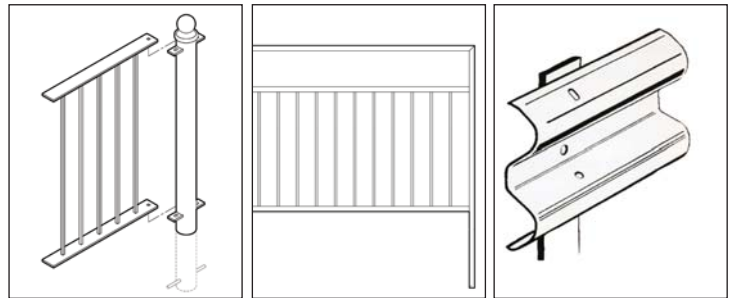




The *one-stop shop* for all highway professionals

3



Section 1
Traffic Management
Temporary Signage
Roadworks Equipment

Section 2
Highway Maintenance Products

Section 3
Pedestrian Guardrailing
Crash Barriers & Fencing

Section 4
Decorative & Amenity Bollards

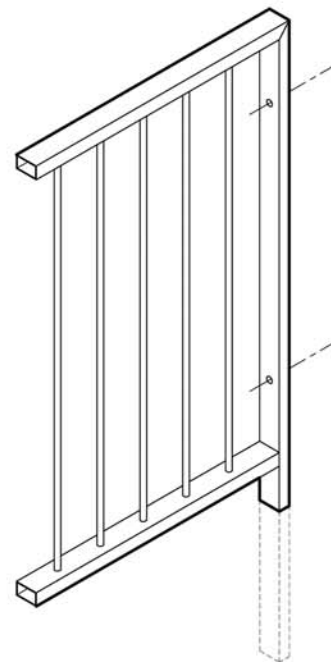
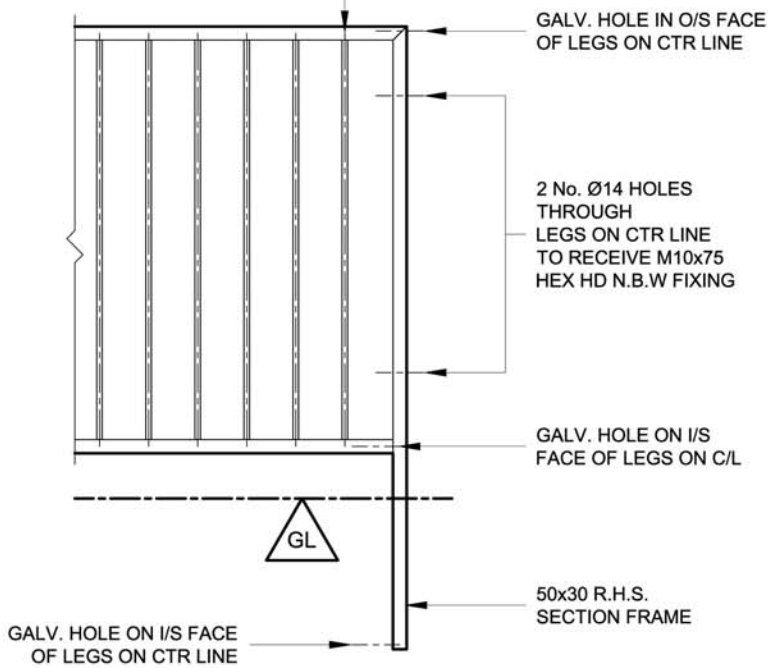
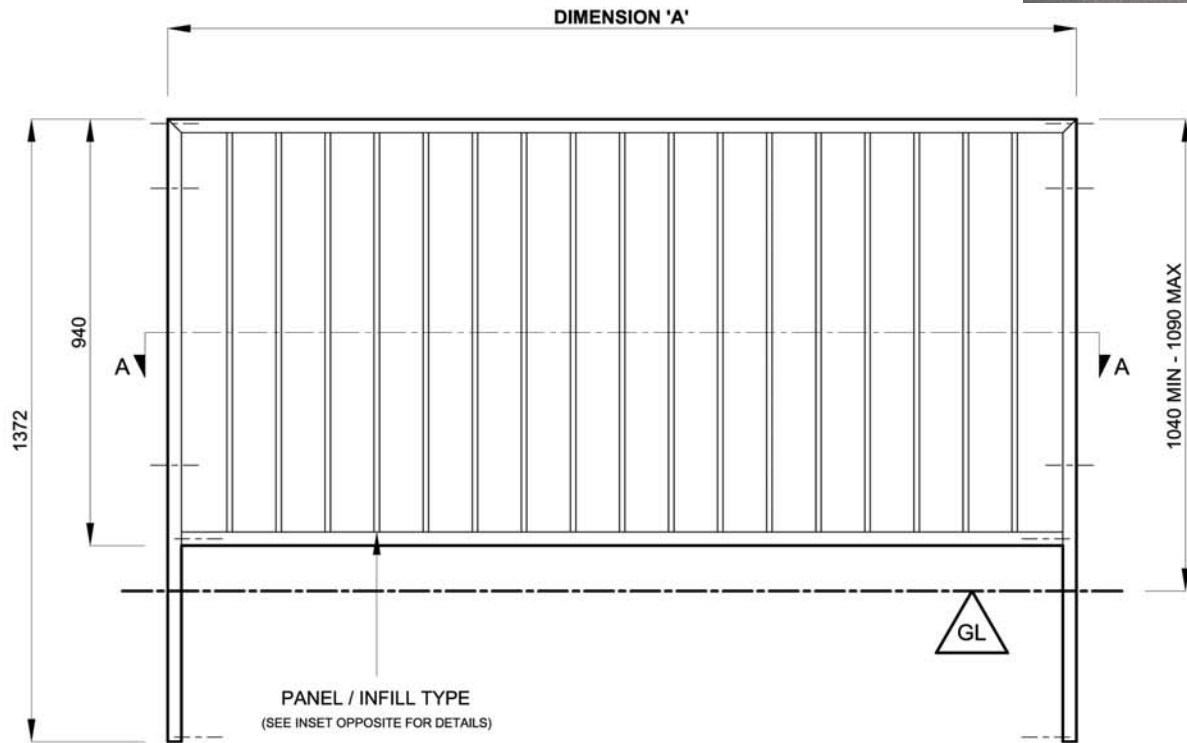
Section 5
Amenity & Street Furniture

Section 6
Car Parks & Access Control

Pedestrian Guardrailing	2-23
Post & Rail	24-29
Fencing	30-43
Barriers	44-57
Crash Barriers	58-63
Security Fencing	64
Bridge Parapet Fencing	65-67

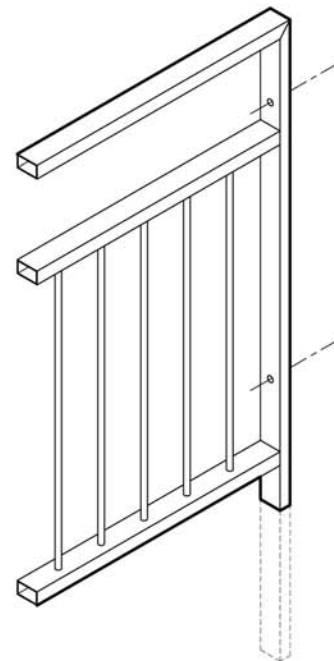
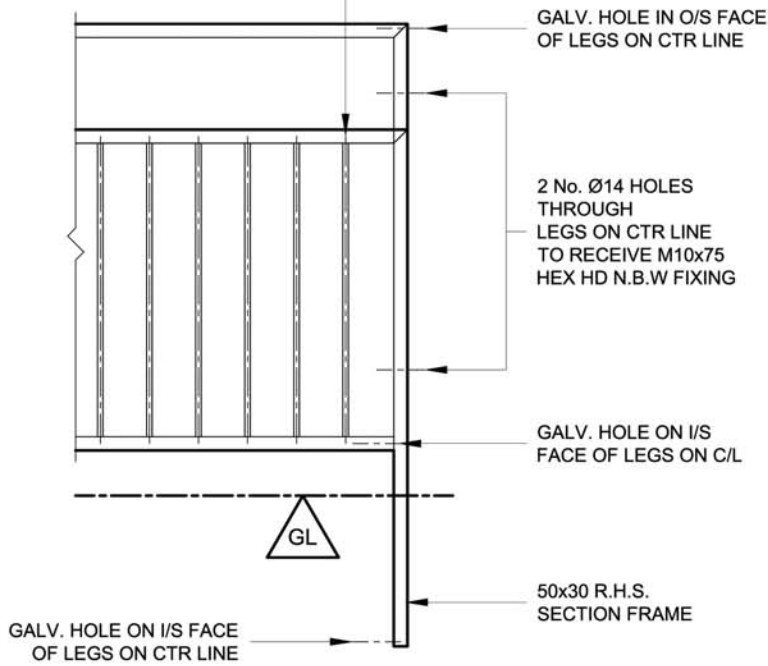
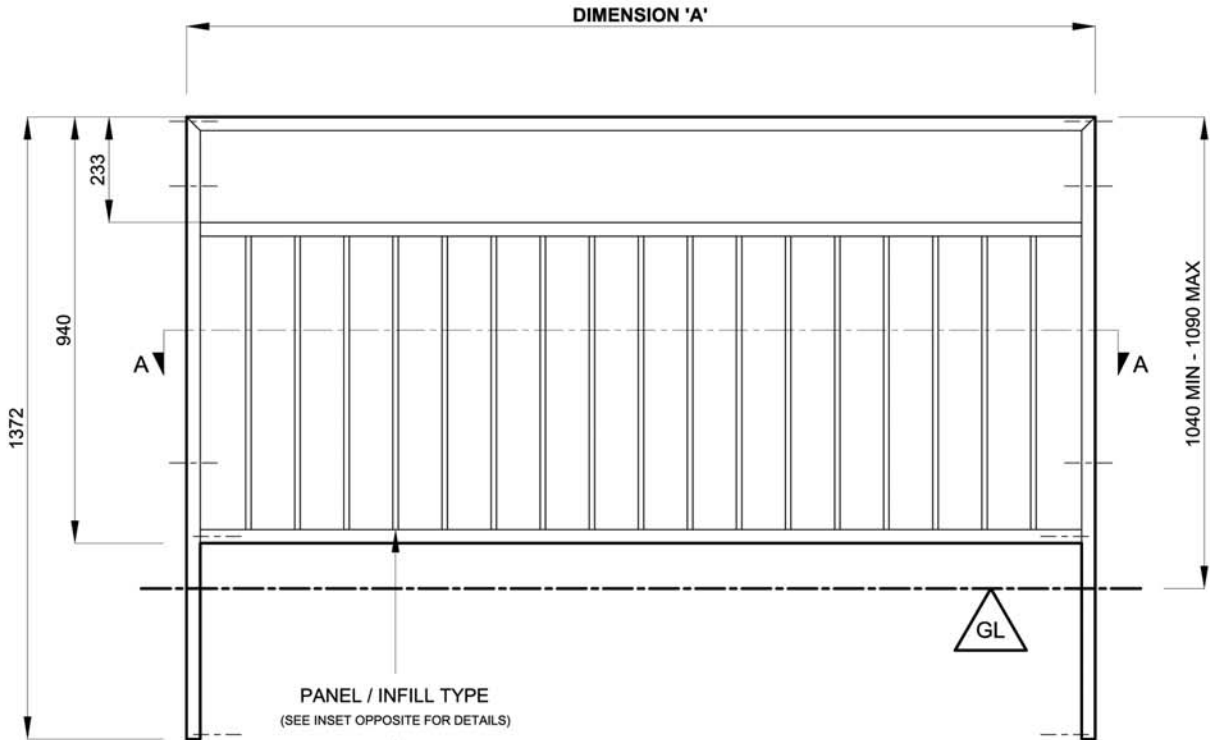
► Pedestrian Guardrailing

▼ Standard panel



SF 3.10

▼ Standard panel (with sight gap)



ISOMETRIC VIEW

(PANEL END SECTION, SHOWING STD INFILL PATTERN)

SF 3.14

▼ Infill details

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

GUARDRAIL PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD PANEL LENGTHS: 1000mm, 1829mm (6'0"), 2000mm

PANEL INFILL AVAILABLE:

STANDARD INFILL / STAGGERED INFILL (SEE BELOW)

FOR INFORMATION ON CHOOSING THE CORRECT INFILL PATTERN SEE SECTION 4.70

ACCESSORIES:

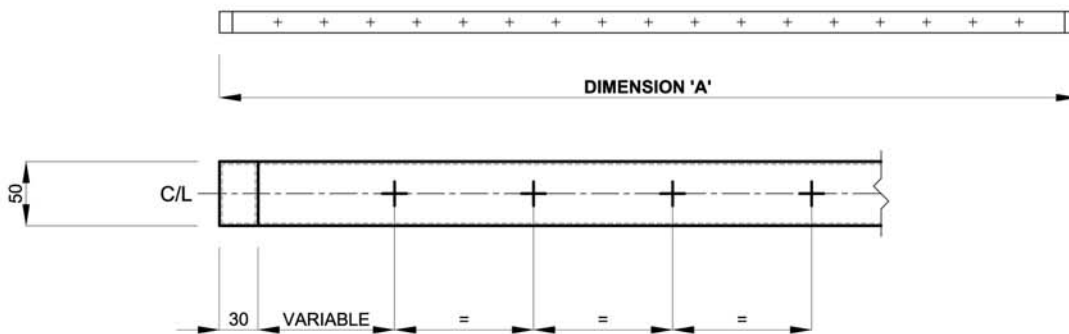
EACH PANEL WILL BE SUPPLIED WITH 2 No. M10x75 N.B.W. FIXINGS.

RADIUSED PANELS:

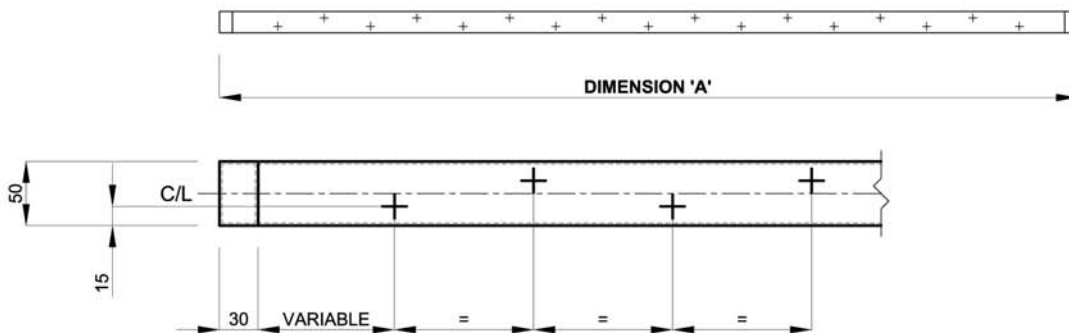
SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.

PANEL / INFILL TYPE	
P35	12mm ² INFILL BAR
M35	Ø12mm INFILL BAR
R35	Ø16mm INFILL BAR
N35	Ø20mm INFILL BAR

SECTION 'A-A' STANDARD INFILL PATTERN



SECTION 'A-A' STAGGERED INFILL PATTERN



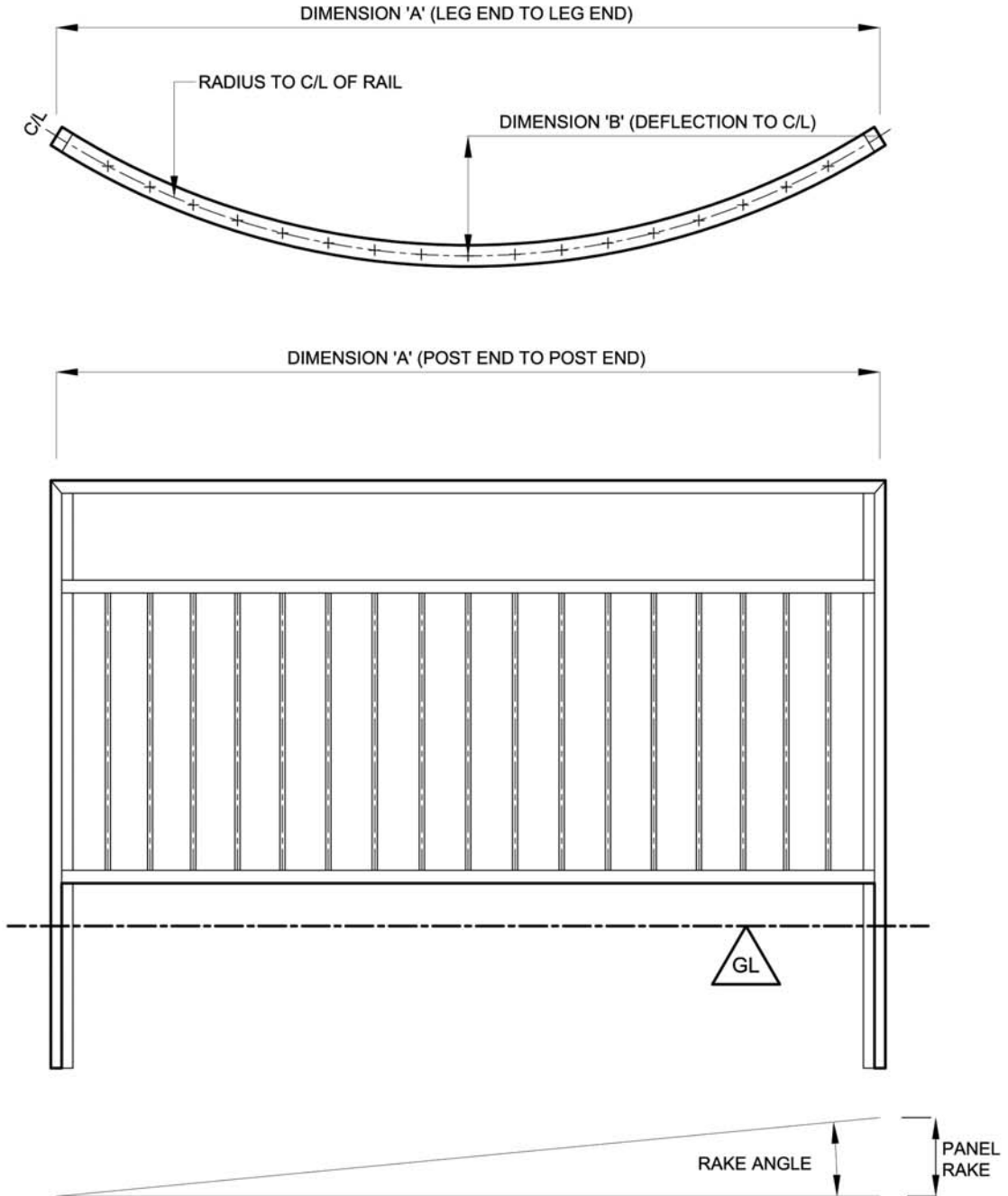
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) PANEL / INFILL TYPE (P35 / M35 / R35 / N35)
- 2) OVERALL PANEL LENGTH (DIM 'A' mm)
- 3) INFILL PATTERN (STANDARD INFILL / STAGGERED INFILL)

EXAMPLE: "M35 (2000mm) STAGGERED INFILL"

SF 3.11

▼ Radiused panel



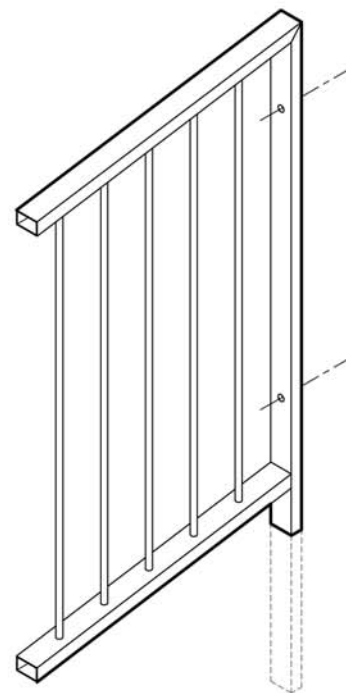
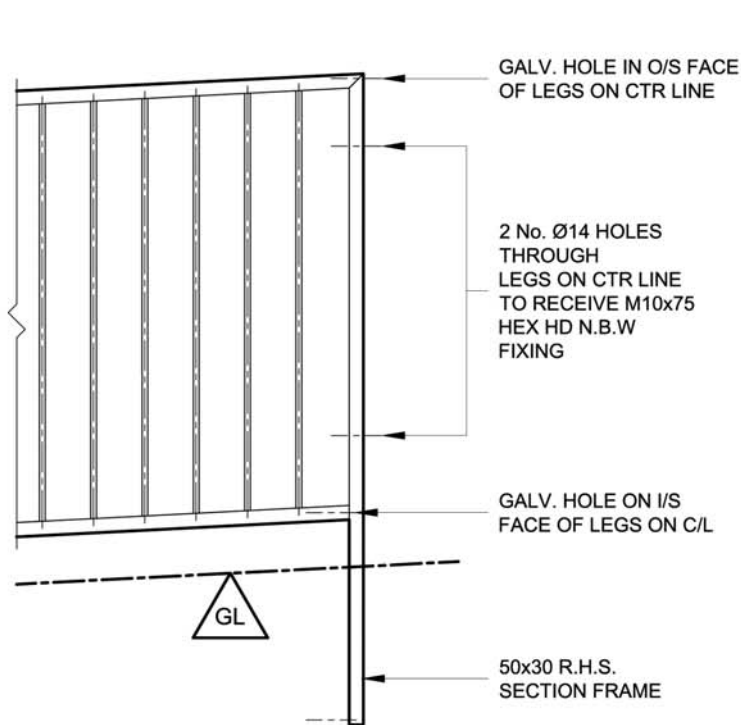
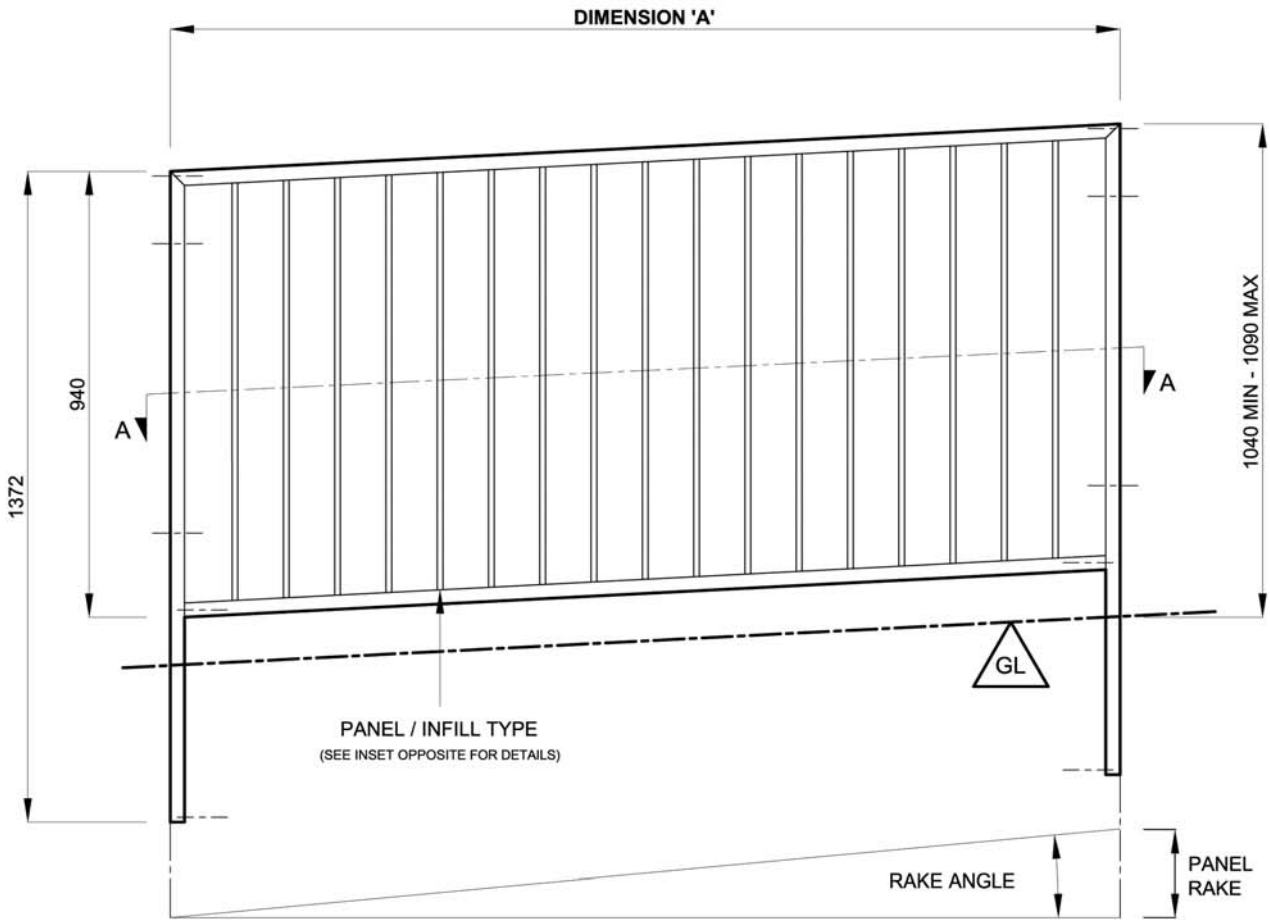
M35 (2000mm) STANDARD INFILL WITH SIGHT GAP SHOWN AS EXAMPLE

NOTE: THE RULES FOR ORDERING GUARDRAIL PANELS ALSO APPLYS TO FENCING PANELS EXCEPT PANEL RAKE IS TAKEN AT POST CENTRES

SF 3.20

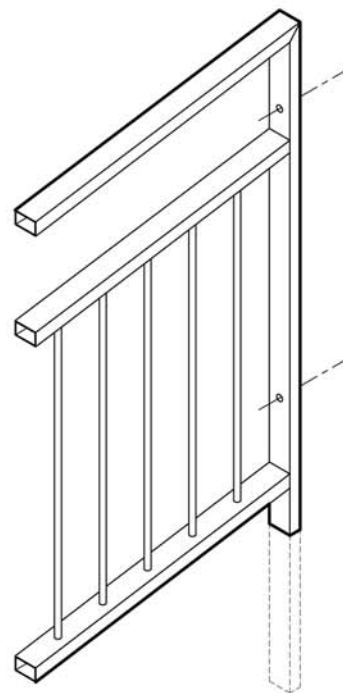
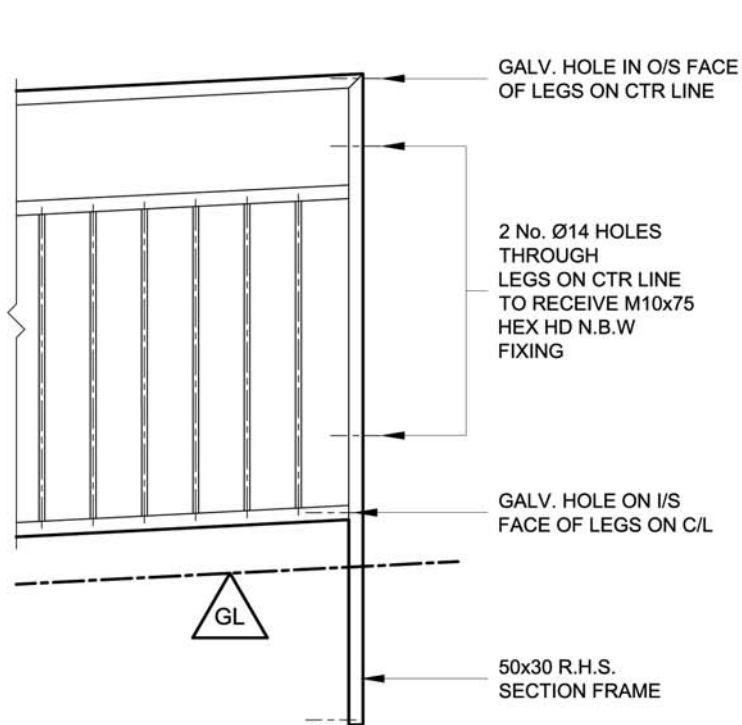
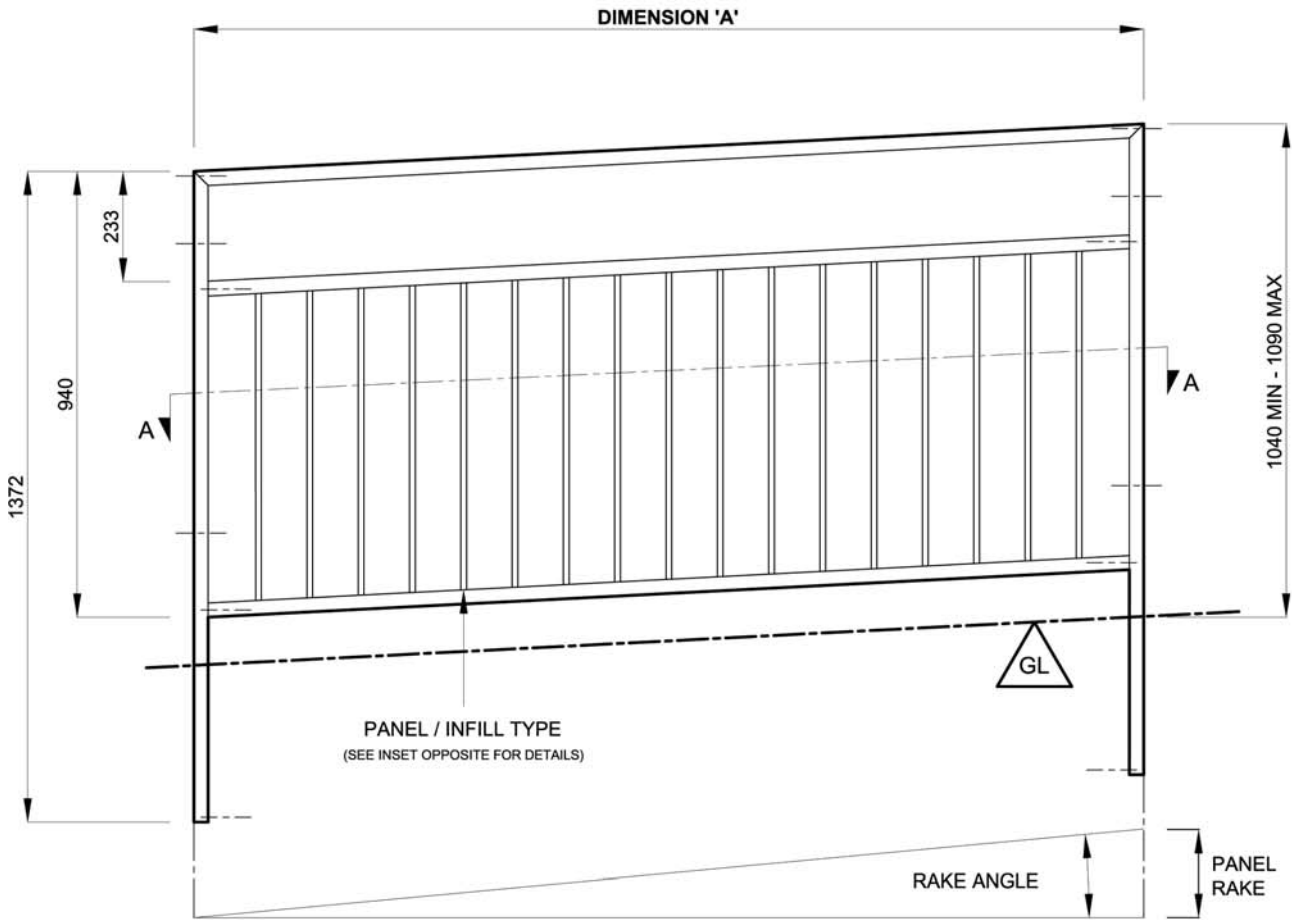
► Pedestrian Guardrailing *(continued)*

▼ Raked panel (standard)



SF 3.12

▼ Raked panel (with sight gap)



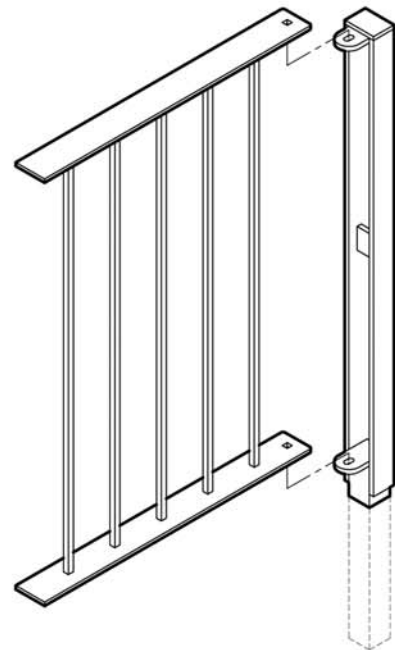
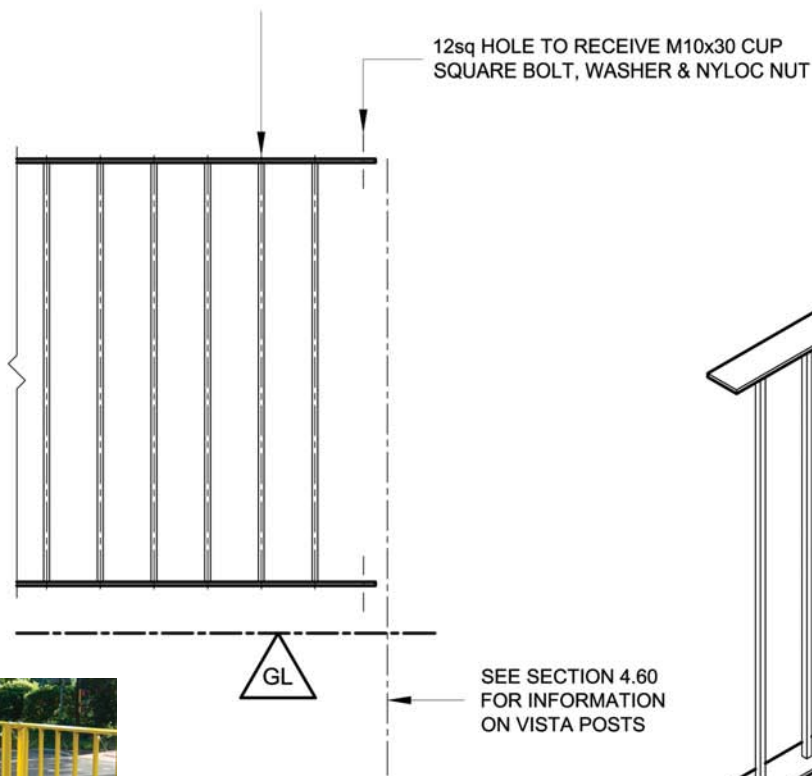
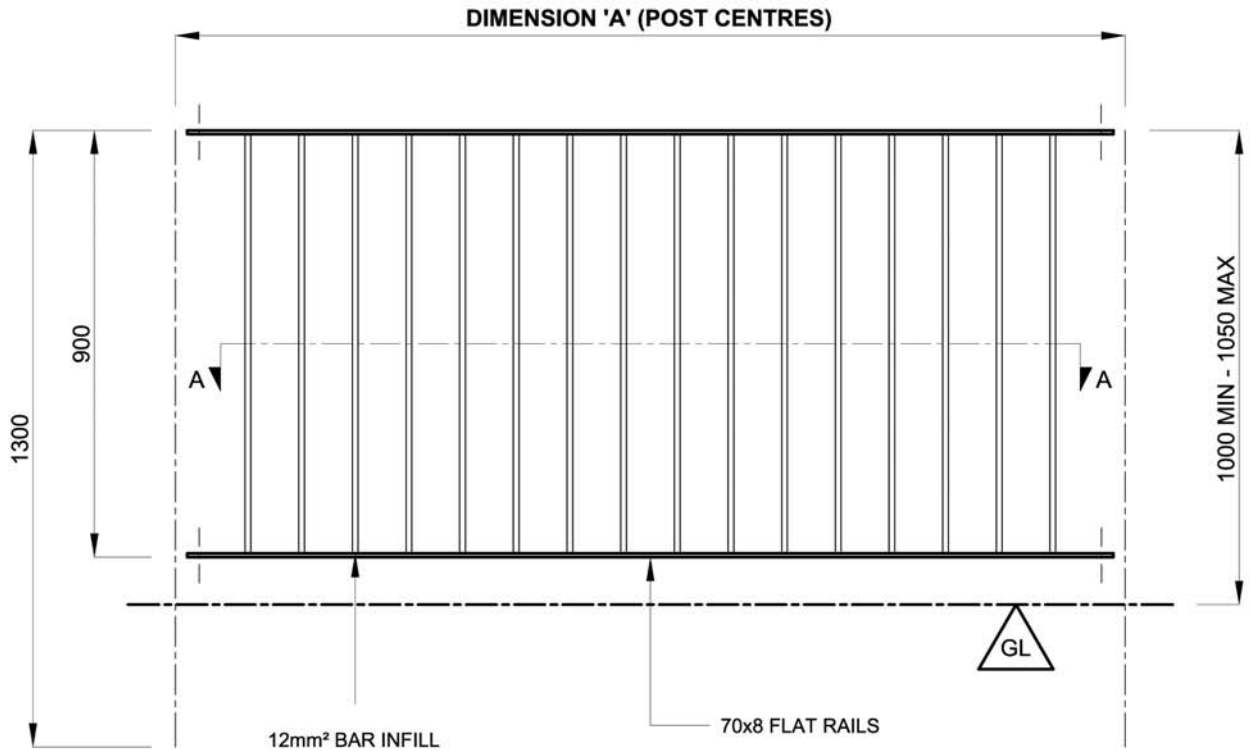
ISOMETRIC VIEW

(PANEL END SECTION, SHOWING STD INFILL PATTERN)

SF 3.16

► Pedestrian Guardrailing *(continued)*

▼ Vista guardrail (standard)



ISOMETRIC VIEW

(PANEL END SECTION, SHOWING STD INFILL PATTERN)



Featured painted in hi-vis yellow

SF 4.50

▼ Vista guardrail (infill layouts)

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

VISTA GUARDRAIL PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD PANEL LENGTHS: 1000mm, 2000mm

PANEL INFILL AVAILABLE:

STANDARD INFILL / S1 / S2 / S4 / S8 INFILL (SEE BELOW)

FOR INFORMATION ON CHOOSING THE CORRECT INFILL PATTERN SEE SECTION 4.70

ACCESSORIES:

EACH PANEL WILL BE SUPPLIED WITH 4 No. M10x30 CUP SQ. BOLT, WASHER AND NYLOC NUT FIXINGS.

RADIUSED PANELS:

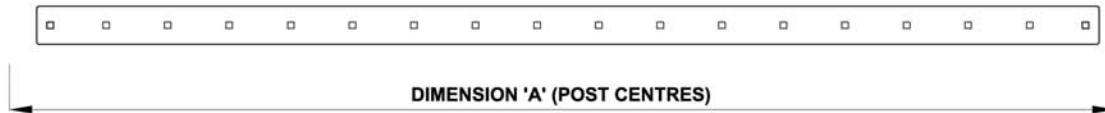
SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.



Comparison of standard sight gap and visigap

SECTION 'A-A' (INFILL PATTERNS)

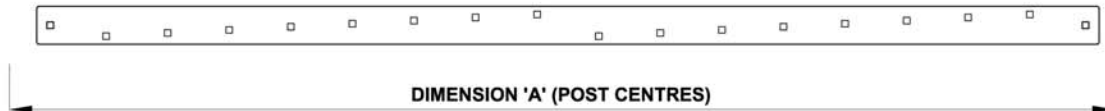
STANDARD INFILL



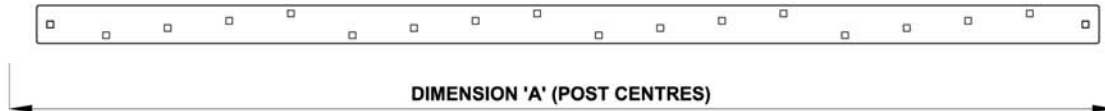
'S1' INFILL PATTERN



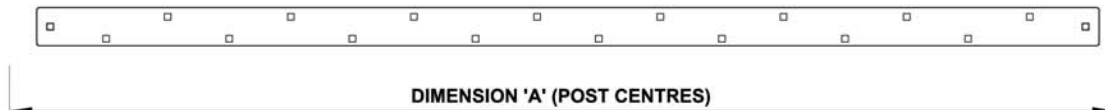
'S2' INFILL PATTERN



'S4' INFILL PATTERN



'S8' INFILL PATTERN



WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

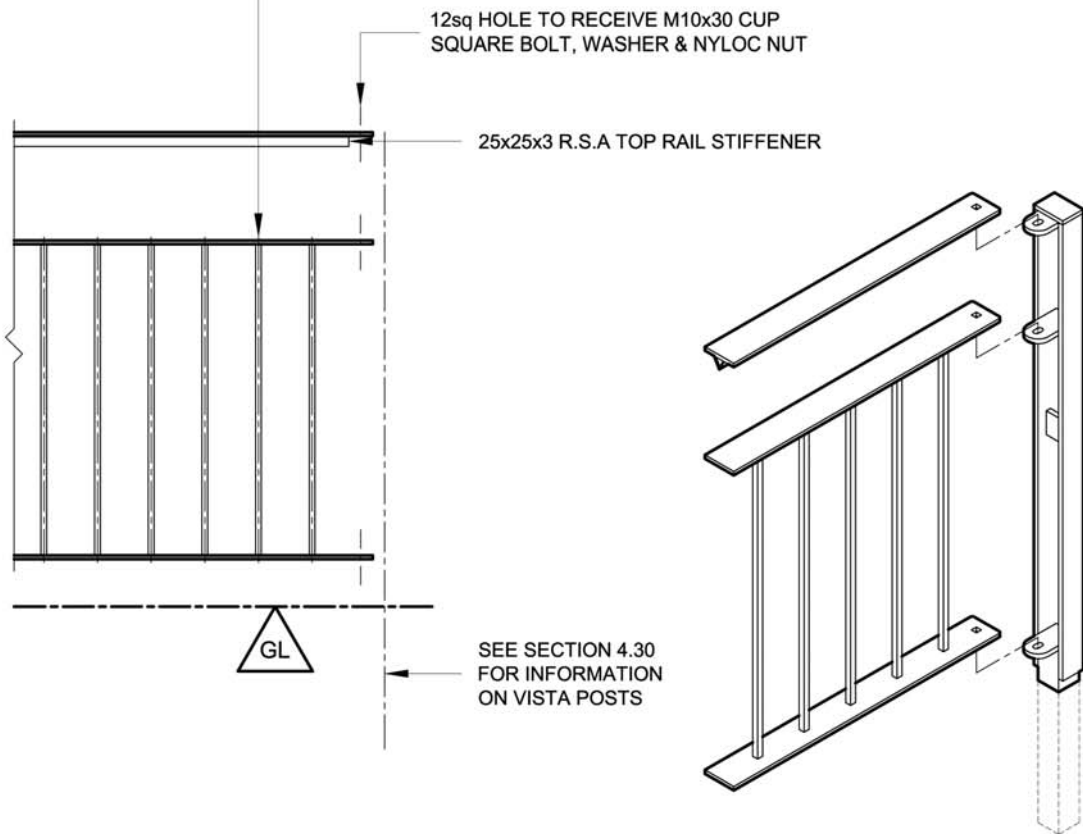
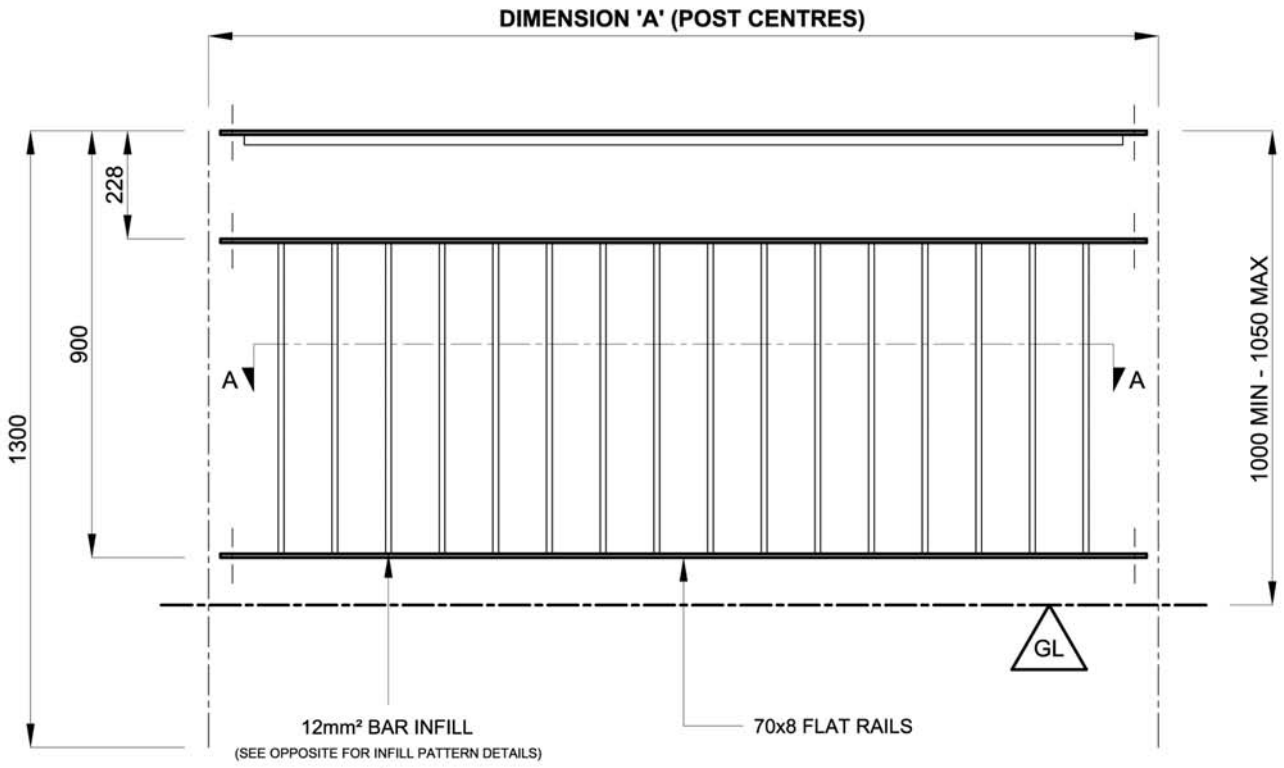
- 1) VISTA
- 2) POST CENTRES (DIM 'A' mm)
- 3) INFILL PATTERN (STANDARD INFILL / S1 / S2 / S4 / S8 INFILL)

EXAMPLE: "VISTA (2000mm) S8 INFILL"

SF 4.51

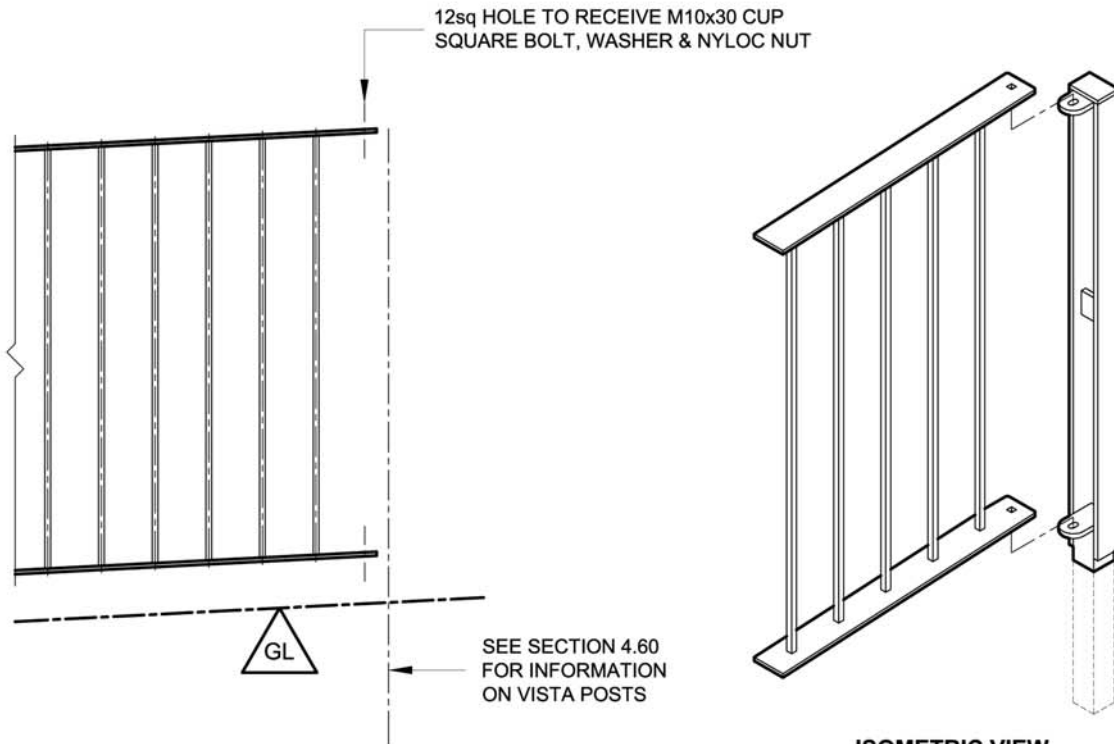
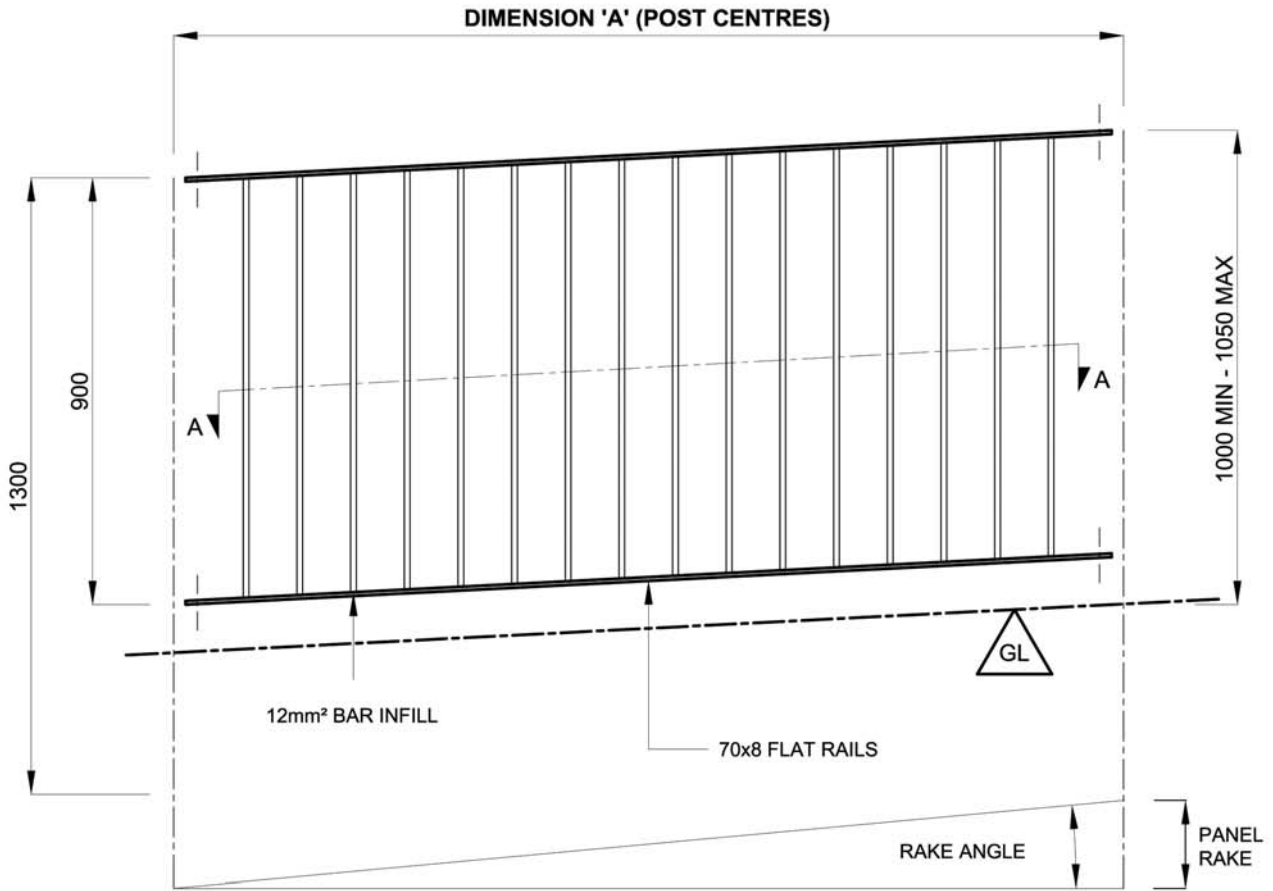
► Pedestrian Guardrailing *(continued)*

▼ Vista guardrail (with sight gap)



SF 4.54

▼ Raked vista guardrail (standard)

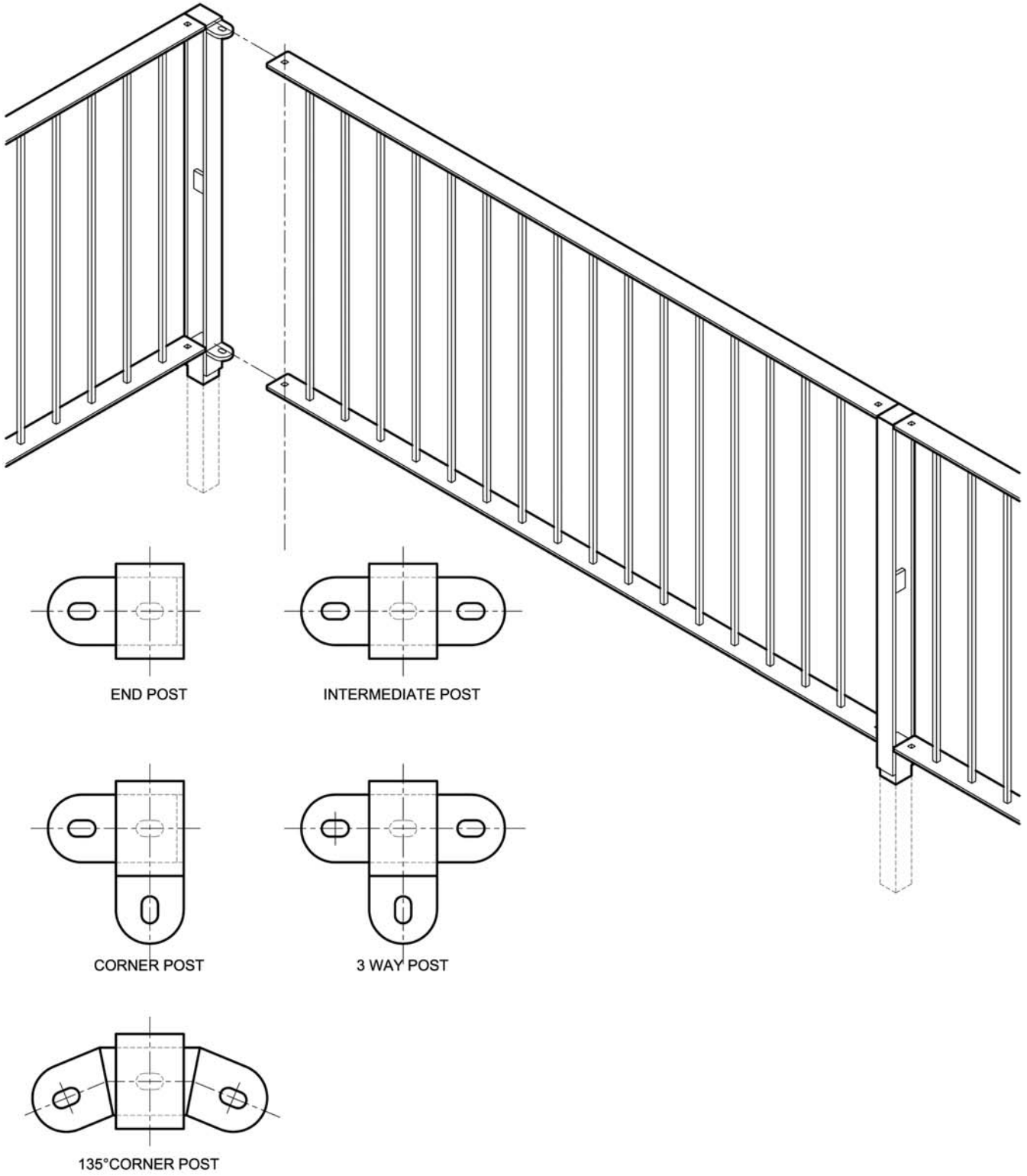


ISOMETRIC VIEW
(PANEL END SECTION, SHOWING STD INFILL PATTERN)

NOTE: VISTA POST LUGS ARE RAKED TO SUIT PANEL

SF 4.52

▼ Vista panel posts



WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) (VISTA)
- 2) POST TYPE (END / CORNER / 135°CORNER / INTERMEDIATE / 3 WAY)
- 3) PANEL TYPE (FOR STANDARD INFILL / FOR SIGHT GAP PANEL)

EXAMPLE: "VISTA CORNER POST FOR STANDARD INFILL"

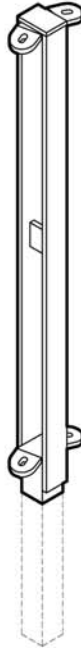
SF 4.60

▼ Vista posts

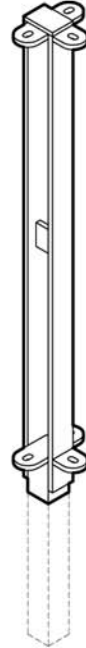
END POST



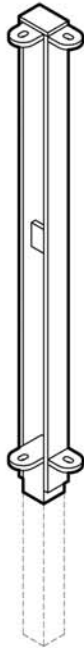
135° CORNER POST



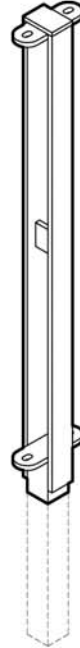
3 WAY POST



CORNER POST



INTERMEDIATE POST

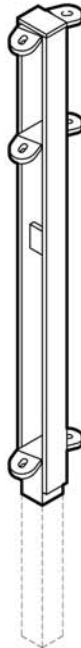


VISTA POSTS (FOR VISTA PANELS WITH SIGHT GAP)

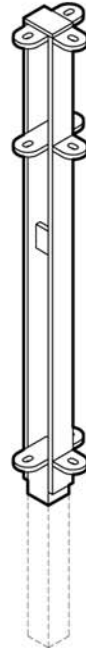
END POST



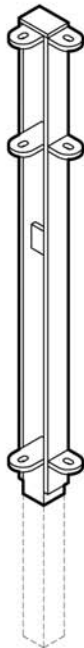
135° CORNER POST



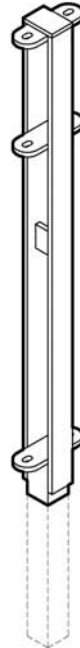
3 WAY POST



CORNER POST

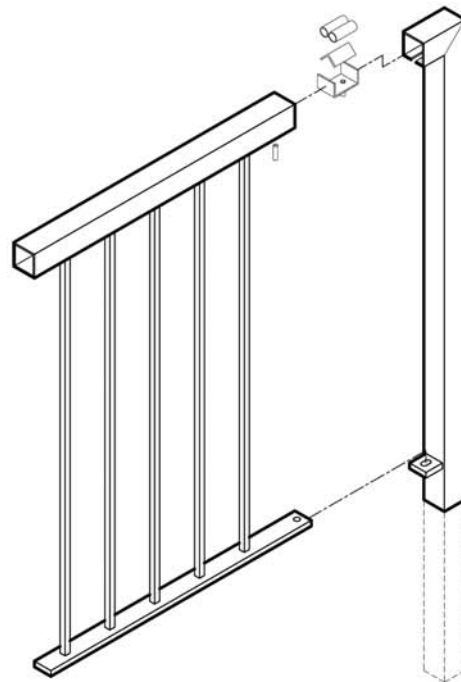
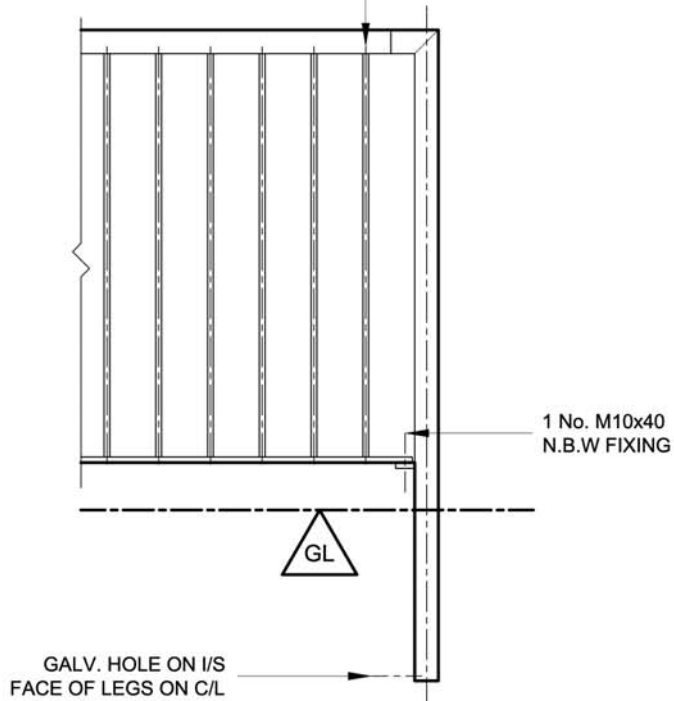
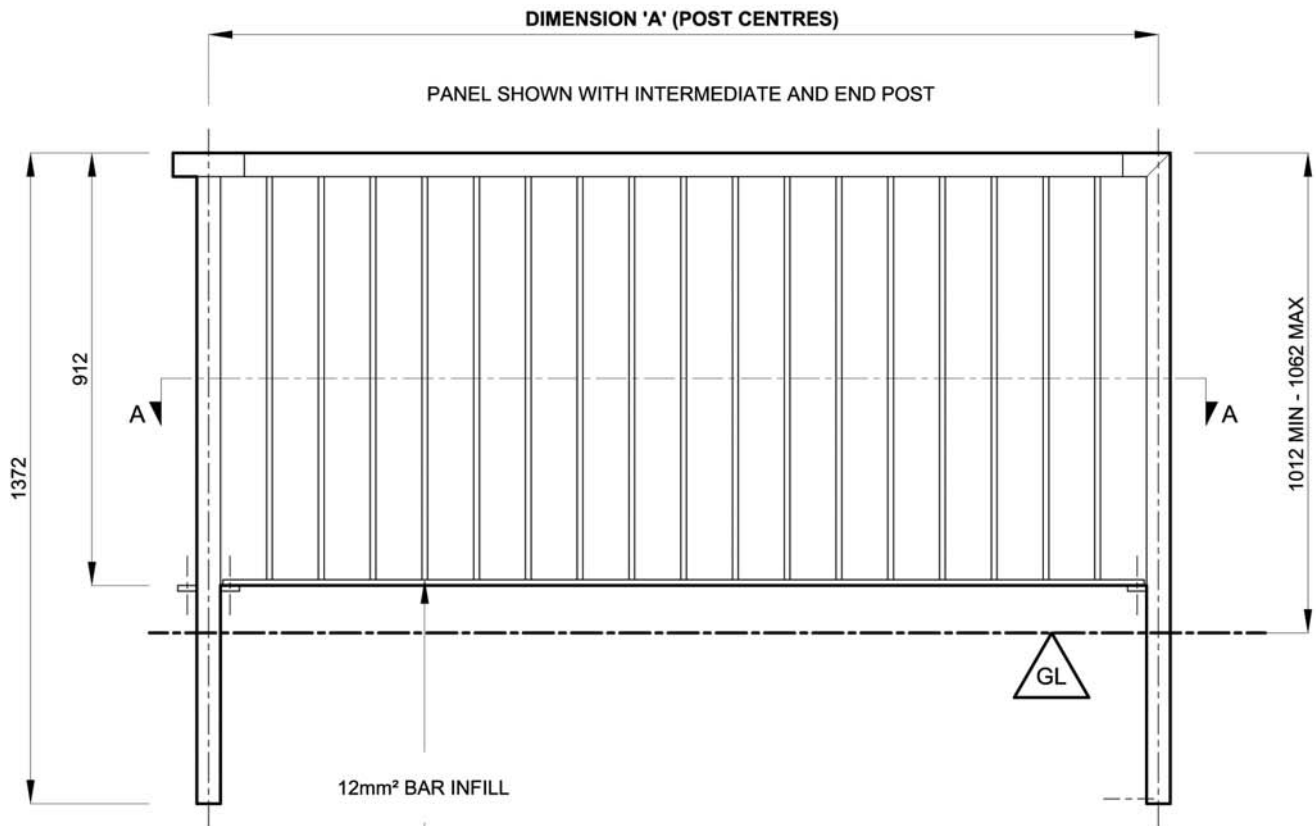


INTERMEDIATE POST



SF 4.61

▼ L35 type guardrail (standard)



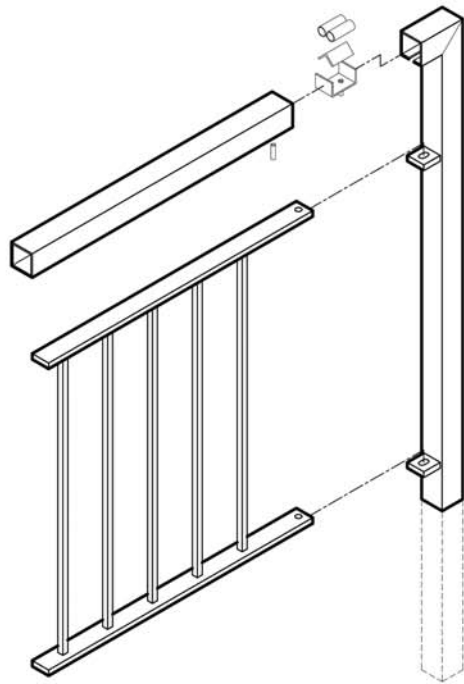
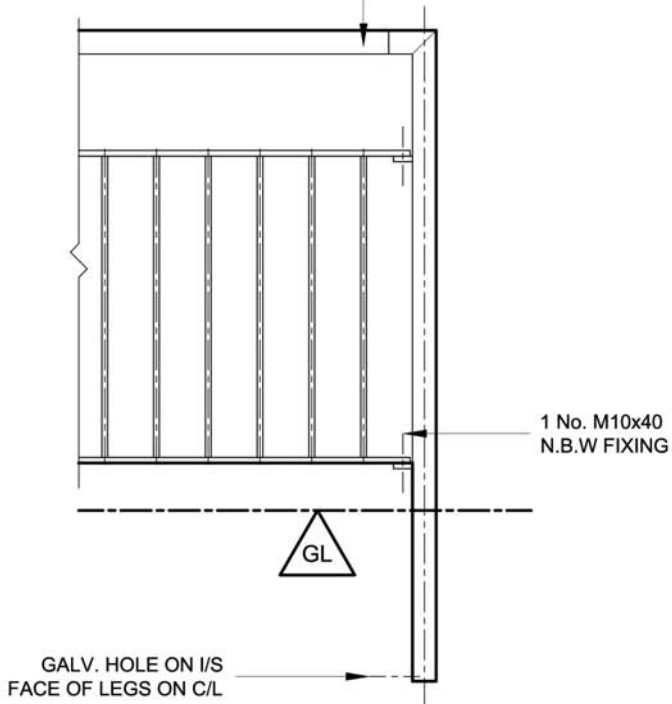
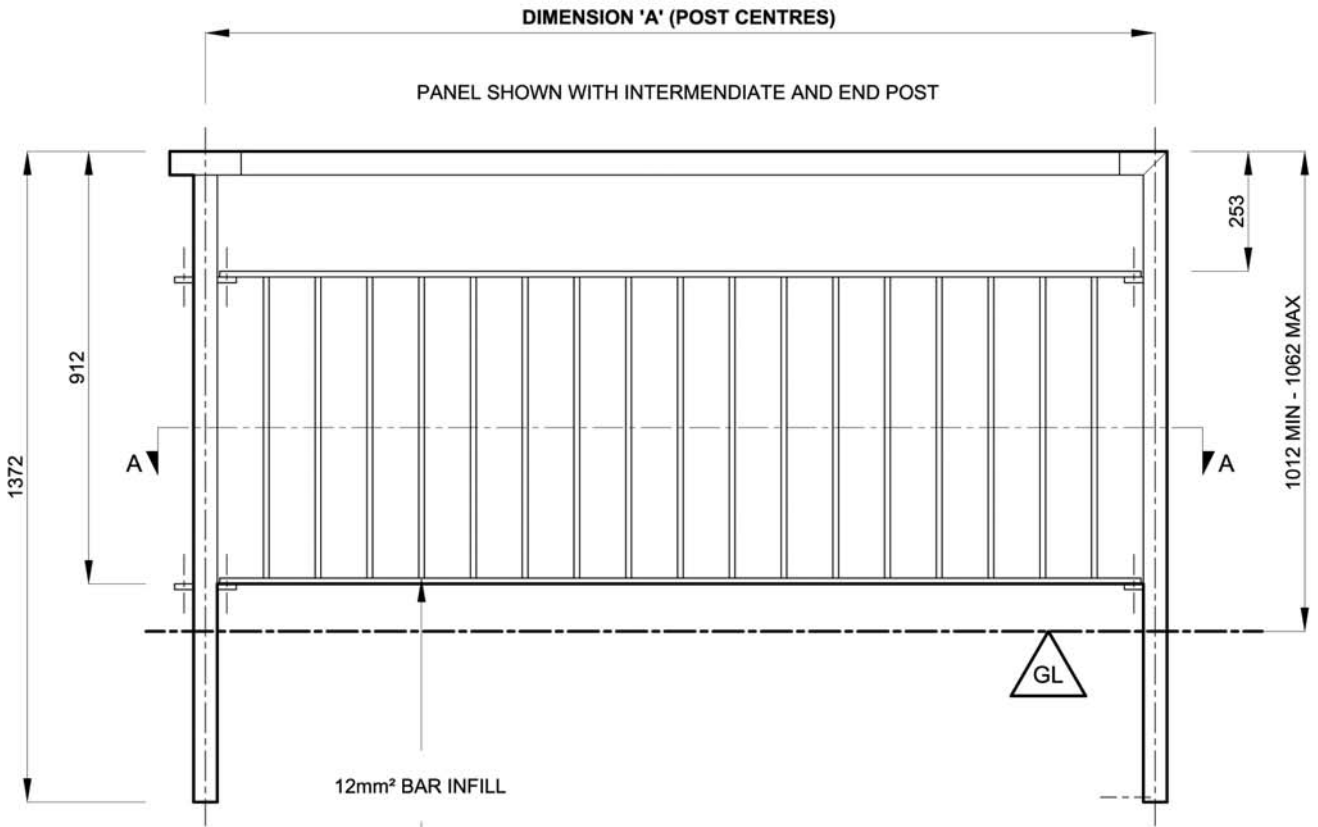
ISOMETRIC VIEW

(PANEL END SECTION, SHOWING END POST)

NOTE: SEE SECTION 4.30 FOR DETAILS ON L35 GUARD RAIL POST TYPES.
SEE SECTION 4.32 FOR INFORMATION ON PANEL CONNECTION.

SF 4.20

▼ L35 type guardrail (with sight gap)



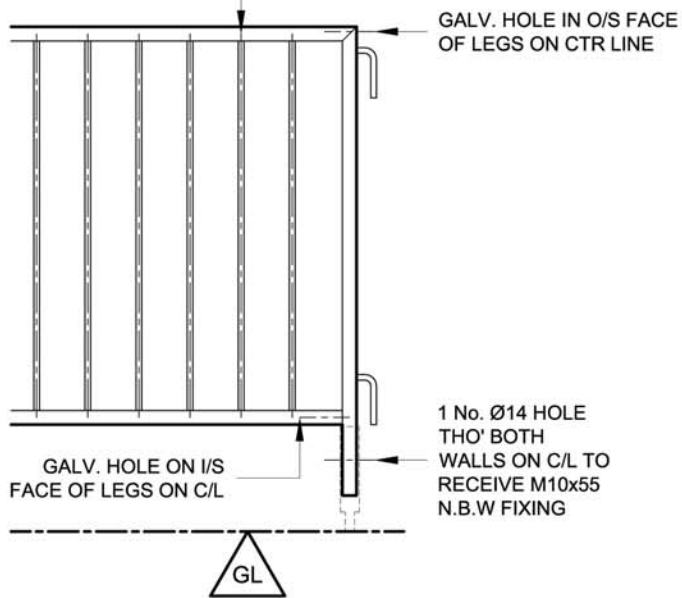
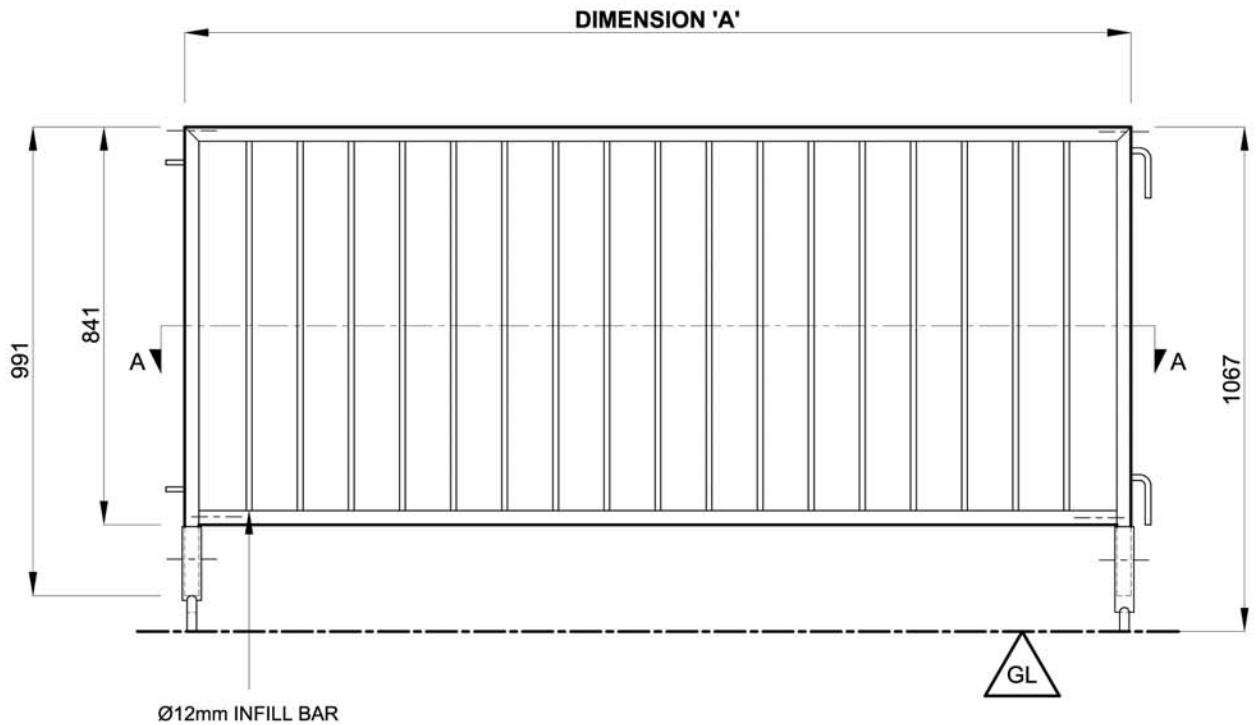
ISOMETRIC VIEW

(PANEL END SECTION, SHOWING END POST)

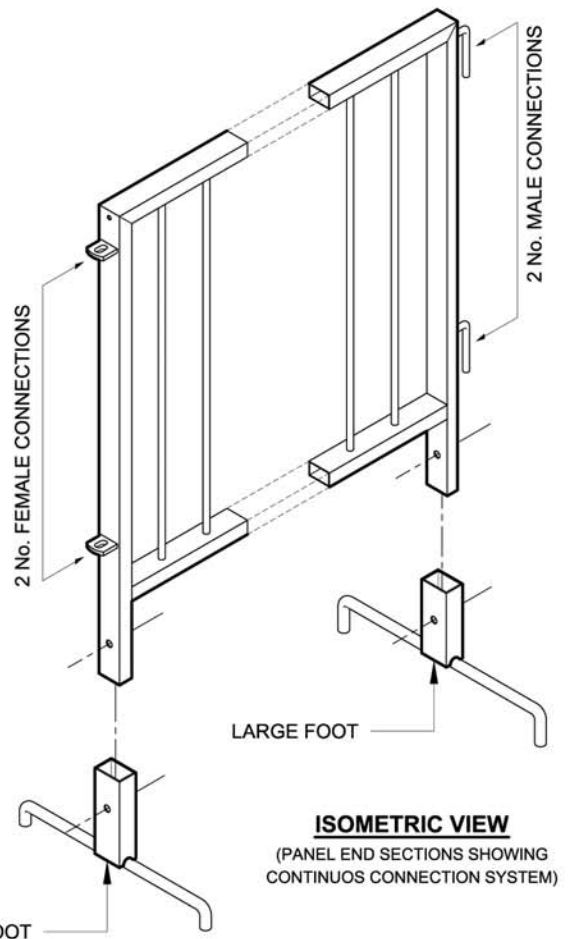
NOTE: SEE SECTION 4.30 FOR DETAILS ON L35 GUARD RAIL POST TYPES.
SEE SECTION 4.32 FOR INFORMATION ON PANEL/POST CONNECTION.

SF 4.24

▼ Portable guardrail



PANEL END SECTION
(SHOWING MALE CONNECTORS)



SF 5.10

▼ **Portable guardrail (continued)**

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

PORTABLE GUARDRAIL PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

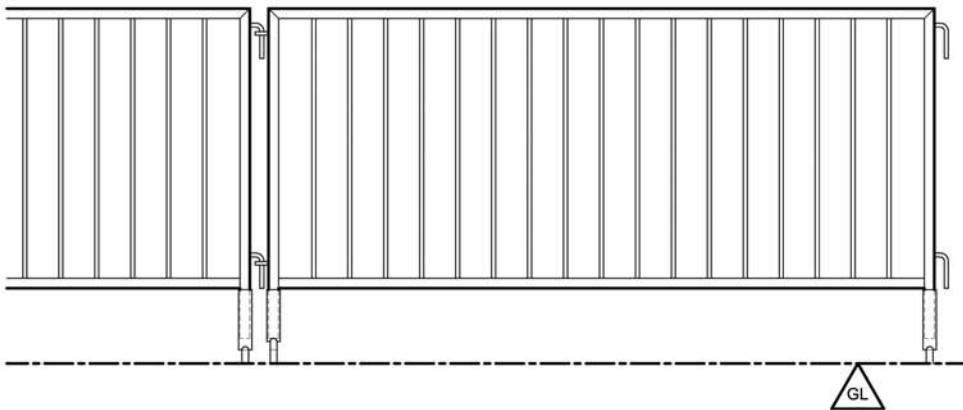
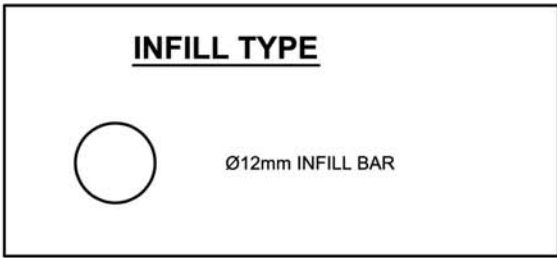
STANDARD PANEL LENGTHS: 1829mm (6'0"), 2000mm

PANEL INFILL AVAILABLE:

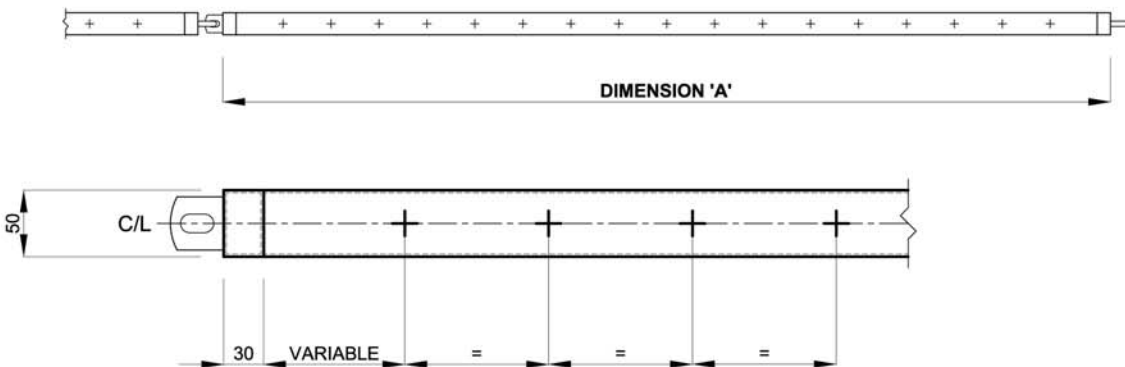
STANDARD INFILL (SEE BELOW)

ACCESSORIES

EACH PANEL COMES WITH 1 No. LARGE FOOT AND 1 No. SMALL FOOT.



SECTION 'A-A' STANDARD INFILL PATTERN



WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

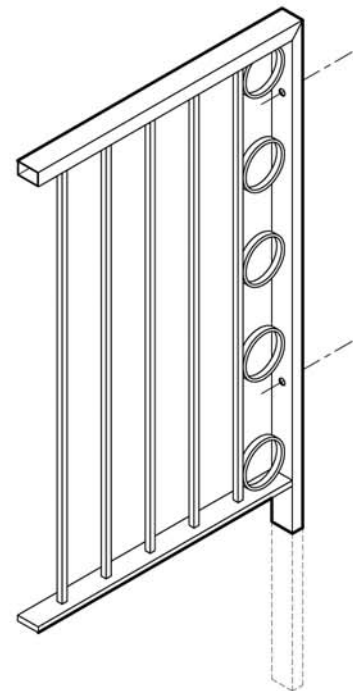
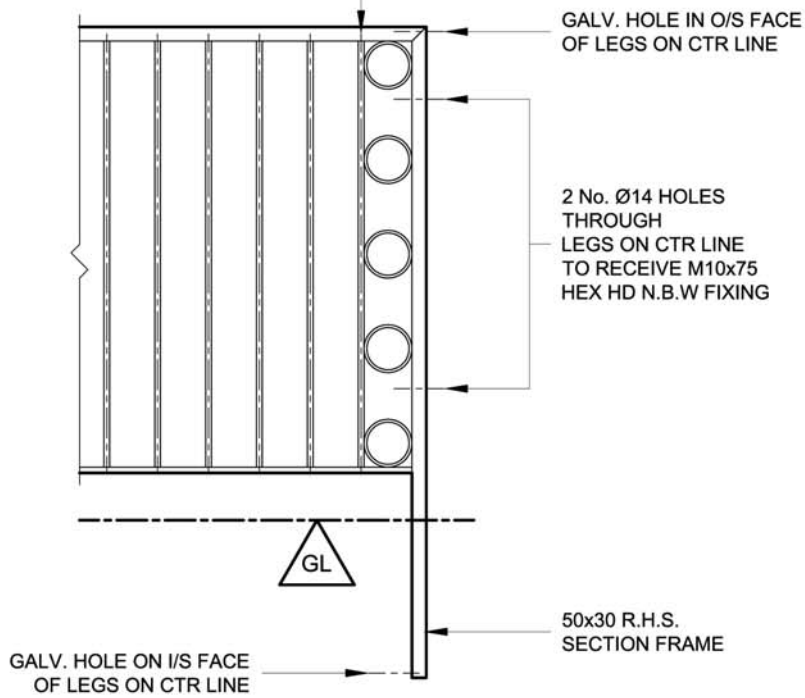
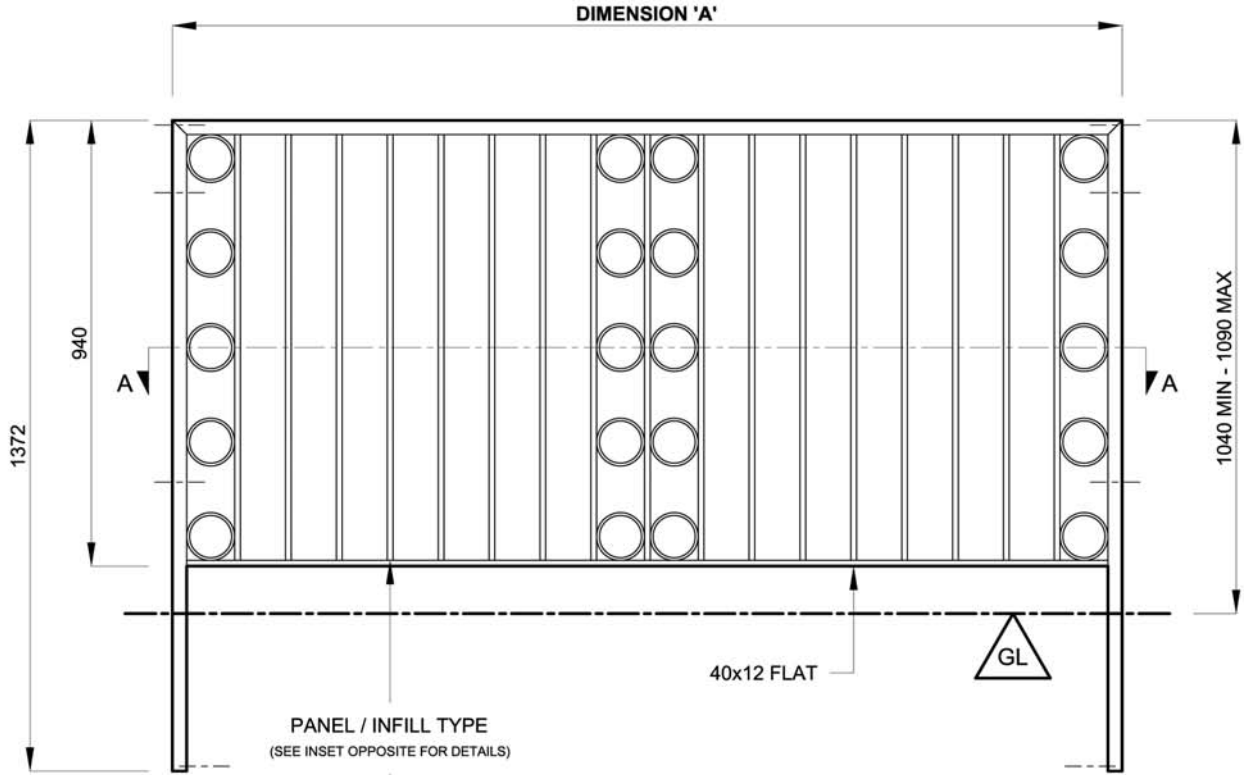
- 1) (PB35)
- 2) OVERALL LENGTH (DIM 'A' mm)
- 3) (PORTABLE GUARD RAIL)

EXAMPLE: "PB35 (2000mm) PORTABLE GUARD RAIL"

SF 5.11

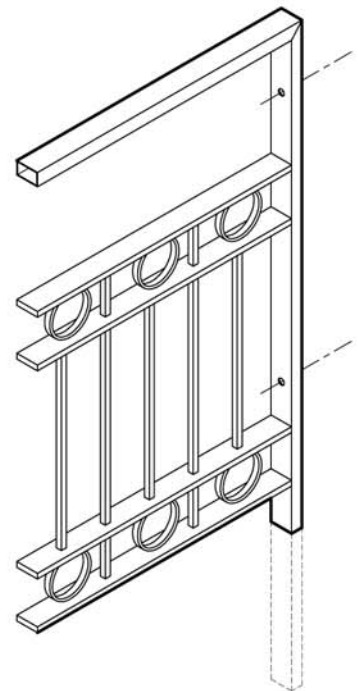
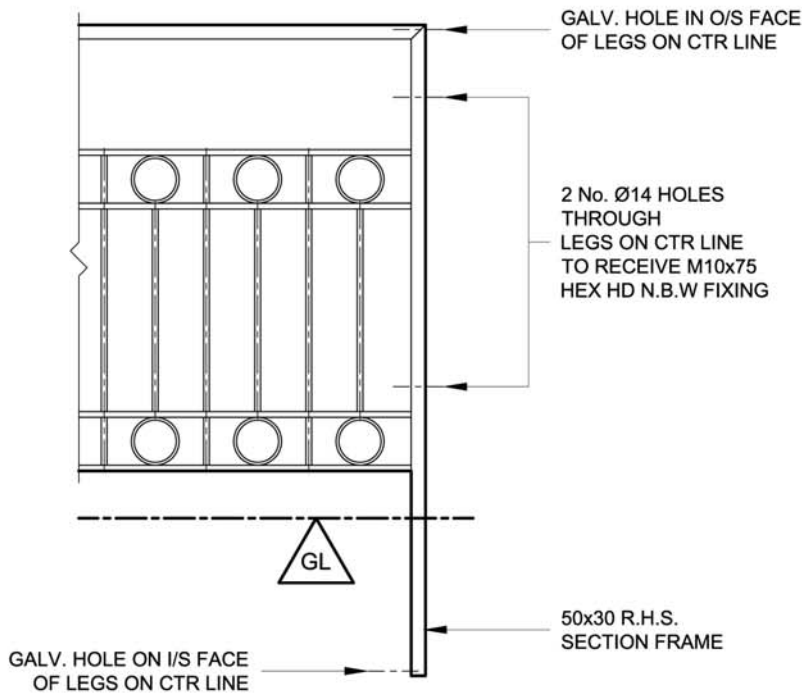
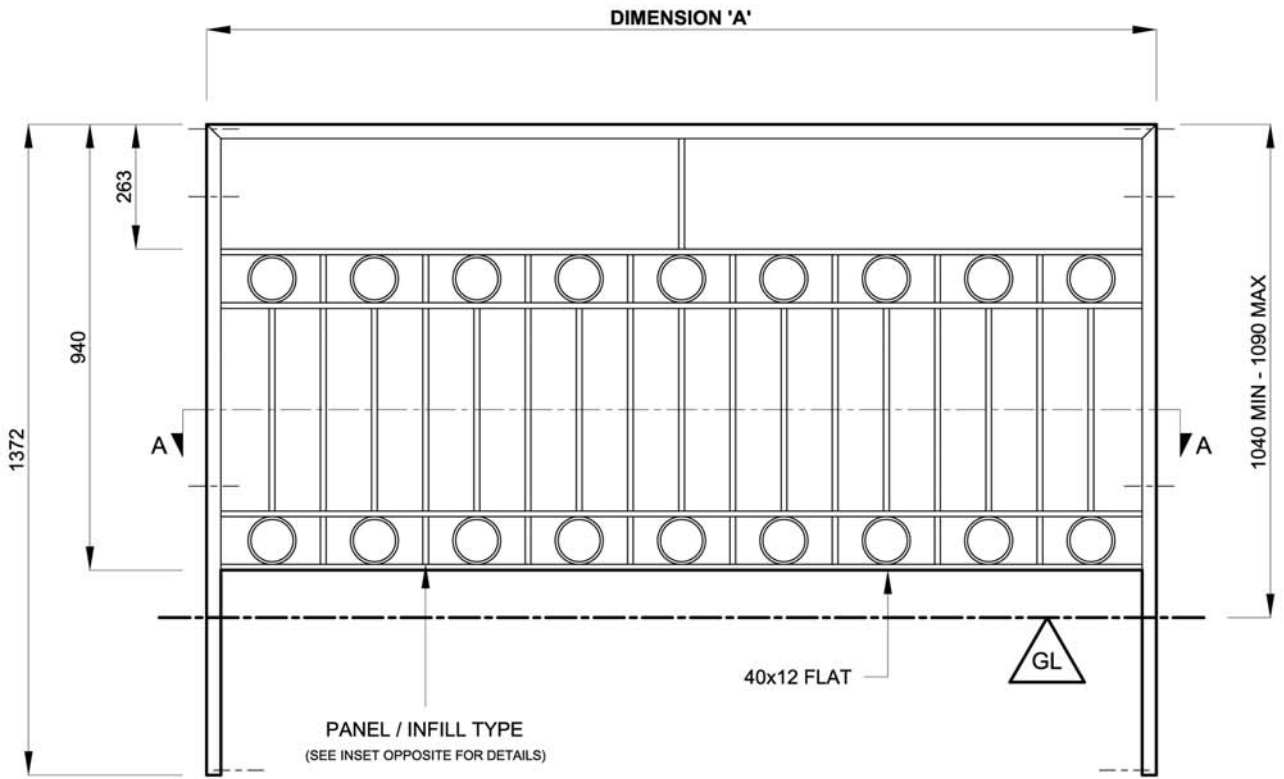
► Pedestrian Guardrailing *(continued)*

▼ Ornamental guardrail (OV)



SF 6.10

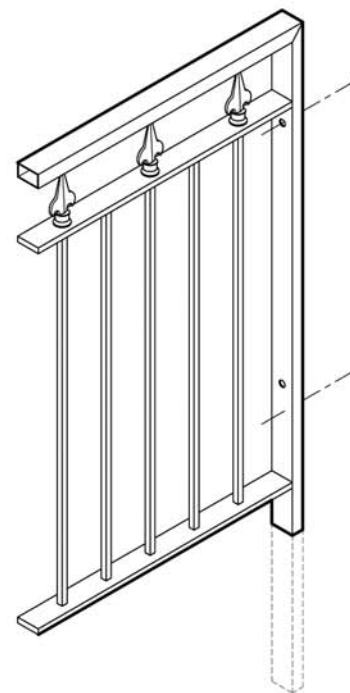
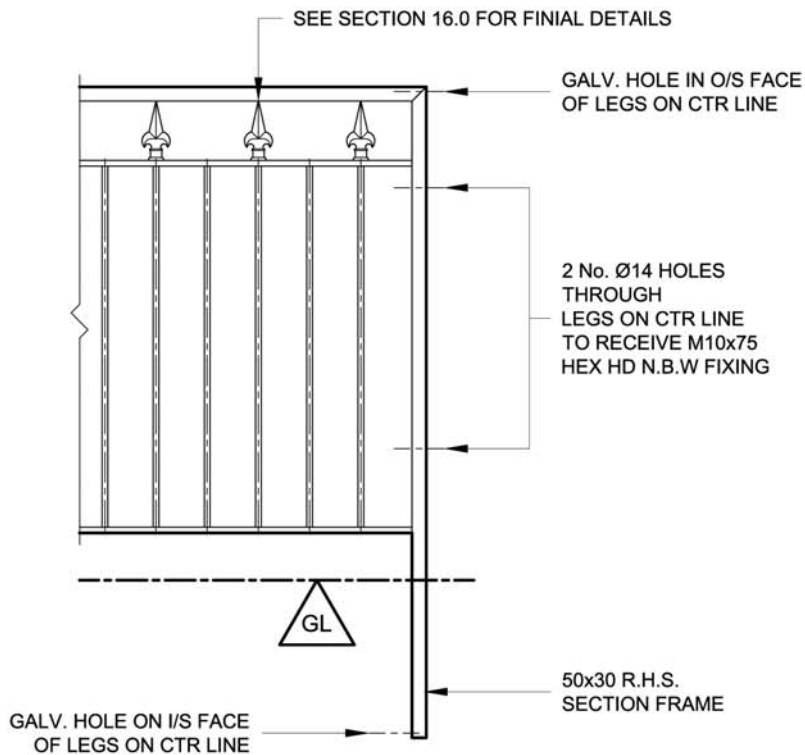
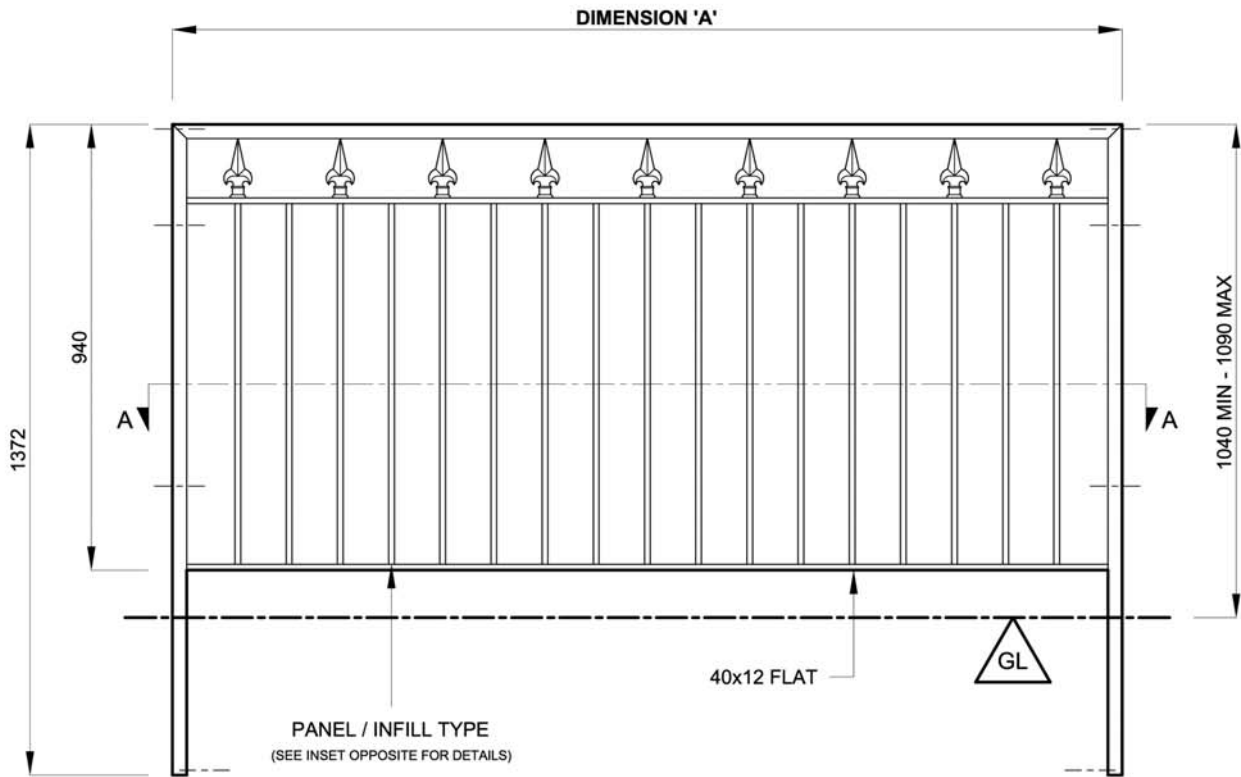
▼ Ornamental guardrail (OR)



SF 6.12

► Pedestrian Guardrailing *(continued)*

▼ Ornamental guardrail (OF)

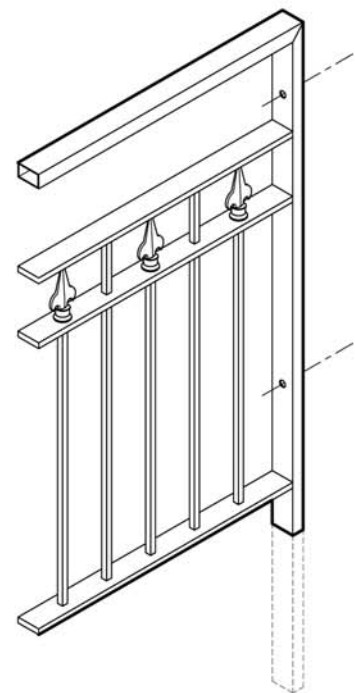
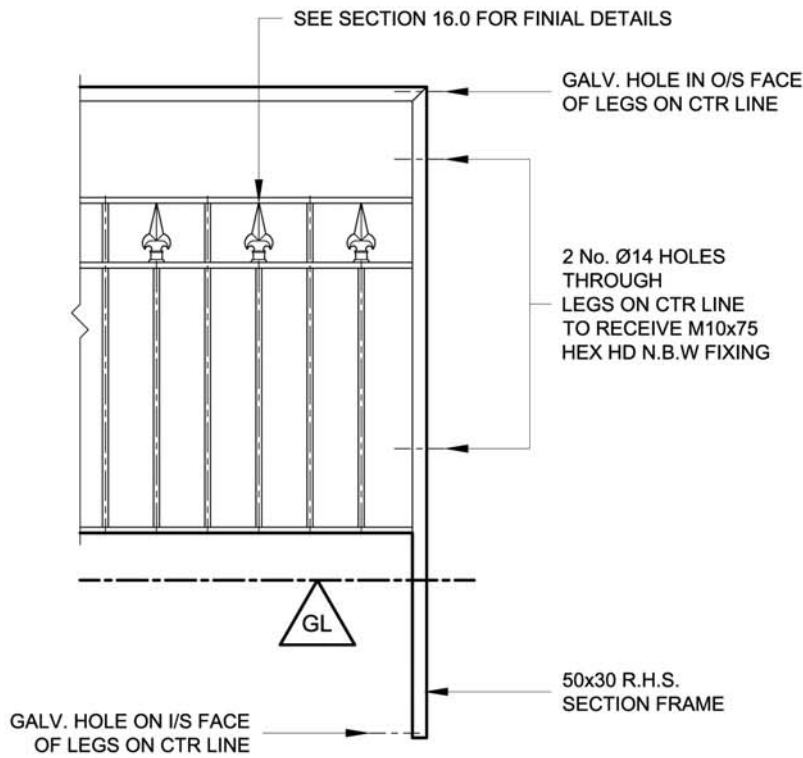
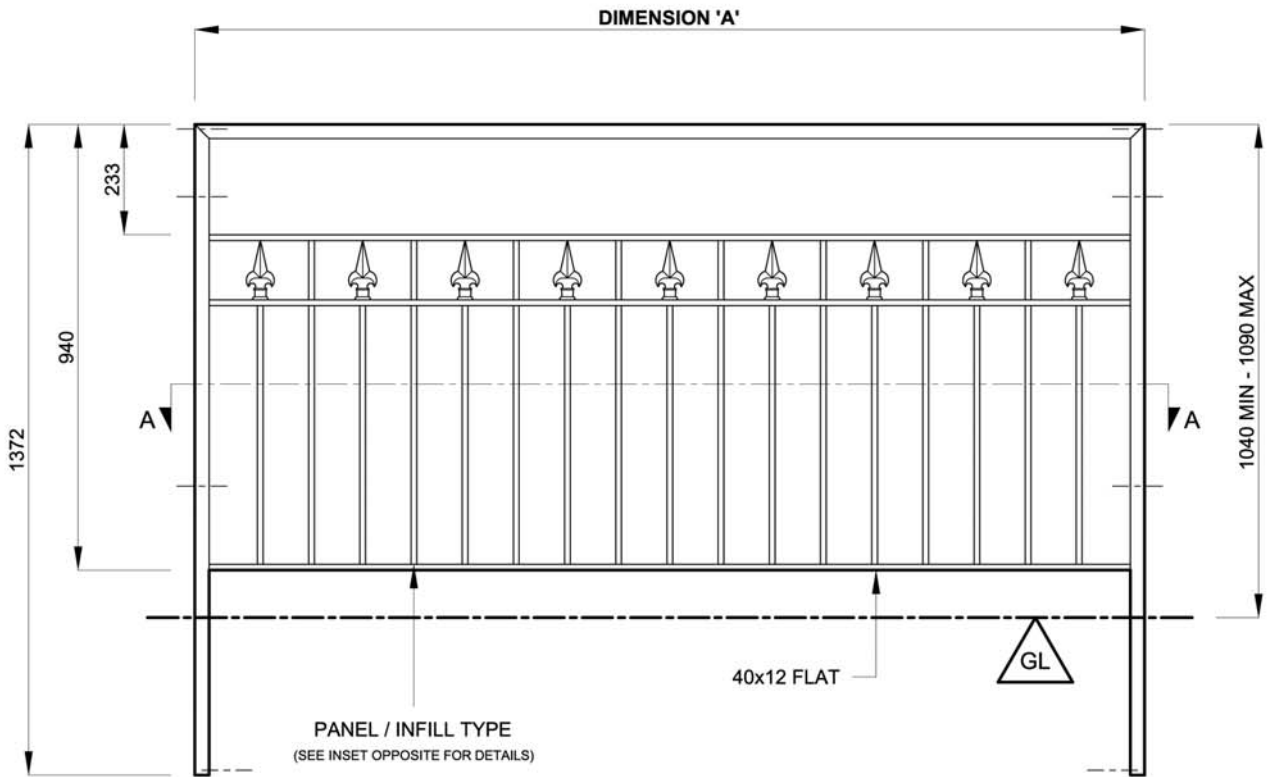


ISOMETRIC VIEW

(PANEL END SECTION, SHOWING P35 STD INFILL PATTERN)

SF 6.14

▼ Ornamental guardrail (OF2)



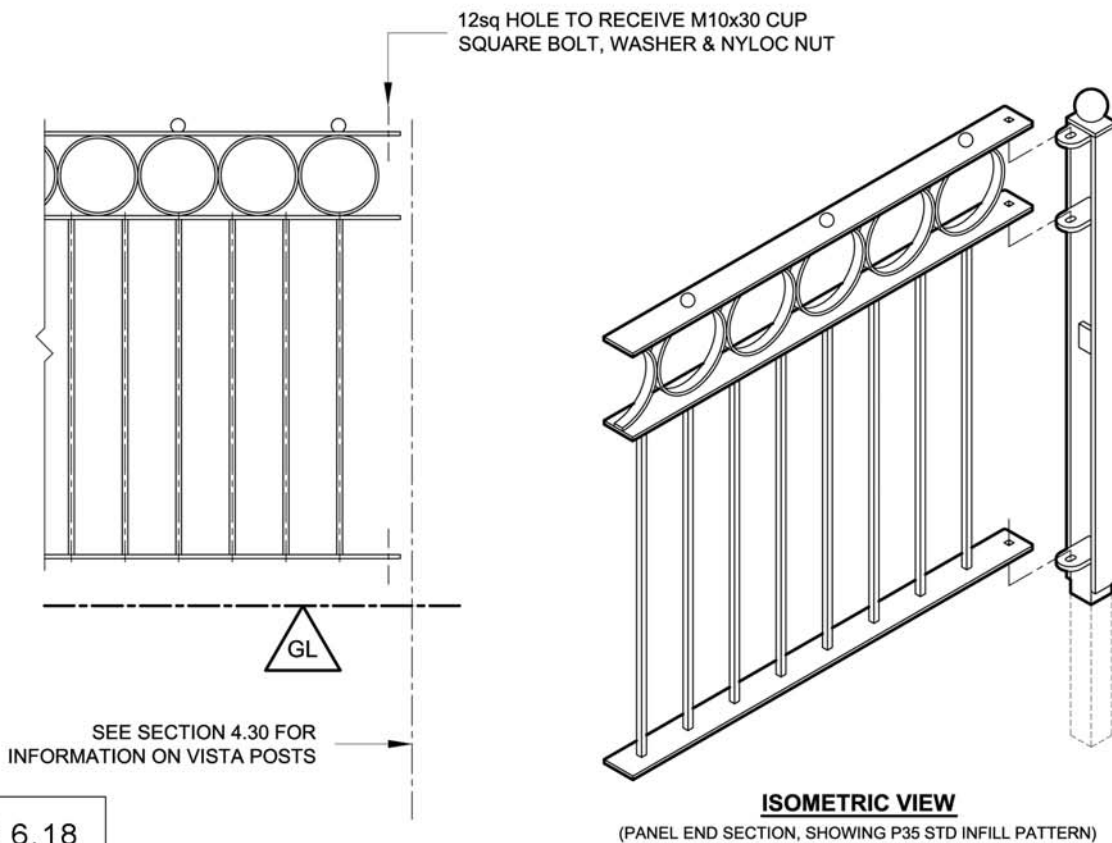
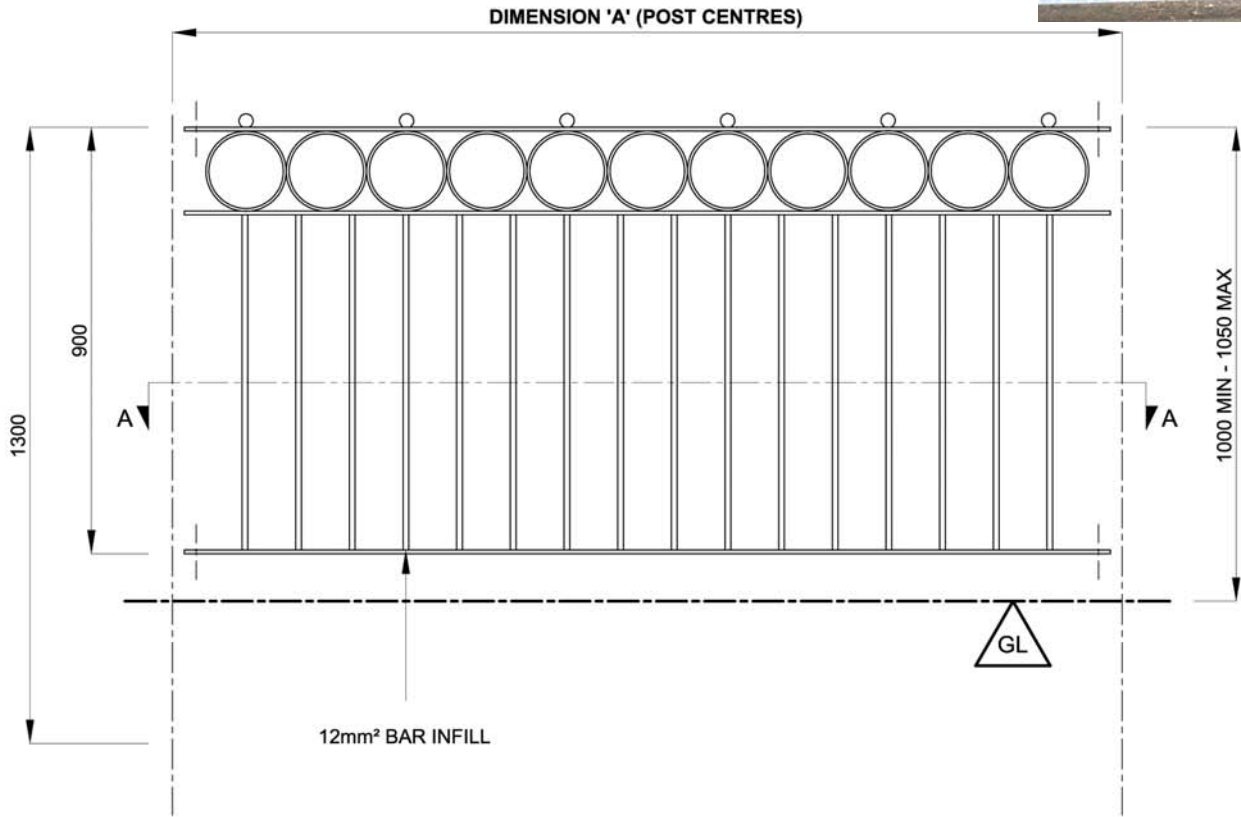
ISOMETRIC VIEW

(PANEL END SECTION, SHOWING P35 STD INFILL PATTERN)

SF 6.16

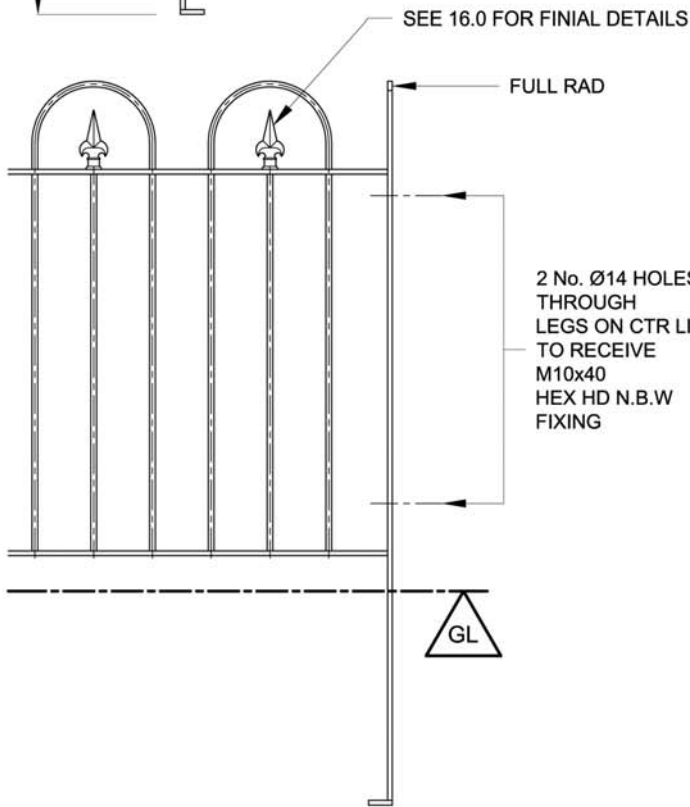
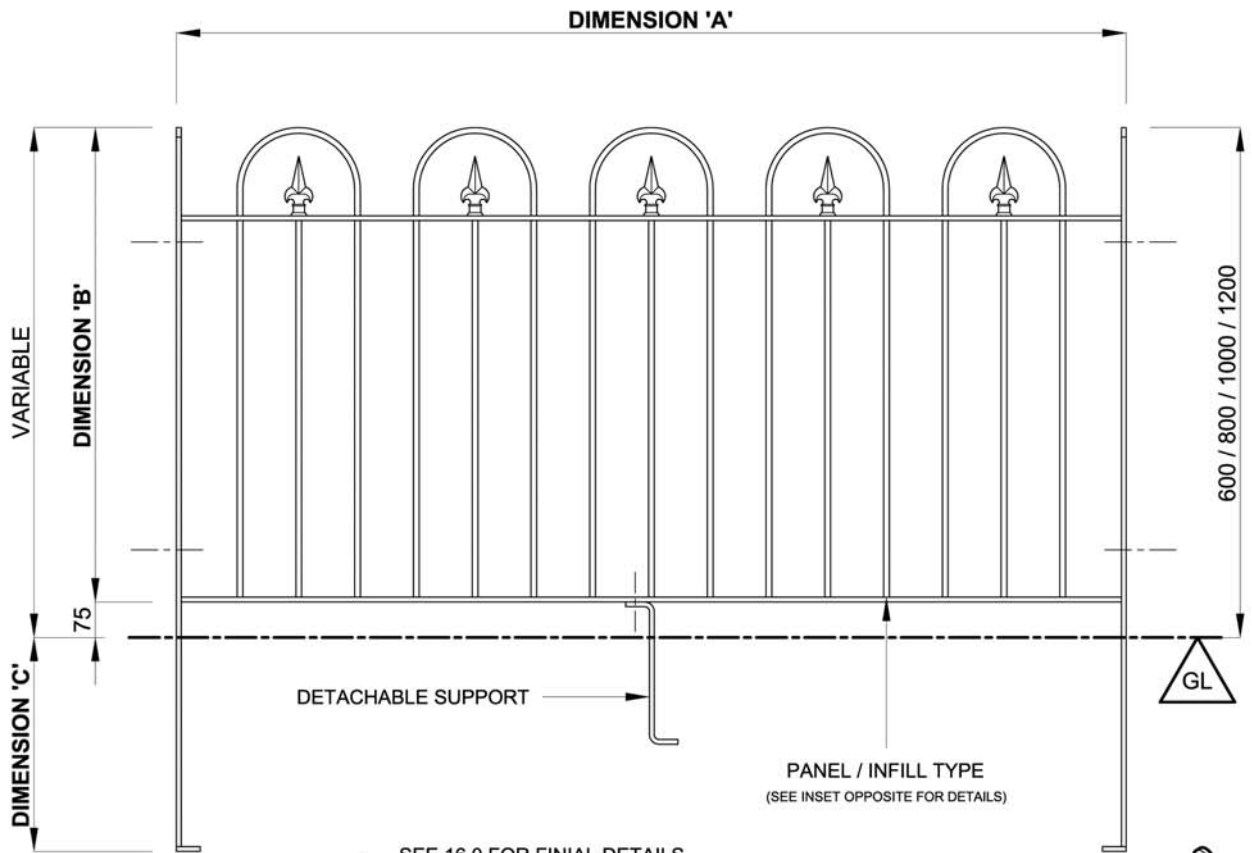
► Pedestrian Guardrailing *(continued)*

▼ Ornamental vista guardrail

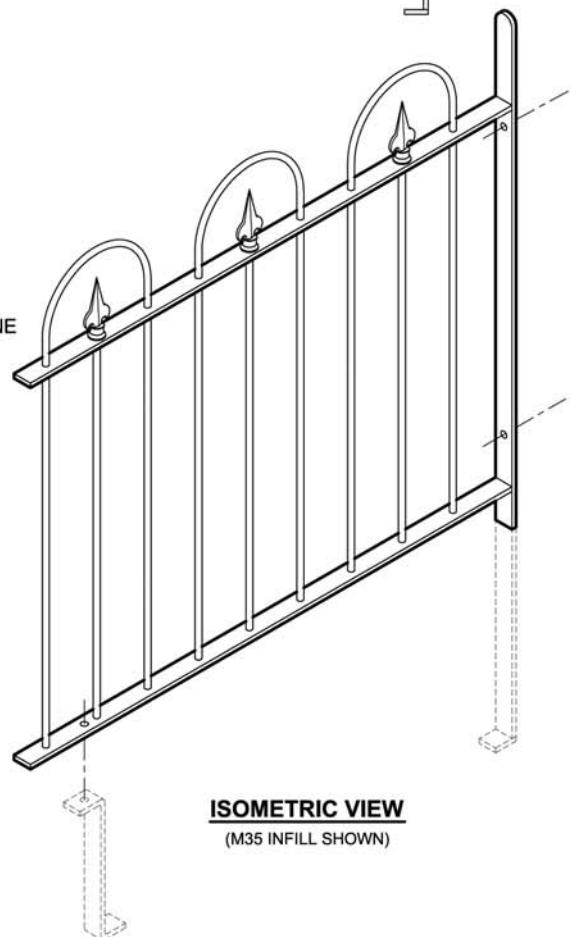


SF 6.18

▼ Ornamental bow top fencing



2 No. Ø14 HOLES THROUGH LEGS ON CTR LINE TO RECEIVE M10x40 HEX HD N.B.W FIXING



SF 9.12

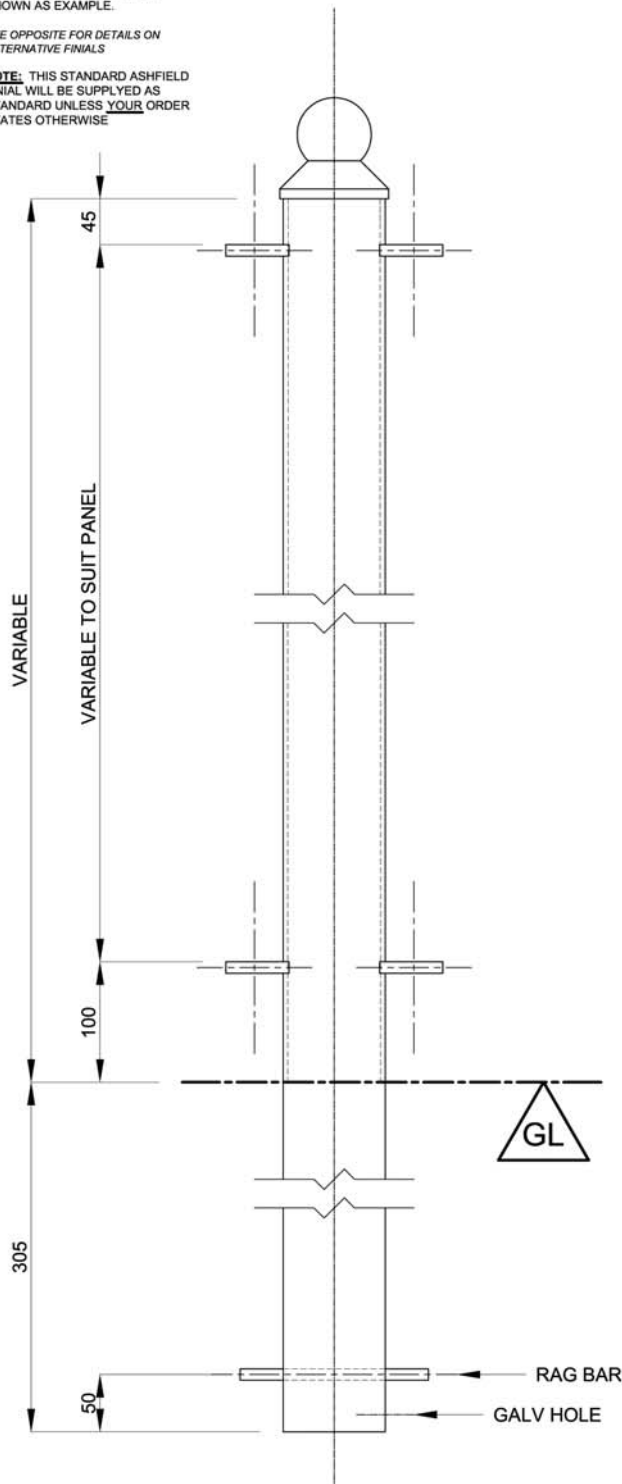
Post and Rail

Ashfield panel range

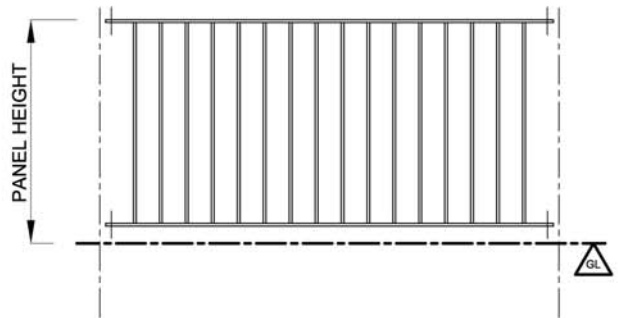
STANDARD ASHFIELD FINIAL
SHOWN AS EXAMPLE.

SEE OPPOSITE FOR DETAILS ON
ALTERNATIVE FINIALS

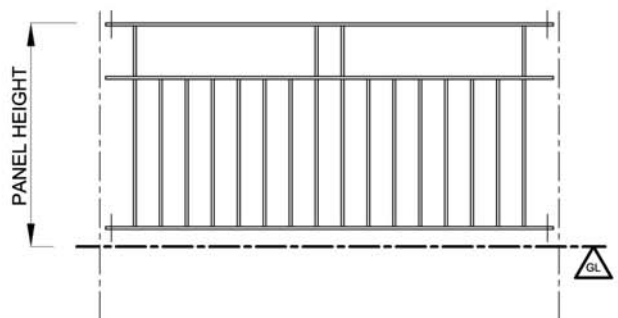
NOTE: THIS STANDARD ASHFIELD
FINIAL WILL BE SUPPLIED AS
STANDARD UNLESS YOUR ORDER
STATES OTHERWISE



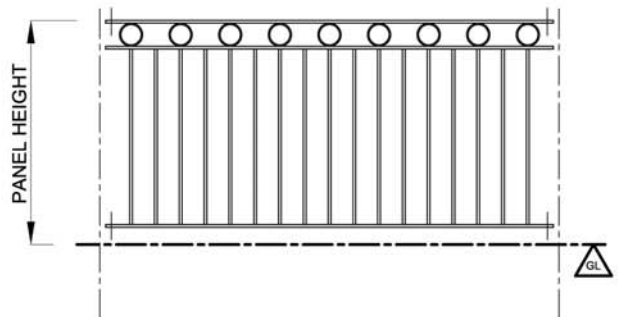
TYPE 'A' ASHFIELD PANEL



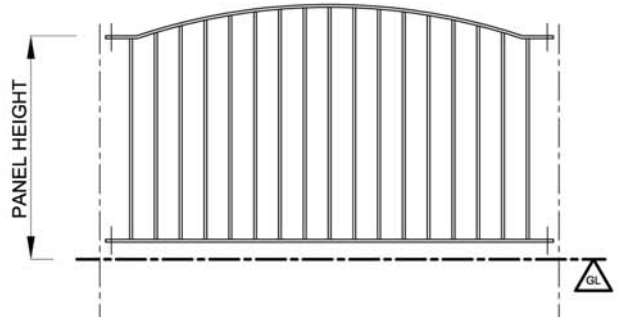
TYPE 'B' ASHFIELD PANEL



TYPE 'C' ASHFIELD PANEL



TYPE 'D' ASHFIELD PANEL



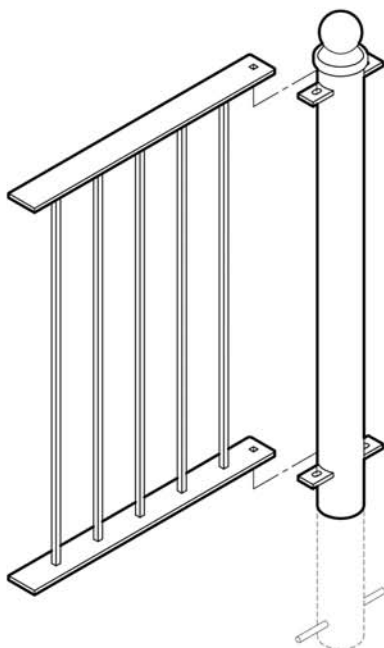
WHEN SPECIFYING YOUR POST ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) FINIAL TYPE (TYPE 'A' / TYPE 'B')
- 2) (ASHFIELD)
- 3) (90°CORNER / END / INTERMEDIATE / 3 WAY)
- 4) (POST)

EXAMPLE: "TYPE 'A' ASHFIELD INTERMEDIATE POST"

SF 9.10

▼ Ashfield panel range (continued)



ISOMETRIC VIEW

(PANEL END SECTION, SHOWING 12mm² INFILL ON TYPE 'A' ASHFIELD PANEL WITH TYPE 'A' FINIAL ON POST)

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

ASHFIELD PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD PANEL LENGTHS: 1000mm, 1829mm (6'0"), 2000mm

PANEL INFILL AVAILABLE:

STANDARD INFILL (SEE PAGE 4.70 FOR DETAILS)

ACCESSORIES:

EACH PANEL WILL BE SUPPLIED WITH 4 or 6 No. M10x30 CUP SQUARE BOLT, WASHER AND NYLOC NUT.

RADIUSED PANELS:

SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.

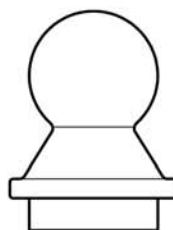
RAKED PANELS:

PLEASE PROVIDE THE FOLLOWING ADDITIONAL INFORMATION FOR RAKED PANELS: RAKE ANGLE AND / OR PANEL RAKE

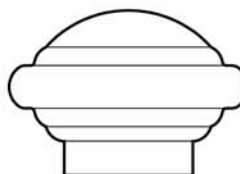
INFILL TYPE

12mm ²	12mm ² INFILL BAR
Ø12	Ø12mm INFILL BAR
Ø16	Ø16mm INFILL BAR
Ø20	Ø20mm INFILL BAR

ALTERNATIVE POST FINIALS



TYPE 'A'



TYPE 'B'

WHEN SPECIFYING YOUR PANEL ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

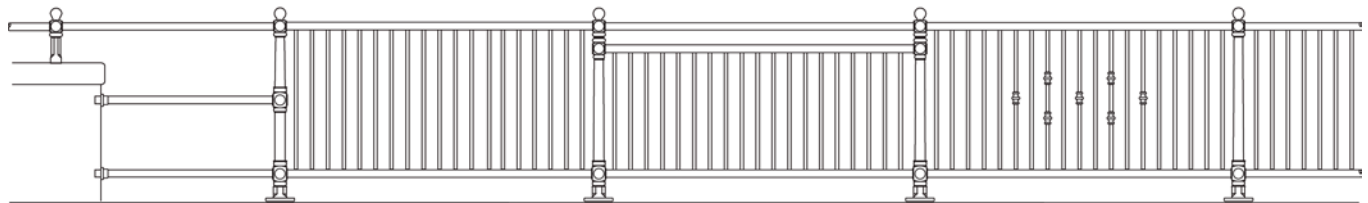
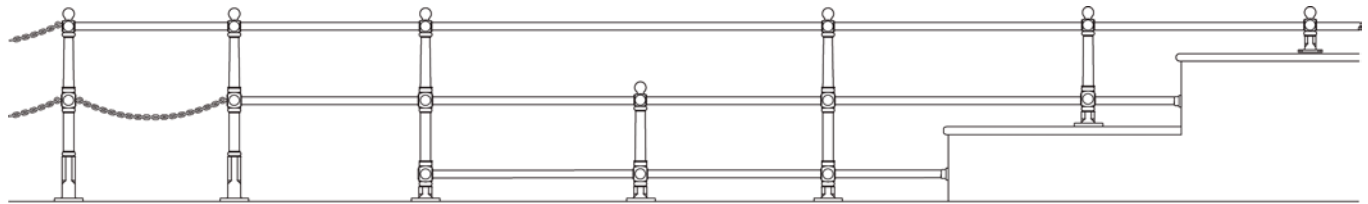
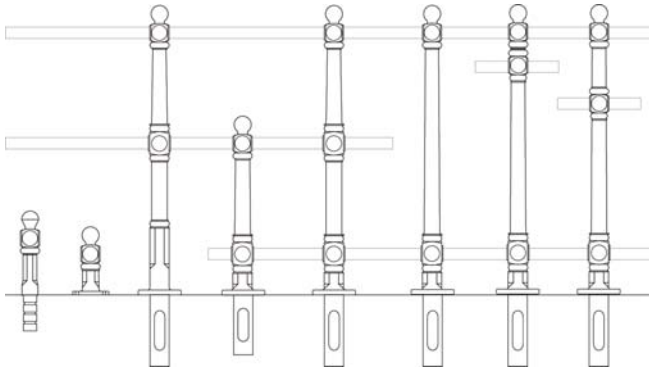
- 1) INFILL TYPE (12mm² INFILL / Ø12 INFILL / Ø16 INFILL / Ø20 INFILL)
- 2) POST CENTERS
- 3) (TYPE 'A' / TYPE 'B' / TYPE 'C' / TYPE 'D')
- 4) (ASHFIELD PANEL)

EXAMPLE: "12mm² INFILL (2000mm) TYPE 'A' ASHFIELD PANEL"

SF 9.11

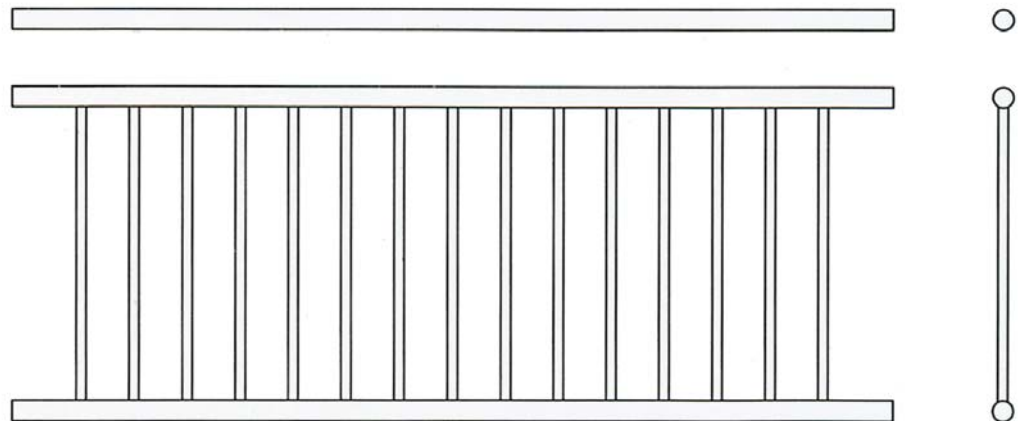
▼ ▶ **Railing posts & barriers**

Railing post schemes frequently demand a number of different configurations. Changes of line, level and adjacent usage call for varying degrees of control. The illustrations on this page show how simply transitions can be made. When correctly specified and installed, the range complies with appropriate Department of Transport building regulations and RoSPA guidelines.



◀ ▼ **Post & rail panels**

Galvanised mild steel pedestrian guard rail top vision system manufactured to BS7818, hot dipped galvanised to BS EN1461. For use with a range of decorative posts. All panels are available in either powder coated or painted to any RAL or BS colour.

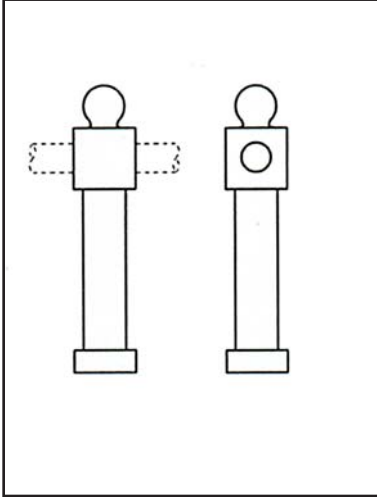


Selection of posts

A cross-section of our vast range of products.

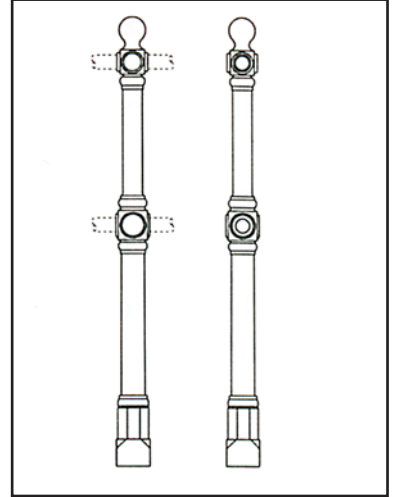
▼ Anglesey knee post

Height: 505 mm



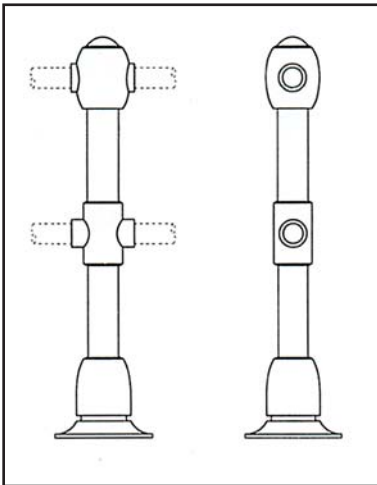
▼ Berwick post

Height: 1252 mm



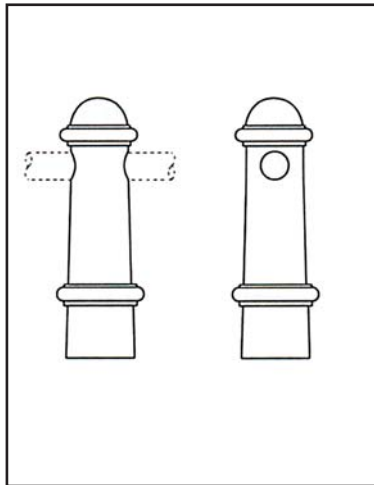
▼ Bude post

Height: 1029 mm



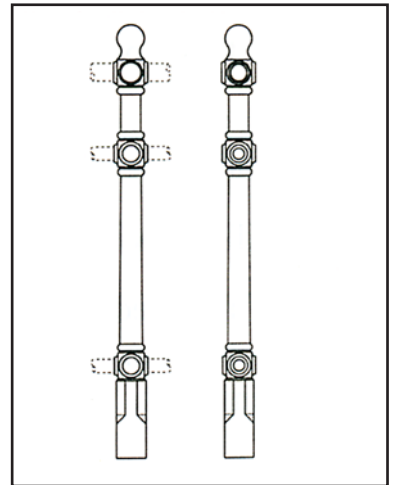
▼ Delaval trip-rail post

Height: 560 mm



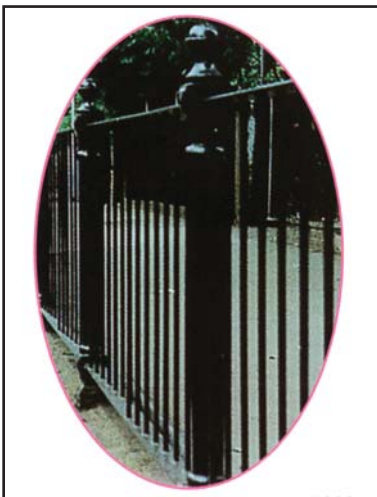
▼ Dream Park post

Height: 1256 mm



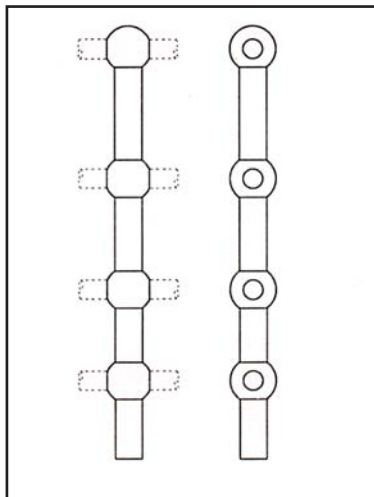
▼ Folkstone post

Height: 1300 mm



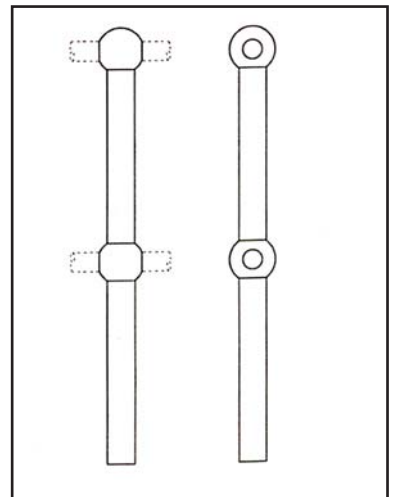
▼ Harbour post

Height: 1135 mm



▼ Harbour post - 2 rail

Height: 1135 mm

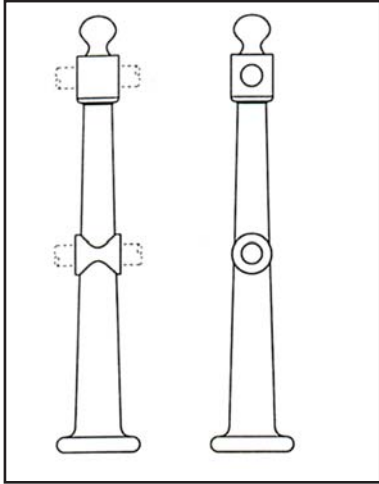


Selection of posts (continued)

A cross-section of our vast range of products.

▼ **Jersey post**

Height: 1045 mm



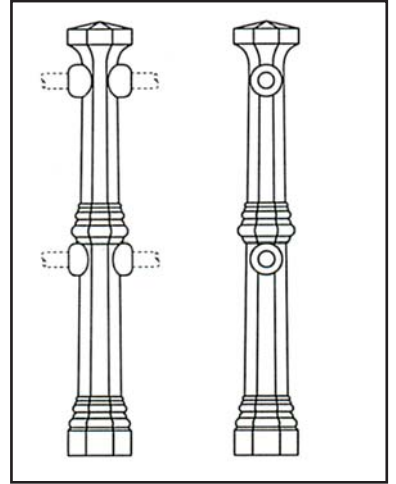
▼ **Leicester post**

Height: 1150 mm



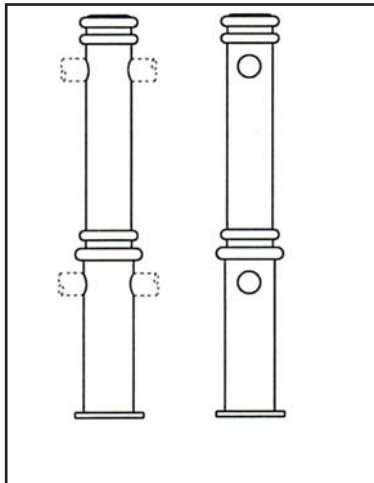
▼ **Malvern post**

Height: 1100 mm



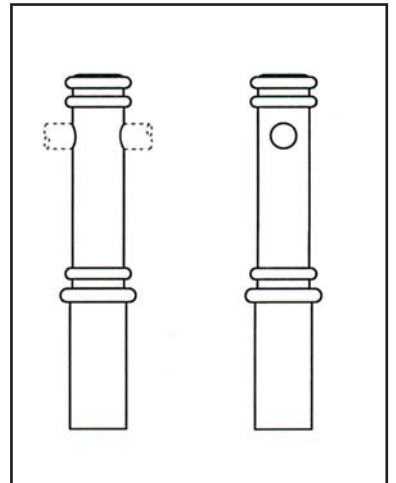
▼ **Morpeth 2 rail post**

With baseplate. Height: 900 mm



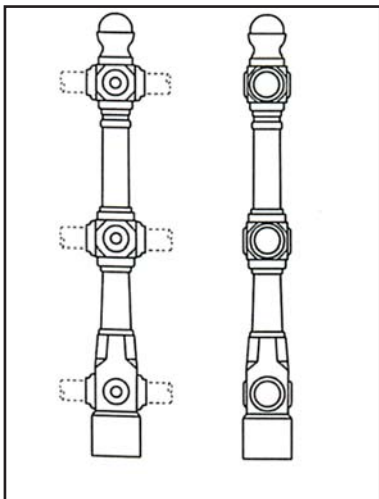
▼ **Morpeth single rail post**

Height: 700 mm



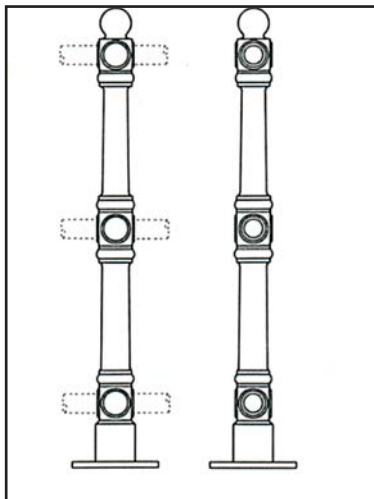
▼ **Scarborough post**

Height: 1095 mm



▼ **Seaham post**

Height: 1225 mm

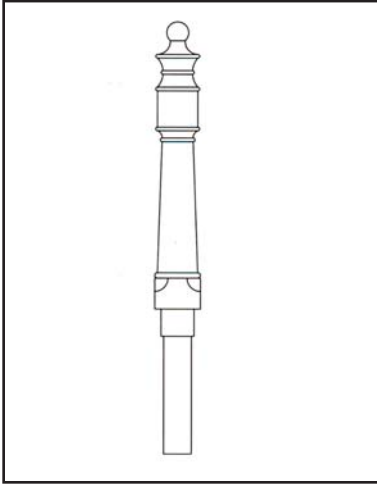


Selection of posts (continued)

A cross-section of our vast range of products.

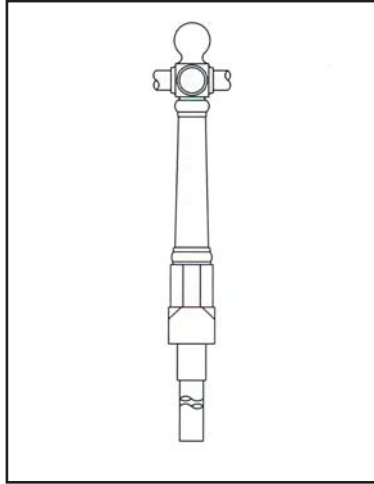
▼ Benwell

Height: 790 mm



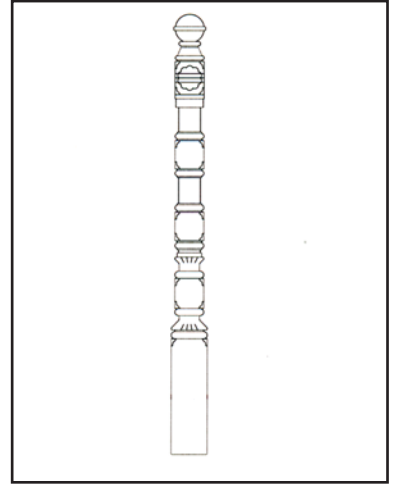
▼ Berwick short

Height: 660 mm



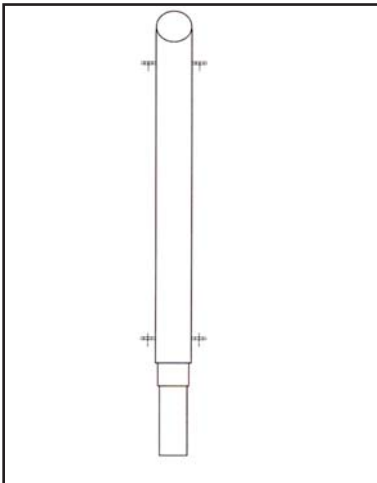
▼ Blackpool

Height: 1535 mm



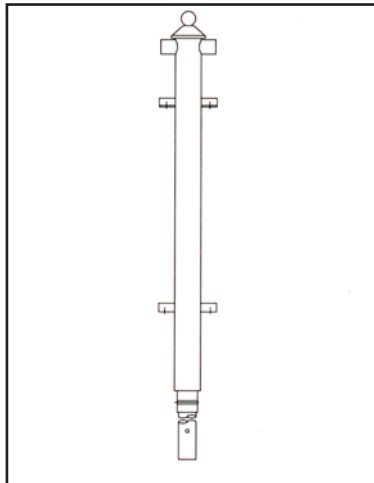
▼ Deansgate

Height: 1140 mm



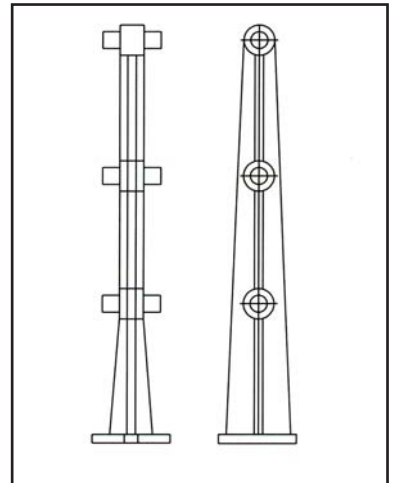
▼ Ealing

Height: 1325 mm



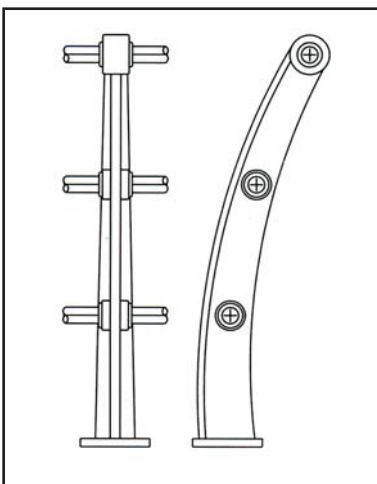
▼ Llanelli

Height: 1230 mm



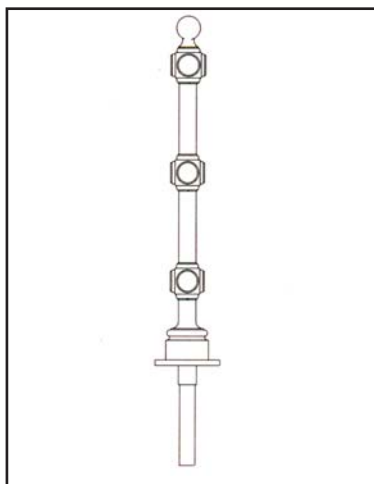
▼ Llanelli curved

Height: 1250 mm



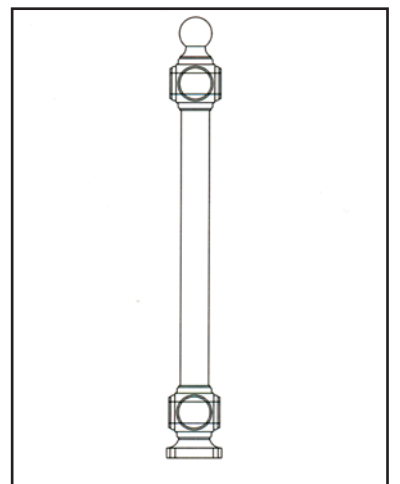
▼ Stalybridge X

Height: 1360 mm



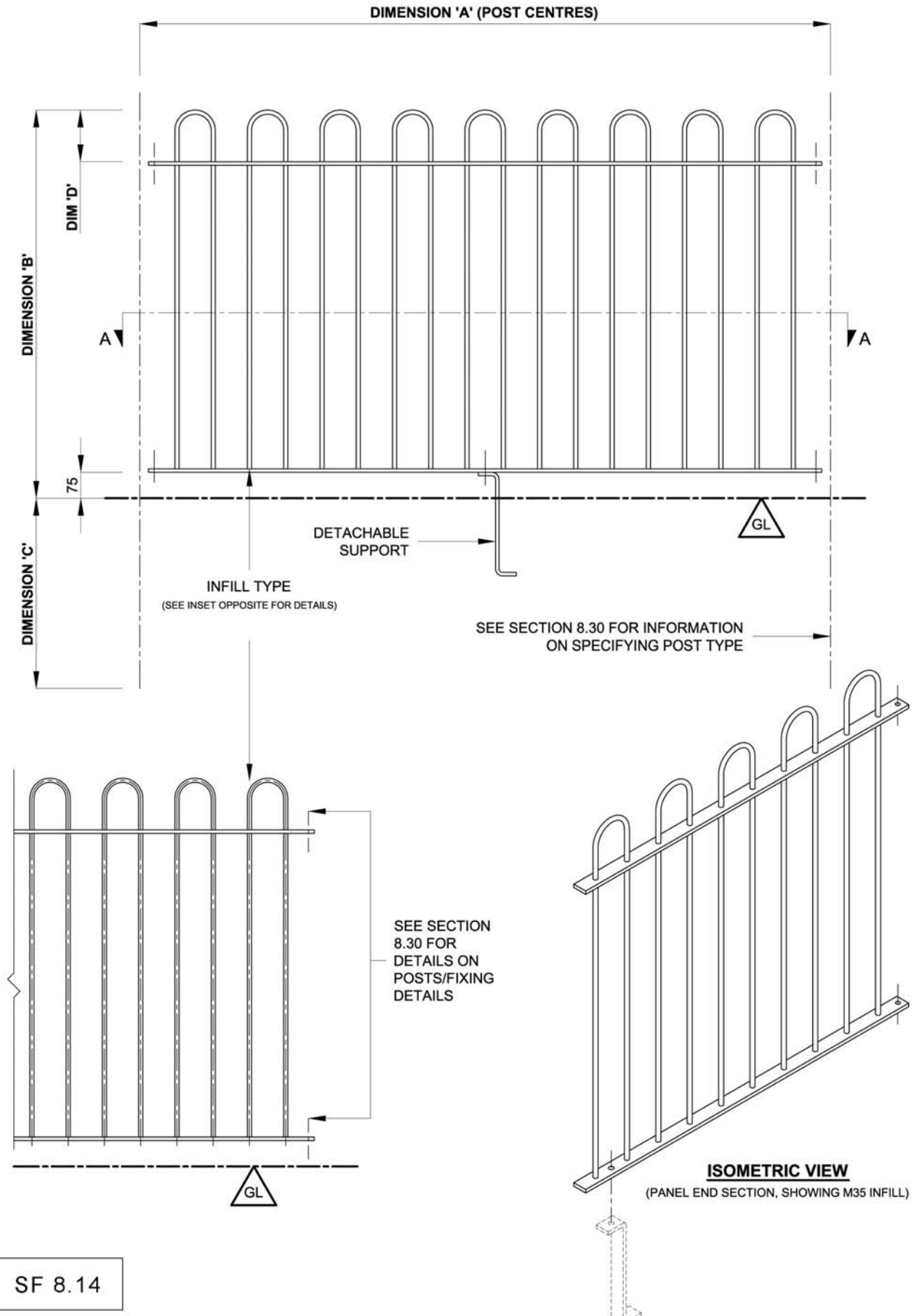
▼ Stalybridge W2

Height: 1260 mm

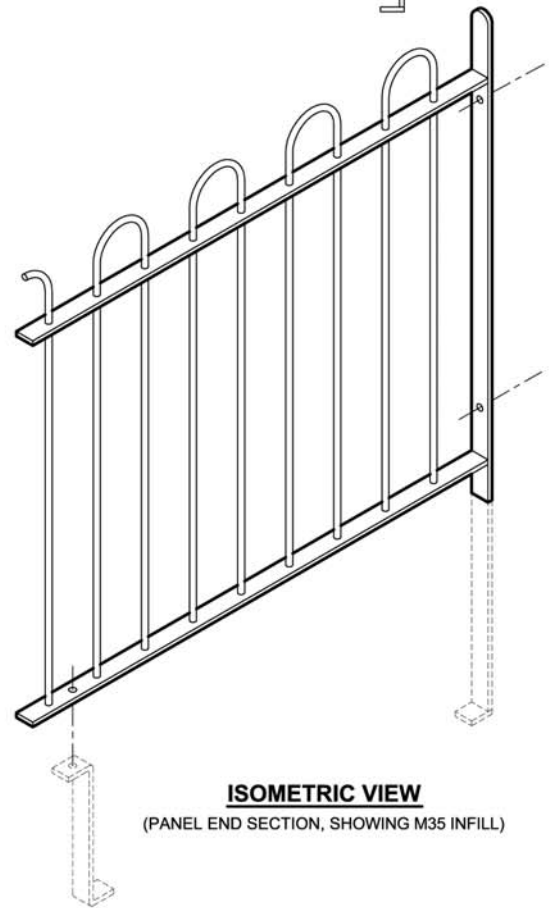
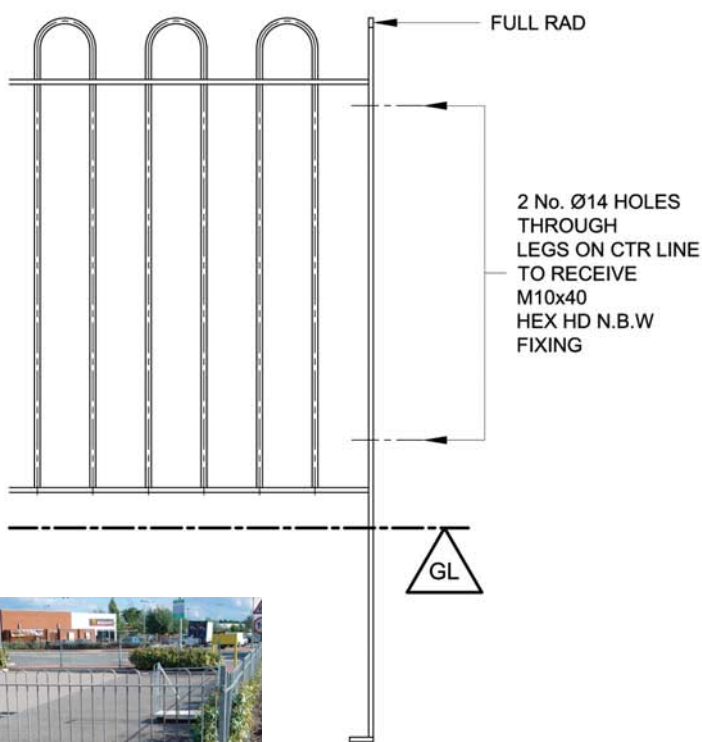
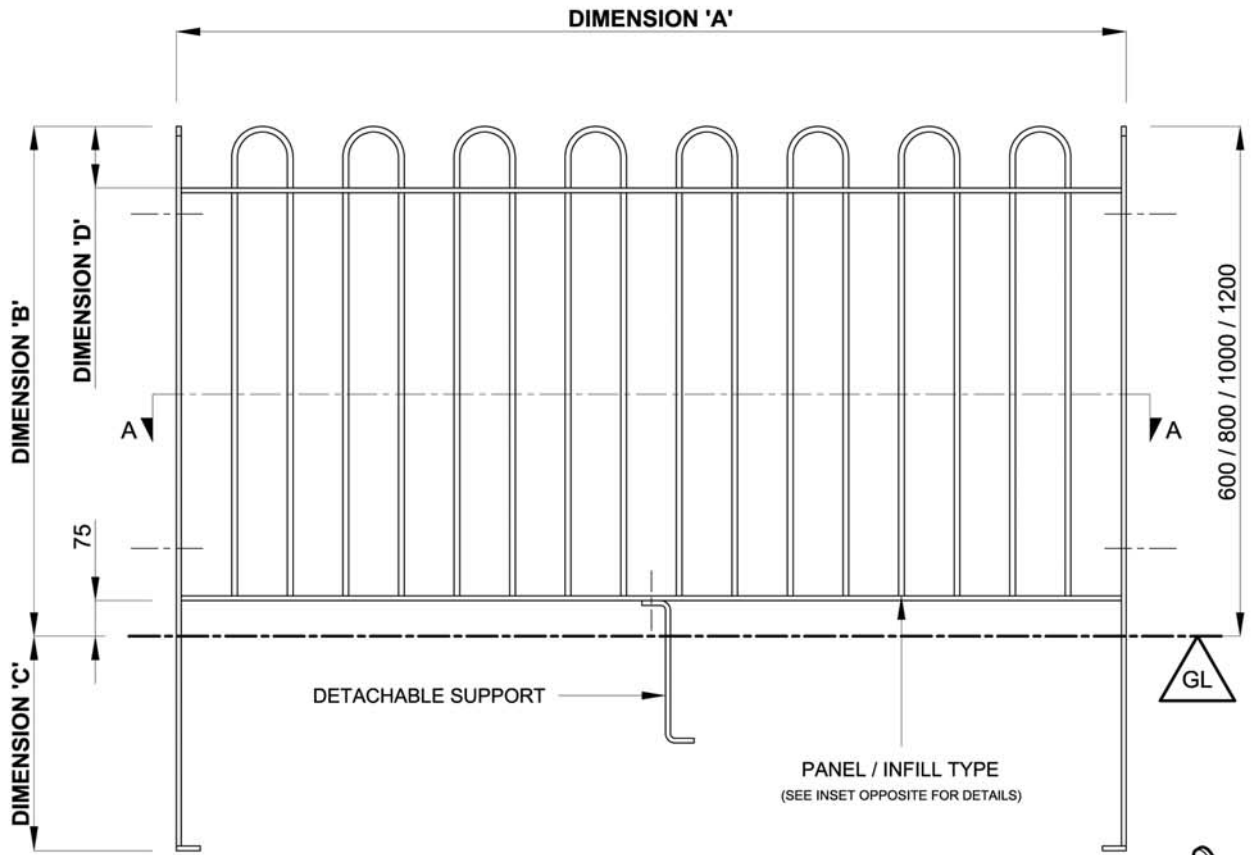


► Fencing

▼ Bow top fencing (with separate posts)

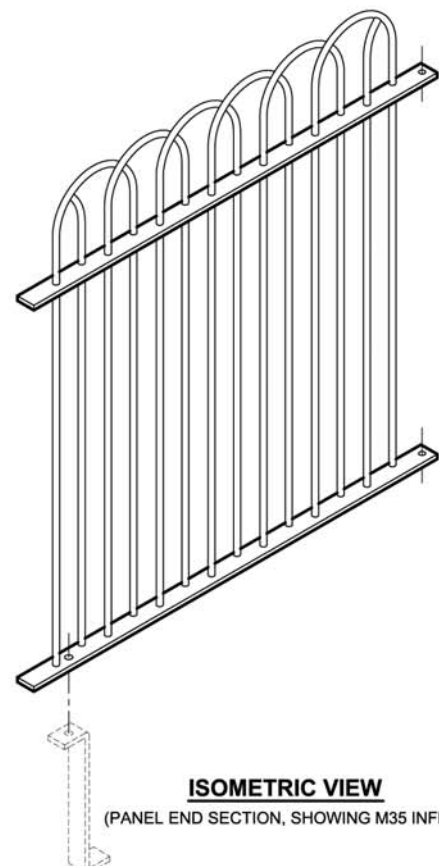
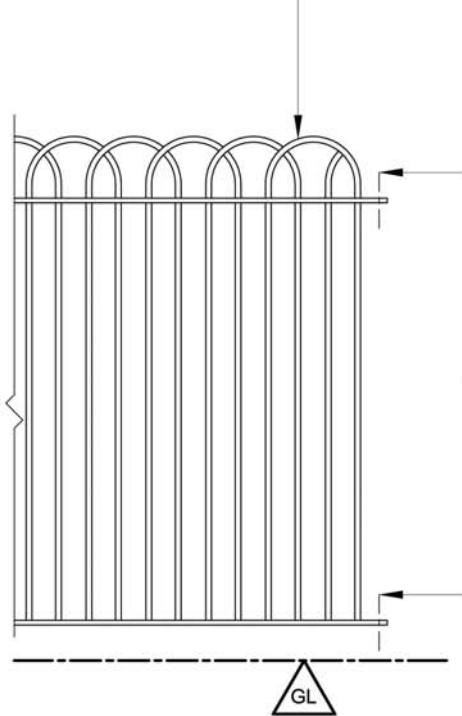
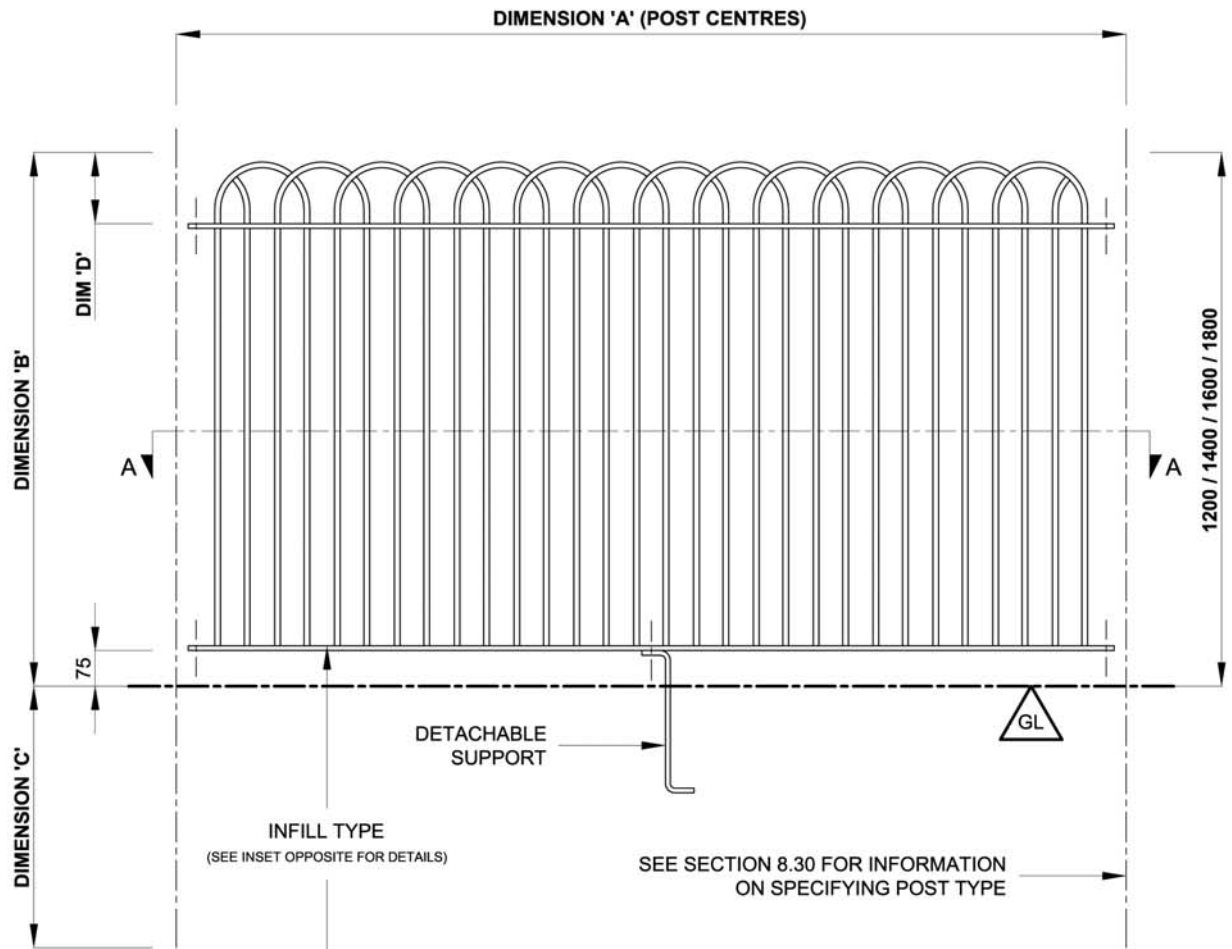


▼ Bow top fencing



SF 7.14

▼ **Hurdle fencing (with separate posts)**



SF 8.18

▼ Hurdle fencing (with separate posts) (continued)

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

FENCING PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD POST CENTRES: 2000mm, 2750mm

PANEL INFILL AVAILABLE:

SPECIAL HURDLE INFILL PATTERN (SEE BELOW)

ACCESSORIES:

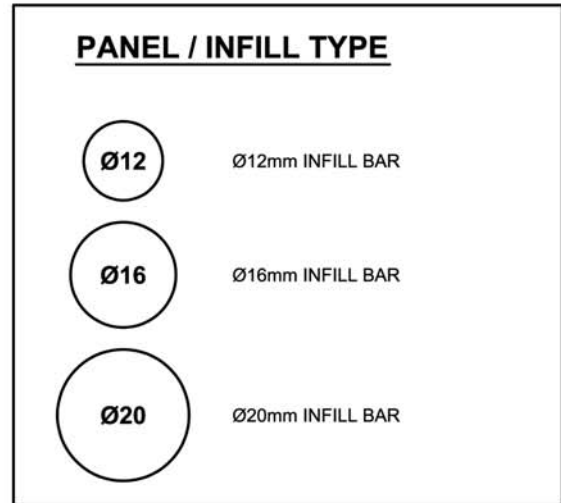
EACH FENCING PANEL WILL BE SUPPLIED WITH 4 No. FIXINGS APPROPRIATE TO POST STYLE ORDERED.
 AND EACH FENCING PANEL IS SUPPLIED WITH 'X' No. OF DETACHABLE SUPPORTS AND M10x40 N.B.W FIXINGS TO SUIT PANEL LENGTH.

RADIUSED PANELS:

SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.

SEPARATE FENCING POSTS:

SEE SECTION 8.30 FOR DETAILS ON ORDERING SEPARATE FENCING POSTS.



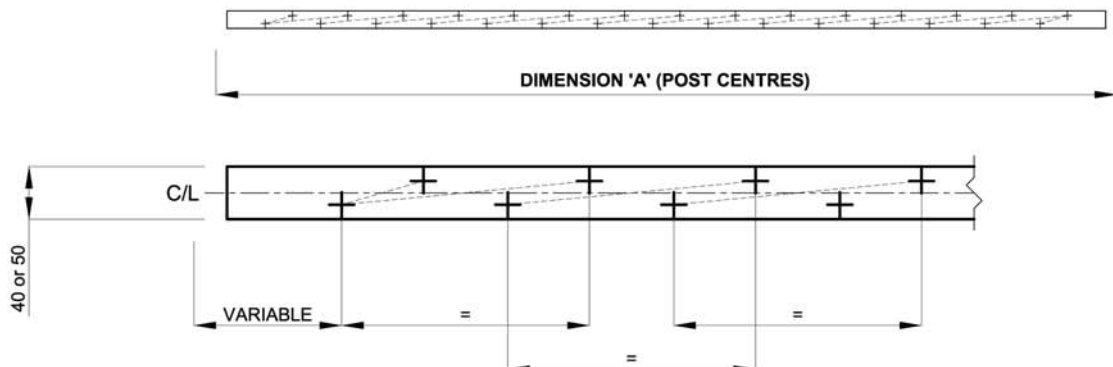
HURDLE FENCING COMPONENT / DIM RELATIONSHIP

DIM 'B'	BAR INFILL	DIM 'C'	DIM 'D'	RAIL/POSTS
1200 or UNDER	Ø12 or Ø16	550	150	40x10
1400	Ø12 or Ø16	550	150	40x10
1600	Ø16 or Ø20	600	200	40x10 or 50x10
1800 or OVER	Ø16 or Ø20	600	200	40x10 or 50x10

NOTE: HURDLE FENCING RAILS WILL BE SUPPLIED AT 40x10 AS STANDARD, UNLESS ORDER SPECIFIES THAT 50x10 RAILS ARE REQUIRED.

"SEE SECTION 8.50 FOR INFORMATION ON SPECIFYING POST TYPE FOR THIS PANEL TYPE"

SECTION 'A-A' SPECIAL HURDLE INFILL PATTERN



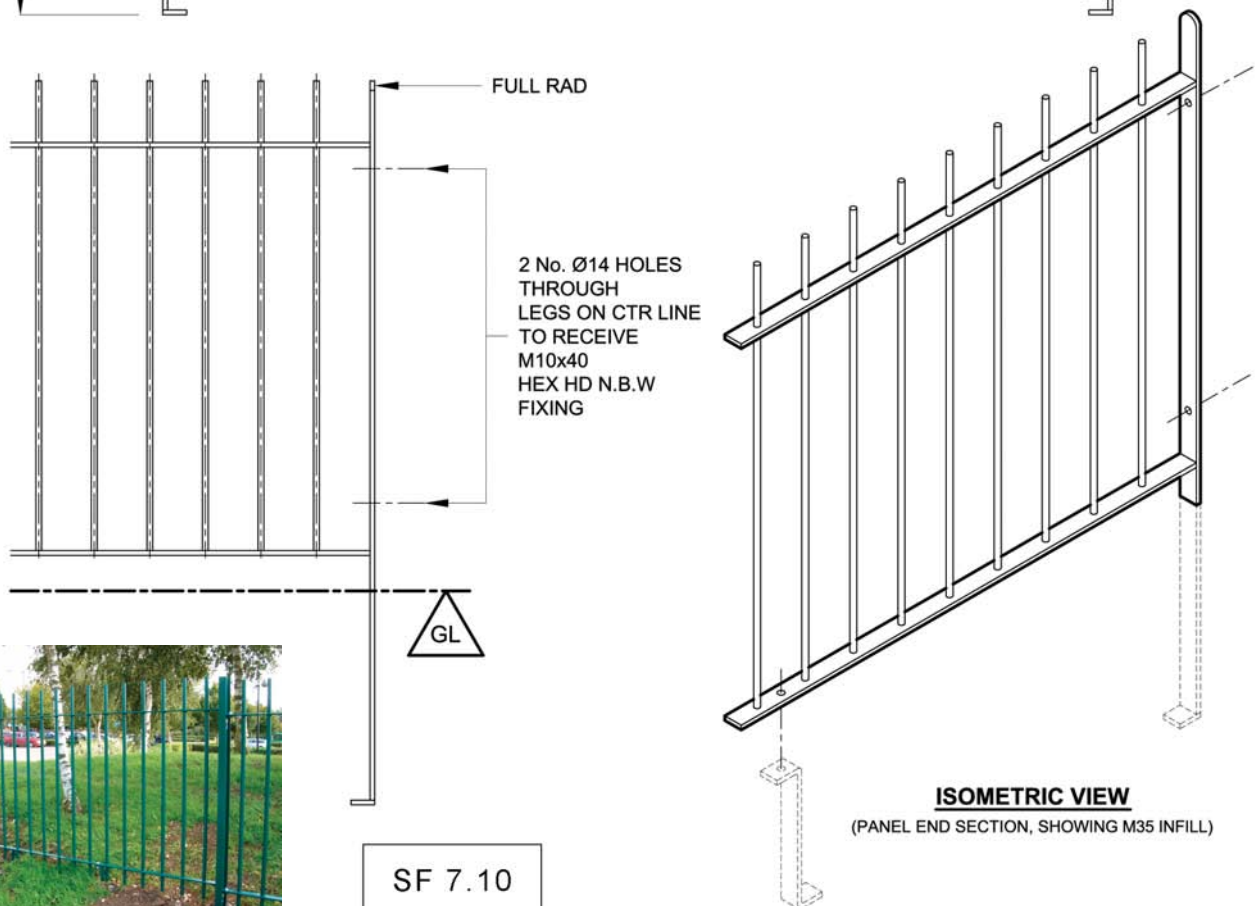
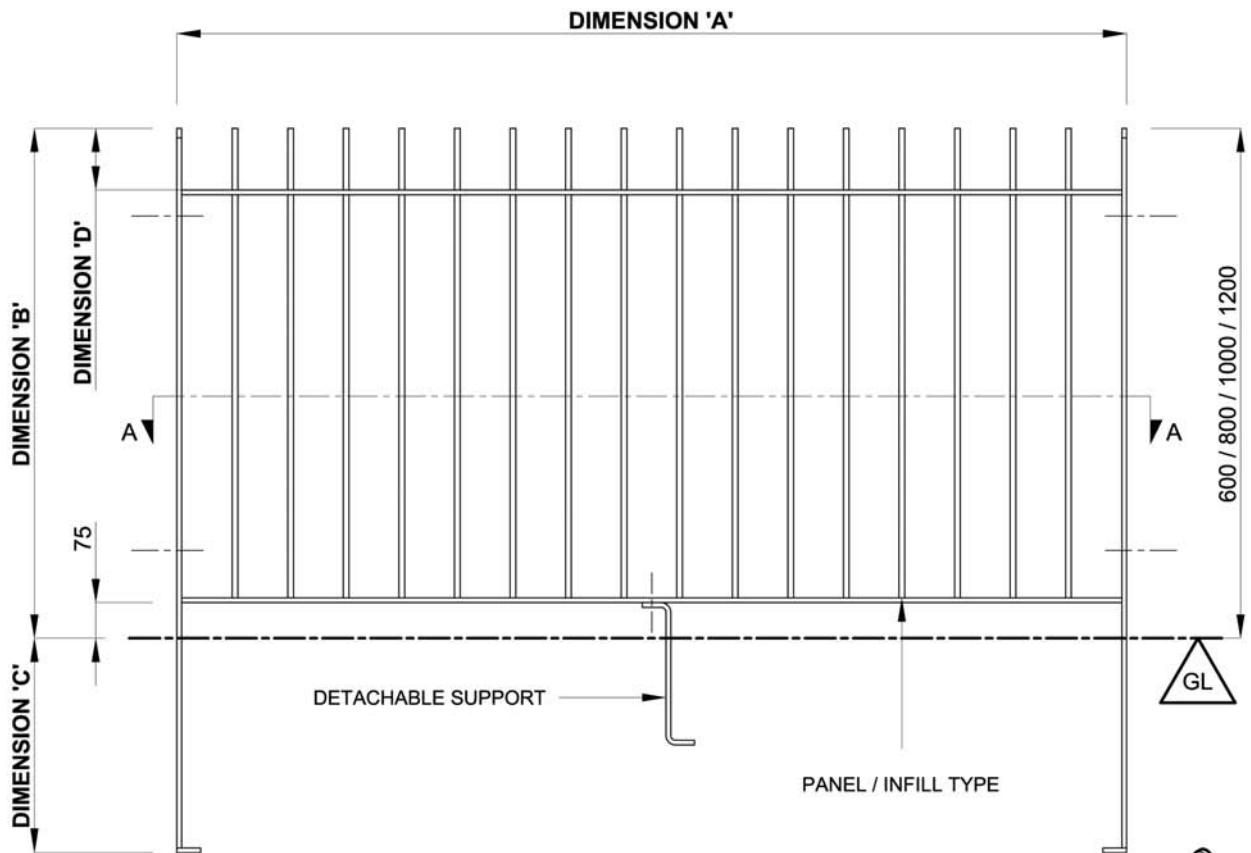
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) PANEL / INFILL TYPE (Ø12 INFILL / Ø16 INFILL / Ø20 INFILL)
- 2) POST CENTRES (DIM 'A' mm)
- 3) PANEL HEIGHT (DIM 'B' mm)
- 4) (HIGH HURDLE FENCING WITH SEPERATE POSTS)

EXAMPLE: "Ø12 INFILL (2000mm) 1400mm HIGH HURDLE FENCING WITH SEPERATE POSTS"

SF 8.19

▼ **Vertical bar fencing**



SF 7.10

▼ Vertical bar fencing (continued)

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

FENCING PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD PANEL LENGTHS: 2000mm, 2750mm

PANEL INFILL AVAILABLE:

STANDARD INFILL (SEE BELOW)

ACCESSORIES:

EACH FENCING PANEL WILL BE SUPPLIED WITH 2 No. M10x40 N.B.W. FIXINGS.
 AND EACH FENCING PANEL IS SUPPLIED WITH 'X' No. OF DETACHABLE SUPPORTS AND M10x40 N.B.W FIXINGS TO SUIT PANEL LENGTH.

RADIUSED PANELS:

SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.

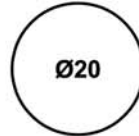
PANEL / INFILL TYPE



Ø12mm INFILL BAR



Ø16mm INFILL BAR



Ø20mm INFILL BAR

VERTICAL BAR FENCING COMPONENT / DIM RELATIONSHIP

DIM 'B'	BAR INFILL	DIM 'C'	DIM 'D'	RAIL/POSTS
600	Ø12	450	130	40x10
800	Ø12	450	130	40x10
1000	Ø12, Ø16 or Ø20	450	130	40x10 or 50x10
1200 or OVER	Ø12, Ø16 or Ø20	550	150	40x10 or 50x10

NOTE: VERTICLE BAR FENCING LEGS AND RAILS WILL BE SUPPLIED AT 40x10 AS STANDARD, UNLESS ORDER SPECIFIES THAT 50x10 LEGS AND RAILS ARE REQUIRED.

INFILL BAR TOP DETAIL



PLAIN



DOMED

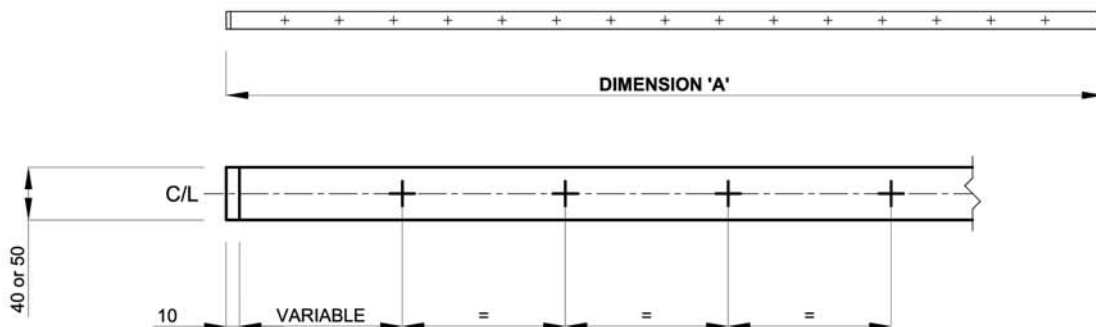


SPIKED

VERTICLE BAR FENCING WILL BE SUPPLIED WITH PLAIN TOPPED INFILL UNLESS ORDER SPECIFIES OTHER WISE.

NOTE: SPIKED INFILL IS **ONLY AVAILABLE** ON PANELS 1200mm OR HIGHER

SECTION 'A-A' STANDARD INFILL PATTERN



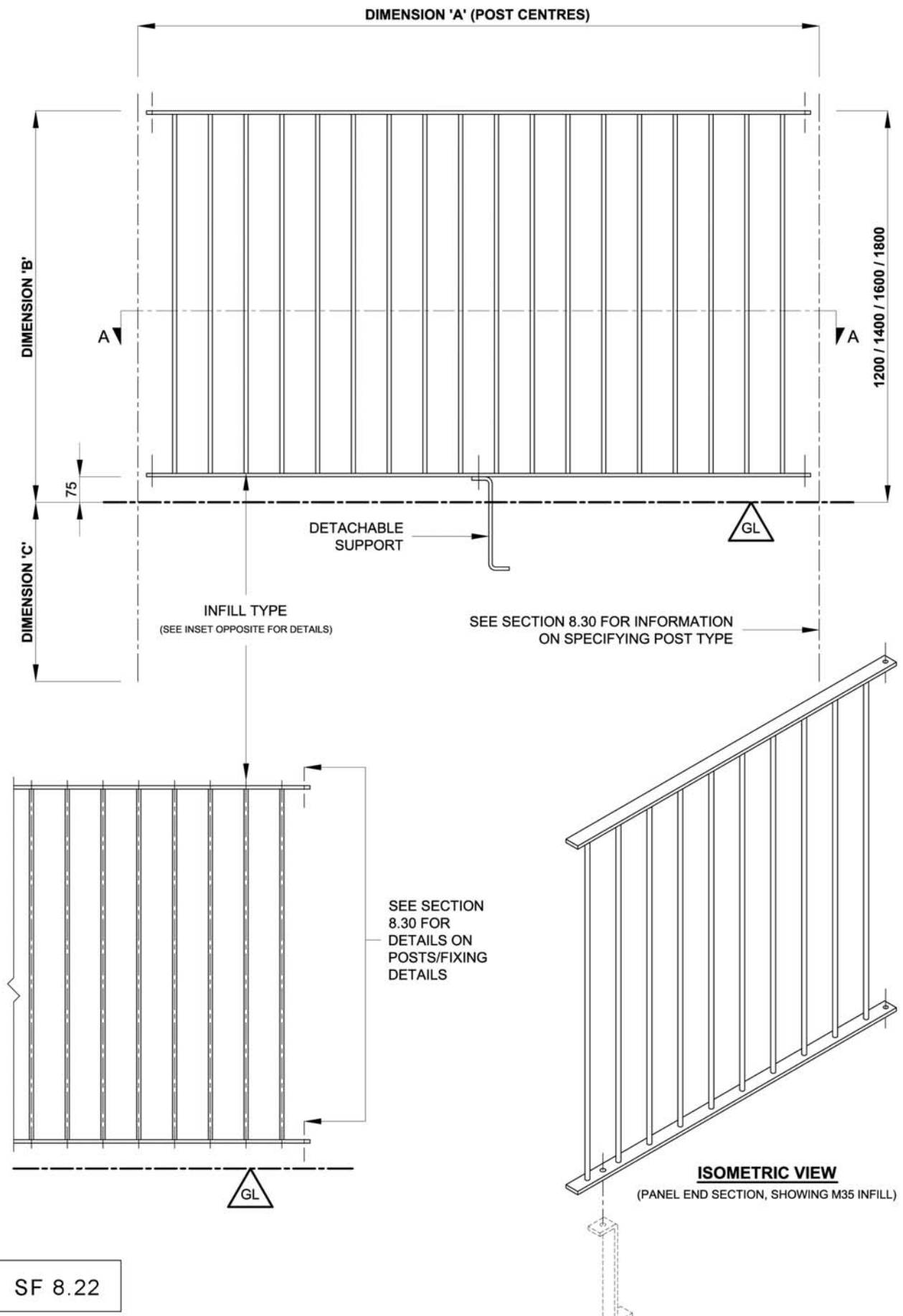
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) PANEL / INFILL TYPE (Ø12 INFILL / Ø16 INFILL / Ø20 INFILL)
- 2) OVERALL PANEL LENGTH (DIM 'A' mm)
- 3) PANEL HEIGHT (600mm / 800mm / 1000mm / 1200mm)
- 4) (HIGH VERTICLE BAR FENCING)

EXAMPLE: "Ø12 INFILL (2000mm) 800mm HIGH VERTICLE BAR FENCING"

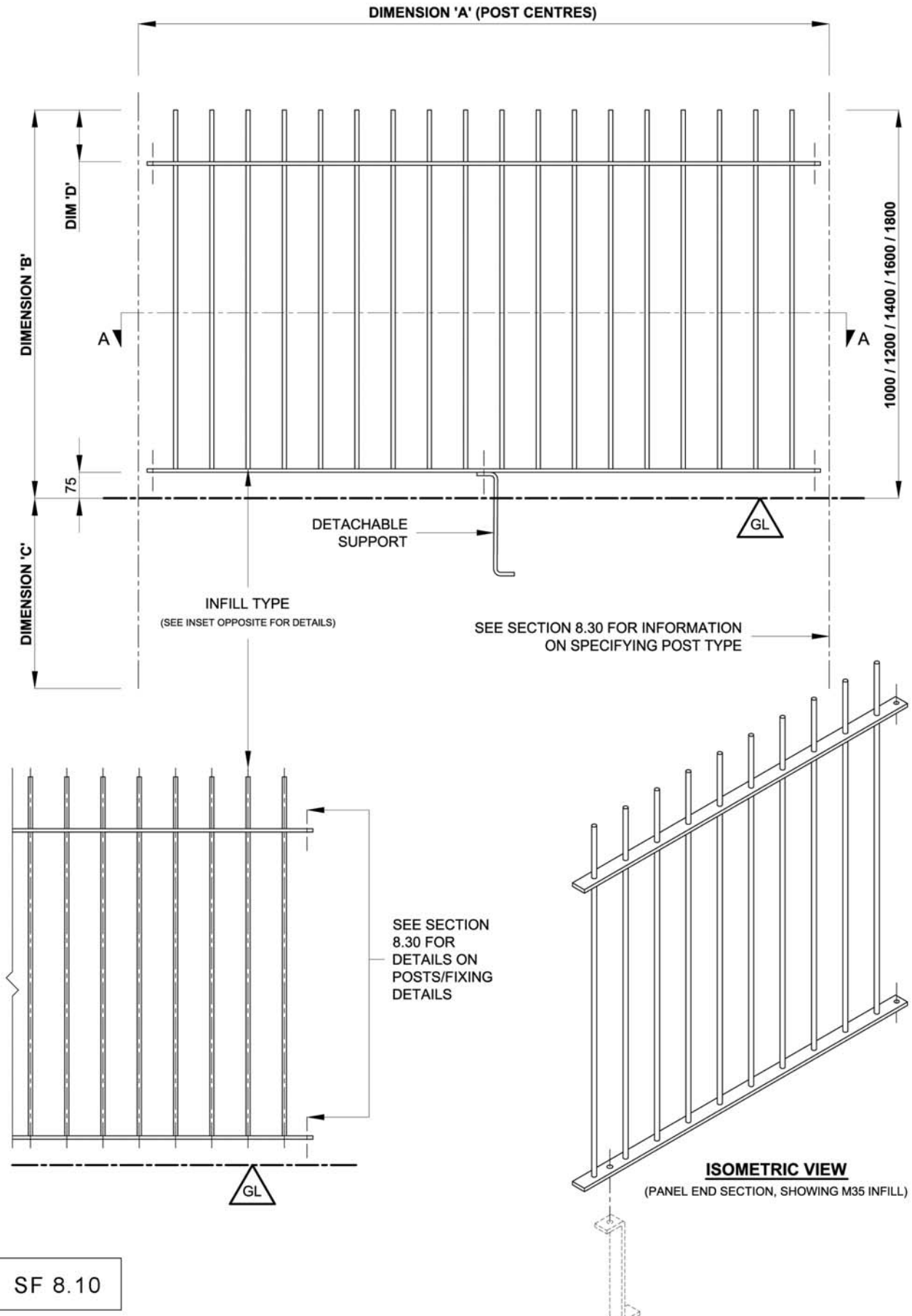
SF 7.11

▼ **Boundary fencing (with separate posts)**



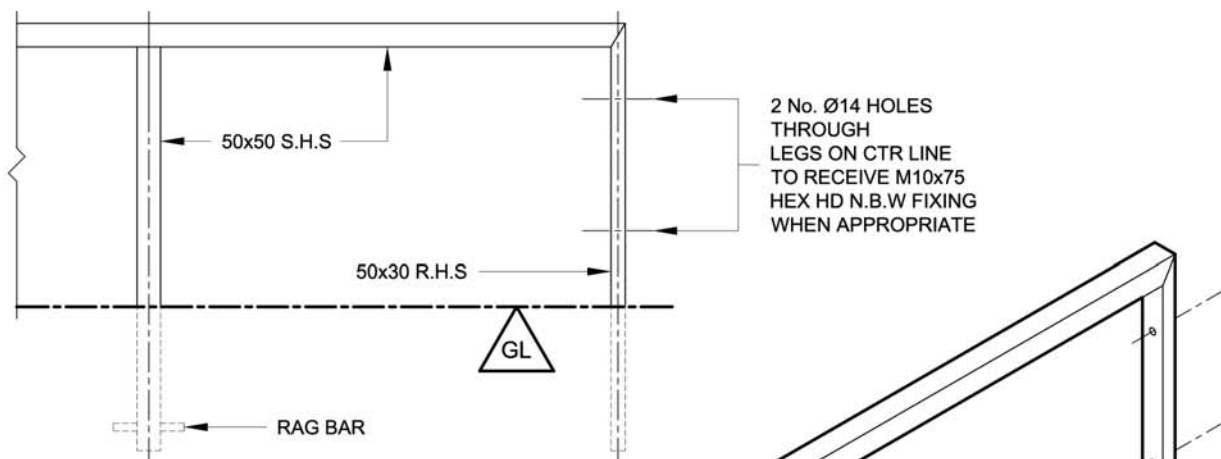
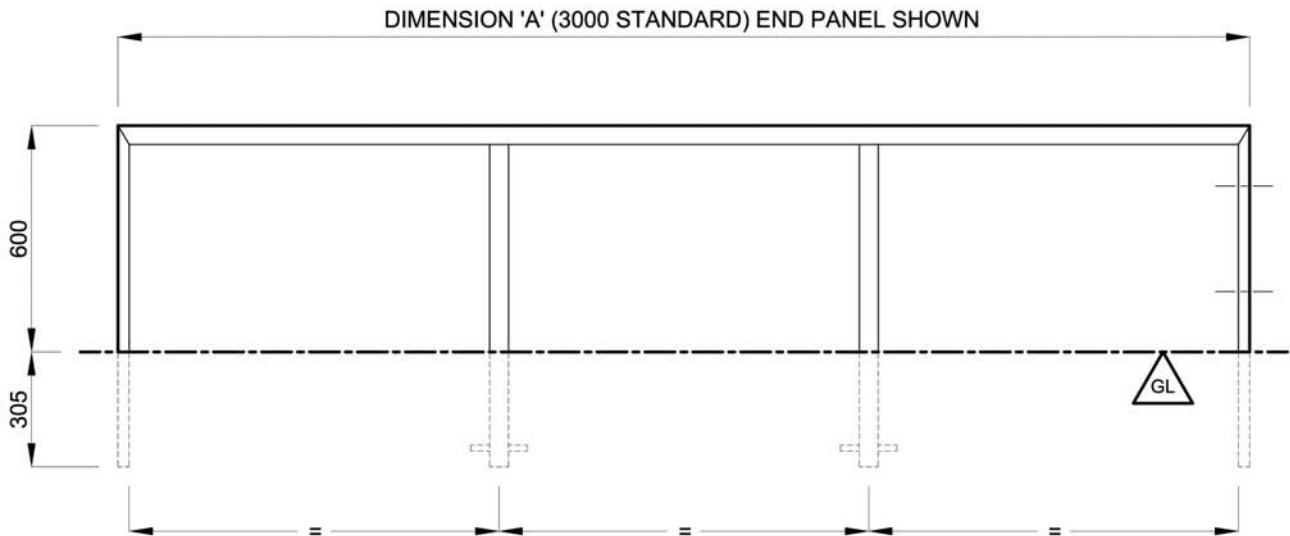
SF 8.22

▼ Vertical bar fencing (with separate posts)



SF 8.10

▼ Perimeter fencing



TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

PERIMETER FENCING PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

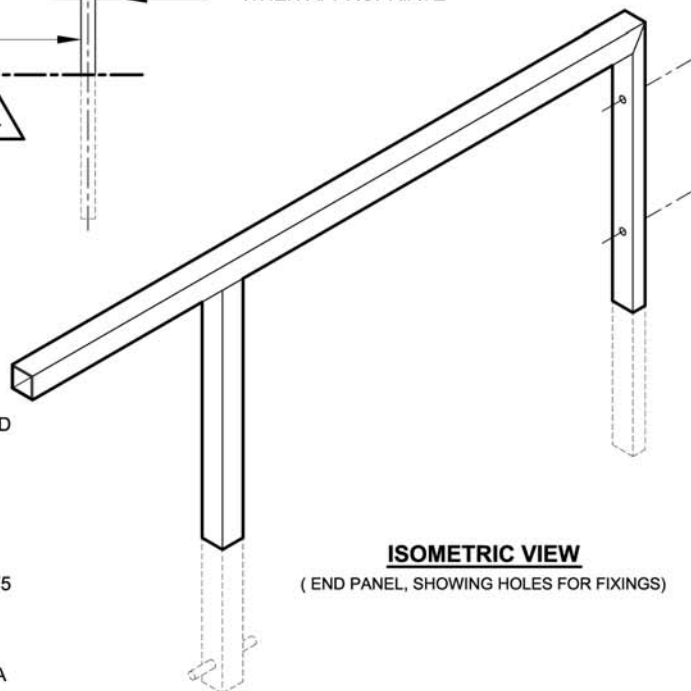
STANDARD PANEL LENGTHS: 1000mm, 2000mm, 3000mm

ACCESSORIES:

EACH FENCING PANEL WILL BE SUPPLIED WITH 2 No. M10x75 N.B.W. FIXINGS.

RADIUSED PANELS:

SEE SECTION 3.20 FOR INFORMATION ON HOW TO ORDER A RADIUSED PANEL.



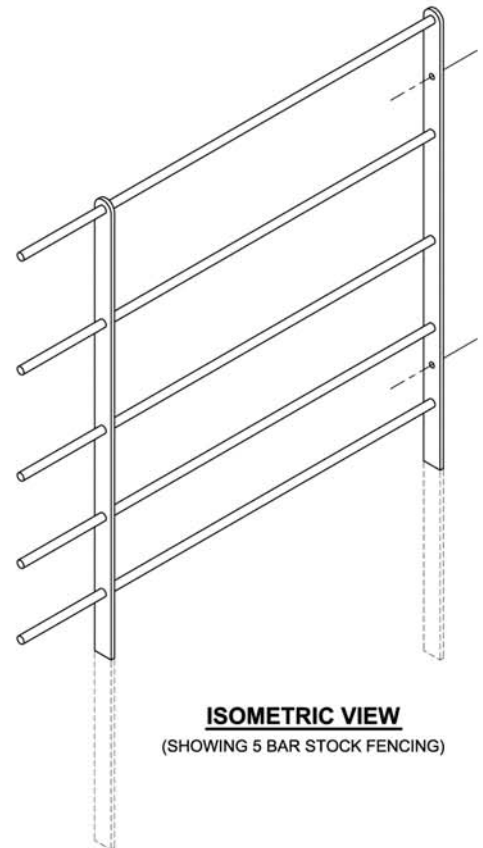
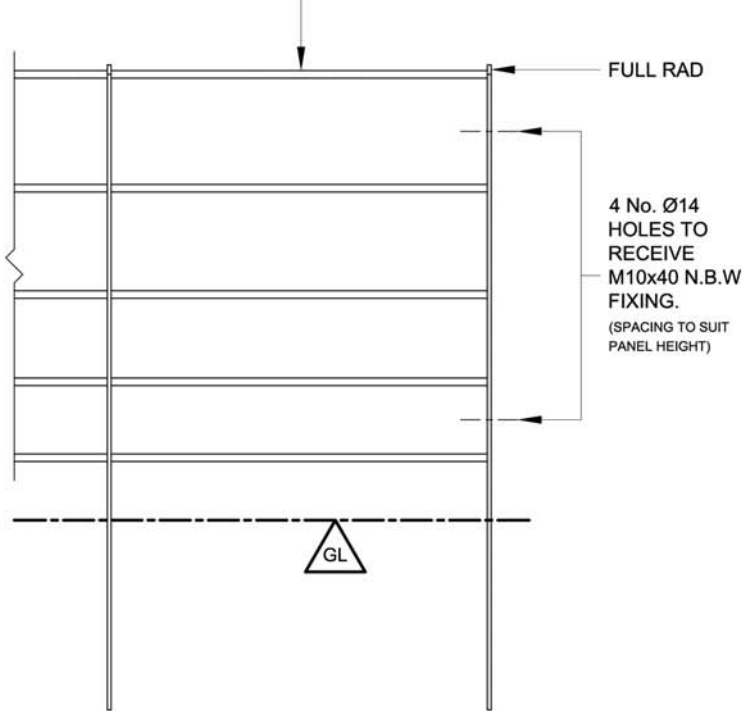
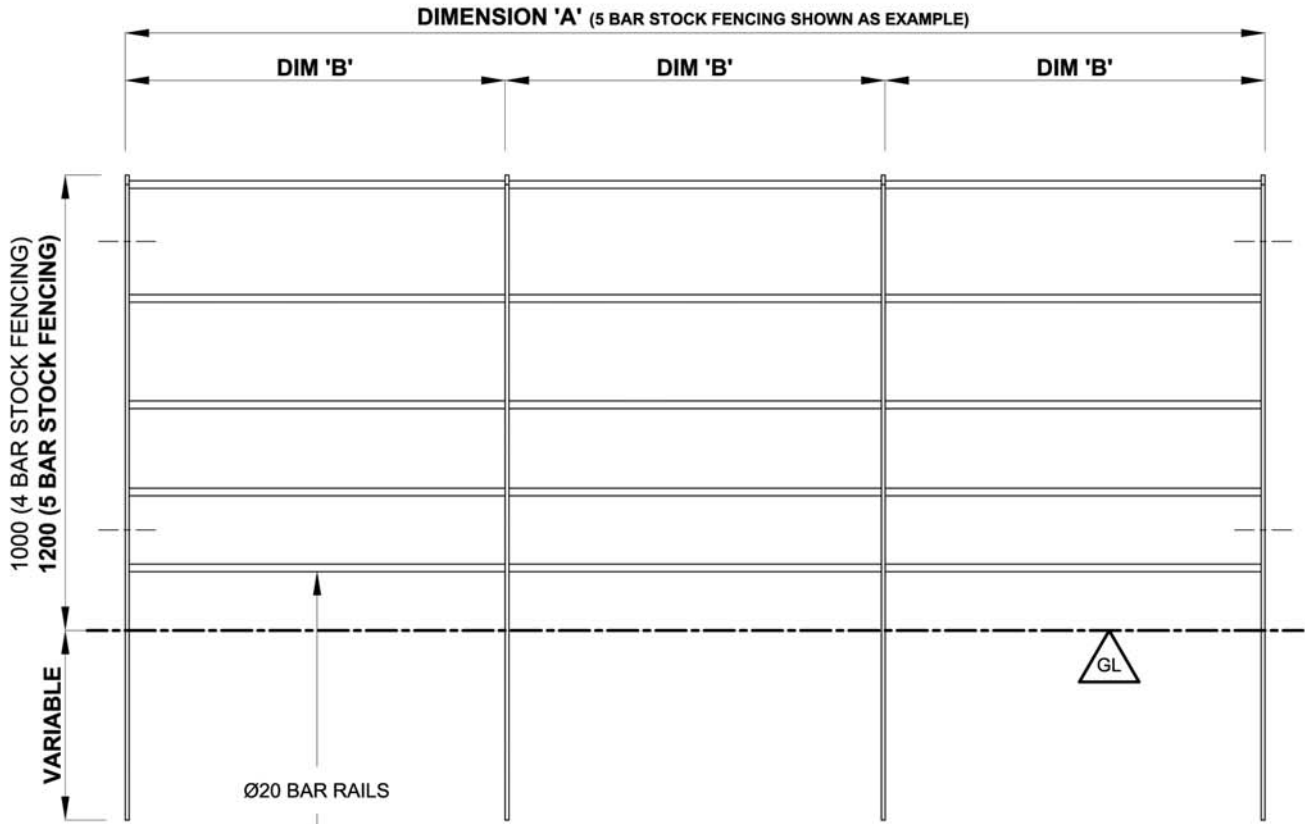
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) OVERALL LENGTH (DIM 'A' mm)
- 2) PANEL TYPE (END / INTERMEDIATE / SINGLE)
- 3) (PERIMETER FENCING PANEL)

EXAMPLE: "3000mm INTERMEDIATE PERIMETER FENCING PANEL"

SF 7.30

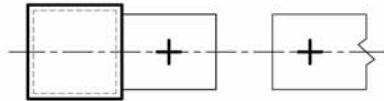
▼ Stock fencing (4 and 5 bar)



SF 7.40

▼ S.H.S fencing post (with flat mt'g lugs)

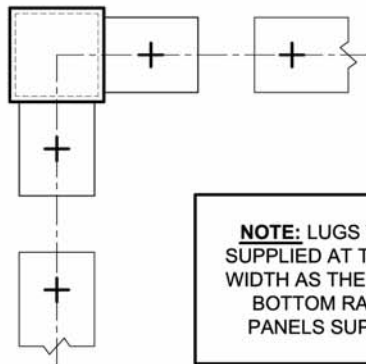
END POST (SHOWN WITH 40mm FLAT MT'G LUG)



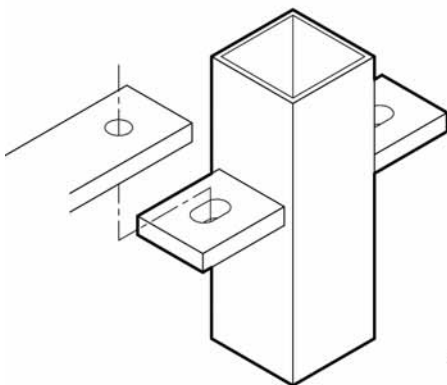
INTERMEDIATE POST (SHOWN WITH 40mm FLAT MT'G LUG)



90° CORNER POST (SHOWN WITH 40mm FLAT MT'G LUG)



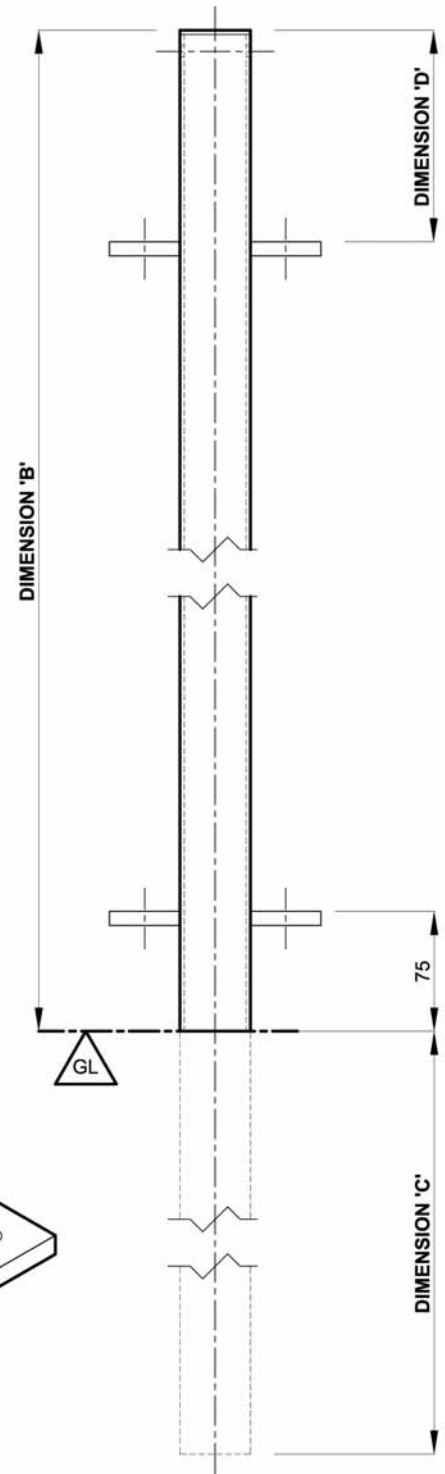
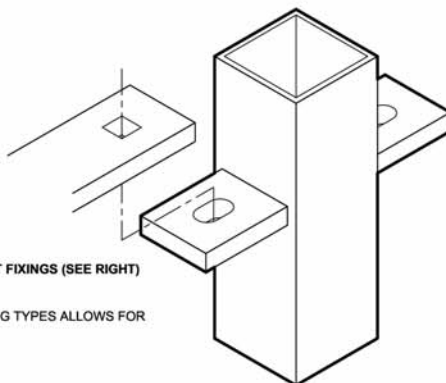
NOTE: LUGS WILL BE SUPPLIED AT THE SAME WIDTH AS THE TOP AND BOTTOM RAILS OF PANELS SUPPLIED



DRILLING FOR N.B.W FIXINGS (SEE ABOVE)

DRILLING FOR CUP SQ. BOLT, WASHER AND PERMACONE NUT FIXINGS (SEE RIGHT)

NOTE: 12x20mm PROFILED SLOT IN POST LUGS ON BOTH FIXING TYPES ALLOWS FOR FINE ADJUSTMENT ON SITE



WHEN SPECIFYING YOUR POST ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) POST TYPE (END / INTERMEDIATE / 90° CORNER)
- 2) (S.H.S FENCING POST WITH FLAT MT'G LUGS)

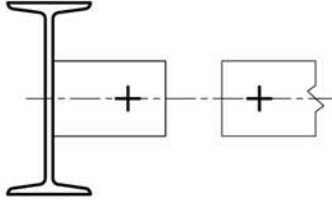
EXAMPLE: " INTERMEDIATE S.H.S FENCING POST WITH FLAT MT'G LUGS"

NOTE: FENCING POSTS AND PANELS WILL BE SUPPLIED WITH 4 No. N.B.W FIXINGS AS STANDARD, UNLESS CUP SQUARE BOLTS & PERMACONE NUTS HAVE BEEN REQUESTED.

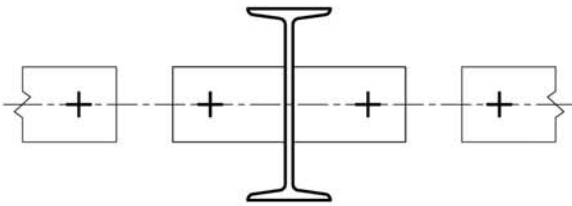
SF 8.30

▼ R.S.J fencing post (with flat mt'g lugs)

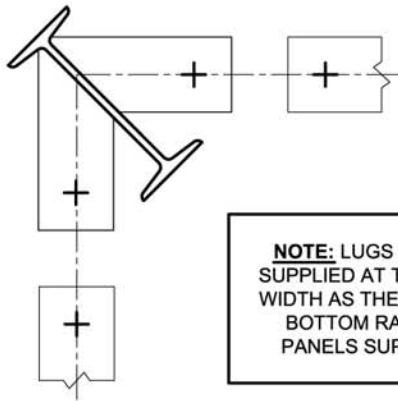
END POST (SHOWN WITH 40mm FLAT MT'G LUG)



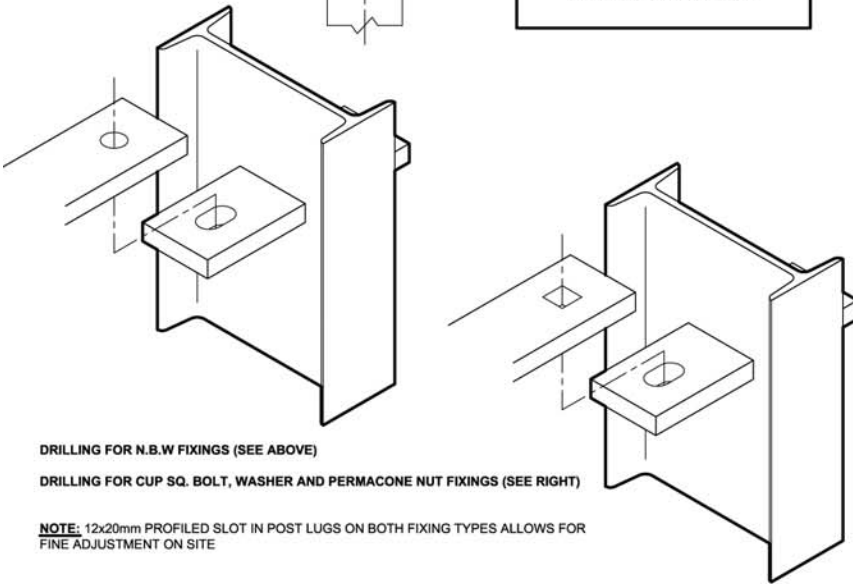
INTERMEDIATE POST (SHOWN WITH 40mm FLAT MT'G LUG)



90° CORNER POST (SHOWN WITH 40mm FLAT MT'G LUG)



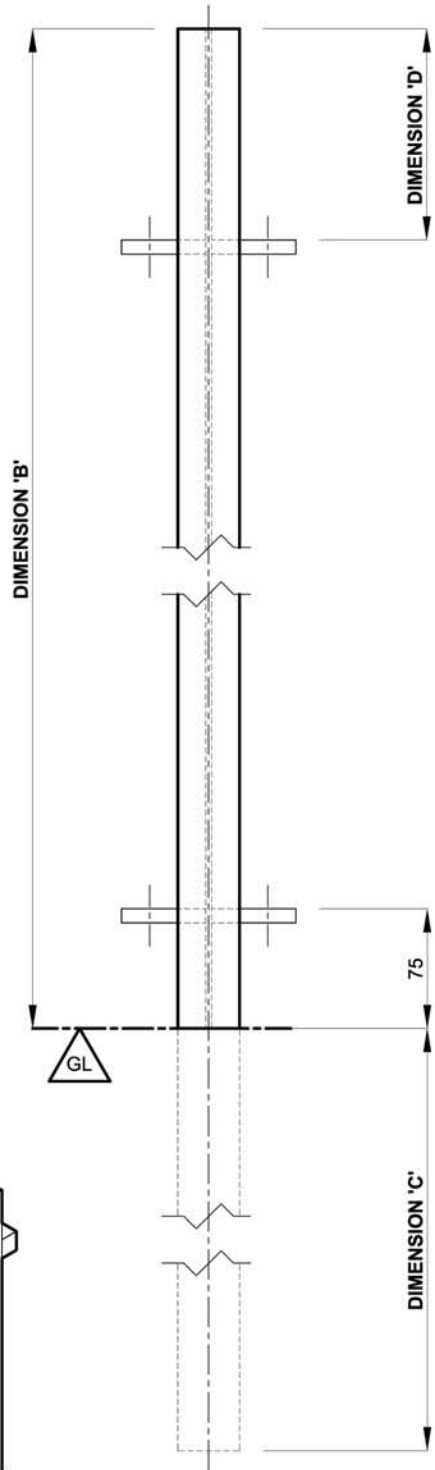
NOTE: LUGS WILL BE SUPPLIED AT THE SAME WIDTH AS THE TOP AND BOTTOM RAILS OF PANELS SUPPLIED



DRILLING FOR N.B.W FIXINGS (SEE ABOVE)

DRILLING FOR CUP SQ. BOLT, WASHER AND PERMACONE NUT FIXINGS (SEE RIGHT)

NOTE: 12x20mm PROFILED SLOT IN POST LUGS ON BOTH FIXING TYPES ALLOWS FOR FINE ADJUSTMENT ON SITE



WHEN SPECIFYING YOUR POST ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

1) POST TYPE (END / INTERMEDIATE / 90° CORNER)
 2) (R.S.J FENCING POST WITH FLAT MT'G LUGS)

EXAMPLE: " INTERMEDIATE R.S.J FENCING POST WITH FLAT MT'G LUGS"

NOTE: FENCING POSTS AND PANELS WILL BE SUPPLIED WITH 4 No. N.B.W FIXINGS AS STANDARD, UNLESS CUP SQUARE BOLTS & PERMACONE NUTS HAVE BEEN REQUESTED.

SF 8.32

▼ Guardrail socket system

The RS50x50 retention socket securely retains pedestrian guard railing and other forms of street furniture using 50mm square posts.

Designed to withstand impact, the RS50x50 eliminates the need for costly and disruptive excavations after knockdowns, allowing posts to be removed and replaced in minutes simply with an allen key and spanner.

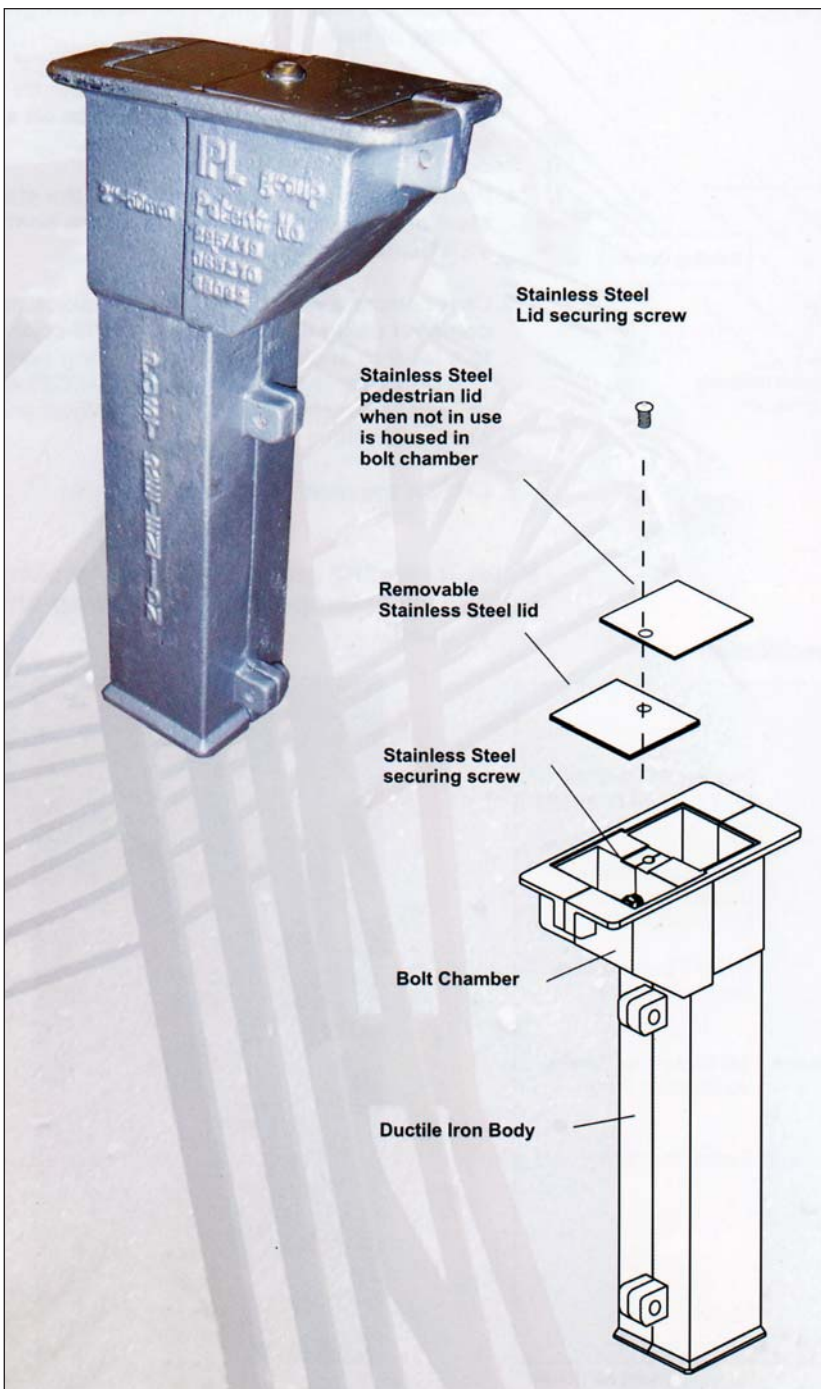
The RS50x50 retention socket when used with pedestrian guard railing posts on graded sites allows the post to be raised or lowered within the socket. On all site installations the RS50x50 eliminates the need to compact the wearing course by hand under the railing panel.

Features:

- Fast and easy installation
- Easy re-instatement of knockdown sites
- Cost-effective
- Ductile iron construction
- Makes maintenance easy
- Separates railing installation from civils

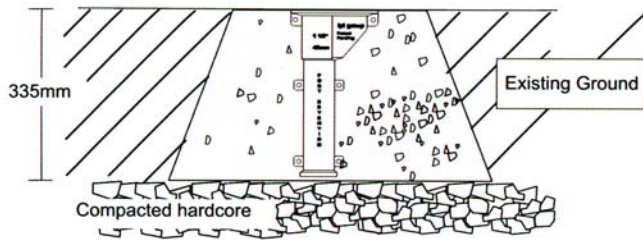
Typical applications:

- Pedestrian guard railings
- Playground equipment
- Temporary signs
- Market stalls

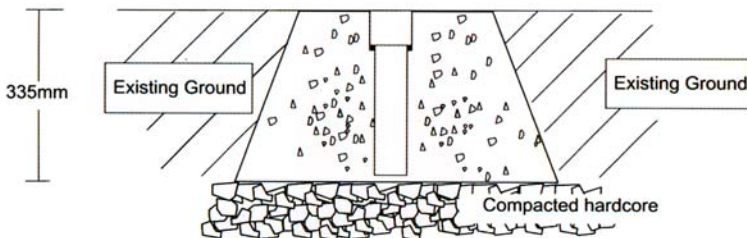


▼ Guardrail socket system (continued)

Side view



Front view



Recommended installation:

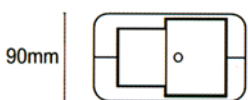
The RS50x50 retention socket should be set into concrete generally in accordance with standards or good code of practice for the installation of posts.

Instructions:

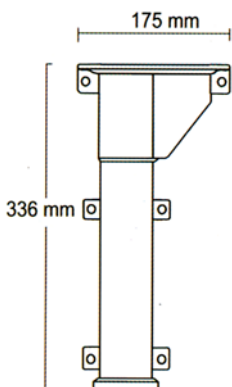
1. Prepare hole as shown.
2. Compact at least 75mm of hard-core or gravel in base of hole.
3. Place RS50x50 retaining socket in centre of hole, ensuring that there is good clearance on all sides and hold in a vertical position.
4. Place a post into socket and fasten the stainless steel bolt against the post. Ensure the post is in a vertical position.
5. Cast concrete with lid locked in position and compact using a vibrating poker. Fill concrete to a level to allow for the surrounding surfacing. The concrete should be at least ST4/C25 mix or stronger ensuring that lid is in position and compact well.
6. Check the post is vertical and finish.

Note: If existing ground is loose or uncompacted, a wider/deeper base of concrete should be used.

Plan :



Side Elevation :



Material specification:

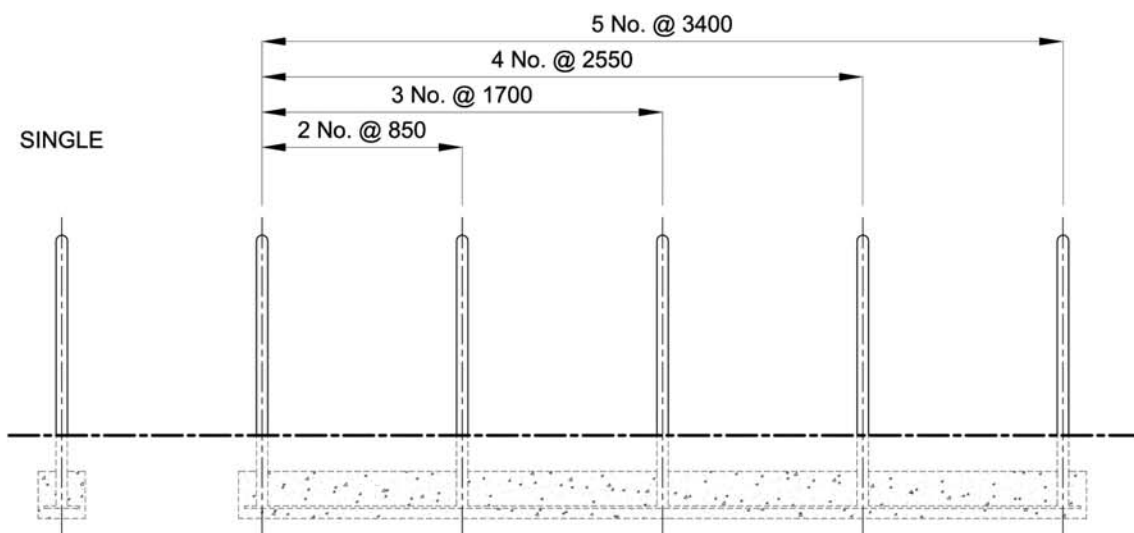
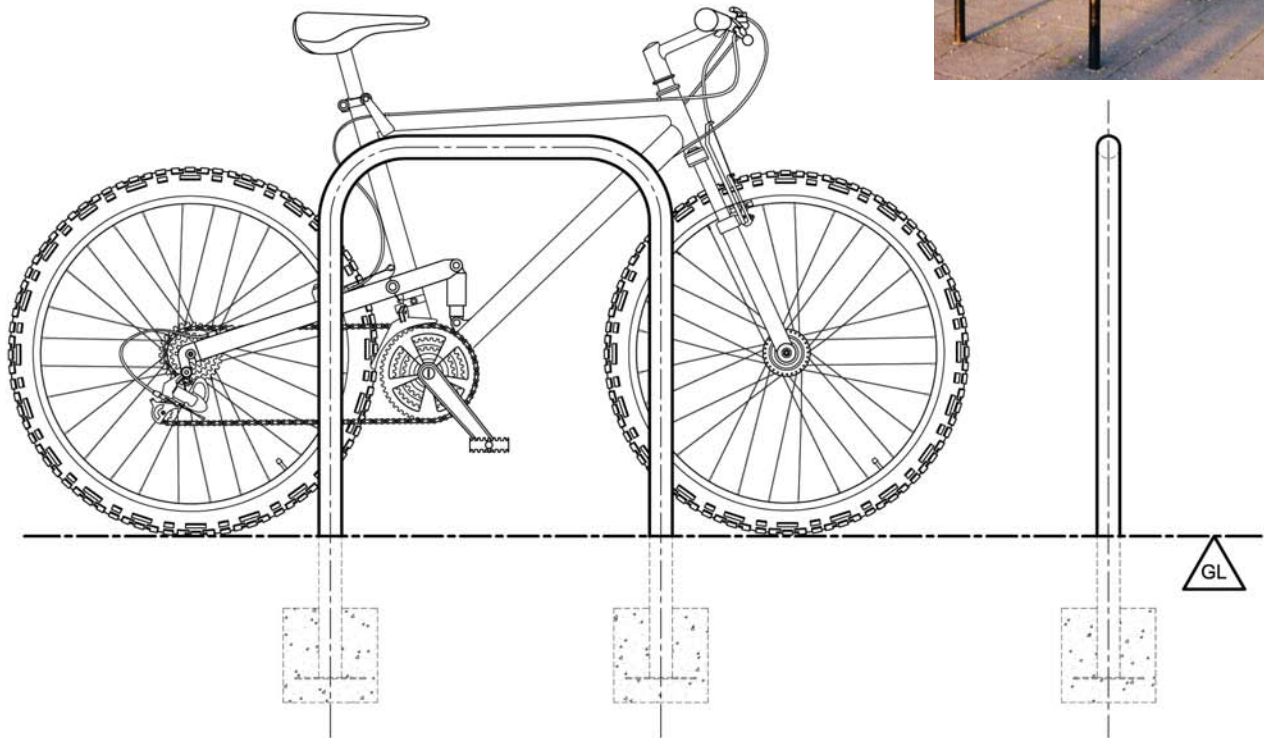
- Body:** Ductile iron BS2789, 500-7 (GGG50-DIN 1693)
- Lid:** A2 stainless steel or ductile iron to BS2789, 500-7 (GGG50-DIN 1693)
- Assembly screws:** M8 socket cap screws, A2 stainless steel
- Finish:** Electro zinc plated

Drawing not to scale



► Barriers

▼ Sheffield cycle barrier/stand



NOTE: ALSO AVAILABLE WITH BASE PLATES FOR FLOOR FIXING

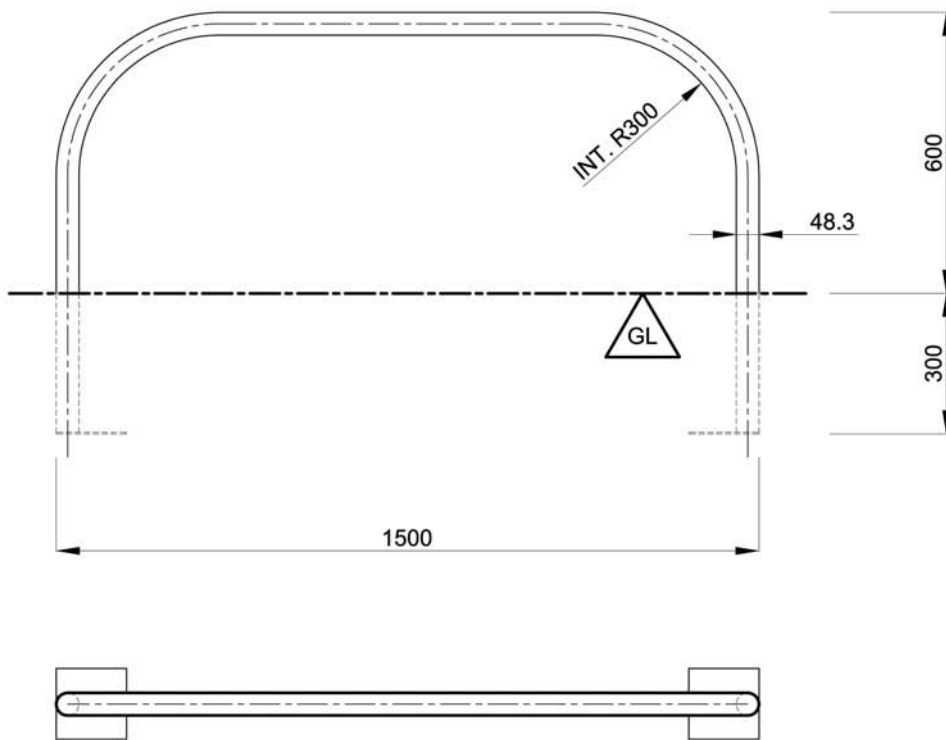
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) OVERALL LENGTH (SINGLE / 850mm / 1700mm / 2550mm / 3400mm)
- 2) (FLOOR MOUNTED CYCLE STAND)

EXAMPLE: "(SINGLE) FLOOR MOUNTED CYCLE STAND"

SF 14.10

▼ Anti-parking barriers



SF 13.16

WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT DESCRIPTION:

"ANTI PARKING BARRIER"

▼ Anti-parking barriers (continued)

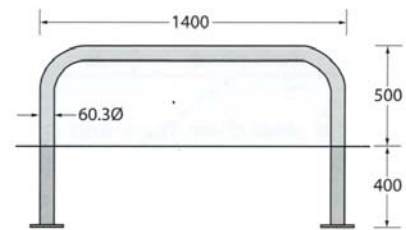
Steel hoop barriers are supplied either fixed or detachable. A detachable steel barrier may be part lifted to act as a gate allowing quick vehicle access, or can be completely removed. It is an ideal way of securing large perimeters, allowing pedestrian access whilst denying vehicle access.

Steel hoop barriers are supplied in either 60.3, 76.1 or 88.9mm diameter sections with an overall span of 1400mm and are supplied fully galvanised to BSEN ISO 1461 (1999). They can be powder coated to most British Standard or RAL colours.

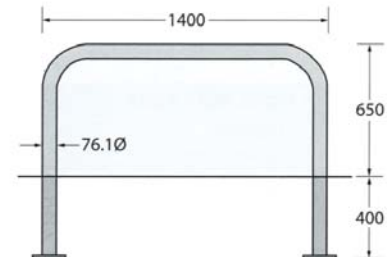
▼ Fixed anti-parking barriers



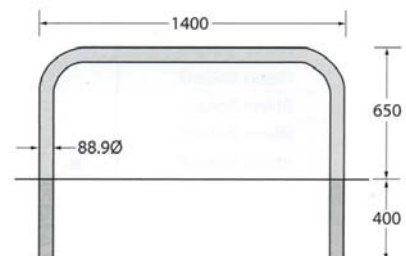
SF-RB60



SF-RB76/HD



SF-RB90/HD

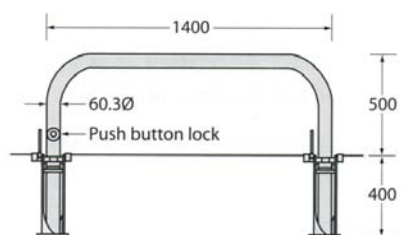


▼ Anti-parking barriers (continued)

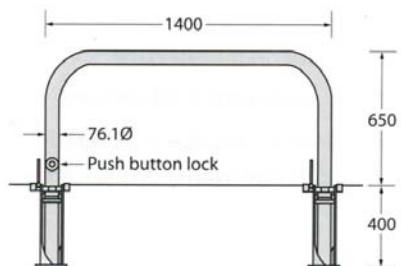
▼ Detachable anti-parking barriers



SF-RDB60



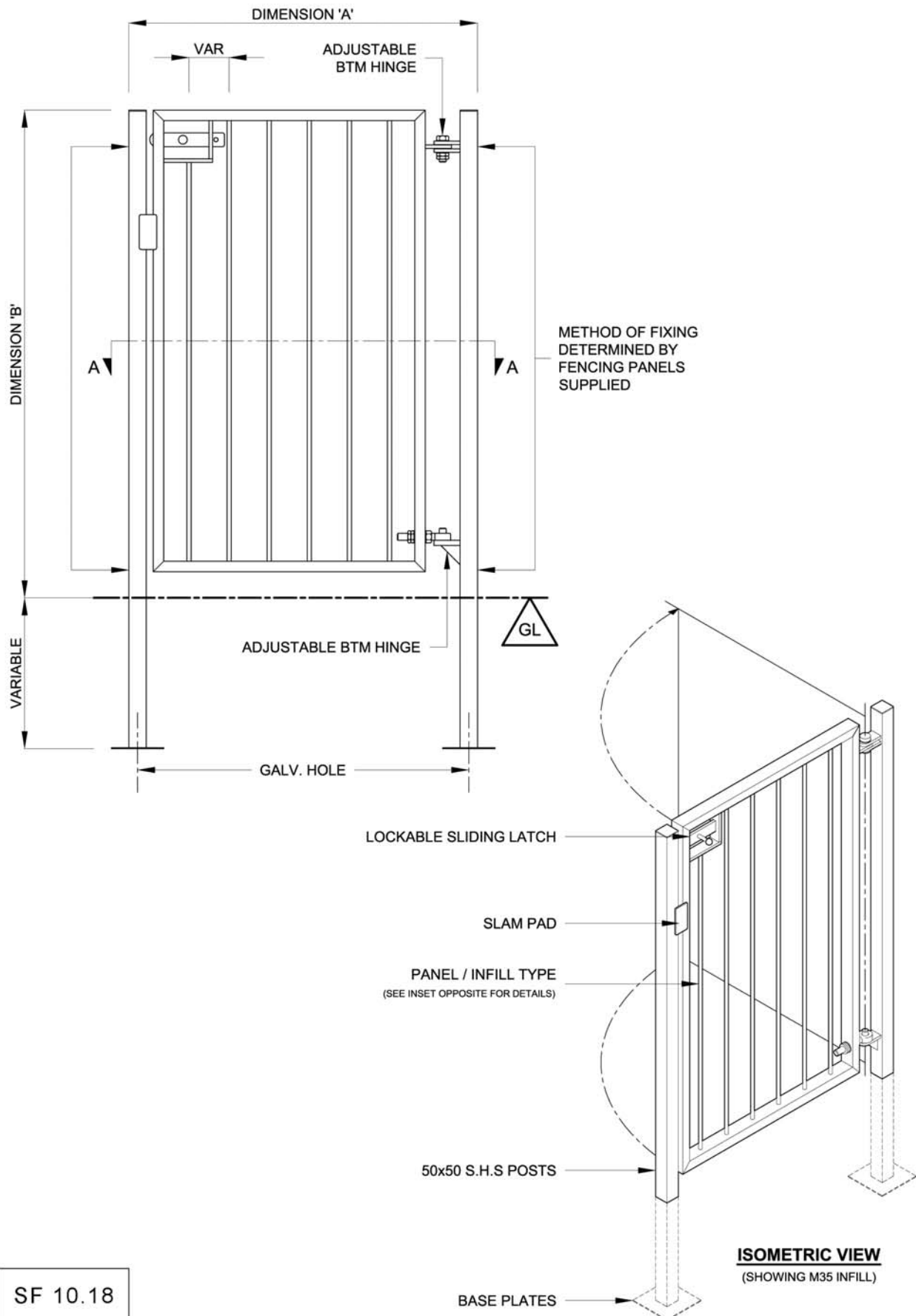
SF-RDB76/HD



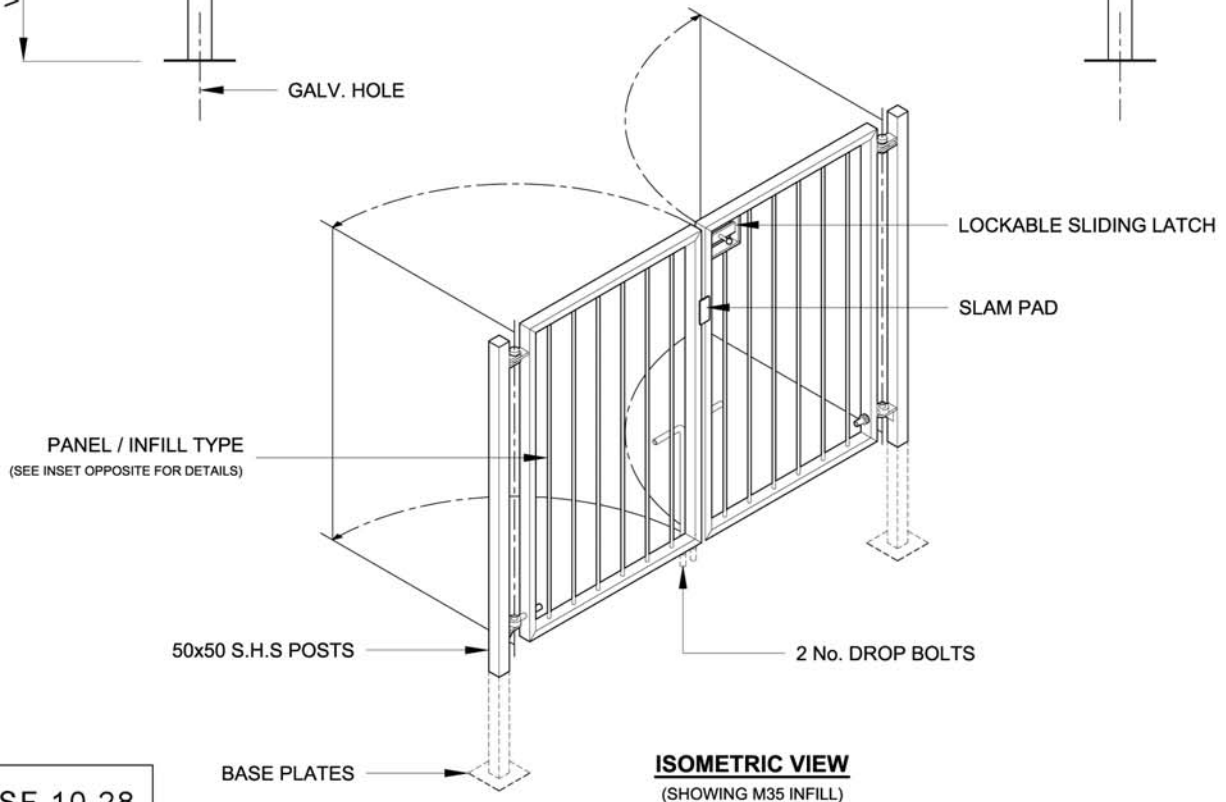
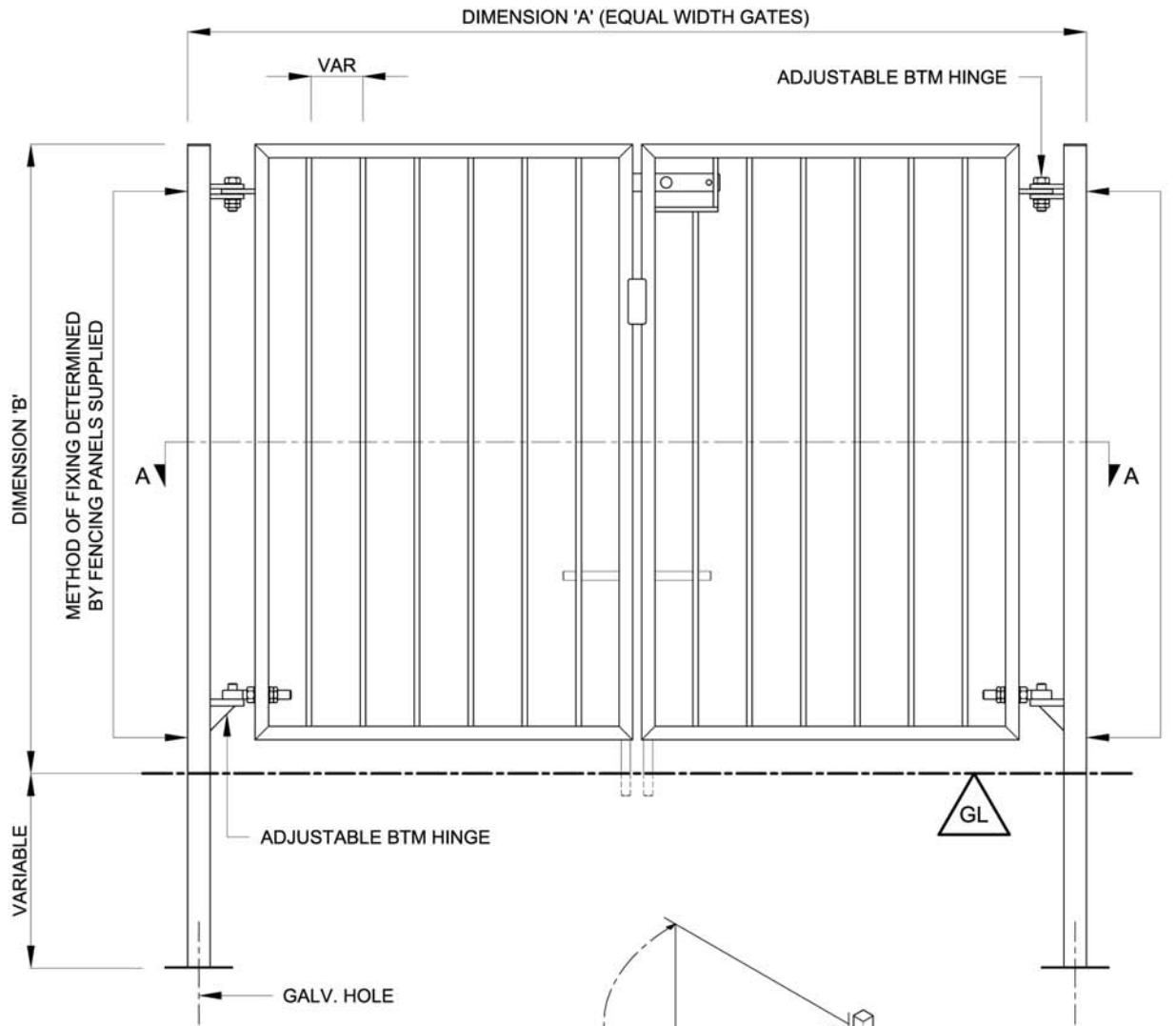
Steel hoop anti-parking barriers

Product reference	Description	Type	Section	HAG (mm)	Span (mm)	Diam (mm)	Weight (Kg)	Finish	Baseplate fix	Powder coated	Removable version	Ground fix
SF-RB60	Hoop barrier	Steel	□	500	1400	60	20	Galvanised	•	•		•
SF-RB76/HD	Hoop barrier	Steel	□	650	1400	76	25	Galvanised	•	•		•
SF-RB90/HD	Hoop barrier	Steel	□	650	1400	90	37	Galvanised	•	•		•
SF-RDB60	Hoop barrier	Steel	□	500	1400	60	28	Galvanised		•	•	•
SF-RDB76/HD	Hoop barrier	Steel	□	650	1400	76	37	Galvanised		•	•	•

▼ Single pedestrian guardrail gate

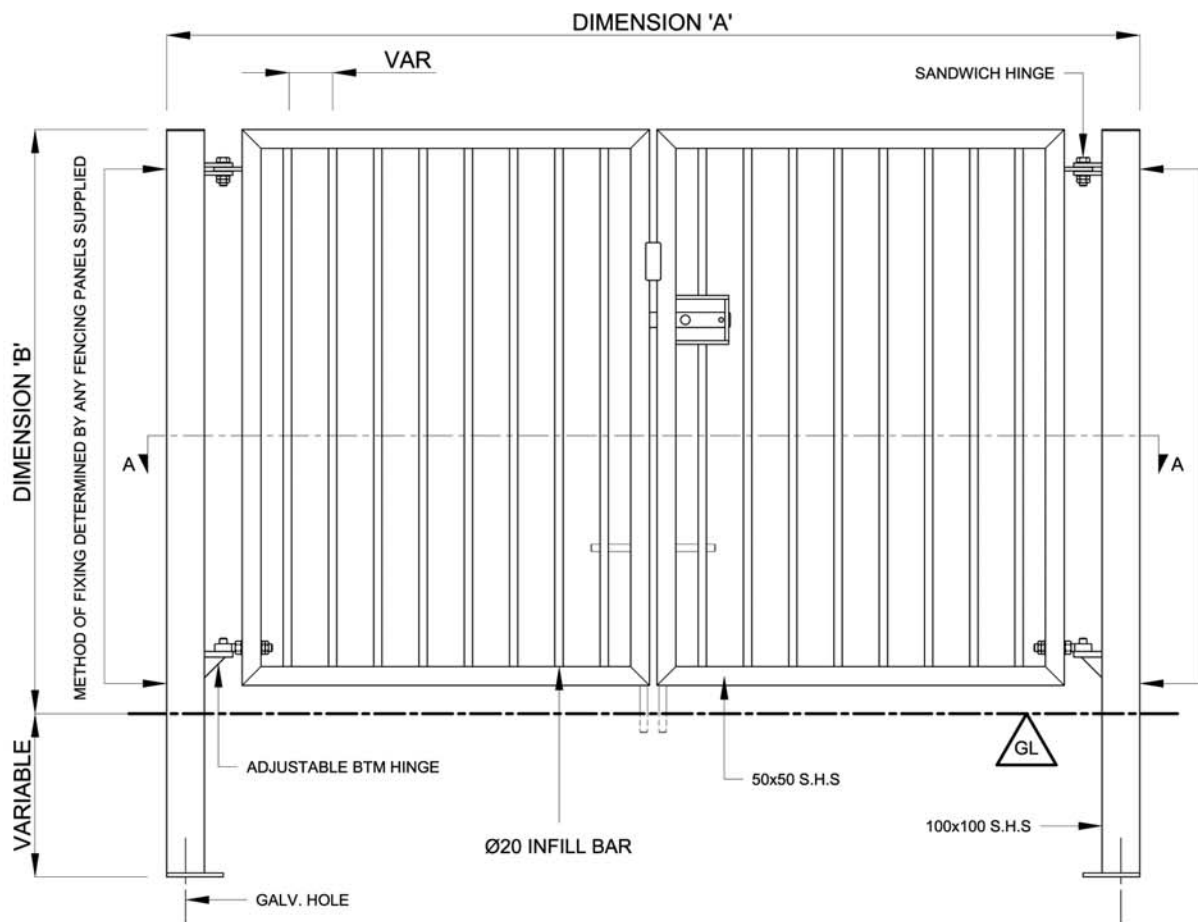


▼ Double pedestrian guardrail gate



SF 10.28

Entrance gates



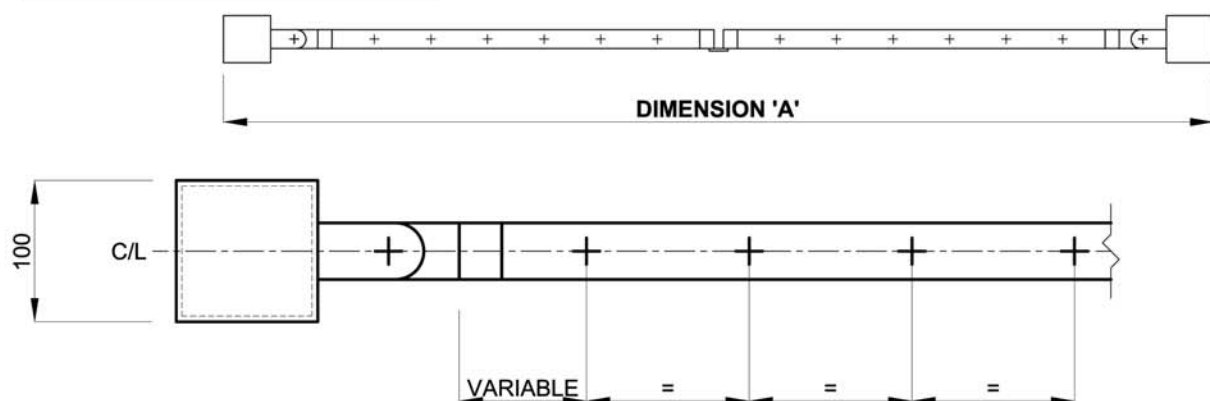
TECHNICAL NOTES:
 MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:
 GATE SET HEIGHT AND WIDTH TO SUIT CUSTOMERS
 REQUIREMENTS.

PANEL INFILL AVAILABLE:
 STANDARD INFILL (SEE BELOW)

ACCESSORIES:
 EACH GATE SET WILL BE SUPPLIED WITH 2 No. HINGE
 POSTS, SLAM PAD, ADJUSTABLE BTM HINGES DROP BOLTS
 AND A LOCKABLE SLIDING LATCH.
 SEE SECTION 10.40 FOR INFORMATION ON THESE AND
 ADDITIONAL FEATURES.

SECTION 'A-A' STANDARD INFILL PATTERN



SF 12.10

▼ Entrance gates (continued)

TECHNICAL NOTES:
 MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

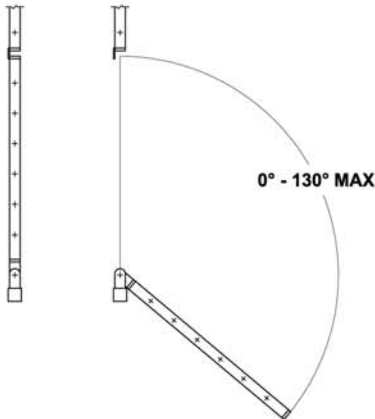
UNIT LENGTHS:
 DOUBLE GATE SETS ARE AVAILABLE IN STANDARD LENGTHS AND HEIGHTS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD GATE LENGTHS: 1000mm, 1100mm, 1200mm
STANDARD GATE HEIGHTS: 1500mm, 2000mm, 2500mm

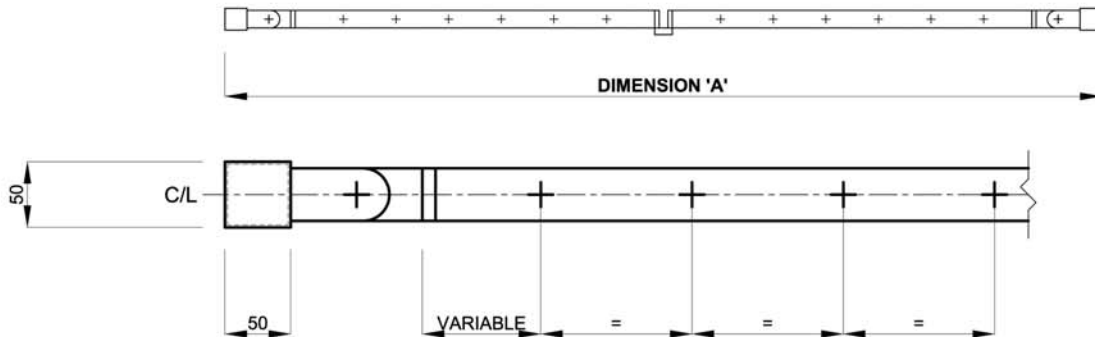
PANEL INFILL AVAILABLE:
 STANDARD INFILL (SEE BELOW)

ACCESSORIES:
 EACH DOUBLE GATE SET WILL BE SUPPLIED WITH 2 No. HINGE POSTS, SLAM PAD, ADJUSTABLE BTM HINGES DROP BOLTS AND A LOCKABLE SLIDING LATCH.
 SEE SECTION 10.40 FOR INFORMATION ON THESE AND ADDITIONAL FEATURES.

GATE / INFILL TYPE	
P35	12mm ² INFILL BAR
M35	Ø12mm INFILL BAR
R35	Ø16mm INFILL BAR
N35	Ø20mm INFILL BAR



SECTION 'A-A' STANDARD INFILL PATTERN



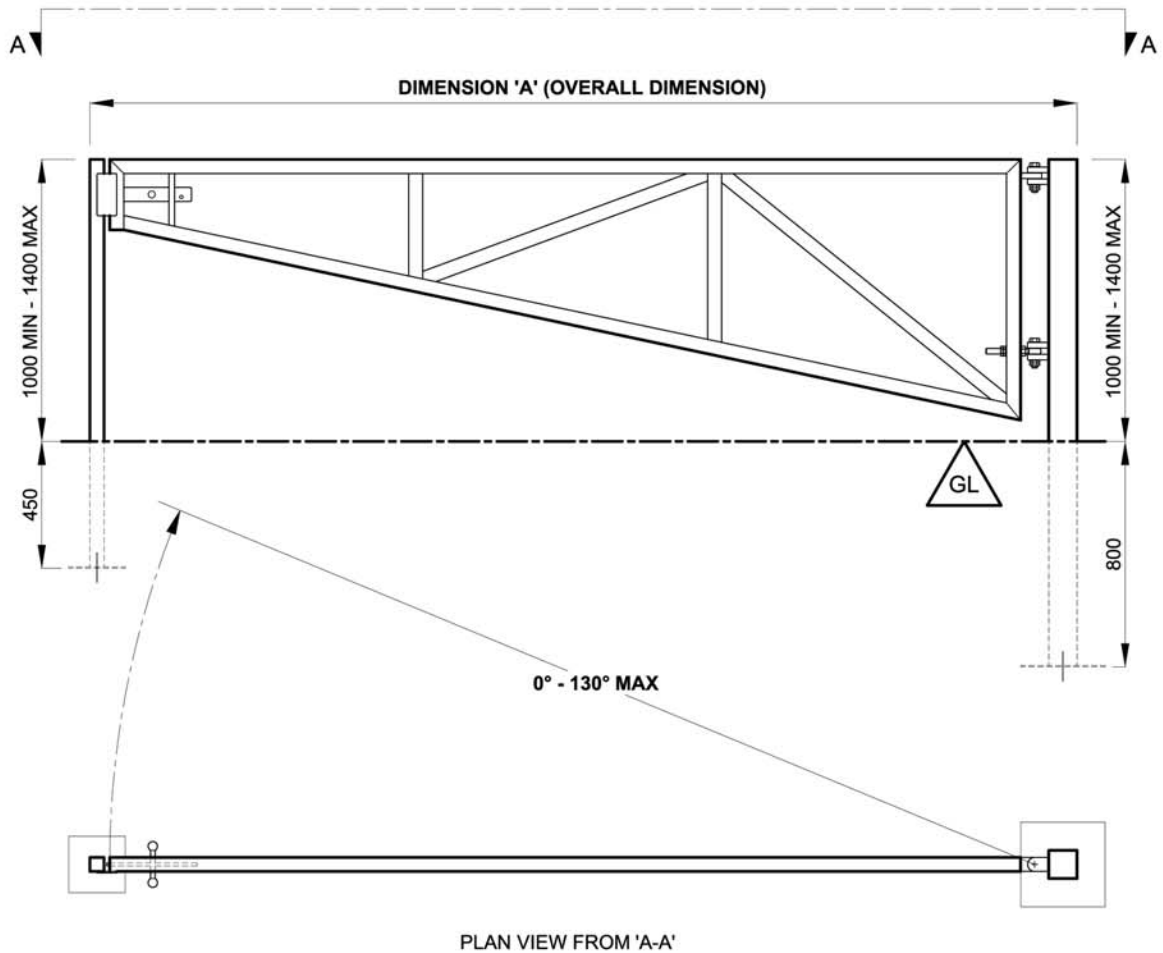
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) GATE / INFILL TYPE (P35 / M35 / R35 / N35)
- 2) OVERALL GATE WIDTH (DIM 'A' mm)
- 3) GATE HEIGHT (DIM 'B' mm)
- 3) (HIGH DOUBLE LEAF FLAT TOP GATE)

EXAMPLE: "M35 (1000mm) 1100mm HIGH DOUBLE LEAF FLAT TOP BAR GATE"

SF 10.27

▼ **Single barrier gate**



TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

SINGLE BARRIER GATES ARE AVAILABLE IN STANDARD LENGTHS AND HEIGHTS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD GATE LENGTHS: 1500mm, 2000mm, 2500mm
STANDARD GATE HEIGHTS: 1000mm, 1100mm, 1200mm

ACCESSORIES:

EACH SINGLE BARRIER GATE SET WILL BE SUPPLIED WITH 1 No. HINGE POST AND SLAM POST, SLAM PAD, ADJUSTABLE BTM HINGE AND A LOCKABLE SLIDING LATCH.

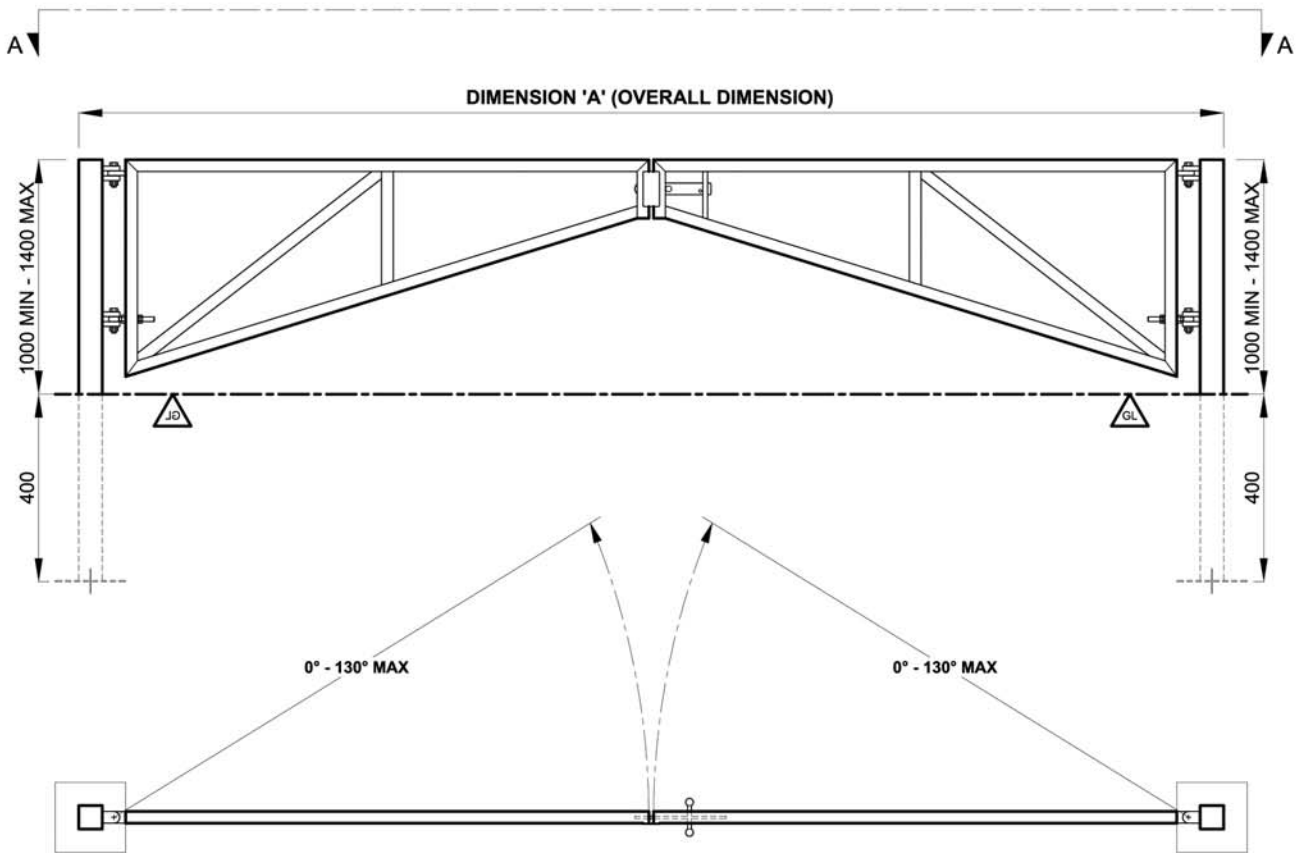
WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) OVERALL LENGTH (DIM 'A'mm)
- 2) (SINGLE BARRIER GATE)

EXAMPLE: "(3000mm) SINGLE BARRIER GATE"

SF 11.10

▼ Double barrier gate



TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

DOUBLE BARRIER GATES ARE AVAILABLE IN STANDARD LENGTHS AND HEIGHTS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD GATE LENGTHS: 3000mm, 3500mm, 4000mm
STANDARD GATE HEIGHTS: 1000mm, 1100mm, 1200mm

ACCESSORIES:

EACH DOUBLE BARRIER GATE SET WILL BE SUPPLIED WITH 2 No. HINGE POST AND SLAM POST, SLAM PAD, ADJUSTABLE BTM HINGE AND A LOCKABLE SLIDING LATCH.

WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) OVERALL LENGTH (DIM 'A')mm
- 2) (DOUBLE BARRIER GATE)

EXAMPLE: "(5000mm) DOUBLE BARRIER GATE"

SF 11.11

▼ **StreetKlamp safety barrier system**

Simple to design and specify, the modular StreetKlamp system securely joins standard sizes of structural steel tube in almost any configuration you can imagine. Assembled on site, StreetKlamp guardrailing will accommodate most variations between design drawings and site requirements.

The StreetKlamp system is cost-effective to install, with low skill, no welding and no special tools required. All fittings slip over tube and can be adjusted to the required level and positioned before tightening with a simple Hex key.

IN LINE CONSTRUCTION

Level
The universal guardrailing solution.

Ramps
Unique 0 to 11° range for in-line construction. Non-Handed fittings allow consistent alignment of grub screws.

Stairs
Maximum Strength. Minimum installation time and cost.

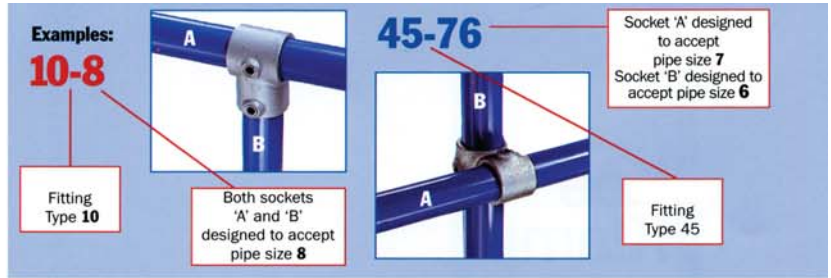
Pedestrian Guardrailing
Complies with BS7818 Clause 2.4. Each railing is individually replaceable offering large cost savings when repair is necessary.

90 Series fittings accommodate slopes up to 7° and radii greater than 6m without bending.

▼ StreetKlamp safety barrier system (continued)

► Specifying StreetKlamp fittings

Each fitting has a simple numerical code reference, which defines the type of fitting and the pipe size, or sizes, it is designed to receive. The first number, preceding the dash, identifies the type of StreetKlamp fitting. A single digit following the dash defines pipe size. Two digits following the dash indicate that the fitting is designed to receive two sizes of pipe. The StreetKlamp pipe size codes are shown on page 57.



* indicates normally used in pairs but sold & priced separately

A10 TYPE A10-7 A10-8 SPLIT TEE	A12 TYPE A12-8 45° SPLIT TEE	A21 TYPE A21-8 SPLIT CORNER CROSS	A26 TYPE A26-8 SPLIT CROSS	A35 TYPE A35-8 SPLIT TEE CROSSOVER
A40 TYPE A40-8 SPLIT 4 SOCKET CROSS	A45 TYPE A45-7 A45-8 SPLIT CROSSOVER	10 TYPE 10-7 10-2 10-75 10-3 10-76 10-4 10-78 10-5 10-8 10-6 10-87 10-65 10-9 10-67 10-98 SINGLE SOCKET TEE	12 TYPE 12-5 12-7 12-6 12-8 45° SINGLE SOCKET TEE	14 TYPE 14-4 14-7 14-5 14-8 14-6 14-9 STRAIGHT COUPLING
15 TYPE 15-4 15-7 15-5 15-8 15-6 15-9 90° ELBOW	16 TYPE 16-7 16-5 16-8 16-6 16-9 CLAMP-ON TEE	17 TYPE 17-5 17-8 17-6 17-9 17-7 CLAMP-ON CROSS OVER	18 TYPE 18-6 18-7 18-8 INTERNAL COUPLING	19* TYPE 19-5 19-8 19-6 19-85 19-7 19-9 ADJUSTABLE SIDE OUTLET TEE
20 TYPE 20-4 20-7 20-5 20-8 20-6 20-9 SIDE OUTLET ELBOW	21 TYPE 21-4 21-7 21-5 21-8 21-6 21-9 90° SIDE OUTLET TEE	25 TYPE 25-4 25-7 25-5 25-8 25-6 25-9 THREE SOCKET TEE	26 TYPE 26-7 26-4 26-8 26-5 26-87 26-6 26-9 TWO SOCKET CROSS	27 TYPE 27-6 27-8 27-7 0°-45° THREE SOCKET CUSTOM TEE
28 TYPE 28-6 28-8 28-7 0°-45° THREE SOCKET CUSTOM CROSS	29 TYPE 29-6 29-7 29-8 30°-60° SINGLE SOCKET TEE	30 TYPE 30-6 30-7 30-8 30°-45° ADJUSTABLE CROSS	31 TYPE 31-8 PALLET FLANGE	35 TYPE 35-4 35-7 35-5 35-8 35-6 35-9 SIDE OUTLET TEE
40 TYPE 40-4 40-7 40-5 40-8 40-6 40-9 FOUR SOCKET CROSS	45 TYPE 45-7 45-2 45-76 45-3 45-8 45-4 45-86 45-5 45-87 45-6 45-9 45-65 45-98 CROSSOVER	46 TYPE 46-4 46-7 46-5 46-8 46-6 46-9 COMBINATION SOCKET TEE & CROSSOVER	C50 TYPE C50-44 C50-77 C50-55 C50-88 C50-66 C50-99 SINGLE SWIVEL SOCKET	F50 TYPE F50-4 F50-7 F50-5 F50-8 F50-6 F50-9 FEMALE SINGLE SOCKET MEMBER
M50 TYPE M50-4 M50-7 M50-5 M50-8 M50-6 M50-9 MALE SINGLE SOCKET MEMBER	MH50 TYPE MH50-6 MALE SINGLE HORIZONTAL SOCKET	P50 TYPE P50-8 OFFSET FLANGE	C51 TYPE C51-777 C51-555 C51-888 C51-666 C51-999 DOUBLE SWIVEL SOCKET	M51 TYPE M51-7 M51-5 M51-8 M51-6 M51-9 MALE DOUBLE SWIVEL SOCKET MEMBER
MH51 TYPE MH51-6 MALE DOUBLE HORIZONTAL SOCKET	P51 TYPE P51-8 TWO OFFSET FLANGES	C52 TYPE C52-555 C52-777 C52-666 C52-888 CORNER SWIVEL SOCKET	M52 TYPE M52-5 M52-7 M52-6 M52-8 MALE CORNER SWIVEL SOCKET MEMBER	BC53 TYPE BC53-8 SWIVEL ELBOW

▼ Handrailing - StreetKlamp safety barrier system (continued)

<p>55</p>  <p>TYPE 55-6 55-7 55-8</p> <p>OBTUSE ANGLE ELBOW</p>	<p>56</p>  <p>TYPE 56-8</p> <p>ACUTE ANGLE ELBOW</p>	<p>P57</p>  <p>TYPE P57-7 P57-8</p> <p>CENTRAL FLANGE</p>	<p>C58</p>  <p>TYPE C58-5 C58-8 C58-6 C58-9 C58-7</p> <p>SWIVEL FLANGE</p>	<p>M58</p>  <p>TYPE M58</p> <p>BASE PLATE</p>
<p>59</p>  <p>TYPE 59-5 59-6 59-7 59-8 59-9</p> <p>SPIGOT FLANGE</p>	<p>60</p>  <p>TYPE 60-5 60-6 60-7 60-8</p> <p>EXTRA HEAVY FLANGE</p>	<p>61</p>  <p>TYPE 61-3 61-4 61-5 61-6 61-7 61-8 61-9</p> <p>FLANGE</p>	<p>62</p>  <p>TYPE 62-2 62-5 62-6 62-7 62-8 62-9</p> <p>STANDARD RAILING FLANGE</p>	<p>63</p>  <p>TYPE 63-6</p> <p>ANGLE BASE FLANGE</p>
<p>64</p>  <p>TYPE 64-6 64-7 64-8</p> <p>STANDARD VERTICAL RAILING BASE</p>	<p>65</p>  <p>TYPE 65-6</p> <p>STANDARD HORIZONTAL RAILING BASE</p>	<p>66</p>  <p>TYPE 66-6 66-7 66-8</p> <p>GROUND SOCKET</p>	<p>67</p>  <p>TYPE 67-8</p> <p>ANGLE FLANGE</p>	<p>68</p>  <p>TYPE 68-6 68-7 68-8</p> <p>WALL FLANGE</p>
<p>69</p>  <p>TYPE 69-7 69-8</p> <p>BASE FLANGE & KICK PLATE</p>	<p>70</p>  <p>TYPE 70-5 70-6 70-7 70-8</p> <p>RAIL SUPPORT</p>	<p>71</p>  <p>TYPE 71-6 71-7 71-8</p> <p>WEATHER CAP</p>	<p>72</p>  <p>TYPE 72-8</p> <p>STAIR TREAD SUPPORT</p>	<p>75</p>  <p>TYPE 75-4 75-5 75-6 75-7 75-8</p> <p>COLLAR</p>
<p>76</p>  <p>TYPE 76-5 76-6 76-7 76-8</p> <p>HOOK</p>	<p>77</p>  <p>TYPE 77-4 77-5 77-6 77-7 77-8 77-9</p> <p>PLASTIC PLUG</p>	<p>78</p>  <p>TYPE 78-5 78-6 78-7 78-8</p> <p>EYE FITTING</p>	<p>79</p>  <p>TYPE 79-7</p> <p>SHEETING CLIP</p>	<p>81</p>  <p>TYPE 81-5 81-6 81-7 81-8 81-9</p> <p>SINGLE SIDED CLIP</p>
<p>82</p>  <p>TYPE 82-5 82-6 82-7 82-8 82-9</p> <p>DOUBLE SIDED CLIP</p>	<p>83</p>  <p>TYPE 83-5 83-6 83-7 83-8</p> <p>PIN FITTING</p>	<p>84</p>  <p>TYPE 84-4 84-5 84-6 84-7 84-8 84-9</p> <p>MALLEABLE PLUG</p>	<p>86</p>  <p>TYPE 86-8 +/- 11°</p> <p>ANGLE TEE</p>	<p>87</p>  <p>TYPE 87-8 +/- 11°</p> <p>ANGLE ELBOW</p>
<p>88</p>  <p>TYPE 88-8 +/- 11°</p> <p>THREE SOCKET ANGLE TEE</p>	<p>89</p>  <p>TYPE 89-8 +/- 11°</p> <p>TWO SOCKET ANGLE CROSS</p>	<p>90</p>  <p>TYPE 90-8 +/- 7°</p> <p>PGR THREE SOCKET TEE</p>	<p>91</p>  <p>TYPE 91-8 +/- 7°</p> <p>PGR TWO SOCKET CROSS</p>	<p>92</p>  <p>TYPE 92-8 +/- 7°</p> <p>PGR ELBOW</p>
<p>93</p>  <p>TYPE 93-8 +/- 7°</p> <p>PGR TEE</p>	<p>95</p>  <p>TYPE 95-8</p> <p>PGR INTERNAL SPIGOT</p>	<p>97</p>  <p>TYPE 97-2 97-3 97-4 97-5 97-6 97-7 97-8 97-9</p> <p>SET SCREWS</p>	<p>99</p>  <p>TYPE 99-2 99-3 99-4 99-5 99-6 99-7 99-8 99-9</p> <p>HEX WRENCH</p>	<p>100</p>  <p>TYPE 100-5 100-6 100-7 100-8 100-9</p> <p>PLASTIC SET SCREW CAPS</p>
<p>105</p>  <p>TYPE 105-6 105-7 105-8 105-9</p> <p>PROFILED OR FLAT SHEETING CLIP</p>	<p>114</p>  <p>TYPE 114-2 114-3 114-4 114-7 114-8</p> <p>SWIVEL TEE</p>	<p>115</p>  <p>TYPE 115-6 115-7 115-8</p> <p>HORIZONTAL RAILING BASE</p>	<p>121</p>  <p>TYPE 121-7</p> <p>CORNER CROSSOVER</p>	<p>145</p>  <p>TYPE 145-7</p> <p>CROSSOVER COUPLING</p>

▼ Handrailing - StreetKlamp safety barrier system (continued)

Advantages:

- Save up to 50% in labour costs
- No special tools required
- No threading, welding or bolting
- Durable galvanised finish
- Simple to use
- Use ordinary 13.5mm to 60.3mm o.d. pipe
- Widest range available

The StreetKlamp fitting:

StreetKlamp fittings are iron castings manufactured to the requirements of BS EN 1562 and 1563. A range of fittings to suit eight sizes of pipe is available. A simple hexagon key is the only tool required to create a strong, rigid joint. A recessed set screw, tightened by the hexagon key, firmly locks the pipe into the fitting. The set screw is manufactured in case hardened steel and is StreetKcoat protected against corrosion.

A StreetKlamp fitting (size 5 to 9) can support an axial load of *900 kgs. per set screw with the set screw tightened to a torque of 4 kgm (29 lbs ft). This is normally obtained when the screw is fully tightened using a ratchet wrench.

(*rating includes a safety factor of 2:1)

Finishes:

StreetKlamp fittings are supplied hot dip galvanised to BS EN ISO 1461. Standard steel pipe is galvanised to the requirements of BS 1387 (ISO 65).

Colours:

In addition to the standard finish, pipe, fittings and accessories can be supplied with polyester coating in any RAL colour. The polyester coating is highly durable and is usually applied to products that are already galvanised. Should damage occur to the coating, corrosion is still prevented.

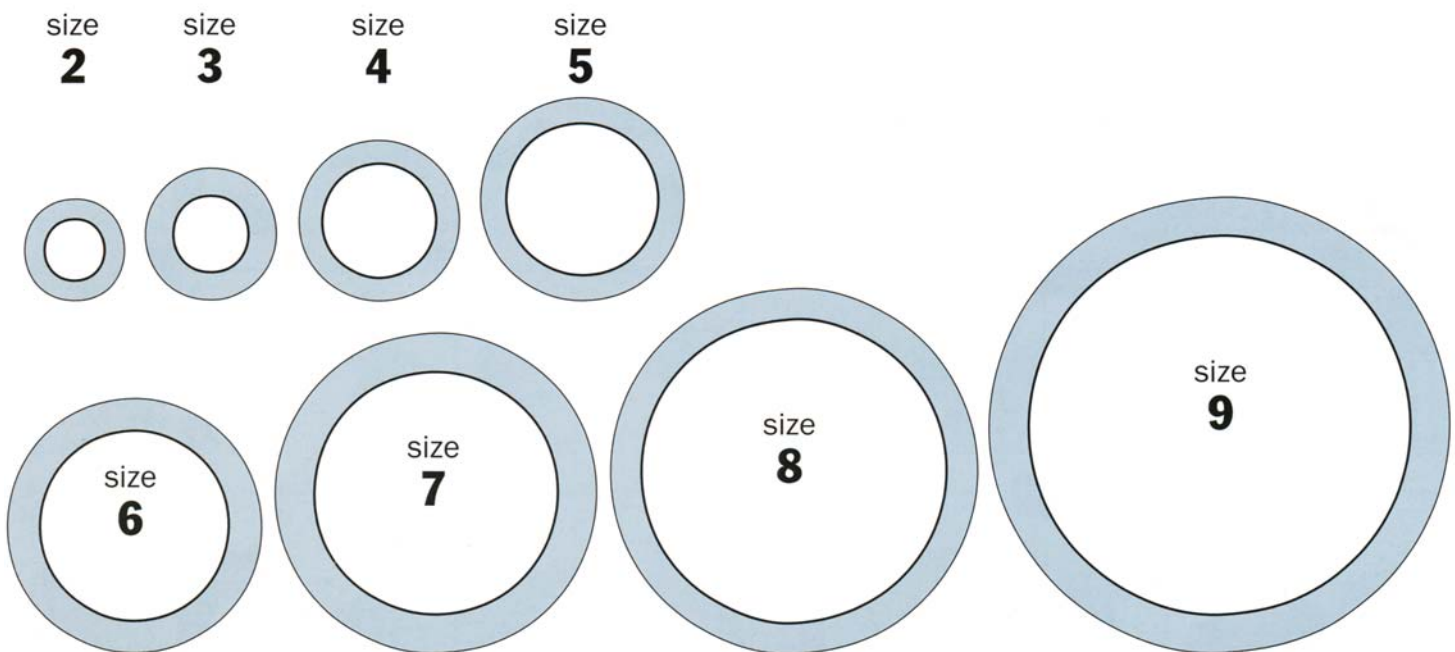
Pipe:

StreetKlamp fittings are produced in a range of standard sizes to suit BS 1387 (ISO 65) steel pipe, sizes 13.5mm to 60.3mm; also equivalent sizes of tubing in other materials.

StreetKlamp pipe size	Pipe diameter mm o.d.	Nominal bore mm	Nominal bore in
2	13.5	8	1/4
3	17.5	10	3/8
4	21.3	15	1/2
5	26.9	20	3/4
6	33.7	25	1
7	42.4	32	1 1/4
8	48.3	40	1 1/2
9	60.3	50	2

Note: Nominal bore is an arbitrary dimension because the bore varies with the wall thickness of the pipes.

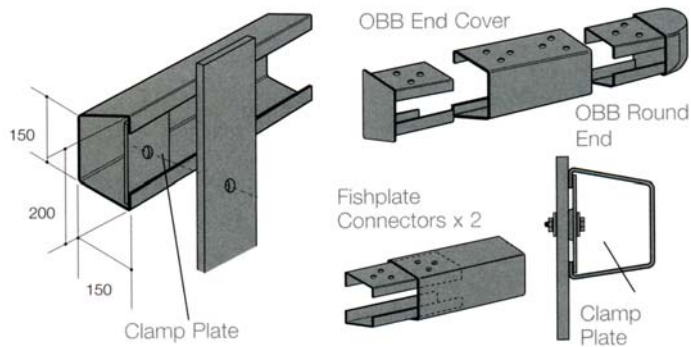
▼ StreetKlamp pipe sizes



Crash Barriers

Open box beam

Designed to prevent large fleet vehicles and HGVs from damaging property or plant due to impact, open box beam is usually floor mounted onto HDB spring steel buffers. A 5mm wall thickness on the beam ensures maximum strength whilst the profile design limits damage to vehicles. 1200mm post centres are recommended.



All dimensions in mm



▼ ► **Armco barrier**

The untensioned system is designed only for use in situations where speed limits do not exceed 50 mph.

Specification:

The main beams together with adjuster and anchorage beams are formed from stock 3mm thick steel complying with BS EN 10 025 Grade Fe 430A. Each standard beam has a 3.5m overall length (3.2m effective) and a nominal depth of 310mm.

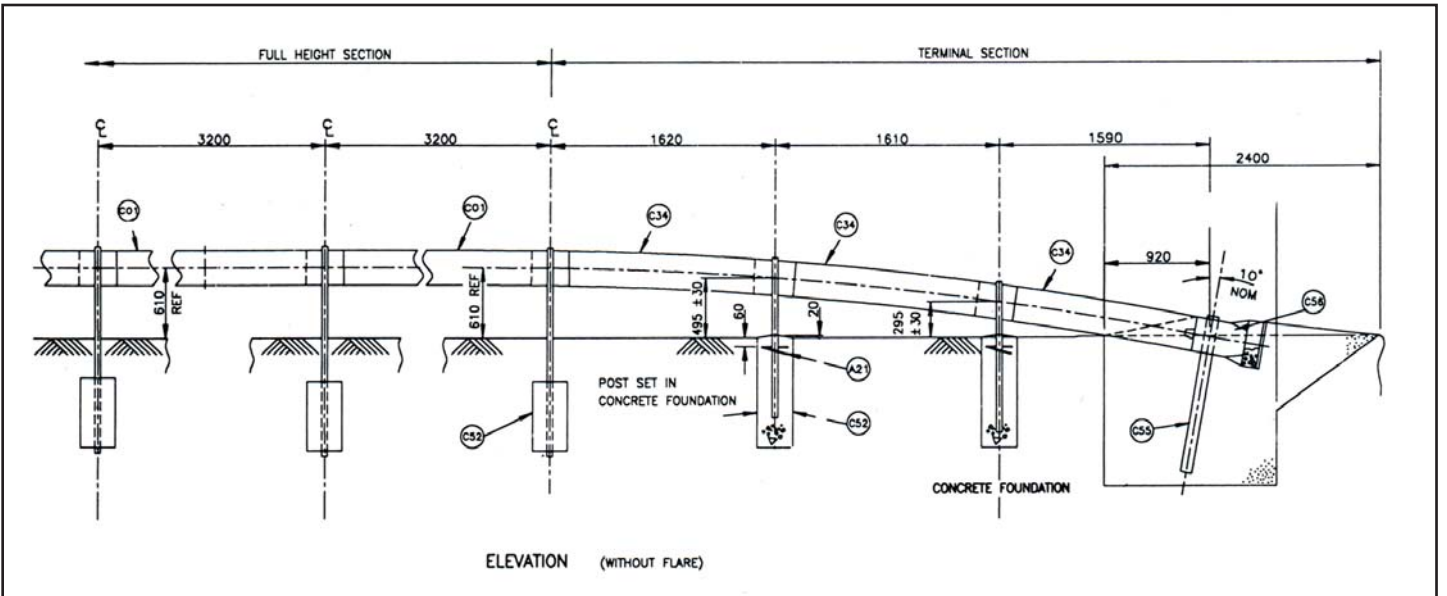
There is no restriction on the installation lengths of untensioned safety fence beams, but all approach and depart ends must be taken down to ground level with the use of a formed beam and terminated with an end shoe, subsequently filled with concrete.

Alternatively, untensioned beams can be transitioned to the open box beam series if it is intended to terminate the safety fence at a bridge parapet or structure.

Usually, untensioned beams are mounted on 125mm x 90mm steel 'Z' section posts manufactured from stock 6mm thick steel.

Normal spacing of posts is 3.2m for untensioned safety fences, but post spacing can be reduced to 1.6m centres for improved protection at special hazards or where situations restrict deflection.

For projects such as car parks, loading bays, etc. stronger SHS posts or special mounting brackets are available.



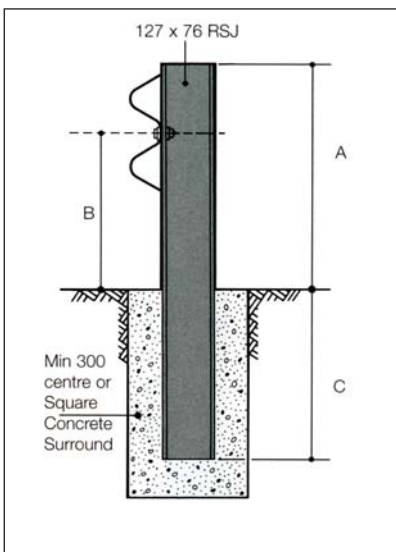
▼ Rigid steel barrier posts

In car parks or loading areas where vehicle contact is more frequent but less severe, a more rigid support is required. Rigid steel posts mounted in concrete provide an answer. Specially fabricated bolt-down posts are required when barriers are mounted on bridge decks, floor slabs or foundation blocks.

- Car parks
- Logistics depots
- Protecting structures



All dimensions in mm



◀ Rigid steel posts

Typical arrangement at RSJ post in concrete surround.

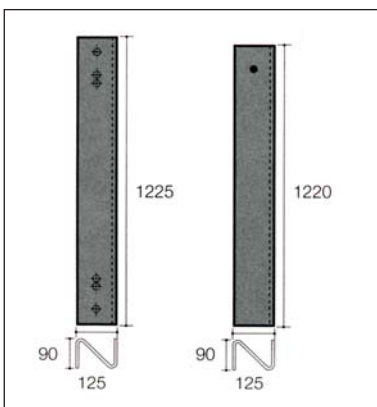
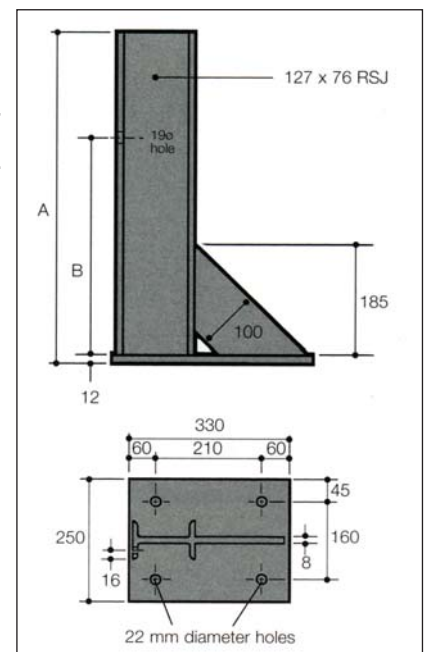
P224 Type 3/1.1			P224 Type 3/1.5		
A	B	C	A	B	C
600	430	500	800	630	700



▶ Bolt down post

P224 Type 1*		P224 Type 2	
A	B	A	B
610	440	760	570

*Car park height



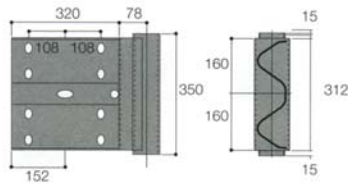
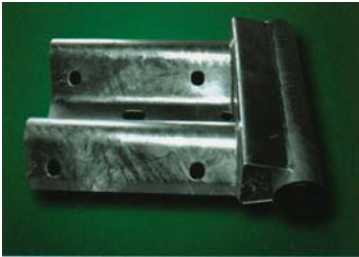
◀ 'Z' section posts

125 x 90 x 6mm 'Z' post, available in 1225mm lengths. Suitable for general contracts and for use with offset bracket.

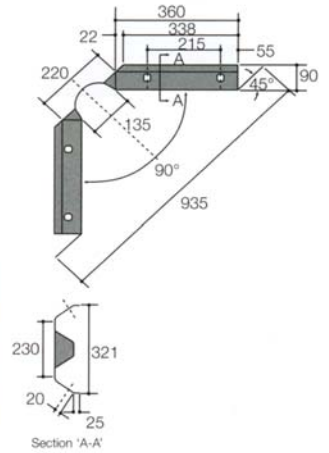
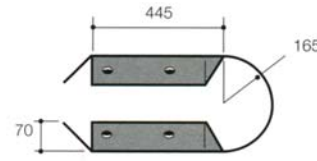
125 x 90 x 5mm 'Z' post, available in 1220mm lengths.

▼ Accessories

▼ ▶ Pedestrian terminal end

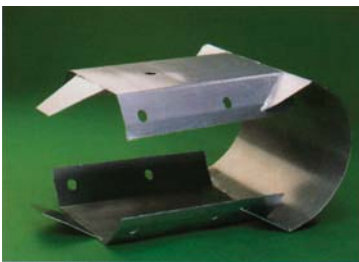


Pedestrian terminal end pieces make the transition from a deeply corrugated section with sharp ends to a safe, tubular profile with no protruding sharp edges and fitted plastic end caps. They are used primarily at the exit ends of parking spaces to protect pedestrians from injury.



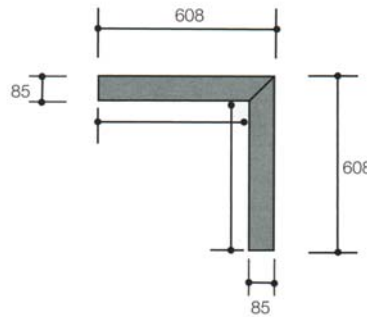
▼ Bullnose end

Flexible external corner



▼ Internal corner connector

Flexible

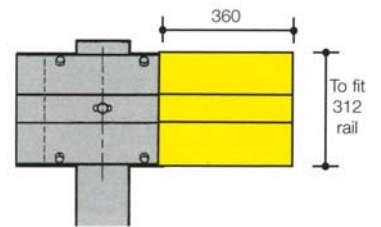


▲ Rigid external corner

Connector also available

All dimensions in mm

▼ Plastic end cap



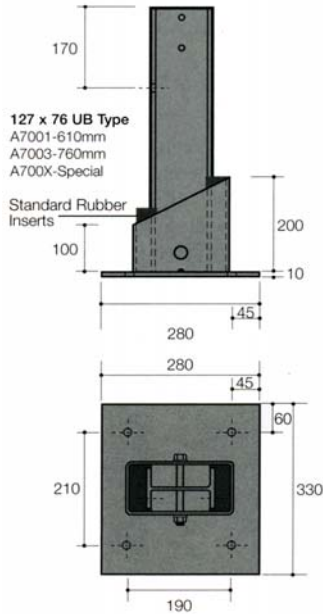
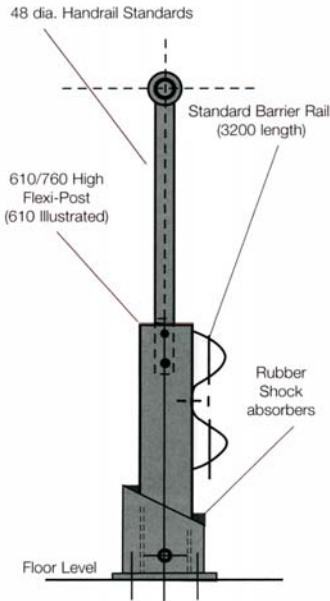
▼ Flexi-post (continued on next page)



Flexi-post barriers are manufactured using an untempered beam attached to flexible floor mounted posts. The unique engineered design allows them to be used for absorbing an impact of up to 10 tonnes. Extremely strong, easy to install and with a long operational life, Flexi-posts are the perfect protectors of people, plant and infrastructure.



Crash Barriers *(continued)*

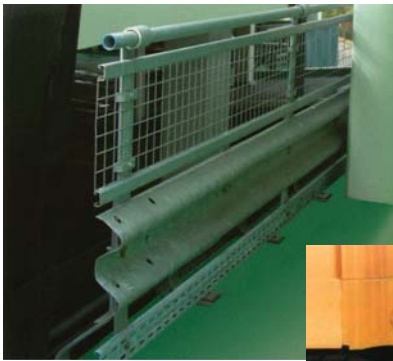


Flexi-post diagram

All dimensions in mm

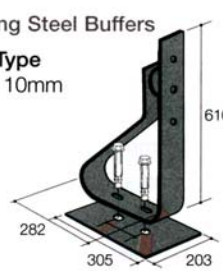
Spring steel buffers

Designed to absorb impact loads of up to 40 tonne heavy goods vehicles, these buffers will significantly reduce barrier replacement and maintenance cost.

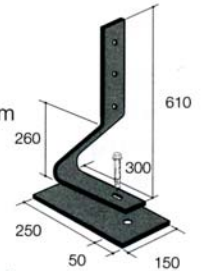


Spring Steel Buffers

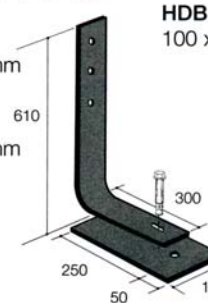
GH Type
76 x 10mm



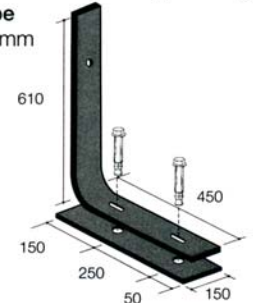
RB1X Type
100 x 14.3mm
foot length 300mm
Also available
76 x 12.7mm
foot length
200mm



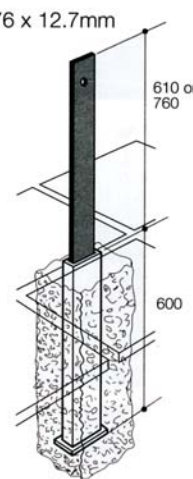
RB1 Type
100 x 14.3mm
foot length 300mm
Also available
76 x 12.7mm
foot length 200mm



HDB Type
100 x 20mm

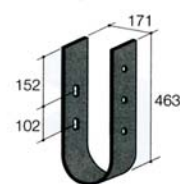


Planted Post Buffer
complete with Sheath
76 x 12.7mm

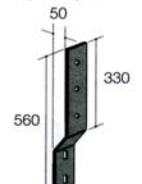


Wall Mounted Buffers

WH Type
76 x 10mm

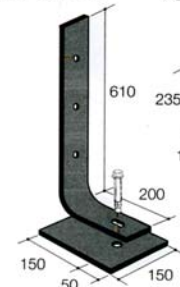


WB1 Type
76 x 10mm

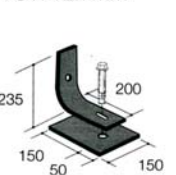


Warehouse Rail Buffers

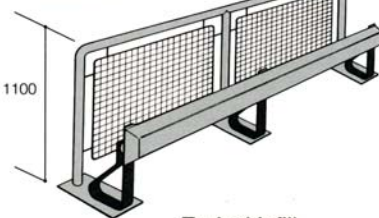
RB610
76 x 12.7mm



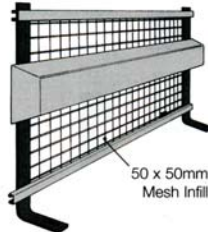
RB235
76 x 12.7mm



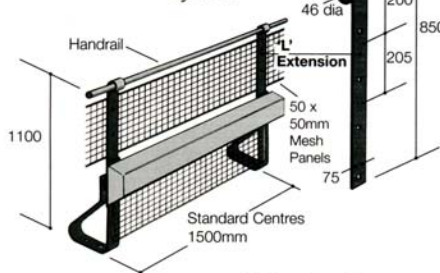
Combined Beam & Balustrade



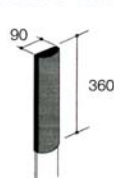
Split Level Protection



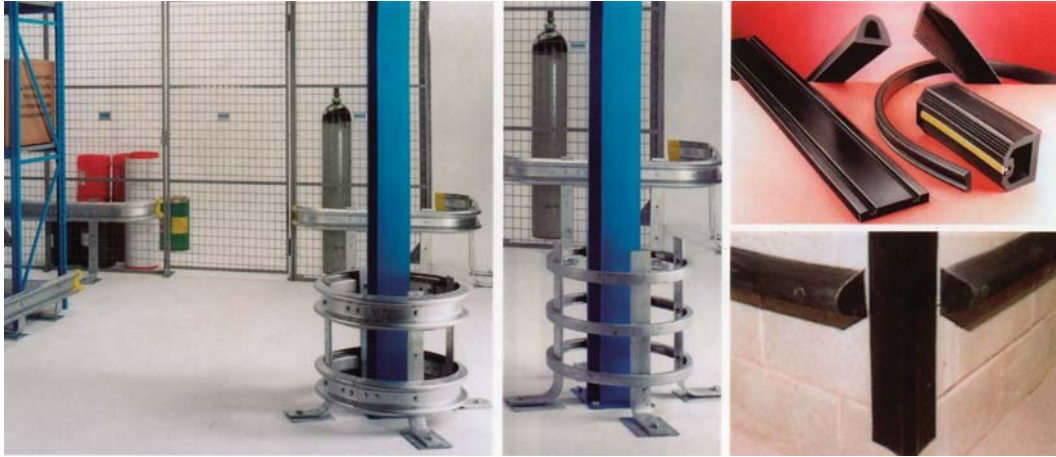
Typical Infill System



Nudge Protection - Rubber Sleeve



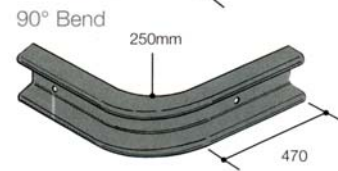
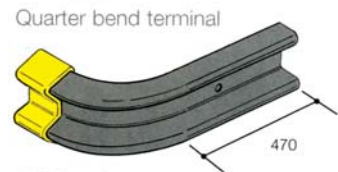
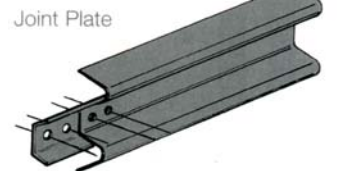
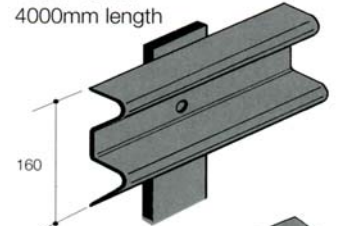
All dimensions in mm



▼ Warehouse rail

This comprehensive range of rails and fixings is aimed at providing protection from lighter vehicle impact - such as fork lifts and other pallet movers. The wide component range ensures that full protection can be achieved for virtually every application. A maximum of 1500mm post centres are recommended.

160 x 40mm
4000mm length

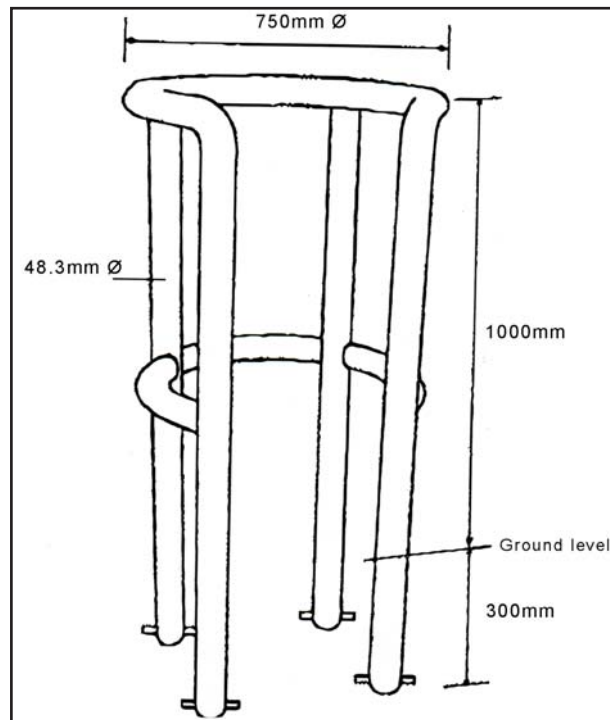


◀ ▲ Column protection

Column protection units can be supplied in diameters as low as 500mm and are an ideal, cost-effective method of protecting lighting columns, structural columns, racking supports or similar. They are also available in a lightweight monostrut construction that can be installed down to as little as 400mm diameter.

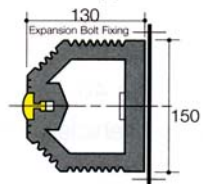


▼ Prefabricated column protector



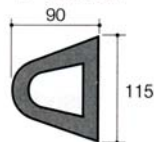
▼ Rubber barrier protection systems

Kerb Stopper



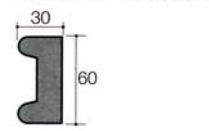
Standard length: 2500mm
Material: EPDM Rubber

'D' Section



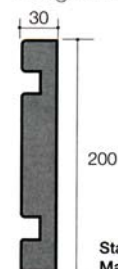
Standard length: 3000mm
Material: EPDM Rubber

Double 'D' Section



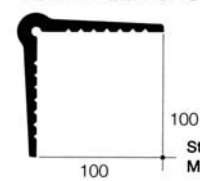
Standard length: 6000mm coil
Material: EPDM Rubber

Wallguard Section



Standard length: 3000mm
Material: EPDM Rubber

Column Corner Guard



Standard length: 1200mm
Material: EPDM Rubber

All dimensions in mm

► Security Fencing



▲ ► Palisade security fencing

Available in heights 1.2m, 1.5m, 1.8m, 2.0m, 2.1m, 2.4m and 3.0m. Pale tops can be triple pointed, single pointed, square topped or rounded and notched tops. Horizontals come in four standard sizes according to height:

40 x 40 x 6 RSA

45 x 45 x 6 RSA

50 x 50 x 6 RSA

65 x 50 x 6 RSA

Posts available in 102 x 44 x 7.44 Kg/m or 127 x 76 x 13 Kg/m with welded fishplates as shown or slotted c/w loose fishplates and can be concreted in, base plated for bolting down or cranked. Posts can be vertically extended to take barbed wire or razor wire.

Panels are easily raked to allow for most site conditions. All fixings are anti vandal.

Finish is in galvanised or galvanised and powder coated in a wide range of colours to meet your scheme's needs.

Palisade D profile

Pales come in three thicknesses:

3.0mm general purpose in BS 1722 Part 12

3.5mm security purpose

4.0mm security purpose in BS 1722 Part 12

Palisade W profile

Pales come in three thicknesses:

2.0mm commercial specification

2.5mm general purpose to BS 1722 Part 12

3.0mm security purpose to BS 1722 Part 12



▼ ► Highway bridge parapets

All bridge parapet railing is designed to Department of Environment Technical Memorandum (Bridges) No. B.E.5. It conforms to BS 6779 and is manufactured using rectangular hollow section for high strength/weight ratio with limited deflection - the ideal combination for highway bridge parapet.

Design falls into the following categories:

Group P1: Vehicle parapets for bridges carrying motorways or roads to motorway standards.

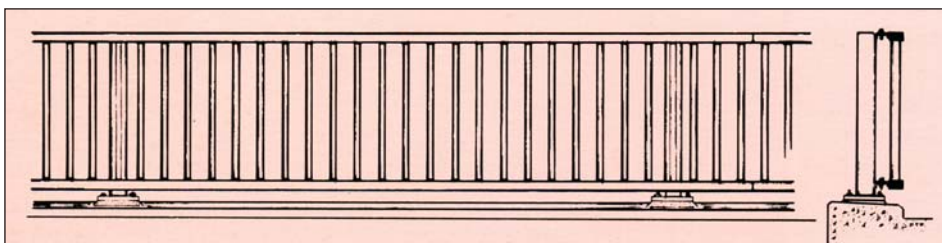
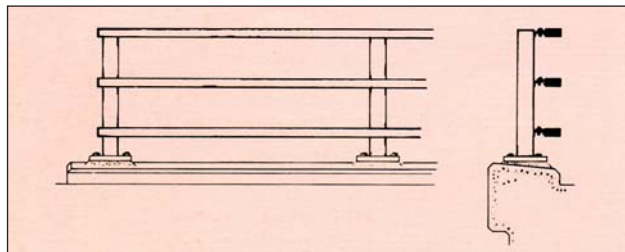
High Containment: Vehicle parapets for motorway or roads to motorway standards where "High Containment" of heavy vehicles in excess of P1 standards is desired.

Group P2: Vehicle pedestrian parapets for bridges carrying all purpose roads; also accommodation bridges.

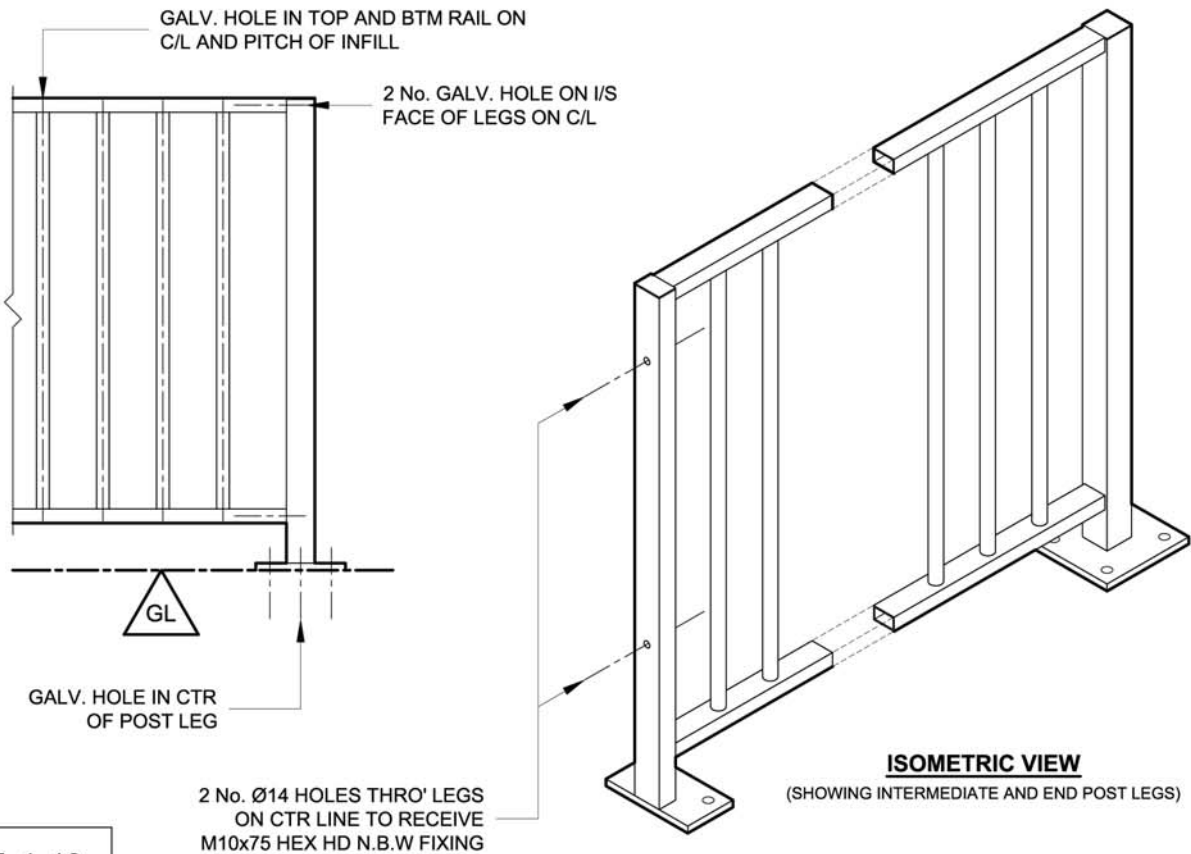
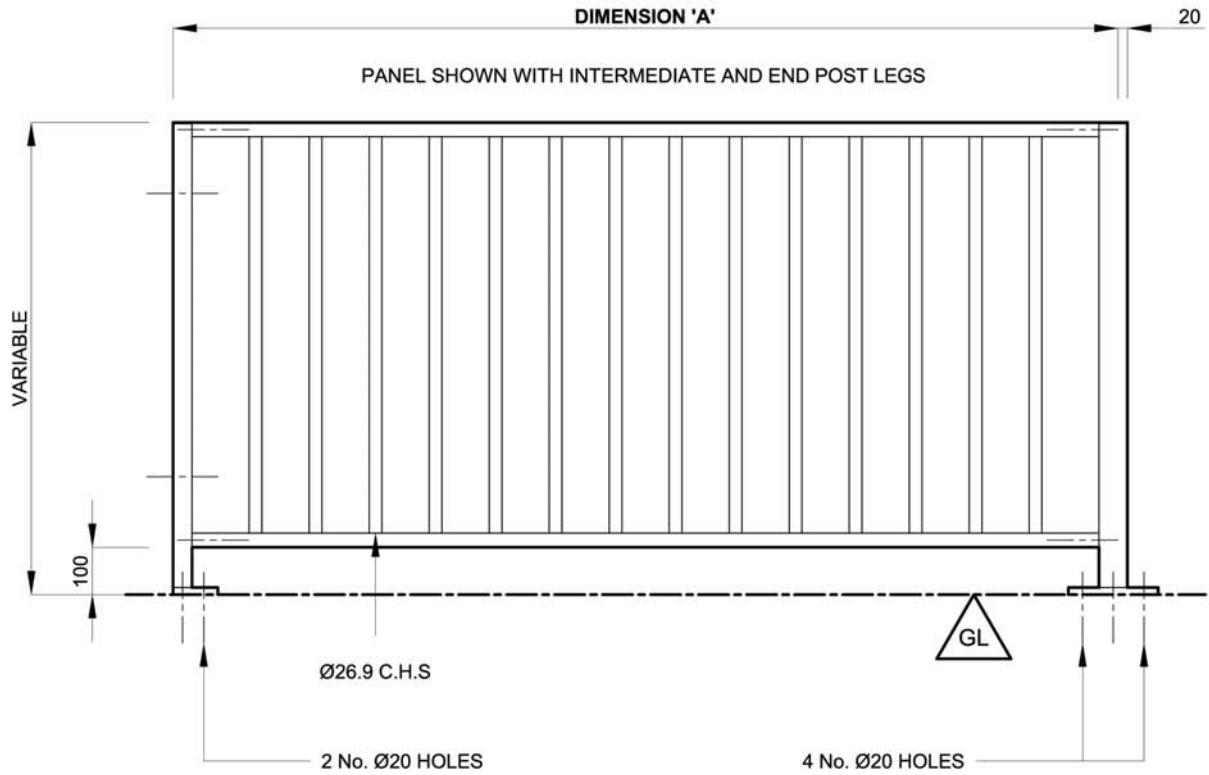
Group P4: Pedestrian parapets for use on footbridges.

Group P5: Variations of the P1, P2 and P4 parapet for bridges crossing over railways.

The standard finish on all types of highway bridge parapet is galvanised to BS 729 after manufacture, but if required the sections can be supplied in a primed condition for subsequent in-situ painting.



▼ P4 guardrail



SF 4.40

▼ P4 guardrail (continued)

TECHNICAL NOTES:

MATERIALS SPECIFICATIONS TO **BSEN10025/BSEN10219**
 VERTICAL BAR INFILL AND PITCHES TO **BS1722 Part 9**
 GALVANIZED FINISH TO **BSEN1461:1999**

UNIT LENGTHS:

GUARDRAIL PANELS ARE AVAILABLE IN STANDARD LENGTHS (SEE BELOW), AND CAN BE ORDERED IN NON STANDARD LENGTHS TO SUIT.

STANDARD PANEL LENGTHS: 1000mm, 1829mm (6'0"), 2000mm

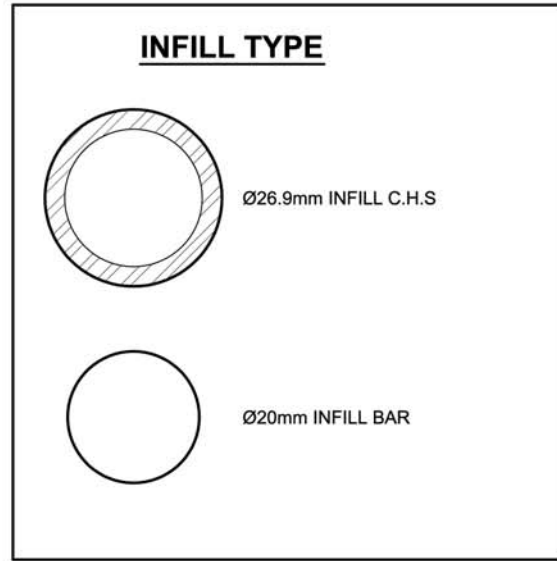
PANEL INFILL AVAILABLE:

STANDARD INFILL / STAGGERED INFILL (SEE BELOW)

FOR INFORMATION ON CHOOSING THE CORRECT INFILL PATTERN SEE SECTION 4.70

ACCESSORIES:

EACH PANEL WILL BE SUPPLIED WITH 4 No. M10x90 or M10x75
 N.B.W. FIXINGS AS APPROPRIATE.



MATERIALS:

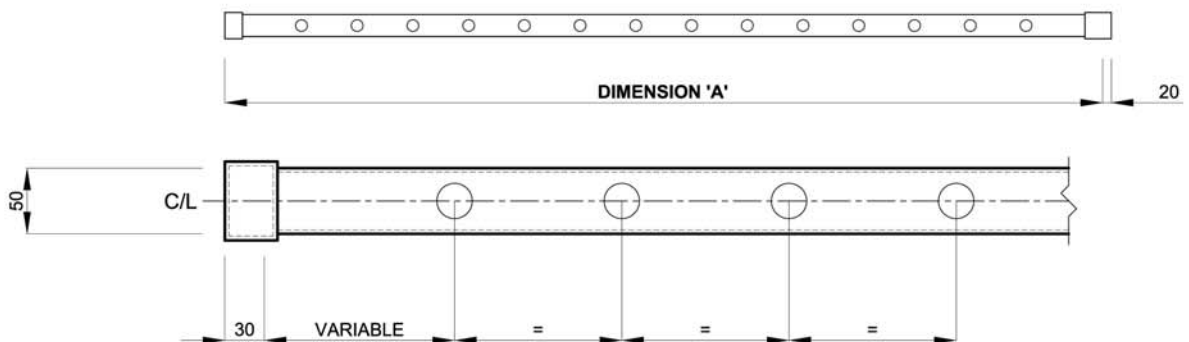
PANEL SECTION: 50x30 R.H.S

INTERMEDIATE POST: 60x40 R.H.S

END POST: 60x60 S.H.S

BASE PLATES: 200x200x15 & 200x100x15 DEPENDANT ON POST TYPE

SECTION 'A-A' STANDARD INFILL PATTERN



WHEN SPECIFYING YOUR ORDER PLEASE USE THE FOLLOWING PRODUCT CODE MATRIX:

- 1) (P4)
- 2) OVERALL PANEL LENGTH (DIM 'A' mm)
- 3) INFILL TYPE (Ø26.9 INFILL / Ø20 INFILL)
- 4) PANEL CONFIG (SINGLE PANEL / INTERMEDIATE PANEL / END PANEL)

EXAMPLE: "P4 (2000mm) Ø26.9 INFILL END PANEL "

SF 4.41

W

ith a highly knowledgeable sales team available to assist with any project at any stage from design through implementation and to completion, and access to a wide range of production facilities, we are committed to providing the complete supply service to our customers.

Based in Berkshire at the heart of the motorway network of the M4, M40 and M25, Street Furnishings Ltd is ideally placed for rapid dispatch of goods from its well stocked warehouse to all parts of the United Kingdom and Ireland - from the Channel Islands to the north of Scotland and from East Anglia to the west of Ireland.

Contact the sales office to speak to people who understand the needs of governmental and local authorities as well as contractors. Or visit the web site for more details of our extensive product range.



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