

Tapcon® Concrete and Masonry 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.

Now available in 410 stainless steel.


APPROVALS/LISTINGS


ICC Evaluation Service, Inc. – #ESR-1671

ICC Evaluation Service, Inc. – #ESR-2202

Miami-Dade County – #07-0315.03

Florida Building Code





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

Climaseal® Coating is standard on all Tapcon anchors to provide extended corrosion resistance


Now available in 410 Stainless Steel

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

Advanced Threadform cuts into masonry materials for greater pullout values

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



INSTALLATION STEPS

Read instructions before using (installation)!



WARNING:

If there are any questions concerning proper installation, applications or appropriate use of this product, please call our Technical Services Department at 1-800-899-7890. 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 bit based upon diameter of Tapcon Anchor.**
 - b) **Drill hole minimum 7" 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)



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 TABLE

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.

PERFORMANCE TABLE

Tapcon Anchors

Allowable Edge and Spacing Distances

PARAMETER	ANCHOR DIA. Inch	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	0.71	4	2	0.91
	1/4	2-1/2	1-1/4	0.78	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