

LANGFULTON

FORMERLY ORSOGRIL UK



Steel Fencing Systems

Grating Fences

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www.langandfulton.co.uk



“Fencing systems to suit all applications”

Residential

Contemporary design for new developments. Fences are made to a modular format for flexibility and ease of installation. Non-standard panel sizes and a choice of posts are available.

Commercial

Crisp and stylish for offices, city centres or business parks. Fences are manufactured in extra large panel sizes for a clean architectural appearance and provide much greater resistance to vandalism than welded wire mesh.

Municipal

Durable and low maintenance perimeter fencing for parks, open spaces and multi use games areas with an optional, new anti-graffiti paint. Installations of the purpose designed MUGA fencing system have been approved by ROSPA.

Play

Colourful and visually appealing combinations of posts and panels as a modern alternative to the ubiquitous bow-top for Nursery Schools and play areas. Gates can be made with optional self-closing devices for a secure environment and seamless perimeter fence.

Schools

Safety and security for school buildings and sports areas, optional entry/exit controls for restricted access or automatic activation in the event of fire alarm, choice of grating panels with anti-climb apertures and tamper-proof bolts.

Security

Robust construction provides a high degree of perimeter protection with direct fixing between panel and I-section post for the strongest possible connection. Optional cranked tops for extension panels or barbed wire, or serrated edging strip.

Sports Stadia

Fences can be designed to take a loading which complies with BS6399-1 for projects such as barrier fencing in crowd control areas. Weight of flat bar and bespoke posts are supplied appropriate to requirement.

Prestigious

Bespoke panels with curved or wave tops, individually designed posts and finials, decorative rails and polyester powder coated finish in any colour.

Gates

Single-leaf, double-leaf and sliding gates are made to custom sizes with infill panels from the entire range of gratings or steel louvred panels, where visual screening is required.





Roma-2 & Roma-3

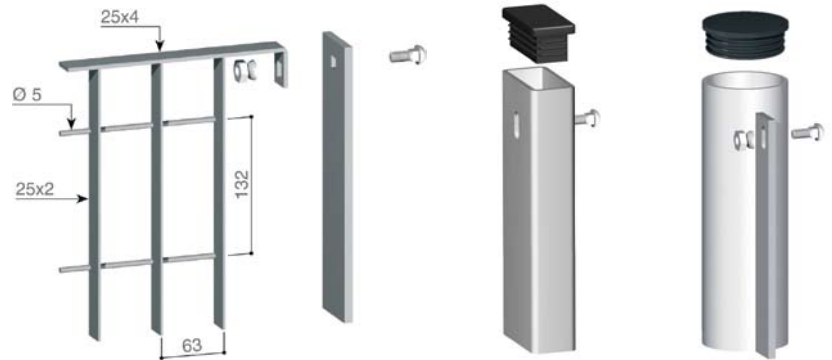
Applications:

Boundary

Security

Aperture: 63x132mm

Flat Bar: 25x2mm / 25x3mm

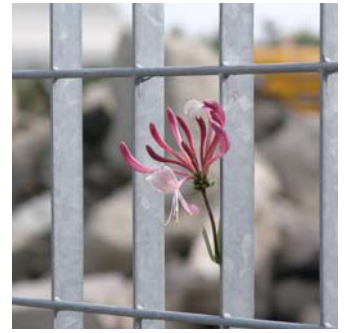


| PANEL | | | FLAT POST | ROUND POST | RHS POST | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-------------|-----------------------------|---------------|----------------|---------------|------------------------|------------------------|----------------|
| HEIGHT mm | WIDTH mm | WEIGHT kg/m ² | SECTION mm | DIAMETER mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 930 | 1992 | 9.5 | 60x7 | 50 | 50x30 | 1500/550 | 1210/200 | 2 |
| 1195 | 1992 | 9.1 | 60x7 | 50 | 50x30 | 1800/600 | 1494/200 | 2 |
| 1320 | 1992 | 8.9 | 60x7 | 50 | 50x30 | 2000/600 | 1625/200 | 2 |
| 1460 | 1992 | 8.8 | 60x7 | 50 | 50x30 | 2100/600 | 1758/200 | 2 |
| 1720 | 1992 | 8.6 | 60x7 | 76 | 60x40 | 2400/600 | 2015/200 | 2 |
| 1991 | 1992 | 8.4 | 80x8 | 76 | 80x40 | 2800/700 | 2336/250 | 3 |
| 2123 | 1992 | 8.4 | 80x8 | 76 | 80x40 | 2900/700 | 2470/250 | 3 |
| 2387 | 1992 | 8.3 | 80x8 | 76 | 80x40 | 3200/700 | 2800/300 | 3 |

STANDARD POST CENTRES

2000mm

PANELS CAN BE STACKED TO ACHIEVE GREATER HEIGHTS; ROMA-3 CAN ALSO BE MADE IN SPECIAL SIZES UP TO A MAXIMUM OF 2910mm



Roma-4

Applications:

Boundary
Security

Aperture: 63x132mm

Flat Bar: 30x4mm

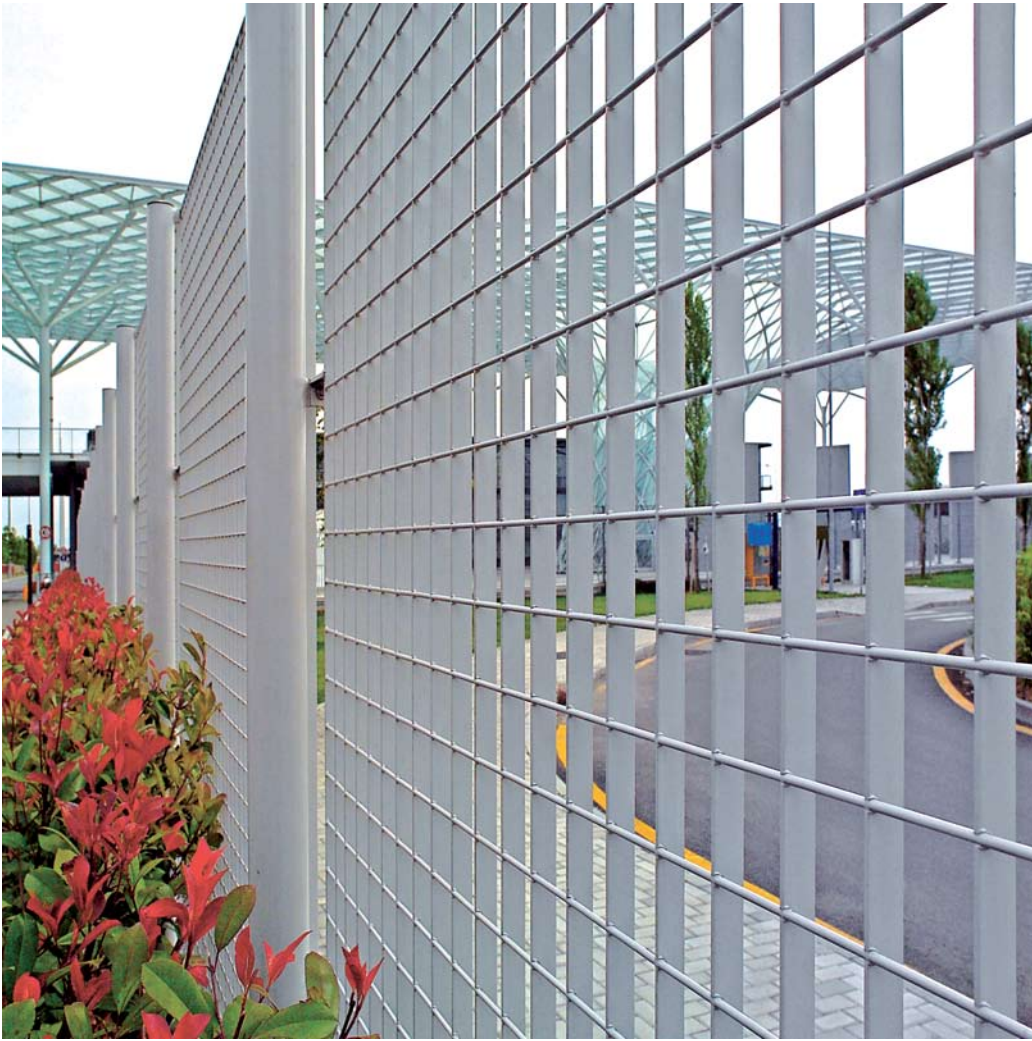


| PANEL | | | FLAT POST | ROUND POST | RHS POST | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-------------|-----------------------------|---------------|----------------|---------------|------------------------|------------------------|----------------|
| HEIGHT mm | WIDTH mm | WEIGHT kg/m ² | SECTION mm | DIAMETER mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 1720 | 1992 | 18.7 | 60x7 | 76 | 60x40 | 2400/600 | 2015/200 | 2 |
| 1991 | 1992 | 18.4 | 80x8 | 76 | 80x40 | 2800/700 | 2336/250 | 3 |
| 2123 | 1992 | 18.4 | 80x8 | 76 | 80x40 | 2900/700 | 2470/250 | 3 |
| 2387 | 1992 | 18.3 | 80x8 | 76 | 80x40 | 3200/700 | 2800/300 | 3 |

STANDARD POST CENTRES

2000mm

PANELS CAN BE STACKED TO ACHIEVE GREATER HEIGHTS OR SPECIAL SIZES CAN BE MADE UP TO A MAXIMUM OF 2910mm



Verona

Applications:

- Boundary
- Security
- Muga Ball Stop

Aperture: 63x66mm
Flat Bar: 25x2mm



| PANEL | | | FLAT POST | ROUND POST | RHS POST | GROUND FIXING | WALL FIXING | BOLTS |
|-----------------------|----------|--------------------------|------------|-------------|------------|---------------------|---------------------|-------------|
| HEIGHT mm | WIDTH mm | WEIGHT kg/m ² | SECTION mm | DIAMETER mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 930 | 1992 | 10.0 | 60x7 | 50 | 50x30 | 1500/550 | 1210/200 | 2 |
| 1195 | 1992 | 9.6 | 60x7 | 50 | 50x30 | 1800/600 | 1494/200 | 2 |
| 1320 | 1992 | 9.5 | 60x7 | 50 | 50x30 | 2000/600 | 1625/200 | 2 |
| 1460 | 1992 | 9.4 | 60x7 | 50 | 50x30 | 2100/600 | 1758/200 | 2 |
| 1720 | 1992 | 9.2 | 60x7 | 76 | 60x40 | 2400/600 | 2015/200 | 2 |
| 1991 | 1992 | 9.5 | 80x8 | 76 | 80x40 | 2800/700 | 2336/250 | 3 |
| 2123 | 1992 | 9.5 | 80x8 | 76 | 80x40 | 2900/700 | 2470/250 | 3 |
| 2387 | 1992 | 9.5 | 80x8 | 76 | 80x40 | 3200/700 | 2800/300 | 3 |
| STANDARD POST CENTRES | | | | | | 2000mm | | |



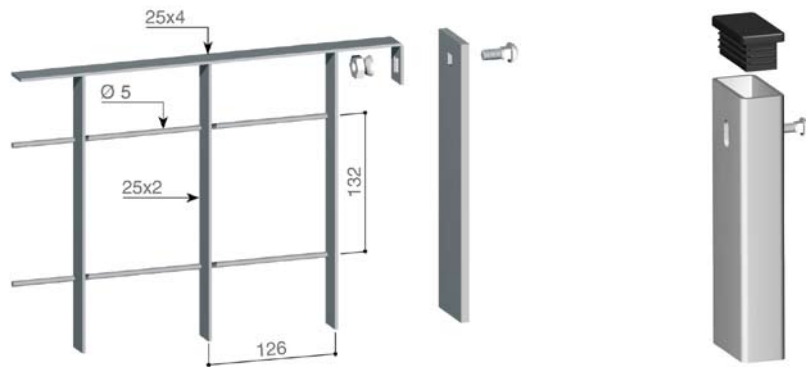
Genoa

Applications:

Residential
Trellis / Green Wall

Aperture: 126x132mm

Flat Bar: 25x2mm



- *Genoa* fencing can be used to create a trellis for a 'green wall' screening solution which is often favourably received by Planning Departments, reducing the impact of larger developments on the local environment.

| PANEL | | WEIGHT kg/m ² | FLAT POST | RHS | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-------------|-----------------------------|---------------|---------------|------------------------|------------------------|----------------|
| HEIGHT mm | WIDTH mm | | SECTION mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 935 | 1992 | 7.6 | 60x7 | 50x30 | 1500/550 | 1210/200 | 2 |
| 1331 | 1992 | 7.1 | 60x7 | 50x30 | 2000/600 | 1625/200 | 2 |
| 1727 | 1992 | 6.8 | 60x7 | 60x40 | 2400/600 | 2015/200 | 2 |

| | |
|--|--------|
| STANDARD POST CENTRES | 2000mm |
| PANELS CAN BE STACKED TO ACHIEVE GREATER HEIGHTS FOR GREEN WALL PLANTING TRELLIS | |



Palermo

Applications:

- Boundary
- Security

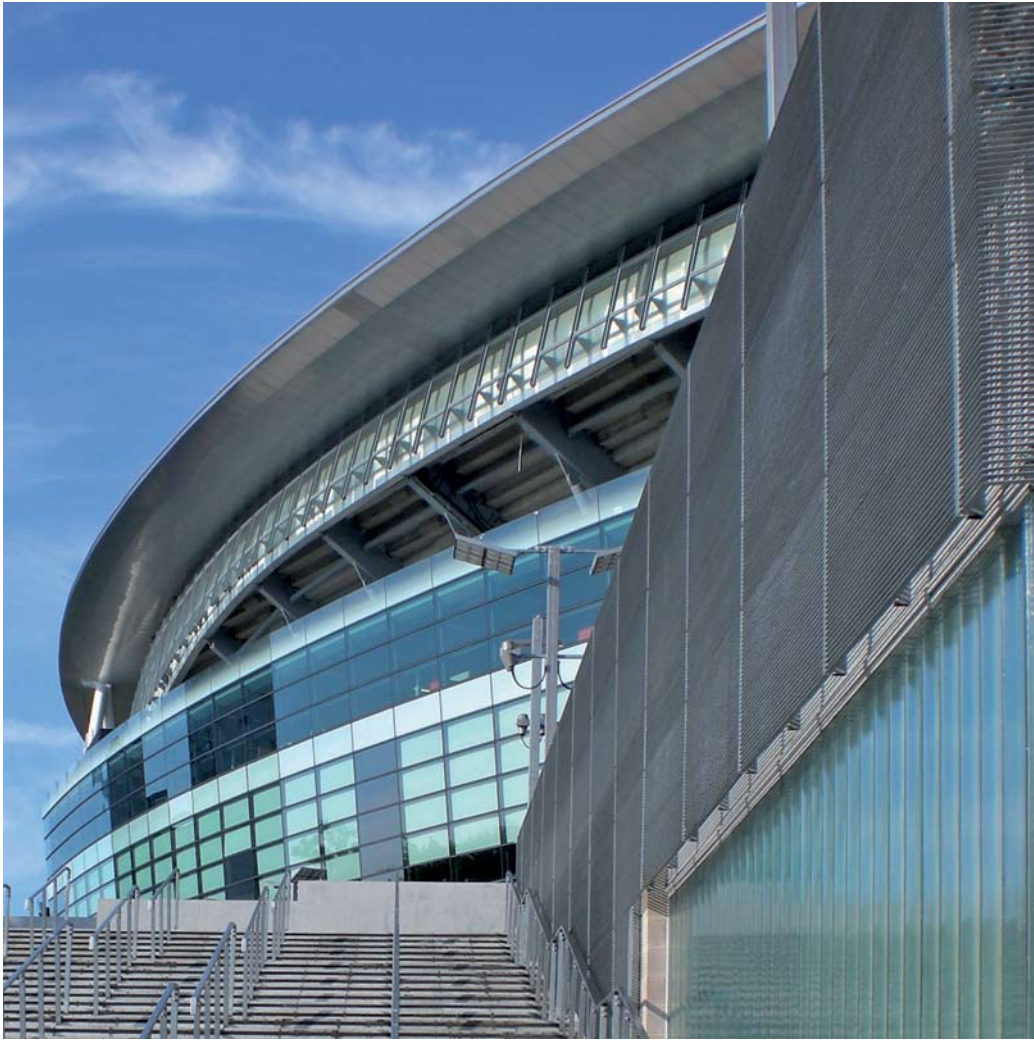
Aperture: 43x44mm

Flat Bar: 25x2mm



| PANEL | | | FLAT POST | ROUND POST | RHS POST | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-------------|-----------------------------|---------------|----------------|---------------|------------------------|------------------------|----------------|
| HEIGHT mm | WIDTH mm | WEIGHT kg/m ² | SECTION mm | DIAMETER mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 930 | 1992 | 13.5 | 60x7 | 50 | 50x30 | 1500/550 | 1210/200 | 2 |
| 1195 | 1992 | 13.2 | 60x7 | 50 | 50x30 | 1800/600 | 1494/200 | 2 |
| 1320 | 1992 | 13.1 | 60x7 | 50 | 50x30 | 2000/600 | 1625/200 | 2 |
| 1460 | 1992 | 13.0 | 60x7 | 50 | 50x30 | 2100/600 | 1758/200 | 2 |
| 1720 | 1992 | 12.9 | 60x7 | 76 | 60x40 | 2400/600 | 2015/200 | 2 |
| 1991 | 1992 | 12.9 | 80x8 | 76 | 80x40 | 2800/700 | 2336/250 | 3 |
| 2123 | 1992 | 12.9 | 80x8 | 76 | 80x40 | 2900/700 | 2470/250 | 3 |
| 2387 | 1992 | 12.9 | 80x8 | 76 | 80x40 | 3200/700 | 2800/300 | 3 |

| | |
|-----------------------|--------|
| STANDARD POST CENTRES | 2000mm |
|-----------------------|--------|



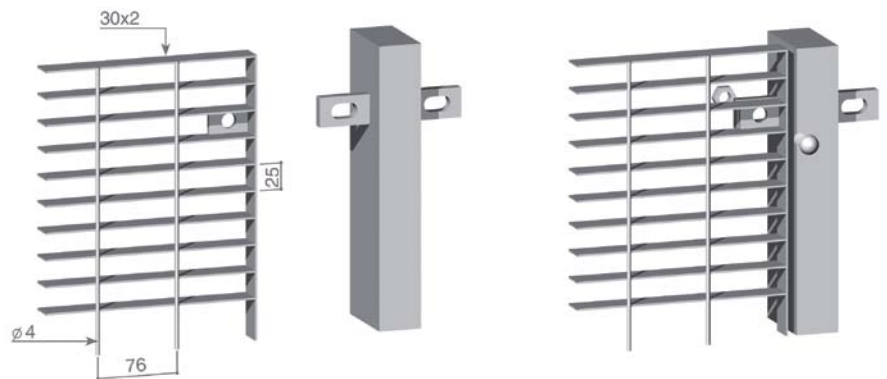
Arezzo-25

Applications:

Barrier
Crowd Control Areas

Aperture: 76x25mm

Flat Bar: 25x2mm



- Panels are combined in multiples of 1000mm to create a fence of the required height
- Extra wide panels (<2510mm) can be supplied by increasing the section of flat bar
- The line load requires an additional horizontal rail at 1100mm above ground level
- Panels and posts have been designed to comply with BS 6399-1 for barrier fencing
- Arezzo-15 with a 76x15mm aperture can also be used to create a custom-designed fence to meet a required loading
- A fence made from Piazza-25 with a 25x25mm aperture will comply with anti-projectile regulations.

| PANEL | | | BEARING BAR | RHS POST | LOADING | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-------------|-----------------------------|---------------|---------------|-------------------|------------------------|------------------------|----------------|
| HEIGHT mm | WIDTH mm | WEIGHT kg/m ² | SECTION mm | SECTION mm | kN/m ² | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 1000 | 2510 | 21.0 | 30x2 | 100x50 | 1.5 | 1550/550 | 1250/200 | 4 |
| 2000 | 2510 | 21.0 | 30x2 | 100x60 | 1.5 | 2750/700 | 2250/200 | 8 |
| 3000 | 2510 | 21.0 | 30x2 | 150x150 | 1.5 | 3750/700 | 3350/300 | 12 |

STANDARD POST CENTRES

2560-2610mm

BEARING BARS FOR PANEL WIDTHS GREATER THAN 2510mm

40x3mm or 50x4mm



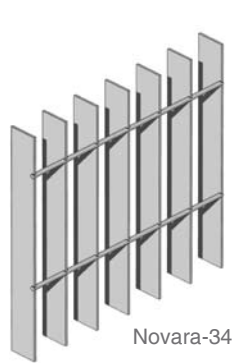
Novara-34 & Novara-25

Application:

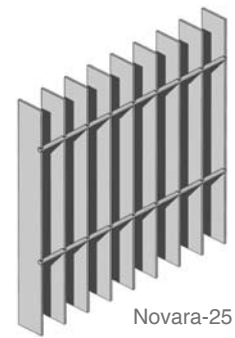
Anti-climb Fencing

Aperture: 34x100mm / 25x76mm

Flat Bar: 25x2mm



Novara-34



Novara-25

- Standard panels are framed to include a bent over lug for panel to post fixing.
- 34x100mm and 25x76mm apertures comply with NHBC anti-climb guidelines.
- Alternative post arrangements such as a T-post can be used to reduce the gap between panel and post for increased security.

| PANEL | | FLAT POST | RHS POST | T-POST | GROUND FIXING | WALL FIXING | BOLTS |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------|------------------------|----------------|
| HEIGHT mm | WEIGHT kg/m ² | SECTION mm | SECTION mm | SECTION mm | LENGTH/ANCHORAGE mm | LENGTH/ANCHORAGE mm | NO per post |
| 1000 | 14.4 | 60x7 | 50x30 | 50x50 | 1550/550 | 1250/200 | 2 |
| 1200 | 14.3 | 60x7 | 50x30 | 50x50 | 1800/550 | 1500/200 | 2 |
| 1500 | 14.0 | 60x7 | 50x30 | 50x50 | 2100/550 | 1780/200 | 2 |
| 1800 | 13.8 | 60x7 | 60x40 | 60x60 | 2500/600 | 2100/200 | 2 |
| 2000 | 13.7 | 80x8 | 80x40 | 80x80 | 2800/700 | 2300/250 | 2 |
| 2400 | 13.6 | 80x8 | 80x40 | 80x80 | 3200/700 | 2800/300 | 3 |

STANDARD PANEL WIDTHS

1240mm FOR NOVARA-34; 1070mm FOR NOVARA-25



Roma-4HS



Roma-4HS



Roma-4HS

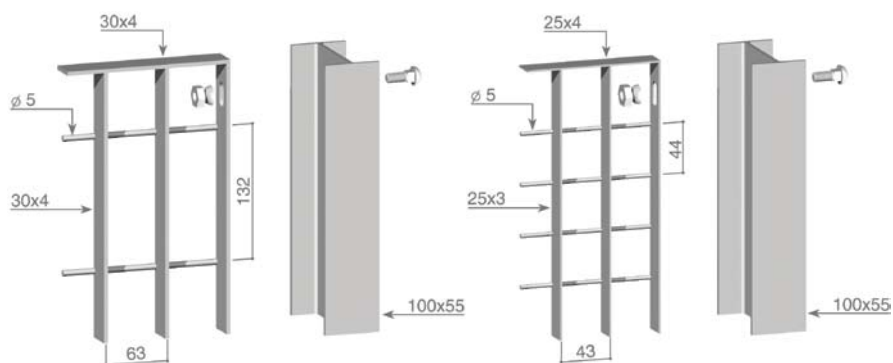


Palermo-HS

Roma-4HS & Palermo-HS

Application:
Higher Security

Aperture: 63x132mm / 43x44mm



- Fences for higher security applications are made by modifying the design of *Roma-4* with a heavy duty 30x4mm flat bar or *Palermo* with a small 43x44mm aperture are the most appropriate gratings for higher security applications.
- The panels are holed on the outside vertical flats for direct fixing with stainless steel M10 dome headed bolts and snap-off nuts to a 100x55mm IPE post for the strongest possible connection.
- Post centres: 1900mm.
- Panel heights: 1991mm, 2123mm, 2387mm and 2910mm.
- Fences can be supplied with 450mm cranked tops for extension panels or barbed wire. Serrated top bars can be attached to gates or panels.





Roma-3



Roma-2



Roma-3



Roma-2

Bespoke Fence Designs

Apertures: from 15x76mm to 126x132mm

Lang + Fulton will collaborate in the development of a unique design for an individual architectural project.

- Bespoke grating fences and gates can be manufactured from a choice of 10 different gratings.
- The overall integrity of the electrofused grating material allows it to be cut to create individually shaped fences such as bow or wave topped, or panels can be inset into a decorative square or round tubular frame.
- The gratings can be rolled to a radius or manufactured to incorporate ornamental motifs or laser cut panels with corporate crests and logos.
- Fences, balustrades and screens can be designed to comply with particular building regulations or safety levels. These are made from extra small mesh gratings with apertures of 15x76mm, 25x76mm and 34x100mm which are combined with an appropriate weight of post.
- Feature posts can be provided in wood or steel: with spherical or coned finials; modified to carry a floating top rail; or engineered to meet an unusual loading requirement.



Roma-2



Genoia



Roma-2



Roma-2



GATES

All gates are manufactured to custom sizes and hot dip galvanized to BS EN ISO 1461 with optional polyester powder coating in any RAL or BS colour. Infill panels from the full range of gratings or mild steel louvred grilles from the *Talia* range where visual screening is required, are generally welded but can be bolted to RHS frames and supplied with SHS posts appropriate to the overall size and weight of the gate. Gates are designed for manual operation but can also be automated for installation by specialist engineers.

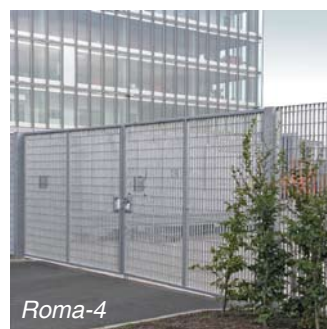
Swing Gates: single-leaf, double-leaf or bi-folding gates are designed to conform to BS 1722 Parts 9 or 12.

Features include: full height blanking/slam plates at hinges
eurocylinder Locinox mortice locks as standard, or sliding latch for padlocks or Maglocks
optional Locinox electric strikes for remote opening with provision for intercom units in gate post or adjacent panel
adjustable hinges for ease of installation or self-closing hinges.

Pivot Gates: made up to 2.4m high and 2.0m wide and mounted on a single RHS post and positioned to provide equal or unequal openings.

Fixed Rail Sliding Gates: supplied from Italy and carry the CE mark, certifying manufacture and testing in compliance with EU health, safety and environmental requirements EN13241-1, EN12604, EN12605 and EN12424.

Cantilevered Sliding Gates: provided through our UK partner suppliers incorporating Lang + Fulton products.



“Smart, versatile and quick to install with a long-lasting result”

Features

- High quality grating material in large panel sizes
- Plain round transverse bar for attractive aesthetic
- Durable finish for optimum resistance to corrosion and low maintenance
- Modular, stackable system for fencing of any height
- Custom service & support from experienced technical and design team.

Manufacture & Material

Electrofused Mild Steel S235JR BS EN 10025.

Flat bearing bars are fused with round bars in a single process, combining high-voltage electricity and pressure. The amalgamated metals provide a strong grating with complete integrity and neat joints.

Production lines are fully automated for quality control and maximum cost-efficiency.

Panels are framed with different weights of flat bars appropriate to the fence height: from 25x3.5mm to 30x4mm.

Finishing

Galvanizing: all products are hot-dip galvanized to BS EN ISO 1461 unless stated otherwise.

Polyester Powder Coating: optional polyester powder coating to BS EN 13438 is available in any RAL or BS colour. A multi-stage process applies thermo-setting resins producing a significantly superior finish to painting.

Performance

Wind Loading: all fence panels and posts are designed in accordance with BS EN 1993 (EC3) and Wind Loading EC1.

Anti-Climb: small aperture gratings (34x100, 25x76 and 25x25mm) comply with NHBC anti-climb guidelines (aperture width <35mm) for schools, colleges and residential environments.

Horizontal Loadings: panels can also be designed to accept horizontal loadings for pedestrian barriers up to a 3m span in accordance with BS 6399-1.

Installation

Fastenings: M10x30mm stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade AISI 303

Groundworks: posts set in holes not less than 300mm square in plan, depth not less than 500mm, completely filled to a minimum of 50mm below ground level with concrete mix C20

Height from ground: panels to sit maximum 100mm off ground

Changes in level: fence panels stepped to a maximum of 150mm on standard length post. Post centres to be reduced for steeper gradients (between 1:20 and 1:7)

Changes in direction: 60x60mm or 80x80mm square hollow section for 90° corner post. Two flat bar posts for other angles.

Technical Assistance and Design

Full design service available for panels, posts and gates with consultant engineering services for non-standard loadings.

Detailed CAD drawings for layout and installation and bespoke designs.

Site Surveys and Supply

Sites may be surveyed on request. Products are supplied fully finished for site installation throughout the UK, Channel Islands and Ireland and worldwide destinations.



Telescopic lug



Stainless steel security bolt



Intermediate lug

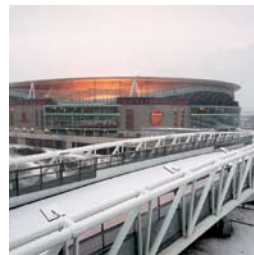
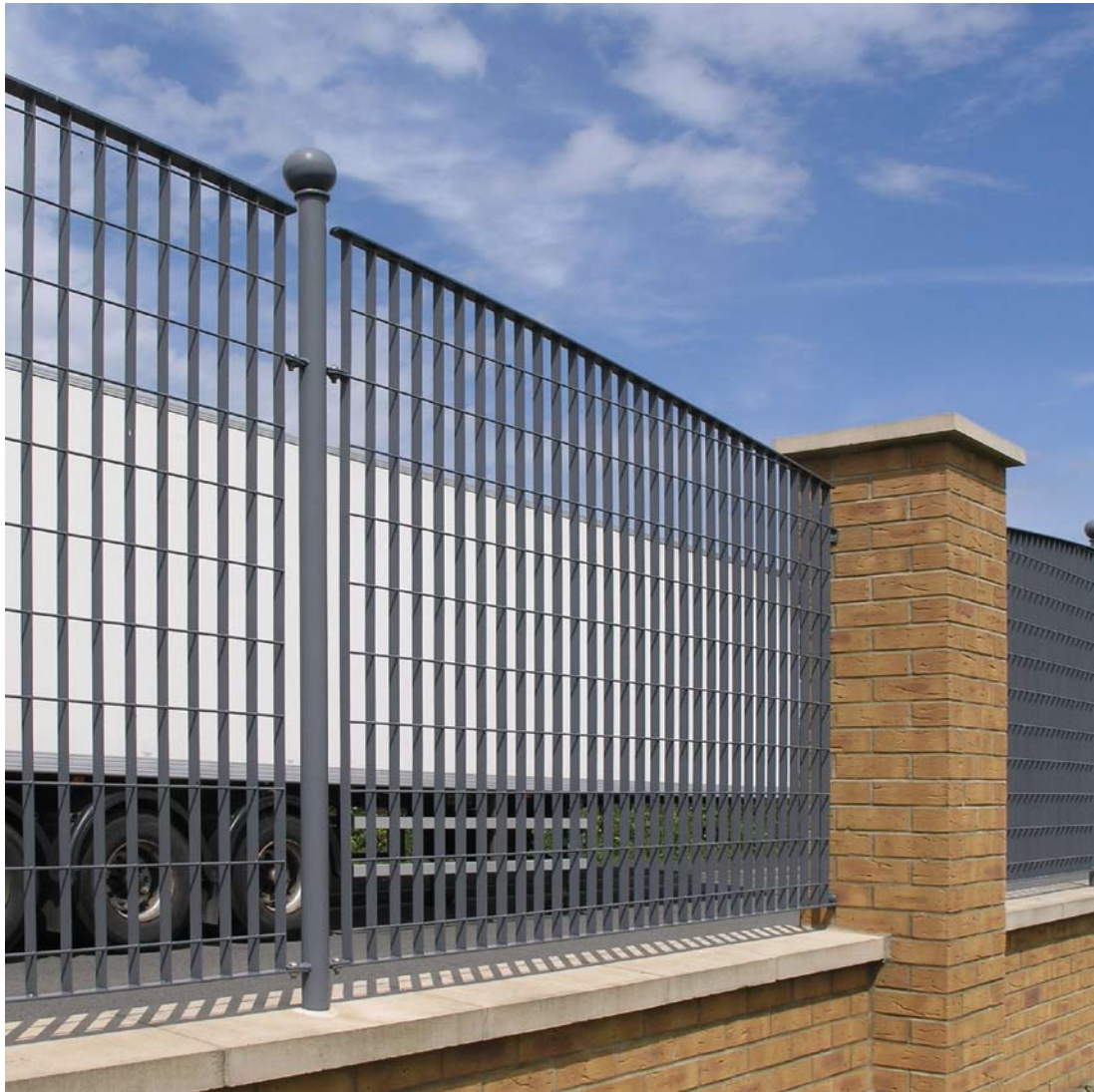


4-bolt fixing plate



2-bolt fixing plate





LANG & FULTON

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