

# Tapcon® Maxi-Set Anchors



White UltraShield    UltraShield

## DESCRIPTION/SUGGESTED SPECIFICATIONS

FOR TAPCON APPLICATIONS THAT REQUIRE MORE ANCHOR BEARING SURFACE.



## ADVANTAGES

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

## CORROSION RESISTANCE

Salt Spray Test (ASTM B117)	UltraShield	White UltraShield
	1100 Hrs 10% or less red rust	1500 Hrs 10% or less red rust

## APPROVAL/LISTINGS

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

For the most current approvals/listings visit: [www.itwredhead.com](http://www.itwredhead.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) Use 3/16" diameter Tapcon bit.
  - 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 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.

## APPLICATIONS



Shutters - protective and decorative

Screened porch and pool enclosures.

Various sheet metal flashings.



Decorative wrought iron.

Wood nailers and plywood attachment.

## 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" cross flats hex with 5/8" diameter flange.

RECOMMENDED TAPCON LENGTH		PART NO. 1/4" HEX HEAD	FINISH	BIT LENGTH		STRAIGHT SHANK BITS FOR 1/4" TAPCON PART NO.
in.	(mm)			in.	(mm)	
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

Maxi-Sets are packed 1,000 pieces per master carton except 3409100 is packed 750 pieces.

## SELECTION CHART

### Tapcon SDS Bits

PART NO.	DESCRIPTION
3311910	7" (SDS Rotohammer Bits for use with 3/16" Tapcon)
7901060	5" (SDS Rotohammer Bits for use with 1/4" Tapcon)

## PERFORMANCE TABLE

### Tapcon® Maxi-Set Anchors

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

ANCHOR DIAMETER 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		SHEAR		TENSION		SHEAR		TENSION		SHEAR		TENSION		SHEAR		
		lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	
1/4	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)

Allowable working loads for the single installation under static loading should not exceed 25% capacity of the Ultimate Load. To calculate the Allowable Load, divide the Ultimate Load by 4.

## PERFORMANCE TABLE

### Tapcon® Maxi-Set Anchors

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

ANCHOR DIAMETER in.   (mm)		ANCHOR EMBEDMENT in.   (mm)		LIGHTWEIGHT BLOCK				MEDIUM WEIGHT BLOCK			
				TENSION		SHEAR		TENSION		SHEAR	
lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)	lbs.	(kN)
1/4	(6.4)	1	(25.4)	250	(1.1)	620	(2.8)	500	(2.2)	1,000	(4.4)

Allowable working loads for the single installation under static loading should not exceed 25% capacity of the Ultimate Load. To calculate the Allowable Load, divide the Ultimate Load by 4.

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

## PERFORMANCE TABLE

### Tapcon® Maxi-Set Anchors

### Allowable Edge and Spacing Distances

PARAMETER	ANCHOR DIAMETER		NORMAL WEIGHT CONCRETE			CONCRETE MASONRY UNITS (CMU)		
	in.	(mm)	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	(6.4)	4	2	0.66	4	2	0.84
Spacing Between Anchors - Shear	1/4	(6.4)	4	2	0.82	4	2	0.81
Edge Distance - Tension	1/4	(6.4)	2-1/2	1-1/4	0.82	4	2	0.88
Edge Distance - Shear	1/4	(6.4)	3	1-1/2	0.59	4	2	0.80

For SI: 1 inch = 25.4 mm



Call our toll free number 800-848-5611 or visit our web site for the most current product and technical information at [www.itwredhead.com](http://www.itwredhead.com)

