

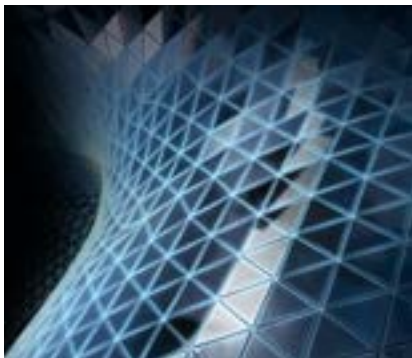


# Innovations

Innovations and insights into Jansen system solutions  
at BAU 2023

**JANSEN**

# Table of contents



Element	VISS <sup>3</sup>	Pages 4 + 5
Design	Free-form façade	
Phase	Innovation/conceptual study	
Availability	On request	



Element	Janisol Arte 66 Plus window	Pages 6 + 7
Design	Special solution for oversized elements	
Phase	Project solution	
Availability	On a project-by-project basis	



Element	Janisol Arte 2.0 door <ul style="list-style-type: none"> <li>• with striking plate</li> <li>• with drainage caps</li> </ul>	Pages 8 + 9
Design	CE certified door <ul style="list-style-type: none"> <li>• striking plate: easy adjustment</li> <li>• drainage caps: coatable</li> </ul>	
Phase	System	
Availability	Ex stock	



Element	Janisol Arte Plus	Pages 10 + 11
Design	Oversized elements	
Phase	Further development	
Availability	On a project-by-project basis	



Element	Janisol Arte Slider	Pages 12 + 13
Design	Panorama slider	
Phase	Introduction from 2024	
Availability	Introduction from 2024 as a project solution	



Element	3D* door hinge	Pages 14 + 15
Design	Maintenance-free door hinge	
Phase	Introduction from 2024	
Availability	After introduction in the system	



Element	EPD	Pages 16 + 17
Design	EPDs for steel elements	
Phase	Pilot phase	
Availability	On a project-by-project basis	



Element	Virtual showroom	Pages 18 + 19
Design	Web-based application	
Phase	Further development	
Availability	from May 2023	

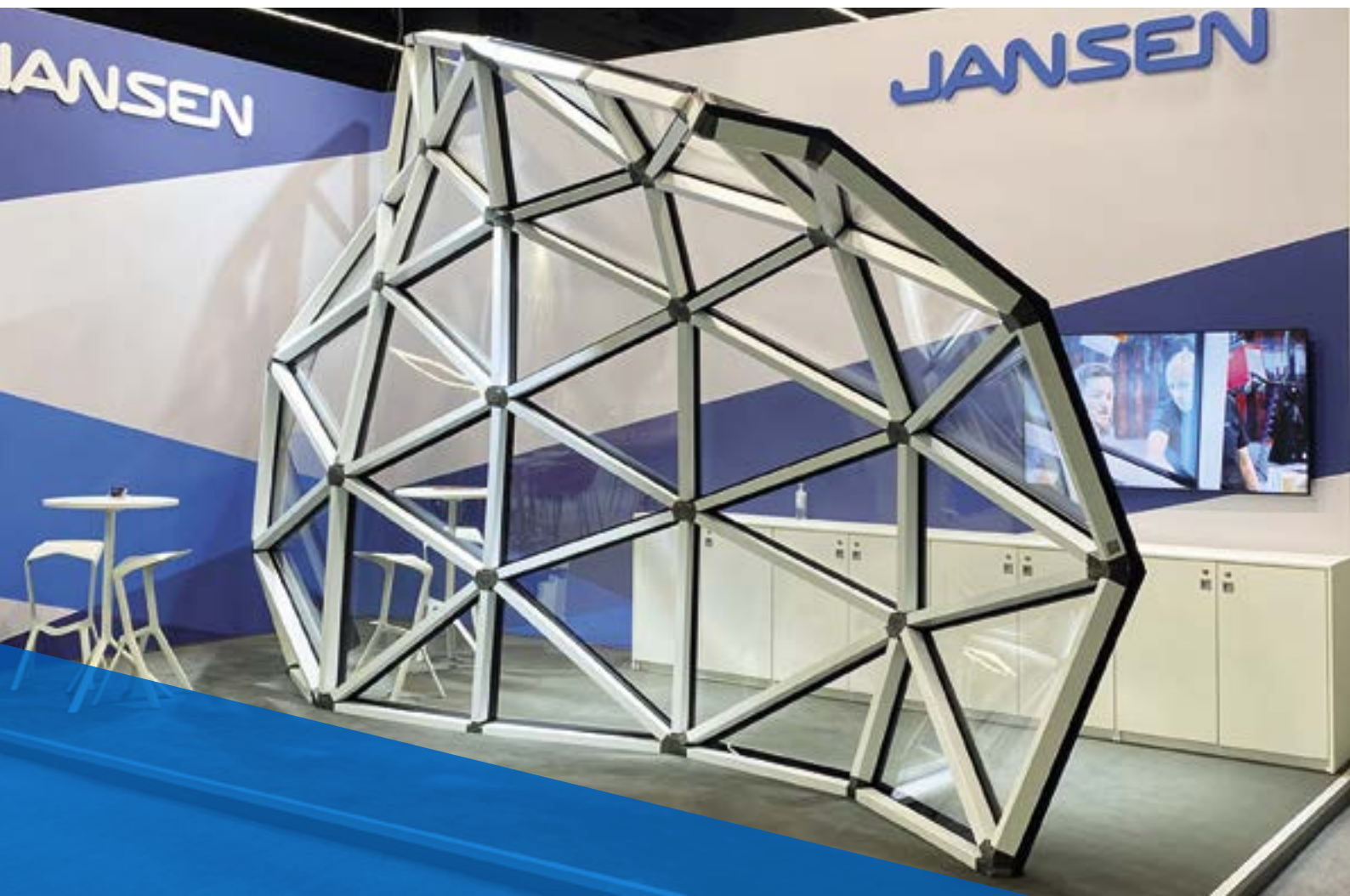
# VISS<sup>3</sup> free-form façade Conceptual study

## Maximum transparency in the building envelope

By combining 3D printed steel nodes and slim VISS system profiles, Jansen VISS<sup>3</sup> provides the perfect foundation for installing large panes of glass. 50 and 60 mm wide profiles with different profile depths can be used. Large glass elements and low-visibility frame profiles let in as much daylight as

possible, helping to reduce energy costs. Furthermore, three-dimensional façades withstand higher wind loads than flat surfaces for the simple reason that the wind load is swirled against many smaller subsurfaces and pushed away. This results in unique building shells with maximum transparency.

Nodes can be individually designed to have multiple arms and different angles, with both acute and obtuse angles being possible within a node. The VISS<sup>3</sup> façade is self-supporting, with the load transferred directly via the profiles and connecting nodes without the need for a substructure.



## Easy assembly and invisible connection

Connectors welded to the profile ends enable simple and quick assembly on site. With a tongue and groove principle and invisible locking mechanism, the parts can be connected without special tools. The connection does not require any visible screw connections and thus enables a clean transition between profile and node.

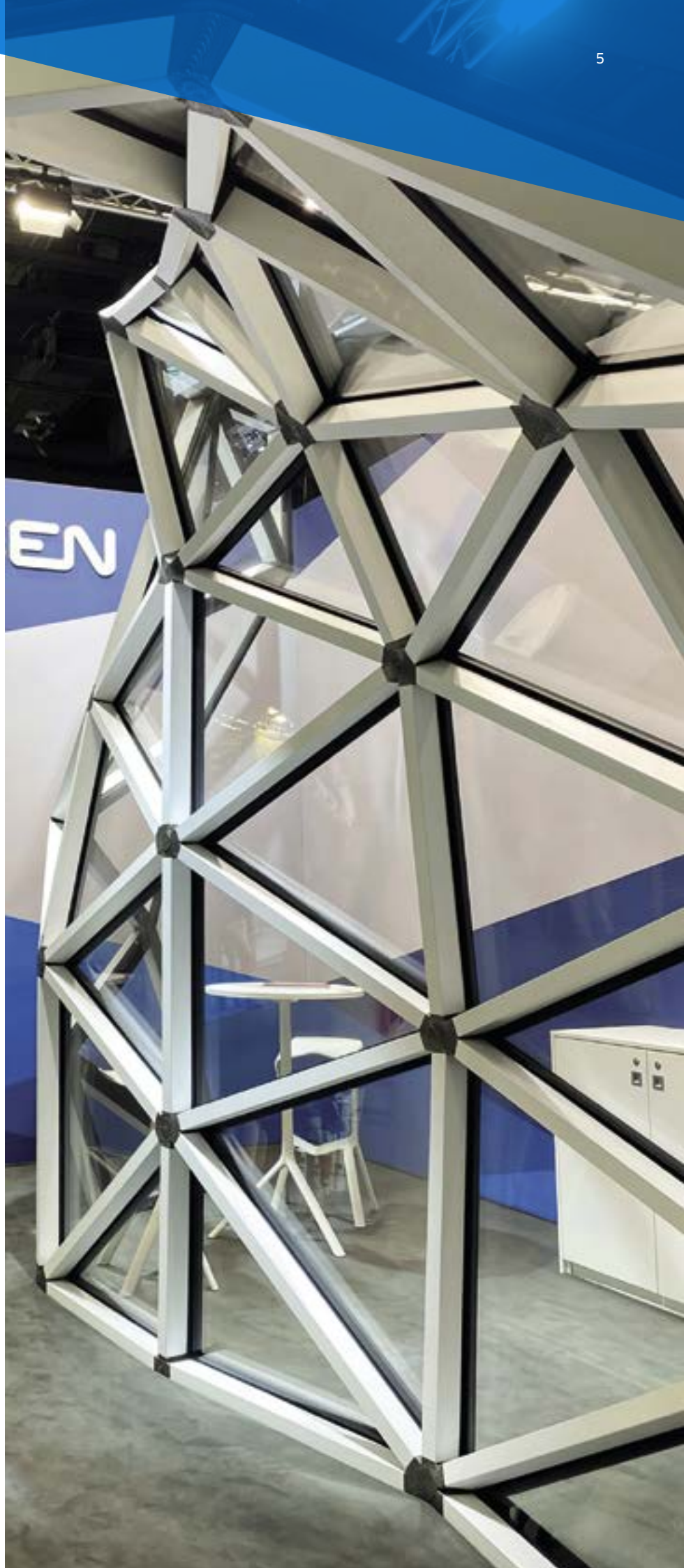


### 3D printed stainless steel nodes...

...allow maximum freedom of design. 3D printing allows for precise material application and thus low material usage compared to machining processes.

### 3D printed sealing nodes...

...allow a direct transition from gasket profile to node. Installation is simplified and the risk of water ingress is minimised. Different heights caused by step transitions are consequently eliminated.



# Janisol Arte 66 Plus



## Oversized slim pivot window

### Light in the loft

Janisol Arte 66 is an established system for tilt and turn windows. With the Plus size, we have developed a special solution that can be used on a project-by-project basis, namely precisely when elements of this size are required. With Janisol Arte 66 Plus, windows up to 3,600 mm high are now also possible as single or double-sash pivot windows.

The mullion window, which is up to 3,600 mm high, is ideally suited for use in renovations, but the Janisol Arte 66 is also an elegant and timeless addition to new buildings.

With a sash size of 1,200 × 3,600 mm (W × H), the window fulfils all the conditions required for CE marking. With a  $U_w$  value of 1.2 W/m<sup>2</sup> K, it also impresses in technical terms. Sash weights of up to 240 kg are tested for this plus size window. In order to be used in all areas, the Janisol Arte 66 is available in steel and Corten. This makes the system compatible with Janisol Arte 2.0 and completes the range of opening types for a window.

Special attention is paid to the hinges required for this element: only three are used for the entire height. This is easily possible with the additionally inserted centre locks, and offers a visually impressive effect.

A comprehensive range of handles, including brass or coatable handles, rounds off the design.



# Janisol Arte 2.0 Door and French window

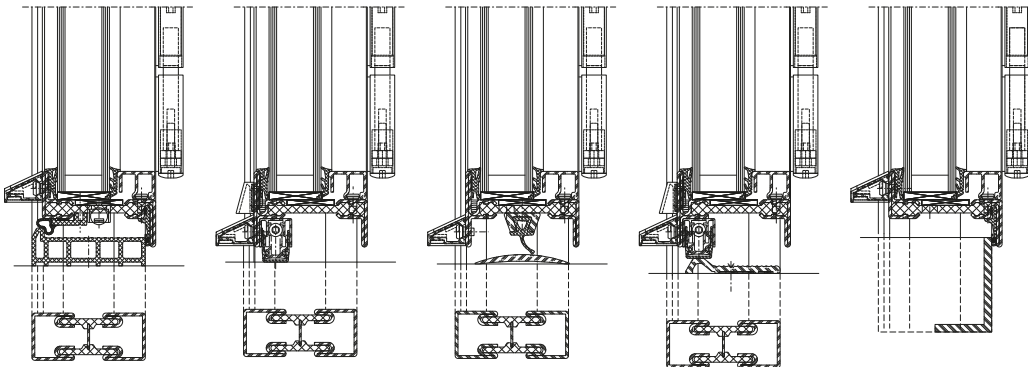
The door, French window and fixed window have also been developed, tested and certified for the Janisol Arte 2.0 system. They complete the Arte system with excellent performance values.

In the case of the Janisol Arte 2.0 door, the certification also refers to the different threshold variants offered. Barrier-free access can thus be guaranteed in an elegant way.

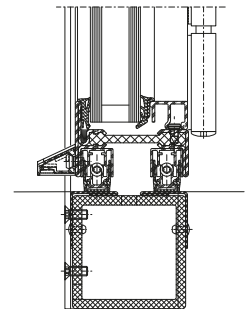
Not only is access easy, but security is also ensured: the French window from the Janisol Arte 2.0 system provides reliable protection against attempted burglary up to class RC2.

A wide range of tested lock variants leaves nothing to be desired.

Threshold variants for the Janisol Arte 2.0 door



Threshold for the Janisol Arte 2.0 French window



## Janisol Arte 2.0 French window

With the French window, Janisol Arte 2.0 offers an elegant connection to window hinges with an opening to a balcony, for example.

A special threshold has been designed for the French window, but fittings are taken directly from the window, so that no change or extension of the range is necessary. For example, almost all window handles can also be used for the French window.



You can find a guide on our website:



Hidden technology makes work easier: a new striking plate facilitates the adjustment of the contact pressure in just a few steps.





Barn, Antwerp/BE  
Architecture: Sculp [IT], Antwerp/BE  
(Janisol Arte 2.0 door)  
© LUCID

# Janisol Arte 2.0 Plus for oversizes

## Janisol Arte 2.0 door Plus

We think big and have therefore also tested the Arte 2.0 door for formats outside the norm.

The impressive leaf size of 1,200 × 3,000 mm (W × H) was exposed to the elements on our own test bench. The Plus size passed wind load, air permeability and driving rain resistance tests with flying colours. Not only that, but the durability test with a door leaf of 180 kg also achieved class 7 (500,000 cycles).

## Janisol Arte 2.0 window Plus

The Janisol Arte 2.0 window completes the oversize series. Both a 1-sash and a 2-sash window have been tested. Sash dimensions of up to 1,000 × 3,000 mm (W × H) can be incorporated on a project-by-project basis. To be prepared for all eventualities, we have even tested a sash width of 1,200 mm.

A weight of 170 kg per sash has been tested on the test bench, achieving very good performance values. The durability test for a 1-sash window resulted in 100,000 cycles.

To further reflect the elegant appearance, the drain pipe cover caps have also been redesigned so that they can now be coated and thus visually matched to the frame colour.





Casa Dois, PT-Olhão  
Architecture: Atelier RUA Arquitectos, Lisbon/PT  
(Janisol Arte 2.0 doors)  
© Francisco Nogueira

# Janisol Arte Slider

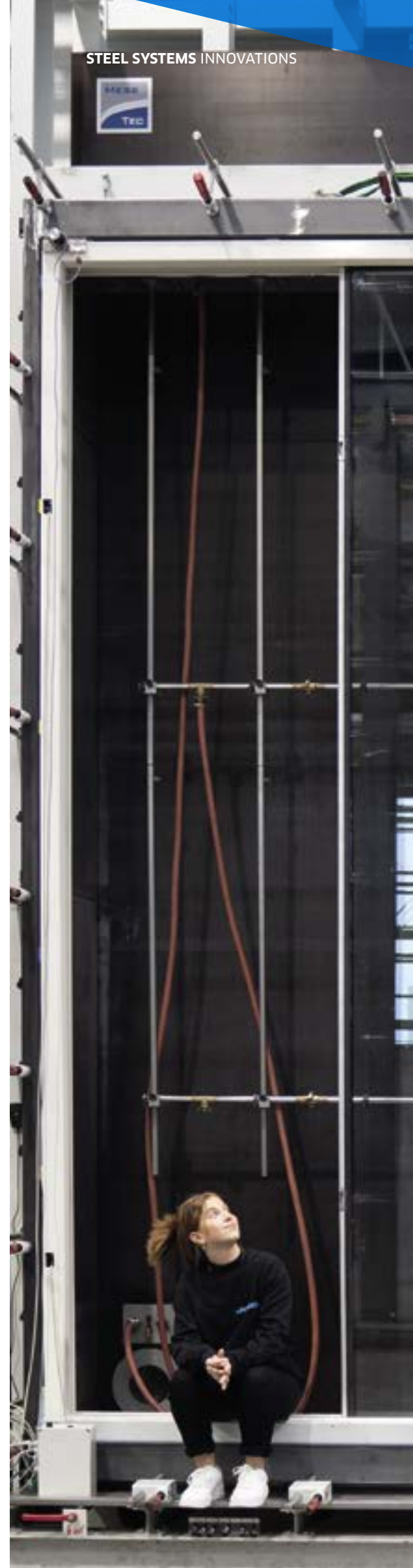
We present another extension of the Janisol Arte system with a prototype in our outdoor design container. The Janisol Arte Slider is the perfect complement for transparent openings, blurring the boundaries between outside and inside. It is used in private living areas, or in the upscale ambience of hotels, restaurants, offices, hospitals and nursing homes – simply anywhere where air and light are required.

The development of the Janisol Arte Slider, which initially consists of a fixed glazing unit and a sash, involved intensive development work and various series of tests. The latest prototype with a sash size of 2,360 × 4,060 mm (W × H) and a weight of over 600 kg has already been successfully tested in our test centre. Triple-glazed panes can be installed in the envisaged project solution. Wind load, water tightness and air permeability tests have been passed along with a durability test.

The design of the narrow face widths is emphasised by the size of the sash. To avoid detracting from this impression, all parts necessary for the electrical operation of a heavy sash have been incorporated invisibly. The motor selected is so small that no additional false edges are necessary. Thus, the view is not obstructed by distracting components. The complete frame disappears into the reveal, with only the narrow face width of 40 mm in the centre section remaining.

The simplest possible assembly was also taken into account at this stage of development: To simplify glazing on site, the system has been turned and the glazing is done from the outside. Thus, the sash or other components can always be installed or disassembled from the outside. The Janisol Arte Slider is also equipped with well thought-out details for day-to-day use: for example, the drainage is routed via a stainless steel profile so that no damage can occur. Access for servicing the motor and lock is ensured by an invisible inner cover plate. In addition, the roller guide is designed in such a way that subsequent adjustment by  $\pm 2$  mm is possible.

Further developments are under way, so be sure to check out the Janisol Arte Slider when it becomes available as a project solution from 2024.





# 3D<sup>+</sup> door hinge

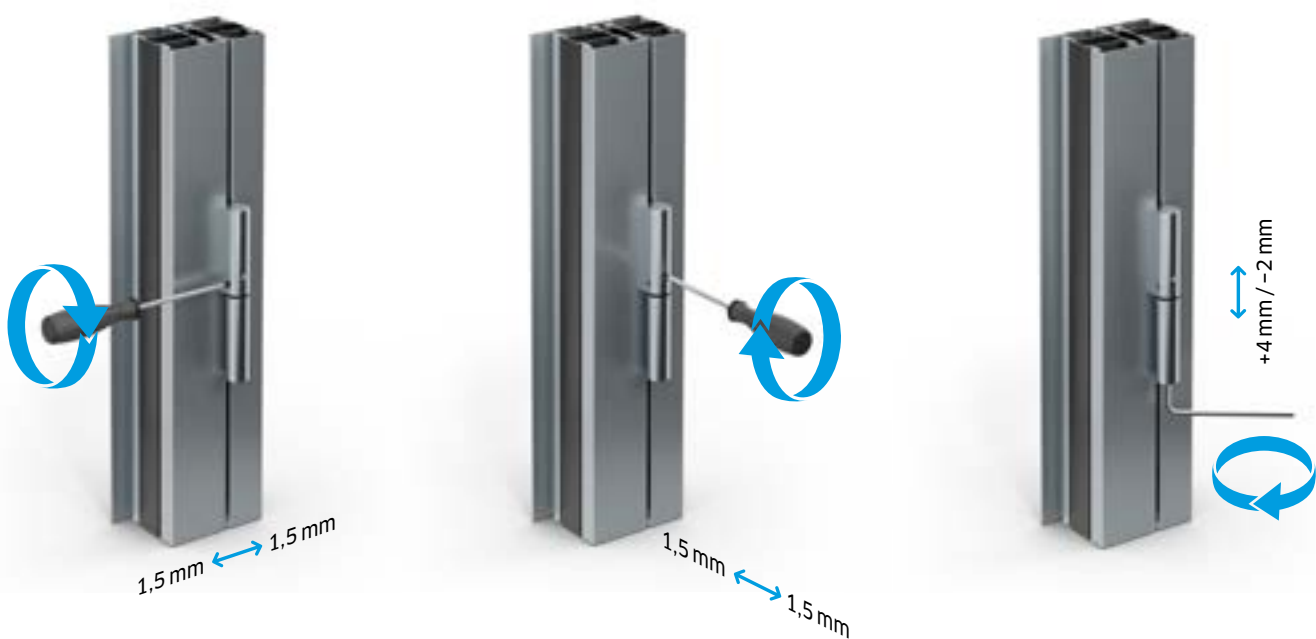
## New screw-on and weld-on hinge for greater efficiency

In this case, the “+” sign stands for several new features. Thanks to the patented solution of integrating the spindle on the leaf part, mounting the leaf with the new door hinge is made quick and easy. The spindle lowers almost automatically into the tapered receptacle fixed to the frame.

The next step is to adjust the door correctly so that it fits and closes neatly all around. There is a screw for each of the three adjustment options. The height, the contact pressure and the lateral adjustment can be set by intuitive turning. It is intuitive because the screw is always moved in the same direction as the door leaf.

The dimensions are minimally larger than the existing 3D door hinge. From 2024, the existing 3D hinges will gradually be replaced by this new hinge in all systems and the documentation will be adapted accordingly. A further simplification is found in the standardisation of the axle dimension for all systems.

For investors and users, the new hinge is interesting simply because it is maintenance and lubricant-free.



The new maintenance and lubricant-free door hinge



# EPDs for Janisol Arte 66, VISS façade, Janisol 2 EI30

## EPD (Environmental Product Declaration)

EPDs are part of the documentation submitted for whole-building assessments. The best-known ratings include LEED, Breeam or DGNB. Jansen is the first steel system house offering the possibility of providing specific manufacturer's EPDs, exclusively related to our products. Our efforts in recent years to minimise transport routes, adopt a production system with a low level of CO<sub>2</sub> and use our resources sustainably are therefore directly incorporated into the assessment and reflected in our Environmental Product Declarations. Among other things, this includes sourcing almost 100% of our products from Europe, thus keeping transport distances as short as possible.

### What does an EPD show?

Among other things, an EPD shows the CO<sub>2</sub>(e\*) values of a product. Other environmentally relevant values are also part of the EPD: these include water or energy consumption during a product's life cycle, as well as the recyclability of a product. EPDs also incorporate other factors, such as acidification of soils and oceans and global warming potential. These are each mapped for the different life cycles of the product.

### What does a product-specific EPD from Jansen show?

The three pilot EPDs created are being verified by the IBU and are based on a semi-automated tool whose databases allow products to be matched to the relevant factor quickly. Part of the IBU audit is the verification of the tool, which will allow us to create EPDs for your projects independently in the future.

\*CO<sub>2</sub>e: the "e" is used to denote so-called "equivalents". Methane, for example, is also responsible for increasing CO<sub>2</sub> levels. In order to be able to show all relevant emitters in one figure, the respective emission is converted into CO<sub>2</sub> using a defined factor. In an EPD, the relevant emitters are listed and reported in total CO<sub>2</sub>eissions.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; ND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	ND	MNR	MNR	MNR	ND	ND	X	X	X	X	X



**ENVIRONMENTAL PRODUCT DECLARATION**  
 as per ISO 14025 and EN 15804-A2

Owner of the Declaration	Jansen AG
Programme holder	Product 1
Publisher	Product 1
Declaration number	
Issue date	
Valid to	

**Janisol 2 E130 Door**  
 width x height: 1230mm x 2100mm

**Jansen AG**

[www.jku-epd.com](http://www.jku-epd.com) | <https://epd-online.com>

**ENVIRONMENTAL PRODUCT DECLARATION**  
 as per ISO 14025 and EN 15804-A2

Owner of the Declaration	JANSEN AG
Programme holder	Product 1
Publisher	Product 1
Declaration number	
Issue date	
Valid to	

**Jansen VISS Façade**  
 width x height: 2500mm x 3000mm

**JANSEN AG**

[www.jku-epd.com](http://www.jku-epd.com) | <https://epd-online.com>

**ENVIRONMENTAL PRODUCT DECLARATION**  
 as per ISO 14025 and EN 15804-A2

Owner of the Declaration	Jansen AG
Programme holder	Julius Bauer und Umwelt e.V. (BÜJ)
Publisher	Julius Bauer und Umwelt e.V. (BÜJ)
Declaration number	
Issue date	
Valid to	

**Janisol Arte 66**  
 width x height: 1230mm x 1480mm

**JANSEN AG**

[www.jku-epd.com](http://www.jku-epd.com) | <https://epd-online.com>





# Virtual showroom

## web-based application

With the virtual showroom, it is possible to experience all Jansen products digitally. The showroom is not limited to representations and accompanying texts, but allows playful interaction based on real data.

Each product can be selected via the "Product overview" and details are shown via exploded animations. For windows, doors and façades, the "Applications security" tile demonstrates which tests the elements had to undergo, e.g. for suitability for burglary protection, and which product was certified for which class.

In the Design configurator, windows and doors are shown in different installation situations and can be customised in terms of colour or with different handle and lock variants.

**The virtual showroom is now web-based,** i.e. once you have registered, you can get started straight away and configure your door or window from over 1 million different combinations.

**Another new feature is an additional "Design in application" tile.** This shows the technically oriented design, i.e. applications that have been developed with the idea of simplifying assembly, installation and maintenance. Here you can find an animation of the new 3D\* door hinge.



- All Jansen products at a glance
- Exploded views for each product
- Security configurator
- Design configurator
- Application tile
- Free registration for a trial licence





Jansen AG

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