

# MPB – Moment Post Base

**Material:** Carbon Steel 2.7mm thick

**Finish:** ZMAX® Galvanised



**Size:** 90mm x 90mm x 393mm

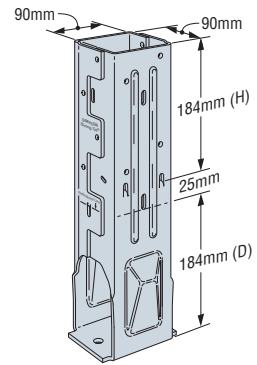
## Features & Benefits

- Suits 90mm x 90mm post
- One-piece design simplifies installation and no additional bracing needed
- Additional holes provided to attach trim material
- Weep hole provided for water drainage
- Tabs inside the MPB provide 25mm post standoff to help prevent rot from standing water and ground moisture
- Stamped indicators and internal tabs identify the required concrete embedment depth

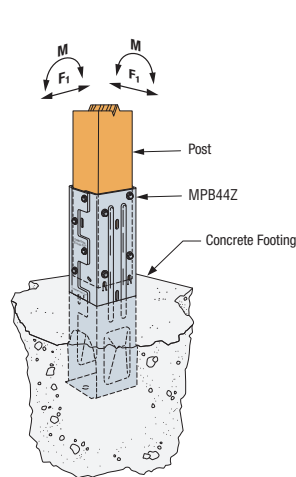
## Installation

- Use all specified fasteners (included)
- Install MPB44Z before concrete is placed using embedment level indicators and form board attachment holes
- Place post on tabs 25mm above top of concrete
- Install Strong-Drive® SDS Heavy-Duty Connector screws, which are supplied with the MPB44Z (Coach screws will not achieve the same load)
- Concrete level inside the part must not exceed 6mm 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

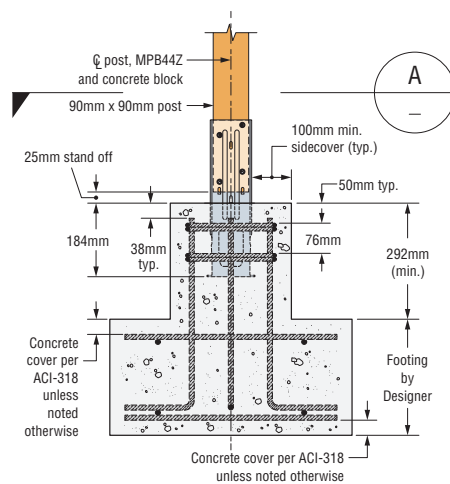
## Construction Details



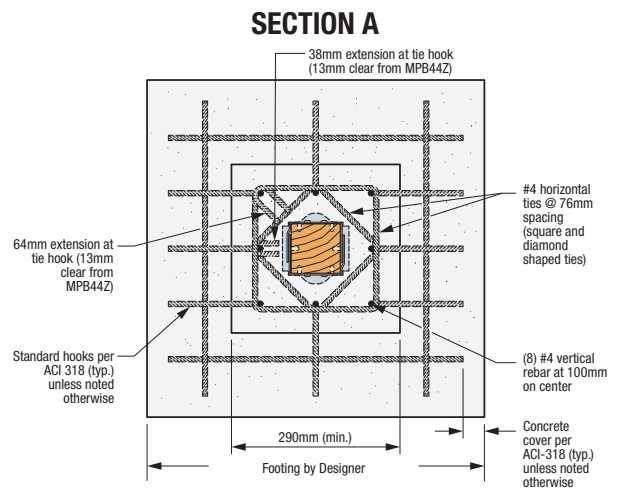
**MPB44Z**



**Typical MPB Installation**



**MPB Reinforced Concrete Footing - Cross Section**



**MPB Reinforced Concrete Footing - Top View**

# MPB — Moment Post Base

## MPB Technical Data

Model No.	Post Size (mm)	Dimension (mm)		Fasteners (No. – Length x Dia., mm)	Concrete Anchorage (kN)		Timber (kN)			Download (kN)
		H	D		Cracked / Non-Reinforced Concrete		Uplift $k_1 = 1.0$	Lateral F1 $k_1 = 1.0$	Moment M (kNm) $k_1 = 1.0$	$k_1 = 0.8$
					Uplift $k_1 = 1.0$	Lateral F1 $k_1 = 1.0$				
<b>MPB44Z</b>	90 x 90	184	184	16 - SDS6.4 x 64	19.80	8.45	20.62	14.03	6.89	30.10

- Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the NZ Strength Reduction Factor ( $\phi$ ), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2mm joint slip. Design Capacity is the minimum of test data and structural joint calculation.
- For NZ, the Strength Reduction Factor ( $\phi$ ) is 0.80 for nails in lateral loading.
- Duration of Load Factor ( $k_1$ ) is as shown. Reduce Duration of Load Factor ( $k_1$ ) where applicable. Capacities may not be increased.
- Timber species for joint design is seasoned Radiata Pine, which is Australia Joint Group JD4 per AS 1720.1 Table H2.4 and New Zealand Joint Group J5 per NZS 3603 Table 4.1.
- 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.
- Concrete shall have a minimum compressive strength of  $f'c = 17\text{Mpa}$
- Foundation design (size and reinforcement) by Designer.
- Design Capacity shall be the lesser of the wood assembly or concrete design capacity. To achieve full wood assembly moment design capacity, additional concrete design and reinforcement by Designer is required.
- For loading simultaneously in more than one direction, the Design Capacity must be evaluated using the following equation: (Uplift / Design Uplift Capacity, or Download / Design Download Capacity) + (Moment / Design Moment Capacity) + (Lateral / Design Lateral Capacity)  $\leq 1.0$ .