

# EBSA Automated Louvres BT90 Louvre System PTS

Product Technical Statement: 114182



Thermally broken 90mm frame, Double & Triple glazed, widths up to 1740mm, blade heights up to 450mm

[View miproducts listing](#)



## Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include self-assessment and technical information by manufacturer



EBSA Automated Louvres confirms that this minimum level of assurance has been met or exceeded by the following:

Azuma Design Pty Ltd

[Wind and Water testing - AZT0131.21](#)



The following information has been provided by EBSA Automated Louvres demonstrating how this product complies with the [Building Product Information Requirements](#).

## Technical Statement

### Product Class

CLASS 2

### Product Description

- The SLS BT90 louvre system is specifically engineered to assist building designers to meet the requirements of H1 compliance in relation to the new stringent sections in the New Zealand regulations.
- 1740mm Width (as tested)
- Up to 800Pa Water Penetration
- +2000Pa / - 2000Pa SLS (no failure)
- +4500Pa / - 4500Pa ULS (no failure)
- 0.02 L/s m2 Positive Air Infiltration
- 0.52 L/s m2 Negative Air Infiltration
- The use of IGU's and thermally broken frames is essential to achieve low R - values
- Centre pivot louvre system with thermally broken 90mm frame
- Production sizes
- Width: 400mm up to 1740 mm
- Height: 300mm to any height
- Blade height: 180mm up to 450 mm
- Can be glazed with: 28-44mm IGU (Double or Triple Glazed)
- Alternative installations with Insulated Sandwich Panel

### Scope of use

The BT90 louvre system is certified to NZS4211 having been tested to AS/NZS4420.1. With the correct glass selection the BT90 louvre is capable of meeting H1 energy provision requirements.

### ACTUATORS

- Drive 24v D/C 600N Force
- 0.8Amp full load
- IP50
- 10000 double strokes in each direction
- Fire Stability 30min @ 300degrees
- Closing Edge Protection
- 5 Year Warranty D+H Actuator LD Series

### SLS BT90 LOUVRE

- Louvre profile 90mm x 40mm thermally broken
- Blade holders / fully framed & thermally broken
- Dimensions / frame width (min 400mm up to 1740mm)
- Dimensions / frame height (min 300mm to any height)
- IGU options / double glazed (32mm) triple glazed (44mm)
- Operating details / 24v d/c mechanical operation / available in manual operation
- The BT90 is a louvre system that offers efficient, sustainability and compliant smoke relief to buildings.

### New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B2 Durability:** Performance B2.3.1(c), B2.3.2(a)



masterspec partner

### Company Contact Details



Brand: EBSA Automated Louvres

Company: EBSA NZ Limited

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Auckland

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1237 WARRANTIES for additional requirements

## WARRANTY - INSTALLER/APPLICATOR

- Provide an installer/applicator warranty
- 5 years for fabrication and workmanship

- **Clause D2 Mechanical installations for access:** Performance D2.3.2(c), D2.3.3(c), D2.3.3(d)

NATA Accredited Laboratory (Certificate Number 1764)

- AS/NZS 4420.1: 2016

## COMPLETE AIR SEAL

- To NZBC E2/AS1, 9.1.6 air seals.
- Form an air-tight seal by means of proprietary sealants.

## AIR INFILTRATION

- For NZS 4211, table 3 air infiltration.
- Non-air conditioned zones (passive ventilation) and conditioned zones.

## INFORMATION REQUIRED FOR CODE COMPLIANCE

- Installer's approval certificate from the manufacturer / importer / distributor
- Manufacturer's / supplier's warranty
- Installer's / applicator's warranty
- Producer Statement - Construction (PS3) from the applicator / installer
- Producer Statement - Construction Review (PS4) from an acceptable suitably qualified person
- Other information required by the BCA in the Building Consent Approval documents.

## 1238 AS-BUILT DOCUMENTATION

- Wiring diagrams
- Product datasheets
- As-built window drawings
- Installation instructions
- End-user manuals
- Maintenance requirements
- Service and maintenance schedule
- Provide draft as-built information prior to Practical Completion.
- Provide final as-built information prior to the end of the defects liability period.

## BT Installation

- **Clause G4 Ventilation:** Performance G4.3.1, G4.3.3(f), G4.3.3(g), G4.3.3(h)

BT90 is certified to NZS4211 having been tested to AS/NZS4420.1.

- AS/NZS 1170.2 Structural design actions, part 2: wind actions.
- NZS 1170.5 Structural design actions - part 5: earthquake actions - New Zealand
- Air Infiltration Test / Positive 0.02 L/s m<sup>2</sup> & Negative 0.52 L/s m<sup>2</sup>
- Water Penetration Test / Up to 800 Pa
- Ultimate Strength Test / Up to 8000 Pa
- Deflection Test / Up to 3000 Pa
- Thermal Performance /U-Value 2.355 W/m<sup>2</sup>K (subject to glass makeup)

## BT90 Testing

- **Clause H1 Energy efficiency :** Performance H1.3.1(a), H1.3.1(b), H1.3.3(a), H1.3.3(c), H1.3.3(d), H1.3.3(f)

- NZBC E2/AS1 External moisture
- NZS 4211:1985 Performance of windows
- section 4521 ALUMINIUM WINDOWS AND DOORS

BT90 is certified to NZS4211 having been tested to AS/NZS4420.1.

- Air Infiltration Test / Positive 0.02 L/s m<sup>2</sup> & Negative 0.52 L/s m<sup>2</sup>
- Water Penetration Test / Up to 800 Pa
- Ultimate Strength Test / Up to 8000 Pa
- Deflection Test / Up to 3000 Pa
- Thermal Performance /U-Value 2.355 W/m<sup>2</sup>K (subject to glass makeup)

## Thermal Performance Test

## Notes

The BT90 is designed as an energy efficient glass louvre system, it creates sustainability within the building envelope and also provides life safety by means of smoke relief / smoke ventilation.

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The louvre systems sustainability works in conjunction with selected sensors: CO2 sensors / Internal & external temperature sensors / rain sensor / wind, speed & directional sensor.

The louvre systems smoke ventilation works in conjunction with the smoke detection system / sprinkler flow value system

## Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

BT90 louvre system has been designed for the purpose of natural ventilation in buildings, it's design is to assist in architectural sustainability requirements which comprises of a fully framed aluminium assembly and blade holders which are thermally broken.

The system is manufactured and supplied in two options, double glazed 32mm IGU or triple glazed 44mm IGU which is assisting towards the H1 compliancy.

BT90 louvre system has been designed for the purpose of smoke relief in buildings, it's design is to assist in the fire engineers requirements for life safety. The system is operated by means of a manual winder or 24v d/c extra low voltage field cabling.

Its usages are, but not limited to commercial / educational / industrial / residential sectors.

BT90 requirements are custom fabricated for each individual project.

BT90 is a glazed operable unit with insulated glass IGU's and requires support structures upon installation, the support structures are / but not limited to timber support framing / steel support framing / aluminium support framing.

## [BT90 Product Specification](#)

## Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



Azuma Design Pty Ltd

[Wind and Water testing - AZT0131.21](#)

## Use in Service History

The BT90 is designed for high performance, it utilises thermal breaks in both the perimeter louvre framing and the blade holder to achieve class leading thermal performance.

Its achieved best thermal rating of any louvre system on the Window Energy Rating Scheme (WERS) database. The BT90 has been certified to NZS4211 in varying configurations and has established itself as one of the most competent louvre system on the market.

## Product Criteria

### Design requirements

BT90 louvre is designed for, but is not limited to, use in projects within the following scope:

Not limited to any building including housing and residential apartment buildings / commercial towers / industrial / educational

Not limited to Install into timber / steel and aluminium framed construction

Wind zones up to and including extra high.

Thermal performance.

Its a repeatable element and is not restricted to height, but is restricted to width at a tested

Configuration, maximum dimensions, and weights of individual panels also apply, and are dependent on the panel type.

Maximum IGU thicknesses are 32 mm and 44mm IGU.

Anodised or powder coated finish selected from the Standard RAL or Dulux colour ranges.

Air permeability rating (determined in accordance with SNZ TS 4211) and achieves an air infiltration rating for air-conditioned buildings (determined in accordance with NZS 4211). Controlling air permeability and infiltration helps prevent heat losses from buildings.

### Installation requirements

#### PRE-INSTALLATION REQUIREMENTS \*

Do not commence installation unless all preparatory work is of the required standard.

All opening sizes are within manufactures tolerances

Support structures are securely anchored

#### CONFIRM PREPARATION OF OPENING IN FACADE

Confirm that all louvres have been prepared and ready for the installation and including all consumables.

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Do not proceed with the installation until required preparatory work has been completed.

Fix to comply with the reviewed shop drawings and installation details including sealant, seals and fixing positions.

## CABLE

Contractor to provide 24v cabling between selected control panels and louvre system. Volt drop calculations must be followed as per the manufactures specifications.

## FINAL FIXING - LOUVRE

Make sure louvre is plumb and securely fixed to support structure with the correct fixings.

Structural silicon is applied to louvre as per installation details.

## Maintenance requirements

### MAINTENANCE CONTRACT PROPOSAL

Preventative service and maintenance is a requirement for all buildings where automated facades consisting of operable louvres, are utilised for natural ventilation and/or smoke relief purposes.

Provide a proposed maintenance SLS (Service Level Agreement)

List the service and maintenance requirements

Installer's approval certificate from the manufacturer / importer / distributor.

Manufacturer's / supplier's warranty

Installer's / applicator's warranty

Producer Statement - Construction (PS3) from the applicator / installer

Producer Statement - Construction Review (PS4) from an acceptable suitably qualified person

## Warrantees

5 years for manufacture of louvre windows & control gear.

2 years for installation of louvres and control gear.

## Company Product Information

### Environmental

#### Materials

ALUMINIUM EXTRUSIONS: Alloy designation to comply with AS/NZS 1866. Branded and extruded for anodising or powder coating. Alloy designation: AlMgSi EN-AW6060-T66.

Complying with AS/NZS 1734 of suitable thickness. Rolled for powder coating or anodising. Alloy designation: AlMgSi EN-AW6060-T66.

#### Rating Passed

To NZS 4211, including: deflection, air infiltration, water penetration, ultimate strength, torsional strength of sashes.

## Quality Assurance



ISO 9001 (Quality Management)

## Videos

[Working Projects BT90 Thermal Louvre System](#)

## Building Product Information Requirements

### Manufacturer

#### Legal Trading Name:

Schneider + Nölke Lamellenfenster GmbH

#### Business Email:

info@snl.de

#### Company Website:

<https://www.snl.de/EN/index.html>

#### Contact Number/s:

+64 +496-38142000

+49638142000

### Importer

# EBSA Automated Louvres BT90 Louvre System PTS

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**Legal Trading Name:**

EBSA NZ Limited

**Business Email:**

sales@ebsa.co.nz

**Company Website:**

[www.ebsa.co.nz](http://www.ebsa.co.nz)

**Contact Number/s:**

+64 09-8840025

**Product Identifier**

SLSBT90

**Warnings**

This product has no warnings associated with it.



Date last validated: **14 January 2025**



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