

TITAWIN

More than a view,  
a vision.

Titawin was founded with a clear objective:  
to produce minimal windows  
of the highest quality and to bring them  
into as many homes as possible.



TITAWIN

## Redefining industry standards

Titawin has a unique way of elevating the quality of minimal windows, bringing to the market Fly Light, the threshold-free, lift-and-slide system with the thinnest vertical and horizontal profiles ever. Our Fly Light windows are elegant and modern thanks to their large glass surface area and guarantee high thermal insulation, performance and weather resistance.

Using dedicated and fully automated production lines, we are able to perform precise machining in every detail and reduce costs over the entire supply chain. The combination of these factors enables a very high quality, technologically advanced product to be spread more widely.

Now European, Asian and American window fabricators and showrooms can offer their customers the minimalist lift-and-slide system that is redefining the industry.



## Experts in innovation

Over 120 years of industry experience and a design team that has filed no less than 71 European innovation patents over the years.

That's the know-how that enabled Titawin to minimise complexity and increase product value.

**Fly Light** is the result of tireless research and improvements: a minimal window that boasts

unquestionable aesthetic qualities and unprecedented technical performance, but has a place in everyone's home.

We share Henry Ford's thinking and believe that "real progress happens only when the advantages of a new technology become available to everybody".

This is our goal, this is our vision.





## Redefining exclusivity to bring it into the every day

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We believe that beautiful vistas unobstructed by intrusive frames needn't be the exclusive prerogative of large villas designed by prominent architects. To make the Fly Light minimalist windows truly affordable, we've completely rethought the design and production process and simplified the assembly stages. In this way we've drastically reduced production and installation costs, while at the same time enhancing

the technical specifications. "From the spoon to the city", as Ernesto Nathan Rogers' famous slogan recited to indicate the cross-functional approach that architecture should adopt according to his manifesto. In the Switzerland where the great architect found refuge, we endeavour to take up his invitation in our own way, ensuring that the benefits of Fly Light minimal windows can easily find their way "from villa to studio apartment".



## More light and more comfort, in everyday homes

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Light draws everything our eyes see, and a bright and comfortable environment helps us to live better. It's no coincidence that the most exclusive villas feature large windows with very thin frames.

The thinner the frame containing the glass, the more light can pass through it. Glass not only makes our rooms brighter, but it is the key element that reduces heat loss and increases energy efficiency. And glass also always determines the sound insulation; it isn't the frames, whatever material they're made of.

Glass has the ability to make us feel protected in our home and at the same time become one with our surroundings.

In short, glass can improve the quality of our daily lives and increase the value of our everyday homes. It is with this in mind that our designers have worked to break down the physical barriers of minimalist windows and allow Fly Light to be installed even in buildings undergoing renovation, taking advantage of existing openings even on raised floors.



What our windows  
offer you is not  
just a view,  
but a vision.



Compatible  
in all buildings  
and situations

Titawin Fly Light windows can be installed in any housing and operated with handles of the same size and shape as those used for traditional windows, making them a perfect match even for previously installed windows.



The first and only one  
without a threshold

The Titawin team has designed Fly Light: the first and only lift-and-slide mechanism that can be installed without a threshold. Remove all obstacles and enjoy better insulation than any alternative available on the market.





Thermal insulation  
without compromise

The innovative Fly Light lift-and-slide system provides excellent thermal insulation but without a threshold, reaching a value of 0.68 UW ( $\text{W}/\text{m}^2 \text{K}$ ). It also offers high resistance to weathering, for a performance which exceeds all expectations.

Our windows perform so well that we can use the double-glazed version, with a considerable reduction in the weight of the frame. Other manufacturers are obliged to install triple-glazing to achieve the same results.

Fly Light, the first minimal window that installs easily on upper floors



The innovative threshold-free sliding system allows Fly Light windows to be installed in new or renovated buildings, regardless of the flooring, without the need for time-consuming masonry work or expensive drainage systems.





## Manual and motorised for the same price

Titawin's team of engineers have developed a sophisticated, patented lifting mechanism that makes it possible to effortlessly move Fly Light windows of any size and weight using a unique joint system.

Thanks to its small size, the lifting mechanism can be inserted into the upper transom of the frame in the motorised version. Fly Light can be controlled via voice commands, a dedicated app or a wall-mounted keypad – this is the first digital native window!

On the other hand, the light system of the manual version allows you to use traditional handles whose style and size ultimately match your home. If you passionately believe "less is more", a retractable handle is also available for a timeless design.

# Fly Light wooden windows



## CARRYING CAPACITY

Up to **400 kg** (model with a load capacity of up to 1,000 kg available soon)



## THERMAL INSULATION

Excellent level of thermal insulation: up to **0.65 Uw/m<sup>2</sup> K** for a 3 x 2.5 m sliding window



## WATER RESISTANCE

High water resistance: up to **E900 Pa** (equivalent to a wind speed of about 140 km/h in heavy rain)



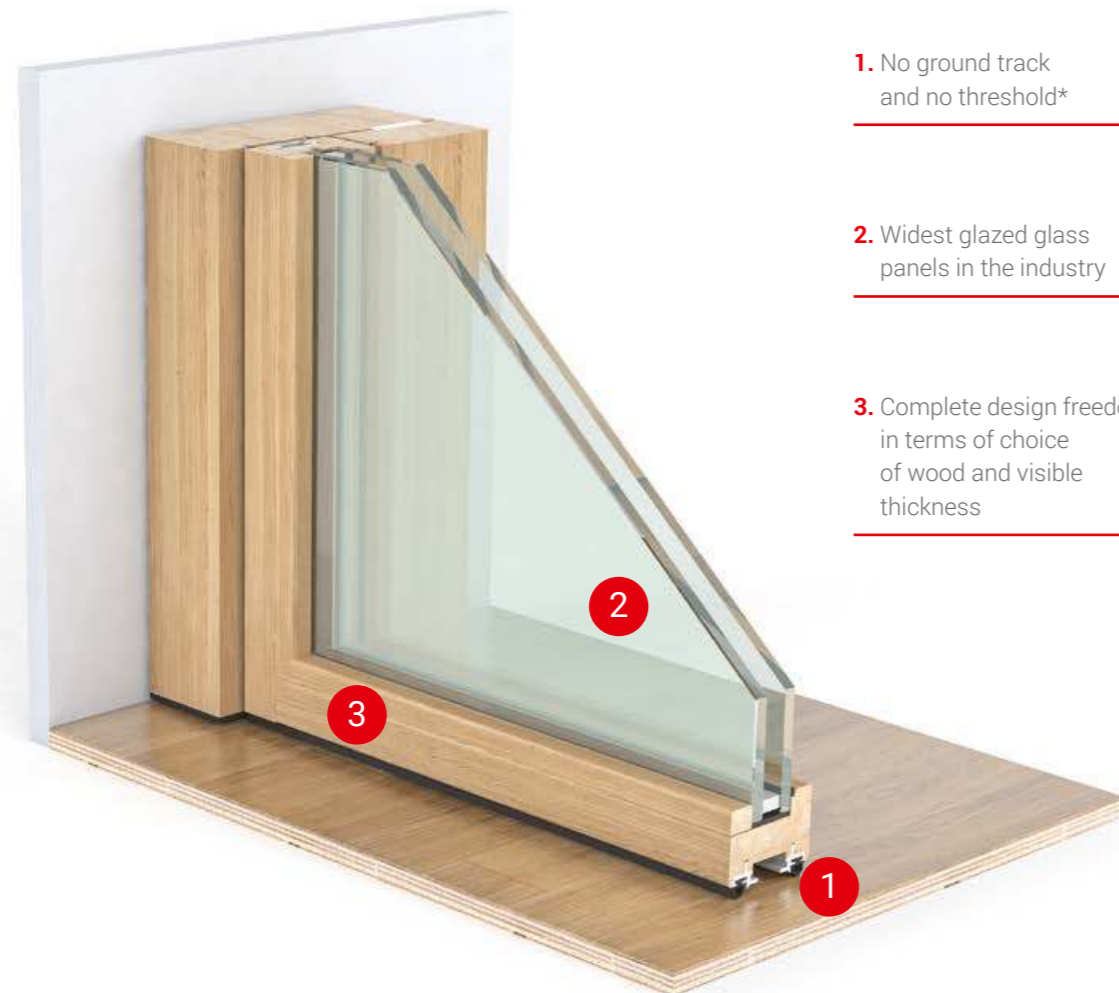
## AIR RESISTANCE

Can be installed even in the worst environmental conditions: **class A4** (zero draught)  
Wind load resistance up to **class C3**



## AVAILABLE VERSIONS

Manual or motorised opening, with double or triple glazing



**1.** No ground track and no threshold\*

**2.** Widest glazed glass panels in the industry

**3.** Complete design freedom, in terms of choice of wood and visible thickness

\*Where necessary, an insulating flat sill measuring a few mm thick can be laid to join internal and external flooring



**4.** Beam and roller system integrated into timber frame

**5.** Extremely easy to install and adjust beam and roller system

**6.** Hanging rollers that work in the "absence" of dust

**7.** Structural sash columns that are just 30 mm (45 mm for wood/aluminium version)

**8.** Silicone seals and plugs with suction effect for high weather resistance

**9.** Sturdy and durable window frame as weight is released on the ground with the window closed





## Manual wooden windows

In the manual version of Fly Light the handle can have the same style and size as others in the house or even become “invisible” with the retractable model.

Thanks to the patented mechanical lifting system, Fly Light large windows are simple, smooth and effortless to open.



## Motorised wooden windows

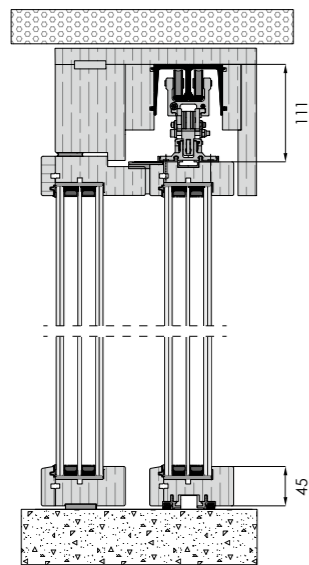
In the motorised version of Fly Light the handle disappears, making the columns less thick and giving them an even more modern and minimalist design.

Fly Light motorised windows can be controlled via voice assistants, proprietary app or keypad.

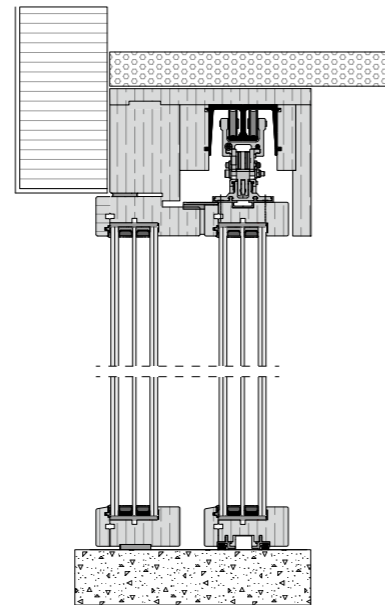
# Installation diagrams

## Vertical sections

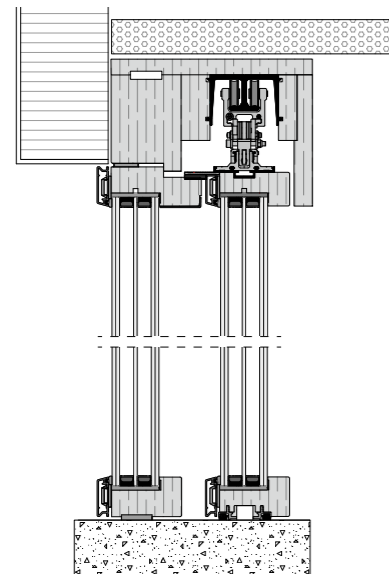
Triple-glazed wooden structure fixed in clearance



Triple-glazed wooden structure fixed in clearance and outer coating

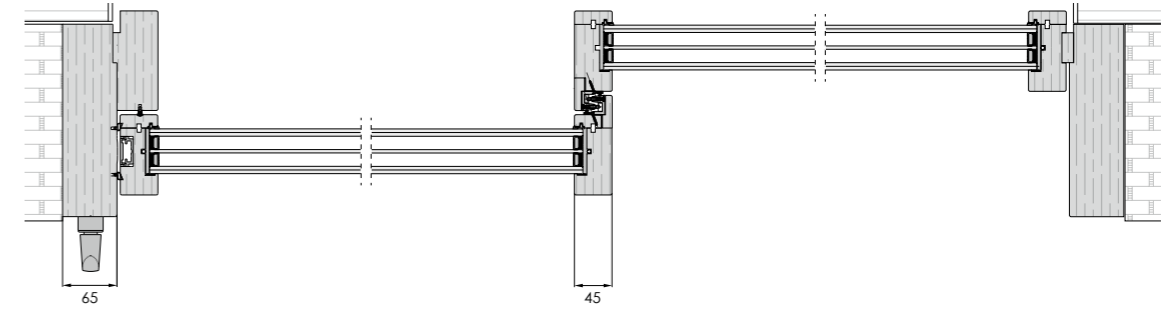


Wood/aluminium triple-glazed structure fixed in clearance and outer coating

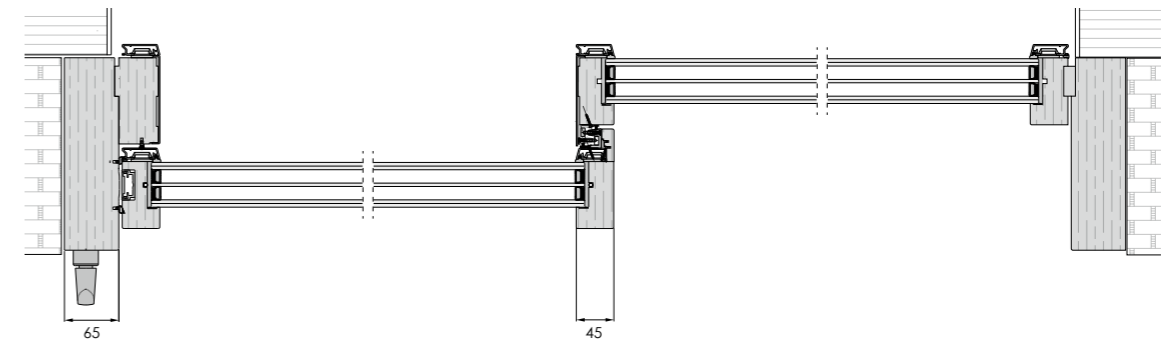


## Horizontal sections

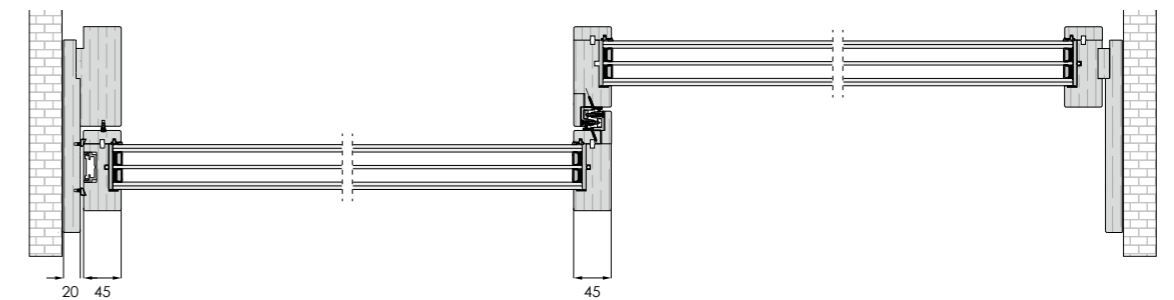
Triple-glazed wooden structure (handle lifting) fixed in clearance and outer coating



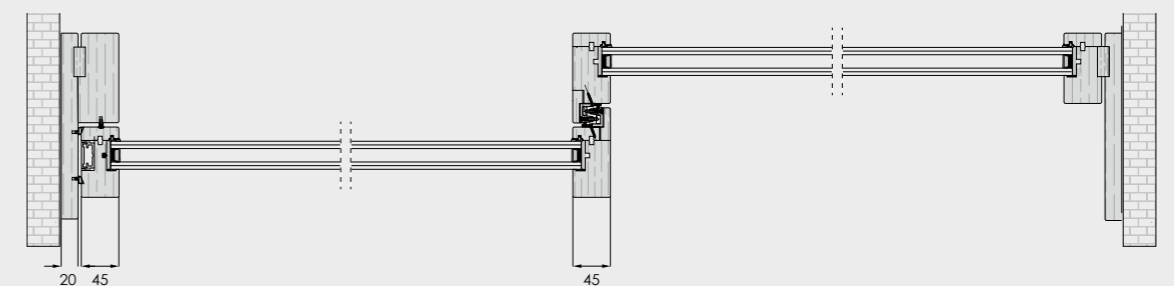
Wood/aluminium triple-glazed structure (handle lifting) with fix frame



Triple-glazed wooden structure (motorised lifting) with light frame

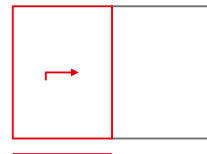


The proposed solutions are also available with double-glazed frames



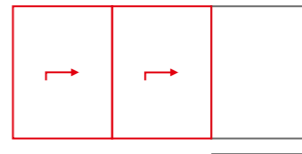
# Fly Light: models, sizes and performance

**T1**  
ONE MOVABLE  
AND ONE FIXED SASH



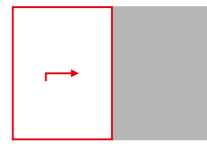
Already available in aluminium and wood

**T2**  
TWO MOVABLE SASHES  
AND ONE FIXED SIDE SASH



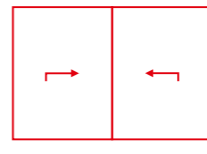
Available soon in aluminium and wood

**T3**  
ONE RETRACTABLE  
MOVABLE SASH



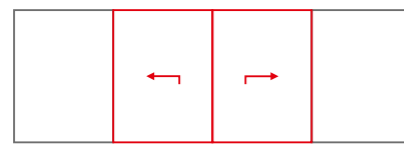
Already available in aluminium and wood

**T4**  
TWO MOVABLE  
SASHES



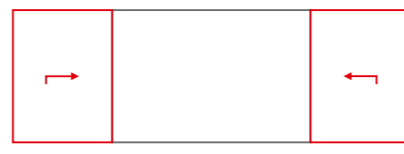
Already available in aluminium, soon also in wood

**T5**  
TWO FIXED SIDE SASHES AND  
TWO CENTRAL MOVABLE SASHES



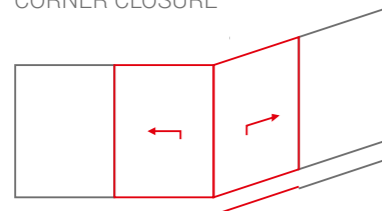
Available soon in aluminium and wood

**T6**  
TWO MOVABLE SIDE SASHES  
AND ONE FIXED CENTRAL SASH



Already available in aluminium and wood

CORNER CLOSURE



Available soon in aluminium and wood

MODEL	TYPE	STRUCTURE	A / W*	ARCHITECTURAL HOLE WIDTH (mm)		ARCHITECTURAL HOLE HEIGHT (mm)	
				L min	L max	H min	H max
T1	A	One movable and one fixed sash	(A) (W)	1920 1895	6510 6510	1950 1950	4000 4000
T2	E	Two movable sashes and one fixed side sash	(A) (W)	3270 3260	6510 6510	1950 1950	4000 4000
T3	-	One retractable movable sash	(A) (W)	870 900	3300 3300	1950 1950	4000 4000
T4	D	Two movable sashes	(A) (W)	1920 -	6510 -	1950 -	4000 -
T5	C	Two fixed side sashes and two central movable sashes	(A) (W)	4385 -	13000 -	1950 -	4000 -
T6	-	Two movable side sashes and one fixed central sash	(A) (W)	2780 2750	13000 13000	1950 1950	4000 4000

(\*) A = Fly Light aluminium frame / W = Fly Light wooden frame

SYSTEM PERFORMANCE	A / W*	DOUBLE GLAZING	TRIPLE GLAZING
Transparent part	(A) (W)	Up to <b>97%</b> Up to <b>96%</b>	Up to <b>97%</b> Up to <b>96%</b>
Air permeability (EN 12207)	(A, W)	Class <b>4</b>	Class <b>4</b>
Water tightness (EN 12208)	(A) (W)	Up to class <b>E1050</b> Up to class <b>E900</b>	Up to class <b>E1050</b> Up to class <b>E900</b>
Wind load resistance (EN 12210)	(A, W)	Up to class <b>C5</b>	Up to class <b>C5</b>
Sound insulation (EN ISO 717-1)	(A, W)	Up to <b>37 dB</b>	Up to <b>44 dB</b>
Safety (ENV 1627)	(A, W)	<b>RC2</b>	<b>RC2</b>
Thermal transmittance coefficient** (EN 1007)	(A) <sup>(1)</sup>	U <sub>w</sub> = <b>1.24 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>1 W/m<sup>2</sup> K</b>	U <sub>w</sub> = <b>0.75 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>0.5 W/m<sup>2</sup> K</b>
	(A) <sup>(2)</sup>	U <sub>w</sub> = <b>1.17 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>1 W/m<sup>2</sup> K</b>	U <sub>w</sub> = <b>0.68 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>0.5 W/m<sup>2</sup> K</b>
	(W) <sup>(2)</sup>	U <sub>w</sub> = <b>1.15 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>1 W/m<sup>2</sup> K</b>	U <sub>w</sub> = <b>0.65 W/m<sup>2</sup> K</b> Ψ <sub>g</sub> = <b>0.043</b> U <sub>g</sub> = <b>0.5 W/m<sup>2</sup> K</b>

(\*) A = Fly Light aluminium frame / W = Fly Light wooden frame

<sup>(1)</sup> Fly Light test sample 2000 mm x 2300 mm

<sup>(2)</sup> Fly Light test sample 3000 mm x 2500 mm

N.B: The images and data contained in this catalogue are to be considered indicative and are subject to change without notice.

A service that lives up  
to our vision



In order to bring a superlative standard product into every home, we have not just designed and manufactured it, but streamlined an entire supply chain to deal with orders quickly and keep costs down.

Our choices have been guided by the needs of those assembling and installing the frames.

To handle a large volume of orders, we use integrated, automated production lines specifically designed for our models, guaranteeing speed, precision and product quality.

In this way we gain two benefits: firstly, we don't have to ask window fitters to make large stocks of special windows, which gradually lead to surplus stock, waste and charges to be passed on to customers; and secondly, we don't put them in the position of having to adapt standard machining centres to non-standard production.

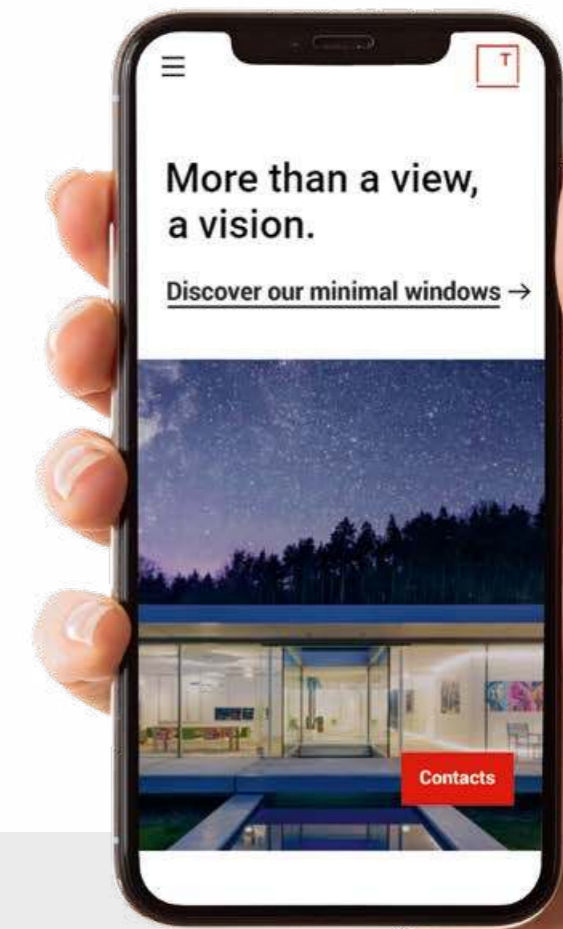
Titawin can deliver the window in kit form (or complete if required), without the burden of costs associated with non-continuous production: no spare parts, no surplus stock, no errors.

Discover, configure  
and order online

Go to [www.titawin.ch](http://www.titawin.ch) and discover a constantly evolving site that reflects our corporate philosophy

Stay up-to-date on the new solutions we are introducing and try out our configurator.

In order to simplify the work of designers and window fitters, we have developed a simple and intuitive system that allows you to design the most suitable minimal windows in just a few steps.



Frame the code  
with the camera

# Not just minimal windows

Titawin is able to supply a complete range of doors and windows to meet its customers' every need.

Two traditional window models, double and triple glazed, complete a product range that stands out for its high quality construction and excellent performance.

## BT92 series



## BST73 series



SYSTEM PERFORMANCE	BT92 series	BST73 series
Frame depth	92 mm	73 mm
External visible part	81 mm	73 mm
Air permeability (EN 12207)	<b>Class 4</b>	<b>Class 4</b>
Water tightness (EN 12208)	Up to class <b>E1500</b>	Up to class <b>E1500</b>
Wind load resistance (EN 12210)	Up to <b>class C5</b>	Up to <b>class C5</b>
Glass thickness	≤ 61 mm	≤ 28 mm
Thermal transmittance coefficient (EN 1007)	Uf = <b>1.15 W/m² K</b>	Uf = <b>1.7 W/m² K</b>

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