

Tapcon®
 Concrete and
 Masonry Anchors

THE ORIGINAL
Tapcon®



Blue Climaseal™



410 Stainless Steel



CORROSION RESISTANCE

Kesternich Results (DIN 40018 2.0L)

30 Cycles - 10% or less rust

Salt Spray Results (ASTM B117)

720 Hrs - 10% or less rust

DESCRIPTION/SUGGESTED SPECIFICATIONS

Tapcon Anchors —

SPECIFIED FOR ANCHORAGE INTO CONCRETE, BRICK OR BLOCK



The “original masonry” anchor that cuts its own threads into concrete, brick, or block. Maximum performance is achieved because the Tapcon Anchor, the Condrive Installation Tool, and the carbide-tipped Tapcon Drill Bits are designed to work as a system. It is essential to use the Condrive tool and the correct drill bit to assure consistent anchor performance.

ADVANTAGES

- Works in all masonry base materials.
- Fast and easy—3 anchors per minute.
- No hole spotting or inserts required.
- Removable.
- Slotted hex and phillips flat head styles.
- Extended corrosion protection—Blue Climaseal™.
- Available in 410 Stainless Steel.

Tapcon Anchors



Blue Climaseal™ provides extended corrosion protection

Available in 410 Stainless Steel (see photo on left)

Hex Head style on Tapcon Anchors is available for majority of fixture anchoring needs

Phillips Flat Head style is available when flush seating is necessary in countersink applications

Advanced Threadform cuts into concrete and masonry for reduced installation torque and increased pullout performance

Lengths of Tapcon Anchors range from 1-1/4" to 4" in 3/16" and up to 6" in 1/4" diameters.

Nail-Type Point guides the anchor into the pre-drilled hole. Excellent for wood to concrete applications

Tapcon® is a registered trademark of Buildex, a division of Illinois Tool Works, Inc.

Limitations: Not recommend for installation by impact drivers. Contact DMI for MSDS information

Sales are done through DMI registered distributor network only.

Please contact 855-800-8878 to find a registered distributor or email distributors@directmetalsinc.com



APPLICATIONS



The Tapcon Anchor is especially well suited for window and door frames because it performs well in block, is available in a flat head style, and is fast to install.

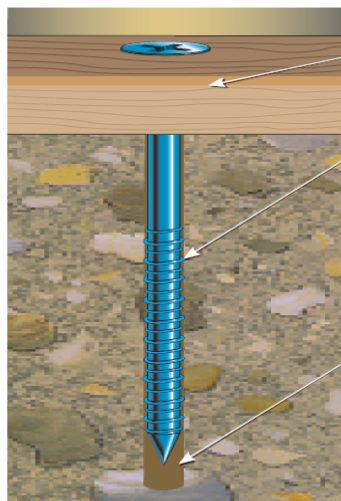


Many horizontal or "wall" applications are attached with Tapcon Anchor because it is removable and works well in block and brick.



The picture shows the Condrive 1000 Installation Kit in action. The kit makes for fast and easy change over from drill bit to driver and controls the driving torque to prevent thread stripping and head snapping in hard base materials.

FEATURES



Fixture Thickness—determine the fixture thickness to be anchored

Anchor Embedment—with a minimum recommended embedment of 1", the correct Tapcon anchor choice can be made. Hole depth must be a minimum 1/4" deeper than the anchor embedment to allow for displaced material

Hole Diameter—proper hole diameter is very important to insure consistent performance and maximum pullout strength. 3/16" anchors require 5/32" diameter bits, and 1/4" anchors require 3/16" diameter bits

APPROVAL/LISTINGS

Blue Climaseal™

ICC Evaluation Service, Inc. – ESR-1671
 ICC Evaluation Service, Inc. – ESR-2202
 Miami-Dade County – NOA #12-0816.06
 Florida Building Code

410 Stainless Steel

Miami-Dade County – NOA #12-0816.06
 Florida Building Code

For the most current approvals/listings visit: www.itw-redhead.com

INSTALLATION STEPS

Read installation instructions before using!



WARNING:

If there are any questions concerning proper installation, applications or appropriate use of this product, please call our Technical Services Department at 1-800-848-5611. Failure to follow these instructions can result in serious personal injury.

1. Select proper fastener – diameter / head style / length.
 - a) Use selection chart to choose proper length.
2. Drill Hole – use selection chart to determine drill bit length and depth of hole.
 - a) Choose appropriate drill of Tapcon Anchor.
 - b) Drill hole minimum 1/4" deeper than Tapcon Anchor to be embedded.

Minimum anchor embedment: 1"

Maximum anchor embedment: 1-3/4"

3. Drive Anchor.



WARNING:

Failure to wear safety glasses with side shields can result in serious personal injury. Always wear ANSI compliant eye protection (ANSI Z87.1-2003).



WARNING:

Using the wrong size drill bit will affect performance values and may cause failure.

Head Styles

3/16" diameter has a 1/4" slotted hex washer head (HWH)

1/4" diameter has a 5/16" slotted hex washer head (HWH)



3/16" diameter uses a #2 phillips flat head (PFH)

1/4" diameter uses a #3 phillips flat head (PFH)



Limitations: Not recommend for installation by impact drivers.

Contact DMI for MSDS information

Sales are done through DMI registered distributor network only please contact 855-800-8878 to find a registered distributor or email distributors@directmetalsinc.com



PERFORMANCE TABLE

Tapcon® Anchors

Ultimate Tension and Shear Values (Lbs/kN) in Concrete

ANCHOR DIA. In. (mm)	MIN. DEPTH OF EMBEDMENT In. (mm)	f'c = 2000 PSI (13.8 MPa)		f'c = 3000 PSI (20.7 MPa)		f'c = 4000 PSI (27.6 MPa)		f'c = 5000 PSI (34.5 MPa)	
		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)	1 (25.4)	600 (2.7)	720 (3.2)	625 (2.8)	720 (3.2)	650 (2.9)	720 (3.2)	800 (3.6)	860 (3.8)
	1-1/4 (31.8)	845 (3.7)	720 (3.2)	858 (3.8)	720 (3.2)	870 (3.9)	720 (3.2)	1,010 (4.5)	860 (3.8)
	1-1/2 (38.1)	1,090 (4.8)	860 (3.8)	1,090 (4.8)	860 (3.8)	1,090 (4.8)	860 (3.8)	1,220 (5.4)	860 (3.8)
	1-3/4 (44.5)	1,450 (6.5)	870 (3.9)	1,455 (6.5)	870 (3.9)	1,460 (6.5)	990 (4.4)	1,730 (7.7)	990 (4.4)
1/4 (6.4)	1 (25.4)	750 (3.3)	900 (4.0)	775 (3.4)	900 (4.0)	800 (3.6)	1,360 (6.1)	950 (4.2)	1,440 (6.4)
	1-1/4 (31.8)	1,050 (4.7)	900 (4.0)	1,160 (5.2)	900 (4.0)	1,270 (5.6)	1,360 (6.1)	1,515 (6.7)	1,440 (6.4)
	1-1/2 (38.1)	1,380 (6.1)	1,200 (5.3)	1,600 (7.2)	1,200 (5.3)	1,820 (8.1)	1,380 (6.1)	2,170 (9.7)	1,670 (7.4)
	1-3/4 (44.5)	2,020 (9.0)	1,670 (7.4)	2,200 (9.8)	1,670 (7.4)	2,380 (10.6)	1,670 (7.4)	2,770 (12.3)	1,670 (7.4)

Safe working loads for single installation under static loading should not exceed 25% of the ultimate load capacity.

PERFORMANCE TABLES

Tapcon® Anchors

Ultimate Tension and Shear Values (Lbs/kN) in Hollow Block

ANCHOR DIA. In. (mm)	ANCHOR EMBEDMENT In. (mm)	LIGHTWEIGHT BLOCK		MEDIUM WEIGHT BLOCK	
		TENSION Lbs. (kN)	SHEAR Lbs. (kN)	TENSION Lbs. (kN)	SHEAR Lbs. (kN)
3/16 (4.8)	1 (25.4)	220 (1.0)	400 (1.8)	340 (1.5)	730 (3.2)
1/4 (6.4)	1 (25.4)	250 (1.1)	620 (2.8)	500 (2.2)	1,000 (4.4)

Safe working loads for single installation under static loading should not exceed 25% of the ultimate load capacity.

NOTE: 3/16" Tapcon requires 5/32" bit, 1/4" Tapcon requires 3/16" bit.

Tapcon® Anchors

Allowable Edge and Spacing Distances

PARAMETER	ANCHOR DIA. In. (mm)	NORMAL WEIGHT CONCRETE			CONCRETE MASONRY UNITS (CMU)		
		FULL CAPACITY (Critical Distance Inches)	REDUCED CAPACITY (Minimal Distance Inches)	LOAD REDUCTION FACTOR	FULL CAPACITY (Critical Distance Inches)	REDUCED CAPACITY (Minimal Distance Inches)	LOAD REDUCTION FACTOR
Spacing Between Anchors - Tension	3/16	3	1-1/2	0.73	3	1-1/2	1.00
	1/4	4	2	0.66	4	2	0.84
Spacing Between Anchors - Shear	3/16	3	1-1/2	0.83	3	1-1/2	1.00
	1/4	4	2	0.82	4	2	0.81
Edge Distance - Tension	3/16	1-7/8	1	0.83	4	2	0.91
	1/4	2-1/2	1-1/4	0.82	4	2	0.88
Edge Distance -Shear	3/16	2-1/4	1-1/8	0.70	4	2	0.93
	1/4	3	1-1/2	0.59	4	2	0.80

For SI: 1 inch = 25.4 mm

Limitations: Not recommend for installation by impact drivers. Contact DMI for MSDS information

Sales are done through DMI registered distributor network only please contact 855-800-8878 to find a registered distributor or email distributors@directmetalsinc.com



STAINLESS STEEL TAPCON™, 410 SS MASONRY SCREW HEX HEAD

Same uses as our standard blue coated steel tapcons, except these Tapcons are made of 410 stainless steel with a silver longlife corrosion resistant climaseal finish. A stainless steel masonry anchor that cuts threads into concrete, brick or hollow block. Popular uses include: Securing exterior fixtures, (including aluminum) to concrete, masonry walls and flooring. Miami Dade Approved.



Sizes	Qty/Box	Qty/Ctn	Part#
1/4" x 1-1/4"	100	500	DMIT3367907
1/4" x 1-3/4"	100	500	DMIT3368907
1/4" x 2-1/4"	100	500	DMIT3369907
1/4" x 2-3/4"	100	500	DMIT3370907
1/4" x 3-1/4"	100	500	DMIT3371907
1/4" x 3-3/4"	100	500	DMIT3372907
1/4" x 4"	100	500	DMIT3459907
1/4" x 5"	100	500	DMIT3460907
1/4" x 6"	100	100	DMIT3461907

Removable, slotted hex head with extended corrosion protection from the 410 SS and Silver Climaseal coating.

Part #'s above come with one drill bit per box, also available in bulk packaging. Miami Dade Approved.

STAINLESS STEEL TAPCON™, 410 SS MASONRY SCREW PFH HEAD

Same uses as our standard blue Phillips counter sink head Tapcons, except these Tapcons are made of 410 stainless steel with a silver longlife corrosion resistant climaseal finish. A stainless steel masonry anchor that cuts threads into concrete, brick or hollow block. Popular uses include: Wood headers and furring strips to masonry, HVAC strapping to masonry, plywood backer boards to masonry, and exterior insulation systems to masonry.



Sizes	Qty/Box	Qty/Ctn	Part#
3/16" x 1-1/4"	100	500	DMIT3434907
3/16" x 1-3/4"	100	500	DMIT3418907
3/16" x 2-1/4"	100	500	DMIT3419907
3/16" x 2-3/4"	100	500	DMIT3420907
3/16" x 3-1/4"	100	500	DMIT3421907
3/16" x 3-3/4"	100	500	DMIT3422907
1/4" x 1-1/4"	100	500	DMIT3373907
1/4" x 1-3/4"	100	500	DMIT3374907
1/4" x 2-1/4"	100	500	DMIT3375907
1/4" x 2-3/4"	100	500	DMIT3376907
1/4" x 3-1/4"	100	500	DMIT3377907
1/4" x 3-3/4"	100	500	DMIT3378907

Removable, Phillips flat head with extended corrosion protection from the 410 SS and Silver Climaseal coating. Miami Dade Approved.

Part #'s adjacent come with one drill bit per box, also available in bulk packaging.

Limitations: Not recommend for installation by impact drivers. Contact DMI for MSDS information

Sales are done through DMI registered distributor network only please contact 855-800-8878 to find a registered distributor or email distributors@directmetalsinc.com