Wedge Anchor Bolt Installation Instructions

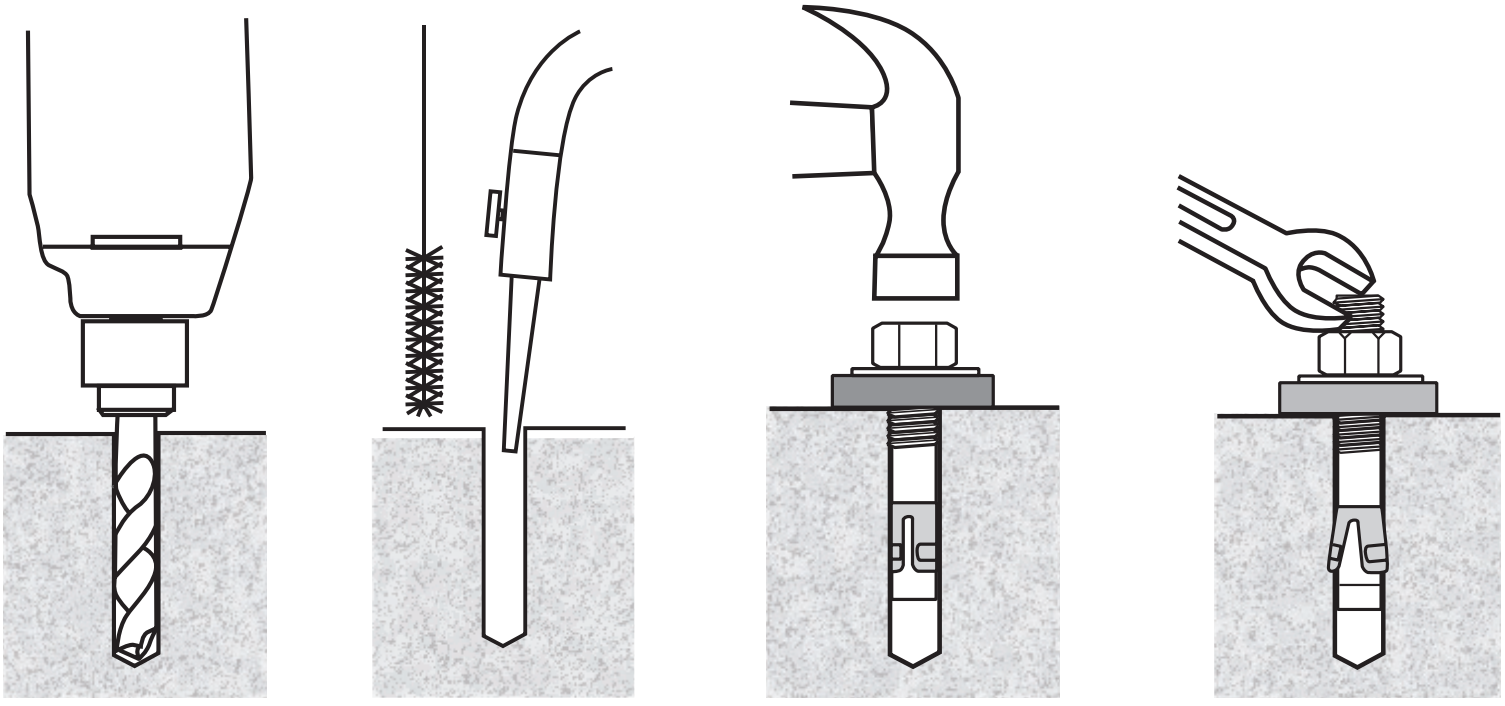
1. Drill the hole, whose diameter equals the anchor diameter, perpendicular to the work surface. To assure full holding power, do not ream the hole or allow the drill to wobble. Drill the hole deeper than the intended embedment, but not closer than two diameters to the opposite surface of the concrete.

2. A clean hole is necessary for proper performance. Clean the hole using a nylon brush and compressed air.

3. Assemble the nut and washer onto the anchor. Drive the anchor through the material to be fastened at the calculated embedment depth.

4. Tighten the nut, or head, 3 to 5 turns past the hand tight position. Installing with a torque wrench is recommended for optimum performance. Refer to Recommended Setting Torque* in the table below.

NOTE: Always wear safety glasses. Follow drill manufacturer's instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards.



1 2 3 4

Installation Data Tables

*Torque Values

Anchor Dia. (in.)	Recommended Setting Torque (ft lb.) for Zinc & Galvanized	Recommended Setting Torque (ft lb.) Stainless Steel	W/O Inspection Turns To Set
1/4	6-8	4-7	3-5
3/8	20-25	20-25	3-5
1/2	50-55	40-50	3-5
5/8	90-95	80-90	3-5
3/4	165-175	145-155	3-5
7/8	240-250	N/A	3-5
1	290-300	250-275	3-5

Edge Distance

Embedment (E) in Anchor Diameters	Edge Distance
E < 6d (shallow)	1.75E
6d ≤ E ≤ 8d (standard)	1.00E
8d < E (deep)	0.75E

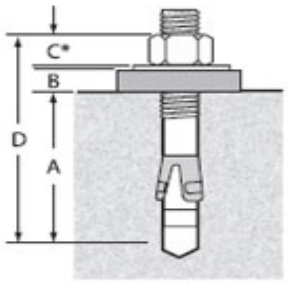
Recommended Edge Distance & Spacing

Anchor Diameter (in.)	Embedment Depth (in.)	Edge Distance Requirements (in.)
1/4	1-1/4	2-1/4
	2-7/8	2-1/8
3/8	1-3/4	3-1/8
	4-5/8	3-1/2
1/2	2-1/8	3-3/4
	2-1/2	4-3/8
	6-1/4	4-1/2
5/8	2-5/8	4-1/2
	3-1/4	5-1/2
	6-1/4	4-1/2
3/4	3-1/4	5-1/2
	3-3/4	6-1/2
	7-7/8	6
7/8	3-7/8	6-3/4
	8-5/8	6-1/2
1	4	7
	10-1/2	7- 7/8

Length Selection

Minimum Embedment (A)
\+ Attached Material Thickness (B)
\+ Nut Height* (C)
= Total Anchor Length (D)

*Nut height equals anchor diameter.



Length Identification Codes

Code	Length of Anchor
A	1-1/2 < 2
B	2 < 2-1/2
C	2-1/2 < 3
D	3 < 3-1/2
E	3-1/2 < 4
F	4 < 4-1/2
G	4-1/2 < 5
H	5 < 5-1/2
I	5-1/2 < 6

Code	Length of Anchor
J	6 < 6-1/2
K	6-1/2 < 7
L	7 < 7-1/2
M	7-1/2 < 8
N	8 < 8-1/2
O	8-/2 < 9
P	9 < 9-1/2
Q	9-1/2 < 10
R	10 < 11

Code	Length of Anchor
S	11 < 12
T	12 < 13
U	13 < 14
V	14 < 15
W	15 < 16
X	16 < 17
Y	17 < 18
Z	18 < 19

Load Adjustment Factor For Anchor Spacing

Spacing Tension ^{f}AN (all dimensions in inches)

Anchor Dia. 1/4			Anchor Dia. 3/8			Anchor Dia. 1/2			Anchor Dia. 5/8			Anchor Dia. 3/4		
Embed. Depth	1-1/4	2-1/2	Embed. Depth	1-3/4	4-5/8	Embed. Depth	2-1/8	6-1/4	Embed. Depth	2-3/4	6	Embed. Depth	3-3/4	7-7/8
1-1/8			1	0.50		1			3			2		
1-1/4	0.65	0.70	1-1/4	0.65	0.7	1-1/4	0.60	0.70	2-1/4	0.65	0.75	2-1/4		
1-1/2	0.75	0.75	1-1/2	0.70	0.75	1-1/2	0.70	0.75	2-1/2	0.77	0.76	2-1/2		
1-3/4	0.78	0.79	1-3/4	0.73	0.79	2-1/4	0.83	0.78	2-3/4	0.95	0.78	3	0.60	
2	0.86	0.84	2	0.76	0.80	2-1/2	0.85	0.79	3-1/2	0.93	0.80	4	0.75	0.75
2-1/4	0.87	0.85	2-1/2	0.77	0.83	3	0.90	0.80	4	0.95	0.83	5	0.80	0.80
2-1/2	0.99	0.86	3	1.00	0.87	3-3/8	0.93	0.87	4-1/2	0.96	0.86	5-3/4	0.87	0.83
3	1.00	0.87	3	0.80	0.85	3-3/4	0.99	0.90	5-1/2	0.99	0.93	6-1/4	0.90	0.85
3-3/8		0.88	3-1/2	0.90	0.90	4-1/4	1.00	0.93	6	1.00	0.96	7	1.00	0.90
3-1/2		0.89	3-3/4	1.00	0.93	4-3/4		0.96	7		1.00	8		0.96
3-3/4		1.00	4		0.95	5		0.98				9		0.98
			4-1/2		0.98	6		0.99				10		1.00
			4-5/8		1.00	7		1.00						