	480	439	477	1,400	1,680	2,118
BC	3/8"-16	3/4"	275	576	466	488	1,745	1,692	2,523 ¹
BD	1/2"-13	3/4"	275	576	468	513	**2,038 ²	2,605	3,150

SHEAR [lb]				
Anchor	UNC thread	Drill dia.	1/2" Drywall	5/8" Drywall
BA	3/16"-24	1/2"	247	298
BB	1/4"-20	1/2"	241	324
BC	3/8"-16	3/4"	292	406

* Failure measured as breakage of drywall portion

** Failure of block

¹ Stainless steel bolts used

² Hardened bolts used

³ Stainless steel channel tested with stainless bolts in 1/2" steel plate

- Industry standards recommend 1/4 of ultimate test load.
- Holding strength for a SNAPTOGGLE heavy-duty hollow-wall anchor varies directly with the strength and condition of the substrate and the bolt size—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.

SNAPTOGGLE® HEAVY-DUTY HOLLOW-WALL ANCHORS

Specifications

Description — SNAPTOGGLE Heavy-Duty Hollow-Wall Anchors (Toggle Bolts)

Material — zinc-plated 1010 cold rolled steel (or 300 series stainless steel) metal channel, high-impact polystyrene straps and handle, translucent polypropylene copolymer cap

Screw specification — UNC-thread machine screw (bolt) to match thread in metal channel

Minimum screw length — thickness of wall or ceiling + thickness of item being fastened + 1/2"

Minimum clearance behind wall — 1 7/8"

Minimum drywall thickness — 3/8"

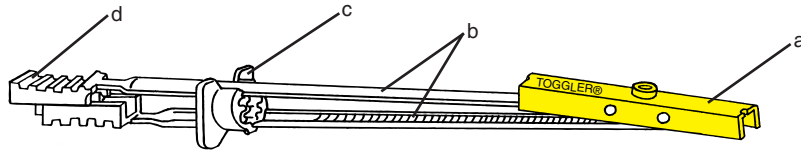
Maximum drywall thickness — 3 5/8" for BA & BB anchors
 2 1/2" for BC, BD & BE anchors
 9 1/2" for BAL & BBL anchors

Also available:

- metric-threaded channels [M5, M6, M8 & M10]
- RoHS-compliant channels
- stainless steel channels

The plastic straps and cap washer are positioning and retention elements only. They do not otherwise function as anchoring elements. Holding is dependent only on a metal bolt to metal channel connection. The SNAPTOGGLE anchor complies with all existing fire codes for critical applications.

- a = anchoring channel / zinc-plated cold rolled steel or 300 series stainless steel
 b = straps / high-impact polystyrene / locking ratchet
 c = cap / translucent polypropylene copolymer
 d = ergonomic handle / same as straps



Code	Bolt thread	Drill Diameter	Grip Range
BA	3/16"-24 (#10-24)	1/2"	3/8" - 3 5/8"
BB	1/4"-20	1/2"	3/8" - 3 5/8"
BE	5/16"-18	3/4"	3/8" - 2 1/2"
BC	3/8"-16	3/4"	3/8" - 2 1/2"
BD	1/2"-13	3/4"	3/8" - 2 1/2"
BAL*	3/16"-24 (#10-24)	1/2"	2" - 9 1/2"
BBL*	1/4"-20	1/2"	2" - 9 1/2"

The same product codes with an "S" at the end indicate stainless steel, e.g.,

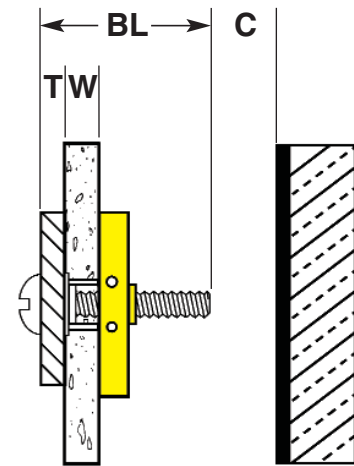
BB = 1/4"-20 thread in the zinc-plated channel

BBS = 1/4"-20 thread in a stainless steel channel

* Long straps (L) for roofing and for very thick walls or ceilings

$$BL = T + W + 1/2''$$

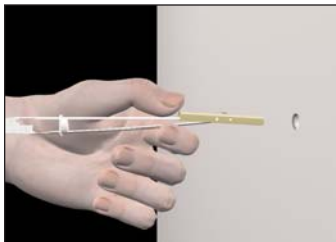
[For min. W & max. W., see chart at left]



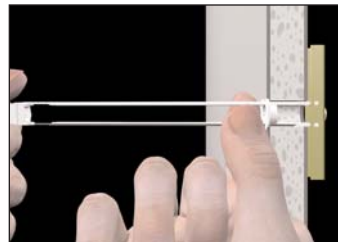
$$C = 1 7/8''$$

- Gently hand engage at least one thread of bolt with channel before using screw gun to avoid cross threading the bolt.
- For maximum shear holding, orient channels vertically to floor.
- Use hardened or stainless bolts for maximum weight load.
- Enlargement of specified insertion holes size will reduce anchor effectiveness.
- Remove anchor by removing bolt, inserting screwdriver and popping channel behind wall off plastic straps with a sharp blow.
- All SNAPTOGGLE anchors meet the requirements of Type V anchors in Federal Specification FF-B-588-D (superseded).
- All bolts and threaded rods used with SNAPTOGGLE anchors must meet ANSI or HR 3000 standards to ensure safety and effectiveness.

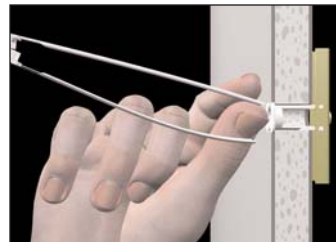
Installation Instructions



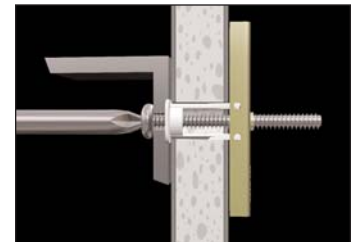
Drill appropriate size hole. Hold metal channel flat alongside plastic straps & slide channel through the hole. Minimum clearance behind wall: only 1 7/8".



Hold ends of straps together between thumb & forefinger and pull toward you until channel rests behind wall. Ratchet cap along straps with other hand until flange of cap is flush with wall.



Place thumb between straps at wall. Push thumb side to side, snapping off straps level with flange of cap.



Place item over flange. Insert bolt and tighten until snug against item, then stop. Use machine screw or bolt to match thread in metal channel.

SNAPTOGGLE® HEAVY-DUTY HOLLOW-WALL ANCHORS

Applications

- Flat panel TV's
- TV mounts
- Lighting fixtures
- Window treatments
- Marine applications
- Hand rails
- Grab bars
- ADA hardware
- Office furniture
- Heavy machinery
- Partitions
- Cabinets
- Shelving
- Solar panels
- Garage doors
- Sinks
- Heavy fans
- DSS antennas
- Reinstallations
- Roofs & decking

For maximum holding in

- Cinder block
- Concrete block
- Gypsum board
- Drywall
- Tile over drywall
- Plasterboard
- Composite panels
- Cement board
- Greenboard
- Plaster
- Stucco
- Fiberglass
- Plywood
- Steel plate
- Plastic
- Wood studs / beams

Benefits

- **Strong**—up to **2x the load** of an old-fashioned wing toggle
- Solid metal channel **resists vibration and shock**
 - bolt is centered in channel and positioned for precise installation
 - bolt threads never touch interior surface of hole and so can't saw through substrate
- **Save time**—at least **6 minutes** per anchor versus wing toggles
- Can use a screw gun—anchor does not spin
- **Save money**—turn a 2-person job into a 1-person job
- Use a **shorter bolt**—no need to carry a wing through the wall
- New, patented strap design with sturdier straps and smaller ratchet interval:
 - adjusts more precisely and **snaps off flush** to wall, ceiling, or floor
 - does **not break** prematurely
 - pushes aside insulation
- **Smallest installation hole** for each bolt size—
 - maintains integrity of wall, ceiling, or floor, **strengthening the anchoring**
 - ends the need to patch an oversized hole
[a 1/4" wing toggle requires a 3/4" diameter hole: **50% larger** than the 1/2" diameter hole used by the 1/4" SNAPTOGGLE anchor]
- New plating is **7x more corrosion-resistant** than B633-85 Type III/SC 1 government spec high quality zinc plating [350 hours to red rust in salt spray test versus only 48 hours for government spec]
- **Pre-installs without the bolt** to make handling of fixture easier
- **Reusable** in the same hole—remove the bolt without losing the anchor
- New **ergonomic design**—fingers grip straps more naturally and more easily with **no slipping**



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