

TECHNICAL SPECIFICATIONS

ForkSafe® Barrier System

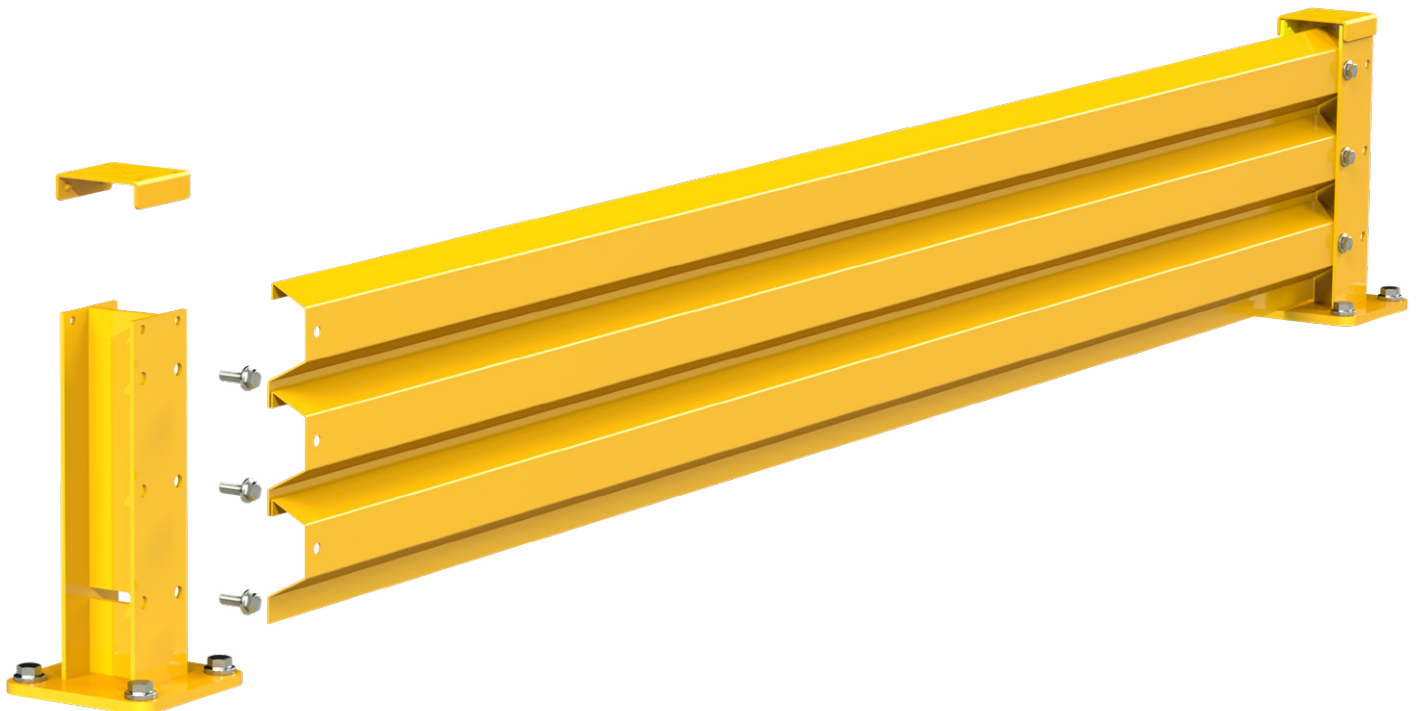
ForkSafe® 400-A

ASSET PROTECTION

- **Height:** 400mm
- **Number of Rails Per Bay:** 1 set (1 set = 3 rails)
- **Rail Lengths:** 1200mm, 2400mm
- **Finish:** Galvanised with yellow powdercoat finish

- **Post Material:** Steel — 5mm and 8mm wall thickness
- **Rail Material:** Steel — 2mm wall thickness
- **Connector:** M12 x 30mm 8.8 high tensile bolt
- **Fixings:** M12 x 100mm concrete screw bolts (4 per post, supplied)

- **Post Size:** 90 x 90mm 'I' beam type section with Crumple Zone Technology
- **Base Plate:** 180 x 180mm square, 12mm thick, 4 x Ø16mm anchor holes
- **Cap:** Yellow HDPE clip-on cap.


5.85
kJ


3313-001



3310-025



3310-003



3310-004

OPTIONS

Code	Description	Height (mm)	Rail Length (mm)	Finish
3310-025	400-A Starter Bay	400	1200	Galv/Yellow
3310-003	400-A Starter Bay	400	2400	Galv/Yellow
3310-004	400-A Add-On Bay	400	2400	Galv/Yellow
3313-001	ForkSafe 90° Corner (incl. 6 x Fixing 3313-036)			Galv/Yellow

SPARE COMPONENTS

Code	Description	Size (mm)	Finish
3211-036	ForkSafe Post	400(H)	Galv/Yellow
3312-011	ForkSafe Rail	2400(L)	Galv/Yellow
3212-019	ForkSafe Rail	1200(L)	Galv/Yellow
3313-037	ForkSafe Post Cap		Yellow, HDPE
Fixings			
3313-036	Flanged Purlin Bolt & Nut, M12 x 30mm, 8.8, Galv		
1911-016	M12 x 100mm Concrete Screw		

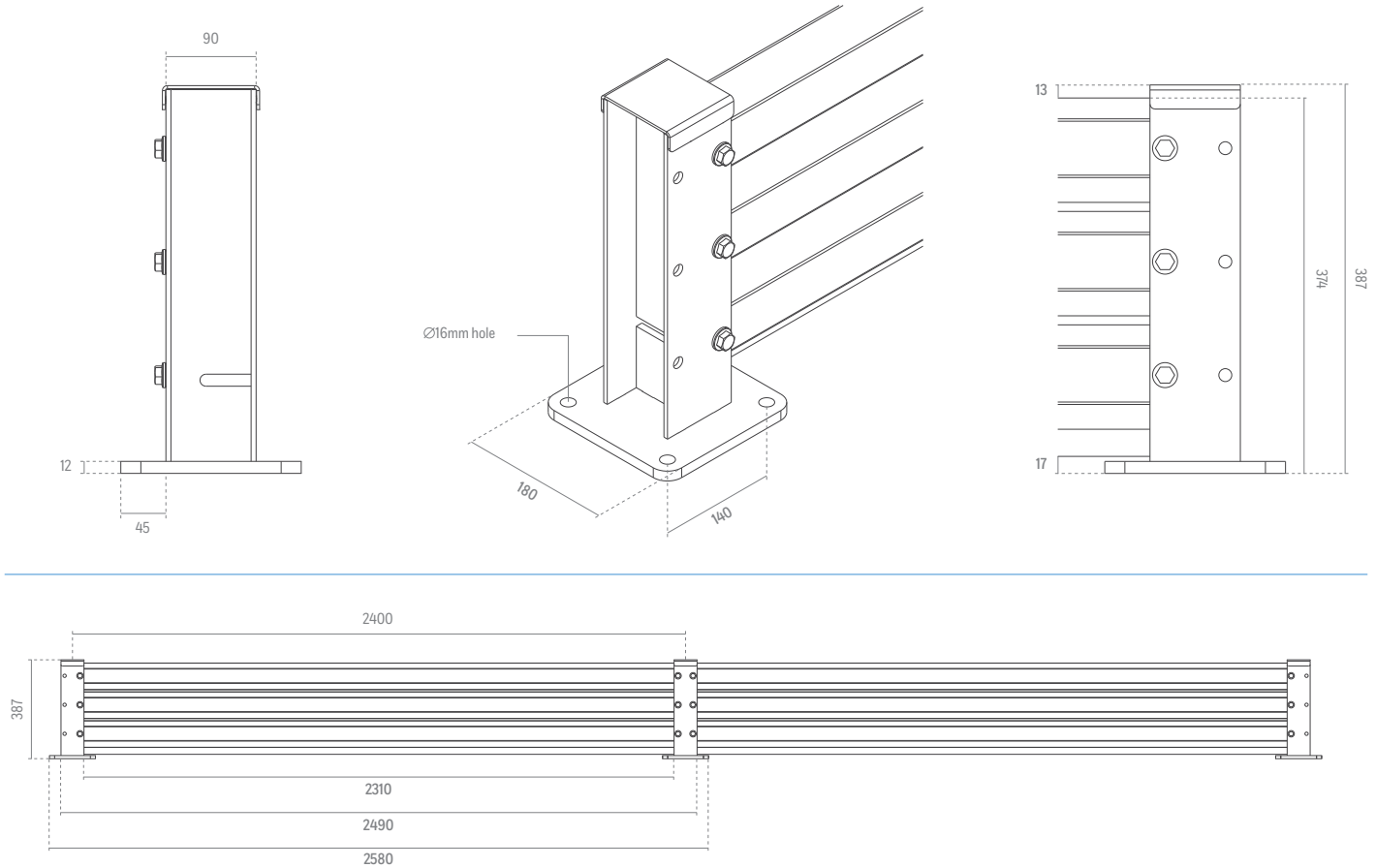

[VIEW IMPACT CALCULATOR](#)

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TECHNICAL SPECIFICATIONS**ForkSafe® Barrier System**

ForkSafe® 400-A

ASSET PROTECTION**5.85****kJ**

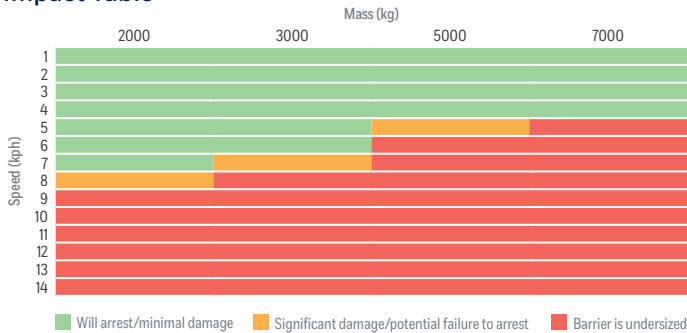
ForkSafe® 400-A

ASSET PROTECTION**5.85****kJ****CERTIFICATION**

- Impact simulation tested — **stops 7T at 4.7km/h**
- Meets AS/NZS 1170.1 Section 3.8 — Type F 30kN and Type G 40kN
- Tested in compliance with PAS13 (certification available on request)

IMPACT SIMULATION**Barrier Details**

Barrier Type	ForkSafe 400-A
Barrier Height	400mm
Bay Length	2400mm centres
Number of Rails Per Bay	1 set (1 set = 3 rails)
Number of Bays	3

Impact Table**Forklift and Load Details**

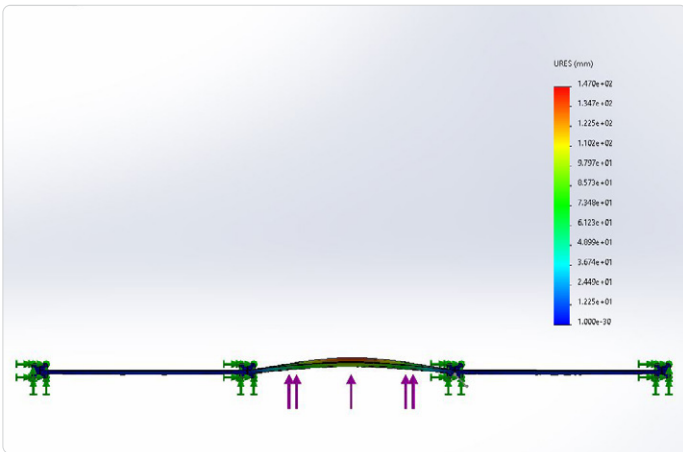
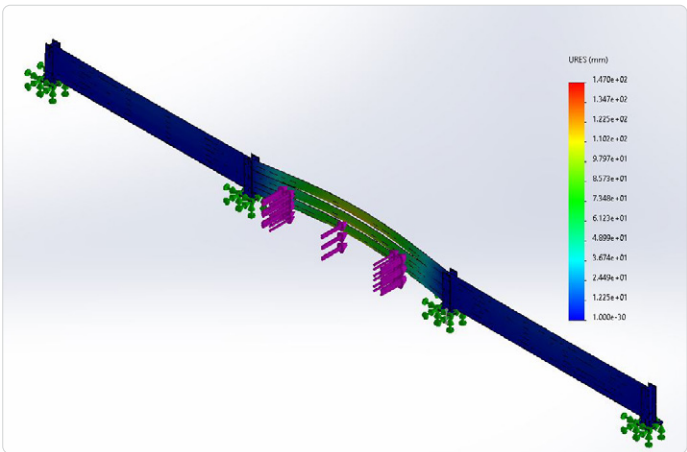
Mass of Forklift and Speed 90 Degrees	4 Tons @ 6.1 km/h
Mass of Forklift and Speed 25 Degrees	11.5 Tons @ 4km/h
Impact Region	Centre of all rails, 1.5m wide area
Height from Ground	72mm
Concrete Strength	31 MPa minimum
Energy	5850 Joules

Methodology

Model	von Mises Plasticity Model
Study Type	Linear static structural
Angle of Impact	90 Degrees

Results

Deflection Expected	147mm
Deformation	Permanent



How to Install ForkSafe® Barriers

APPLIES TO 400-A, 600-A/C, 950-A/C, 1800-A, 2200-A*



▲ Run a string line from the first to last post



▲ Insert rails into posts and secure with bolts



▲ Mount posts with concrete screws

1 Establish a Reference Point

- ➔ Identify a reference point from a wall or corner where the barrier run will begin.
- ➔ Position the first post to mark the start of the run.
- ➔ Run a string line from the first post to the end of the run.

2 Positioning the Posts

- ➔ Lay out the posts approximately in their intended positions, ensuring correct spacing (either 2.4m or 1.2m).
- ➔ Install 2–3 purlin rails and secure the bolts finger-tight.
- ➔ Continue down the run, repeating the process while verifying spacings.
- ➔ Adjust as needed, as the slotted holes allow for slight movement.

3 Anchoring the Posts

- ➔ Anchor the first post by leveling and shimming it as necessary.
- ➔ Use concrete screws to secure it, ensuring the dust is cleared from the hole before tightening.
- ➔ Set exact spacing for the second, third, and subsequent posts to maintain alignment.
- ➔ Secure each post with concrete screws in a star or diagonal pattern, keeping all posts level and straight.

4 Corners

- ➔ Use the corner post as a reference point when starting a new run.
- ➔ Tighten the purlin bolts securely on the corner plates.
- ➔ Align the next post accordingly.
- ➔ If the corner must be positioned in a specific location, adjust accordingly before anchoring.

5 Adjusting Rail Lengths

- ➔ Rails come in standard 2400mm and 1200mm lengths, however they can be cut to size on site.
- ➔ Treat cut edges with zinc-rich/ rust-inhibiting yellow paint to prevent rust.

***For Barriers with Handrails: 600-B/D, 950-B/D**

Follow the same procedure, with one critical addition:

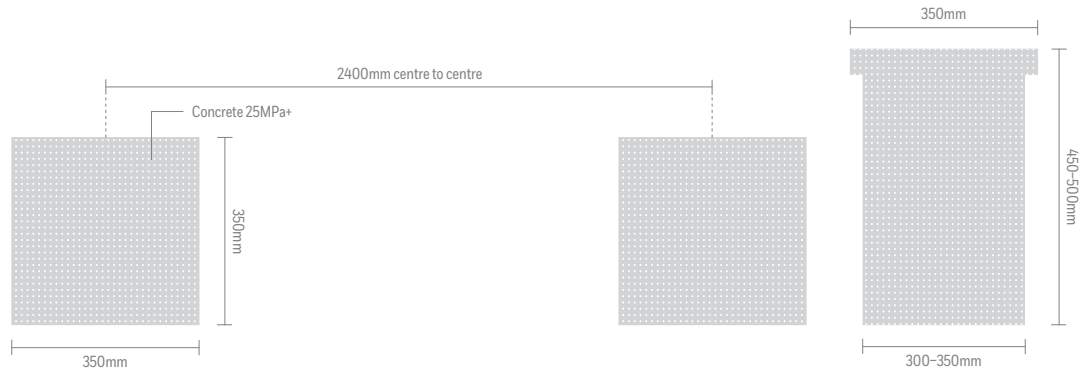
- ➔ Ensure the barrier is straight and square with the handrail before tightening — accurate alignment is essential for proper fit.



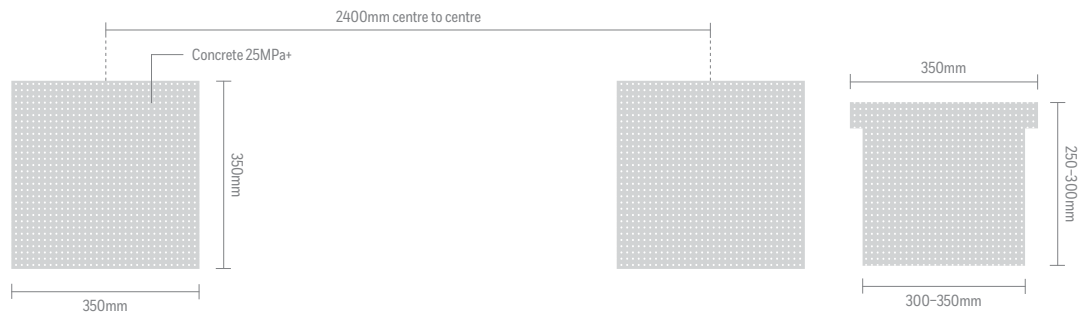
▲ Secure handrail with socket screws

Footing Details for Barrier Installation on Asphalt

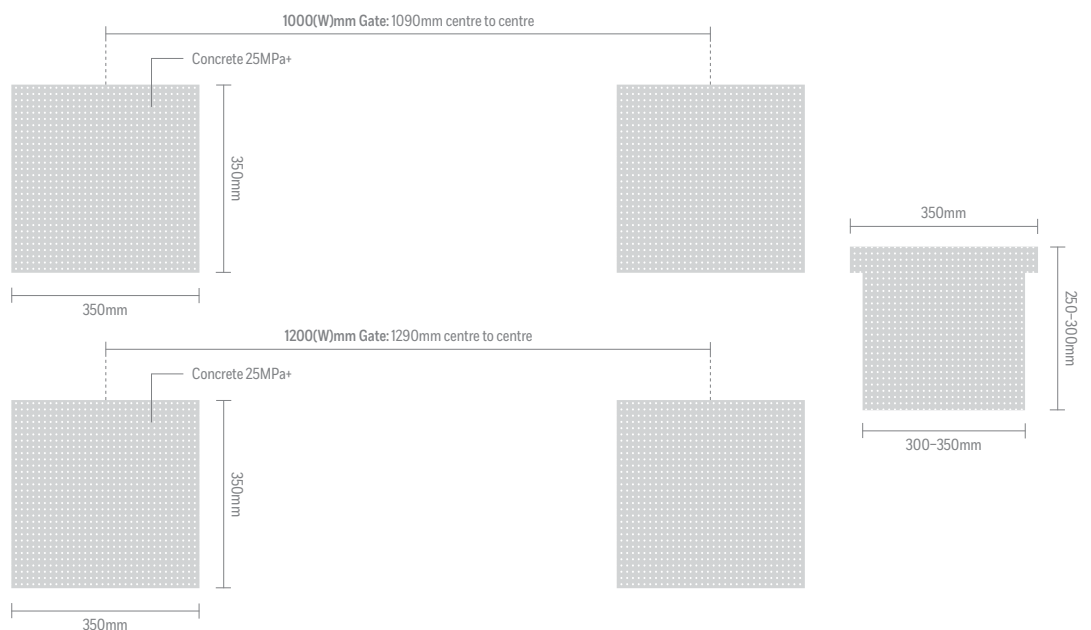
FOR FORKSAFE BARRIERS



FOR PEDSAFE HANDRAIL



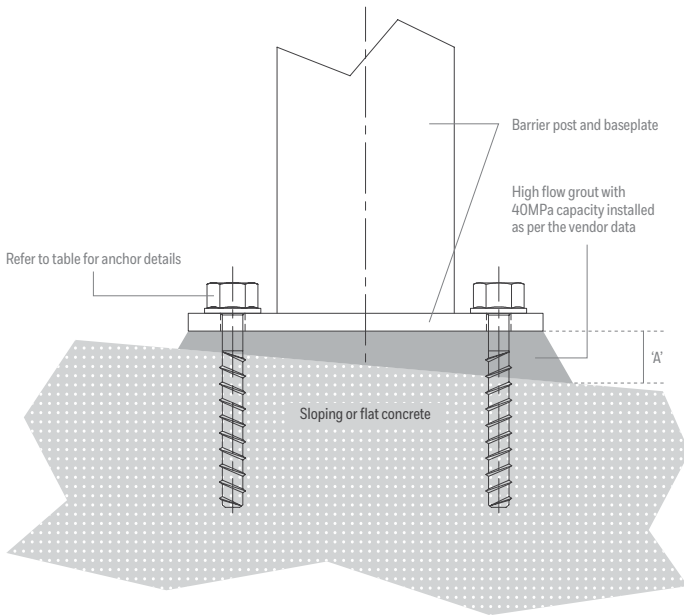
FOR PEDSAFE GATES



How to Install Barriers on Uneven Surfaces

GROUT & PLINTH DETAILS

TYPICAL GROUT DETAIL



Anchor Details

Item	Anchor Type	Embedment (mm)	Grout Thickness 'A' (mm)	Anchor Length (mm)
ForkSafe Barriers	M12 Screw Anchor	75	1-20	100
	M12 Screw Anchor	105	21-48	150
Boplan	M12 Through Bolt	80	1-6	100
	M12 Screw Anchor	75	7-15	120
	M16 Screw Anchor	80	16-60	150
Pedestrian Barriers & Gates	M12 Screw Anchor	75	1-20	100
	M12 Screw Anchor	105	21-45	150
	M12 Screw Anchor	105	46-95	200
Mezzanine Gates	M10 Screw Anchor	50	10	75

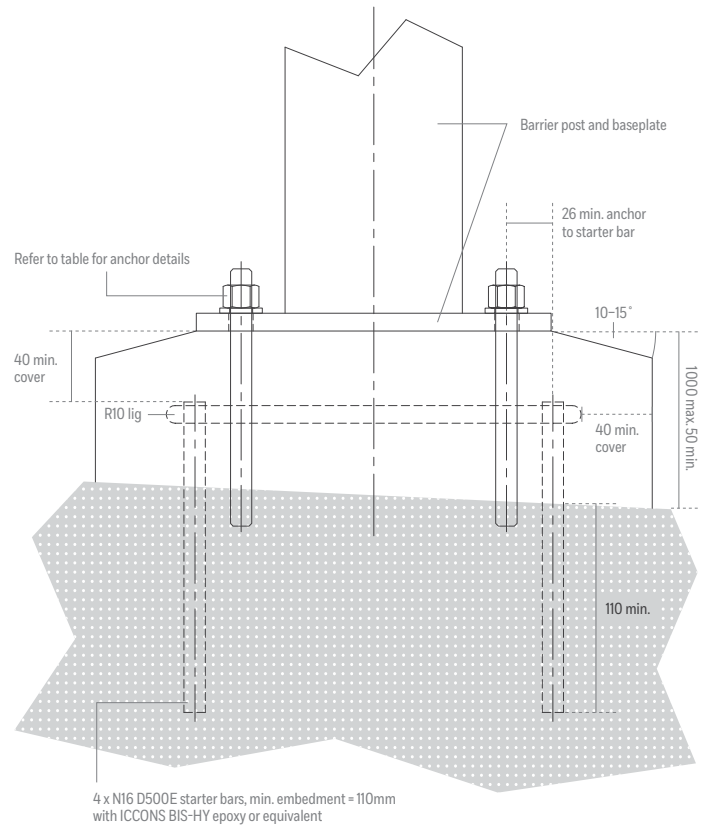
Note: All loading and geometry as per vendor data; M16 screw anchor may be used instead of M16 as long as length is achieved.

Barrier Details

Item	Item Types
ForkSafe Barriers	400-A, 600-A/B/C/D, 950-A/B/C/D, 1800-A, 2200-A
Boplan	TB260, TB260 Double, TB260 Plus, TB260 Grill, TB260 Double Plus, TB400, TB400 Double, TB400 Plus, TB400 Grill, TB400 Double Plus, HP Plus, HP Grill, HT Tunnel Free Standing, HT Tunnel Wall Fix, Flip 200F Plus, DG250F, DG250R
Pedestrian Handrails	PedSafe 1000-A
Pedestrian Gates	PedSafe Pause Gate, DockSafe Lift Up Gate, Dock-Pro Bi-Fold Gate
Safety Gates	201, 202, 203, 204, 205, 206

Note: All loading and geometry as per vendor data.

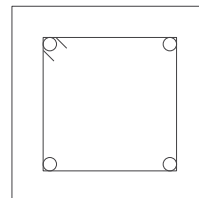
TYPICAL PLINTH DETAIL



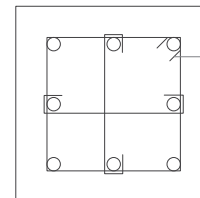
Plinth Details

Plinth Size (mm)	Starter Bar Size	No. of Starter Bars	No. of Ligs
Up to 280x280	N16	4	1
Up to 400x400	N16	8	2 (Up to 300x300 only 1 lig)

4-Bar Ligature Layout



8-Bar Ligature Layout



60mm bend radius and 70mm extension to all hooks

Note (applies to all):

- Plinth concrete to be minimum 40MPa
- If grout thickness noted in typical baseplate grout detail is exceeded use plinth details
- Rhinostop systems use plinth detail.