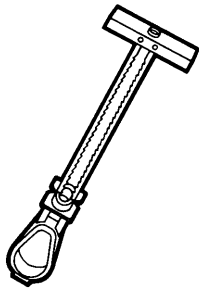
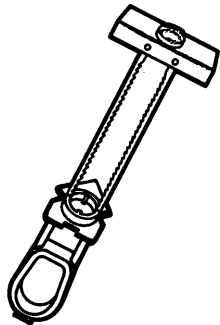


TOGGLER® brand toggle bolt anchors:

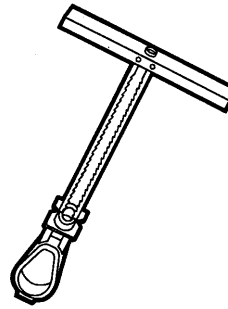
- ★ pre-install without fixture or screw
- ★ will not spin - bolt installs with screw gun
- ★ install in a smaller hole
- ★ automatically adjust to wall thickness
- ★ are significantly stronger than old-fashioned, ordinary toggle wings
- ★ use shorter bolt in every application
- ★ provide no catastrophic failure of anchor; have highest safety margin in industry
- ★ can be re-used after maintenance of fixture
- ★ do not damage wall
- ★ are resistant to vibrations and dynamic loading
- ★ Type V anchor in Federal Specification FF-B-588D
- ★ Approved for all U.S. government project use



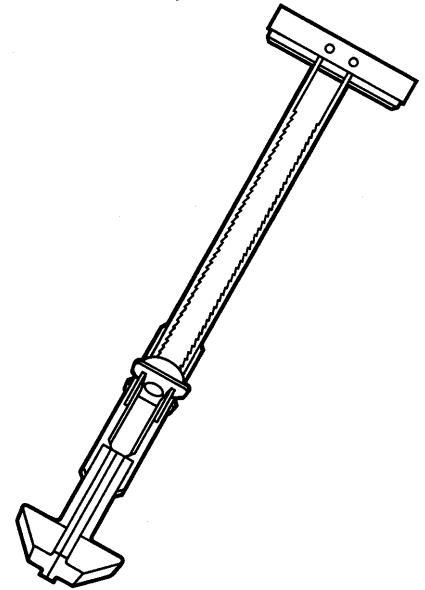
BA/BB/BM6
BAS/BBS/BM6S



BC/BD
BCS/BDS



Special
BBLC

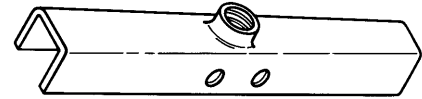
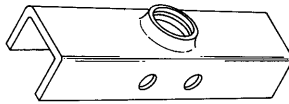
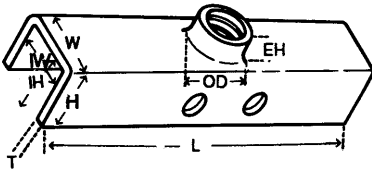


BAL/BBL/BM6L
BALS/BBLS/BM6LS

Mechanical Plastics Corp. (MPC) manufactures and markets a full line of professional TOGGLER® brand toggle bolt anchors, for wall thicknesses between 3/8" (9mm) to 9-1/2" (240mm), and bolt sizes from 3/16" to 1/2", including 6mm. Installation does not require a large hole; the 3/16", 1/4" and 6 mm toggles use a 1/2" (13mm) hole, and the 3/8" and 1/2" toggles use a 3/4" (19mm) hole. Anchors with 3-1/2" (89mm) channels (BBLC) are available on special order. The 3-1/2" anchors require 3-1/2" (89mm) clearance behind the wall. All others require only 1-7/8" (48mm) clearance.

AVAILABLE STOCK SIZES				
Bolt Size	Grip Range 3/8"-2 1/2"(9mm-64mm)		Grip Range 2"-9 1/2" (51mm-240mm)	
	Zinc Plated Steel	300 Series Stainless Steel	Zinc Plated Steel	300 Series Stainless Steel
3/16" - 24 UNC	No. BA	No. BAS	No. BAL	No. BALS
1/4" - 20 UNC	No. BB	No. BBS	No. BBL	No. BBLS
3/8" - 16 UNC	No. BC	No. BCS	---	---
1/2" - 13 UNC	No. BD	No. BDS	---	---
6mm	No. BM6	No. BM6S	No. BM6L	No. BM6LS

**DIMENSIONAL DATA
CHANNELS**



**BA/BB/BM6
BAS/BBS/BM6S
BAL/BALS/BBL/BBLS
BM6L, BM6LS**

**BC/BD
BCS/BDS**

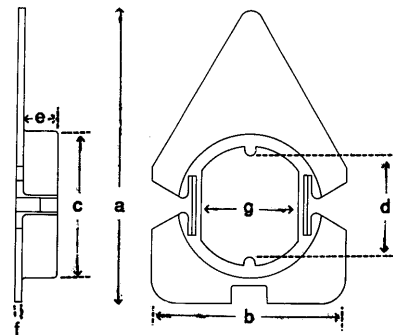
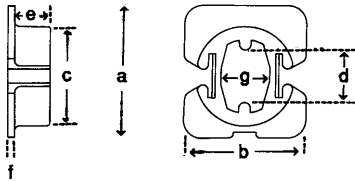
**BBLC
BBLCS**

- Channels - Zinc plated 1010 cold rolled steel; or 303 stainless steel
- Caps - Translucent polypropylene copolymer
- Legs - High Impact polystyrene

Dimensions in. (mm)	BA/BAS BAL/BALS	BB/BBS BBL/BBLS	BBLC/ BBLCS	BM6/BM6S BM6L/BM6LS	BC/BCS	BD/BDS
W	0.45(11.4)	0.45(11.4)	0.45(11.4)	0.45(11.4)	0.71(18)	0.71(18)
H	0.27 (6.9)	0.27 (6.9)	0.27 (6.9)	0.27 (6.9)	0.32 (8.1)	0.32 (8.1)
L	2.0 (51)	2.0 (51)	3.5 (89)	2.0 (51)	2.0 (51)	2.0(51)
T	0.05 (1.3)	0.05 (1.3)	0.05 (1.3)	0.05 (1.3)	0.06 (1.5)	0.06 (1.5)
Thread	*3/16 UNC	*1/4 UNC	*1/4 UNC	*6mm Metric	*3/8 UNC	*1/2 UNC
OD	0.23 (6)	0.30 (7.8)	0.30 (7.8)	0.27 (6.8)	0.45(11.4)	0.57(14)
EH	0.05 (1.3)	0.07 (1.8)	0.07 (1.8)	0.03 (0.8)	0.07 (1.8)	0.10 (2.5)
IW	0.34 (8.6)	0.34 (8.6)	0.34 (8.6)	0.34 (8.6)	0.57(14)	0.57(14)
IH	0.23(5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.28 (7)	0.28(7)
	* COARSE THREAD					

**BA, BB, BM6, BAL, BBL, BBLC
BAS, BBS, BM6S, BALS, BBLS, BBLCS
CAP WASHER**

**BC/BD/BCS/BDS
CAP WASHER**



Dimensions	in.	(mm)
a	0.68	(17.3)
b	0.62	(15.8)
c	0.50	(12.7)
d	0.29	(7.3)
e	0.19	(4.8)
f	0.03	(4.8)
g	0.25	(6.4)

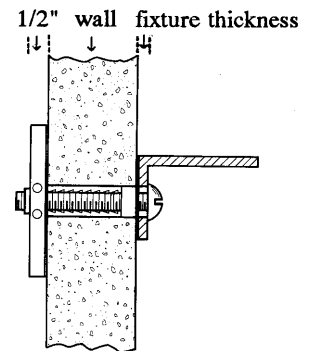
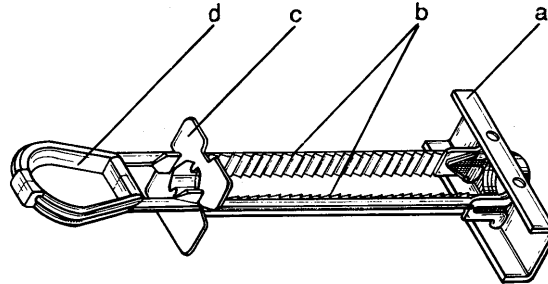
Dimensions	in.	(mm)
a	1.5	(38.1)
b	1.0	(25.4)
c	0.74	(18.7)
d	0.52	(13.2)
e	0.19	(4.8)
f	0.03	(0.8)
g	0.49	(12.4)

SPECIFICATIONS:

The TOGGLER® toggle bolt anchors operate uniquely. Each anchor has a strong one-piece steel (or stainless steel) anchoring channel^(a) pivoted on plastic positioning legs^(b); a movable locking plastic cap washer^(c); and a cross-connected handle^(d). The plastic legs are specially formulated polystyrene with high tensile strength to be strong during positioning of the anchoring channel, and with low shear strength at the ratchet notches to easily

break at the appropriate wall thickness within a range ($\pm .05"$ (1.3mm)). The legs have one-way ratcheting teeth cooperative with the cap washer, permitting movement of the cap to snugly, securely and squarely "capture" the wall between the anchoring channel and the cap. The plastic legs are easily snapped off at the required length to quickly complete installation.

- a = anchoring channel
- b = legs
- c = cap washer
- d = handle

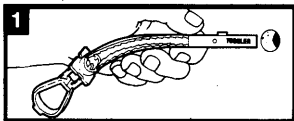


bolt length = 1/2" (13mm) + wall + fixture

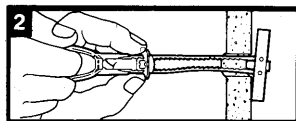
Pre-installation of the TOGGLER® toggle bolt anchors always allows use of significantly shorter bolts, since a bolt is not used to carry the anchor through and beyond the wall.

THE PLASTIC LEGS AND CAP WASHER ARE POSITIONING AND POSITION RETENTION ELEMENTS ONLY. THEY DO NOT OTHERWISE FUNCTION AS ANCHORING ELEMENTS. HOLDING IS DEPENDENT ONLY ON A METAL BOLT TO METAL CHANNEL CONNECTION. THE TOGGLER® BRAND TOGGLE BOLT ANCHOR COMPLIES WITH ALL EXISTING FIRE CODES FOR CRITICAL APPLICATIONS.

Installation instructions for 3/8 - 2 1/2" wall thickness anchor:



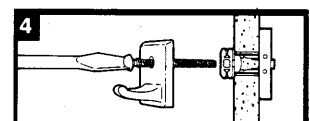
1 Drill appropriate sized hole. Hold metal channel flat alongside plastic straps and slide channel through hole.



2 With one hand, pull ring so metal channel rests flush behind wall, as you slide plastic cap along straps with other hand until flange of cap is flush with wall.



3 Place thumb between plastic straps. Push side to side snapping off straps at wall.



4 Insert bolt through item to be attached and tighten until flush with wall. Minimum clearance behind wall: 1 7/8" (3 1/2" for BBLC Toggle Bolt anchor).

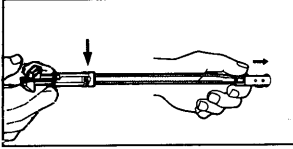
* For best grip for installation on short style toggle bolt anchors, compress handle with two fingers while pulling with third finger.

NOTE: DO NOT STRESS OR PULL LEGS AT AN ANGLE TO AVOID PREMATURE BREAKOFF .

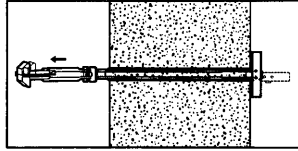
For thick walls, the legs are arranged as a patented sliding activating mechanism which ensures proper positioning for bolt engagement (even if the wall is up

to 9.5" (240mm) thick) when the handle ends are slid over one another, lining up their two ends. The anchor can be used through successive multiple hollows by inserting the channel on its side minimizing droop.

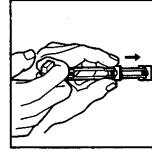
Installation instructions for 2 - 9 1/2" wall thickness anchor:



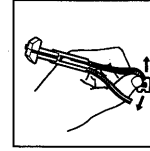
Drill 1/2" (13mm) hole. Grasp handle between two fingers. Make sure cap washer is at position shown, just before and not on ratcheting section. Push one section with thumb until metal channel is flat alongside plastic straps and slide channel through hole.



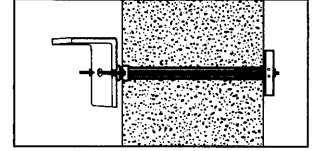
When metal channel has cleared the wall push both parts of handle ends into alignment with each other.



Pull handle gently so metal channel rests flush behind wall as you slide plastic cap along straps with other hand until flange of cap is flush and snug with wall.



Place thumb between plastic straps. Push side to side snapping off straps flush with cap.



Insert bolt through item to be attached and tighten until flush with wall. Minimum clearance behind wall: 1 7/8" (50mm).

ADDITIONAL USER INFORMATION:

- ★ Gently hand engage at least one thread of bolt with channel before using screw gun to avoid cross threading bolt.
- ★ For maximum shear holding, orient channels vertically to floor. Use hardened or stainless bolts for maximum weight load.
- ★ Enlargement of specified insertion hole 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 bolts and threaded rods used with TOGGLER® toggle bolt anchors must meet ANSI or HR 3000 standards to ensure safety and effectiveness.

NOTE: All TOGGLER® toggle bolt anchors are approved for government use as TYPE V anchors in Federal Specification FF-B-588-D. Special 4 inch channel TOGGLER® toggle bolt anchor approved in California for Fixed Equipment Anchorage #R-0105 January 23, 1990; it is the only anchor currently meeting the state of California's requirements.

PULL OUT VALUES

All figures in pounds (and kilograms). Tests are ultimate load, however, industry safety standards recommend 1/4 of the values for actual applications. Age and condition of substrate will cause tensile and shear values to vary.

INDEPENDENT LABORATORY RESULTS

TENSILE

Anchoring channel	1/2" dry wall	5/8" dry wall	*Double 5/8" dry wall	**5/8" with 25 gauge stud	*Double 1/2" dry wall	concrete block	1/2" steel plate
BA	238 (108)	356 (162)	555 (252)	464 (211)	---	714 (325) ¹	918 (417) ¹
BAS	---	---	---	---	---	---	1193 (542) ¹
BB	265 (120)	306 (139)	572 (260)	447 (203)	---	925 (420) ²	1283 (583) ²
BBS	---	---	---	---	---	---	1735 (789) ¹
BM6	229 (104)	---	568 (258)	468 (213)	461 (210)	733 (333)	870 (395)
BC	---	576 (262)	671 (305)	533 (242)	---	1167 (530) ²	1425 (648) ²
BCS	---	---	---	---	---	---	2523 (1147) ¹
BD	N/A	N/A	632 (287)	488 (222)	---	***2038 (926) ²	2392 (1087)
BDS	---	---	---	---	---	---	3150 (1432) ¹
BBLC	N/A	N/A	576 (262)	509 (231)	---	933 (424) ²	1250 (568) ²

* Failure measured as onset of gouging of drywall material

** Failure measured as breakage of drywall portion

*** Failure of block

¹ Stainless steel bolts used

² Hardened bolts used

SHEAR

Anchoring channel	1/2" drywall	5/8" dry wall	Double 1/2" dry wall	Double 5/8" dry wall
BA	247 (112)	---	---	---
BB	241 (110)	324 (147)	488 (222)	714 (325)
BM6	247 (112)	---	---	---
BC	292 (133)	406 (185)	540 (245)	806 (366)



TOGGLER ANCHOR SYSTEM

Div. of MECHANICAL PLASTICS CORP.

P.O. Box 554, Elmsford, New York 10523 USA

TOLL-FREE 800-544-2552 914-347-2727 FAX: 914-347-3634

TOGGLE[®] toggle bolt anchors are patented under one or more of U.S. Patent Nos. 4,294,156; 4,650,386, and foreign counterparts thereof and of US Patent No. 4,075,924. Other patents pending. TOGGLER and typeface, symbol and anchor shape are registered trademarks of MPC. made in U.S.A. © 1992 MPC