

NEW!

PAB

Pre-Assembled Anchor Bolt



The PAB anchor bolt is a versatile new cast-in-place anchor bolt ideal for high-tension-load applications. It features a plate washer at the embedded end sandwiched between two fixed hex nuts and a head stamp for easy identification after the pour.

- Stock sizes available in diameters from 1/2" to 1 1/4" in lengths from 12" to 36" (in 6" increments), special order sizes available, contact Simpson Strong-Tie.
- Available in standard and high-strength steel
- Head stamp contains the No Equal sign, diameter and length designation, and an "H" on high-strength rods

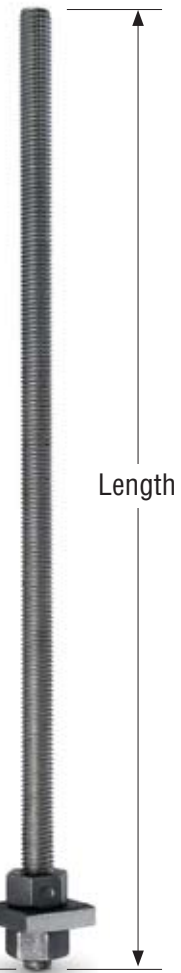
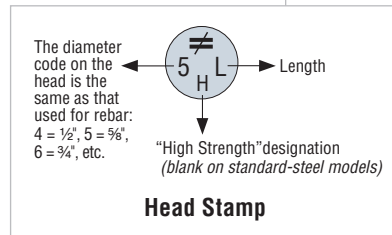
MATERIAL: Standard steel – $F_u = 58$ ksi
 High-strength steel (up to 1" dia.) – $F_u = 120$ ksi
 High-strength steel (1 1/8" and 1 1/4" dia.) – $F_u = 125$ ksi

FINISH: None

The Simpson Strong-Tie® Anchor Designer Software™ for ACI 318 analyzes and suggests anchor solutions using the ACI 318 Appendix D strength-design methodology (or CAN/CSA A23.3 Annex D Limit States Design methodology).



It provides cracked and uncracked-concrete anchorage solutions for numerous Simpson Strong-Tie Anchor Systems® mechanical and adhesive anchors as well as the PAB anchor bolt. With its easy-to-use graphical user interface, the software makes it easy for the Designer to identify anchorage solutions without having to perform time-consuming calculations by hand.



PAB

PAB Anchor Bolt – Standard Steel

Diameter (in.)	Plate Washer Size (in.)	I ₁ (in.)	Root Model No.	Length Range
1/2	1/4 x 1 1/4 x 1 1/4	1	PAB4-XX	12" to 36" (in 6" increments)
5/8	3/8 x 1 1/2 x 1 1/2	1 1/4	PAB5-XX	
3/4	3/8 x 2 x 2	1 3/8	PAB6-XX	
7/8	3/8 x 2 1/4 x 2 1/4	1 1/2	PAB7-XX	
1	3/8 x 2 1/2 x 2 1/2	1 5/8	PAB8-XX	
1 1/8	3/8 x 2 3/4 x 2 3/4	1 3/4	PAB9-XX	
1 1/4	1/2 x 3 x 3	2	PAB10-XX	

1. The nut used to fasten structural elements to the anchor bolt is not included.

How to specify and order:

When calling out PAB anchor bolts, substitute the desired length for the "XX" in the Root Model Number.

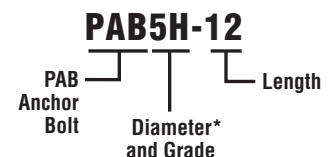
For a 5/8"x16 1/2" anchor bolt, the model number would be PAB5-16.5 (or PAB5H-16.5 for high strength).

PAB Anchor Bolt – High-Strength Steel

Diameter (in.)	Plate Washer Size (in.)	I ₁ (in.)	Root Model No.	Length Range
1/2	1/4 x 1 1/4 x 1 1/4	1	PAB4H-XX	12" to 36" (in 6" increments)
5/8	3/8 x 1 1/2 x 1 1/2	1 1/4	PAB5H-XX	
3/4	3/8 x 2 x 2	1 3/8	PAB6H-XX	
7/8	3/8 x 2 1/4 x 2 1/4	1 1/2	PAB7H-XX	
1	3/8 x 2 1/2 x 2 1/2	1 5/8	PAB8H-XX	
1 1/8	3/8 x 2 3/4 x 2 3/4	1 3/4	PAB9H-XX	
1 1/4	1/2 x 3 x 3	2	PAB10H-XX	

1. Plate washers are designed to develop the capacity of the bolt.
2. The high-strength nut required to fasten structural elements to the anchor bolt is not included. A high-strength nut in accordance with ASTM 563 must be used.

Naming Scheme:



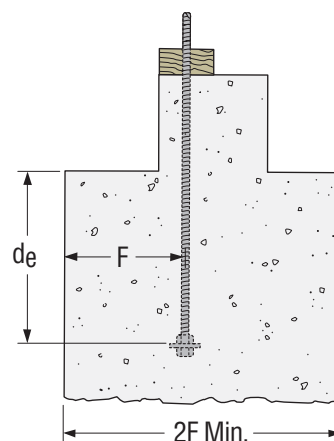
* Units in 1/8" Increments (Ex: 9 = 9/8" or 1 1/8")

PAB Pre-Assembled Anchor Bolt

PAB Anchor Bolt – Anchorage Solutions

Design Criteria	Diameter (in.)	Anchor Bolt Model No.	2500 psi Concrete				3000 psi Concrete			
			Dimensions (in.)		Tension Load (lbs.)		Dimensions (in.)		Tension Load (lbs.)	
			d_e	F	ASD	LRFD	d_e	F	ASD	LRFD
Wind	1/2	PAB4	4	4	2,520	4,030	4	4	2,760	4,420
	5/8	PAB5	4	6	4,200	6,720	4	6	4,600	7,360
			5	7 1/2	5,870	9,390	5	7 1/2	6,140	9,830
	3/4	PAB6	5	7 1/2	5,870	9,390	5	7 1/2	6,430	10,290
	7/8	PAB7	6	9	7,720	12,350	5	7 1/2	6,430	10,290
			8	12	11,880	19,010	7	10 1/2	10,650	17,040
			10	15	16,600	26,560	10	15	18,190	29,100
	1	PAB7H	14	28	25,970	41,560	13	26	25,970	41,560
			8	12	11,880	19,010	7	10 1/2	10,650	17,040
			10	15	16,470	26,350	9	13 1/2	15,530	24,840
1 1/8	PAB8H	11	16 1/2	19,040	30,470	11	16 1/2	20,860	33,380	
		16	24	34,070	54,520	15	22 1/2	34,070	54,520	
		6	9	7,720	12,350	6	9	8,450	13,520	
1 1/4	PAB9	9	13 1/2	14,180	22,680	9	13 1/2	15,530	24,840	
		11	16 1/2	19,040	30,470	10	15	18,190	29,100	
		12	24	22,010	35,220	11	16 1/2	20,860	33,380	
Seismic	1/2	PAB4	5	7 1/2	4,320	6,180	5	7 1/2	4,320	6,180
	5/8	PAB5	7	10 1/2	6,870	9,830	6	9	6,870	9,830
	3/4	PAB6	9	13 1/2	10,170	14,550	8	12	10,170	14,550
	7/8	PAB7	11	16 1/2	14,050	20,090	10	15	14,050	20,090
			16	24	29,060	41,560	15	22 1/2	29,060	41,560
	1	PAB7H	12	18	18,430	26,350	12	18	18,430	26,350
			19	28 1/2	38,120	54,520	18	27	38,120	54,520
			14	21	23,220	33,200	13	19 1/2	23,220	33,200
	1 1/8	PAB8H	14	21	23,220	33,200	13	19 1/2	23,220	33,200
	1 1/4	PAB9	16	24	29,480	42,160	16	24	29,480	42,160

1. Anchorage designs conform to ACI 318 Appendix D and assume cracked concrete with no supplementary reinforcement.
2. Seismic indicates Seismic Design Category C through F. Detached one- and two-family dwellings in SDC C may use wind anchorage solutions. Seismic anchorage designs conform to ACI 318-05 Section D3.3.4.
3. Wind includes Seismic Design Category A and B.
4. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by Designer. The registered design professional may specify alternate embedment, footing size, and anchor bolt.
5. Allowable Stress Design (ASD) values are obtained by dividing Load Factor Resistance Design (LRFD) capacities by 1.43 for Seismic and 1.6 for Wind.



Design loads are calculated using a full shear cone. Coverage on each side of the bolt shall be a minimum of F or reductions must be taken.

IN THE SPECS • ON THE JOB • AT YOUR SERVICE™

Simpson Strong-Tie offers a full line of anchors, adhesives, P.A.T. and drill bits for all of your anchoring and fastening applications. Visit www.simpsonanchors.com or request our full line catalog for complete information.

This flier is effective until June 30, 2012, and reflects information available as of May 1, 2010. This information is updated periodically and should not be relied upon after June 30, 2012; contact Simpson Strong-Tie for current information and limited warranty or see www.simpsonanchors.com.