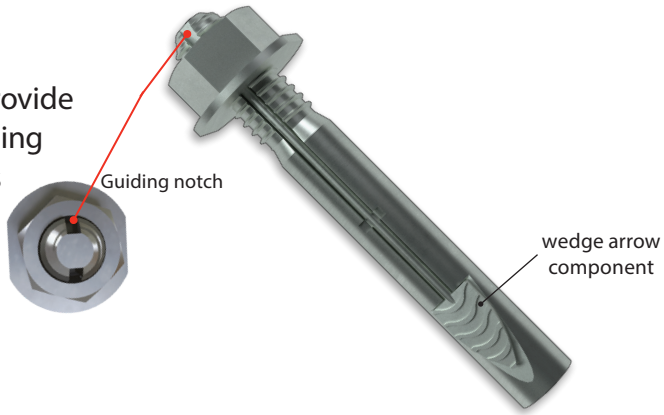
The Original Wej-It® Wedge Anchors

wej-it HIGH-PERFORMANCE ANCHORS

Description

The Original Wej-it Wedge Anchor has been an industry standard for over 62 years. The Original Wej-It anchors provide "positive wedge connections" to minimize wedge loosening due to vibratory loads. Their unique design directs forces away from seams and corners.



USA ENGINEERED

The Original Wej-it™ Since 1952

Key Features & Benefits

- Time-tested, proven reliability
  - An industry standard for over 60 years
- **Fully assembled** and ready to use
- Unparalleled job-site convenience
  - No fixture-moving required
- **Bolt Size is Hole Size®** eases installation
  - Allows precision placement of equipment through pre-drilled holes
- **Exclusive "positive wedge connections"**
  - Minimizes wedge loosening due to vibratory loads
- Acceptable materials:
  - Normal Weight Concrete
  - Lightweight Concrete
  - Solid Masonry

Applications

- Industrial Equipment
- Garage Lifts
- Vibratory Load Applications
- Pallet Racking
- Sill Plates
- Machinery and Conveyors

Specifications, Listings and Approvals

Diameters: 1/4" – 1"

Materials:
Bolt: C1035
Nut, Washer, and Arrows: C1018

Finish: Zinc plating ASTM B633, Type III, SC1

Federal Specifications:
– QQZ-325C, Type II, Class 3 (clear chromate added)
– GSA FFS-325, Group II, Type 4, Class 1

Code Compliance:
– Formerly ICC-ES Legacy Report #1821
– 2000 International Building Code (IBC)
– 2000 International Residential Code (IRC)
– Data Test in accordance with the ICC-ES criteria for Expansion Anchors in Concrete and Masonry Elements (ACOI) dated April 2002. Available upon request.

The Original Wej-It® Wedge Anchors

Installation Information

Instructions

1. Drill the hole perpendicular to the work surface. The drill bit diameter will be the same as the anchor diameter that you are installing. To assure full holding power, do not ream the hole or allow the drill to wobble.

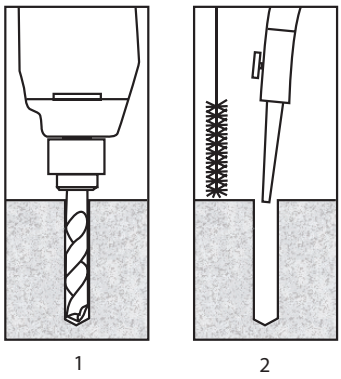
   Drill the hole one anchor diameter deeper than the intended embedment of the anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.

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

3. Insert anchor into hole until washer rests solidly against fixture.

4. Tighten 1-1/2 to 3 turns past hand tight position but to a maximum torque as listed 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.



Installation Data

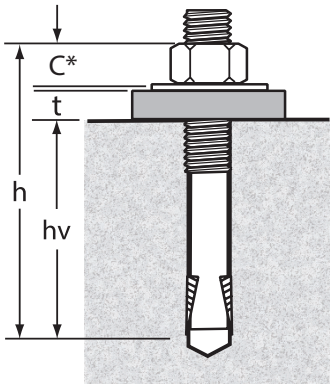
Anchor Dia. (in.)	Drill Bit Dia. (in.)	Thread Length (in.)	Min. Embed. (in.)	Approx. Torque (ft lb.)
1/4	1/4	1/2	1	8
5/16	5/16	5/8	1-1/4	15
3/8	3/8	3/4	1-1/2	25
1/2	1/2	1	2	55
5/8	5/8	1-1/4	3	95
3/4	3/4	1-1/2	3	170
7/8	7/8	1-3/4	4-1/2	250
1	1	2	5-1/2	300

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
J	6 < 6-1/2

Code	Length of Anchor
K	6-1/2 < 7
L	7 < 7-1/2
M	7-1/2 < 8
N	8 < 8-1/2
O	8-1/2 < 9
P	9 < 9-1/2
Q	9-1/2 < 10
R	10 < 11
S	11 < 12
T	12 < 13

Length Selection



hv: Minimum Embedment Depth
t: Attached Material Thickness
C: Nut Height*
h: Total Anchor Length

*Nut height equals anchor diameter.

Performance Data

Ultimate and Allowable Loads (lbs.) - Normal-Weight Concrete

Anchor Dia. (in.)	Embed. Depth (in.)	Allowable						Ultimate					
		2,000 psi		4,000 psi		6,000 psi		2,000 psi		4,000 psi		6,000 psi	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
1/4	1	273	44	363	580	508	623	1090	175	1450	2320	2030	2490
	1-1/8	330	44	440	580	818	623	1320	175	1760	2320	3270	2490
	1-1/4	438	44	560	580	868	623	1750	175	2240	2320	3470	2490
	1-1/2	465	44	620	580	868	623	1860	175	2480	2320	3470	2490
5/16	1-1/4	515	460	688	633	985	860	2060	1840	2750	2530	3940	3440
	1-3/4	598	460	798	633	1115	860	2390	1840	3190	2530	4460	3440
3/8	1-1/2	720	1073	960	1303	1343	1415	2880	4290	3840	5210	5370	5660
	2	755	1073	1008	1303	1410	1415	3020	4290	4030	5210	5640	5660
	3-1/2	825	1073	1100	1303	1540	1415	3300	4290	4400	5210	6160	5660
	4	873	1073	1163	1303	1628	1415	3490	4290	4650	5210	6510	5660
1/2	2	858	1785	1430	2688	2003	2888	3430	7140	5720	10750	8010	11550
	2-1/4	870	1785	1448	2688	2028	2888	3480	7140	5790	10750	8110	11550
	3-1/2	963	1785	1605	2688	2245	2888	3850	7140	6420	10750	8980	11550
	4	1083	1785	1805	2688	2525	2888	4330	7140	7220	10750	10100	11550
	5	1203	1785	2005	2688	2808	2888	4810	7140	8020	10750	11230	11550
5/8	3	1680	2680	2798	3895	3915	4175	6720	10720	11190	15580	15660	16700
	3-1/2	1898	2680	3160	3895	4423	4175	7590	10720	12640	15580	17690	16700
	3-3/4	2085	2680	3475	3895	4863	4175	8340	10720	13900	15580	19450	16700
	4	2158	2680	3595	3895	5033	4175	8630	10720	14380	15580	20130	16700
	4-3/4	2295	2680	3825	3895	5355	4175	9180	10720	15300	15580	21420	16700
3/4	3	2895	3885	4825	5250	6755	5775	11580	15540	19300	21000	27020	23100
	3-1/2	3063	3885	5105	5250	7148	5775	12250	15540	20420	21000	28590	23100
	4	3230	3885	5383	5250	7538	5775	12920	15540	21530	21000	30150	23100
	5	3388	3885	5648	5250	7905	5775	13550	15540	22590	21000	31620	23100
	7	3863	3885	6435	5250	9010	5775	15450	15540	25740	21000	36040	23100
7/8	4-1/2	3818	–	6363	6275	8908	7180	15270	–	25450	25100	35630	28720
	5-1/2	4068	–	6780	6275	9493	7180	16270	–	27120	25100	37970	28720
	7	4250	–	7080	6275	9913	7180	17000	–	28320	25100	39650	28720
1	5-1/2	4090	–	6815	8270	9540	8925	16360	–	27260	33080	38160	35700
	6	4275	–	7123	8270	9973	8925	17100	–	28490	33080	39890	35700
	7	4460	–	7433	8270	10405	8925	17840	–	29730	33080	41620	35700

*Allowable load capacities are calculated using an applied safety factor of 4:1

Ultimate and Allowable Loads (lbs.) - Limestone Aggregate

Anchor Dia. (in.)	Embed. Depth (in.)	2,000 psi			
		Allowable		Ultimate	
		Tension	Shear	Tension	Shear
1/4	1-1/8	283	303	1130	1210
1/4	1-3/4	315	303	1260	1210
5/16	1-1/4	328	303	1310	1210
5/16	2	295	303	1180	1210
3/8	1-1/4	250	305	1000	1220
3/8	4	433	305	1730	1220
1/2	1-3/4	385	753	1540	3010
1/2	6	675	753	2700	3010

*Allowable load capacities are calculated using an applied safety factor of 4:1

Ultimate and Allowable Loads (lbs.) - Unreinforced Lightweight (Idealite)

Anchor Dia. (in.)	Embed. Depth (in.)	5,000 psi			
		Allowable		Ultimate	
		Tension	Shear	Tension	Shear
1/4	1-1/2	465	488	1860	1950
5/16	1-1/2	625	765	2500	3060
3/8	1-3/4	783	1073	3130	4290
1/2	2-1/4	1195	2458	4780	9830
5/8	2-1/2	1615	3125	6460	12500
3/4	3-1/2	4323	4763	17290	19050
1	4-1/2	5405	7918	21620	31670

*Allowable load capacities are calculated using an applied safety factor of 4:1

Edge Distance & Spacing

Anchor Dia. (in.)	Embed. Depth (in.)	Edge Dist. Requirements (in.)	Spacing Requirements (in.)
1/4	1-1/8	1-31/32	3-15/16
	1-1/2	2-5/8	5-1/4
5/16	1-1/4	2-3/16	4-3/8
	1-3/4	3-1/16	6-1/8
3/8	1-1/2	2-5/8	5-1/4
	4	3	6
1/2	2-1/4	3-15/16	7-7/8
	5	3-3/4	7-1/2
5/8	3-1/2	6-1/8	12-1/4
	4-3/4	8-5/16	16-5/8
3/4	3	5-1/4	10-1/2
	7	5-1/4	10-1/2
7/8	4-1/2	7-7/8	15-3/4
	7	7	14
1	5-1/2	9-5/8	19-1/4
	7	7	14

Order Information

The Original Wej-It®: Zinc-Plated Carbon Steel					
Catalog Number	**Anchor Size**	**Min. Embed.**	**Thread Length**	**Box Quantity**	**Carton Quantity**
1413	1/4 x 1-3/4	1	1/2	100	600
1423	1/4 x 2-3/4	1	1/2	100	600
1430	1/4 x 3	1	1/2	100	600
5620	5/16 x 2	1-1/4	5/8	100	600
5630	5/16 x 3	1-1/4	5/8	100	600
3820	3/8 x 2	1-1/2	3/4	100	600
3823	3/8 x 2-3/4	1-1/2	3/4	100	600
3832	3/8 x 3-1/2	1-1/2	3/4	50	300
3850	3/8 x 5	1-1/2	3/4	50	300
3860	3/8 x 6	1-1/2	3/4	50	300
1223	1/2 x 2-3/4	2	1	50	300
1232	1/2 x 3-1/2	2	1	50	300
1250	1/2 x 5	2	1	25	150
1260	1/2 x 6	2	1	25	150
1270	1/2 x 7	2	1	25	150
5832	5/8 x 3-1/2	3	1-1/4	25	150
5842	5/8 x 4-1/2	3	1-1/4	25	150
5850	5/8 x 5	3	1-1/4	20	120
5860	5/8 x 6	3	1-1/4	15	90
5870	5/8 x 7	3	1-1/4	15	90
3440	3/4 x 4	3	1-1/2	18	108
3450	3/4 x 5	3	1-1/2	12	72
3460	3/4 x 6	3	1-1/2	12	72
3470	3/4 x 7	3	1-1/2	10	60
3482	3/4 x 8-1/2	3	1-1/2	10	30
3410	3/4 x 10	3	1-1/2	10	30
7880	7/8 x 8	4-1/2	1-3/4	10	30
7810	7/8 x 10	4-1/2	1-3/4	10	30
7812	7/8 x 12	4-1/2	1-3/4	5	15
1080	1 x 8	5-1/2	2	10	30
1010	1 x 10	5-1/2	2	5	15
1012	1 x 12	5-1/2	2	5	15

For more information, please contact:

TOGGLER® HIGH-PERFORMANCE ANCHORS®

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