



# REBAR STRENGTH

Rebar Size No. (mm)	Drill Bit Dia. in.	Embed. Depth in. (mm)	Critical Edge Dist. in. (mm)	Critical Spacing Dist. in. (mm)	Shear Load Based on Concrete Edge Distance			Shear Load Based on Steel Strength
					f'c ≥ 2500 psi (17.2 MPa) Concrete			ASTM A615 Grade 60 Rebar
					Ultimate lbs. (kN)	Std. Dev. lbs. (kN)	Allow. lbs. (kN)	Allowable lbs. (kN)
#4 (12.7)	5/8	4 1/4 (108)	8 (203)	6 3/8 (162)	13,564 (60.3)	971 (4.3)	3,390 (15.1)	3,060 (13.6)
#5 (15.9)	3/4	5 (127)	10 (254)	7 1/2 (191)	20,914 (93.0)	3,034 (13.5)	5,230 (23.3)	4,740 (21.1)
#6 (19.1)	7/8	6 3/4 (171)	12 (305)	10 1/8 (257)	30,148 (134.1)	1,322 (5.9)	7,535 (33.5)	6,730 (29.9)
#7 (22.2)	1	7 3/4 (197)	14 (356)	11 5/8 (295)	39,838 (177.2)	1,854 (8.2)	9,960 (44.3)	9,180 (40.8)
#8 (25.4)	1 1/8	9 (229)	16 (406)	13 1/2 (343)	53,090 (236.2)	3,562 (15.8)	13,270 (59.0)	12,085 (53.8)
#9 (28.7)	1 1/4	10 1/8 (257)	18 (457)	15 1/4 (387)	63,818 (148.7)	3,671 (16.3)	15,955 (71.0)	15,300 (68.1)
#10 (32.3)	1 1/2	11 1/4 (286)	20 (508)	16 7/8 (429)	82,782 (368.2)	2,245 (10.0)	20,695 (92.1)	19,430 (86.4)
#11 (35.8)	1 5/8	12 3/8 (314)	22 (559)	18 5/8 (473)	96,056 (427.3)	3,671 (16.3)	24,015 (106.8)	23,865 (106.2)
#14 (43.0)	2	12 3/8 (314)	22 (559)	18 5/8 (473)	•	•	24,015 (106.8)	34,425 (153.1)