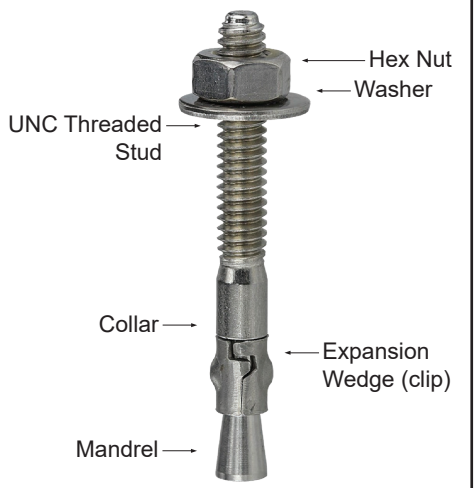
TECHNICAL DATA SHEET

Product Image



Material Specifications

Component	Material
Anchor Body	304 Stainless Steel
Hex Nut	18-8 Stainless Steel
Washer	18-8 Stainless Steel
Expansion Wedge (clip)	18-8 Stainless Steel

Stainless Steel Wedge Anchors

Stainless Steel Wedge Anchors are fully threaded expanding anchors consisting of a stainless steel body and expansion clip, for use in normal and lightweight concrete. They feature a pilot on the hammered end to prevent first thread damage and are a non-bottom-bearing anchor. Common applications for use include structural connections, cable trays, strut, pipe supports, fire sprinklers and piping supports in concrete substrate. For installation instructions and weight loads, reference technical data sheet.

Features and Benefits:

- Dependable Performance in Variety of Concrete Strengths
- Pilot on Hammered End to Prevent First Thread Damage
- Non-Bottom Bearing Anchor
- Can be Installed Through-Fixture on Standard Size Holes
- Length ID & Identifiable Marking Stamped on Head
- Fully Threaded
- Nut & Washer Included

General Applications & Uses:

- Seismic & Wind Loading Applications
- Structural Connections
- Cable Tray Support Systems
- Pipe Supports
- Fire Sprinklers
- Dead Loads & Live Loads

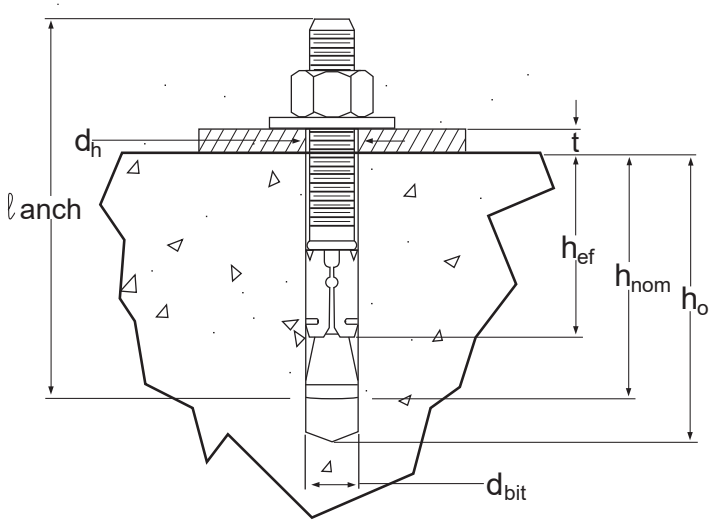
Applicable Base Materials:

- Cracked & Uncracked Concrete
- Normal / Lightweight
- Concrete over steel deck
- Grouted concrete masonry (CMU)

Installation Instructions

1. Select overall anchor length so that the minimum required embedment, h*nom*, is achieved. See **Installation Specifications** section below for h*nom* values for each anchor diameter. Anchor length will depend on the thickness of the material being fastened. Add h*nom* + the material thickness + the thickness of the nut and washer (approximately equal to the anchor diameter) together & select at least the next longer anchor length or longer (embedments deeper than h*nom* can be used).
2. Use a rotary hammer drill in the percussion mode with the correct size carbide drill bit meeting the requirements of ANSI Standard B212-15 to drill the hole perpendicular to the concrete surface & to the required depth. See **Installation Specifications** section below for minimum hole depth, h*o*, values for each anchor diameter.
3. Use a hand pump, compressed air or vacuum to remove debris and dust from the drilling operation.
4. If installation is through a fixture, position the fixture over the hole & install the anchor through the hole in the fixture. Using a hammer drive the anchor into the hole insuring that it is installed to the minimum required embedment depth, h*nom*.
5. Install the washer & nut on the projecting thread & tighten the nut to the required installation torque value, T*inst*, using a torque wrench.

FIGURE 2 - ANCHOR INSTALLATION



INSTALLATION SPECIFICATIONS	SYMBOL	UNITS	Nominal Anchor Diameter, in.		
			1/4"	3/8"	1/2"
Anchor diameter	d_a (d_o)	in.	1/4"	3/8"	1/2"
Minimal diameter of fixture hole clearance	d_h	in.	5/16"	7/16"	9/16"
Nominal drill bit diameter	d_{bit}	in.	1/4"	3/8"	1/2"
Minimum nominal embedment depth	h_{nom}	in.	1-1/2"	2"	2-1/2"
Minimum effective embedment depth	h_{ef}	in.	1-1/8"	1-5/8"	2-1/4"
Minimum hole depth	h_o	in.	2"	2-3/4"	2-3/4"
Installation torque	T_{inst}	ft-lb	8	25	35
Minimum concrete thickness	h_{min}	in.	4"	4"	6"

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Length Code Identification System										
Length ID marking on threaded stud head		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Overall anchor length, lanch, (inches)	From	1-1/2″	2″	2-1/2″	3″	3-1/2″	4″	4-1/2″	5″	5-1/2″
	Up to but not including	2″	2-1/2″	3″	3-1/2″	4″	4-1/2″	5″	5-1/2″	6″

ALLOWABLE TENSION LOADS FOR ANCHORS Installed in UNCRACKED NORMAL-WEIGHT CONCRETE RESISTING 100% DEAD LOAD (Pounds)[1]				
ANCHOR DIAMETER (inches)	**MINIMUM NOMINAL EMBEDMENT (inches)[2]**	**MINIMUM CONCRETE COMPRESSIVE STRENGTH, psi**		
		2500	**3000**	**4000**
1/4″	1-1/2″	379	415	480
3/8″	2″	733	803	928
1/2″	2-1/2″	1129	1238	1430

ALLOWABLE NON-SEISMIC SHEAR LOADS FOR ANCHORS INSTALLED IN UNCRACKED NORMAL-WEIGHT CONCRETE RESISTING 100% DEAD LOAD (Pounds)[1]		
ANCHOR DIAMETER (inches)	**MINIMUM NOMINAL EMBEDMENT (inches)[2]**	**MINIMUM CONCRETE COMPRESSIVE STRENGTH$_1$**
		f'_c 4000 psi
1/4″	1-1/2″	400
3/8″	2″	900
1/2″	2-1/2″	1500

1. The tabulated values are for anchors installed in normal-weight concrete that has reached the minimum designated compressive strength at the time of installation.
2. Measured from the concrete surface to the embedded end of the anchor (h_{nom}, nominal embedment)

LOAD ADJUSTMENT FACTORS FOR SPACING & EDGE DISTANCES FOR UNCRACKED NORMAL-WEIGHT CONCRETE, TENSION AND SHEAR [1]			
Spacing and/or Edge Distances, in.	ANCHOR DIAMETER, in.		
	1/4"	3/8"	1/2"
2-1/2"	0.50		
2-3/4"	0.55		
3"	0.60		
3-1/4"	0.65		
3-1/2"	0.70		
3-3/4"	0.75	0.50	0.50
4"	0.80	0.53	0.53
4-1/4"	0.85	0.57	0.57
4-1/2"	0.90	0.60	0.60
4-3/4"	0.95	0.63	0.63
5"	1.00	0.67	0.67
5-1/4"	1.00	0.70	0.70
5-1/2"	1.00	0.73	0.73
5-3/4"	1.00	0.77	0.77
6"	1.00	0.80	0.80
6-1/4"	1.00	0.83	0.83
6-1/2"	1.00	0.87	0.87
6-3/4"	1.00	0.90	0.90
7"	1.00	0.93	0.93
7-1/4"	1.00	0.97	0.97
7-1/2"	1.00	1.00	1.00
7-3/4"	1.00	1.00	1.00
8"	1.00	1.00	1.00
8-1/4"	1.00	1.00	1.00
8-1/2"	1.00	1.00	1.00
8-3/4"	1.00	1.00	1.00
9"	1.00	1.00	1.00
9-1/4"	1.00	1.00	1.00
9-1/2"	1.00	1.00	1.00
9-3/4"	1.00	1.00	1.00
10"	1.00	1.00	1.00
10-1/4"	1.00	1.00	1.00
10-1/2"	1.00	1.00	1.00
10-3/4"	1.00	1.00	1.00
11"	1.00	1.00	1.00
11-1/4"	1.00	1.00	1.00
11-1/2"	1.00	1.00	1.00
11-3/4"	1.00	1.00	1.00
12"	1.00	1.00	1.00

[1]Multiply factor(s) times the applicable allowable tension or shear load value from the tables for desired edge distance or spacing. Where both edge and spacing distances have factors less than 1.00, multiply both factors together and multiply the resulting factor times the allowable load from the tables.