## **GENERAL INFORMATION**

# **STRAP-TOGGLE™**

Hollow Wall Anchor

### PRODUCT DESCRIPTION

The Strap-Toggle is a heavy duty hollow wall anchor designed for use in base materials such as plaster, wallboard, concrete block, plywood or hollow tile. The Strap-Toggle is a pre-assembled anchor consisting of a carbon steel wing and a locking cap/ratchet leg assembly molded from engineered plastic. It is available in 3/16", 1/4", 3/8" and 1/2" sizes. When compared to traditional toggles, this unique anchor can be installed in a smaller hole and does not require a fixture or screw to set it. The anchor can be easily adjusted to accommodate a wall thickness of up to 2 1/2" while using a shorter bolt. The bolt and fixture may be installed and removed as often as necessary after installation.

### **FEATURES AND BENEFITS**

- + Adjustable to accommodate various wall thickness up to 2-1/2"
- + Allows for fixture and bolt/screw removal and re-anchoring
- + Federal GSA Specification Meets the descriptive requirements of FF-B-588D, Type V for a captive toggle (superseded)

#### MATERIAL SPECIFICATIONS

Anchor Component	Component Material
Wing	AISI 1010 Carbon Steel
Zinc Plating	ASTM B633, SC1, Type III, (Fe/Zn 5)
Anchor Body	Engineered Plastic

### **INSTALLATION SPECIFICATIONS**

Dimension	Anchor Diameter, d					
Dimension	3/16"	1/4"	3/8"	1/2"		
Drill Bit Size (in.)	*1/2	*1/2	**3/4"	**3/4"		
Cap Size (in.)	5/8	5/8	1	1		
Grip Range (in.)	2-1/2	2-1/2	2-1/2	2-1/2		
Thread Size (UNC)	3/16 - 24	1/4 - 20	3/8 - 16	1/2 - 13		
Max. Tightening Torque (ft-lbs)	5	5	5	5		
Minimum Clearance (in.)	1-7/8	1-7/8	1-7/8	1-7/8		

\*9/16" diameter bit may be required for very dense materials.

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STRAP-TOGGLE

## **ANCHOR MATERIALS**

- Engineered Plastic
- · Carbon Steel (Wing)

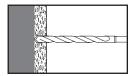
#### **ANCHOR SIZE RANGE (TYP.)**

• 3/16" to 1/2" diameter

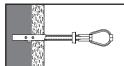
### **SUITABLE BASE MATERIALS**

- Wallboard
- Hollow Concrete Masonry

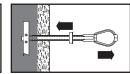
# **INSTALLATION GUIDELINES**



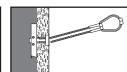
Drill the proper size hole into the cavity of the hollow base material.



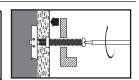
Position the wing parallel to the plastic legs and slide the anchor through the drilled hole into the hollow cavity.



Pull the wing firmly against the inside wall of the hollow material using the ring, then slide the plastic cap forward until the flange is seated flush against the work surface.



Place your thumb between the plastic straps and snap the straps off.



Position the fixture. Insert the bolt through the fixture and tighten. The minimum bolt length should be at least 1/2" longer than the combined wall and fixture.

<sup>\*\*13/16&</sup>quot; diameter bit may be required for very dense materials



## **PERFORMANCE DATA**

## **Ultimate Load Capacities for Strap-Toggle in Wallboard**<sup>1</sup>

Anchor	3/8" Wallboard		1/2" Wallboard		5/8" Wallboard		3/4" Wallboard	
Diameter	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
in.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
(mm)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
3/16	120	240	130	285	195	380	205	440
(4.8)	(0.5)	(1.1)	(0.6)	(1.3)	(0.9)	(1.7)	(0.9)	(2.0)
1/4	130	270	145	295	210	420	215	470
(6.4)	(0.6)	(1.2)	(0.7)	(1.3)	(0.9)	(1.9)	(1.0)	(2.1)
3/8	135	275	150	300	220	420	230	475
(9.5)	(0.6)	(1.2)	(0.7)	(1.4)	(1.0)	(1.9)	(1.0)	(2.1)
1/2	140	290	150	355	220	430	230	485
(12.7)	(0.6)	(1.3)	(0.7)	(1.6)	(1.0)	(1.9)	(1.0)	(2.2)

<sup>1.</sup> Ultimate load capacities are provided for reference and must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working loads.

## Allowable Load Capacities for Strap-Toggle in Wallboard

Anchor	3/8" Wallboard		1/2" Wallboard		5/8" Wallboard		3/4" Wallboard	
Diameter	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
in.	lbs.	lbs.	lbs.	Ibs.	lbs.	lbs.	lbs.	Ibs.
(mm)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
3/16	30	60	35	70	50	95	50	110
(4.8)	(0.1)	(0.3)	(0.2)	(0.3)	(0.2)	(0.4)	(0.2)	(0.5)
1/4	35	70	35	75	55	105	55	120
(6.4)	(0.2)	(0.3)	(0.2)	(0.3)	(0.2)	(0.5)	(0.2)	(0.5)
3/8	35	70	40	75	55	105	60	120
(9.5)	(0.2)	(0.3)	(0.2)	(0.3)	(0.2)	(0.5)	(0.3)	(0.5)
1/2	35	75	40	90	55	110	60	120
(12.7)	(0.2)	(0.3)	(0.2)	(0.4)	(0.2)	(0.5)	(0.3)	(0.5)
Allowable load capacities listed are calculated using an applied safety factor of 4.0.								

Ultimate and Allowable Load Capacities for Strap-Toggle in Hollow Concrete Masonry<sup>1,2</sup>

			Drill f'm ≥ 1,500 psi (10.4 MPa)				
Anchor Drill Bit Diameter Diameter in. in. (mm) (mm)	Drill Bit Diameter	Ultima	te Load	Allowable Load			
	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)			
3/16	1/2	1,080	740	215	150		
(4.8)	(12.7)	(4.9)	(3.3)	(1.0)	(0.7)		
1/4	1/2	1,355	1,420	270	285		
(6.4)	(12.7)	(6.1)	(6.4)	(1.2)	(1.3)		
3/8	3/4	1,435	2,330	285	465		
(9.5)	(19.1)	(6.5)	(10.5)	(1.3)	(2.1)		
1/2	3/4	1,720	2,980	345	595		
(12.7)	(19.1)	(7.7)	(13.4)	(1.6)	(2.7)		

<sup>1.</sup> Tabulated load values are for anchors installed in minimum 6-inch wide, Grade N, Type II, medium and normal-weight concrete masonry units. Mortar must be minimum Type N.

## ORDERING INFORMATION

## **Strap-Toggle (Not packaged with screws)**

Cat. No.	Anchor Size	Drill Diameter	Wall Thickness	Box	Carton		
4052	3/16" x 4	1/2"	3/8" - 2-1/2"	50	300		
4054	1/4" x 4-1/2"	1/2"	3/8" - 2-1/2"	50	300		
4056	3/8" x 4"	3/4"	3/8" - 2-1/2"	25	150		
4058	1/2" x 4	3/4"	3/8" - 2-1/2"	25	150		



<sup>2.</sup> Allowable loads are based on average ultimate values using a safety factor of 5.0.