



# DATA CENTRE PERFORMANCE LOUVRES



**VENTÜER**  
Ventilation, Acoustic & Smoke Louvres









# Mission Critical Engineering

Data centres are mission-critical environments where building systems must perform reliably. Louvre systems in these projects are required to manage airflow, prevent water ingress, reduce noise, and to screen plant and equipment from view.

Ventuer designs and manufactures louvres specifically for these applications, with verified performance across all key criteria. Each system is engineered for long-term durability, clean integration with the façade, and compliance, to meet with project requirements.

*Protecting uptime with*  
***engineered***  
*data centre facade louvres.*

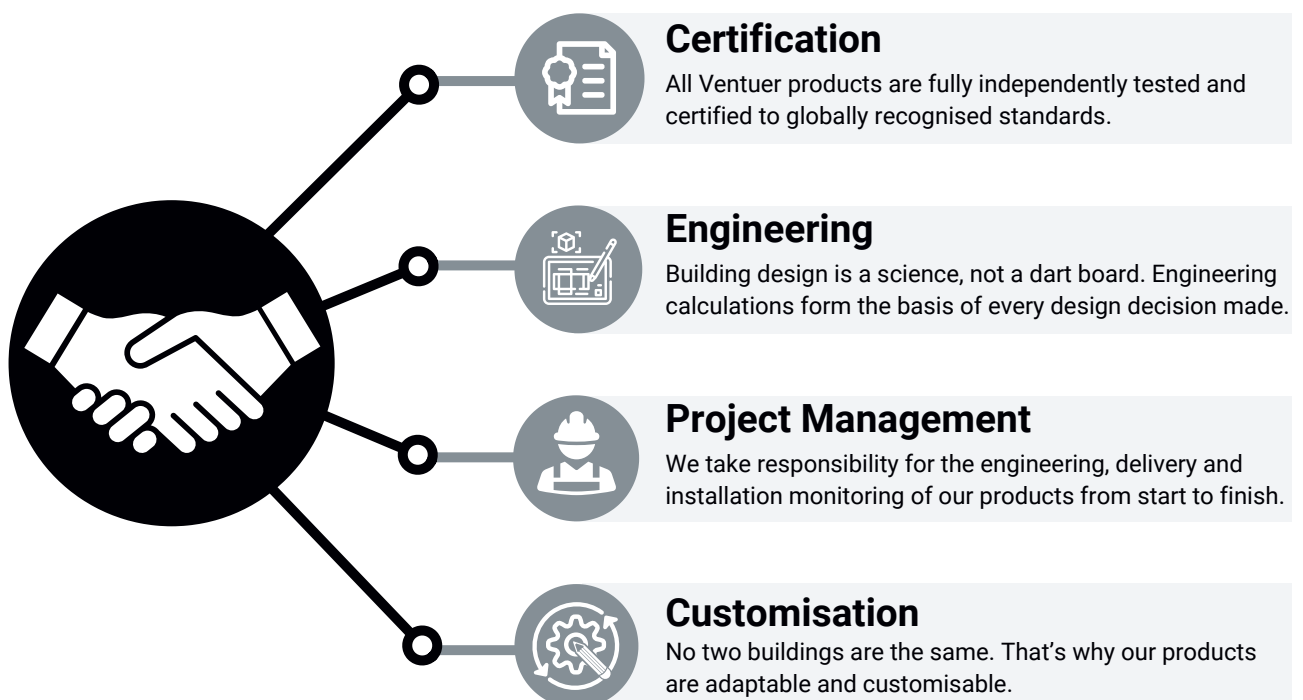




## WHO WE ARE

Ventuer is a leading provider of innovative ventilation products and systems. Since 2009, we have helped architects, builders and installation contractors by providing rigorously tested and certified natural and mechanical ventilation products and systems for a wide range of commercial, industrial and infrastructure construction projects.

Our ventilation, acoustic and smoke louvre systems are robustly engineered, building code-compliant, and widely used on major commercial projects to create healthy and comfortable indoor environments. We have built a reputation on the ability to use our products to engineer ventilation solutions in tricky environments where ordinary products would be risky and ineffectual.

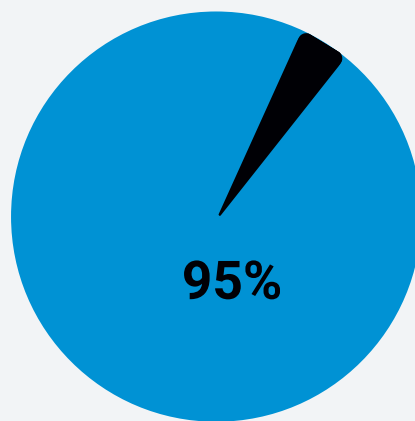






**1 m<sup>2</sup> Ventuer Louvres  
= 1 Tree Planted**

Ventuer plants a tree for every square metre  
of louvres manufactured



**95%  
Green Aluminium**

**95% of aluminium used in Ventuer products  
is smelted using renewable energy**





# DATA CENTRE SECURITY LOUVRES

Ventuer's patent-pending security louvre has been developed specifically for the physical demands of data centre design. The system delivers high free area for ventilation while resisting forced entry through its reinforced blades, tamper-resistant frame, and concealed fixings.

With security in mind, it has been specifically engineered to delay or prevent unauthorised access at air pathways - locations typically vulnerable to attack.

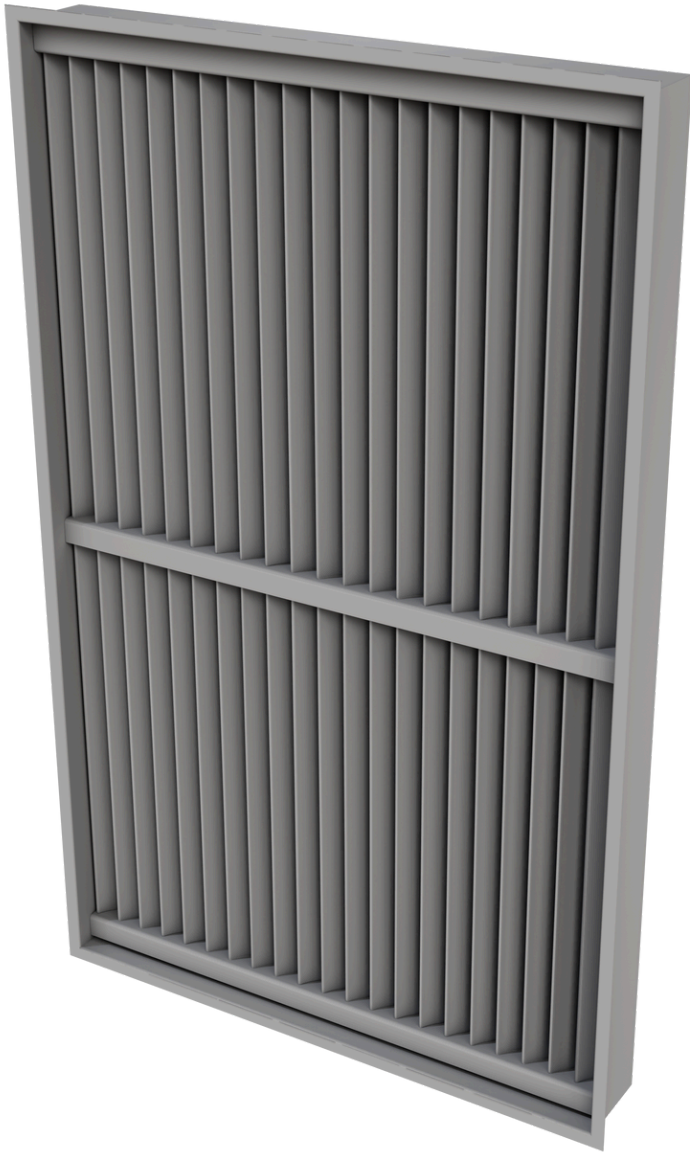
The louvre also performs strongly in wind-driven rain testing, protecting internal equipment from water ingress in exposed conditions. This makes it ideal for use in perimeter walls, mechanical plant enclosures, or as part of an integrated façade system.

Designed without compromise, it meets the growing expectation for physical resilience in critical infrastructure projects. Where reliability, airflow, and protection must all coexist, this security louvre provides a clear and engineered solution.

It helps ensure that the physical envelope of a data centre supports the uptime, compliance, and operational security demanded of today's digital infrastructure.







#### VL-SLV

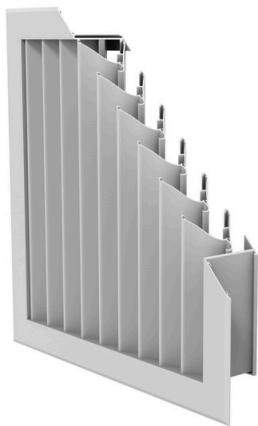
The VL-SLV is a high-performance vertical weather louvre engineered for secure ventilation applications. Its Class A rain defence blades are aerodynamically profiled to minimise pressure loss while maintaining excellent airflow. Integrated stainless steel security bars are concealed within the aluminium blade profiles, delivering robust resistance to forced entry without compromising aesthetics. All fixings are fully enclosed within the frame, preventing tampering or removal after installation. Bird and insect mesh can be added internally, and no additional external security screen is required.





# DATA CENTRE

## WEATHER LOUVRES



### VL-VF2

The VL-VF2 delivers Class A rain defence and low pressure loss through its vertical blade design, which enhances airflow and directs water away. Its compact 100mm frame integrates easily into façades, including window joinery, and allows effective ventilation even in low-height installations.



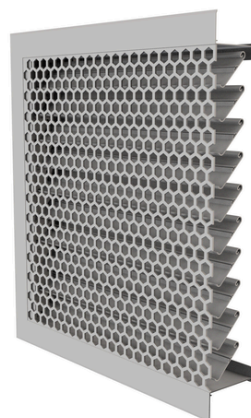
### VL-3SD

The VL-3SD offers superior rain protection with a three-stage blade system and pressure-equalised mullion for efficient water management. Its 150mm frame allows easy façade integration, while clip-fixed front blades enable wide, continuous spans.



### VL-2SD

The VL-2SD is a compact, two-stage horizontal weather louvre engineered for strong rain defence and efficient drainage. Its pressure-equalised mullion system and 150mm frame support discreet, large-format installations with clip-fixed front blades for a clean, continuous appearance.



### VL-50PL

The VL-50PL pairs a horizontal drainable louvre with a perforated aluminium facing panel, delivering strong airflow and weather protection with a clean, low-profile aesthetic. Available in six perforation patterns, the system is tamper-resistant, durable, and blends seamlessly into the façade.





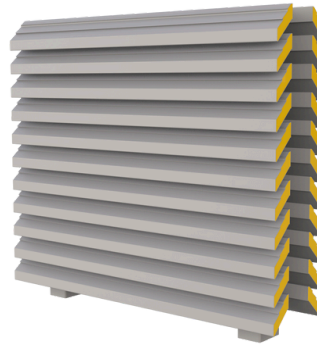
# DATA CENTRE

## ACOUSTIC LOUVRES



### AL-600V

The AL-600V is a 600mm deep acoustic louvre delivering an STC rating of 22 dB. It is specifically designed for applications where both sides of the louvre are exposed to rain, offering maximum sound attenuation without compromising airflow performance.



### AL-500SGB

The AL-500SGB is a clip-fixed acoustic louvre system with double-sided blades delivering an STC rating of 17 dB. Its kitset blade and stanchion design allows for continuous spans up to 6.5m without visible joints, ensuring clean aesthetics and efficient on-site assembly for medium to high noise reduction.



### AL-300V

The AL-300V is a 300mm deep acoustic louvre with an STC rating of 15 dB, designed for applications where both sides are exposed to rain. It offers reliable weather resistance and medium-level sound attenuation, making it well-suited for acoustic plant screens.



### AL-300W

The AL-300W is a 300mm deep acoustic louvre with an STC rating of 14 dB and weather-resistant blades. It offers a balance of sound attenuation and rain defence, making it ideal for enclosed plant rooms or sites where space is limited and moderate noise control is required.







## ENGINEERED FOR WIND

Through our sister company, Insol, we enjoy unrestricted access to the Insol Facade Testing Laboratory and their wind tunnel. The open-jet, high power wind tunnel is specifically designed for testing 1:1 scale building facade elements.

Able to generate flow velocities over 50m/s, the wind tunnel is designed to fit large 1:1 scale models over its 3m diameter turntable. With full variable speed control over the 4 centrifugal fans, maximum control of wind speeds allow for low-speed aero-acoustic testing as well as high-speed structural tests.



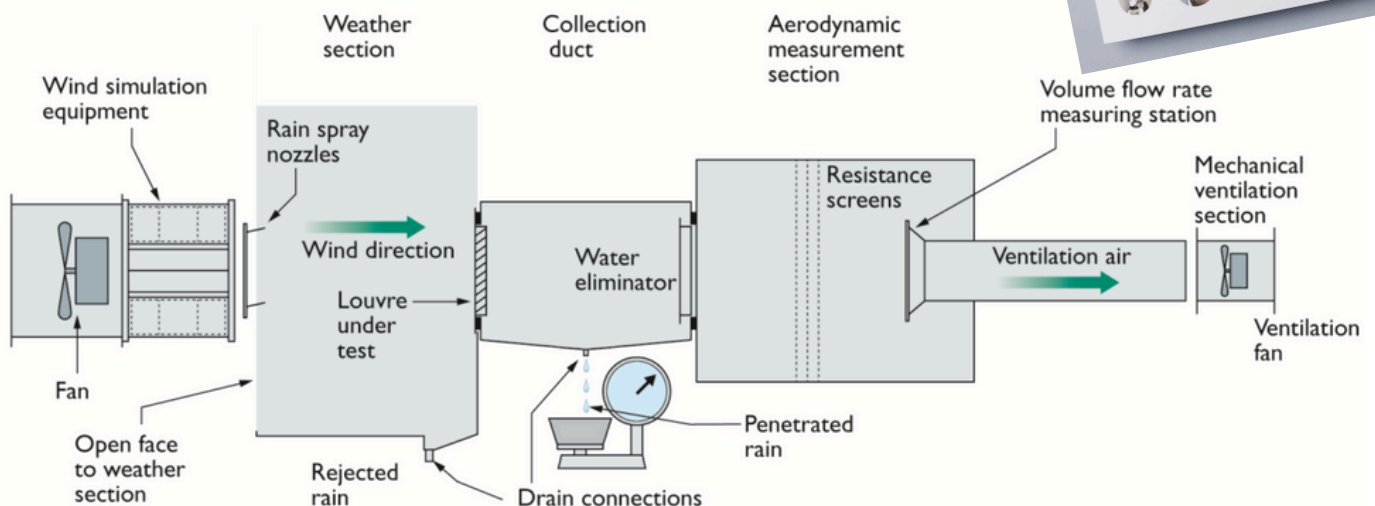




## ENGINEERED FOR RAIN

Rain ingress through poorly performing louvres can damage sensitive equipment, disrupt HVAC systems, and compromise uptime in mission-critical data centres. At the same time, inadequate airflow performance can increase internal temperatures and reduce cooling efficiency.

Ventuer performance louvres are engineered to deliver strong resistance to wind-driven rain while maintaining low pressure loss. All models are fully independently tested and certified by globally recognised test laboratories, with test data publicly available.



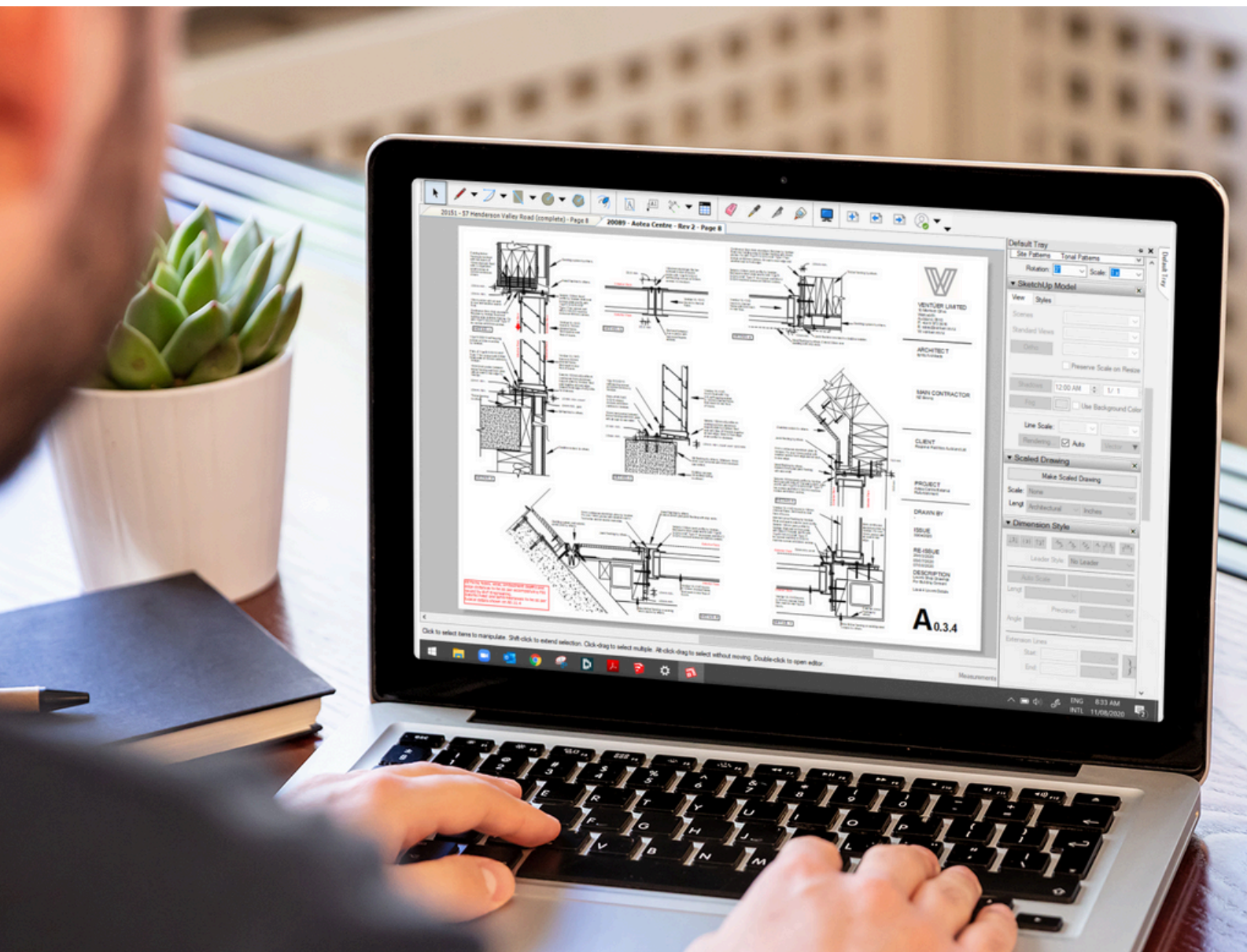


# DESIGN & ENGINEERING

In mission-critical data centre projects, effective louvre design demands more than basic coordination. Ventuer provides detailed, engineering-led shop drawings that resolve structural loads, wind and seismic movement, and integration with adjacent systems. Engaging our design team early helps avoid late-stage changes, delays, and compliance risks.

Each system is engineered based on real-world site conditions, with structural design that accounts for wind loading, fixing methods, and building movements. Junctions are detailed to manage water and air infiltration, ensuring durable weather-tightness and thermal performance across the building envelope.

Our drawings also resolve interfaces with cladding, ductwork, and structural elements, reducing installation conflicts and simplifying coordination for the wider design team. With experience across high-security, high-performance buildings, Ventuer delivers practical, technically sound solutions that support both design integrity and operational resilience.







## Ventilation Design

Tested and certified louvre systems are selected and sized to ensure appropriate ventilation rates.



## Acoustic Design

Noise control is carefully considered and managed by use of correctly specified acoustic louvres.



## Security Design

Risk of physical intrusion is mitigated through louvre systems engineered for resistance to forced entry.



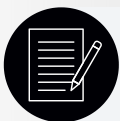
## Watertightness

Louvre performance is validated to prevent wind-driven rain ingress during extreme weather conditions.



## Facade Integration

Louvre geometry and mounting details are designed for seamless façade and services coordination.



## Structural Engineering

All systems are structurally engineered to suit project-specific wind and seismic loading conditions.



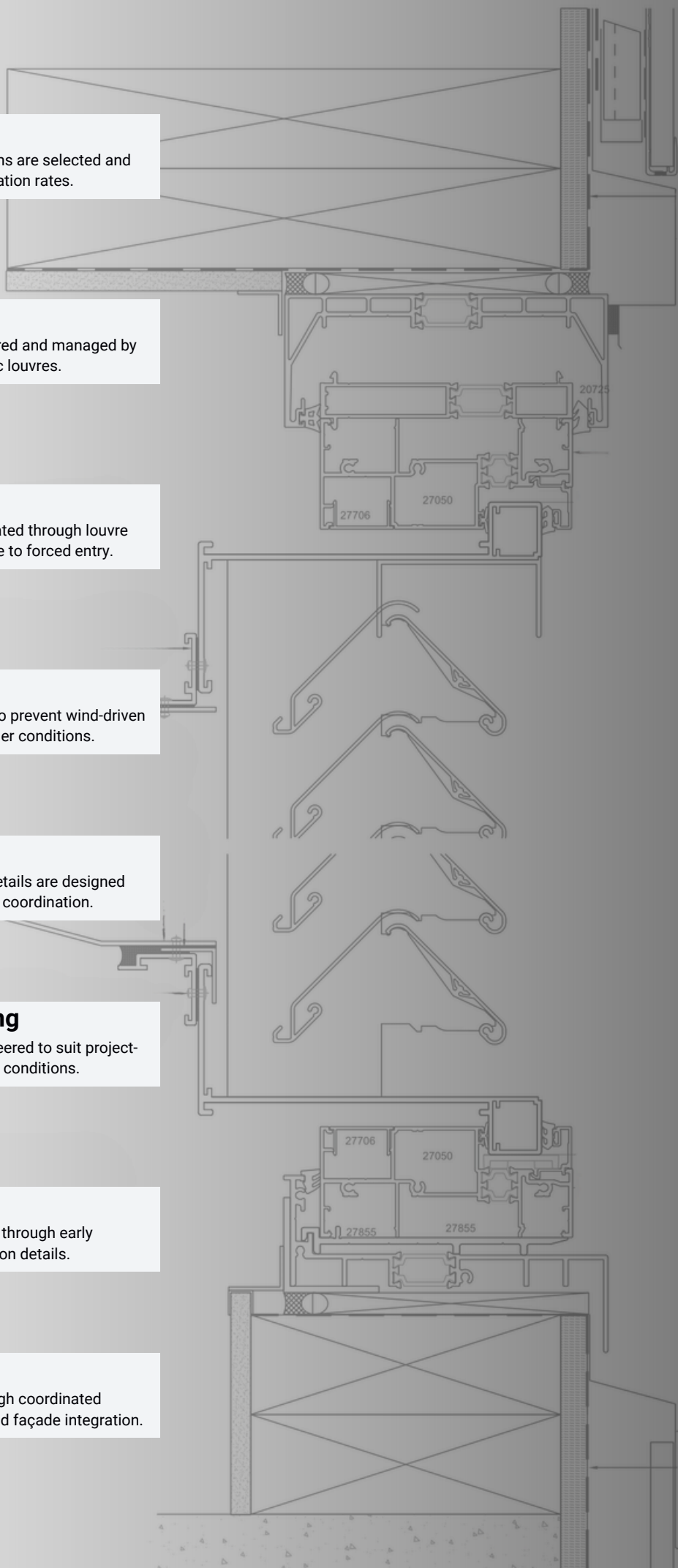
## Buildability

Installation complexity is reduced through early resolution of fixing and coordination details.



## Aesthetics

Visual impact is considered through coordinated detailing of screening, finishes, and façade integration.











## PROJECT DELIVERY

Ventuer has the capability and experience to deliver louvre systems for large-scale data centre developments, where performance, precision, and reliability are non-negotiable. We understand the critical role of airflow, weather protection, and physical security in supporting operational uptime. Our team engages early to align with mechanical, façade, and architectural requirements - ensuring louvre systems are not only compliant, but fully integrated with the wider building envelope.

Every detail is engineered with the data centre environment in mind. We design for specific wind and seismic loads, address wind-driven rain and acoustic performance, and coordinate closely with adjacent services to eliminate clashes. Our internal design, engineering, and project management teams work together to streamline delivery - from early design support through to manufacturing and installation coordination. This reduces risk and helps project teams meet tight construction programmes.

With access to scalable manufacturing and a network of trusted suppliers, Ventuer delivers on time - even for multi-stage or fast-track builds. Our systems are independently tested, certified, and supported by clear technical documentation, helping clients meet both operational and compliance requirements in high-security, mission-critical facilities.






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