



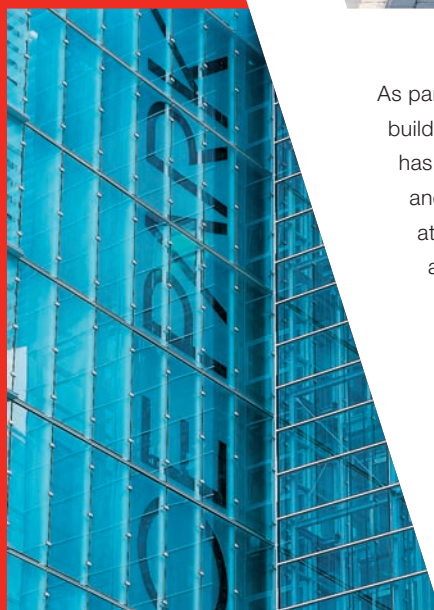
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February 2007

A **Fresh Approach** to Unitised Façades

WICONA[®]

Hydro Building Systems - A World Leader



As part of Hydro Building Systems - the largest aluminium building systems company in Europe - Wicona Projects has a strong financial base and the resources, expertise and commitment to innovation that will ensure it remains at the forefront of façade design in the UK, Ireland and across Europe.

With its Technal brand of façade products, Hydro is one of Europe's leading suppliers of aluminium 'stick' curtain walling, window and door systems, offering a range of high performance products to meet the most demanding specifications.

Breaking New Ground in Façade Design

Wicona is dedicated to providing one of the most technically advanced and widely used unitised façades available today, together with the most comprehensive curtain walling design and management team in the UK and Ireland.

With more than two decades of experience in unitised curtain walling across Europe, Wicona Projects is **the first façade specialist to offer a complete turnkey service for the building envelope.**

Wicona and our partners will lead the full façade project, ensuring a seamless approach and a single point of contact, helping architects and contractors meet the increased demands for shorter programmes and superior performance.



The First Complete Service for the Building Envelope



Wicona's team of construction professionals and network of façade partners offer a complete and fully integrated service for the building envelope - giving architects, contractors and developers unrivalled peace of mind.

With a dedicated team and base for the UK and Ireland, Wicona will oversee every aspect of a façade project, including:

- system design
- glass specification
- fabrication and materials handling off site
- transportation and on site handling equipment
- installation on site
- testing and site auditing
- handover.

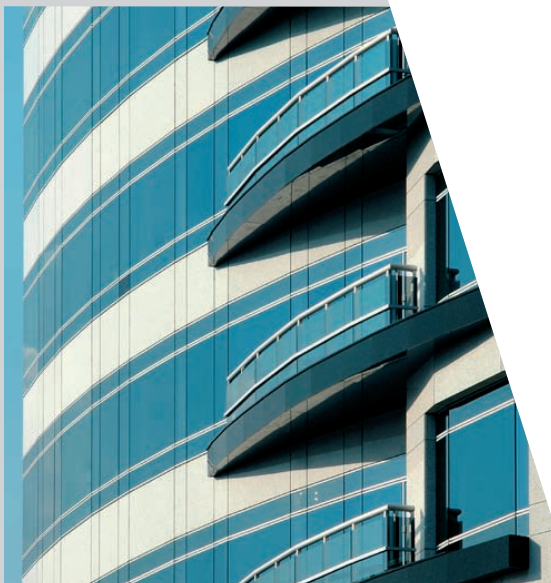
Applying Modern Methods of Construction to Façade Design

By maximising off-site working with the use of this advanced yet proven unitised curtain walling system, Wicona Projects can radically reduce time on site, significantly improve quality and safety, and offer a wide variety of aesthetic variations.

The unitised system is fully glazed and sealed off site. Gaskets and glazing beads are installed in factory controlled conditions before the complete units are moved to site for fast and easy installation onto pre-prepared fixings.



Unitised Curtain Walling - The Advantages

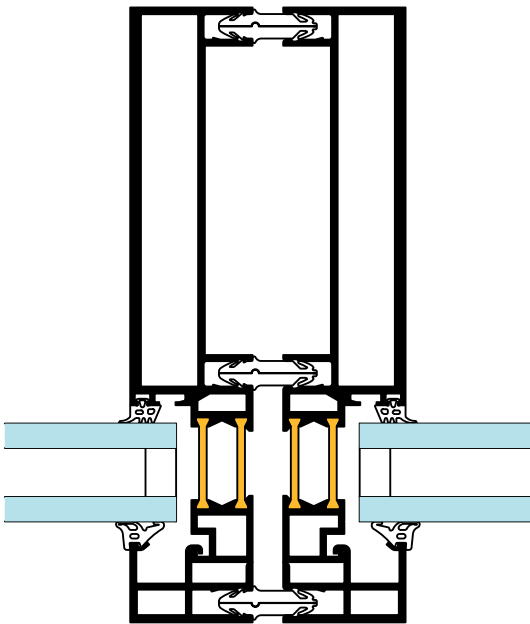
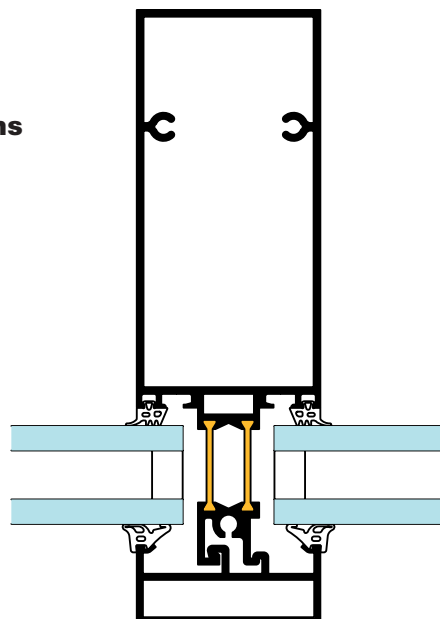


On Site

- reductions in time on site of **up to 70 per cent**
- improved safety - scaffolding may no longer be required
- earlier fitting out
- construction is less affected by inclement weather
- storage of cladding materials and glass handling on site can be completely eliminated - a major advantage for constrained city centre sites
- more efficient control of materials - less wastage, loss and damage
- the construction programme is more predictable and delays are less likely
- off-site construction and the associated quality control are maximised - a highly efficient solution where site access is restricted.

Cost Effective

- there are cost savings on site preliminaries and scaffolding
- the option of standardisation for economies of scale and material optimisation
- suitable for both new build and refurbishment
- supply from stock for fast track projects
- faster programme times, earlier occupation and a faster return on investment for the developer.

**Cross Sections**

Complete Freedom in Design



Unitised curtain walling allows architects and specifiers complete freedom in design, with a combination of profiles, external feature caps, glazing and other infills.

The system can be adapted to specific project requirements or new designs can be developed for more complex façades. There are options of slim-line sections with overall site lines of 70mm or 90mm and panel sizes of up to 4m by 4m can easily be accommodated.

Aesthetic variations include:

- stone cladding
- metal, composite or polycarbonate panels
- windows, doors and fixed light glazing
- brise soleil sunshading
- photovoltaic panels.

Quality and Performance

With the Wicona unitised system, both quality and performance are enhanced because the façade panels are prefabricated off site under factory conditions.

Design responsibility for the complete envelope lies with one team, led by Wicona, ensuring quality standards are maintained at every stage.

Testing

The system is fully tested to the most stringent European standards for air permeability, water tightness under dynamic and static pressure, and wind resistance. Reference IFT Rosenheim Test Report No: 108 29634e*, 10 May 2005. Test certificates are available on request.

Test	Type of test	Classification standard	Classification
1	Air permeability of façade element	EN 12152	AE
2	Watertightness under static pressure	EN 12154	RE 900
3	Deflection under wind load	EN 13116	<1/200 at ± 1100 Pa
4	Repeat test of air permeability	EN 12152	AE
5	Repeat test of watertightness under static pressure	EN 12154	RE 1200
6	Safety test	EN 13116	Increased wind load: ± 1650 Pa Additional wind loads: - 2200 Pa - 1900 Pa

General Specification

- A vertical, capped façade with the option of structural glazing
- Maximum facet of 3° overall at the unit junction
- 70 to 90mm sight line for split mullion and transoms with a 10mm wide expansion gap
- 60mm sight line for intermediate mullion and transoms
- Maximum panel size is 4m x 4m with mullion and a maximum weight of 400kg
Maximum panel size without centre mullion is 2m x 4m
- Mullion depth is 201mm, space to floor edge is approximately 110mm and total zone is 310mm
- Profiles use a polyamide thermal break with a 30mm deep bridge.

Construction

- Standard outer frame sections have a 30mm or 40mm face width
- Outer frames are mitre-jointed using corner cleats, sealed and screw fixed
- Opening vents and stone-faced panels can be incorporated
- Clip-on caps are butt jointed.

Glazing

- Minimum glass thickness is 4mm, and maximum is 41mm.

Performance

- Fully drained and pressure equalised
- Concealed drainage
- U values and acoustic calculations are made using the known design criteria.

Installation

- Units are hung from the building using brackets fixed with hooks at the top of each panel. There is a movement joint between panels.



Project Portfolio - Wicona Unitised Curtain Walling



Project: Offices, Vienna International Airport

Location: Schwechat, Austria

Architects: Holzbauer and Partner

Fabricator: Mero Austria GmbH

Project: Triple A Tower

Location: Sao Paulo, Brazil

Architects: Afalo and Gasperini



**Project: Office building, Port Rheinau**

Location: Cologne, Germany

Architects: Gatermann + Schossig Architekten

Fabricator: Metall- und Elementbau Haskamp GmbH

**Project: Vodafone Corporate Headquarters**

Location: Lisbon, Portugal

Architects: Arquitectos Associados

Fabricator: Lorenzon Techmec System SpA



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