TATA STEEL

TATA

Protect 365®

Normal 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

	N1 Multirail	N1 Vertical Infill	N2 W2 - W3 Multirail	N2 W3 - W4 Multirail
Containment level	N1	N1	N2	N2
Height minimum	1.0 m	1.2 m	1.0 m	1.0 m
Post centres **Proven range** **End bay maximum**	 2.5 m to 3.75 m 3.0 m	 2.5 m to 3.75 m 3.0 m	 2.5 m to 3.75 m 3.0 m*	 2.5 m to 3.75 m 3.0 m*
Minimum length of parapet	12.5 m end post centres (5 bays, 6 posts)	12.5 m end post centres (5 bays, 6 posts)	20.0 m end post centres (8 bays, 9 posts)	12.5 m end post centres (5 bays, 6 posts)**
Plinth height	50 to 100 mm	50 to 100 mm	50 to 100 mm	50 to 100 mm
Grout bedding (plus any falls)	10 to 30 mm	10 to 30 mm	10 to 30 mm	10 to 30 mm
Plinth width minimum	450 mm	450 mm	450 mm	450 mm

*2.5 m to 3.75 m if connected to Protect 365 N2 Barrier Transition.

**May be reduced to 7.5m end post centres (3 bays, 4 posts) when connected to Protect 365 N2 Barrier Transition.

For all non standard designs contact us at the details below

N2 Multirail

N1 Vertical Infill

N1 Multirail

Specification

	N1 Multirail		N1 Vertical Infill		N2 W2 - W3 Multirail		N2 W3 - W4 Multirail	
Performance								
Post centres	2.5 m	3.75m	2.5 m	3.75m	2.5 m	3.75 m	2.5 m	3.75m
Impact severity level	A	A	A	A	B	B	B	B
Working width class - 3 rail	W1 (0.5 m)	W2 (0.7 m)	W1 (0.6 m)	W1 (0.6 m)	W2 (0.7 m)	W3 (0.9 m)	W3 (0.9 m)	W4 (1.1 m)
Wheel penetration	0.3 m	0.3 m	0.3 m	0.3 m	0.4 m	0.5 m	0.4 m	0.4 m
Dynamic deflection	0.3 m	0.4 m	0.3 m	0.3 m	0.4 m	0.5 m	0.5 m	0.6 m

Structure loads				
Post size	90 x 90 mm	90 x 90 mm	100 x 100 mm	100 x 100 mm
Post ultimate moment capacity	14.1 kNm	14.1 kNm	18.6 kNm	19.8 kNm
Coexisting shear	26.0 kN	21.8 kN	38.0 kN	36.1 kN
Post ultimate shear capacity	131.0 kN	131.0 kN	199.5 kN	164.9 kN

Options				
	• Infill: Mesh or solid sheet • Available in various heights from 1.0 m up to 1.8 m • Paint finish available if required	• Paint finish available if required • Available in heights 1.2 m and 1.4 m	• Infill: Mesh or solid sheet • Available in various heights from 1.0 m up to 1.8 m • Paint finish available if required	• Infill: Mesh or solid sheet • Available in various heights from 1.5 m up to 1.8 m • Paint finish available if required

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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