POWER-Drop™ Drop-In Anchors

wej-it HIGH-PERFORMANCE ANCHORS

Description

The POWER-Drop Drop-In anchor provides wedge anchor performance with the convenience of a drop-in anchor. The safety shoulder supports the clip when the anchor is under strain to eliminate bolt-end collapse and/or clip slippage under ultimate loading conditions. These seismic rated drop-in anchors may be used with machine screws, tamper-proof bolts, threaded rod and other male-threaded fasteners 3/8" – 1" in diameter.

Key Features & Benefits

- **Enlarged 3-dimple clip**
  - Increases response in lightweight concrete and requires fewer rotations to achieve desired torque
  - 360° segment contact on clip equalizes load distribution and increases load-carrying capacity
- **Unique safety shoulder**
  - Supports the 3-dimple clip under maximum and ultimate loads, preventing slippage
  - Similar products have a gradual expansion cone that does not have a safety shoulder to support the clip when the anchor is under strain
- **Internally threaded anchor** allows for easy bolt removability and service work
- **Wedge anchor performance** with the convenience of a drop-in anchor
- **Numerous head style options:** May be used with machine screws, tamper-proof bolts, threaded rod and a variety of other male-threaded fasteners

Note: One setting tool included per box of anchors

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Specifications, Listings and Approvals

Anchor Thread Diameters: 3/8" – 1"

Material: Carbon steel

Finish: Zinc Plating ASTM B633, Type III, SC1

Approvals:

- 2000 International Building Code (IBC)
- 2000 International Residential Code (IRC)
- 1997 Uniform Building Code (UBC)
- Data Test in accordance with ICC-ES Criteria for Expansion Anchors in Concrete and Masonry Elements (ACOI) dated April 2002
- Formerly ICC-ES Legacy Report #5063

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Installation Information

Instructions

1. Drill the hole perpendicular to the work surface. Do not ream the hole or allow the drill to wobble. Drill the hole to the proper minimum hole depth as shown in the Installation Data table below.

2. Thoroughly clean hole using compressed air and a nylon brush. An unclean hole may compromise anchor performance.

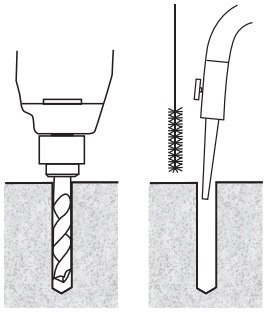
3. Set the anchor embedment depth: Fully thread the Setting Tool (sacrificial hex bolt) with assembled nut and washer into the anchor. Set the distance between the top of the anchor and the bottom of the nut to the correct ***Installation Spacer**.

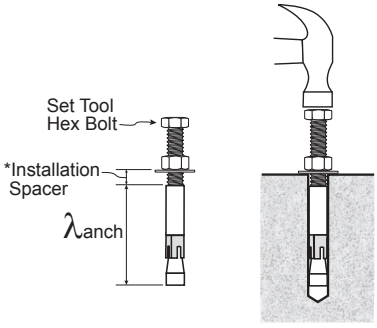
4. After setting the *Installation Spacer, place the anchor into the hole and hammer downward on the setting tool until the nut and washer makes contact with the surface of the concrete.

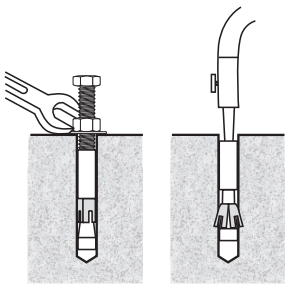
5. To set the anchor tighten the nut while holding the bolt head (to assure the anchor does not spin in place). Review table below for recommended installation torque/ installation turns. **Do not** use an impact wrench for this step.

6. Once the anchor is set remove the cap screw and clear the anchor with compressed air to remove any concrete dust from the threads.

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

Catalog Number	Drill Bit Dia. (in.)	Min. Hole Depth (in.)	Embed. Depth (in.)	*Installation Spacer	Installation Torque Approx. (ft.-lbs.)	Installation Turns
PD38	1/2	3	2-5/8	5/16	25	2-1/2
PD12	5/8	4	3-15/32	3/8	55	2-1/2
PD58	7/8	5	4-5/16	5/8	90	3
PD34	1	5-3/4	5-1/4	5/8	175	4
PD1	1-1/4	6-1/2	5-3/4	3/4	290	3

Anchor Data

Catalog Number	Thread Size (UNC)	Anchor Dimensions (in.)	Thread Depth (in.)
PD38	3/8-16	1/2 x 2-5/16	1-1/16
PD12	1/2-13	5/8 x 3-3/32	1-1/2
PD58	5/8-11	7/8 x 3-13/16	1-1/2
PD34	3/4-10	1 x 4-5/8	1-23/32
PD1	1-8	1-1/4 x 5	1-1/2

Performance Data

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

Catalog No.	Thread Size (UNC)	3,000 psi				4,000 psi			
		Allowable		Ultimate		Allowable		Ultimate	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
PD38	3/8 - 16	720	1050	2880	4200	1603	1050	6410	4200
PD12	1/2 - 13	1010	1830	4040	7320	2588	1835	10350	7340
PD58	5/8 - 11	2220	2970	8880	11880	4125	2970	16500	11880
PD34	3/4 - 10	2330	3340	9320	13360	5353	3340	21410	13360
PD1	1 - 8	3660	6610	14640	26440	6188	6610	24750	26440

Load Adjustment Factors

Recommended Spacing and Edge Distance Requirments

Catalog No.	Thread Size (UNC)	Min. Edge Distance (in.)	Tension Load Factor for Min. Edge Distance	Shear Load Factor for Min. Edge	Min. Spacing Distance (in.)	Tension Load Factor for Min. Spacing	Shear Load Factor for Min. Spacing
PD38	3/8-16	2-5/8	0.7	0.5	2-5/8	0.5	0.4
PD12	1/2-13	3-1/2	0.7	0.5	3-1/2	0.5	0.4
PD58	5/8-11	4-3/8	0.7	0.5	4-3/8	0.5	0.4
PD34	3/4-10	5-1/4	0.7	0.5	5-1/4	0.5	0.4
PD1	1-8	5-3/4	0.7	0.5	5-3/4	0.35	0.4

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Order Information

Zinc-Plated Carbon Steel

Catalog Number	Thread Size	Anchor Size	Min. Hole Depth	Box Quantity	Carton Quantity
PD38	3/8 – 16	1/2 x 2-5/16	3	25	200
PD12	1/2 – 13	5/8 x 3-3/32	4	10	80
PD58	5/8 – 11	7/8 x 3-13/16	5	5	30
PD34	3/4 – 10	1 x 4-5/8	5-3/4	5	30
PD1	1 – 8	1-1/4 x 5	6-1/2	5	30

*Note: One setting tool included per box of anchors

Setting Tools*

Catalog Number	Thread Size (UNC)	Tool Dimension (in.)
PDST38	3/8-16	3/8 x 3
PDST12	1/2-13	1/2 x 3-1/2
PDST58	5/8-11	5/8 x 4
PDST34	3/4-10	3/4 x 4-1/2
PDST1	1-8	1 x 4-1/2

*Not Sold Separately

For more information, please contact:

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