### **MPBZ**

# SIMPSON Strong-Tie

### Moment Post Base

The patent-pending MPBZ is specifically designed to provide moment resistance for columns or posts. An innovative overlapping sleeve design encapsulates the post, helping to resist rotation around its base. It is available for 4x4, 6x6 and 8x8 posts. The MPBZ is ideal for outdoor structures, such as carports, fences and decks. Built-in stand-off tabs provide the required 1" stand-off to resist decay of the post while eliminating multiple parts and assembly. Additionally, the MPBZ is available in ZMAX® as the standard finish to meet exposure conditions in many environments.

#### Features:

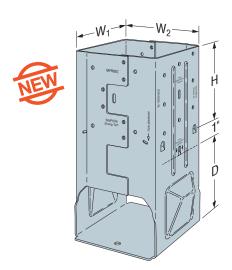
- Internal top-of-concrete tabs
- 1" standoff tabs
- Additional holes provided to attach trim material
- Weep hole provided for water drainage

Material: 12 gauge Finish: ZMAX coating

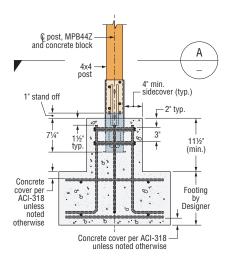
#### Installation:

- Use all specified fasteners; see General Notes.
- Install MPBZ before concrete is placed using embedment level indicators and form board attachment holes.
- Place post on tabs 1" above top of concrete.
- Install Strong-Drive SDS
   Heavy-Duty Connector screws,
   which are supplied with the
   MPBZ. (Lag screws will not
   achieve the same load.)
- Concrete level inside the part must not exceed ¼" above embedment line to allow for water drainage.
- Annual inspection of connectors used in outdoor application is advised. If significant corrosion is apparent or suspected, then the wood, fasteners and connectors should be evaluated by a qualified engineer or inspector.

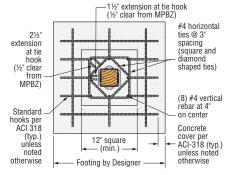
Codes: See p. 12 for Code Reference Key Chart



MPB88Z (MPB44Z, MPB66Z similar) U.S Patent Pending

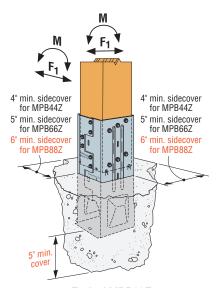


SECTION A

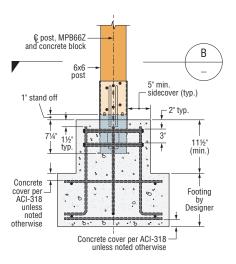


#### MPB44Z Reinforced Concrete Footing

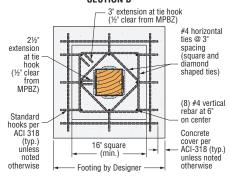
Footing (size and reinforcement) by Designer. Standard hook geometry in accordance with ACI 318 unless noted otherwise.



Typical MPB66Z Non-Reinforced Installation (others similar)



#### SECTION B



#### MPB66Z Reinforced Concrete Footing

Footing (size and reinforcement) by Designer. Standard hook geometry in accordance with ACI 318 unless noted otherwise.

These reinforced MPBZ details are available on strongtie.com/mpbz.

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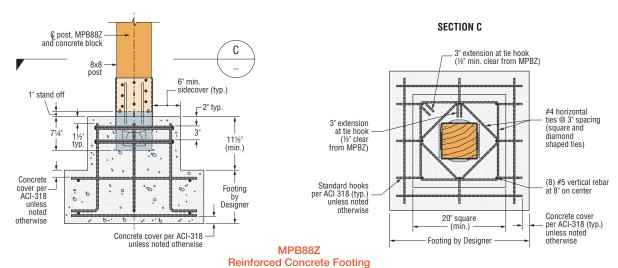
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## Moment Post Base (cont.)

These products are available with additional corrosion protection. For more information, see p. 15.

Model No.	Nominal Column Size	Dimensions (in.)			Strong-Drive® SDS Screws	Concrete Allowable Loads						Wood Assembly Allowable Loads (DF/SP)			Potational	
						Uplift		Lateral F <sub>1</sub>		Moment M (ftlb.)			Download	Moment	Stiffness (inlb./	Code Ref.
		W <sub>1</sub> / W <sub>2</sub>	D	Н		Uncracked	Cracked	Uncracked	Cracked	Uncracked	Cracked	(100)	(160)	(160)	rad.)	
Non-Reinforced Concrete																
Wind and Seismic Design Category A&B																
MPB44Z	4x4	3%16	71/4	71/4	(16) 1/4" x 21/2"	4,900	3,820	1,750	1,225	1,350	985	6,240	6,410	1,540	1,245,000	IBC,
MPB66Z	6x6	5%16	71/4	71/4	(24) 1/4" x 21/2"	5,815	5,815	3,545	2,405	2,680	1,875	9,360	10,855	3,730	2,405,000	FL, LA
MPB88Z	8x8	7%16	71/4	71/4	(36) 1/4" x 3"	9,945	6,960	7,200	5,560	4,160	2910	15,120	17,585	4,525	5,500,000	
Seismic Design Category C-F																
MPB44Z	4x4	3%16	71/4	71/4	(16) 1/4" x 21/2"	4,785	3,350	1,535	1,075	1,180	830	6,240	6,410	1,540	1,245,000	IBC,
MPB66Z	6x6	5%16	71/4	71/4	(24) 1/4" x 21/2"	5,815	5,815	3,015	2,055	2,055	1,645	9,360	10,855	3,730	2,405,000	FL, LA
MPB88Z	8x8	7%16	71/4	71/4	(36) 1/4" x 3"	7,420	6,100	6,965	4,875	3,470	2550	15,120	17,585	4,525	5,500,000	_
Reinforced Concrete																
							Wind and	Seismic De	sign Cate	gory A&B						
MPB44Z	4x4	3%16	71/4	71/4	(16) 1/4" x 21/2"	4,900	3,820	1,750	1,225	1,540	1,540	6,240	6,410	1,540	1,245,000	]
MPB66Z	6x6	5%16	71/4	71/4	(24) 1/4" x 21/2"	5,815	5,815	3,545	2,405	3,730	3,190	9,360	10,855	3,730	2,405,000	_
MPB88Z	8x8	7%16	71/4	71/4	(36) ¼" x 3"	9,945	6,960	7,200	5,560	4,525	4,525	15,120	17,585	4,525	5,500,000	
							Seis	mic Design	Category	C-F						
MPB44Z	4x4	3%16	71/4	71/4	(16) 1/4" x 21/2"	4,785	3,350	1,535	1,075	1,540	1,540	6,240	6,410	1,540	1,245,000	
MPB66Z	6x6	5%16	71/4	71/4	(24) 1/4" x 21/2"	5,815	5,815	3,015	2,110	3,350	2,795	9,360	10,855	3,730	2,405,000	-
MPB88Z	8x8	7%16	71/4	71/4	(36) 1/4" x 3"	7,420	6,100	6,965	4,875	4,525	4,525	15,120	17,585	4,525	5,500,000	
	MPB44Z MPB66Z MPB88Z MPB66Z MPB88Z MPB66Z MPB88Z MPB88Z MPB88Z MPB84Z MPB66Z MPB88Z	MPB44Z 4x4 MPB66Z 6x6 MPB88Z 8x8  MPB44Z 4x4 MPB66Z 6x6 MPB88Z 6x6	Model No.         Nominal Column Size           W1 / W2           MPB44Z         4x4         3%6           MPB66Z         6x6         5%6           MPB88Z         8x8         7%6           MPB66Z         6x6         5%6           MPB66Z         6x6         5%6           MPB88Z         8x8         7%6           MPB66Z         6x6         5%6           MPB88Z         8x8         7%6           MPB88Z         8x8         7%6           MPB44Z         4x4         3%6           MPB44Z         4x4         3%6           MPB66Z         6x6         5%6           MPB66Z         6x6         5%6	Model No.         Nominal Column Size         (in.)           W1 / W2         D           MPB44Z         4x4         3%6         7¼           MPB66Z         6x6         5%6         7¼           MPB88Z         8x8         7%6         7¼           MPB66Z         6x6         5%6         7¼           MPB88Z         8x8         7%6         7¼           MPB8BZ         8x8         7%6         7¼           MPB8AZ         4x4         3%6         7¼           MPB6GZ         6x6         5%6         7¼           MPB88Z         8x8         7%6         7¼           MPB88Z         8x8         7%6         7¼           MPB86Z         6x6         5%6         7¼           MPB8AZ         4x4         3%6         7¼           MPB44Z         4x4         3%6         7¼           MPB44Z         4x4         3%6         7¼           MPB66Z         6x6         5%6         5%6         5%6           MPB66Z         6x6         5%6         5%6         5%6	Model No.         Nominal Column Size         (in.)           W1 / W2         D         H           MPB44Z         4x4         3%6         7¼         7¼           MPB66Z         6x6         5%6         7¼         7¼           MPB88Z         8x8         7%6         7¼         7¼           MPB66Z         6x6         5%6         7¼         7¼           MPB66Z         6x6         5%6         7¼         7¼           MPB88Z         8x8         7%6         7¼         7¼           MPB44Z         4x4         3%6         7¼         7¼           MPB88Z         8x8         7%6         7¼         7¼           MPB88Z         8x8         7%6         7¼         7¼           MPB44Z         4x4         3%6         7¼         7¼           MPB44Z         4x4         3%6         7¼         7¼           MPB44Z         4x4         3%6         7¼         7¼           MPB66Z         6x6         5%6         7¼         7¼           MPB66Z         6x6         5%6         7¼         7¼	Model No.         Nominal Column Size         (in.)         Strong-Drive® SDS Screws           MPB44Z         4x4         3%6         7¼         7¼         (16) ¼" x 2½"           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"           MPB88Z         8x8         7%6         7¼         7¼         (36) ¼" x 3"           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"           MPB88Z         8x8         7%6         7¼         7¼         (16) ¼" x 2½"           MPB66Z         6x6         5%6         7¼         7¼         (16) ¼" x 2½"           MPB88Z         8x8         7%6         7¼         7¼         (16) ¼" x 2½"           MPB88Z         8x8         7%6         7¼         7¼         (36) ¼" x 3"           MPB88Z         8x8         7%6         7¼         7¼         (36) ¼" x 2½"           MPB86Z         6x6         5%6         7¼         7¼         (16) ¼" x 2½"           MPB86Z         6x6         5%6         7¼         7¼         (16) ¼" x 2½"	Model No.         Nominal Column Size         (in.)         Strong-Drive® SDS Screws         Upl           MPB44Z         4x4         3%6         7¼         7¼         (16) ¼" x 2½"         4,900           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"         5,815           MPB88Z         8x8         7%6         7¼         7¼         (16) ¼" x 2½"         4,785           MPB66Z         6x6         5%6         7¼         7¼         (16) ¼" x 2½"         5,815           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"         5,815           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"         5,815           MPB88Z         8x8         7%6         7¼         7¼         (16) ¼" x 2½"         4,900           MPB66Z         6x6         5%6         7¼         7¼         (24) ¼" x 2½"         5,815           MPB66Z         6x6         5%6         7¼         7¼         (16) ¼" x 2½"         4,900           MPB88Z         8x8         7%6         7¼         7¼         (24) ¼" x 2½"         5,815           MPB44Z         4x4         3%6 <td>  Nominal Column   Nominal Column   No.                                      </td> <td>Model No.         Dimensions (in.)         Strong-Drive® SDS Screws         Uplift         Latera           W1 / W2 /</td> <td>Model No.         Dimensions (in.)         Strong-Drive® SDS Screws         Uplift         Lateral F₁           W1 / W2 / W2 / W1 / W2 / W1 / W2         Uplift         Lateral F₁           Won-Reinforced Concrete           Wind and Seismic Design Cate           MPB66Z 6x6 5%6 7¼ 7¼ (16) ¼" x 2½" 4,900 3,820 1,750 1,225           MPB88Z 8x8 7%6 7¼ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7¼ 7¼ (16) ¼" x 2½" 4,785 3,350 1,535 1,075           MPB88Z 8x8 7%6 7½ 7¼ (24) ¾" x 2½" 5,815 5,815 3,015 2,055           MPB88Z 8x8 7%6 7½ 7¼ (36) ¾" x 3" 7,420 6,100 6,965 4,875           MPB44Z 4x4 3%6 7¼ 7¼ (16) ¾" x 2½" 4,900 3,820 1,750 1,225           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 4,900 3,820 1,750 1,225           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 5,815 5,815 3,545 2,405           MPB66Z 6x6 5x6 5x6 7½ 7½ 7¼ (24) ¾" x 2½" 5,815 5,815 3,545 2,405           MPB88Z 8x8 7%6 7½ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7½ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 5,815 5,815 3,350 1,535 1,075           MPB66Z 6x6 5x6 5x6 7½ 7¼ 7¼ (24) ¾" x 2½" 5,815 5,815 3,350 1,535 1,075           MPB44Z 4x4 3x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7</td> <td>Model No.         Nominal Column Size         Up It         Lateral Fal         Mode (ft1)           MPB44Z   4x4   3%6   7 ½   7½   7½   7½   7½   7½   7½  </td> <td>  Nominal Size   Nomi</td> <td>  Nominal Column   Nomi</td> <td>  Nominal Nominal Size   Nominal Siz</td> <td>  Nominal Roll   Nomi</td> <td>  Model No.   Notition   No.   No.  </td>	Nominal Column   Nominal Column   No.	Model No.         Dimensions (in.)         Strong-Drive® SDS Screws         Uplift         Latera           W1 / W2 /	Model No.         Dimensions (in.)         Strong-Drive® SDS Screws         Uplift         Lateral F₁           W1 / W2 / W2 / W1 / W2 / W1 / W2         Uplift         Lateral F₁           Won-Reinforced Concrete           Wind and Seismic Design Cate           MPB66Z 6x6 5%6 7¼ 7¼ (16) ¼" x 2½" 4,900 3,820 1,750 1,225           MPB88Z 8x8 7%6 7¼ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7¼ 7¼ (16) ¼" x 2½" 4,785 3,350 1,535 1,075           MPB88Z 8x8 7%6 7½ 7¼ (24) ¾" x 2½" 5,815 5,815 3,015 2,055           MPB88Z 8x8 7%6 7½ 7¼ (36) ¾" x 3" 7,420 6,100 6,965 4,875           MPB44Z 4x4 3%6 7¼ 7¼ (16) ¾" x 2½" 4,900 3,820 1,750 1,225           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 4,900 3,820 1,750 1,225           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 5,815 5,815 3,545 2,405           MPB66Z 6x6 5x6 5x6 7½ 7½ 7¼ (24) ¾" x 2½" 5,815 5,815 3,545 2,405           MPB88Z 8x8 7%6 7½ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7½ 7¼ (36) ¾" x 3" 9,945 6,960 7,200 5,560           MPB44Z 4x4 3%6 7½ 7¼ (16) ¾" x 2½" 5,815 5,815 3,350 1,535 1,075           MPB66Z 6x6 5x6 5x6 7½ 7¼ 7¼ (24) ¾" x 2½" 5,815 5,815 3,350 1,535 1,075           MPB44Z 4x4 3x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7x6 7	Model No.         Nominal Column Size         Up It         Lateral Fal         Mode (ft1)           MPB44Z   4x4   3%6   7 ½   7½   7½   7½   7½   7½   7½	Nominal Size   Nomi	Nominal Column   Nomi	Nominal Nominal Size   Nominal Siz	Nominal Roll   Nomi	Model No.   Notition   No.   No.

- 1. Loads may not be increased for duration of load.
- 2. Higher download can be achieved by solidly packing grout in the 1" standoff area before installation of the post. Allowable download shall be based on either the wood post design or the concrete design calculated per code.
- 3. Concrete shall have a minimum compressive strength of  $f'_{C} = 2,500$  psi.
- 4. Tabulated rotational stiffness accounts for the rotation of the base assembly attributable to deflection of the connector, fastener slip, and post deformation. Designer must account for additional deflection attributable to bending of the post.
- 5. To obtain LRFD values, multiply ASD seismic load values by 1.4 and wind load values by 1.67 (1.6 for 2012 IBC).
- 6. In accordance with IBC, Section 1613.1, detached one- and two-family dwellings in Seismic Design Category (SDC) C may use "Wind and SDC A&B" allowable loads.
- 7. Foundation dimensions are for anchorage only. Foundation design (size and reinforcement) by Designer.
- 8. Allowable load shall be the lesser of the wood assembly or concrete allowable load. To achieve full wood assembly allowable moment loads, additional concrete design and reinforcement by Designer is required.
- 9. For loading simultaneously in more than one direction, the allowable load must be evaluated using the following equation: (Design Uplift / Allowable Uplift, or Design Download / Allowable Download) + (Design Moment / Allowable Moment) + (Design Lateral / Allowable Lateral) ≤ 1.0.
- 10. To account for shrinkage up to 3%, multiply rotational stiffness by 0.75. Reduction may be linearly interpolated for shrinkage less than 3%.



Footing (size and reinforcement) by Designer. Standard hook geometry in accordance with ACI 318 unless noted otherwise.