

SELECTION CHART

Tapcon Anchors

The "Original" Tapcon
Climaseal™ coating for corrosion resistance.



PART NO. 3/16" HEX HEAD	PART NO. 1/4" HEX HEAD	PART NO. 3/16" FLAT HEAD	PART NO. 1/4" FLAT HEAD	RECOMMENDED TAPCON LENGTH In. (mm)	FIXTURE THICKNESS INCHES	BIT LENGTH In. (mm)	BITS FOR 3/16" TAPCON PART NO.	BITS FOR 1/4" TAPCON PART NO.
HW3-114	HW4-114	PF3-114	PF4-114	1-1/4 (31.8)	0" - 1/4"	3-1/2 (88.9)	7900814	7901014
HW3-134	HW4-134	PF3-134	PF4-134	1-3/4 (44.5)	1/4" - 3/4"	3-1/2 (88.9)	7900814	7901014
HW3-214	HW4-214	PF3-214	PF4-214	2-1/4 (57.2)	3/4" - 1-1/4"	4-1/2 (114.3)	7900818	7901018
HW3-234	HW4-234	PF3-234	PF4-234	2-3/4 (69.9)	1-1/4" - 1-3/4"	4-1/2 (114.3)	7900818	7901018
HW3-314	HW4-314	PF3-314	PF4-314	3-1/4 (82.6)	1-3/4" - 2-1/4"	5-1/2 (139.7)	7900822	7901022
----	HW4-400	----	----	4 (101.6)	2-1/2" - 3"	5-1/2 (139.7)	7900822	7901022

All boxes of ITW Tapcon come packaged with matching carbide-tipped bit. Tapcon is packaged 100 pieces per box and 500 pieces per master carton.

PERFORMANCE TABLE

Ultimate Shear and Tension 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)	240 (1.1)	740 (3.3)	320 (1.4)	840 (3.7)	400 (1.8)	840 (3.7)	440 (2.0)	860 (3.8)
	1-1/4 (31.8)	440 (2.0)	780 (3.5)	560 (2.5)	840 (3.7)	600 (2.7)	840 (3.7)	640 (2.8)	860 (3.8)
	1-1/2 (38.1)	640 (2.8)	820 (3.6)	840 (3.7)	860 (3.8)	880 (3.9)	880 (3.9)	920 (4.1)	900 (4.0)
	1-3/4 (44.5)	760 (3.4)	920 (4.1)	1,040 (4.6)	1,020 (4.5)	1,120 (5.0)	1,020 (4.5)	1,240 (5.5)	1,020 (4.5)
1/4 (6.4)	1 (25.4)	520 (2.3)	1,120 (5.0)	720 (3.2)	1,460 (6.5)	800 (3.6)	1,560 (6.9)	920 (4.1)	1,660 (7.4)
	1-1/4 (31.8)	840 (3.7)	1,280 (5.7)	1,120 (5.0)	1,600 (7.1)	1,240 (5.5)	1,660 (7.4)	1,400 (6.2)	1,740 (7.7)
	1-1/2 (38.1)	1,120 (5.0)	1,280 (5.7)	1,520 (6.8)	1,620 (7.2)	1,600 (7.1)	1,680 (7.5)	1,680 (7.5)	1,760 (7.8)
	1-3/4 (44.5)	1,320 (5.9)	1,500 (6.7)	1,840 (8.2)	2,140 (9.5)	2,040 (9.1)	2,160 (9.6)	2,240 (10.0)	2,200 (9.8)

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

The tabulated values are for anchors installed in a minimum of 12 diameters on center and a minimum edge distance of 10 diameters for 100 percent anchor efficiency.

Space and edge distance may be reduced to six diameters spacing and five diameter edge distance provided values are reduced 50 percent. Linear interpolation may be used for intermediate spacing and edge margins.

Ultimate Tension Value (Lbs/kN) in Hollow Block

ANCHOR DIA. In. (mm)	DEPTH OF EMBEDMENT IN SOLID MATERIAL In. (mm)			
	1" (25.4) Lbs. (kN)	1-1/4" (31.8) Lbs. (kN)	1-1/2" (38.1) Lbs. (kN)	1-3/4" (44.5) Lbs. (kN)
3/16 (4.8)	209 (0.9)	357 (1.6)	468 (2.1)	547 (2.4)
1/4 (6.4)	406 (1.8)	615 (2.7)	851 (3.8)	984 (4.4)

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

Ultimate Shear Strength

ANCHOR DIA. In. (mm)	ANCHOR EMBEDMENT In. (mm)	SHEAR STRENGTH LIGHTWEIGHT HOLLOW BLOCK Lbs. (kN)
3/16 (4.8)	1-1/4 (31.8)	731 (3.3)
1/4 (6.4)	1-1/4 (31.8)	1,058 (4.7)

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

RED HEAD LIGHT DUTY ANCHORING