

TOGGLER® ANCHOR SYSTEM

Technical Bulletin



TOGGLER® HOLLOW-WALL ANCHORS

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

Our third generation of TOGGLER hollow-wall anchors provide **vibration-proof anchoring of light to medium loads in hollow walls & ceilings** ... but also hold securely when they encounter an unexpected solid, such as a wooden stud, or when performing as wedge anchors in materials with thicknesses above their normal wall grip range.

New patented improvements in the original design have **increased holding strength and abuse resistance**. Holding arms have been thickened and strengthened without increasing insertion hole size, and major stress points have been significantly reinforced without increasing anchor size.

Use TOGGLER SNAPTOGGLE® toggle bolts for highest hollow-wall holding strength.

Benefits:

- **Strongest** of all plastic toggle anchors—reinforces the wall or ceiling & leads the load away from the hole
- **Vibration & shock proof**—won't damage walls or ceiling
- Can use a screw gun—anti-rotation fins **prevent spinning**
- **Greatest grip range** for each anchor (see inside)
- Accepts **greatest range of screw sizes** in each anchor
- **All install in only a small 5/16" hole**
- Pre-install **without the screw**
- Key-activated **positive locking** system
- Screw can be **removed and reinserted** in same anchor without loss of holding power
- **Corrosion-proof** when used with stainless steel screws
- **Nonmagnetic, nonconductive**

ULTIMATE TENSILE PULL-OUT VALUES [lb]

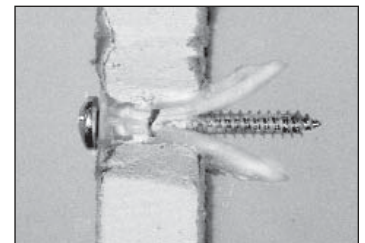
Anchor	Grip Range	Drill dia.	Screw size	Plywood	3/8" Drywall	1/2" Drywall	5/8" Drywall
TA®	1/8"-1/4"	5/16"	#8	1/4" 124	-	-	-
TB®	3/8"-1/2"	5/16"	#8	1/2" 175	97	143	102*
TC®	5/8"-3/4"	5/16"	#8	-	-	-	159

* #10 screw; anchor used as wedge anchor [not toggled fully open], since substrate is thicker than grip range

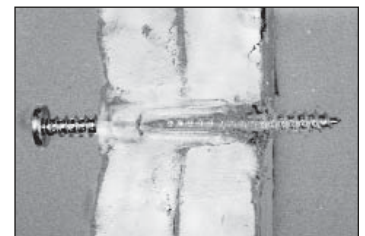
ULTIMATE SHEAR PULL-OUT VALUES [lb]

Anchor	Grip Range	Drill dia.	Screw size	Plywood	3/8" Drywall	1/2" Drywall	5/8" Drywall
TA®	1/8"-1/4"	5/16"	#8	1/4" 265	-	126	-
TB®	3/8"-1/2"	5/16"	#8	-	126	167	214*
TC®	5/8"-3/4"	5/16"	#8	-	-	-	237

* #10 screw; anchor used as wedge anchor [not toggled fully open], since substrate is thicker than grip range



In solid substrates (concrete, masonry, brick, etc.) or in drywall thicker than its grip range, the TOGGLER hollow-wall anchor holds securely as a wedge or expansion anchor



- Holding strength for a TOGGLER hollow-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.**

TOGGLER® HOLLOW-WALL ANCHORS

Specifications

Material — Specially formulated grade of **self-lubricating, translucent** polypropylene that blends into wall color & texture
Non-conductive (Dielectric constant $2.30 \times 10^6 \text{ Hz}$), allowing safe anchoring of electrical apparatus
Non-corrodible (safely used with stainless steel screws in corrosive environments)
Toughness with elasticity, even at temperature extremes in the range from **-20° F to 212° F**
 Low friction, self-lubricating — **facilitates screw insertion**

Screw specification — within each screw range, use any sheet metal screw or other screw with a sufficiently long thread [i.e., above the minimum screw thread length (TL) shown in the chart below]

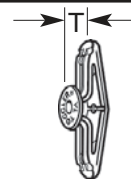
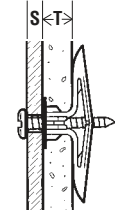
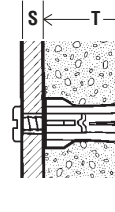
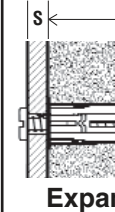
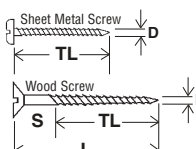

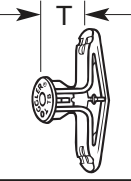
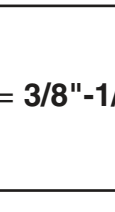
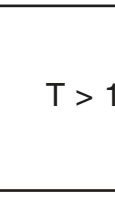
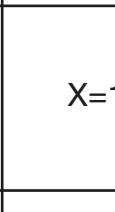
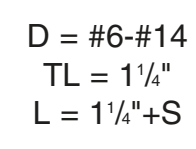
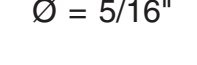
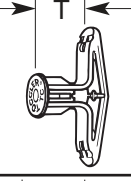
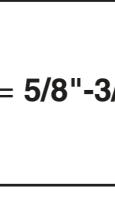
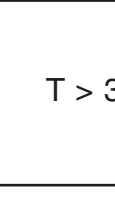
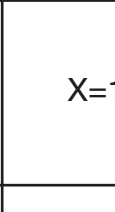
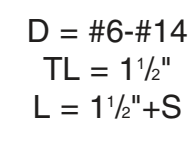
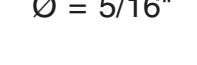
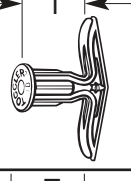
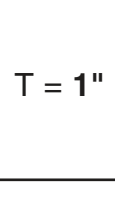
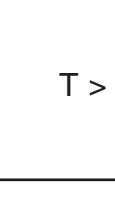
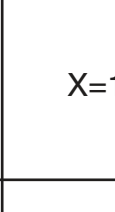
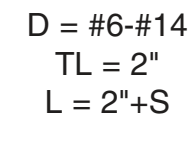
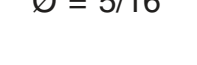
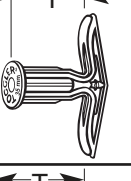
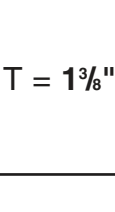
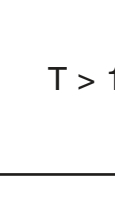
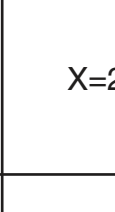
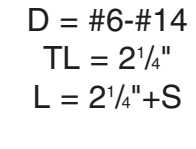
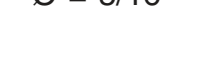

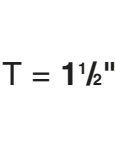
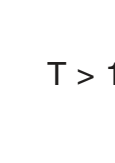
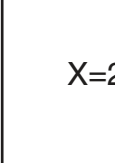
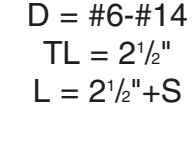

[NOTE: only the threaded (TL) portion of the screw should be in the anchor itself; any unthreaded shank (S) portion of the screw may be in the fixture or item being anchored, but not in the anchor]

Setting Keys — Use red [TK] setting key for setting TA, TB & TC anchors in hollow walls within their grip range.

Use black [TKB] setting key for setting TD, T35 & T39 anchors in hollow walls within their grip range.

Behind the wall clearance for operation — All anchors (except TA) = $3/4"$ • TA anchor = $1/2"$

Fed specs — Type IV anchor in Federal Specification FF-B-588D (superceded)

Size Selection chart	Fully Toggled	Wedge	Expansion Anchor	Screw size range	Drill size*
 <p>TA®</p>	 <p>$T = 1/8" - 1/4"$</p>	 <p>$T > 1/4"$</p>	 <p>$X = 1"$</p>	 <p>D = #8-#12 TL = 1" L = 1" + S</p>	 <p>Ø = 5/16"</p>
 <p>TB®</p>	 <p>$T = 3/8" - 1/2"$</p>	 <p>$T > 1/2"$</p>	 <p>$X = 1 1/4"$</p>	 <p>D = #6-#14 TL = 1 1/4" L = 1 1/4" + S</p>	 <p>Ø = 5/16"</p>
 <p>TC®</p>	 <p>$T = 5/8" - 3/4"$</p>	 <p>$T > 3/4"$</p>	 <p>$X = 1 1/2"$</p>	 <p>D = #6-#14 TL = 1 1/2" L = 1 1/2" + S</p>	 <p>Ø = 5/16"</p>
 <p>TD™</p>	 <p>$T = 1"$</p>	 <p>$T > 1"$</p>	 <p>$X = 1 7/8"$</p>	 <p>D = #6-#14 TL = 2" L = 2" + S</p>	 <p>Ø = 5/16"</p>
 <p>T35™</p>	 <p>$T = 1 3/8"$</p>	 <p>$T > 1 3/8"$</p>	 <p>$X = 2 1/4"$</p>	 <p>D = #6-#14 TL = 2 1/4" L = 2 1/4" + S</p>	 <p>Ø = 5/16"</p>
 <p>T39™</p>	 <p>$T = 1 1/2"$</p>	 <p>$T > 1 1/2"$</p>	 <p>$X = 2 1/2"$</p>	 <p>D = #6-#14 TL = 2 1/2" L = 2 1/2" + S</p>	 <p>Ø = 5/16"</p>

* In very hard materials, like ceramic tile, use 3/8" diameter drill.