



ODIN System

The benchmark for architectural performance.

Inspired by the wisdom and authority of the Norse All-Father, ODIN is Invicta's flagship louvre system. Every detail has been engineered without compromise.

RAIN DEFENCE

Class A

Performance tested to AS/NZS 4740:2025

AERODYNAMICS

Class 1

Performance tested to AS/NZS 4740:2025



ODIN System. 150mm horizontal architectural louvre.

Key Features

- 150mm deep extruded aluminium blade profile
- Horizontally oriented blades to enhance ventilation & weatherproofing
- Ideal for industrial & commercial ventilation applications
- 25-year commercial powder-coat warranty

Performance Specs

- 54% Free Open Area (FOA)
- 31mm Blade Pitch
- 6000mm Max Blade Length
- Conforms to incidental live load requirements

Technical Performance Data

ODIN

01 Aerodynamics

The pressure drop across the louvre is evaluated for different velocities across the louvres. The average discharge coefficient of the louvre is 0.759. Based on the discharge coefficient Odin Louvre achieves Class 1 performance rating. The resistance curve generated based on the static pressure drop evaluated from CFD analysis is as shown in graph below.

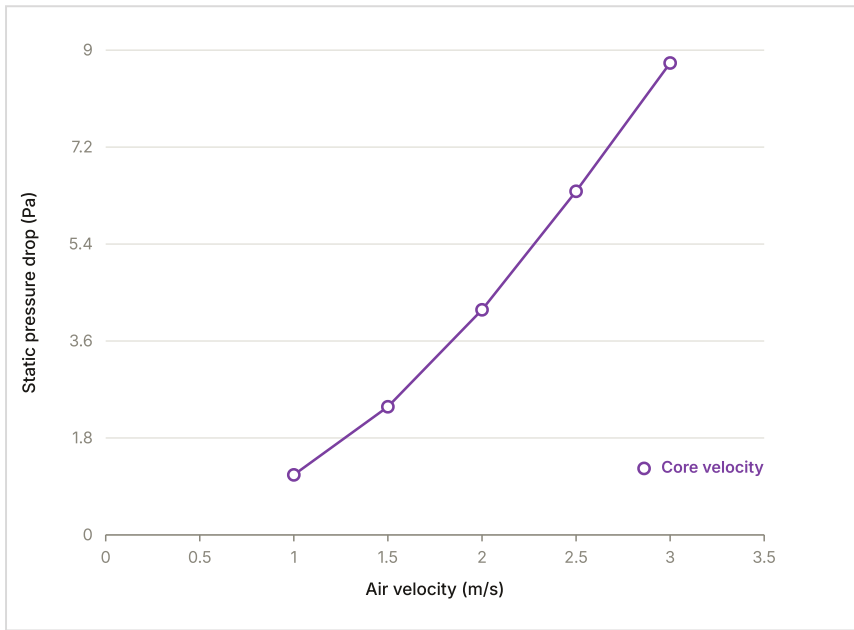


Figure 1. Static pressure drop vs. air velocity chart, from CFD analysis. Core velocity is measured through the throat.

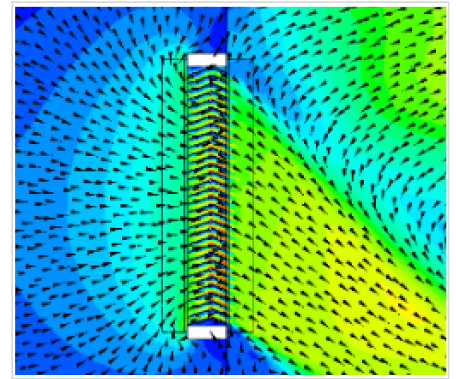


Figure 2. CFD velocity field through the ODIN blade array, shown in section.

STATIC PRESSURE DROP VS. AIR VELOCITY CHART

Air Velocity (m/s)	Static Pressure Drop (Pa)
1	1.116
1.5	2.380
2	4.180
2.5	6.379
3	8.761

Core velocity, measured through the throat.

0.759

 DISCHARGE
COEFFICIENT

54%

FREE OPEN AREA

Class 1

AERODYNAMIC RATING

31mm

BLADE PITCH

Technical Performance Data

ODIN

02 Rain Defence

The effectiveness of the Odin Louvre in restricting the rain penetration for different ventilation flow rate is as shown in table below.

Average effectiveness of the Odin Louvre is 99.98%, hence Odin louvre falls under a **Class A** rating.

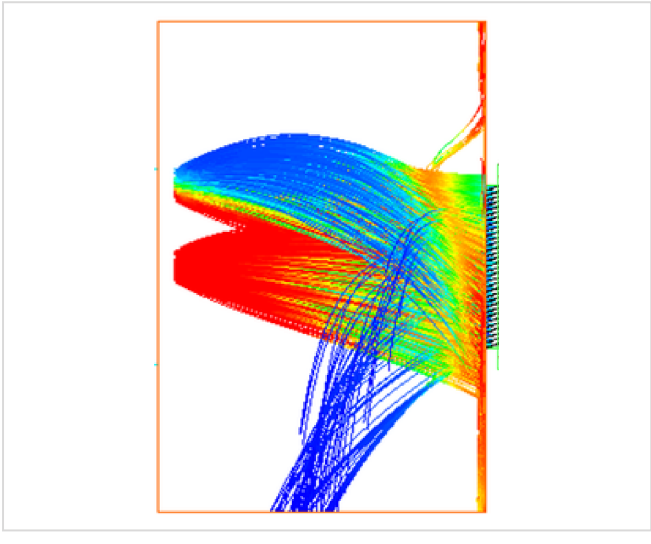


Figure 4. CFD rain droplet trajectories approaching and striking the louvre face.

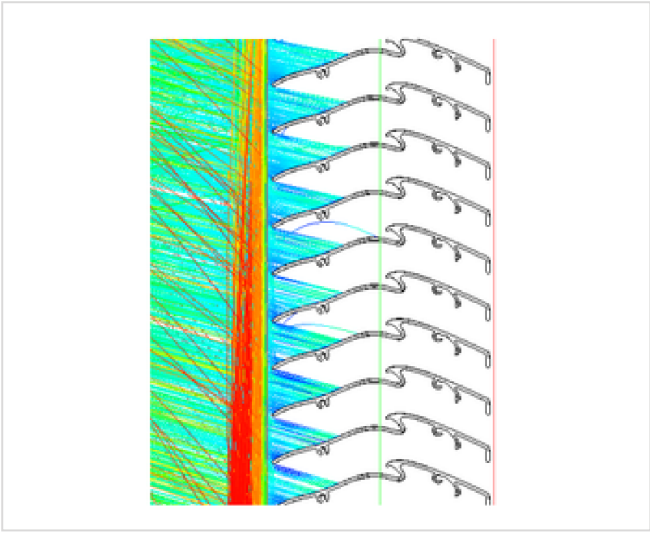


Figure 5. Trajectory detail at blade scale, showing droplet capture on the blade and the drainage path.

RAIN DEFENCE EFFECTIVENESS

Air Flow Rate	Effectiveness	Class
1	100.00%	A
1.5	100.00%	A
2	100.00%	A
2.5	99.97%	A
3	99.93%	A

All tested flow rates achieve Class A. Average effectiveness 99.98%.

Class A

RAIN DEFENCE RATING

99.98%

AVERAGE EFFECTIVENESS

100.00%

PEAK EFFECTIVENESS

5

FLOW RATES TESTED

Wind-rated

Rain-deflecting

External grade aluminium

Specifications & Design

ODIN

Material Options

Constructed from premium 6063-T6 extruded aluminium, delivering superior structural performance and long-term durability. Finished with high-quality powder coating or anodising for enhanced protection and refined aesthetics.

Optional Mesh Types

- **Bird/Vermin:** Galvanised or stainless steel
- **Insect:** Fibreglass or aluminium
- Custom finishes available upon request

Accessories

Integrated louvred doors designed for seamless access, featuring removable mesh panels for simplified maintenance and optional security grilles for enhanced protection.

IN PARTNERSHIP WITH ALSPEC

GREENCORE®

In partnership with Alspec's GreenCore® technology, Invicta Industries now offers full louvre range in low-carbon aluminium. This innovation reduces embodied carbon while maintaining strength, precision and performance.

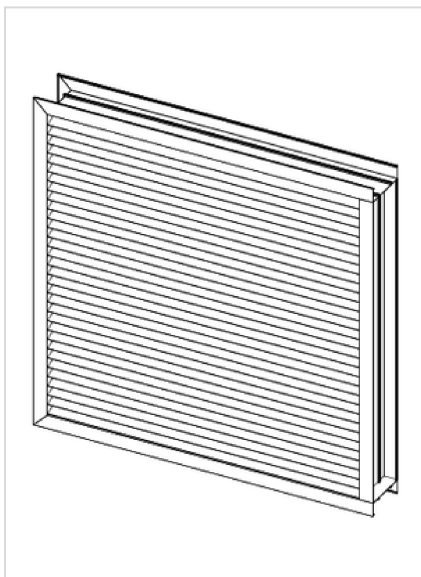


Figure 1. ODIN louvre panel, isometric. Not to scale.

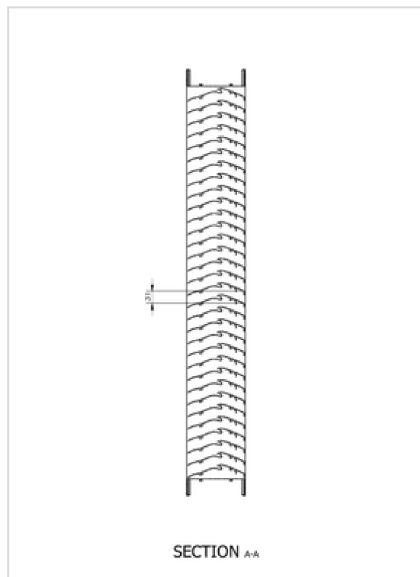


Figure 2. Section A-A. Not to scale.

Governing dimensions

BLADE DEPTH	150mm
BLADE PITCH	31mm
MAX BLADE LENGTH	6000mm
FREE OPEN AREA	54%

Need more info?!

If you have any questions about this product, please speak to our expert team & they will guide you in the right direction. Info below.

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