Road safety & barrier solutions with functionality & style
Railings are a cost effective, proven way of reducing road traffic accidents by protecting pedestrians, buildings and motorists. Furnitubes offers an extensive range of railing systems to suit your scheme, including simple economic steel railings, ornate cast iron designs and contemporary stainless steel railings. We also supply gates, which can be installed as a stand alone items or for incorporation into railings. Our product range can be broadly divided into the following categories:

**Linx systems**
A Furnitubes’ original design that allows standard straight panels to be used even on curved and inclined sites, by use of the patented post-to-rail bracket devices. Four different system designs are now offered.

**Composite designs**
These designs offer the strength of steel combined with the decorative nature of cast components, and are popular choices for long runs, with the decorative features adding visual punctuation and interest.

**Utility railings**
Our utility range of guardrails are no-frills products, most often used on day-to-day schemes where cost low cost is the most important consideration.

**Decorative cast iron**
Traditional combination of all-cast post and steel infill panels and / or rails are a popular choice for heritage areas and coastal locations in particular, and usually used away from roadside situations.

**Bollards as barrier posts**
Many of our cast iron, steel and even timber bollards can be adapted to accept barriers, for a coordinated theme across a project. With rails alone these are visually more transparent than a full guardrail.

**Specials**
If none of our standard products are quite right for your scheme we can design and manufacture bespoke solutions, and assist in the development of the product in terms of feasibility and costing.
Assessing the site
As well as selecting a guardrail design for aesthetic reasons, it is important to consider how the preferred system will fit the site. It is unlikely that any site is truly flat and that only straight runs of guardrail will be required - sites usually include hills, bends and awkward junctions around pedestrian crossings etc. Most guardrail installations may therefore need to accommodate variable horizontal and / or vertical alignments. The matrix below shows the basic methods by which guardrail can fit on a cross section of sites, and the table on the following page shows which guardrail systems are offered in these configurations, as either standard or special made-to-measure parts.

Site characteristics / guardrail solutions typology matrix

<table>
<thead>
<tr>
<th>HORIZONTAL (PLAN) ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRAIGHT</td>
</tr>
<tr>
<td>CURVED (SEGMENTED)</td>
</tr>
<tr>
<td>CURVED (RADIUS)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VERTICAL (LEVEL) ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL</td>
</tr>
<tr>
<td>INCLINED (STEEPED)</td>
</tr>
<tr>
<td>INCLINED (RAKED)</td>
</tr>
</tbody>
</table>

Note: in all situations, posts and vertical panel infill bars are manufactured to be installed plumb vertical. We do not recommend that guardrail is installed with the posts perpendicular to an inclined site, i.e. not true vertical.
Options and considerations

The table below summarises which guardrail systems can be manufactured in which configurations, as either standard or special made-to-measure parts. Selecting a system that will fit the site using standard parts only is advantageous for several reasons: it will generally avoid the need for an accurate topographical survey (or detailed level and alignment design for new construction sites), will shorten manufacturing lead times, and usually be more cost effective. Also, spare components can be held in stock for replacement purposes at immediate notice rather than made to order, which will minimise inconvenience / safety issues.

Summary of guardrail / post & rail options and features

<table>
<thead>
<tr>
<th>Product name</th>
<th>Guardrail type</th>
<th>1: Straight Level</th>
<th>2: Straight Stepped</th>
<th>3: Straight Raked</th>
<th>4: Segmented Level</th>
<th>5: Segmented Stepped</th>
<th>6: Segmented Raked</th>
<th>7: Radiused Level</th>
<th>8: Radiused Stepped</th>
<th>9: Radiused Raked</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINX 100</td>
<td></td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
</tr>
<tr>
<td>LINX 200</td>
<td></td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
</tr>
<tr>
<td>LINX 300</td>
<td></td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
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<td>LINX 400</td>
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<td>n/a</td>
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<td>●</td>
<td>n/a</td>
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<tr>
<td>STRETFORD</td>
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<td>●</td>
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<tr>
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<td></td>
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<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>HKR</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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<tr>
<td>PGRM</td>
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<td>●</td>
<td>●</td>
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<tr>
<td>REIGATE</td>
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<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
</tr>
<tr>
<td>ROCHESTER</td>
<td></td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>n/a</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
</tr>
<tr>
<td>HAMMERSMITH</td>
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<td>●</td>
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<td>●</td>
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<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
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<tr>
<td>MARINE</td>
<td></td>
<td>●</td>
<td>n/a</td>
<td>●</td>
<td>n/a</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
<td>n/a</td>
<td>●</td>
</tr>
<tr>
<td>BOLLARDS</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

**TABLE KEY:**
- ● Standard parts can be used for site application in column heading, without the need for special components
- ● Special made-to-measure components required to match site levels & alignment
- n/a This type of guardrail is not available for site application shown in column heading
The original flexible design guardrail system
The 100 system is Furnitubes’ original patented Linx guardrail design, combining large diameter posts and rectangular section rails. The cleverly-designed post-to-rail bracket connection is the core feature of the product - one set is pre-fixed on one side of the post and the other set is fixed to the post on site to suit the level and orientation of the adjacent panel and next post in the railing run. Virtually any site layout can be fitted with standard Linx 100 posts and panels, avoiding the need for expensive detailed topographical surveys and made-to-measure railings. Spares can be held in stock for immediate replacement of any site-damaged parts. The geometry of the design has been calculated and engineered so that posts can be set out on any dimension up to 2m and a standard panel be fitted between, simply by cutting one end and re-drilling the fixing hole. Posts are available with a choice of six standard decorative cap designs. Panels can be supplied in a number of high-visibility options, with a high-visibility post also available for use with full height panels. Complementary bollards are also available.
LINX 100 RANGE

LINX 100 RAILING POSTS
Mild steel post and rail connectors, hot dipped galvanised finish, with choice of cast iron cap options

Intermediate / corner post for guardrail type

<table>
<thead>
<tr>
<th>Euston Cap (cast iron)</th>
<th>Knightsbridge Cap (cast iron)</th>
<th>Trafford Cap (cast iron)</th>
<th>Hale Cap (cast iron)</th>
<th>Ashton Cap (cast iron)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEP 100 F</td>
<td>LKP 100 F</td>
<td>LTP 100 F</td>
<td>LHP 100 F</td>
<td>LAP 100 F</td>
</tr>
<tr>
<td>LEP 100 Q</td>
<td>LKP 100 Q</td>
<td>LTP 100 Q</td>
<td>LHP 100 Q</td>
<td>LAP 100 Q</td>
</tr>
<tr>
<td>LEP 100 R3</td>
<td>LKP 100 R3</td>
<td>LTP 100 R3</td>
<td>LHP 100 R3</td>
<td>LAP 100 R3</td>
</tr>
<tr>
<td>LEP 100 R2</td>
<td>LKP 100 R2</td>
<td>LTP 100 R2</td>
<td>LHP 100 R2</td>
<td>LAP 100 R2</td>
</tr>
<tr>
<td>KEK 100</td>
<td>LKK 100</td>
<td>LTK 100</td>
<td>LHK 100</td>
<td>LAK 100</td>
</tr>
</tbody>
</table>

OPTIONS:
- End post
- Base collar
- Stainless steel caps (Ashton & Kenton only)
- Hi-visibility post (for posts with full height guardrail only)
- Painted finish

LINX 100 PANELS / RAILS
Mild steel panel / rails and rail connectors for 2m post c/s, hot dipped galvanised finish

LFR 100
Full height guardrail panel

LQR 100
3/4 height guardrail panel & single rail

L3R 100
3-rail

L2R 100
2-rail

L1R 100
Single rail

OPTIONS:
- High visibility infill (panels only) V2 / V4 / V8
- Painted finish
- Gates - up to 4m, single or double leaf

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**Slimline version of the original Linx guardrail system**

The Linx 200 is the little brother of the original Linx 100 system, with a smaller post tube size and the rectangular box section rails turned upright. The patented post-to-rail connection allows railings to be installed not only on straight and level sites, but also on curved alignments and sloping ground by means of stepping and rotating the panels to suit the site. Connection brackets are pre-fixed to one side of the post and fitted on site during installation to the other side of the post at the appropriate level and rotation. This approach avoids the need for a detailed topographical site survey (an approximate measurement and level check will suffice) and means that standard replacement parts can be held in stock for immediate use in the event of any site damage to the original installation. As with other Linx railing systems, decorative post caps are offered in a number of styles and specials can be made-to-order to create site-specific products. Complementary bollard designs are also available.
LINX 200 RANGE

LINX 200 RAILING POSTS
Mild steel post and rail connectors, hot dipped galvanised finish, with choice of cast iron cap options

<table>
<thead>
<tr>
<th>Intermediate / corner post for guardrail type</th>
<th>Euston Cap (cast iron)</th>
<th>Knightsbridge Cap (cast iron)</th>
<th>Trafford Cap (cast iron)</th>
<th>Hale Cap (cast iron)</th>
<th>Ashton Cap (cast iron)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL HEIGHT</td>
<td>LEP 200 F</td>
<td>LKP 200 F</td>
<td>LTP 200 F</td>
<td>LHP 200 F</td>
<td>LAP 200 F</td>
</tr>
<tr>
<td>3/4 HEIGHT</td>
<td>LEP 200 Q</td>
<td>LKP 200 Q</td>
<td>LTP 200 Q</td>
<td>LHP 200 Q</td>
<td>LAP 200 Q</td>
</tr>
<tr>
<td>3-RAIL</td>
<td>LEP 200 R3</td>
<td>LKP 200 R3</td>
<td>LTP 200 R3</td>
<td>LHP 200 R3</td>
<td>LAP 200 R3</td>
</tr>
<tr>
<td>2-RAIL</td>
<td>LEP 200 R2</td>
<td>LKP 200 R2</td>
<td>LTP 200 R2</td>
<td>LHP 200 R2</td>
<td>LAP 200 R2</td>
</tr>
<tr>
<td>KNEE-RAIL</td>
<td>LEK 200</td>
<td>LKK 200</td>
<td>LTK 200</td>
<td>LHK 200</td>
<td>LAK 200</td>
</tr>
</tbody>
</table>

OPTIONS:
- End post
- Base collar
- Stainless steel caps (Ashton & Kenton only)
- Painted finish

LINX 200 PANELS / RAILS
Mild steel panel / rails and rail connectors for 2m post c/s, hot dipped galvanised finish

<table>
<thead>
<tr>
<th>2-RAIL</th>
<th>RAIL</th>
<th>L3R 200</th>
<th>3-rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2R 200</td>
<td>2-rail</td>
<td>L1R 200</td>
<td>Single rail</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painted finish</td>
</tr>
<tr>
<td>Gates - up to 4m, single or double leaf</td>
</tr>
</tbody>
</table>

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www.furnitubes.com tele: 0208 378 3200
Circular rail version of the original Linx guardrail system
The Linx 300 system is a variation on the 100 and 200 systems, introducing circular section rails and a visually softer overall appearance as a result. The patented bracket connection between the post and rail is a heavy duty cast ductile iron boss fitted to the post via self-drilling / tapping screws. Connection points on one side of the post are pre-fixed; those on the other side are fitted during site installation at the level and rotation to suit the alignment of the guardrail run. As shown on the main photograph below, the flexibility of the design means that standard posts and straight panels can be used even on sloping ground and curved alignments. The need for accurate pre-construction site surveys (or detailed levels design for new developments) and made-to-measure components are therefore avoided, reducing the chances of errors in site measurement or manufacture and also offering cost savings. Standardisation means that spares can be held in stock for immediate replacement if the event that the original installation is damaged. Posts are offered in a choice of 6 decorative caps common to the Linx 100 and 200 systems, with 2 optional base collars for covering over the (often unsightly) area around the foot of the post.
**LINX 300 RANGE**

**LINX 300 RAILING POSTS**
Mild steel post and rail connectors, hot dipped galvanised finish, with choice of cast iron cap options

<table>
<thead>
<tr>
<th>Intermediate / corner post for guardrail type</th>
<th>Euston Cap (cast iron)</th>
<th>Knightsbridge Cap (cast iron)</th>
<th>Trafford Cap (cast iron)</th>
<th>Hale Cap (cast iron)</th>
<th>Ashton Cap (cast iron)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL HEIGHT</td>
<td>LEP 300 F</td>
<td>LKP 300 F</td>
<td>LTP 300 F</td>
<td>LHP 300 F</td>
<td>LAP 300 F</td>
</tr>
<tr>
<td>3/4 HEIGHT</td>
<td>LEP 300 Q</td>
<td>LKP 300 Q</td>
<td>LTP 300 Q</td>
<td>LHP 300 Q</td>
<td>LAP 300 Q</td>
</tr>
<tr>
<td>3-RAIL</td>
<td>LEP 300 R3</td>
<td>LKP 300 R3</td>
<td>LTP 300 R3</td>
<td>LHP 300 R3</td>
<td>LAP 300 R3</td>
</tr>
<tr>
<td>2-RAIL</td>
<td>LEP 300 R2</td>
<td>LKP 300 R2</td>
<td>LTP 300 R2</td>
<td>LHP 300 R2</td>
<td>LAP 300 R2</td>
</tr>
<tr>
<td>KNEE-RAIL</td>
<td>LEK 300</td>
<td>LKK 300</td>
<td>LTK 300</td>
<td>LHK 300</td>
<td>LAK 300</td>
</tr>
</tbody>
</table>

**OPTIONS:**
- End post
- Base collar
- Stainless steel caps (Ashton & Kenton only)
- Painted finish

**LINX 300 PANELS / RAILS**
Mild steel panel / rails and rail connectors for 2m post c/s, hot dipped galvanised finish

- **LFR 300**
  Full height guardrail panel

- **LQR 300**
  3/4 height guardrail panel & single rail

- **L3R 300**
  3-rail

- **L2R 300**
  2-rail

- **L1R 300**
  Single rail

**OPTIONS:**
- Painted finish
- Gates - up to 4m, single or double leaf

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Ref: S-402-01-14

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Latest generation Linx guardrail system
The 400 system is the latest variation of Furnitubes’ patented Linx guardrail design, offering more contemporary styling compared with its predecessors. Rails are joined to an end plate to make a panel sub-assembly, and the end plate fixed to the post at the level and rotation angle to suit the site. Threaded inserts are pre-fitted to one side of the post, with the adjacent set fitted on site as part of the installation works. Standard components can be used on most sites - even on curved alignments and sloping ground - by fitting panels in a segmented and stepped arrangement. If shorter panels than the standard 2m post pitch are required in any particular location, panels can be unassembled and the rails shortened as necessary. Standard spare parts can therefore be held in stock for timely replacements of any installed railings that may have suffered site damage. Linx 400 components are offered in mild steel in a galvanised or painted finish and also in stainless steel - a popular choice on new building developments. Two relatively plain styles of cap are available as standard, with complimentary bollards also offered.
LINX 400 RANGE

LINX 400 RAILING POSTS
Intermediate / corner post with rail connectors; choice of cap options

To suit panel type

FULL HEIGHT / 3/4 HEIGHT
3-RAIL

Kenton Cap
(stainless steel)

Dome Cap
(same material as post)

LFR 420
Mild steel, galvanised

LQR 420
Stainless steel, satin polished

L3R 420
Mild steel, galvanised

L2R 420
Stainless steel, satin polished

OPTIONS (ALL TYPES):
• End post
• Painted finish (mild steel galvanised only)
• Bright polished finish (stainless steel only)
• Bead blast finish (stainless steel only)

LINX 400 PANELS
Panels and connectors for 2m post c/s

Panel type

Mild steel galvanised finish

Stainless steel satin polished finish

FULL HEIGHT

LFR 420

LQR 420

L3R 420

L2R 420

3/4 HEIGHT

3-RAIL

L3R 420 S

L2R 420 S

2-RAIL

L2R 420 S

OPTIONS:
• Bright polished finish
• Bead blast finish
• Gates - up to 4m, single or double leaf
Simple guardrail system ideal for level sites

The Stretford 115 and 75 guardrail designs are budget versions of the Linx 100 and 200 systems respectively, utilising the same combination of robust steel posts, rails and infill bars, with selected decorative cast caps and collars. The main difference from the Linx design is that the horizontal rails are flat section material and the connections to the posts are pre-fixed in all places. With standard components therefore the Stretford is best suited to level sites (for inclined sites bespoke made-to-measure posts would be needed), although curved or angled horizontal alignments can be accommodated by simply rotating standard panels about their connection point to the post. Stretford guardrail is available on two sizes - based around a 115 and 75mm diameter posts. There is a choice of 3 cast cap designs, all pre-fitted to the posts and 2 optional base collars which are useful in covering the often unsightly ground level detail around the base of the post.
### STRETTFORD 115 POSTS
Mild steel post, hot dipped galvanised finish, with choice of cast iron caps

<table>
<thead>
<tr>
<th>Intermediate for guardrail type</th>
<th>Ashton Cap</th>
<th>Hale Cap</th>
<th>Trafford Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL HEIGHT</td>
<td>SAP 115 F</td>
<td>SHP 115 F</td>
<td>STP 115 F</td>
</tr>
<tr>
<td>3/4 HEIGHT</td>
<td>SAP 115 Q</td>
<td>SAP 115 Q</td>
<td>SAP 115 Q</td>
</tr>
</tbody>
</table>

OPTIONS:
- End post & corner post
- Base collar

### STRETTFORD 115 GUARDRAIL PANELS / RAILS
Mild steel panels / rails, hot dipped galvanised finish, for 2m post centres

<table>
<thead>
<tr>
<th></th>
<th>SFR 115</th>
<th>SQR 115</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full height</td>
<td>Full height guardrail panel</td>
<td>3/4 height guardrail panel &amp; top rail</td>
</tr>
<tr>
<td>OPTIONS:</td>
<td>• High visibility panels V2 / V4 / V8</td>
<td></td>
</tr>
</tbody>
</table>

### STRETTFORD 75 POSTS
Mild steel post, hot dipped galvanised finish, with choice of cast iron caps

<table>
<thead>
<tr>
<th>Intermediate for guardrail type</th>
<th>Ashton Cap</th>
<th>Hale Cap</th>
<th>Trafford Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL HEIGHT</td>
<td>SAP 75 F</td>
<td>SHP 75 F</td>
<td>STP 75 F</td>
</tr>
<tr>
<td>3/4 HEIGHT</td>
<td>SAP 75 Q</td>
<td>SAP 75 Q</td>
<td>SAP 75 Q</td>
</tr>
</tbody>
</table>

OPTIONS:
- End post & corner post
- Base collar

### STRETTFORD 75 GUARDRAIL PANELS / RAILS
Mild steel panels / rails, hot dipped galvanised finish, for 2m post centres

<table>
<thead>
<tr>
<th></th>
<th>SFR 75</th>
<th>SQR 75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full height</td>
<td>Full height guardrail panel</td>
<td>3/4 height guardrail panel &amp; top rail</td>
</tr>
<tr>
<td>OPTIONS:</td>
<td>• High visibility panels V2 / V4 / V8</td>
<td></td>
</tr>
</tbody>
</table>

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Composite steel and iron decorative guardrail

The Romney guardrail / rail system is characterised by its distinctive ‘knuckle’ connection joint between the post and rails. This component is manufactured in ductile iron, allowing motifs or corporate logos to be cast in as a raised relief feature. The circular posts, rails and infill bars give a relatively soft overall appearance (compared with designs that use square section materials) making it a popular choice for building and garden perimeters where pedestrians are in close proximity. The Romney range is available as full and 3/4 height guardrails, 3-rail, high and low 2-rail and knee-rail systems. Special variations have also been produced, such as shown below right - a low guardrail for wall-top mounting along a Thames-side residential development, incorporating a wooden top rail.
ROMNEY GUARDRAIL / POST & RAIL
Post & guardrail / rail to suit 2m post centres
Post & guardrail / rail in mild steel hot dipped galvanised, and ductile cast iron connections, all primed finish

FULL HEIGHT GUARDRAIL
RMD 2R
Intermediate post
RMDR F
Full height guardrail panel

3/4 HEIGHT GUARDRAIL
RMD 3R
Intermediate post
RMDR S1Q
3/4 height guardrail panel & top rail

3-RAIL
RMD 4R
Intermediate post
RMDR S3
3 rails

2-RAIL HIGH
RMD 5R
Intermediate post
RMDR S2
2 rails

2-RAIL LOW
RMD 6R
Intermediate post
RMDR S2
2 rails

KNEE-RAIL
RMD 7R
Intermediate post
RMDR S1
1 rail

OPTIONS (ALL MODELS):• End post• Raked panel• Radiused panel
**Strength + decoration**

The all-steel construction of the OKR makes it a sensible choice for busy highway applications, with the decorative feature rings and balls providing a visually attractive guardrail solution compared with plainer designs. The OKR also benefits from high visibility posts as standard, and the panel infill bar arrangement is available in V2, V4 or V8 visibility options. The product is therefore well suited to pedestrian and road safety schemes and is a popular choice for sites such as outside schools and at pedestrian crossings. Posts and panels are supplied in a galvanised finish, which can be painted on site after installation if required.

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**OKR GUARDRAIL**

All mild steel construction in hot dipped galvanised finish

**POSTS**

Ball top posts, 1070mm a/g x 300mm b/g

**OKR 301**

End post

**OKR 302**

Intermediate post

**OKR 303**

Corner post

**PANELS**

1000mm a/g x 2m post c/s

**OKR 306**

Guardrail panel with decorative ball features on top rail

**OKR 306**

Guardrail panel with plain top rail

**OPTIONS:**

- High visibility panel V2, V4, V8

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**Independent panels**

PGRM is our budget guardrail range, offering simple framed panels that can be installed independently or joined together in longer runs where the site is straight and level. Where sites are curved or angled in horizontal alignment and/or have level changes, panels can be installed side-by-side but unlinked. As standard, PGRM is available as full and 3/4 height guardrail and 2-rail panels, all supplied in a hot dipped galvanised finish. High visibility infill is available in V2, V4 and V8 arrangements. Matching gates are available as single or double leaf versions, in standard 1m increments up to 4m clearance width.

**PGRM GUARDRAIL / RAIL**

Guardrail / rail panels 2000m long x 1050mm a/g x 325mm b/g, mild steel in hot dipped galvanised finish

**PGRM 100**
Full guardrail panel

**OPTIONS:**
- Powder coated finish
- Stainless steel
- High visibility panel V2, V4, V8
- Gates - 1m / 2m / 3m / 4m single or double leaf

**PGRM 200**
3/4 guardrail panel

**OPTIONS:**
- Powder coated finish
- Stainless steel
- High visibility panel V2, V4, V8
- Gates - 1m / 2m / 3m / 4m single or double leaf

**PGRM 2R**
2-rail panel

**OPTIONS:**
- Powder coated finish
- Stainless steel
- Gates - 1m / 2m / 3m / 4m single or double leaf

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**HKR guardrail**
HKR is a cost effective plain guardrail system with the posts designed for through-visibility from acute angles.

**Sockets for removability of railings**
Sometimes it is necessary (or just useful) for railings to be removable, to open up an area for a special event for example, or to access service chambers under the line the railings. Installing posts into ground sockets allows railings to be easily removed for such purposes. Two styles of sockets are offered - each slightly different in their mechanical design but with the same features and functionality. The FI 48, FI 50 & FI 50x60 sockets are similar designs to suit small scale circular and square / rectangular section posts, and the FI 75 & FI 115 for larger circular sizes. All sockets are of robust construction, with one hole for the post and another to access the internal retention bolt, which is tightened onto the post to hold it firmly in place. Two lids are also supplied per socket - one to hide the retention bolt and the other to cover the post aperture when the guardrail is not installed.

**FI 75 / FI 115 socket**
Parts & operation

- Lid to retention bolt chamber, lockable with key
- Spanner to tighten retention bolt
- Guardrail post (or bollard) with plain root for inserting into socket
- Plug for post aperture when post not installed
- Post retention bolt

**Options:**
- High visibility panel V2, V4, V8

**HKR GUARDRAIL**
Guardrail panel 1000mm a/g x 2m post c/s
High-vis' posts, 1000mm a/g 300mm b/g
All mild steel in hot dipped galvanised finish

**HKR 301**
End post

**HKR 302**
Intermediate post

**HKR 308**
Full guardrail panel

**HIGH VISIBILITY PANELS**

- **V2** Optimum sight angle 2.5° to 5°
  Use on straight moderate speed roads

- **V4** Optimum sight angle 5° to 14°
  Use on slow speed bends

- **V8** Optimum sight angle more than 14°
  Use on bellmouths and sites where visibility is not the main requirement
### FI SERIES POST SOCKETS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Socket Type</th>
<th>Compatibility</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI 48</td>
<td>Ø48mm socket</td>
<td>Railings / bollards:</td>
<td>Composite steel / iron construction, coated black. C/w dual cover plate &amp; locking screw.</td>
</tr>
<tr>
<td>FI 50</td>
<td>50mm square socket</td>
<td>Railings:</td>
<td>Composite steel / iron construction, coated black. C/w dual cover plate &amp; locking screw.</td>
</tr>
<tr>
<td>FI 50x60</td>
<td>50 x 60mm socket</td>
<td>Railings:</td>
<td>Composite steel / iron construction, coated black. C/w dual cover plate &amp; locking screw.</td>
</tr>
<tr>
<td>FI 75</td>
<td>Ø75mm socket</td>
<td>Railings:</td>
<td>Composite steel / iron construction, coated black. C/w aperture plug, chamber lid &amp; locking key.</td>
</tr>
<tr>
<td>FI 115</td>
<td>Ø115mm socket</td>
<td>Railings:</td>
<td>Composite steel / iron construction, coated black. C/w aperture plug, chamber lid &amp; locking key.</td>
</tr>
</tbody>
</table>

#### Options:
- Reducer collar to convert socket to accept single 50 x 30mm post

**Compatible with:**

- **Railings:**
  - HKR
  - OKR

- **Bollards:**
  - Specials with a Ø48mm base spigot

- **Railings:**
  - PGRM - 2 adjacent posts
  - PGRM - single post (when reducer collar used)

- **Railings:**
  - Linx 200
  - Romney
  - Stretford 75

- **Bollards:**
  - Linx 200
  - Ø76mm Stirling
  - Ø76mm Zenith

- **Bollards:**
  - Linx 100
  - Ø114mm Linx 400
  - Ø114mm Harrow
  - Ø114mm Holborn
  - Ø114mm Kenton
  - Ø114mm Salisbury
  - Ø114mm Stirling
  - Ø114mm Zenith

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**Note:** when ordering bollards for use with FI series sockets ensure to specify that the below-ground section is to be plain, i.e. without any protruding tie bars.
**Slimline cast iron post & guardrail / rail system**

Reigate is a traditionally styled guardrail / rail system comprising cast iron posts and galvanised steel panels and rails, and is a popular choice for visually guiding pedestrians away from hazards such as shallow banks and other changes in levels. It is well-suited to sites that are straight and level, although if required panels can be manufactured to suit site-specific alignments. The Reigate post is solid cast iron (except where the rails pass through), with decorative features at the rail connection points, and can be supplied with a root for in-ground fixing or a base plate for surface mounting. Six variations of post and guardrail / rail are available - full, 3/4 and 1/2 height guardrail, 3-rail, 2-rail and trip-rail - allowing for a coordinated range of products across a single site. When rails alone are used between the posts (i.e. no guardrail panels), and the site is straight and relatively level, the rails are supplied as 6m+ lengths so that they can pass through multiple posts, thereby joining and strengthening the overall run and also making for a very quick and simple installation.
REIGATE GUARDRAIL / POST & RAIL

Post & guardrail / rail to suit 2m post centres
Post in cast iron, primed finish; guardrail / rail in mild steel hot dipped galvanised

FULL HEIGHT GUARDRAIL

REI 351
Intermediate post

REIR F
Full height guardrail panel

3/4 HEIGHT GUARDRAIL

REI 352
Intermediate post

REIR S1Q
3/4 height guardrail panel & top rail

1/2 HEIGHT GUARDRAIL

REI 353
Intermediate post

REIR S1H
1/2 height guardrail panel & top rail

3-RAIL

REI 353
Intermediate post

MST 42
Rail supplied in 6.4-6.5m random length

2-RAIL

REI 354
Intermediate post

MST 42
Rail supplied in 6.4-6.5m random length

TRIP-RAIL

REI 356
Intermediate post

MST 42
Rail supplied in 6.4-6.5m random length

OPTIONS (ALL POSTS):

• End post
• Raked panel
• Base plated

OPTIONS (GUARDRAIL / RAIL COMBINATIONS):

• Raked panel / rail
• Radiused panel / rail
Traditional post & rail designs for heritage sites
Guardrails and / or rails set between traditional cast iron posts are ideal pedestrian control measures for historic settings such as town centres, water fronts and heritage attractions. The Hammersmith and Marine products are a popular choice for sites where a high degree of visually permeability is required, but where a distinct boundary line needs to be defined. These systems are also very easy to install on sites that are straight and level, with the long rails passing through multiple posts to form a robust joined-up run. For non-straight and / or non-level sites, panels and rails can be made-to-measure to suit the site dimensions. All designs shown combine heavy duty solid (except where the rails pass through) cast iron posts with guardrail and rails in hot dipped galvanised steel for ultimate long term protection against corrosion. The Hove knee-rail is a replica of a Victorian design and a popular choice as a boundary treatment to soft landscape areas, providing low level containment without being visually obtrusive.
<table>
<thead>
<tr>
<th>Cast Iron Post &amp; Guardrail / Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROCHESTER GUARDRAIL</strong></td>
</tr>
<tr>
<td><strong>RCH 426</strong></td>
</tr>
<tr>
<td>Cast iron intermediate post for 3/4 guardrail</td>
</tr>
<tr>
<td><strong>RCHR S1Q</strong></td>
</tr>
<tr>
<td>3/4 height guardrail panel &amp; rail to suit 2m post centres</td>
</tr>
<tr>
<td>Mild steel hot dipped galvanised</td>
</tr>
</tbody>
</table>

**OPTIONS (POSTS):**
- End post

**OPTIONS (GUARDRAIL / RAIL):**
- Raked panel / rail
- Radiused panel / rail
- High visibility panel V2, V4, V8

| **HAMMERSMITH POST & RAIL**       |
| **HAM 532**                       |
| Cast iron intermediate post for 2-rail, root version |
| **MST 48**                        |
| Rail supplied in 6.4-6.5m random length |
| Mild steel hot dipped galvanised |

**OPTIONS (POSTS):**
- End post

**OPTIONS (GUARDRAIL / RAIL):**
- Coner post
- Base plated

| **MARINE POST & RAIL**            |
| **MAR 751**                       |
| Cast iron intermediate post for 2-rail |
| **MST 42**                        |
| Rail supplied in 6.4-6.5m random length |
| Mild steel hot dipped galvanised |

**OPTIONS (POSTS):**
- End post

**OPTIONS (GUARDRAIL / RAIL):**
- Coner post

| **HOVE KNEE-RAIL**                |
| **HOV 450**                       |
| Cast iron intermediate post for knee-rail, root version |
| **MST 33**                        |
| Rail supplied in 6.4-6.5m random length |
| Mild steel hot dipped galvanised |

**OPTIONS (POSTS):**
- End post

**OPTIONS (GUARDRAIL / RAIL):**
- Coner post
- Base plated
Bollards as railing posts for product coordination

As well as being stand-alone items, bollards can also be used to form barriers that provide a stronger visual and physical division between adjacent areas. Cast iron, steel and even timber bollards can be drilled to accept suitably-sized rails to form continuous runs or just small sections to provide localised barriers to protect pedestrians against highways and other hazards. Using just one or two rails without any vertical infill bars creates a visually permeable barrier that is far less intrusive than traditional full guardrail. For sites where barriers are more for visual containment than strict physical control, eyebolts can be attached to bollards, to which chainlink can be fitted as permanent or removable features. Please contact us to discuss the feasibility of adapting standard bollards to form barrier posts.
Guardrail integrated & independent gates
In many guardrail runs access may be required either for emergency or more regular purposes. Gates are offered in two of our standard railing systems - Linx and PGRM - with options on clearance widths from 1m to 4m and as single or double leaf. All such gates feature robust hinge mechanisms, slide bolts lockable with an FB padlock, and drop bolts with ground keeps to ensure the gates can be secured in their locked positions. The gates can be designed to open either one or both ways, and to either 90 or 180 degrees. In addition to guardrail gates we also offer an independent emergency access gate, mounted to either the decorative cast iron Telford bollard or the composite steel Holborn bollard, and both with an optional reflective sign plate. Available in three standard clearance widths, these extremely robust gates are most often employed to block roads or central reservations, or simply in site entry applications.

EMERGENCY ACCESS GATES
Mild steel gate 900mm a/g, in galvanised finish c/w hinge post

<table>
<thead>
<tr>
<th>POST STYLE/CLEARANCE DIM</th>
<th>TELFORD BOLLARD</th>
<th>HOLBORN BOLLARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2900mm</td>
<td>TGT 290</td>
<td>HOL 290</td>
</tr>
<tr>
<td>3420mm</td>
<td>TGT 340</td>
<td>HOL 340</td>
</tr>
<tr>
<td>4500mm</td>
<td>TGT 450</td>
<td>HOL 450</td>
</tr>
</tbody>
</table>

OPTIONS (ALL GATES):
- Locking post
- Emergency Access Keep Clear reflective sign
Adaptations to standard products & all-new designs
Where products from our standard range of guardrail and railings either aren’t appropriate or won’t readily fit your site we are able to design and supply site-specific variations to these, or offer completely new bespoke products. From concept through to survey, to design development, manufacture and installation, our expert designers are able to offer practical advice, including cost estimates, to assist you in realising your aspirations for your site. We are able to manufacture in a wide range of materials, including steel and stainless steel, cast iron, aluminium and timber and enjoy the challenge of applying our design and materials expertise in the development of new products. We are able to take and interpret survey or design levels data and provide 3d product and installation models for your consideration.