

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 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.

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- Federal GSA Specification – Meets the descriptive requirements of FF-B-588D, Type V for a captive toggle (superseded)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
Plating	ASTM B633, SC1, Type III, (Fe/Zn 5)
Anchor Body	Engineered Plastic

INSTALLATION SPECIFICATIONS

Dimension	Anchor Diameter, <i>d</i>			
	3/16"	1/4"	3/8"	1/2"
ANSI Drill Bit Size, <i>d_{bit}</i> (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, <i>T_{max}</i> , (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.
 ** 13/16" diameter bit may be required for very dense materials.

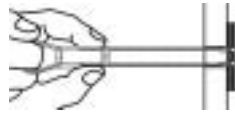
Installation Guidelines



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.

SECTION CONTENTS Page No.

General Information	283
Material Specifications	283
Installation Specifications	283
Performance Data	284
Ordering Information	284



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

PERFORMANCE DATA

Ultimate Load Capacities for Strap-Toggle in Wallboard¹

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

1. The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 4.0 or greater to determine the allowable working load.

Allowable Load Capacities for Strap-Toggle in Wallboard¹

Anchor Diameter <i>d</i> in. (mm)	3/8" Wallboard		1/2" Wallboard		5/8" Wallboard		3/4" Wallboard	
	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
3/16 (4.8)	30 (0.1)	60 (0.3)	35 (0.2)	70 (0.3)	50 (0.2)	95 (0.4)	50 (0.2)	110 (0.5)
1/4 (6.4)	35 (0.2)	70 (0.3)	35 (0.2)	75 (0.3)	55 (0.2)	105 (0.5)	55 (0.2)	120 (0.5)
3/8 (9.5)	35 (0.2)	70 (0.3)	40 (0.2)	75 (0.3)	55 (0.2)	105 (0.5)	60 (0.3)	120 (0.5)
1/2 (12.7)	35 (0.2)	75 (0.3)	40 (0.2)	90 (0.4)	55 (0.2)	110 (0.5)	60 (0.3)	120 (0.5)

1. 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^{1,2}

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

1. 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.

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

ORDERING INFORMATION

Strap-Toggle (Not packaged with screws)

Cat. No.	Anchor Size	Drill Diameter	Wall Thickness	Std. Box	Std. Carton	Wt./100
4052	3/16" x 4"	1/2"	3/8" - 2 1/2"	50	300	3 1/2
4054	1/4" x 4"	1/2"	3/8" - 2 1/2"	50	300	3 1/2
4056	3/8" x 4"	3/4"	3/8" - 2 1/2"	25	150	5
4058	1/2" x 4"	3/4"	3/8" - 2 1/2"	25	150	5



WALL ANCHORS