



Thermosash 
BUILDING ENVELOPE SOLUTIONS™

SCHÜCO
PARTNER

Thermosash Company Introduction

HIGH-END RESIDENTIAL

Why Thermosash?

Over 50 years of dedication

Half a century of engineering milestones, and we're just getting started.

Our journey commenced in 1973, in Auckland, New Zealand, when five visionary engineers joined forces to establish Thermosash. Under the leadership of our founder, Mr. Laurie Hayes, we rapidly built our reputation. By 1990, we had become New Zealand's largest commercial window and Curtainwall designer, manufacturer, and contracting company.

Our Expertise

Our core discipline revolves around the design and delivery of specific engineered prefabricated façades. It's in these complex undertakings that Thermosash can demonstrate our delivery difference.

Thermosash Schüco Partnership

Thermosash is the exclusive New Zealand Partner and only licensed supplier in New Zealand of Schüco German engineered, high thermal performance aluminium windows, doors, sliding systems and integrated automation solutions. All suites and brands that Thermosash offers, come with our reputation for being backed by local, in-house engineering, manufacturing and installation.

Pushing Boundaries in Façade Engineering

At Thermosash, we thrive on pushing the boundaries of what's possible in façade engineering and innovation. We don't just meet the standards; we often exceed them. Our team of experts are constantly seeking new ways to elevate building envelope solutions.

Total Clad Solution

In response to New Zealand's seismic considerations and advancements in maintenance-free materials, we've focused on lightweight, fully integrated metal/glass cladding systems. This approach reduces structural dead-loads and provides flexibility for architects, façade consultants, and contractors, simplifying construction processes.



THERMOSASH AUCKLAND (HEAD OFFICE)

Proudly New Zealand-Owned and Operated

As a 100% New Zealand-owned and operated company, Thermosash has played a pivotal role in turning architectural concepts into buildings that enrich our cities. Our commitment to innovation and expertise drives us to provide world-class building envelope solutions, both in New Zealand and abroad.

A Part of the Thermosash Group

We are proud members of the Thermosash Group of Companies, which includes Thermosash Service and Maintenance, Woods Glass, Insite Façades, and WEC Engineering and Testing. This collective strength allows us to offer comprehensive total industry solutions.

Our State-of-the-Art Facility

Our main manufacturing unit, situated in Henderson, Auckland, is amongst the most modern and technologically advanced operations in Australasia. Equipped with state-of-the-art automated machinery, this facility is the heart of our operations, coupled with our Wellington and Christchurch manufacturing facilities, we have New Zealand geographically served.

Quality Assurance and Compliance

Our commitment to delivering high-performance, quality unitised façade units extends to our comprehensive Inspection and Testing Plan. This plan is a detailed roadmap that guides our efforts to ensure that every unit meets industry standards and your project's specific requirements.

Capacity and Engineering

Our vast manufacturing capacity, cutting-edge technology, and in-house engineering enable us to tackle multiple projects concurrently while maintaining precision and quality. Our engineers assess each design for structural integrity and compliance, ensuring high quality output at every step.

ISO Certification

Thermosash Group Limited has received HEQ Telarc registered ISO certifications for our Thermosash Auckland facility based in Henderson and the Woods Glass facility based in Penrose, Auckland. For more detailed information on these Telarc registered certifications please see [page 15](#) of this document.

Our Speciality

Custom Engineered Façade Solutions

Our core competency lies in delivering custom engineered façade and curtainwall solutions.

With a rich history and a commitment to quality and innovation, we have established ourselves as a safe set of hands in the façade industry. Our specialisation in engineering bespoke solutions stems from a unique combination of key elements that define Thermosash:

Tailored Engineering

Thermosash excels in crafting custom-engineered façade and curtainwall solutions, where precision is paramount. Our team's commitment to meticulous engineering ensures that each project, from concept to construction, meets the unique design requirements with utmost accuracy.

Thermosash stands out as the unparalleled choice for handling from proprietary projects through to the most intricate and challenging designs across the spectrum, from low-rise structures to towering high-rise applications.

One key element that sets us apart is our ability to handle a diverse range of designs. Thermosash isn't limited by the conventional; we have proven over 5 decades that we can deliver challenging projects, where designs push boundaries. Our in-house team of experts, turns architectural visions into reality.

Performance and Durability

Thermosash prioritises performance and durability. Our façades undergo rigorous testing, adhering to the highest industry standards. This ensures that our solutions not only look good but also contribute to the energy efficiency and sustainability goals of modern construction and international standards.

Collaborative Approach

Thermosash is more than a provider; we're a partner. Our collaborative approach involves close consultation with architects, builders, and project managers from project inception. This ensures that our custom-engineered façades align with the project's vision, schedule, and budget.

Speed of Installation

The off-site prefabrication - in a factory controlled environment - of our unitised façades offers significant advantages in terms of installation speed and efficiency. By manufacturing the façade panels off-site, including the glazing, insulation, and other non-vision components, the on-site installation process is greatly simplified and reduces the number of on-site staff.

Full Design Solution

We offer a complete design solution, from initial drawings and engineering to manufacturing and final installation. This end-to-end approach ensures seamless coordination and integration of all the necessary components.

We offer a 10-year warranty on our unitised façade systems, demonstrating our confidence in the quality and durability of our products and our commitment to long-term performance.

High-end residential products

Functional, efficient and elegant quality solutions for upmarket living

In Partnership

Schüco is a German company based in Bielefeld developing and supplying innovative luxury window, door and sliding door systems with integrated automation solutions for modern quality living. Through our exclusive New Zealand Partnership with Schüco we are manufacturing and installing their systems in high-end residential projects in New Zealand.

Thermosash sets a high standard for all of the Schüco products we offer; suites are analysed and engineered to suite New Zealand's dynamic environment and comply with New Zealand standards. Locally backed by Thermosash's reputation, in-house engineering, manufacturing and installation.

Energy Efficient Products

Schüco products offer energy efficiency with maximum glazing transparency. Products are designed to achieve high thermal insulation values to provide interior comfort and reduce heating and cooling costs.

Effortless Operation and Automation

The large-format sliding, folding sliding doors and lift-and-slide doors bring the outside inside and provide functional effortless operation including options for efficient automation solutions. Window and door functions can be regulated via a timer control, smart-phone or tablet.

The Schüco Door Control System allows you to configure the entrance door with fingerprint, RFID or code keypad access and video / audio communication via a Touch Display. Options for built in automatic locking with four latch bolts when the door is closed, with a fifth locking point if the key is turned.

Schüco TipTronic Simplysmart offers concealed mechatronic actuator technology for integrated management to automatically open and close vents, as well as provide modular locking at multiple points.

Solar shading can be managed through integrated concealed solar shading blinds which are virtually unaffected by wind and can be operated via a switch or central system to adjust to temperature, time of day or weather conditions.

Elegant Design

Slim lines, narrow face widths, large openings and level thresholds are all achievable with the Schüco range of innovative quality products.

Indulge your individual style with a range of feature handles for windows, entrance doors and sliders that are elegant and ergonomic to operate.

Photos: Schüco International KG



Innovation and timeless comfort



Summit House

Summit House is situated in Queenstown, New Zealand

Designed by Piet Kee Architecture, careful landscaping allows this two storey property to elegantly emerge from the surrounding alpine environment. Innovative building solutions are featured throughout the home and when combined with large monolithic glazing solutions, result in breathtaking views of the surrounding lake district without compromising on privacy.

World class panoramic views

Through the adoption of Schüco's ASS 77 PD.HI sliding system, with floor to ceiling glazing and slender profile widths, occupants can take in the breathtaking views of Queenstown's iconic Remarkables mountain range from the comfort of the well insulated living area. The robust thermally broken sliding system boasts market leading spans with 3.5m x 2.6m sliding doors resulting in weights exceeding 500kgs.

To accommodate these floor to ceiling glazing solutions, automation has been integrated using Schüco's TipTronic solutions. With mechatronic fittings fully concealed within the systems subframe, sliding doors can be effortlessly opened and closed at the push of a button using the buildings main control panel.

Super insulated performance

The combination of Schüco's AWS/ADS 75.SI+, ASS 77 PD.HI and ASS 50 allows the project to secure an average insulation value of R0.66, easily exceeding the code requirements of R0.50 for the Queenstown area. An impressive achievement for a home with large glazing vision areas on both the upper and lower levels.

Joinery solutions delivery by Thermosash include:

- Schüco AWS/ADS 75.SI+ Windows and Doors
- Schüco ASS 77 PD.HI Sliding System
- Schüco ASS 50 Sliding System
- Schüco FWS 50 Skylight Solution

Photos: James Allen Photography, New Zealand





The Pool House

The Pool House is situated in Queenstown, New Zealand

Designed by Yoke Architects, the building harmonises with the existing buildings and fits into the landscape as a stand alone structure. The Pool House is 345m² and accommodates a private indoor pool with a gym and sauna facilities.

Maximum design freedom

On the north facing side of the The Pool House Thermosash installed a thermally insulated Schüco Panorama Design sliding system offering maximum transparency and light penetration, connecting with the outside space visually as well as functionally.

The large Schüco ASE 67 slider comprises of 8 sliding panels 3265mm high x 2350mm wide with 46mm triple glazing and weighing 490kg each.

Thermosash also installed Schüco ASE 67 double sliders, and Schüco AWS 75 / ADS 75 hinged door & fixed window with 46mm triple glazing, as well as a Schuco ADS 75 insulated panel hinged door (75mm panel).

Due to the high thermal performance of the Schüco suites the project has achieved an insulation value of R0.9.

Photos: Thermosash Commercial Ltd



Te Arai Iti

Te Arai Iti is situated on the North Island of New Zealand

Designed by Bureaux Architects, along the pristine shores of New Zealand's upper east coast. The contemporary styled flat-roof combined with pre-weathered Vulcan panelling allows the structure to seamlessly blend into the white sandy dunes of the surrounding landscape.

New generation concealed Mechatronic Fittings

On the East facing elevation overlooking the coastline, the guest bedroom occupants enjoy access to the external deck areas from the thermally insulated Schüco window and door systems installed by Thermosash. Each of these bedroom units intergrates Schüco's SimplySmart - TipTronic fittings technology in the bottom hung operable sashes at the head. With fittings fully concealed and automation synced to the buildings security protocols, sashes can be effortlessly controlled using a switch whilst producing minimal noise. As coastline conditions are often unpredictable, automation provides occupants an elevated level of confidence when utilising the buildings ventilation systems.

Minimalist sliding door solutions

The open plan living, kitchen and dining area boasts a series of Schüco's panorama designed sliding systems. The ASE 67 PD system minimises visible joinery through sleek perimeter detailing and maximises light penetration through the use of ultra slim, 31mm interlocking mullion. The use of an in-wall track design allows the dining sliders to be fully concealed within the primary structure resulting in a sense of freedom that allows occupants to harmoniously transition from coastline vista to sophisticated dining and eventually be met with the warm, communal outdoor seating area.

Joinery solutions delivery by Thermosash include:

- Schüco AWS/ADS 65 Window and Door System
- Schüco AWS 60.HI Tilt & Turn Window System
- Schüco ASE 67 PD Sliding System
- Schüco ASS 39 SC Sliding System (Internal Shower)

Photos: Thermosash Commercial Ltd





South Island, New Zealand



Pivot Doors with air-lux

SCHÜCO
 IN PARTNERSHIP WITH
air-lux

air-lux Technik AG in partnership with Schüco opens up new possibilities

Stunning design feature doors

Pivot doors swing on a rotational axis enabling impressively sized door leaves to be installed. They offer a stunning alternative to a conventional side-hung entrance door, providing level thresholds, and the possibility of floor to ceiling installation. Through the Thermosash partnership with Schüco we have access to incorporate the high quality air-lux gasket sealing technology into the pivot door system - enabling ultimate ease of use and superior weather & airtightness.

Standard and custom large sizes

The standard door leaf can be up to 10m² in area and weigh up to 500kg. Larger doors can span 15m² (5m W x 3m H) or custom designed to a maximum weight of 1500kg. Security features such as alarm glass or bullet-proof safety glass can also be incorporated - glass up to a maximum of 60mm thick can be accommodated.

Materials and finishes

Design freedom is possible with various cladding materials and finishes for the door leaf (which, if not glazed, has a thermally insulated aluminium core), and the high-quality, thermally insulated aluminium frame profiles can be finished off to match the cladding of the leaf.

Electronic Security

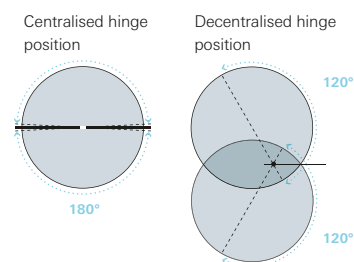
The mechanical and electromagnetic base components of the pivot doors provide a high level of security. In addition to this electronic security devices can be integrated and

linked to modern building management and alarm systems - for reliable monitoring, including with mobile devices such as smartphones or tablets.

Ease of Operation

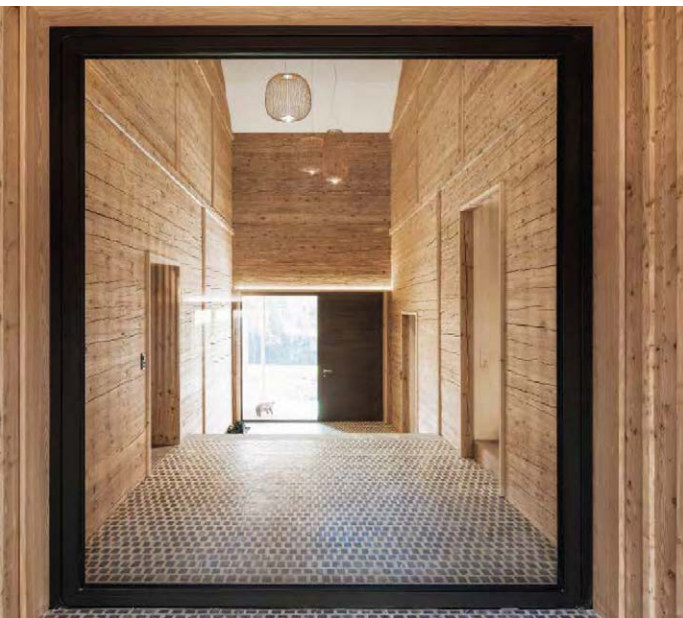
The pivot door is operated from the inside using a push button in the frame profile or in the wall. Outside operation can be by means of a standard smart home system or an entry code. Conventional access control systems can also be connected. When closing, a magnetic contact activates the auto-lock function, which locks after a set amount of time. In the process, the air-lux gaskets (inflatable ring seals) are filled with air, providing a full perimeter seal for the door.

The door movements are controlled and smooth, and large heavy doors can be moved with minimal effort by operating on a specially developed hinge system that can be mounted centrally or off centre. The rotational angles of 90° to 360° can be supported.



Hinge positions and rotational angles of pivot door

Diagram and Photos: Schüco International KG





Sustainable Solutions



Our Aluminium is green to the core.

Thermosash is firmly committed to advancing sustainable construction practices, making environmental consciousness a top priority. At the forefront of the industry, we are dedicated to reducing carbon emissions and championing eco-friendly solutions.

Low-Carbon Glass

Thermosash's commitment to sustainability also extends to our glass selection, whilst access to low-carbon glass is available, it is in its infancy with limited suppliers. We ensure that your projects benefit from environmentally friendly glazing options, further reducing the carbon footprint of our façade solutions.

Toitū Carbon Reduce

Thermosash is a certified Toitū Carbon Reduce organisation, with emissions generating activities quantified to produce an audited total value for operational carbon emissions. As part of the carbon reduce program we have progressed several reduction initiatives, including the installation of a 220kW solar power generation system at our Auckland production facility.

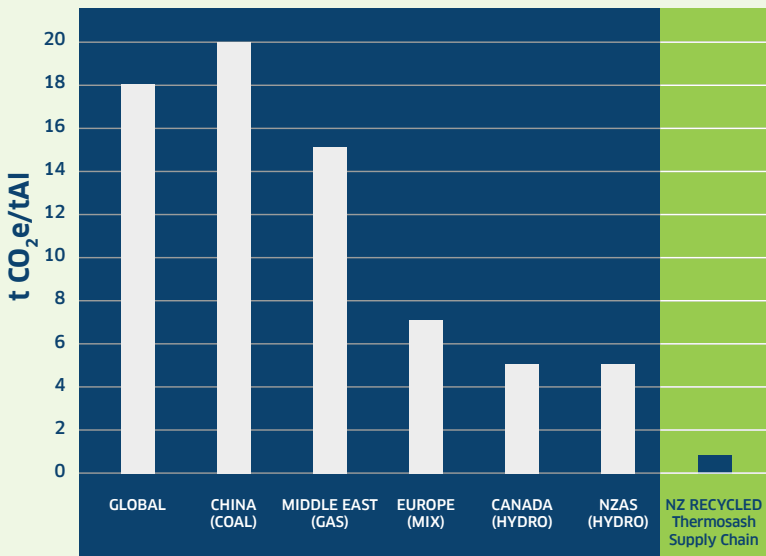
Work site Reduction/Elimination/Reuse

By employing multi-use transport equipment, long-life steel crates and stillages, and reusable packing materials, we significantly reduce waste generated during installation. Prefabrication of products allows for efficient waste capture and sorting at the factory, further minimising on-site waste.

Reduction of Operational Emissions

Through a full measurement and target reductions audit undertaken by Toitū Envirocare, Thermosash Commercial Ltd achieved Carbonreduce Certification with result of 1,369.93 tCO₂e (tons of carbon dioxide equivalent) in the 2021/2022 NZ financial year period.

This baseline for subsequent emission reduction targets going forwards. Please contact us for up to date certification figures.



Low-Carbon Extrusions

At the heart of Thermosash's sustainability journey is a partnership with a local NZ remelt facility that is powered by a renewable electricity grid. A collaboration that has resulted in a **super low embodied carbon footprint per kilogram of Aluminium.**

The extrusions have a combination of high recycled content and low carbon virgin material creating high strength Aluminium with low embodied carbon.

A rigorous annual audit is undertaken by Toitū on the remelt facility's aluminium. Please contact us if you require up to date carbon figures.

ISO Standards

At Thermosash, we place paramount importance on ensuring the highest standards in Health and Safety, Environmental, and Quality Management across our operations. In alignment with our commitment to excellence Thermosash Group Limited is Telarc registered for HEQ ISO certifications for our Thermosash Auckland facility based in Henderson, and the Woods Glass Auckland facility in Penrose.

The three ISO standards that encapsulate our commitment are:

ISO 45001:2018
Occupational Health and Safety Management System

Focused on ensuring a safe and healthy work environment for all our employees, clients, and collaborators.

ISO 14001:2015
Environmental Management System

Emphasizing our dedication to environmentally sustainable practices, minimizing our ecological footprint, and contributing to a greener future

ISO 9001:2015
Quality Management Systems

Ensuring that our processes consistently meet the needs of our clients and stakeholders, reflecting our unwavering commitment to quality.

Dedicated Health and Safety and Quality Managers

Each Thermosash branch has its own dedicated Health and Safety and Quality Managers. These professionals are instrumental in the day-to-day implementation, monitoring, and continuous improvement of our Health and Safety, Environmental, and Quality Management systems. Their role is pivotal in ensuring that our operations align seamlessly with the rigorous standards set by the ISO certifications.

As we progress on this journey, we are confident that the implementation of these ISO standards will not only fortify our commitment to excellence but also underscore our responsibility towards the well-being of our employees, the environment, and the quality of our products and services.



INTEGRATED MANAGEMENT SYSTEM

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