

Data Centre **Solutions**

High-performance ventilation, wall cladding & solar shading systems



**Natural cooling
& intensive ventilation**



**High-performance weather
& intrusion resistance**



**Louvre walls
& doors**

DUCO

We inspire at www.duco.eu

Introduction

As demand for cloud computing and outsourced IT infrastructure grows, data centres have become the backbone of the modern digital economy. Large-scale facilities housing vast numbers of servers, built to process and store critical data with maximum efficiency.

For architects and engineers, designing a data centre means striking the right balance between stringent technical demands and architectural quality. Ventilation, security and screening all play a central role: the heat generated by equipment requires high-performance solutions to maintain safe operating temperatures and reduce energy consumption, while the sensitive nature of these facilities demands robust protection against weather, intrusion and unwanted public attention.

DUCO addresses all of these requirements through high-end louvre systems, acoustic ventilation and solar shading - delivering effective thermal management, security and screening without compromising on design.



SILENCE

Controlling acoustic impact



SECURITY

Protection without compromise



SCREENING

Privacy and aesthetics



SOLAR SHADING

Thermal management



SYSTEMS

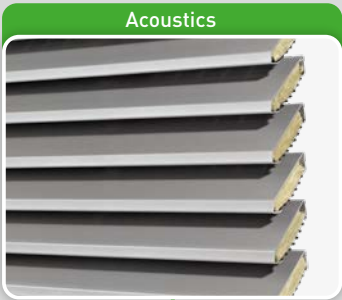
Natural and intensive ventilation

SCAN & DISCOVER



Discover our
Data Centre Solutions!

Data centre solutions



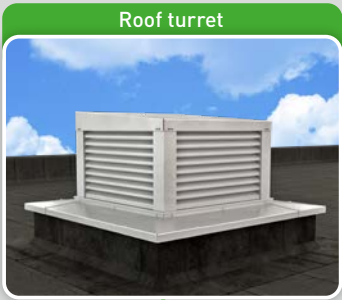
Acoustics

see page 8



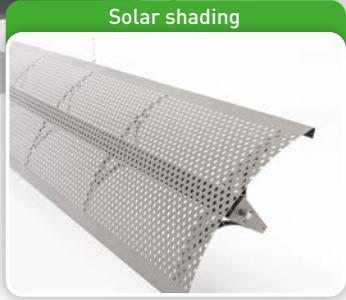
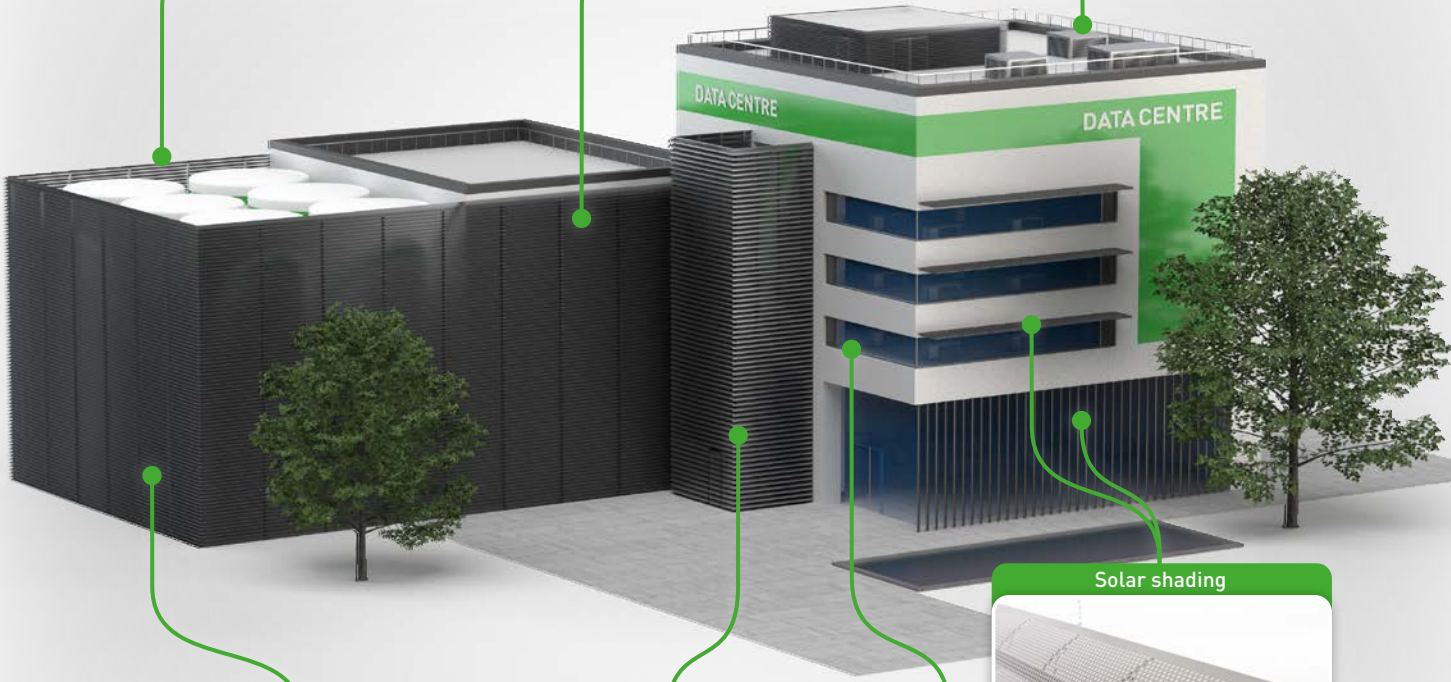
High-airflow and weather-resistant louvers

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Roof turret

see page 12



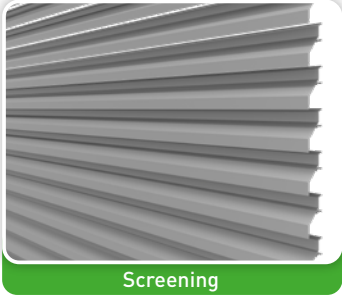
Solar shading

see page 14



Security

see page 18



Screening

see page 6



Natural cooling

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Five priorities. One integrated solution.

Data centres demand more than ventilation alone. From acoustic control and physical security to visual screening, solar shading and high-performance airflow, every aspect of the building envelope plays a critical role.

DUCO addresses all five with a single, integrated range of solutions - engineered for performance, designed to last.



SECURITY

Protection without compromise

Data centres house valuable equipment and even more valuable data, making physical security a priority.

DUCO offers intruder-resistant louvre walls up to RC3 classification, and louvre doors and grilles up to RC2, all tested and certified to European standards (EN1627 & NEN 5096C+2).

These solutions conceal critical infrastructure from view whilst maintaining essential ventilation.



SCREENING

Privacy and aesthetics

Data centres are not intended for prying eyes. DUCO louvre wall systems provide an effective visual barrier, shielding sensitive operations from external view whilst enhancing the architectural appearance of the building.

Our patented intruder-resistant screening solutions integrate seamlessly into the façade for a clean, uniform finish.



SILENCE

Controlling acoustic impact

Data centres generate considerable noise from ventilation systems, cooling equipment and continuously running servers. This constant output can result in high noise levels both within the building and in the surrounding area - disruptive for staff and neighbouring occupants alike.

DUCO's acoustic louvre wall systems are designed to limit sound transmission whilst maintaining the high airflow rates that data centres demand.



SYSTEMS

Natural and intensive ventilation

Effective ventilation is the most fundamental requirement for any data centre, maintaining consistent operating temperatures despite significant internal heat generation.

DUCO offers a complete range of high-performance ventilation systems - from continuous louvre walls and roof turrets to motorised dampers and night cooling solutions - delivering maximum airflow with minimal energy consumption.



SOLAR SHADING

Thermal management

Controlling solar gain is a critical element of data centre thermal management. By minimising heat penetration through the building envelope, solar shading directly reduces cooling loads and delivers ongoing energy savings. Combined with DUCO's acoustic louvre wall systems, solar shading forms part of a fully integrated approach to both thermal and acoustic management.

Environmental Product Declarations

DUCO has published verified EPDs (Environmental Product Declarations) for its major product lines - including products widely specified for data centre projects. These independently verified declarations demonstrate carbon reductions of up to 96 % compared to default industry values, helping data centre designers and specifiers meet increasingly stringent European & UK building regulations.





DucoWall Screening

An aluminium louvre wall system designed for screening applications, available in three variants to suit a wide range of project requirements.

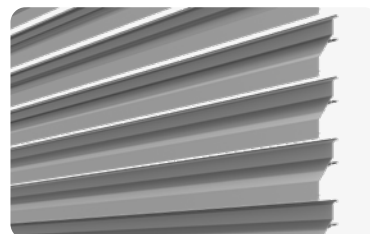
The **DucoWall Screening 35** adds architectural value whilst ensuring fast, straightforward installation.

The **DucoWall Screening 55** offers an increased span of up to 2 metres, bridging the gap between the two outer variants.

The **DucoWall Screening 70** is the high-performance option, combining maximum span and high airflow with a reduced number of supports for efficient installation of the full louvre wall.

DucoWall Screening 35

Type of mullion	40/21 (Double)	40/70 Double	40/100 Double
Louvre pitch	75 mm - 112 mm - 150 mm		
Louvre depth	43 mm		
Installation depth	57 mm	107 mm	137 mm
Maximum span between 2 mullions	← 1650 mm →		



DucoWall Screening 55

Type of mullion	40/21 (Double)	40/70 Double	40/100 Double
Louvre pitch	75 mm - 112 mm - 150 mm		
Louvre depth	64 mm		
Installation depth	77 mm	127 mm	157 mm
Maximum span between 2 mullions	← 2050 mm →		



DucoWall Screening 70

Type of mullion	40/21 (Double)	40/70 Double	40/100 Double
Louvre pitch	75 mm - 112 mm - 150 mm		
Louvre depth	82 mm		
Installation depth	94,5 mm	145 mm	175 mm
Maximum span between 2 mullions	← 2400 mm →		





Also available in an
acoustic version



Sound
absorbing
up to 17 dB

DucoWall **Acoustic**

An aluminium louvre wall system incorporating non-combustible mineral wool for **effective sound absorption**. Blades click onto holders in various configurations, offering aesthetic flexibility alongside strong acoustic performance. Where greater **noise reduction** is required, paired louvre blades are available.

The DucoWall Screening Acoustic variant features a sturdy **aluminium structure** with a choice of 112.5 or 150 mm louvre pitches. Acoustic damping can be further increased with the Double Bank option, where an additional blade is mounted at the rear. All systems install directly onto the mullion for **quick, straightforward assembly**.

DucoWall **Acoustic W 75Z & 75L**

Type of mullion	50/12	21/50 Multi	50/50	50/125	
Louvre pitch	60 mm				
Louvre depth	67 mm				
Installation depth	75Z	79 mm	117 mm	117 mm	192 mm
	75L	87 mm	125 mm	125 mm	200 mm
Maximum span between 2 mullions	75Z	← 1700 mm →			
	75L	← 1650 mm →			

Sound absorption

Attenuation value R _w (C;Ctr)	
W 75Z	W 75L
6 (0;-1) dB	6 (0;-2) dB

→ Suitable for moderate noise levels:



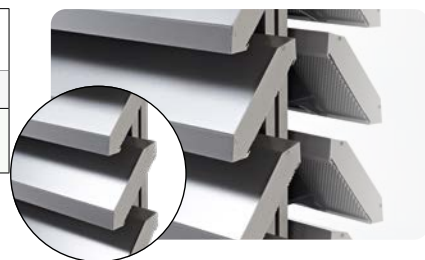
DucoWall **Acoustic W 150 & 300**

Type of mullion	50/12	21/50 Multi	50/50	50/125	
Louvre pitch	150 mm				
Louvre depth	142 mm				
Installation depth	150	154 mm	192 mm	192 mm	267 mm
	300				x
Maximum span between 2 mullions	← 2150 mm →				

Sound absorption

Attenuation value R _w (C;Ctr)	
W 150	W 300
11 (-1;-2) dB	17 (-1;-3) dB

→ Suitable for high noise levels:

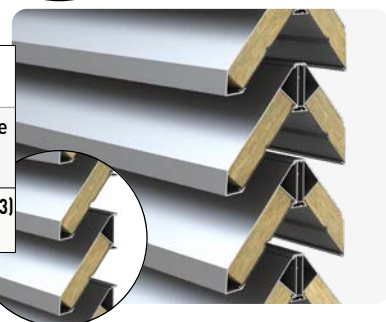


DucoWall **Screening Acoustic**

Type of mullion	40/21 (Double)	40/70 Double	40/100 Double	
Louvre pitch	112.5 mm or 150 mm			
Louvre depth	Single Bank	150 mm		
	Double Bank	238 mm		
Installation depth	Single Bank	162 mm	212 mm	242 mm
	Double Bank	238 mm	238 mm	242 mm
Maximum span between 2 mullions	← 2425 mm →			

Sound absorption

Attenuation value R _w (C;Ctr)			
Single Bank 112	Double Bank 112	Single Bank 150	Double Bank 150
14 (-1;-4) dB	17 (-1;-4) dB	11 (0;-2) dB	15 (-1;-3) dB







water resistance
CLASS A
up to 2 m/s*

* DucoWall Classic W 130HP

DucoWall **Classic**

A versatile range of aluminium louvre wall systems, mounted directly onto a support structure via the intuitive 'Turn-Click' system for quick, efficient installation. **Z-shaped blades** deliver a sleek, clean architectural finish. **V-shaped blades** offer enhanced water resistance and create a penetration-proof barrier with limited outside visibility.

For data centre applications, two high-performance variants are particularly well suited:

The DucoWall Classic W 50HP has been developed specifically for purge ventilation. Its uniquely shaped blade delivers **very high airflow** with a low resistance factor. Optional metal clip blade holders carry fire reaction classification A2-s1,d0 (EN13501-1).

The DucoWall Classic W 130HP combines very high airflow with **Class A water resistance**, making it the premium choice where both ventilation performance and weather protection are critical. It additionally meets EN13049 Class 5 for impact protection and BS6180 (Class XI) for fall-through protection*. Optional metal clip blade holders carry the same fire classification.

DucoWall **Classic W 50HP**

Type of mullion	50/12	21/50 Multi	50/50	50/125
Louvre pitch	50 mm			
Louvre depth	56 mm			
Installation depth	68 mm	106 mm	106 mm	181 mm
Maximum span between 2 mullions	← 1100 mm →			
Louvre blade holders	Plastic Metal Clip <small>Reaction to fire A2-s1,d0 (EN13501-1)</small>			



DucoWall **Classic W 130HP**

Type of mullion	50/12	21/50 Multi	50/50	50/125
Louvre pitch	50 mm			
Louvre depth	133 mm			
Installation depth	145 mm	183 mm	183 mm	258 mm
Maximum span between 2 mullions	← 2300 mm →			
Louvre blade holders	Plastic Metal Clip <small>Reaction to fire A2-s1,d0 (EN13501-1)</small>			



* Test reports available upon request.



WEATHER PROTECTION

Moisture control is a critical consideration when it comes to ensuring the performance and longevity of all equipment inside data centres. As an integral part of the building envelope, louvre wall systems and ventilation grilles form the first and most important barrier against rain and adverse weather conditions.

→ It is worth noting that the degree of weather protection offered by louvre wall systems and ventilation grilles varies considerably depending on the type specified. Solutions range from basic louvre blades providing only limited protection, through to sophisticated, high-performance systems that combine optimal weather resistance with maximum airflow.





Duco **Roof Turret**

The Duco Roof Turret Solid 30Z is an aluminium roof turret designed to conceal air vents whilst ensuring adequate **purge ventilation**. The perforated Solid 30Z louvre blades combine insect resistance with **high ventilation capacity**.

Thanks to large P2 punching, impressive airflow values are achieved in a compact unit. Roof turrets are **made to measure**, complete with a sill at the bottom and a cover plate on top.

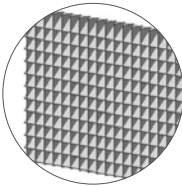
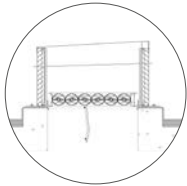
Duco **Roof Turret Solid 30Z**

Louvre pitch	37,5 mm
Roof turret length	Min. 200 mm - Max. 2630 mm (to be coupled)
Roof turret width	Min. 200 mm - Max. 1180 mm (to be coupled)
Roof turret height	Min. 255 mm - max. 1600 mm

OPTIONS DUCO **ROOF TURRET SOLID 30Z**

DucoGrille Close 105

The DucoGrille Close 105 can, as an option, be integrated in the roof turret, thereby ensuring a controlled air supply or extraction. More info on the DucoGrille Close 105 can be found in our 'Louvre Grilles' brochure.

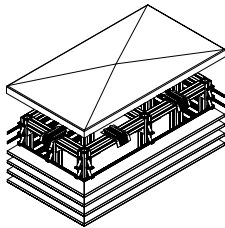


Eggcrate grille

The Duco Roof Turret Solid 30Z is available with an optional Eggcrate grille, which provides even better water resistance (combination with the P2 louvre blades).

ROOF COWLS WITH OTHER LOUVRE BLADES

In addition to the Duco Roof Turret Solid 30Z, DUCO also offers a system in which almost **all types of louvre blade** from the DucoWall range can be used. These roof cowls are made up of profiles from the DucoWall range. The upper panel and finishing thresholds are included. They are available as separate parts, semi-assembled kits or fully assembled kits. Do you need more info? Contact your DUCO dealer.







Installs fast & accurate

DucoSun C / CF / D systems

Three solar shading systems sharing the same modular concept and patented 'Slide-Click' assembly, ensuring fast, accurate installation and a consistent architectural appearance across all variants.

The **DucoSun 95C** features discreet C-shaped blades fixed at a set angle for effective solar shading.



The **DucoSun 100D** uses a modular "Slide-Click" system with D-shaped blades. Their strength allows for wider spans and fewer parts, creating a sleek, minimalist aesthetic.



The **DucoSun 150CF** features elliptical blades with a sophisticated profile, offering greater structural strength for larger spans with fewer mullions.



Simple system with modular components		
Blades with discreet C-design	Louvre blades with "elliptical" D-design	Louvre blades with attractive, "elliptical" design
Quick assembly thanks to the patented "Slide-Click" system		
Large span possible up to a maximum of 2050 mm*	Large span possible up to 2240 mm*	Large span possible up to a maximum of 2515 mm*
Specific assembly application in any technical construction situation		
Blades can be finished with end plates or fascia	Louvre blades can be finished with end plates or fascia	Large blade spacing (distance between 2 blades)

DUCO's product range includes an extensive collection of cantilevered solar shading, with spans reaching well beyond 2,500 mm.

* Technical data sheet for detailed information and other spans of this louvre blade are available.



DucoSun **Cubic**

Available with fixed or **electronically adjustable louvre blades**, installed horizontally or vertically onto the support structure. Fixed blades are set at 0° or 90°, giving a sleek, streamlined appearance that complements the clean architectural lines typical of modern data centre façades. When the adjustable blades are closed, they deliver optimum solar shading, reducing heat gain and supporting the thermal management of the building.

- Sleek, rectangular blade shape
- The closed louvre blades and the façade surface are aligned, forming a single harmonious whole
- Fixed or electronically adjustable louvre blades

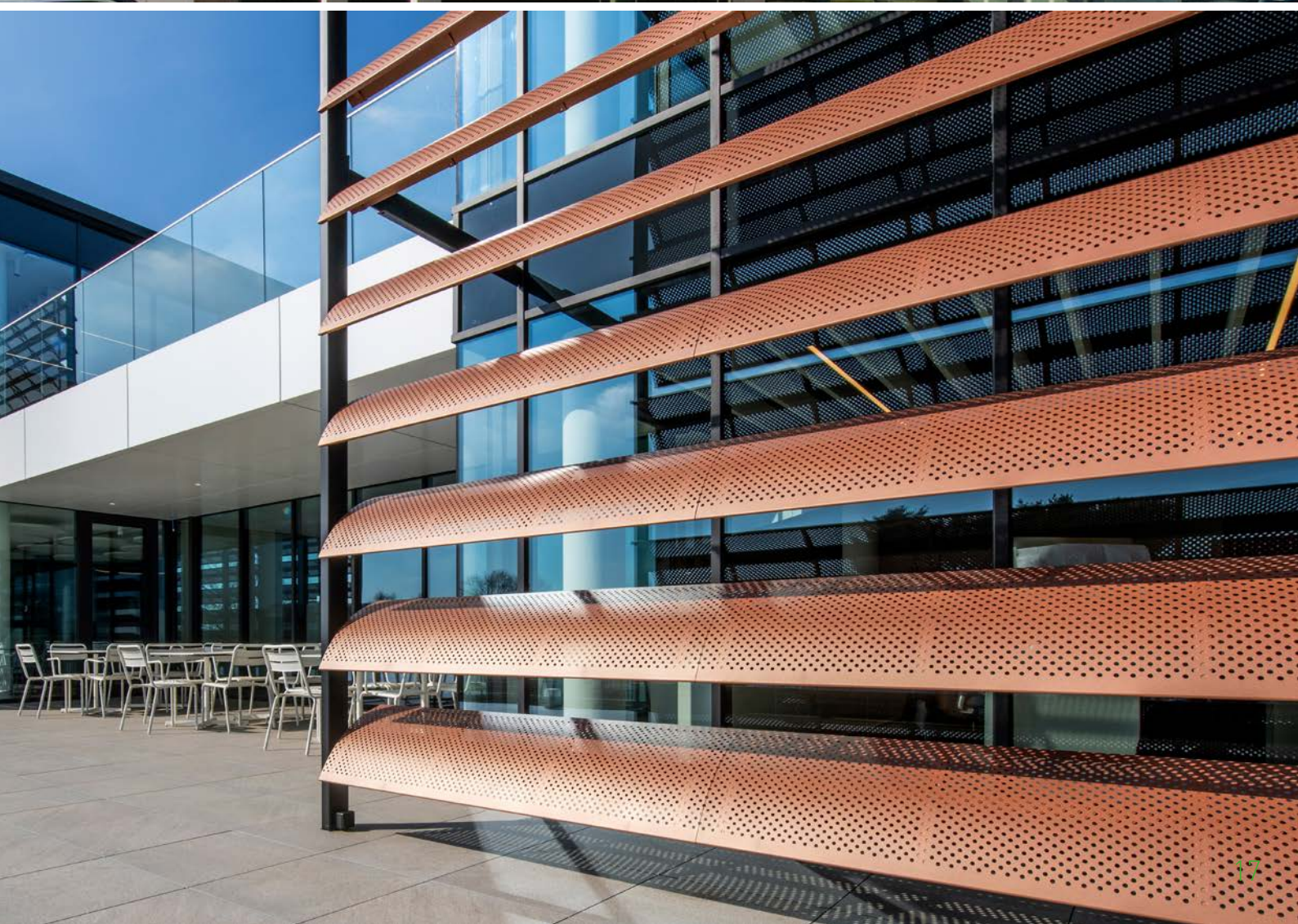


DucoSun **Wing**

A perforated, fin-shaped solar shading system that strikes an effective balance between shading and heat gain reduction - a key consideration in data centre thermal management. The distinctive blade delivers a strong urban aesthetic suited to large-scale facilities, and is available in a range of perforation patterns on request. The adjustable system can be installed **horizontally or vertically**, providing an additional layer of visual screening whilst maintaining an open architectural appearance.

- Large perforated fin-shaped louvre blade (500 mm and 600 mm)
- Optimum balance between sunlight and shading
- Movable system

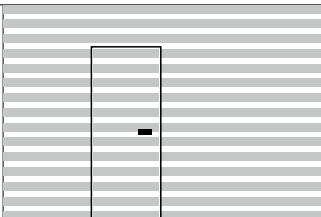

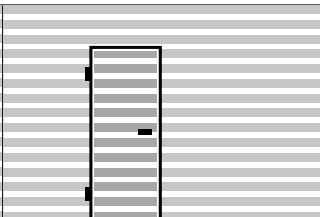

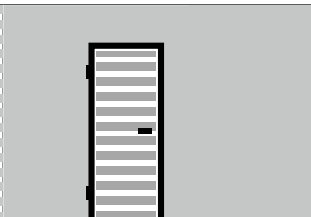








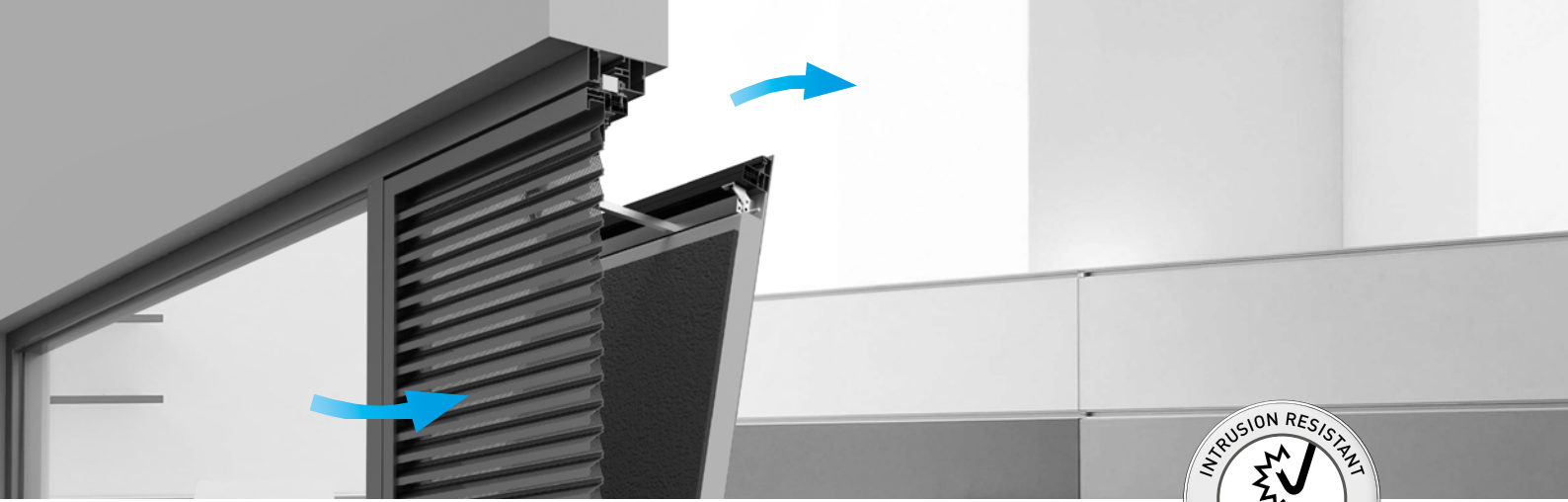




Louvre Doors

The louvre door range offers three variants - the DucoDoor Wall, DucoDoor Louvre and DucoDoor Grille - to suit the aesthetic, technical and security requirements of any project. Suitable for technical rooms, car parks and ground-level applications, they can function as **ventilated** or draught-proof **false louvre doors**, whilst maintaining a **sleek, uniform appearance** throughout.

<p>Type</p>	  <p>DucoDoor Wall</p>	  <p>DucoDoor Louvre</p>	  <p>DucoDoor Grille</p>
<p>Application</p>	<p>Louvre door in louvre wall system without specific requirements.</p>	<p>Ventilated louvre door or false louvre door in the louvre wall system with specific requirements for burglary-resistance and/or draught-proofing.</p>	<p>Free-standing ventilated louvre door or false louvre door either with or without specific requirements for burglary-resistance and/or draught-proofing.</p>
<p>Vandal-proof</p> 	<p>✓ Subject to Solid 30Z louvre blades</p>	<p>✓ Subject to Solid 30Z louvre blades</p>	<p>✓</p>
<p>Burglary-resistant</p> 	<p>✗</p>	<p>✓ RC2 possible with NP or P1 internal louvre blades</p>	<p>✓ RC2 possible with NP or P1 blades</p>
<p>Opening angle</p>	 <p>90°</p>	 <p>180°</p>	 <p>180°</p>
<p>Maximum usable dimensions</p>	<p>Single door: W 1500 x H 3000 mm Double door: W 3000 x H 3000 mm</p>		



DucoGrille **NightVent**

A **glass-replacing ventilation hatch** designed for efficient night cooling, combining high ventilation flow rates with a compact, **single-module** design. It comprises an exterior louvre with perforated blades that double as an insect screen, and an **insulated inner panel** for seamless interior integration. When closed, it achieves a thermal value comparable to a standard window.

The hatch can be **hinged horizontally or vertically**, with both panels available in various colours and in manual or motorised versions. Tested for wind and water resistance, the exterior louvre is also available in vandal-proof or burglary-resistant RC2 versions.

DucoGrille **Close 105**

A **motorised multileaf damper** with a large air passage, functioning as both supply and exhaust grille. It can be built into conventional **walls or curtain walls**, with optional burglar-resistant louvre finishes. At just 105 mm deep, it installs easily in space-limited situations, **horizontally or vertically**.

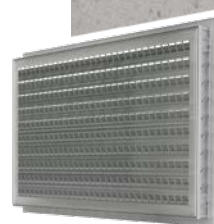
Compatible with roof turrets as an **adjustable central exhaust unit**, its high airflow makes it equally suited to intensive ventilation and night cooling. **Various motor types** are available, including **spring-return** versions.



External louvre grille



DucoGrille Close 105



Internal louvre grille

Who are DUCO

Founded in 1991 and headquartered in Veurne, Belgium, DUCO has grown into a leading specialist in natural ventilation, solar shading and louvre wall systems.

With an experienced project team offering full support from design and calculation through to delivery and installation, DUCO provides end-to-end solutions for the most demanding building types.

Data centres ventilated and screened by DUCO are located across Europe and the UK - a testament to the performance, reliability and architectural quality of our systems.



How can **DUCO** help you?

DUCO supports you throughout the entire project - from initial design and calculations (structural, airflow, weather performance, acoustic, solar gain) through to delivery and installation. We are here to help.

Hassle-free installation?

Send us your project!

If you are looking for professional advice, complete the form at the link below and include any relevant project documents. We will be in touch shortly.



www.duco.eu/yourproject



DO YOU NEED GUIDANCE WITH YOUR PROJECT?

Call +32 58 33 00 66
or mail datacentres@duco.eu

DUCO

We inspire at www.duco.eu