TECHNICAL DATA SHEET

DESCRIPTION

The Dayton Superior Bearcat Bolt is a high strength drill-in screw anchor. This anchor utilizes a pre-drilled hole and self-taps into the concrete, creating a mechanical connection between the concrete and the anchor threads. This screw anchor, unlike other screw anchors, was designed specifically for use in tilt-up construction applications. The high strength carbon steel allows for multiple reuses and the galvanized coating keeps the anchor from corroding between and during uses.

APPLICATION

The primary use of the Bearcat Anchor Bolt is for anchoring tilt-up wall braces to floor slabs during panel erection. Additional uses include lift brackets/plates as well as permanent or temporary fixation of racking, rails, guards, etc.



FEATURES

- High capacity to maximize brace system
- 5” and 7” bolt lengths
- Compatible with ¾” drilled holes

BENEFITS

- Quick and clear installation
- Integrated cut-washer for anti-rotation
- Reusable - up to 20 times with use of wear gauge
- Works in a wide variety of applications
- Better bite into concrete
- No spinning or slipping in hole

TECHNICAL DATA

Ultimate Capacity Reuse Chart[1,2,3,4]

Screw Anchor Size	Concrete Thickness	Minimum Concrete Compressive Strength (psi)					
		2,500		4,000		6,000	
		Tension[5] (lbs.)	Shear[6] (lbs.)	Tension[5] (lbs.)	Shear[6] (lbs.)	Tension[5] (lbs.)	Shear[6] (lbs.)
5" Bearcat Bolt	3"	3,540	7,855	4,475	9,935	5,480	12,165
	4"	5,440	9,605	6,885	12,150	8,430	14,880
	5"	6,310	10,870	7,980	13,750	9,770	16,840
	6" and up	7,640	11,910	9,670	15,065	11,440	18,450
7" Bearcat Bolt	5"	8,890	16,845	11,245	21,310	13,775	26,100
	6"	11,035	18,900	13,955	23,905	17,095	27,000
	7"	13,655	20,410	17,270	25,820	21,155	27,000
	8" and up	15,540	21,820	19,660	27,000	23,260	27,000

[1]A safety factor of 2:1 should be applied to ultimate capacities for the tilt-up industry standard SWL.
[2]Linear interpolation of embedment depths and concrete strengths are not permitted.
[3]Capacities were obtained through testing of anchors that passed the diameter requirements of the reusability gauge.
[4]Ultimate capacities were obtained using a 1" mounting plate thickness.
[5]Tension testing was conducted in 4000 and 6000 psi concrete.
[6]Shear values were obtained through ACI 318-14 Chapter 17 calculations and validated with in-concrete testing. Maximum ultimate shear may not exceed 27,000 and 19,000 lbs. for the 7" and 5" anchors respectively.

Bearcat Bolt Setting Detail

	5" Bearcat Bolt	7" Bearcat Bolt
Maximum Mounting Plate Thickness[1]	1"	
Minimum Mounting Plate Hole Diameter	15/16"	
Total Shank Length	5.25	7.25"
Nominal Full Embedment[1]	4.25"	6.25"
Minimum Edge Distance	10"	15"
Over-drill Depth[2]	0.50"	
Nominal Drill Bit Diameter	3/4"	
Socket/Hex-head Size	1-1/8"	
Installation Torque[3]	200 ft-lbs.	

[1]Ultimate capacities were obtained using a 1" plate thickness. Thicker plates will reduce the capacity.
[2]Over-drill depth is assuming full anchor embedment in the concrete. With concrete thinner than the nominal full embedment, the anchor will protrude through the back of the concrete. Reference the loading chart for thin concrete capacities.
[3]Over torquing can damage the anchor and/or reduce the capacities.

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INSTALLATION

To Install:

1. Drill a ¾" hole per the settingchart. Screw anchors work in bottomless hole. Caution must be taken when drilling through slabs to minimize blowout at the bottom of the hole. Blowout of the concrete at the back of the slab can reduce the SWL of the anchor.

2. Thoroughly clean the drilled hole with compressed air to rid the hole of debris.

3. Insert the Bearcat Bolt through the foot plate of the brace (or plate of the object to be anchored) and guide the tip of the bolt into the pre-drilled hole. Line the bolt up in the hole as it is driven into the hole. Drive the anchor down until the integrated washer rests on the plate.

4. Torque to 200 ft. lbs. to complete the install and ensure a secure connection.

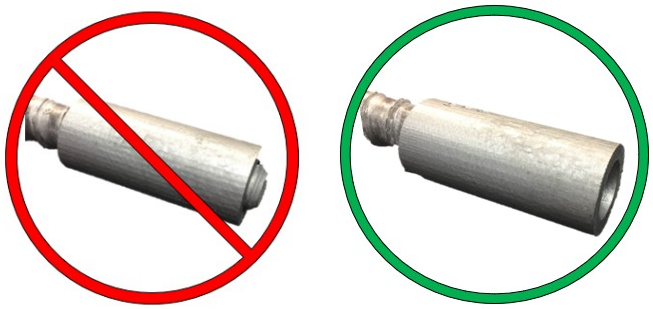
To Remove:

1. Back the Bearcat Anchor Bolt out with a wrench or impact drive.

2. Clean the threads with a wire brush to remove concrete debris.

3. Check the bolt threads with the wear gauge to verify its acceptableness of reuse. If a bolt extends through the wear gauge, the bolt is deemed a failure. Please see image examples of a passing and failing bolt below.

4. Repeat installation steps with bolts that pass the wear gauge. Dispose of bolts that fail the wear gauge and place an order for additional bolts to replenish your stock.



ORDERING INFORMATION

BEARCAT™ BOLT - MULTI-USE

Product Code	Description	Weight
100501	5" BEARCAT BOLT	0.91 LB
100502	7" BEARCAT BOLT	1.14 LB

BEARCAT™ BOLT - WEAR GAUGE TOOL

Product Code	Description	Weight
100575	BEARCAT BOLT WEAR GAUGE TOOL	0.52 LB

FABRICANTE

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WARRANTY (ACCESSORIES)

Limited Warranty. Dayton warrants, for a period of 60 days from the date of shipment (three years from the date of shipment in the case of formwork, excluding any consumable Products included with such formwork), that Products and any associated application drawings and engineering services provided by Dayton ("Ancillary Services") will be free from defects in material and workmanship and, in the case of custom designed formwork, that the formwork will meet the specifications set forth in the design drawings approved by Dayton and Customer. Any claim under this warranty must be made in writing within such warranty period. If any Product and/or Ancillary Service covered by a timely claim are found to be defective, Dayton will, within a reasonable time, make any necessary repairs or corrections or, at Dayton's option, replace the Product. Unless pre-authorized by Dayton in writing, Dayton will not accept any charges for correcting defects or accept the return of any Product. This warranty will not apply to any Products that have been subjected to misuse, neglect, storage damage, misapplication, accident or any other damage caused by any person other than Dayton, or that have not been maintained in accordance with Dayton's specifications. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AS TO THE PRODUCTS AND ANCILLARY SERVICES. DAYTON MAKES NO OTHER WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. THE REMEDIES SET FORTH IN THIS SECTION ARE CUSTOMER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY.