

Post Base Anchors Installation Instructions

1.1 Post Base Anchor (PBA):

- 1.1.1 Post Base Anchors (PBA) are used to attach the base of a wood post to a concrete foundation. The PBAs are comprised of a Post Base Strap and Stand-Off (SO) Plate (**Figure 1** and **Figure 2**). The SO Plate is designed to provide a 1" clearance between the bottom of the wood post and top of foundation in order to meet IBC Section 2304.12 and IRC Section R317 requirements for protection of wood-based products against decay. The PBA Post Base Strap and SO Plate are 12-gauge steel (minimum thickness with coating is 0.0994"). The PBA66 Post Base Strap is also available in 10-gauge steel (minimum thickness with coating is 0.1250"). The PBA is manufactured from ASTM A653 Structural Steel, Grade 50, Class 3 ($F_u = 70$ ksi, $F_y = 50$ ksi) steel galvanized with G185 (min.) zinc coating. See **Table 1** for fastening schedules.

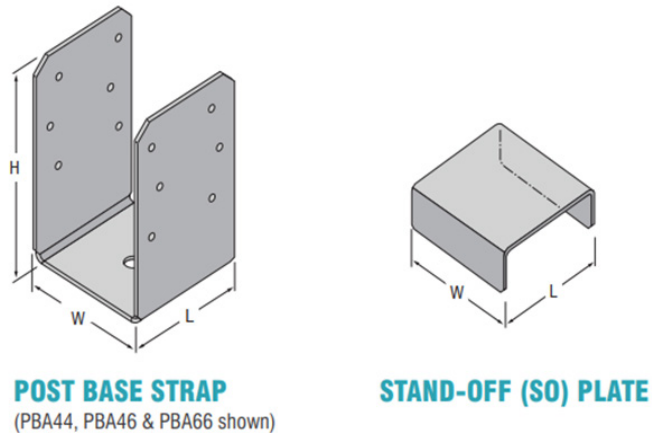


Figure 1. PBA44, PBA46 and PBA66

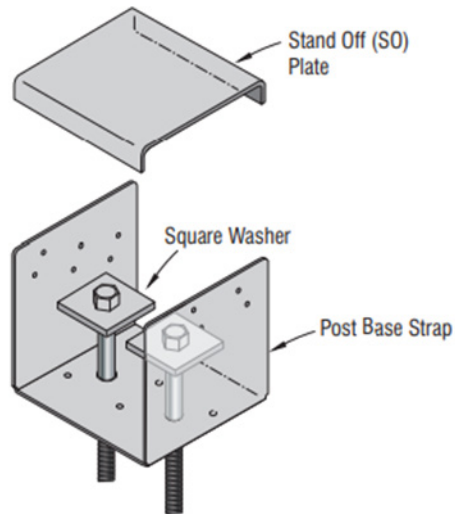


Figure 2. PBA77 and PBA88

1.2 PBA44-4P/6P and PBA66-4P/6P Porch Post Base Anchors:

- 1.2.1 PBA44-4P/6P and PBA66-4P/6P Porch Post Base Anchors, shown in **Figure 3**, are used to attach the base of a wood post to a concrete foundation. These anchors are designed to withstand vertical construction loads prior to embedment of concrete and to support permanent porch framing throughout all stages of construction. PBA44-4P/6P and PBA66-4P/6P are manufactured from 12-gauge (minimum thickness with coating 0.0994") ASTM A653 Grade 50, Class 3 Structural Steel ($F_u = 70$ ksi, $F_y = 50$ ksi). See **Table 2** for fastening schedules and design values.

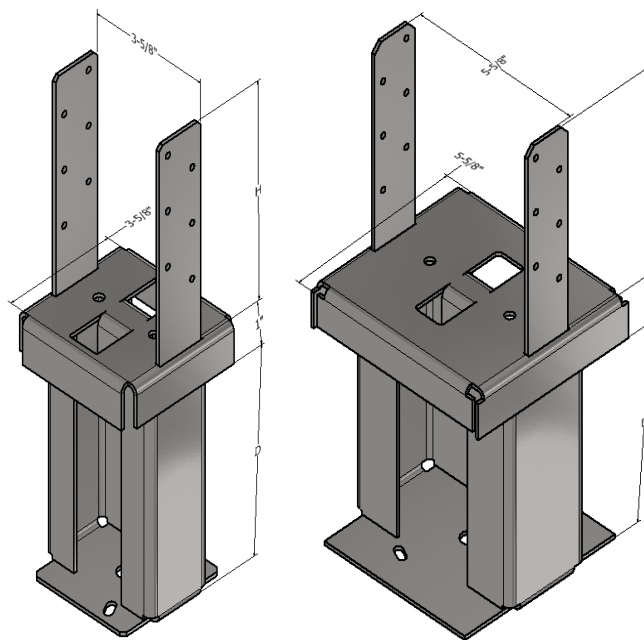


Figure 3. PBA44-4P/6P (Left) and PBA66-4P/6P (Right) Porch Post Base Anchor

1.3 Quick Connector PBA Post Base Anchor:

- 1.3.1 The PBA Post Base Anchor dimensions, nails schedules, anchor schedules and allowable loads are provided in **Table 1**.

Table 1. PBA Post Base Anchor Allowable Loads

Species (Specific Gravity)	Part No.	Strap Dimensions (in)			Stand-Off Dimensions (in)			Nominal Post Size	Steel Thickness (gauge)		Fasteners				Allowable Loads ^{1,2} (lb)	
		Width (W)	Length (L)	Height (H)	Width (W)	Length (L)	Height (H)		Strap	Stand-Off	Post		Anchor		Bearing	Uplift
											Qty	Size	Qty	Size	C _D = 1.0	C _D = 1.6
SP (0.55) or DF-L (0.50)	PBA44	3 ⁹ / ₁₆	3 ¹ / ₂	5 ¹ / ₂	3 ¹ / ₂	3 ⁵ / ₁₆	1	4x4	12	12	12	16d	1	5/8	11,140	2,335
	PBA46	3 ⁹ / ₁₆	5	6	3 ¹ / ₂	4 ³ / ₄	1	4x6	12	12	12	16d	1	5/8	13,000	2,335
	PBA66	5 ¹ / ₂	5	6	5 ⁷ / ₁₆	4 ³ / ₄	1	6x6	12 ⁽⁴⁾	12	12	16d	1	5/8	16,485 ⁴	2,335 ⁴
	PBA77	7 ¹ / ₈	7 ¹ / ₁₆	7 ¹ / ₄	7	6 ⁷ / ₈	1	7x7	12	12	14	16d	2	5/8	16,485	3,590
	PBA88	7 ¹ / ₂	7 ¹ / ₁₆	7 ¹ / ₁₆	7 ³ / ₈	6 ⁷ / ₈	1	8x8	12	12	14	16d	2	5/8	27,065	3,590

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

- Allowable load values provided are for wet service condition, no further reduction required.
- The square washer shall be installed below the heavy hex nut. The heavy hex nut shall be installed flush with the bottom of the standoff plate. See **Figure 4** for three-dimensional view of post base installed in concrete.
- With 10-gauge strap, the allowable bearing and uplift loads ($C_D = 1.6$) are 16,485 lb and 2,545 lb, respectively.

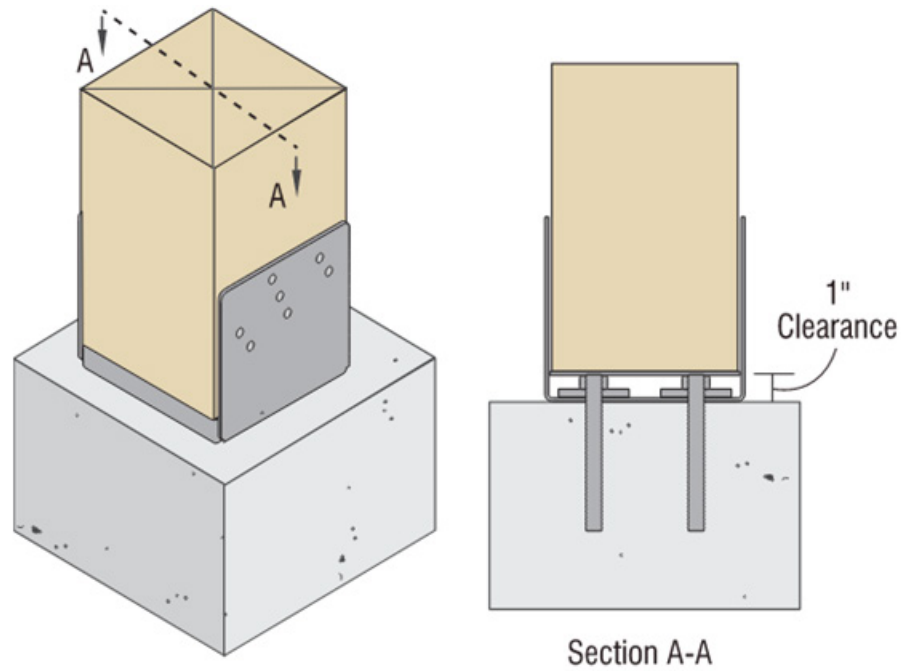


Figure 4. PBA Post Base Anchor
(PBA77 and PBA88 Shown)

1.4 *PBA44-4P/6P and PBA66-4P/6P Porch Post Base Anchor:*

- 1.4.1 Allowable compressive design values for PBA44-4P/6P and PBA66-4P/6P are provided in **Table 2** and illustrations of an example of installation is shown in **Figure 4**.

Table 2. Gravity Design Values for PBA44-4P/6P and PBA66-4P/6P Porch Post Base Anchors^{1,2,3,4}

Part No.	Strap Dimensions (in.)				Steel Thickness (gauge)		Fasteners		SP/DF-L (LB)			
									Prior to Concrete Pour		Embedded in Concrete	
	Width	Length	Height	Depth			Post		Bearing	Uplift	Bearing	Uplift
	W	L	H	D	Strap	Stand-Off	Qty	Size	1.0	1.6	1.0	1.6
PBA44-4P/6P	3 ⁵ / ₈	3 ⁵ / ₈	5 ⁷ / ₈	4 & 6	12	12	12	10d	7,900	440	7,900	2,700
PBA66-4P/6P	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁵ / ₈	4 & 6	12	12	12	10d	12,775	440	12,775	2,700

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Use two (2) 1/4" x 1 1/2" concrete screws to install prior to concrete pour. Minimum allowable pull-out is 220 lb per screw with minimum edge and spacing of 2 1/2".
2. Allowable load values provided are for wet service condition, no further reduction required.
3. Minimum concrete compressive strength shall be 2,500 psi. Concrete design shall be performed by others.

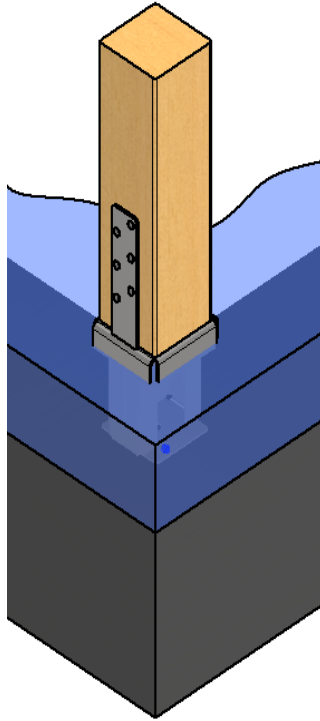


Figure 4. Installed Porch Post Base Anchor

1.5 PBA (Post Base Anchor) Installation

- 1.5.1 Use all fasteners as specified in **Table 1** to achieve the full capacity.
- 1.5.2 The designer or specifier shall check the requirements and capacity of wood post and concrete (embedment, edge distance and end distance) for resisting uplift loads.
- 1.5.3 Nails (16d common) and fastener assembly ($\frac{5}{8}$ " threaded rod with heavy hex nut or anchor bolt, and washer [$2\frac{3}{4}$ " x $2\frac{3}{4}$ " x $\frac{3}{8}$ "] are not included).
- 1.5.4 Clean concrete surface, place PBA Strap and install fastener assembly.
- 1.5.5 Place standoff plate and then the wood post. The top of the heavy hex nut must be installed flush with underside of standoff plate with a square washer below the hex nut.
- 1.5.6 Use Report Number 0910-01 specified fasteners to attach wood post to PBA Strap.