**Q34 Balustrades**

**Supplied by Lang+Fulton (formerly Orsogril UK)**

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**Product Types**

Steel grating balustrade panels designed in accordance with BS 6399-1:1996 paragraph 12 Table 4 – Minimum horizontal imposed loads for parapets, barriers and balustrades.

**1. Stretto-11**

**2. Stretto-22**

**3. Stretto-33**

**4. Terra-34**

**5. Terra-25**

**6. Piazza-44**

**7. Micro-34**

 **Other products**

Contact Lang+Fulton’s Technical Office

**1. Stretto-11**

**Stretto-11:** grating with aperture of 132x11mm, made up of 25x2mm vertical flat bars at 132mm centres and 10x2mm horizontal flat bars at 11mm centres. Panels are framed by welding flat bars to all four sides. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Pressure Locked steel S235JR

**Panel Dimensions**

Height is a multiple of 11mm up to a maximum of approximately 2000mm. The maximum width of the grating is 2000mm.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

a) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

b) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) welding 50x25x3mm holed plates behind two of the horizontal flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**2. Stretto-22**

**Stretto-22:** grating with aperture of 132x22mm, made up of 25x2mm vertical flat bars at 132mm centres and 10x2mm horizontal flat bars at 22mm centres. Panels are framed by welding flat bars to all four sides. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Pressure Locked steel S235JR

**Panel Dimensions**

Height is a multiple of 22mm up to a maximum of approximately 2000mm. The maximum width of the grating is 2000mm.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting 50x20x3mm holed plates within the depth of the grating, which are welded between two of the horizontal flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**3. Stretto-33**

**Stretto-33:** grating with aperture of 132x33mm, made up of 25x2mm vertical flat bars at 132mm centres and 10x2mm horizontal flat bars at 33mm centres. Panels are framed by welding flat bars to all four sides. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Pressure Locked steel S235JR

**Panel Dimensions**

Height is a multiple of 33mm up to a maximum of approximately 2000mm. The maximum width of the grating is 2000mm.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting 50x31x3mm holed plates within the depth of the grating, which are welded between two of the horizontal flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**4. Terra-34**

**Terra-34:** grating with aperture of 34x100mm, made up of 25x2mm vertical flat bars at 34mm centres and 4mm diameter horizontal round bars at 100mm centres. Panels are framed top and bottom by steel sections of flat bars or rectangular or square tubular hollow sections. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Electrofused steel S235JR

**Panel Dimensions**

Height is a multiple of 100mm up to a maximum of approximately 3000mm. The maximum width of the grating is 1000mm giving a maximum panel width of 1100mm. If required, panel widths greater than 1100mm are made from two equal pieces of grating with a 32mm gap which provides a continuity of 34mm centres for the vertical flat bars across the width of the panel.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting small plates within the depth of the grating, which are welded between two of the vertical flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**5. Terra-25**

**Terra-25:** grating with aperture of 25x76mm, made up of 25x2mm vertical flat bars at 25mm centres and 4mm diameter horizontal round bars at 76mm centres. Panels are framed top and bottom by steel sections of flat bars or rectangular or square tubular hollow sections. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Electrofused steel S235JR

**Panel Dimensions**

Height is a multiple of 76mm up to a maximum of approximately 3000mm. The maximum width of the grating is 1000mm giving a maximum panel width of 1100mm. If required, panel widths greater than 1100mm are made from two equal pieces of grating with a 23mm gap which provides a continuity of 25mm centres for the vertical flat bars across the width of the panel.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting small plates within the depth of the grating, which are welded between two of the vertical flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**6. Piazza-44**

**Piazza-44:** grating with aperture of 43x44mm, made up of 25x2mm vertical flat bars at 43mm centres and 4mm diameter horizontal round bars at 44mm centres Panels are framed top and bottom by steel sections of flat bars or rectangular or square tubular hollow sections. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Electrofused steel S235JR

**Panel Dimensions**

Height is a multiple of 44mm up to a maximum of approximately 3000mm. The maximum width of the grating is 1894mm giving a maximum panel width of 1982mm.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting small plates within the depth of the grating, which are welded between two of the vertical flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2

**7. Micro-34**

**Micro-34:** grating with aperture of 100x34mm, made up of 25x2mm horizontal flat bars at 34mm centres and 4mm diameter vertical round bars at 100mm centres. The panels are framed at each side with flat bars or rectangular or square tubular hollow sections. The chosen section will depend on the width of the panel and the imposed load.

**Manufacture & Material**

Electrofused steel S235JR

**Panel Dimensions**

Height is a maximum of approximately 1000mm. The maximum width of the grating is 1500mm.

**Finishing**

Options:

a) hot dipped galvanized to BS EN ISO 1461

b) hot dipped galvanized to BS EN ISO 1461 and polyester powder coated to BS EN 13438 in any standard RAL colour

c) zinc electrocoated and polyester powder coated in standard RAL colour – suitable for internal applications

**Fixing Methods**

Panels are provided with fixing positions which are designed to suit the post or structural opening in which the panel is to be placed.

Typical solutions are:

a) extending and holing the top and bottom framing bars beyond the width of the grating,

b) drilling holes in the two outside vertical flat bars of the grating to provide a lateral fixing,

c) inserting small plates within the depth of the grating, which are welded between two of the vertical flat bars

The number of fixings will depend on the panel size – four or six is normal

**Installation**

**Fastenings:** panels fixed to posts with M10 stainless steel bolts with domed heads and snap-off security nuts, all stainless steel grade A2