# TATA STEEL



# Protect 365<sup>®</sup> High containment parapets

Designed, verified by computer modelling, and dynamically tested with modern cars and with representative test lengths to meet the requirements of BS EN 1317. Improved safety performance together with lower bridge deck loadings.



### **Key features**

- Low structure loading
- Low anchorage requirements
- Increased proven range of post centres
- Increased tolerance for installation to
   accommodate out of position foundations

## **Availability**

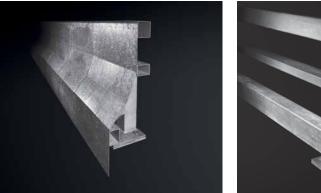
Supply and installation is by licensed companies having third party verified UK National Highways Sector Scheme 5A and 5B approval and a quality management scheme in accordance with ISO 9001.

## **Features**

	H2 Multirail	H4a Unclad	H4a Clad
Containment level	H2	H4a	H4a / L4a
Height minimum	1.5 m	1.5 m	1.6 m
Post centres Proven range End bay maximum	2.5 m to 3.125 m 3.125 m	2.5 m to 4.375 m 3.5 m*	2.5 m to 3.75 m 3.0 m**
Minimum length of parapet	35.0 m end post centres (14 bays, 15 posts)	27.5 m end post centres (11 bays, 12 posts)	20.0 m end post centres (8 bays, 9 posts)
Plinth height	50 to 100 mm	0 to 100 mm	50 to 100 mm
Grout bedding (plus any falls)	10 to 30 mm	10 to 30 mm	10 to 30 mm
Plinth width minimum	450 mm	600 mm	600 mm

\*2.5 m to 4.375 m if connected to Protect 365 H4a Unclad Parapet Transition. \*\*2.5 m to 3.75 m if connected to Protect 365 Clad H4a Transition.

For all non standard designs contact us at the details below





H4a clad parapet

H4a unclad parapet transition

### Specification

	H2 Multirai	I	H4a Unclad	I	H4a Clad	
Performance						
Post centres	2.5 m	3.125 m	2.5 m	4.375 m	2.5 m	3.75m
Impact severity level	В	В	С	В	В	В
Working width class - 3 rail	W3 (1.0 m)	W3 (1.0 m)	W4 (1.2 m)	W4 (1.2 m)	W4 (1.2 m)	W4 (1.2 m)
Wheel penetration	0.3 m	0.3 m	0.4 m	0.4 m	0.4 m	0.4 m
Dynamic deflection	0.4 m	0.4 m	0.5 m	0.5 m	0.5 m	0.6 m

Structure loads			
Post size	100 x 100 mm	180 x 180 mm	200 x 200 mm
Post ultimate moment capacity	28.7 kNm	99.9 kNm	125 kNm
Coexisting shear	38.8 kN	118 kN	135 kN
Post ultimate shear capacity	247.0 kN	462 kN	515 kN

Options			
	<ul> <li>Infill: Mesh or solid sheet</li> <li>Available in heights</li> <li>1.5 m and 1.8 m</li> <li>Paint finish available if required</li> </ul>	Paint finish available     if required	<ul> <li>Coping – required over electrified rail track to give 1.8m height</li> <li>Rear anti-climb sheeting at ends</li> <li>Paint finish available if required</li> </ul>

All systems are provided as Hot dip galvanised to BS EN ISO 1461 and can provide a service life of 30+ years (dependent upon conditions in accordance with specifications for Highways Works Series 400) (Nov 2007)

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