



SOLINEAR

specialist architectural facade engineers

**AQUARIUS™**

Controllable Louvre System

# AQUARIUS™ Xline Controllable Louvre Systems

The Aquarius XLINE-AQ controllable louvre product range is available using any of the standard external louvre blade profiles, including AQ50, AQ75 and AQ100, working with diaphragm mounted rear operating louvre or volume control damper modules. The operation of these louvre types can be by hand - where direct access is available to the back of the louvre, electric linear actuator mounted to the side of the louvre frame or pneumatic means and enables the optimum system to be provided for the use and performance required from the unit. Operable louvres are modular systems, supplied to site as factory built units.

Where basic air volume control and louvre shut-off operation is required then simple galvanised mild steel, stainless steel or plastic volume control damper (VCD) units can be added via a sealed diaphragm plate to the back of any Aquarius louvre system to provide open/close/stay-put or modulating control of the airflow through the external louvre panel.

A diaphragm plate mounted VCD is fitted to the rear of the louvre frame which provides a controllable function to the louvre from fully open, fully closed or increment control position via voltage regulation of the actuator.

Where thermal performance is required, alongside airflow and weather performance, then Solinear's Aquarius XLINE-IQ operating module can be specified and incorporated to the rear of the external louvre frame module. This will be fitted via a thermal barrier to reduce cold-bridge effects and provide insulated operating louvre blades and casement details to provide a high performance operating louvre system controlled via electric linear actuator or hand control with friction stay-put positioning to the operators requirements. To achieve low air leakage and high thermal performance this operating louvre system provides PIR infill to the operating louvre blade profile and casement and brush pile thermal seals to front/back blade edges and frame pivot side blocks.

## Electrical Control

The operating damper is supplied with either Belimo 24V/240V fully open/close 'stay put on loss off power' non modulated or modulating units with flying lead for connection to the projects power unit/BMS system:

- Type EC-1 240V AC Motorised linear actuator control to drive 100% Open and 100% Closed and Stay-Put positioning on loss of power
- Type EC-2 24V AC Motorised linear actuator control to drive 100% Open and 100% Closed and Stay-Put positioning on loss of power
- Type EC-3 24V AC Motorised linear actuator control with 10 step modulating positioning via voltage regulation to incrementally drive to 100% Open and 100% Closed and Stay-Put positioning on loss of power.

There are alternative electric control actuators available that can provide increased electrical control and system performance. Exact requirements can be discussed with a Solinear design engineers.

## Additional Options

### Insect Mesh

- Stainless steel, fibreglass or black polypropylene insect mesh is cord beaded into the rear face of the external louvre frame. As standard the louvre is supplied with black polypropylene insect mesh.

### Birdguard

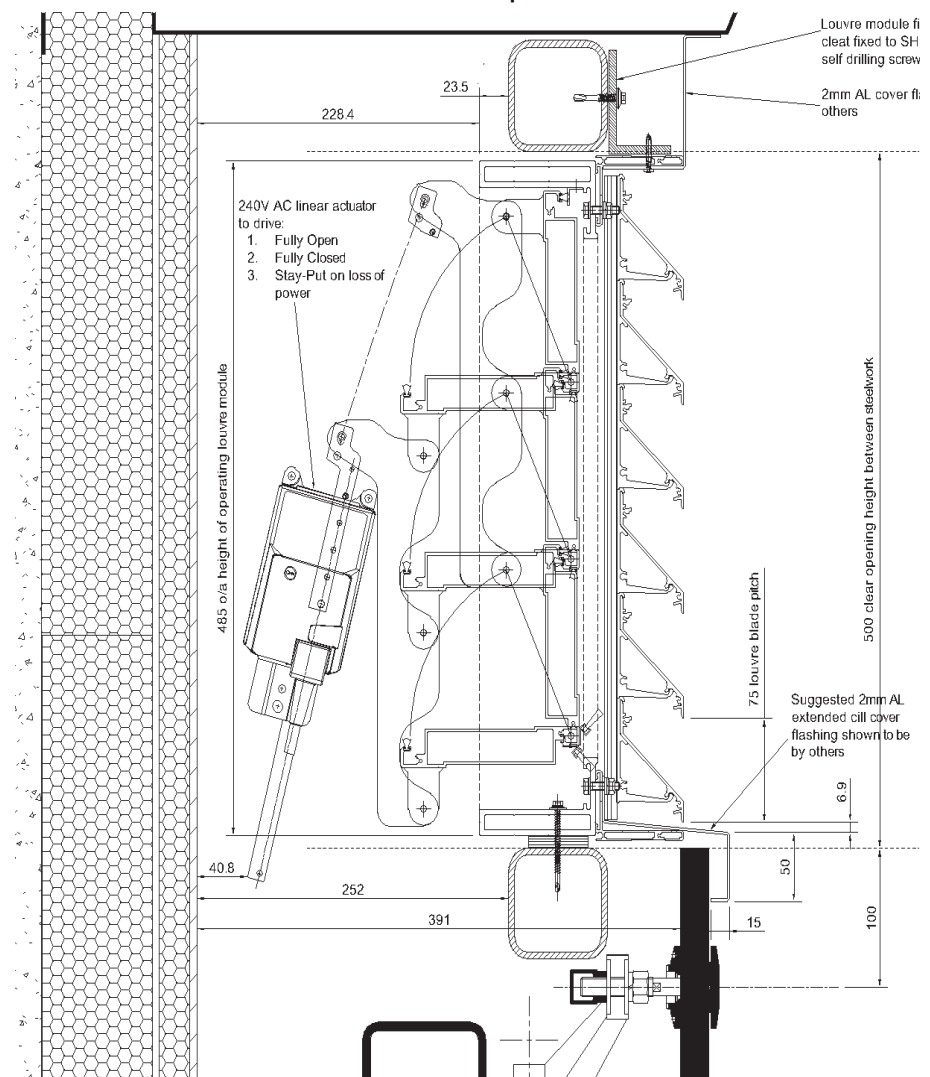
- Black polypropylene birdguard 12mmx12mm square aperture x2mm strand thickness fixed to back of external louvre blade profiles

- Stainless steel weldmesh birdguard, pattern 8mmx8mm square aperture x19g strand thickness fixed to back of external louvre blade profiles
- Galvanised mild steel weldmesh birdguard, pattern 12mmx12mm square aperture x16g strand thickness fixed to back of external louvre blade profiles

## Security Grilles/Mesh

- 25mmx25mm x3mm galvanised mild steel square mesh security screen fitted to inside frame of louvre panels
- 12mm diameter solid galvanised mild steel security grille set with flat perimeter frame bolted to inside face of external louvre panel

**Diagram: AQ50 single banked louvre module with TP insulated operating louvre profile and casement to rear.**



# AQUARIUS RANGE

Solinear's AQUARIUS range has been designed to include an extensive range of fixed and operating louvre products suitable for installation into any structural or glazed opening within a building or as a free-standing structure to a roof plant area.

Generally employed as effective screening and/or means of natural ventilation, it is often used as a plant room louvre or installed where plantroom machinery requires simultaneous protection from the elements and ambiently controlled ventilation and/or there is a requirement for noise mitigation...

## WANT TO KNOW MORE ABOUT OUR AQUARIUS RANGE?

Click [here](#) for our dedicated Aquarius products web page.

## CASE STUDIES

Visit our [Aquarius case studies](#) web page for examples and download project PDFs.

## SPECIFICATION ADVICE

Click [here](#) to view and download our NBS Specification Advice example.

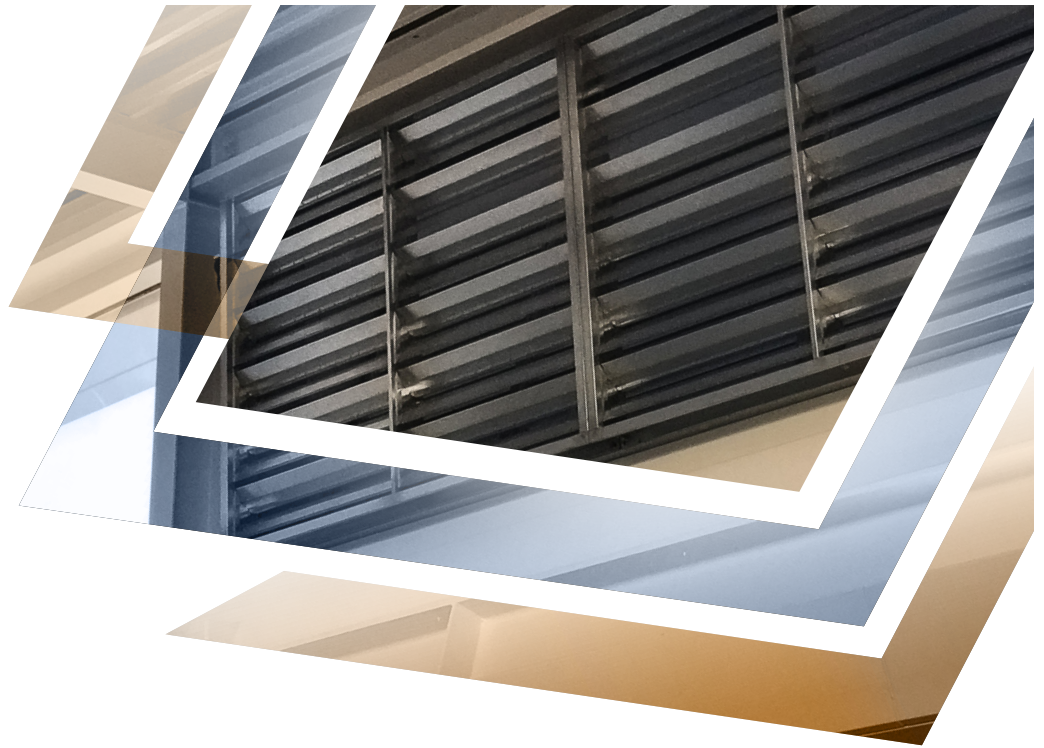
## HAVE ANY QUESTIONS?

Contact a member of our friendly team on the details below or visit our website for more information about Solinear and our products and services:

☎ 01347 879 046

✉ [mail@solinear.co.uk](mailto:mail@solinear.co.uk)

🌐 [www.solinear.co.uk](http://www.solinear.co.uk)



## WHAT WE OFFER



We offer a full Design, Manufacture and Installation service for our range of static and operable external solar shading systems. Manufactured from a range of materials including extruded aluminium, stainless steel, galvanised or mild steel and a range of timber species that provide a sustainable, cost effective and aesthetically pleasing addition to any structure.

### PROJECT MANAGEMENT

All projects are managed by fully qualified and experienced project managers - guaranteed by Solinear to be responsible for the efficient and successful implementation of the product, manufacture and installation.

### DESIGN

We design all of our products using the very latest Autodesk Mechanical and Inventor 3D design software. Thus allowing us to incorporate external details and supply our drawings and design documents in electronic DXF/DWG/DWF or PDF file format for easy collaboration, design

reference and inclusion directly into your own CAD details or model.

### BIM

Solinear is BIM level 2 compliant and as such BIM models of our products are available for download through our dedicated online library.



Click on the SOLBIM logo above to visit Solinear's free BIM library.

### ADVANCED ANALYSIS

Sun path solar analysis can be carried out to support our solar shading

proposals. Specialist computer software uses predictive ray casting technology to model the sun's paths and subsequently calculate the amount of sunlight penetrating the building façade after our solar shading system has been taken into account.

### INSTALLATION

To ensure your complete confidence in our projects we employ fully trained CITB registered installation engineers for each project. All associated installers will possess relevant CSCS documentation, IPAF and PASMA training. All site supervisors have SSSTS at minimum.

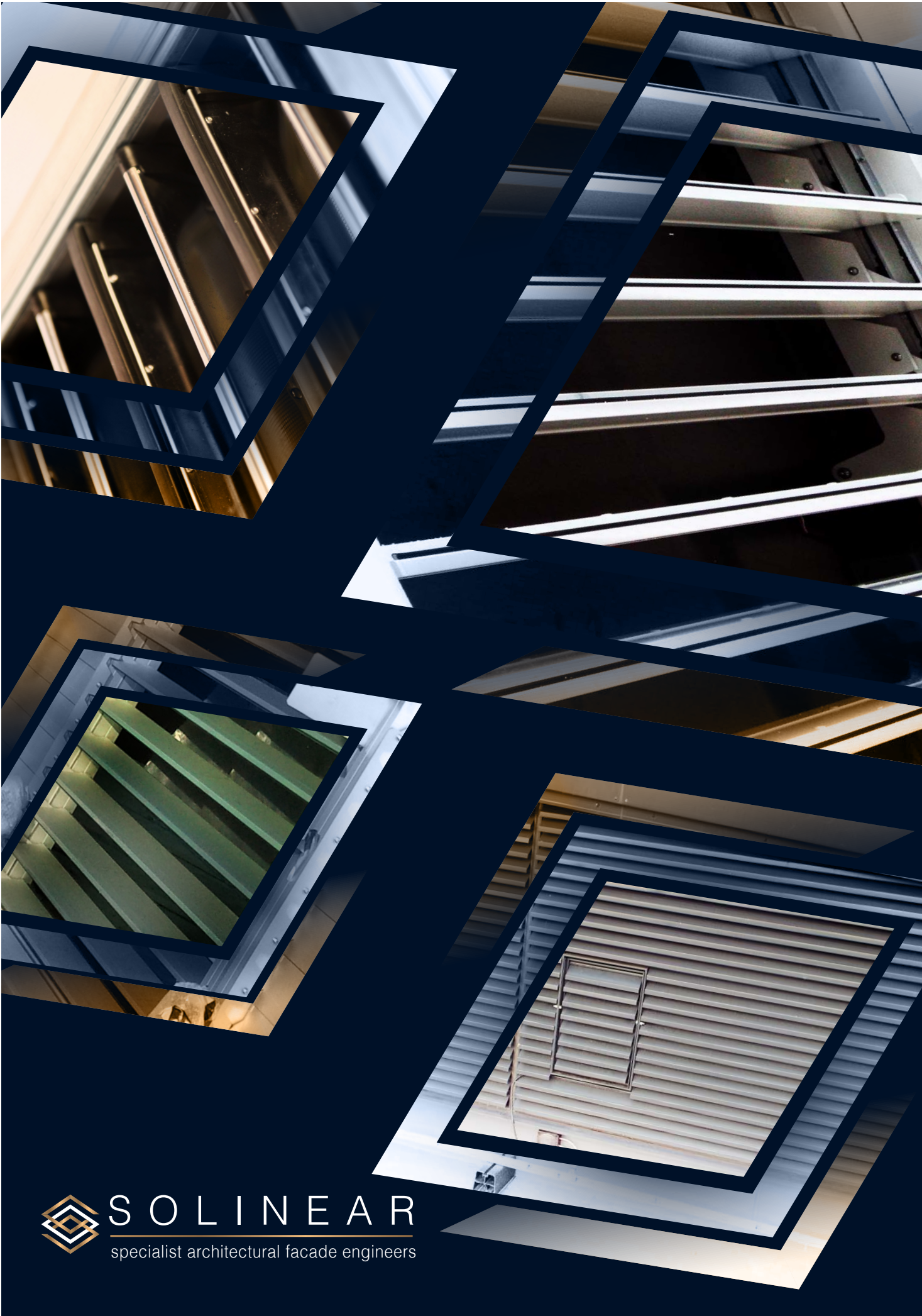


Constructionline Gold Member



Constructionline Silver Member





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