

# LANGFULTON



## Case Studies

### Steel Louvred Screening Systems

**Plant Housing | Bin Stores | Perimeter Fencing | Wall Cladding  
Brise Soleil | Balconies & Balustrades | Compounds | Ventilation Grilles**

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Italia-100



Italia-80



DeltaWing-90



DeltaBox-70



Italia-100: 69mm profiled louvres set at 46mm centres  
Visual Screening: 100% Free Area: 29%

Italia-80: 50mm profiled louvres set at 46mm centres  
Visual Screening: 80% Free Area: 36%

DeltaWing-100/DeltaBox-100: angled flat bars at 22mm centres  
Visual Screening: 100% Free Area: 60%

DeltaWing-90/DeltaBox-90: angled flat bars at 33mm centres  
Visual Screening: 90% Free Area: 63%

DeltaWing-70/DeltaBox-70: angled flat bars at 44mm centres  
Visual Screening: 70% Free Area: 65%

DeltaWing-45/DeltaBox-45: angled flat bars at 66mm centres  
Visual Screening: 45% Free Area: 66%

DeltaWing-34/DeltaBox-34: angled flat bars at 88mm centres  
Visual Screening: 34% Free Area: 67%



## JAGUAR LAND ROVER

**Product:** Italia-100  
Compounds for waste, chiller plant, data centre, filter mist and smoking shelter.

**Finish:** Galvanized and polyester powder coated RAL7016

**Project:** Jaguar Land Rover's new £500 million engine manufacturing facility is situated close to the M54 outside Wolverhampton. As it was impractical to install a perimeter fence for adequate screening from the motorway, Lang+Fulton supplied 5 separate compounds with double and single leaf gates made from 400 linear metres of Italia-100 louvres.

**Architect:** Arup Associates



## DUNFERMLINE HIGH SCHOOL

**Product:** Italia-80  
Roof-top screen

**Finish:** Galvanized and polyester powder coated RAL9022

**Project:** A new environmentally-friendly £40 million building with a projected occupancy of 1,800 pupils. The 2.7x1.65mm panels were supplied with angled frames and fixed to 3 horizontal rails which were attached to the structural framework. The school was awarded Best Education and Community Building by The Royal Incorporation of Architects in Scotland.

**Architect:** Fife Council Property Services



## THE FORT, RETAIL PARK

**Product:** DeltaWing-90  
Wheelie bin store.

**Finish:** Hot-dip galvanized

**Project:** The Fort is a large 'out of town' shopping and leisure park located just outside Glasgow. The park incorporates a 'two-sided mall design' intended to recreate a traditional high street. At the end of 2013 Phase 2 of the development included 5 new restaurants and multi-screen cinema. The wheelie bin store was installed to cater for the discreet storage of the additional waste.



## GREAT WESTERN STUDIOS NOTTING HILL

- Product:** Italia-80  
Custom-sized panels on a support structure designed by Big-Foot Systems which ensured that there was no penetration of the surface roof membrane
- Finish:** Galvanized and polyester powder coated RAL7043
- Project:** 107 workspaces for artists. The panels formed an effective visual screen to the roof-mounted air conditioning plant and ancillary services, which met with the approval of the local Planning Authority. The free area was an important factor in reducing the potential wind loading.
- Architect:** Glenn Howells



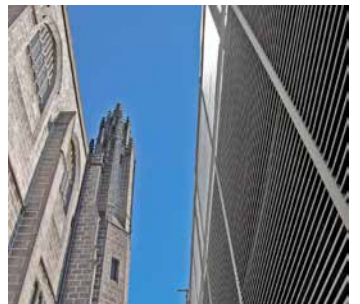
## THE ROCK, BURY

- Product:** Italia-80 and Italia-100  
Secure screening and ventilation to electricity sub-stations.
- Finish:** Galvanized and polyester powder coated RAL7022
- Project:** A 1.6million sq ft mixed use development. Lang+Fulton supplied 300m2 of custom-sized panels together with 20 sets of doors for the street-front elevations of the electricity sub-stations. These were made to fit the structural openings with concealed ancillary steelwork. 2.8m high Talia-80 was also used in the car park to create an internal visual screen
- Architect:** BDP



## MARISCHAL COLLEGE ABERDEEN CITY COUNCIL

- Product:** Italia-80  
Wall cladding providing visual screening of car park.
- Finish:** Galvanized and polyester powder coated RAL7040
- Project:** A new 4-storey car park to service an adjacent refurbished Grade A listed building. 716m2 of panels were supplied to a standard design with custom-sized closing panels. These were fixed to 100x50RHS posts centred at 1.7m which were attached to the main structural steel framework. There were 3 fire exit doors with self-closing devices.
- Architect:** Holmes Partnership. The design was worked up jointly with Lang+Fulton.





## NORTH KENT POLICE HQ

**Product:** Italia-100  
154m perimeter fencing, 2270mm high; 40m fencing, 3000mm high around generator plant; 3 sliding and 2 double-leaf gates

**Finish:** Galvanized and polyester powder coated RAL7024

**Project:** A landmark building of 11,500m<sup>2</sup> at Ebbsfleet Valley, Kent. The louvred fencing supplied by Lang+Fulton was mounted on a dwarf wall to protect against the possibility of ramming by carjackers and was required to provide a high level of security and visual screening .

**Architect:** Glenn Howells



## 661 LONDON ROAD, ISLEWORTH, LONDON BOROUGH OF HOUNSLOW

**Product:** Italia-80  
250m balustrading; 3 compounds around ventilation plant and service areas, seven single-leaf gates for maintenance access

**Finish:** Galvanized and polyester powder coated RAL7016

**Project:** Housing development featuring three communal roof gardens. The 1200x1642mm panels were framed with 50x50x3mm angles for bolting to the structural framework.

**Architect:** Munkenbeck and Marshall



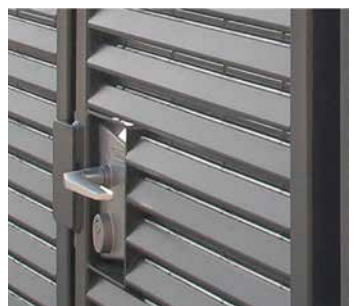
## TRANENT PRIMARY SCHOOL

**Product:** Italia-80  
7 pairs of double-leaf hinged gates

**Finish:** Galvanized and polyester powder coated RAL7024

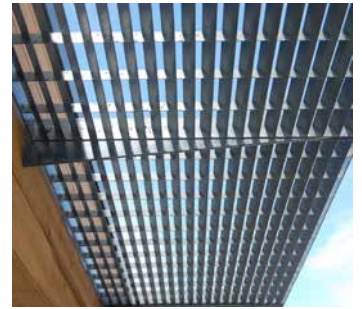
**Project:** A £9.6 million Primary School. The gates were fabricated to exacting dimensions and supplied with adjustable hinges to fit within the brickwork surround of an extensive bin store and recycling area adjacent to the school building. They were mounted on 100x100x4 SHS posts.

**Architect:** Midlothian Council



## THE BOAT HOUSE, BRISTOL DOCKS

- Product:** DeltaWing-70  
Framed panels designed as a brise soleil to reduce the potential solar gain from the glazed frontage at penthouse level.
- Finish:** Galvanized and polyester powder coated RAL7016
- Project:** The Boat House apartments form part of the redevelopment of Bristol Harbour. The sunscreen panels ensured there was no requirement for the provision of air conditioning which contributed to the development's BREEAM or EcoHomes 'Excellent' rating.
- Architect:** AWW



## NEWHAM MENTAL HEALTH CENTRE

- Product:** Italia-80  
Bespoke compound with additional cantilevered extensions, mitred at the corners.
- Finish:** Galvanized and polyester powder coated RAL7016
- Project:** Newham Mental Health Centre is run by East London NHS Foundation. A compound was required to accommodate a standby generator and air-conditioning unit providing a high level of security and visual screening for a sensitive site.
- Architect:** Bailey Garner



## SCIENCE PARK PERIMETER FENCING

- Product:** DeltaWing-90  
Perimeter fencing, gates and decorative entrance infill panels.
- Finish:** Galvanized and polyester powder coated RAL7040
- Project:** DeltaWing-90 provided the appropriate amount of security and visual screening for the prestigious out-of-town business premises of a leading technology company. The project included feature panels mixed with polished sandstone as part of an imposing entrance.





## THE STEWARD BUILDING SPITALFIELDS, CITY OF LONDON

**Product:** DeltaWing-90 Stainless Steel  
Ventilated wall cladding incorporating a sliding door.

**Finish:** AISI 304 grade, electropolished, satin finish.

**Project:** A landmark building in the regeneration of Spitalfields, situated within the historically and architecturally interesting Artillery Passage Conservation Area. The specification demanded the highest quality of stainless steel louvre as a street front cladding screen on two elevations of a prime office development.

**Architect:** Allford Hall Monaghan Morris



## JOHN ANDERSON BUILDING STRATHCLYDE UNIVERSITY

**Product:** Italia-80  
Screening compound for roof-top plant.

**Finish:** Galvanized and polyester powder coated RAL9005

**Project:** The John Anderson Building which houses the Departments of Physics and Civil Engineering was built in the brutalist style in 1971. The building was extended and refurbished in 2013 to include a new plantroom on the roof-top parking area which required a screening compound.

**Architect:** Hypostyle Architects



## LESSER HAMPDEN, GLASGOW

**Product:** Italia-100  
Fencing to provide 100% screening.

**Finish:** Galvanized and polyester powder coated RAL7016

**Project:** Lesser Hampden is situated adjacent to Hampden Park Stadium which was the venue for the track and field events of the 14th Commonwealth Games in Glasgow. It was used as a warm-up area for competitors and 125 metres of the perimeter was enclosed with an Italia-100 fence to prohibit the view of the public while the athletes completed their routines.

**Architect:** Holmes Miller





## MERCHANT SQUARE, PADDINGTON BASIN

- Product:** Italia-80  
98m fencing in 10 different heights (2100-2650mm) to ensure a level top line across the stepped ground
- Finish:** Galvanized and polyester powder coated RAL7024
- Project:** A Canal Edge Improvement Plan aimed to establish the basin as a focal point for recreation. The Italia-80 fence was chosen as a robust and aesthetic solution to screen the adjacent car park of St Mary's Hospital. The fencing was bolted through base plates to a strip footing within a new canal wall.
- Architect:** Robin Partinton Architect  
Townshend Landscape Architects



## ST MATTHEWS ESTATE, BRIXTON

- Product:** Italia-80  
Six bin stores individually designed using a variety of materials for added interest: Italia-80, Piazza-44 grating and laser-cut steel panels.
- Finish:** Galvanized and polyester powder coated RAL7035
- Project:** A radical redesign aimed to create a more sociable estate with pedestrian priority: providing play areas, growing spaces and seating. One of the bin stores was combined with a recycling centre; another with a timber clad storage section for garden tools.
- Architect:** Anna French Landscape/Tom Roberts Associates



## CALEDONIAN UNIVERSITY

- Product:** DeltaWing-90  
Infill screening panels
- Finish:** Hot-dip galvanized
- Project:** Phase 1 of screening within an undercroft kitchen plant area as part of the Heart of Campus Project at the University. The plant housing features radiused upper panels to fit the arched contour of the bridge as well as two double-leaf gates. The posts were base-plated for bolting to a concrete slab.
- Architect:** Page/Park Architects





## CHELMSFORD SPORTS CENTRE

- Product:** Italia-100  
120m fencing 1600mm high
- Finish:** Galvanized and polyester powder coated RAL7024
- Project:** A major refurbishment of Chelmsford Sport and Athletics Centre. The Talia-100 panels were supported by 80x8mm flat bar posts with base plates concealed within the wall with a coping layer of bricks.  
The 100% visual screening fulfilled Chelmsford City FC's aim of finding an economical and practical solution to prevent fans from watching a match without purchasing tickets.



## CROFT THEATRE, ALLEYN'S SCHOOL DULWICH

- Product:** Italia-80  
53 linear metres of 1850mm high screening including 7 single and 2 double-leaf doors
- Finish:** Galvanized and polyester powder coated RAL7016
- Project:** A £12.5 million theatre boasting the latest technology. Design and supply of roof-top screening to obscure the extensive air conditioning and service plant. Detailed fabrication drawings were submitted for approval as the panels and doors had to be individually sized to fit around the piping and ductwork.
- Architect:** van Heyningen and Haward



## CASTLE COURSE, ST ANDREWS

- Product:** Italia-80  
2 pairs of double gates, 2400mm high
- Finish:** Galvanized and polyester powder coated RAL8011
- Project:** Screening gates for a prestigious new club-house. The 3800mm wide sliding gate was specially made as a bi-parting design to withstand the strong wind loadings of the exposed site. The double-leaf hinged gate was 2100mm wide. The gates were fitted with euro-profile cylinder locks and anti-lift drop bolts. A dual protection finish was recommended for the coastal location.
- Architect:** Fraser W Smart





## HOUSING ASSOCIATION APARTMENTS

- Product:** DeltaWing-70  
Residential balustrade and pedestrian gates
- Finish:** Galvanized and polyester powder coated RAL7016
- Project:** DeltaWing-70 was used as a balustrade to enclose the front courtyards of a residential development. The fencing was mounted on a dwarf wall with the louvred panels providing privacy without significantly reducing the level of natural daylight to the ground level apartments.



## BIKE STORE, HALE VILLAGE, LONDON BOROUGH OF HARINGEY

- Product:** DeltaWing-45  
Secure bike storage area.
- Finish:** Hot-dip galvanized
- Project:** The vision for Hale Village is to be a sustainable, high quality, urban development which will act as a catalyst for the regeneration of Tottenham Hale. In addition to student accommodation, The Newlon Housing Trust has delivered 542 affordable homes. A secure bicycle storage area has been created within the parking undercroft of Albermarle Court using robust panels of Delta-45
- Architect:** KSS Design Group and Cartwright Pickard



## RESIDENTIAL DEVELOPMENT

- Product:** Product: DeltaBox-70  
Louvred panels as a functional as well as distinctive architectural feature at a high specification development of four residential units.
- Finish:** Galvanized and polyester powder coated RAL9005
- Project:** Framed panels were used to secure a roof-top terrace and to create a first floor balcony area. Fixed screens of DeltaBox-70 were also positioned across the window openings on the side elevations to establish privacy between the adjacent properties and to enclose the undercroft parking.





## GRANTS QUAY, BILLINGSGATE CITY OF LONDON

- Product:** Italia-100  
Screening panels and double doors.
- Finish:** Galvanized and polyester powder coated RAL7024
- Project:** London Thames Riverside Walk Enhancement: the creation of a public space with new landscaping and environmental improvements. Talia-100 was used to enclose the lower area of a public access stair, providing a secure, screened storage area at St Magnus House, Grants Quay Wharf. Panels and doors were shaped and fitted to the existing structure.
- Architect:** Bere Architects



## PORT LAOIS, IRELAND

- Product:** Italia-80 and Italia-40  
160 linear metres of screening with an overall height of 2800mm
- Finish:** Galvanized and polyester powder coated RAL7016
- Project:** An urban park commended by The Civic Trust Awards Scheme. Panels of Italia-40 provide ventilation to the lower floor of car parking with Italia-80 to the raised level, offering the required visual screening. The support steelwork for the panels was fixed to the underlying concrete structure at an angle to create an interesting architectural effect
- Architect:** Milligan Reside Larkin



## TORC INDUSTRIAL ESTATE MILTON KEYNES

- Product:** Italia-80  
4 bin stores, 1800mm high
- Finish:** Galvanized and polyester powder coated silver RAL9006
- Project:** A prime industrial development consisting of twelve warehouse units. Two bin enclosures were 4m wide, the other two were 5.2m wide with pairs of double doors. Posts were fitted with base plates for ground fixing to concrete foundation. A 50x50mm RHS galvanized bump rail was fitted to the interior for added protection from the industrial wheelie bins.
- Architect:** Volume Developments







CoronaBrise



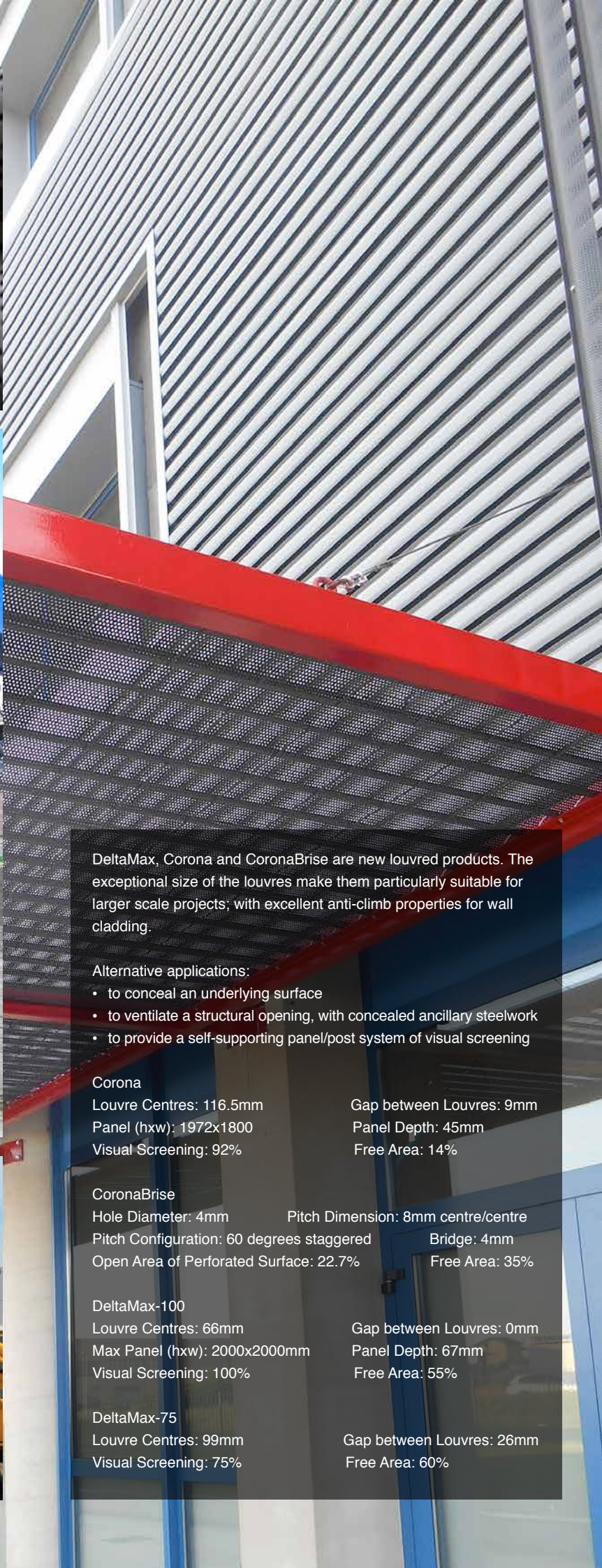
Corona



DeltaMax



DeltaMax



DeltaMax, Corona and CoronaBrise are new louvred products. The exceptional size of the louvres make them particularly suitable for larger scale projects; with excellent anti-climb properties for wall cladding.

Alternative applications:

- to conceal an underlying surface
- to ventilate a structural opening, with concealed ancillary steelwork
- to provide a self-supporting panel/post system of visual screening

Corona

Louvre Centres: 116.5mm  
 Panel (h<sub>x</sub>w): 1972x1800  
 Visual Screening: 92%

Gap between Louvres: 9mm  
 Panel Depth: 45mm  
 Free Area: 14%

CoronaBrise

Hole Diameter: 4mm  
 Pitch Configuration: 60 degrees staggered  
 Open Area of Perforated Surface: 22.7%

Pitch Dimension: 8mm centre/centre  
 Bridge: 4mm  
 Free Area: 35%

DeltaMax-100

Louvre Centres: 66mm  
 Max Panel (h<sub>x</sub>w): 2000x2000mm  
 Visual Screening: 100%

Gap between Louvres: 0mm  
 Panel Depth: 67mm  
 Free Area: 55%

DeltaMax-75

Louvre Centres: 99mm  
 Visual Screening: 75%

Gap between Louvres: 26mm  
 Free Area: 60%





# LANG+FULTON

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