

Other Luxalon[®] products

QuadroCladⁿ



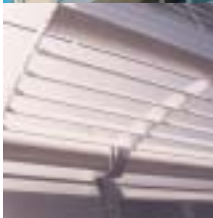
Sandwich Wall



Multiple Panel Façade



Sun Louvres



Ceilings and Soffits



Luxaclair[®] Sealed Blinds



Hunter Douglas Construction Elements BV

Bellsize Close

Walsall Road

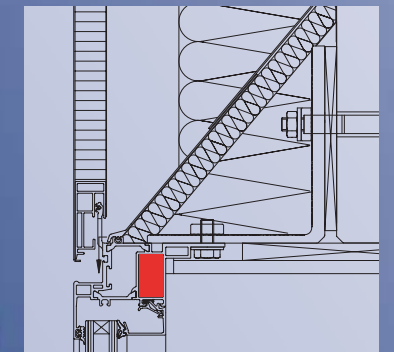
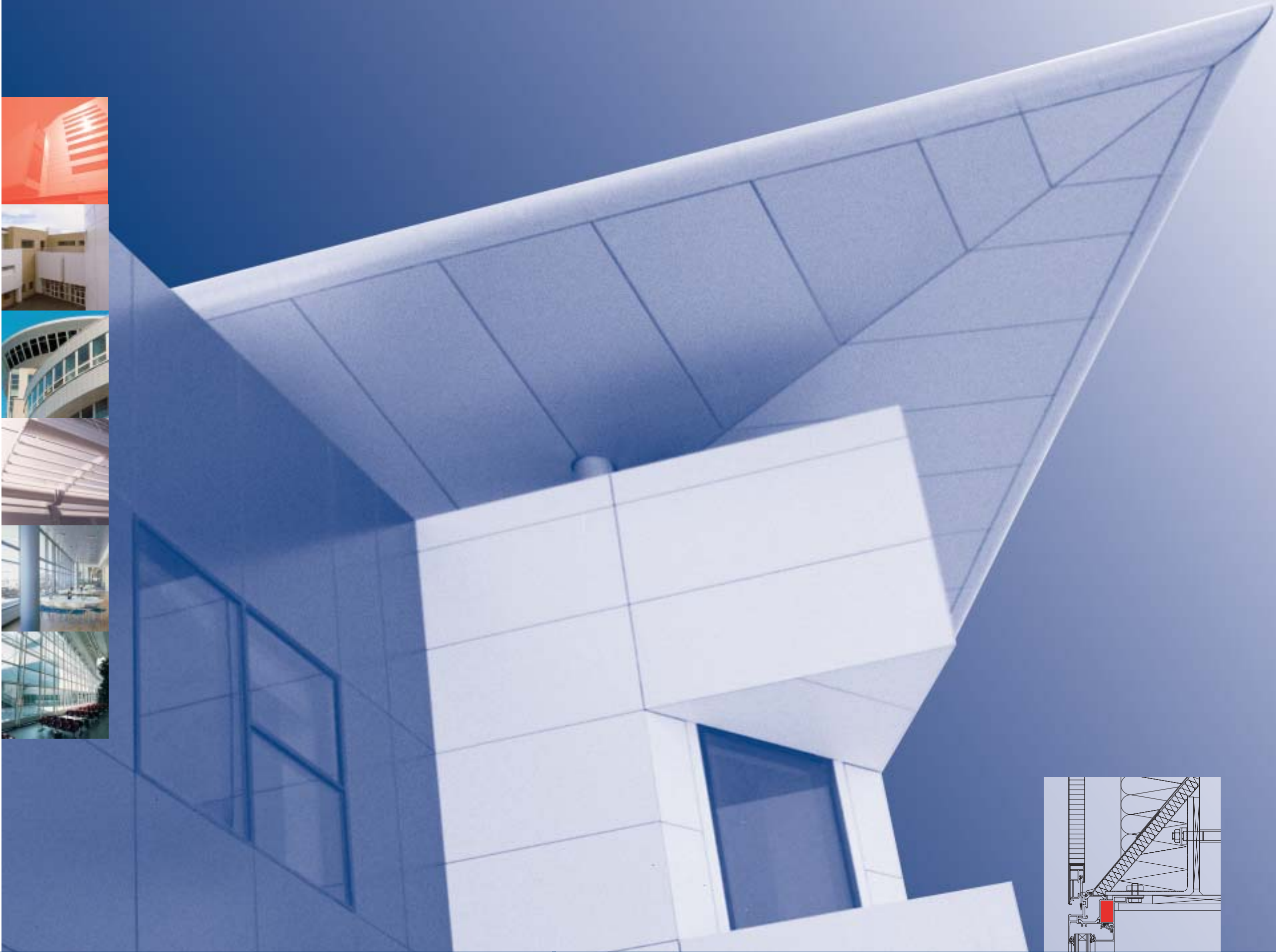
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QuadroCladⁿ

introduction

Full dedication to quality, and more than 35 years of world wide experience in the development and manufacturing of aluminium facades, are the basis for all Hunter Douglas Construction Elements LUXALON[®] Façade Systems.



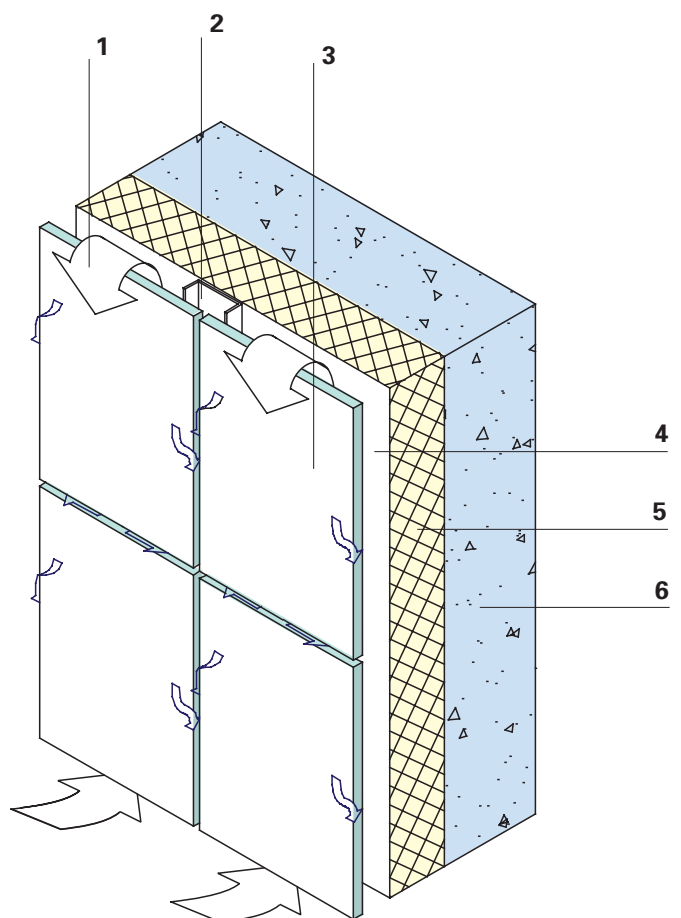
The QuadroCladⁿ Ventilated Rainscreen Façade System is produced from pre-coated aluminum, formed and combined with aluminum honeycomb reinforcement, in order to produce strong, flat, lightweight made to measure facade elements.

The flexibility in panel size and shape as well as curving and folding allows the application of QuadroCladⁿ to almost any superstructure including existing structures, requiring simple and adjustable fixings.

The QuadroCladⁿ system, including windows, doors and louvres is ideally suited to any building, low or high rise. QuadroCladⁿ is also ideal for any location within the building. Where large panel features are vital to the design, QuadroCladⁿ is available in panels up to 1500mm x 6000mm - a truly flexible product.

LUXALON[®] QuadroCladⁿ Systems are for high quality façade designs where the following points are of prime importance:

- Durability
- Capability to withstand high wind-loads
- Large façade elements
- Low weight per m²
- Extreme panel flatness
- "Total" façade system including windows, doors and louvres – for both flush and recessed façade designs



Principal Elements of a Ventilated Façade

- | | |
|----------------------------------|-----------------------|
| 1. Ventilation | 4. Cavity |
| 2. Drainage Channel | 5. Thermal Insulation |
| 3. QuadroClad ⁿ Panel | 6. Loadbearing Wall |



QuadroCladⁿ in principle

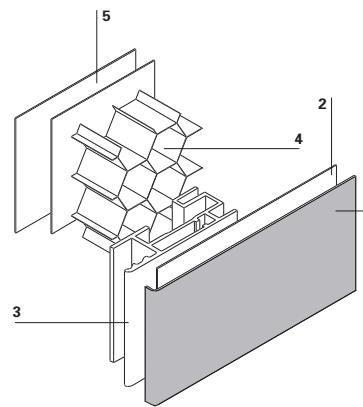
LUXALON® QuadroCladⁿ is an open jointed cladding system based on rainscreen technology. Channels are integrated within this unique system to allow ventilation and for rain and condensation water to drain out from behind the cladding surface.



QuadroCladⁿ technology

All **LUXALON®** QuadroCladⁿ Façade Systems are based on composite technologies that originate from the aircraft industry.

Pre-coated aluminum is formed and combined with aluminum honeycomb reinforcement in order to produce strong, flat, light-weight and made to measure façade elements.



Composite Build-up

1. Pre-coated and rollformed aluminium external skin
2. Adhesive film
3. Aluminium extrusion
4. Aluminium honeycomb
5. Pre-coated aluminium internal skin

LUXALON® QuadroCladⁿ comes in many variations since the method of production allows for great flexibility in panel thickness, size and shape, as well as curving and folding.

This flexibility is continued in the actual application of QuadroCladⁿ because these extremely rigid elements can be fixed to almost any superstructure.





unique installation method

QuadroCladⁿ has a unique and patented method of installation.

Installation commences with the QuadroCladⁿ windows (flush or recessed), door or louvre frames and the sealing of the integrated damp proof membranes to the structure. After the installation of the thermal insulation the QuadroCladⁿ façade panels are 'hung' from the window/door/louvre frames, or where necessary, the QuadroCladⁿ support track. After final location the panels are 'locked' to prevent thermal movement. Panels can be installed or removed independently.

This method of installation is more logical and achieves a faster watertight position in the construction process and allows panels in sensitive locations to be installed at the appropriate time.



advantages

- Extreme panel flatness combined with 'crisp' edges.
- Individual panel installation or replacement.
- Quick installation methods with minimum fixings to structure.
- Large elements up to 1500mm x 6000mm.
- Low weight (approximately 6kg/m²).
- Wide range of system solutions for parapets, cills and corners etc.
- Window programme offers practical system solutions for flush or recessed window designs.
- Choice of coatings (Luxacote[®], PVF2 and 'look-alike' finishes and anodised aluminium).
- Tightly controlled joint widths - 15mm nominal.
- No thermal-bow in panels due to aluminium honeycomb construction.
- Joints provide ventilated cavity (reducing surface wind load effect by pressure equalisation).
- Integrated DPM at openings.
- Inherent strength of honeycomb panel requires a limited number of supports.
- Aluminium extrusion at panel perimeter provides accurate panel manufacture and alignment.
- Panels curved, cranked and triangular shaped.
- Can be used for sloping facades, external soffits and ceilings.
- Panel erection sequence can be top-bottom/bottom-top or any sequence to suit the building programme/progress.
- Windows can be installed first in order to obtain wind and watertightness at an early stage. Panels can be supported by window framework.



windows, doors and louvres

Tried and tested LUXALON® QuadroCladⁿ windows, doors and louvres complete the architectural solution for a totally integrated concept.

The QuadroCladⁿ window frame is available in a 'flush with panel' profile or with a 'recessed frame' option.

The frames are supplied in coated or anodised aluminium – all with thermally improved sections

allowing for twin colour options. They also provide the unique fixing points to support the QuadroCladⁿ façade panels.

Windows, complete with concealed drainage, are available with top-hung, side hung, and tilt/turn opening mechanisms as well as a 'block window' option.



flush window



recessed window

infinite possibilities

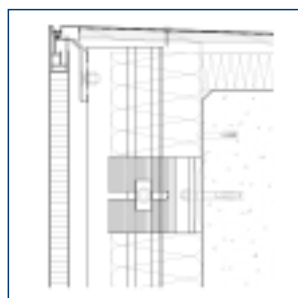
Hunter Douglas Construction Elements believes that a creative design process should not be constrained by standard element sizes or shapes determined by manufacturing processes.

Our production processes are designed to be very flexible and for this reason this brochure barely illustrates the infinite possibilities of LUXALON® QuadroCladⁿ panel and glazing systems.

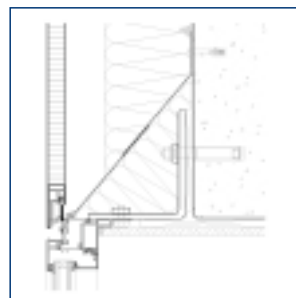




details



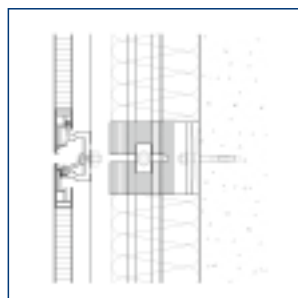
parapet



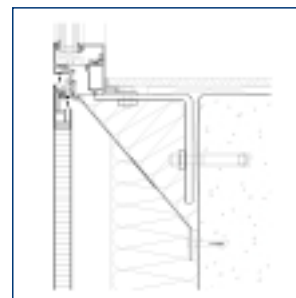
flush-window head



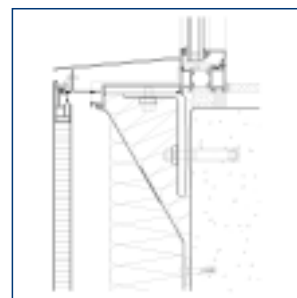
recessed-window head



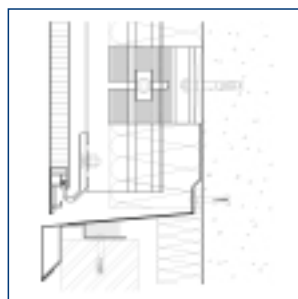
joint



flush-window cill



recessed-window cill



cill

complete system solutions

A wide range of QuadroCladⁿ system solutions are available for internal and external corners, parapets and cills. The panel joints (15mm), both in horizontal and vertical direction are designed to act as an integrated drainage system that guides rainwater behind the panel surface.

The QuadroCladⁿ window programme makes this competitive cladding system complete and extremely versatile. It provides a range of practical system solutions to suit almost any cladding design.

product information

The LUXALON[®] QuadroCladⁿ system combines several manufacturing processes that together lead to optimum quality control and maximum flexibility.

Coil-Coat Technology

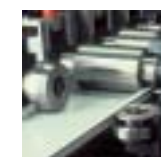


Hunter Douglas coil-coating is based on the principle of coating flat metal strip in a continuous process before the metal is formed to its final shape.

Advantages:

- Coil-coated materials comply with highest European quality standards (EN 1396).
- Coil-coating takes place under optimum factory controlled conditions.
- High grade pre-treatment (adhesion & protection).
- Optimum control of coating thickness.
- High level of colour continuity.

Roll-forming Technology

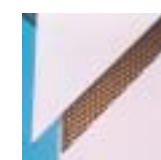


Roll-forming, as opposed to press-brake techniques, allows pre-coated metal to be formed gradually into its final shape in a continuous process.

Advantages:

- The molecular structure of the metal stays intact and the end product therefore remains more durable
- Continuous production allows for cost efficient manufacturing and speed in delivery
- High levels of precision are reached throughout the whole production process

Honeycomb Composite Technology



Two metal skins form a sandwich with an aluminium honeycomb structure that can accommodate high pressures and shear forces.

Skin and honeycomb are connected with high quality adhesives in order to form a monolithic mechanical construction.

Advantages:

- Developed for the aircraft industry, aluminium honeycomb composites are a combination of light weight components working together to provide extreme strength.

Specification

External skin: coil coated aluminium with Luxacote[®] or PVF2 coating, (other base metals and coatings available on request).

Internal skin: coil coated aluminium polyester coating (other base metals and coatings available on request).

Core: Aluminium honeycomb.

Edge extrusion: Extruded aluminium mitred and crimped to seal each panel. Fixing recess is integrated in the panel.

Wall bracket: Type 100, for 100mm insulation thickness. Type 150, for 150mm insulation thickness and Type 200, for 200mm insulation thickness. Slotted holes provide +/- 25mm depth and +/- 10mm horizontal adjustment.

Support Rail: Extruded aluminium tube for optimum rigidity (where required). Standard length 7200mm. Rail acts as a vertical drainage channel.

Fixing plates: Fully adjustable in vertical direction with integrated anti-vibration gaskets.

Panel size: Maximum modular size 1500mm x 6000mm.

Windows: Twin colour powder coated or anodised extruded aluminium profiles, thermally improved, incorporating a range of mullions and transoms to suit architectural requirements and integral connecting flexible DPM at perimeter.