

Pattress Plates



Pattress plates are designed to provide low bearing stress on masonry structures. Stainless UK offer a full range of pattress plates designed to meet a wide range of requirements.

Ductile Iron Pattress Plates

- Traditional shape with optimised weight
- Designed to provide low bearing stress on masonry structures
- Pattress plates to suit bar diameters from 16 to 39 mm
- Standard 8° rotation pattress plates in stock
- Self aligning pattress plates can cater for up to 45° misalignment

Fabricated Pattress Plates

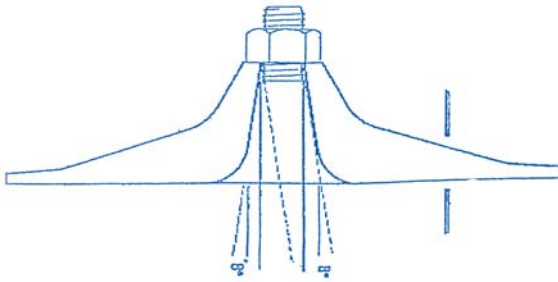
- Stainless UK manufacture stainless steel pattress plates to order. These can be produced in either Grade 304 or Grade 316 stainless steel and in a range of specifications to meet customers' individual requirements
- Stainless steel pattress plates can be made to allow either up to 8° of misalignment or up to 45° of misalignment
- Stainless UK can also supply a full range of Grip-Bar® stainless steel tie bars and fixings

Technical Data

Ductile Iron Standard 8° Pattress Plates

- Maximum misalignment ± 8°
- Material ductile iron (SG)
- Finish: grey primer as standard
- Design stress ratio

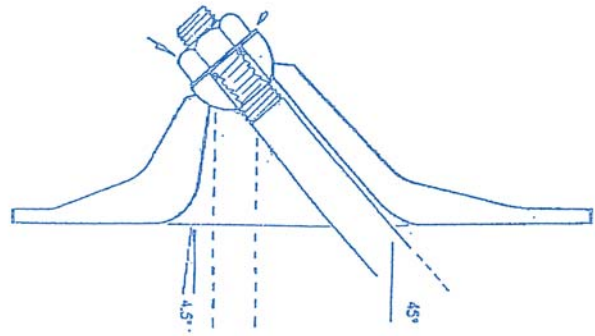
$$\frac{\text{stress in substrate}}{\text{stress in bar}} = \frac{1}{240}$$



Ductile Iron Self-aligning 45° Pattress Plates

- Maximum misalignment ± 45°
- Material ductile iron (SG)
- Finish: grey primer as standard
- Design stress ratio

$$\frac{\text{stress in substrate}}{\text{stress in bar}} = \frac{1}{220}$$



Benefits

- Comprehensive range to suit all applications
- Optimised shape-high strength with low weight
- Aesthetically superior to fabricated plates
- Ductile (SG) iron, withstands high loads, corrosion properties superior to mild steel
- Ductile Iron (SG) (Spheroidal Graphite to ISO 1083 / JS / 450-10 / S)
- Readily available

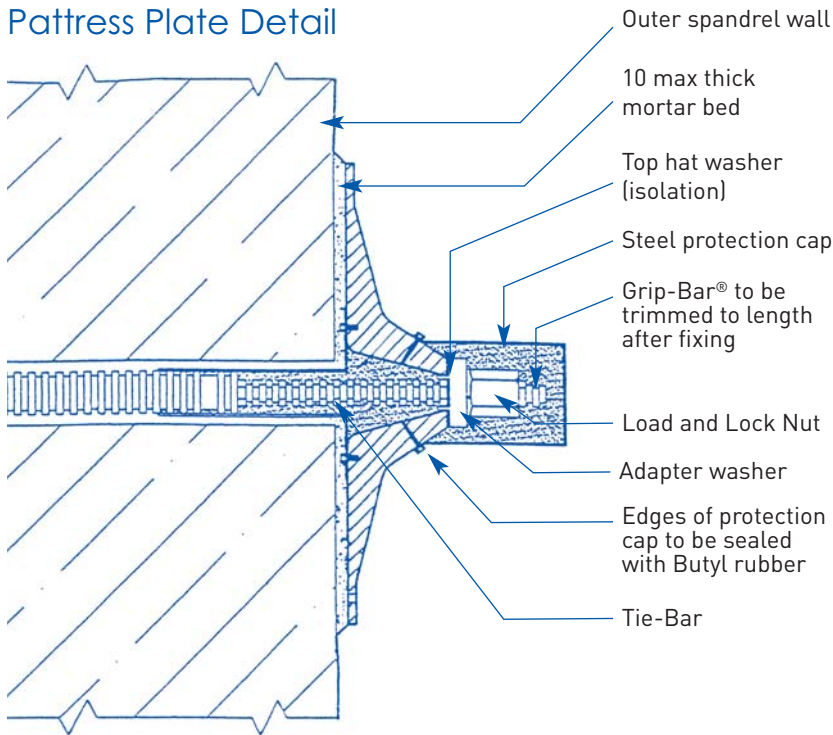
Applications

- Buildings
- Retaining Walls
- Bridges
- Soft Stone
- Concrete
- Rock

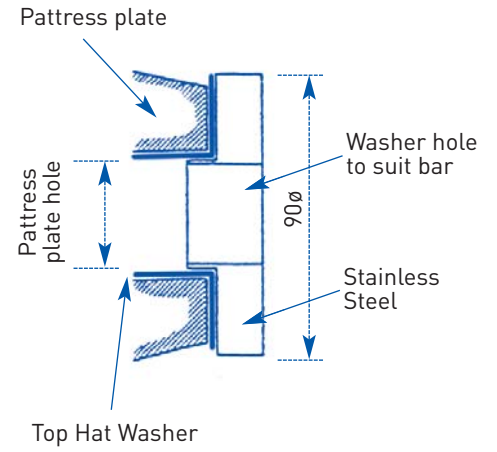
Reference		Nominal Bar Size	Max Design Load	Nominal Dimensions Approx.		Weight Approx.
45°	8°			Base Dia mm	Height mm	
MS16P	M16P	16	78	225	50	4.2
MS20P	M20P	20	122	280	60	8.0
MS24P	M24P	24	176	335	80	12.3
MS30P	M30P	30	280	420	90	25.3
MS39P	M39P	39	490	545	120	57.0

Pattress Plates - Typical Assembly

Pattress Plate Detail

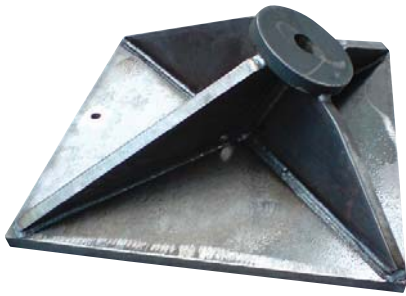


Section through adapter washer



Special Plate Designs

Plates are manufactured to customer specific requirements



System Accessories

Pattress Plates can be supplied with a range of accessories, however plates and end connections can be manufactured to meet individual contract requirements.

1. Grip Bar



Ideal for Rock bolts, Soil Nails, Bridge Strengthening, Building and Bridge cross ties, Ground anchors, Holding down bolts.

2. Top Hat Washer



Used as isolation washer to avoid bimetallic corrosion between the ductile iron / mild steel pattress plate and the stainless steel bar.

3. Grout Hole



Plates can be threaded 3/8 bsp enabling a grout tube to be attached. A breather hole can be machined if required.

4. Hemispherical Washer



For use with either a dished, fabricated or ductile iron plate which requires more than 8 degree misalignment.

5. Protection Cap



Caps are designed to protect the bar and nut from atmospheric conditions and also stop tampering.

6. Reducer Washer



Allows a small diameter bar to be used with a larger pattress or washer plate.

7. Grip Sock



A flexible sock which fits over the anchor bar. As it is filled with grout it expands into cracks and holes.

8. Wrapping Tape



Corrosion protection tape for wrapping bar ends, can be used by its self or covered with a protection cap.

9. Lantern Spacers



Centralisation of single bar within a bore hole enables an even flow of grout around the bar.

10. Hemi Nut



Hemi nuts can be supplied to suit a wide range of plates. They enable a greater degree of misalignment.

Stainless UK has taken care to ensure that this information is accurate, but cannot be responsible for interpretation of the details nor is any liability implied or accepted.



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