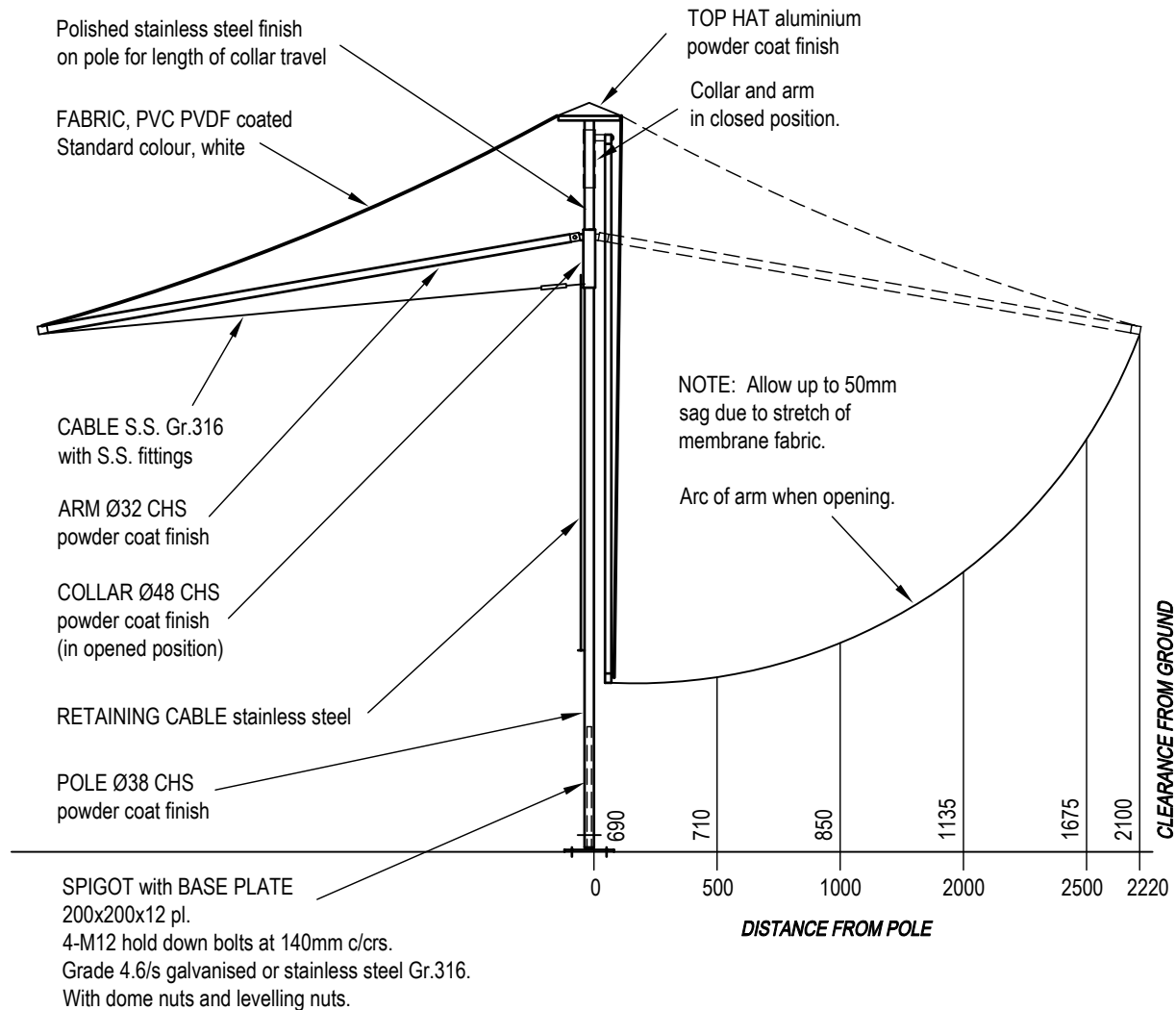


**PORTA SQUARE 3.2m**

Wind Rating: Not rated.  
Close up when wind exceeds 40 km/h  
Umbrella weight: 30kg  
Spigot weight: 3.1kg

Overall dimensions represent clearance dimensions for the complete umbrella.  
Membrane dimensions differ, depending on variations in tensioning and fabrication.

Dimensions are in millimetres.



OPENED POSITION

CLOSED POSITION

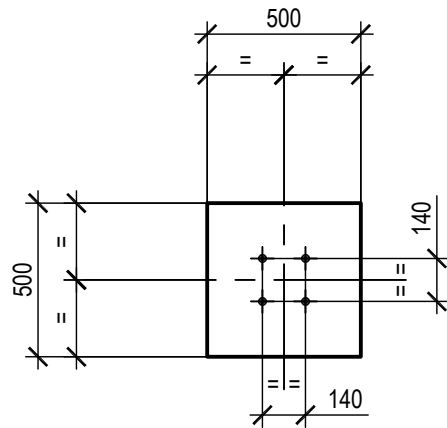
**3.2m Portable Square Umbrella Model:SUA-P32**



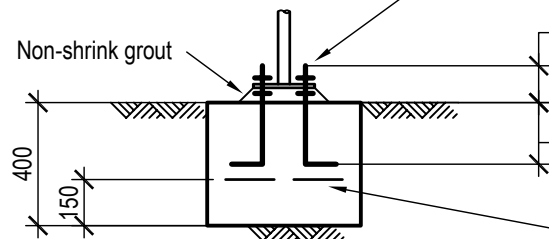
Portable Series  
Model: SUA-P32

Engineering Framing

**street umbrellas**  
Australia



Plan



Elevation

### P32 - Pad Footing

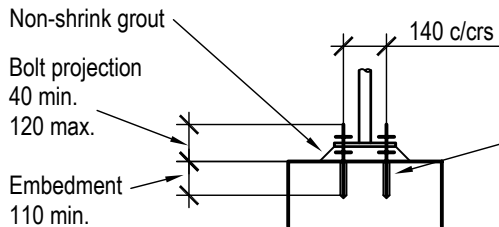
4-M12 Gr.4.6/S galvanised H.D. bolts  
with nuts and levelling nuts  
Cog 100  
Bolt projection to suit level of top of  
paving, tiling, etc  
40 min

120 max.

200 embedment (cast in)

F82 fabric - 50 concrete side cover

Natural Ground



### Chemical Anchor Detail

4-M12 H.D. bolts to be threaded rod grade 4.6/s  
hot dipped galvanised, or stainless steel Gr.316.  
Supplied with nuts, washers and levelling nuts.  
Chemical anchors, at 140 x 140 centres to be  
**'Hilti HVU'**, or engineer approved equivalent,  
and to be installed in accordance with the  
manufacturer's instructions. Hole to be clean  
and dry at time of installation.

#### Notes:

Not wind rated.

Assumed soil conditions:

Pad - bearing capacity 100kPa

Pier -  $c_u=50\text{kPa}$  (stiff clay)

Minimum 60mm cover to all reinforcement

Concrete grade to be N25

20mm aggregate size

Slump 65mm

#### Anchor bolt location tolerances per

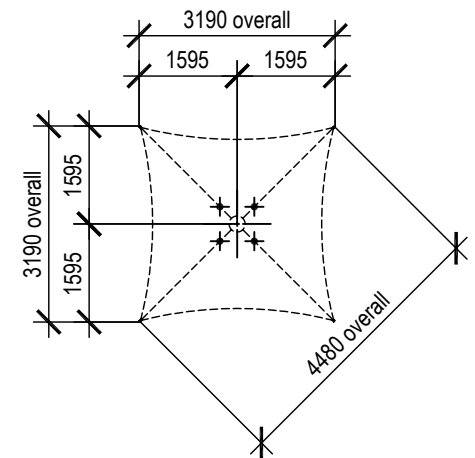
Australian Standard AS 4100-1990

- 3mm for anchor bolt centres  
within an anchor bolt group.

- 6mm for adjacent anchor bolt  
group centres.

- Maximum accumulation of 6mm per 30m  
not to exceed a total of 25mm.

- 6mm from anchor bolt group  
centre to column line centre.



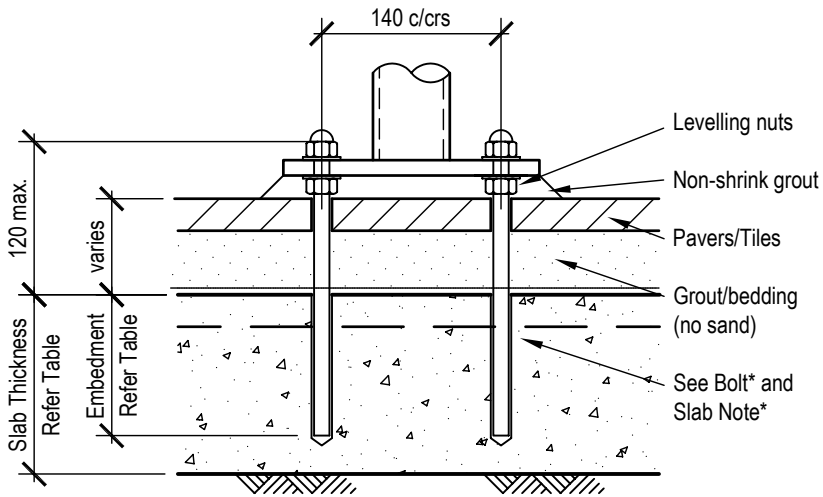
### H.D. Bolt Layout Plan

Not to scale

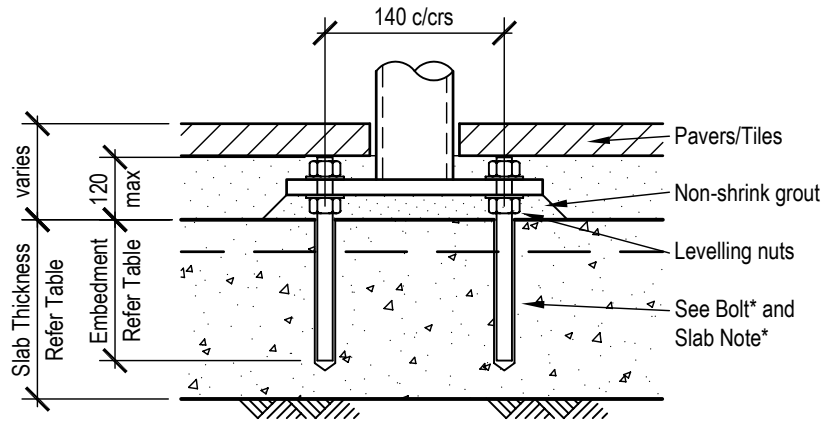
Portable Series  
Model: SUA-P32

Footing Detail

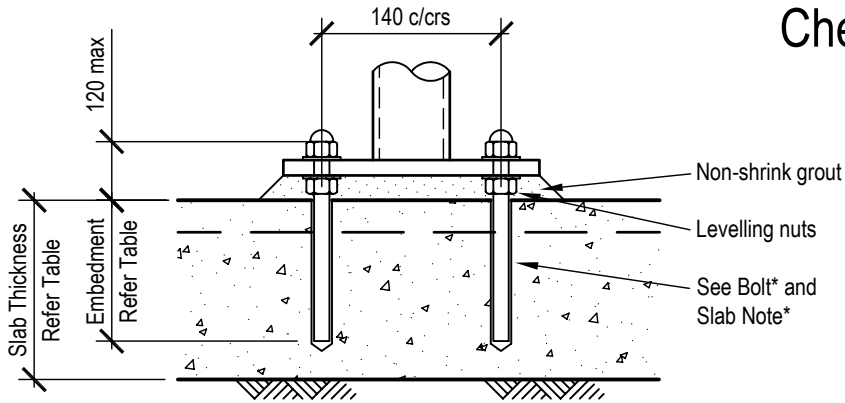
street  
umbrellas  
Australia



Over Pavers



Under Pavers



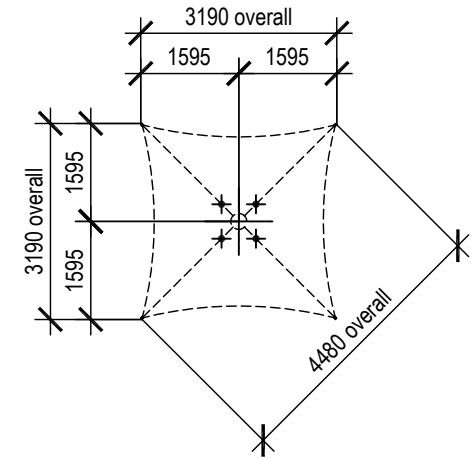
On Slab

## Chemical Anchor Fixing to Slab on Ground

**\* H.D. BOLT NOTE**  
Structure pole has 200 x 200 x 12 base plate.  
4-M12 H.D. bolts to be threaded rod grade 4.6/s hot dipped galvanised, or stainless steel Gr.316. at 140 x 140 centres.

**\* SLAB ON GROUND NOTE**  
The existing reinforced concrete slab on ground is to be approved for adequacy by a Structural Engineer before installation.  
Concrete strength -  $f_c$  25MPa.  
Installation requires **1 sq m** of continuous reinforced slab with the pole centre 400mm minimum from a slab edge or control joint.

Contact a SUA Dealer if the slab does not meet any of the requirements.



H.D. Bolt Layout Plan  
Not to scale

| Slab Thickness | Chemical Anchor                      | Min. Embedment | H.D. Bolts*        | Min. Slab Edge Distance* |
|----------------|--------------------------------------|----------------|--------------------|--------------------------|
| 100            | Ramset Reo 502 (or Hilti HIT-RE 500) | 80             | 4-M12 at 140 c/crs | 400                      |
| 110            | Ramset Reo 502 (or Hilti HIT-RE 500) | 90             | 4-M12 at 140 c/crs | 400                      |
| 120            | Ramset Reo 502 (or Hilti HIT-RE 500) | 100            | 4-M12 at 140 c/crs | 400                      |
| 130            | Hilti HVU                            | 110            | 4-M12 at 140 c/crs | 400                      |
| 140 plus       | Hilti HVU                            | 110            | 4-M12 at 140 c/crs | 400                      |

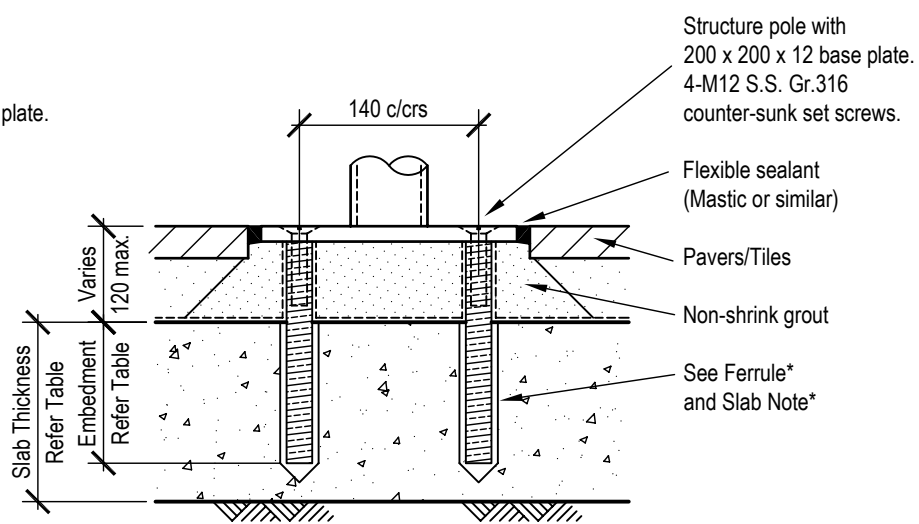
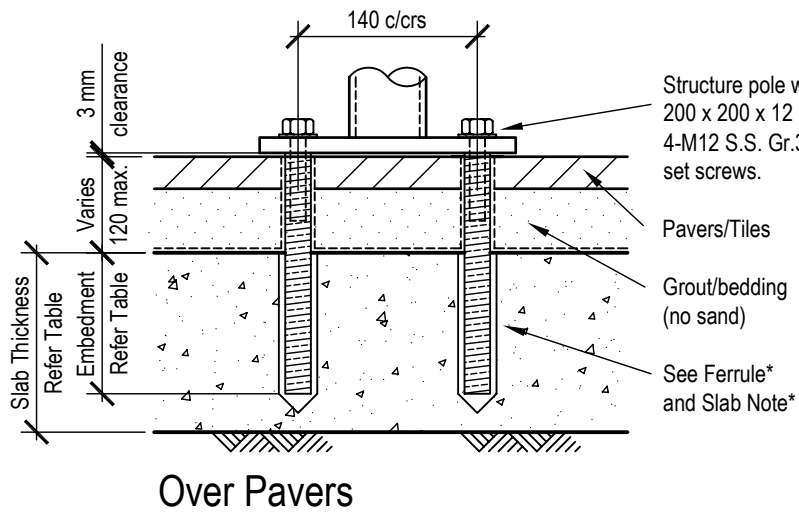
Chemical anchor to be as above or Engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.

## Installation Detail - Model SUA-P32

Portable Series  
Model: SUA-P32

Existing Slab on Ground

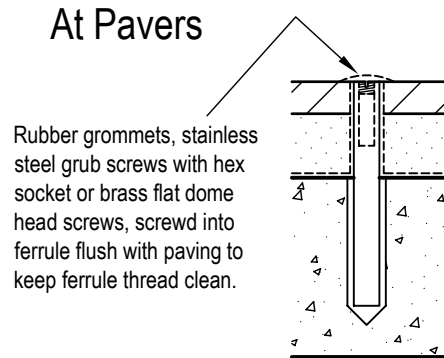
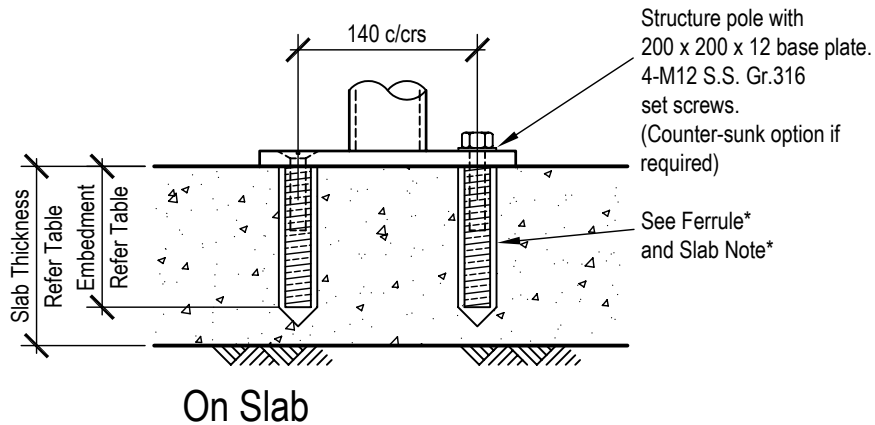
street  
umbrellas  
Australia



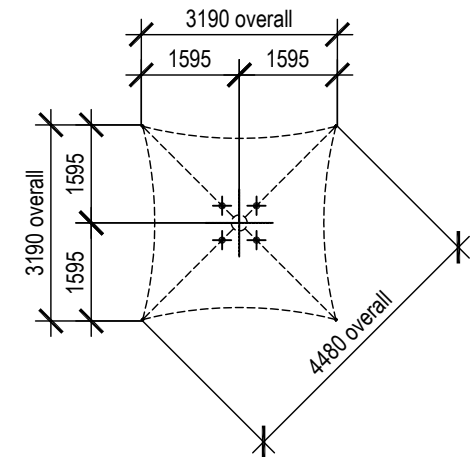
**\* FERRULE NOTE**  
 Ferrules at 140 x 140 centres are M20 stainless steel Gr.316 threaded rods tapped for M12.

**\* SLAB ON GROUND NOTE**  
 The existing reinforced concrete slab on ground is to be approved for adequacy by a Structural Engineer before installation. Concrete strength -  $f'c$  25MPa. Installation requires **1 sq m** of continuous reinforced slab with the pole centre 400mm minimum from a slab edge or control joint.

Contact a SUA Dealer if the slab does not meet any of the requirements



Ferrule Fixing with Umbrella Removed



H.D. Bolt Layout Plan  
 Not to scale

## Chemical Anchor Fixing to Slab on Ground

| Slab Thickness | Chemical Anchor                      | Min. Embedment | Ferrules*          | Min. Slab Edge Distance* |
|----------------|--------------------------------------|----------------|--------------------|--------------------------|
| 100            | Ramset Reo 502 (or Hilti HIT-RE 500) | 80             | 4-M12 at 140 c/crs | 400                      |
| 110            | Ramset Reo 502 (or Hilti HIT-RE 500) | 90             | 4-M12 at 140 c/crs | 400                      |
| 120            | Ramset Reo 502 (or Hilti HIT-RE 500) | 100            | 4-M12 at 140 c/crs | 400                      |
| 130            | Hilti HVU                            | 110            | 4-M12 at 140 c/crs | 400                      |
| 140 plus       | Hilti HVU                            | 110            | 4-M12 at 140 c/crs | 400                      |

Chemical anchor to be as above or Engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.

## Ferrule Detail - Model -SUA-P32

Portable Series  
 Model: SUA-P32

Ferrule Fixing

street  
 umbrellas  
 Australia