

# Guardrail

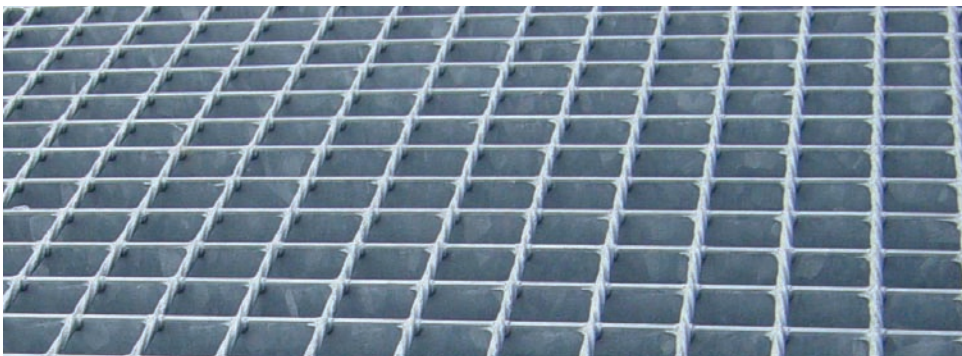
## OPEN FLOORING



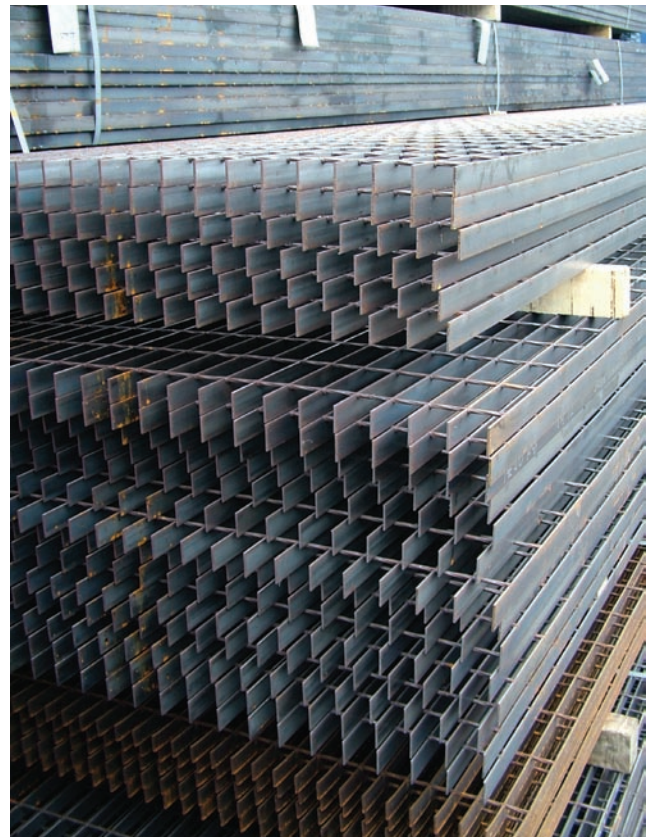
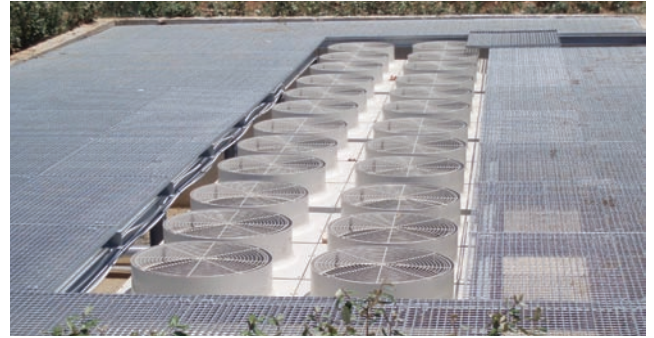
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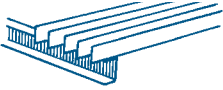
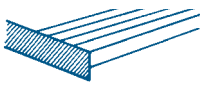
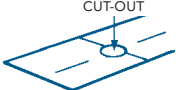
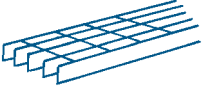


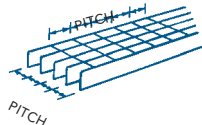
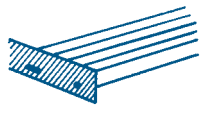

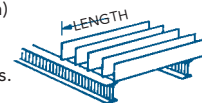
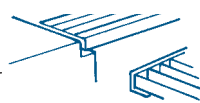
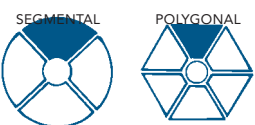
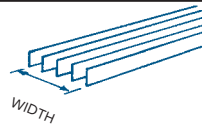
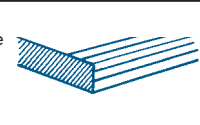
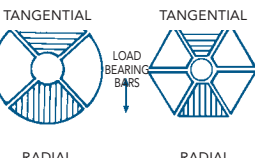
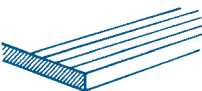
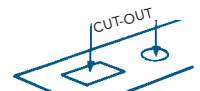








## RECTANGULAR PATTERN OPEN FLOORING

<h1>GLOSSARY</h1> <h2>of terms</h2>		<p>Guardrail open steel flooring consists of flat bars on edge restrained by twisted square or indented round bars forge welded at right angles to give a grating mesh that offers high strength to weight ratio.</p> <p><b>Panels can be finished:</b> Self Colour, Galvanised or others on request.</p>			
<p><b>Load-Bearing Bar</b> A load-bearing member spanning between supports.</p>		<p><b>Deep Binding Bar</b> A bar or section fixed to the edge of a flooring panel flush and projecting below the underside.</p>		<p><b>Cut-out</b> An area of flooring removed to permit pipes, columns, etc., to pass through or to clear obstructions</p>	
<p><b>Transverse Bar</b> A member fixed at right angles to the load-bearing bars to provide lateral restraint.</p>		<p><b>Front Edging Bar</b> A member attached to the front of a stair tread or to a flooring panel.</p>		<p><b>Straight Shaping</b> The part of a cut-out which is straight.</p>	
<p><b>Pitch</b> The distance centre-to-centre of load-bearing bars or centres between points of lateral support to load-bearing bars.</p>		<p><b>End Plate</b> A plate fixed to a stair or ladder tread for attaching to the stringer.</p>		<p><b>Curved Shaping</b> The part of a cut-out which is curved.</p>	
<p><b>Length (Direction of Span)</b> The overall dimension of a flooring panel parallel with the load-bearing bars.</p>		<p><b>Curb Angle</b> A member fixed to concrete or supporting steelwork at the perimeter of a flooring area.</p>		<p><b>Segmental or Polygonal</b> Types of flooring panels used for platform construction.</p>	
<p><b>Width</b> The overall dimension of a flooring panel measured at right angles to the load-bearing bars.</p>		<p><b>Kicking Plate (Toe Plate)</b> A flat bar around the edge of a flooring panel and projecting above the top of the load-bearing bars.</p>		<p><b>Tangential or Radial</b> The direction of span in segmental or polygonal flooring panels.</p>	
<p><b>Binding Bar</b> A bar or section fixed to the edge of a flooring panel flush with the top of the load-bearing bar.</p>		<p><b>Net Area</b> The actual area of flooring excluding cut-out areas. <b>Gross Area</b> The total area of flooring including cut-out areas.</p>			

### Flooring, Treads & Handrails for Industrial use

Aperture requirements BS 4592 "Flooring, Treads & Handrails for Industrial use".

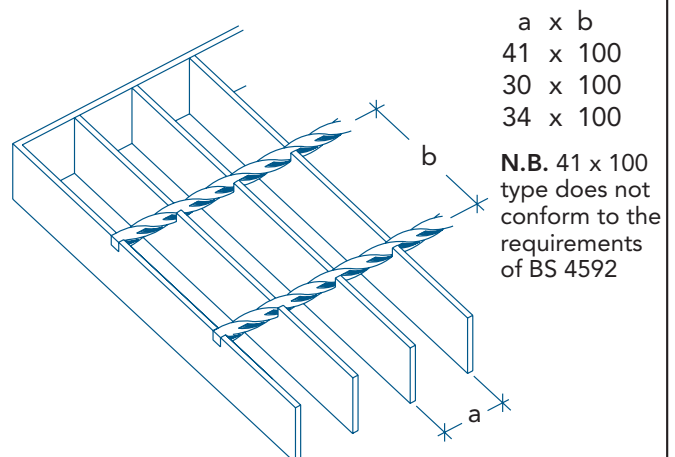
The opening should prevent the passage of a 35mm diameter sphere except where the grating is above a place where people are working as opposed to occasionally passing, then the openings should prevent a 20mm diameter sphere.

Aperture requirements BS EN ISO 14122 "Safety of machinery" - "Permanent means of access to machinery"

Openings should prevent a 35mm sphere for occasional passage underneath and a 20mm diameter sphere for spaces more regularly worked, please contact our sales department for specialist advice should any Guardrail product be required for this standard.

Please contact our Technical Department for information on Open Flooring load capabilities.

### MESH TYPES



Other mesh types available on request.

## LOAD TABLES

TYPE : - 41 / 100					
Bearing Bar Size mm	Weight kg/m <sup>2</sup> panel self coloured	Weight kg grating 1000x1000 hot-dip galvanized	Span in mm UD Load 5 kn/m <sup>2</sup> General Duty	Span in mm UD Load 7.5 kn/m <sup>2</sup> Heavy Duty	Span in mm Conc. Load 1.5 kn Contact: 200 x 200
25 x 3	14.9	17.0	1150	980	803
30 x 3	17.7	20.3	1382	1190	1022
35 x 3	20.5	23.5	1610	1400	1190
40 x 3	23.3	26.7	1855	1600	1358
25 x 5	24.6	28.0	1360	1190	1012
30 x 5	29.4	33.4	1642	1440	1212
35 x 5	34.6	29.3	1910	1680	1411
40 x 5	39.4	44.8	2140	1900	1610
50 x 5	49.0	55.7	2530	2290	2006

TYPE : - 34 / 100					
Bearing Bar Size mm	Weight kg/m <sup>2</sup> panel self coloured	Weight kg grating 1000x1000 hot-dip galvanized	Span in mm UD Load 5 kn/m <sup>2</sup> General Duty	Span in mm UD Load 7.5 kn/m <sup>2</sup> Heavy Duty	Span in mm Conc. Load 1.5 kn Contact: 200 x 200
25 x 3	17.6	19.9	1225	1065	899
30 x 3	21.0	23.8	1480	1280	1078
35 x 3	24.3	27.6	1710	1508	1255
40 x 3	27.7	31.4	1975	1715	1432
25 x 5	29.6	33.2	1458	1272	1066
30 x 5	35.0	39.4	1752	1526	1278
35 x 5	40.8	45.9	2028	1781	1488
40 x 5	47.0	52.8	2240	2034	1698
50 x 5	58.5	65.7	2650	2385	2116

TYPE : - 30 / 100					
Bearing Bar Size mm	Weight kg/m <sup>2</sup> panel self coloured	Weight kg grating 1000x1000 hot-dip galvanized	Span in mm UD Load 5 kn/m <sup>2</sup> General Duty	Span in mm UD Load 7.5 kn/m <sup>2</sup> Heavy Duty	Span in mm Conc. Load 1.5 kn Contact: 200 x 200
25 x 3	18.9	21.3	1280	1100	933
30 x 3	23.6	26.6	1530	1350	1118
35 x 3	27.4	30.9	1800	1550	1302
40 x 3	31.2	35.1	2025	1760	1486
25 x 5	33.0	36.8	1520	1315	1106
30 x 5	39.5	44.1	1820	1595	1325
35 x 5	46.4	51.8	2080	1865	1544
40 x 5	53.0	59.1	2295	2090	1762
50 x 5	66.0	73.7	2700	2380	2197

The load tables above show maximum clear spans for various loading example / requirements in accordance with BS 4592-2006. For pedestrian traffic the deflection of a floor panel under the design load shall not exceed 10mm or 1/200 of the span whichever is the lesser.

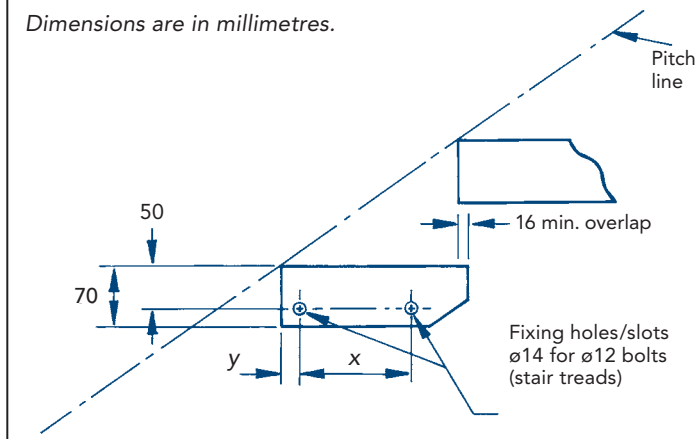
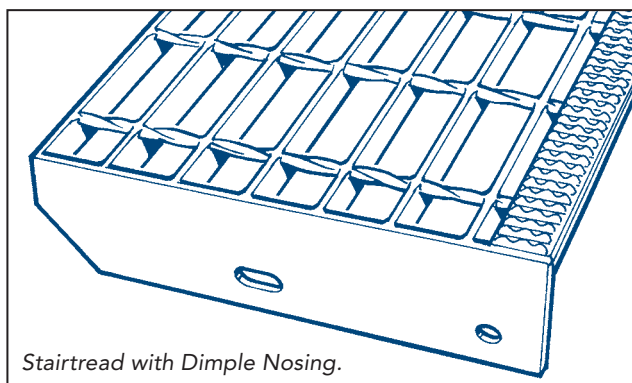
The difference in level between a loaded and a neighbouring un-loaded panel shall not exceed 4mm.

**Spans for UDL's are based on deflection limits of 1/200 of the span or 10mm whichever is the lesser.**  
**Spans for concentrated loads are based on limiting deflection to 4mm.**

# STAIR TREADS

## OPEN TYPE

Fixing dimensions for bolted end plates

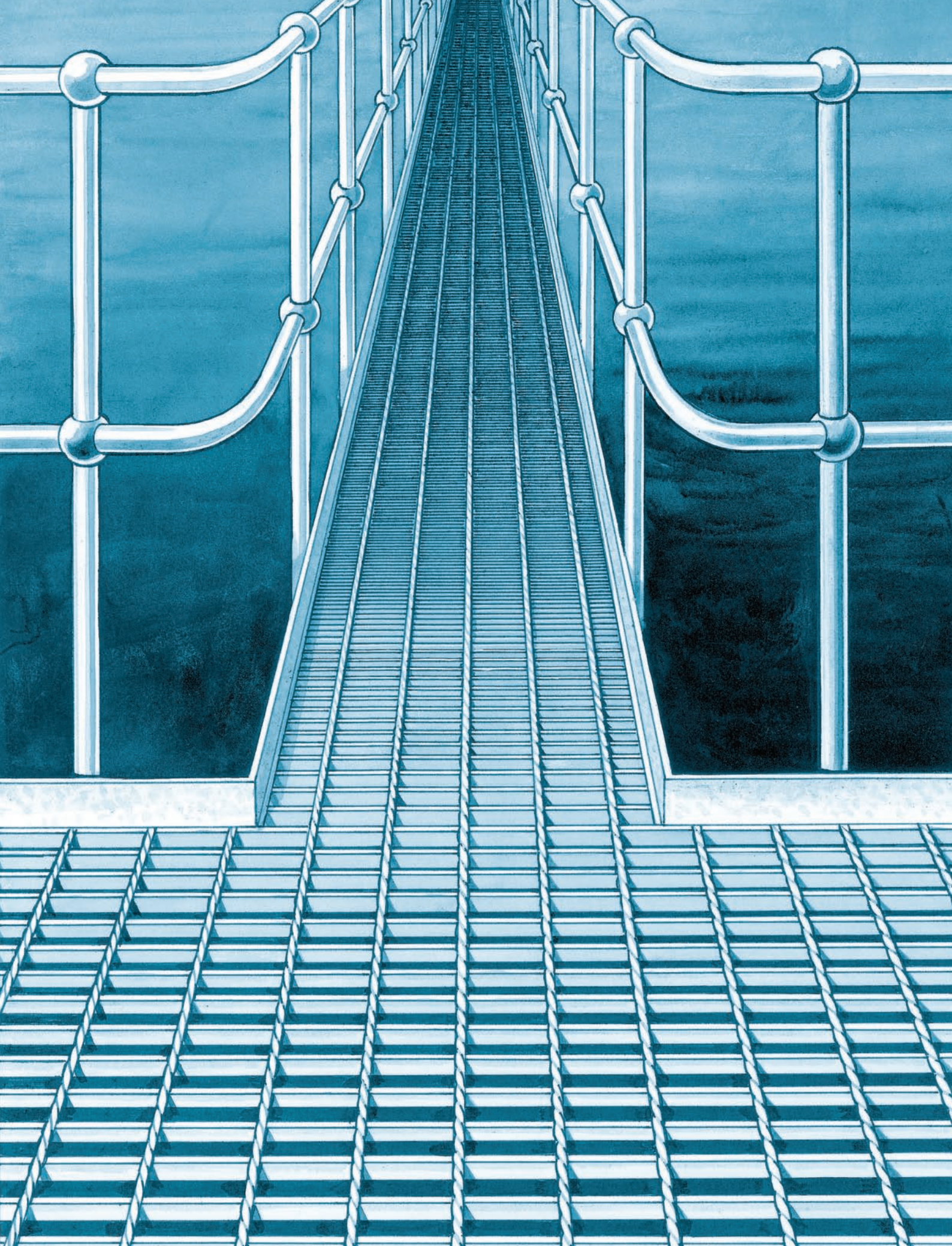


Width of tread in mm	Dimension x in mm	Dimension y in mm
250	112	30 (stair treads)
275	112	
290	112	
333	175	



Stairtread with 'O' nosing







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**Guardrail is accredited to both BS EN ISO 9001 and BS EN 1090  
up to execution class 2.**