

# Tapcon® Maxi-Set Anchors



White UltraShield    UltraShield

## APPLICATIONS



Shutters - protective and decorative  
Screened porch and pool enclosures.  
Various sheet metal flashings.



Decorative wrought iron.  
Wood nailers and plywood attachment.

## DESCRIPTION/SUGGESTED SPECIFICATIONS

FORTAPCON APPLICATIONS THAT REQUIRE MORE ANCHOR BEARING SURFACE.



## ADVANTAGES

- Same reliable performance and speed of installation as regular Tapcon.
- Large 5/8" diameter flange provides more bearing surface and increases pullover resistance. High 5/16" hex head adds driving stability.
- Compatible with DrivTru™ socket system. Improves installation. Protects paint finish.
- UltraShield™ and White UltraShield™ long-life finish deliver excellent corrosion resistance.

## CORROSION RESISTANCE

Salt Spray Test (ASTM B117)	UltraShield	White UltraShield
	1100 Hrs 10% or less rust	1500 Hrs NO RED RUST

## APPROVAL/LISTINGS

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

For the most current approvals/listings visit: [www.itw-redhead.com](http://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 ¼" deeper than Tapcon Anchor to be embedded.  
Minimum anchor embedment: 1"  
Maximum anchor embedment: 1-3/4"
3. **Drive anchor using 5/16" socket.**



**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.

## SELECTION CHART

### Tapcon® Maxi-Set Anchors

Diameter.....1/4" Thread Form..... Advanced Threadform Technology™  
 Point Type.....Nail Finish.....UltraShield™ or \*White UltraShield™  
 Head Style.....5/16" across flats hex with 5/8" diameter flange.

### Tapcon® SDS Bits

PART NUMBER	DESCRIPTION
3311910	7" (SDS Rotohammer Bits for use with 3/16" Tapcon)
7901060	5" (SDS Rotohammer Bits for use with 1/4" Tapcon)
3101910	7" (SDS Rotohammer Bits for use with 1/4" Tapcon)

RECOMMENDED TAPCON LENGTH In. (mm)	PART NO. 1/4" HEX HEAD	FINISH	BIT LENGTH In. (mm)	STRAIGHT SHANK BITS FOR 1/4" TAPCON PART NO.
1-3/4 (44.5)	3294000	Ultra Shield	3-1/2 (88.9)	3098910
1-3/4 (44.5)	3383100	White Ultra Shield	3-1/2 (88.9)	3098910
2-1/4 (57.2)	3384100	White Ultra Shield	4-1/2 (114.3)	3099910
3-1/4 (82.6)	3409100	White Ultra Shield	5-1/2 (139.7)	3100910

NOTE: 2-3/4" and 3-1/4" lengths are special orders. Contact customer service for lead-times.  
 Maxi-Sets are packed 1,000 pieces per master carton except 3409100 is packed 750 pieces.

## PERFORMANCE TABLES

### Tapcon® Anchors

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

ANCHOR DIA. In. (mm)	MIN. DEPTH OF EMBEDMENT In. (mm)	f <sub>c</sub> = 2000 PSI (13.8 MPa)		f <sub>c</sub> = 3000 PSI (20.7 MPa)		f <sub>c</sub> = 4000 PSI (27.6 MPa)		f <sub>c</sub> = 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)
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. Divide by 4

### 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)
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. Divide by 4.

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	1/4	4	2	0.66	4	2	0.84
Spacing Between Anchors - Shear	1/4	4	2	0.82	4	2	0.81
Edge Distance - Tension	1/4	2-1/2	1-1/4	0.82	4	2	0.88
Edge Distance - Shear	1/4	3	1-1/2	0.59	4	2	0.80

For SI: 1 inch = 25.4 mm