# **ALU WINDOWS**





# FUTURO HST ALU ULTRAGLIDE MONORAIL

The HST Ultraglide Monorail aluminium system is a modern solution in the area of sliding doors, combining aesthetics with high energy efficiency.



#### THERMAL INSULATION

The  $U_{\rm w}$  heat transfer coefficient is 0.85 W/m<sup>2</sup>K.



#### **DESIGN**

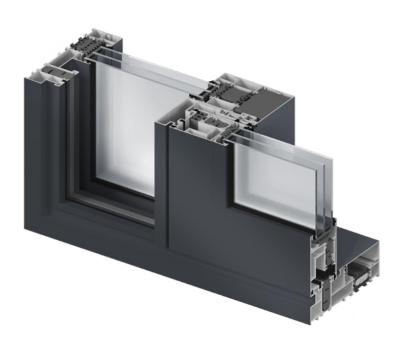
The HST Ultraglide Monorail is characterized by universal design, but also offers a broad range of colours that allow you to match its appearance to your preferred style.



# CLEAN AIR PROGRAMME

WIŚNIOWSKI's HST Ultraglide Monorail windows meet the principles of the "CLEAN AIR" programme





# **FUTURO HST ALU ULTRAGLIDE** MONORAIL

#### WINDOW CHARACTERISTICS

- System with improved thermal insulation I+
- Single track opening frame:
- Opening frame depth: 176 [mm]
- Leaf depth: 67 [mm]
- Glazing depth, fixed element: up to 71 [mm] (glazing on the outside)
- Glazing depth, sliding leaf: up to 49 [mm]
- Maximum leaf weight: 400 [kg]
- Available colours: RAL structure
- External glazing of the fixed section, enabling the use of large-size, heavy infills

#### STANDARD ACCESSORIES

- SIEGENIA bolt drive gear 3 bolts as standard, including one with a microventilation feature
- Aluminium handle on the inside, short flush pull on the outside,
- Standard glazing units 4/18/4/18/4 and 6/18/4/15/6Ug = 0.5 W/m<sup>2</sup>K

#### ADDITIONAL FEATURES

The HST Ultraglide Monorail aluminium system is a modern solution in the field of sliding doors, combining aesthetics with high energy efficiency. The system is characterized by several key features:

- High thermal insulation: The Ultraglide Monorail system offers excellent insulation properties, contributing to improved energy efficiency in buildings.
- Frame and leaf structure: The system features a single-track opening frame with a depth of 176 [mm], while the leaf depth is 67 [mm]. These dimensions ensure the structure is both solid and stable.
- Glazing depth: For the fixed element, the maximum glazing depth is up to 71 [mm] (glazed on the outside), while for the sliding leaf, it is up to 49 [mm]. This enables the use of various glass types, including very thick glazing units.
- Maximum leaf weight: The system can accommodate leafs with a maximum weight of up to 400 [kg], allowing for the installation of large, heavy glazing units.
- Available colours: The system is available in standard colours, such as white, black, and anthracite, as well as a broad range of RAL palette colours and film coatings
- Hardware: SIEGENIA bolt drive gear
- Handle options: Various handle options are available, including: Handle-short pull on the outside, Handle-handle in the F1 colour finish as standard, and optionally, in Black, White, F9, and F4.
- External glazing of the fixed section as standard: this solution makes it possible to use large-size, heavy infills, enhancing the system's
- Available variants: Scheme A, Scheme C, and Scheme C Variant (G2)
- Optionally: SoftClose assists in smooth and controlled closing of the sliding leaf, and SoftStop assists in gentle and controlled opening of the sliding leaf



#### SIEGENIA BOLT DRIVE GEAR



The "comfort" type drive gear is equipped with an integrated mechanism that makes handle operation noticeably smoother. The spring used in the drive gear utilizes the weight of the leaf to reduce the torque needed when lifting it, significantly easing leaf operation. The mechanism also prevents the handle from snapping back uncontrollably during closure. For leafs weighing over 200 [kg], an additional damper is installed to minimize handle rebound

when lowering the leaf, enhancing the comfort of use.

The uniquely engineered carriage evenly distributes the load across up to eight rollers, enabling smooth leaf movement - even in large, heavy configurations. Its compact form factor makes it ideal for use in narrow-profile leafs, maximizing the glazed surface and allowing more natural light into the room - consequently contributing to better thermal insulation performance.

When opening, the spring releases stored energy to assist the movement.

#### ADDITIONAL OPTIONS: SOFT CLOSE AND SOFT STOP



New-generation SOFT CLOSE and SOFT STOP compact dampers look identical externally, but differ in functionality due to the type of damper used in the load-bearing rail.

#### SOFT CLOSE functionality

• The leaf is gently slowed down before reaching the end position, then automatically glides the remaining few centimetres into the fully closed position (on the closing side - into the locking position).

#### **SOFT STOP functionality**

- The leaf is slowed down progressively as it approaches the end position the level of damping depends on the leaf weight and movement speed. If the leaf moves slowly, the damper may not need to activate at all.
- Unlike in the SOFT CLOSE option, the leaf does not automatically close the final centimetres, but can be effortlessly pushed into the closed and locked position without resistance.
- Because the damper is not tensioned at the end position, no additional force is required when opening the leaf.

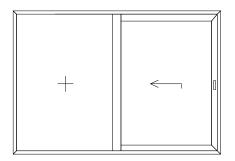
#### Key benefits of the SOFT STOP functionality:

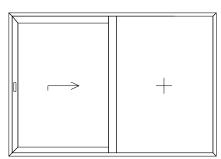
- damping only activates when needed, based on the movement speed
- intuitive operation, especially for less experienced users
- no extra force required to engage or disengage the system



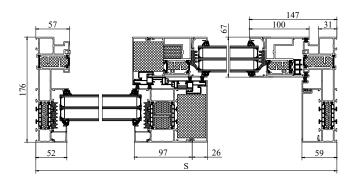
# CROSS-SECTIONS AND VIEWS

# FUTURO patio window - Scheme A

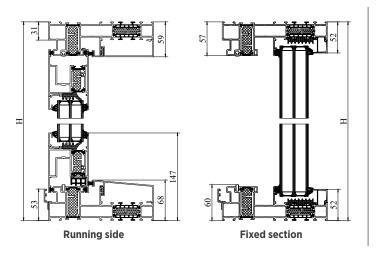




## Horizontal cross-section of the FUTURO Ultraglide I+ - single track, fixed leaf glazed from the outside

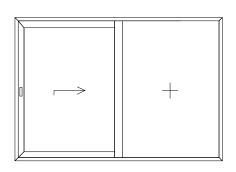


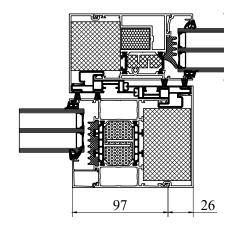
# **FUTURO Ultraglide I+ vertical cross-sections**



- H structure height
- S structure width

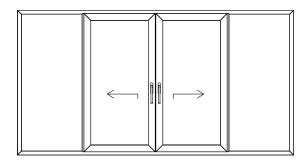
# Standard labyrinth connection



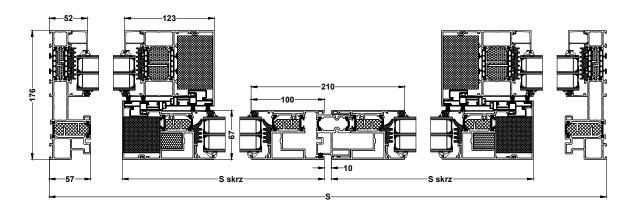




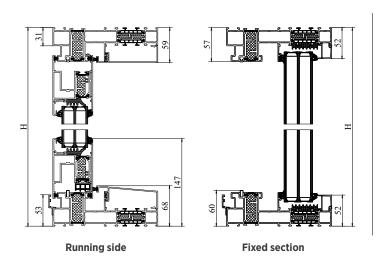
# FUTURO patio window - Scheme C



Horizontal cross-section of the FUTURO Ultraglide I+ – single track, fixed leaf glazed from the outside



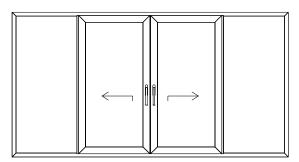
# **FUTURO Ultraglide I+ vertical cross-sections**

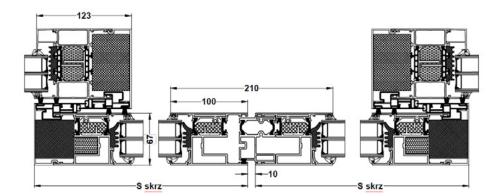


- H structure height
- S structure width

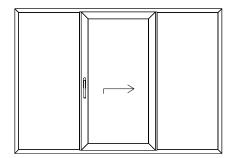


# Standard labyrinth connection

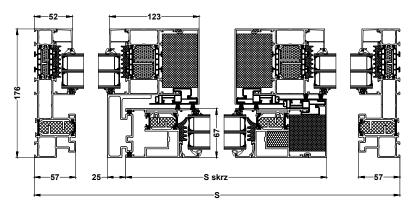




# FUTURO patio window - Scheme C Variant (G2)

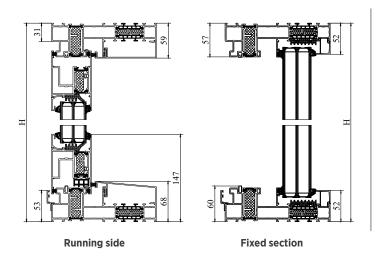


Horizontal cross-section of the FUTURO Ultraglide I+ - single track, fixed leaf glazed from the outside



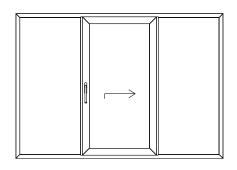


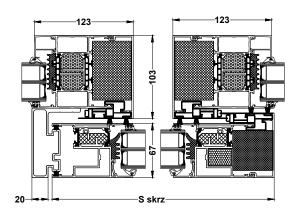
## **FUTURO Ultraglide I+ vertical cross-sections**



- H structure height
- S structure width

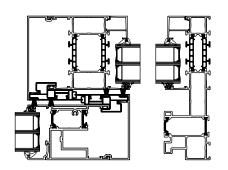
# Standard labyrinth connection

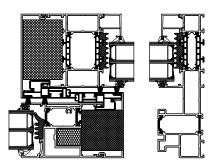


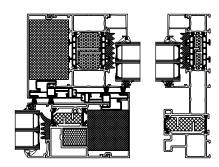


THERMAL VARIANTS

Standard I [+

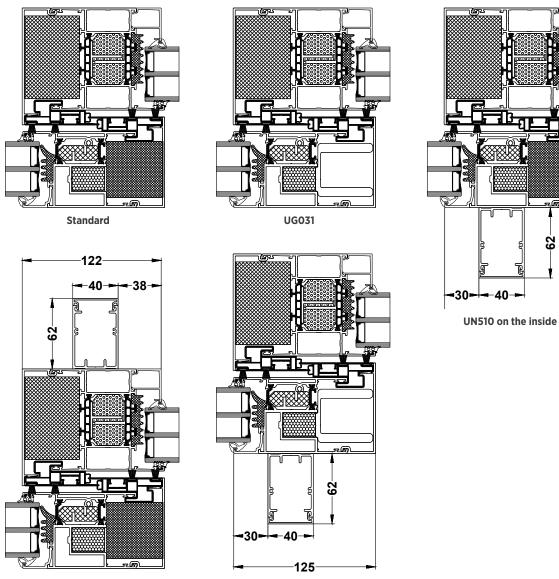


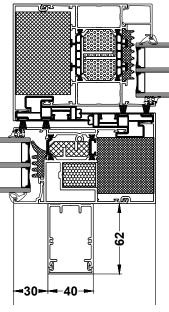




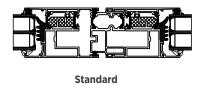


# **Vertical reinforcements**

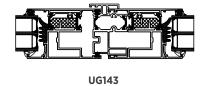




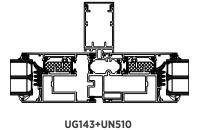
## Vertical reinforcements in scheme C



UN510 on the outside



UG031+UN510 on the inside

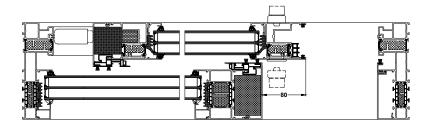


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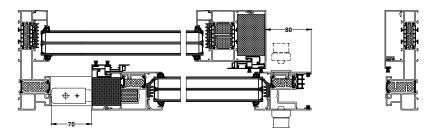


#### Clear passage

When using a double-sided handle and a flush pull, the clear passage is reduced by 80 mm. Futuro Ultraglide System

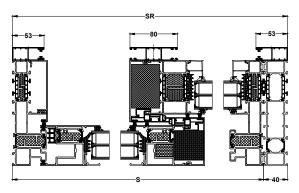


## Dimensional relationships - bumper

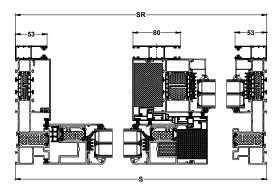


## INSTALLATION METHOD FOR ROLLER SHUTTER/BLIND GUIDE RAILS

When installing a roller shutter on the Ultraglide system, it is recommended to add an additional widening. The lack of the widening will require the roller shutter guide rail to be removed in case the glazing unit needs to be replaced.



Roller shutter, horizontal + widenings

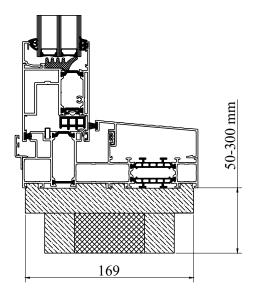


Roller shutter, horizontal



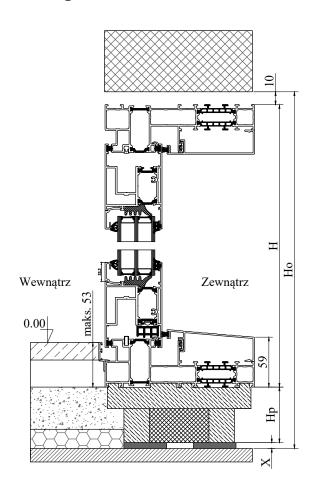
#### HS threshold sill

Example installation of the threshold sill in the FUTURO Ultraglide system



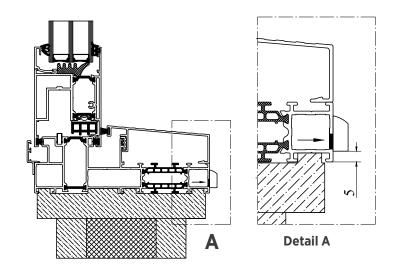
ORDERING DIMENSIONS

## Height



## Drain hole height

Drain hole in the FUTURO Ultraglide system



H - structure height

Ho - installation opening height

S - structure width

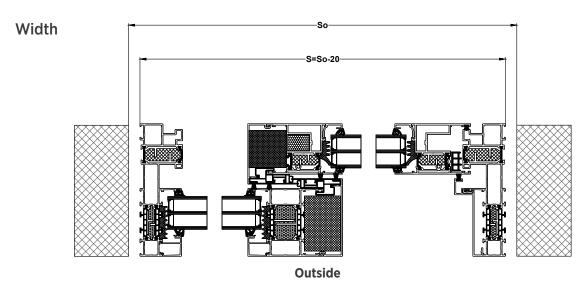
So - installation opening width

Hp - threshold sill/widening height

x - spacing element height

The ordering dimensions do not take into account the widenings and threshold sills.





S – structure width So – installation opening width

# SYSTEM LIMITATIONS

Max weight of the leaf	400 [kg]
Frame depth	176 [mm]
Leaf depth	67 [mm]
Glazing thickness	max. 49 [mm]
Air permeability	Class 4
Thermal insulation	> 0.9 W/m²k
Available schemes	A, C, and C Variant (G2)

Type and number of strikers	3 bolts
Anti-drill guard plate	YES
Handle	any
Installation	dowels
Glazing units	in accordance with national regulations
Glass mounting	not required

	HST Ultraglide		
	Scheme A	Scheme C	Scheme C variant
Maximum window width	6,000 [mm]	10,000 [mm]	7,950 [mm]
Maximum window height	3,000 [mm]	3,000 [mm]	3,000 [mm]
Maximum surface of the sliding leaf	7 [m²]	7 [m²]	7 [m²]
Maximum weight of the sliding leaf	400 [kg]	400 [kg]	400 [kg]
Maximum surface of the fixed leaf	7 [m²]	7 [m²]	7 [m²]
Maximum weight of the fixed leaf	500 [kg]	500 [kg]	500 [kg]
Maximum leaf width (division)	3,000 [mm]	2,500 [mm]	2,650 [mm]
Leaf height to width ratio	>2.5:1	>2.5:1	>2.5:1



## **AVAILABLE COLOURS**

#### Mat and structure colours



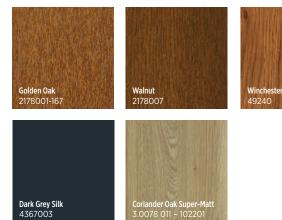
#### **Colours**

Modern Black (RAL 9005) mat structure - (colour similar to Black Ulti-Matt PVC)\* 7016 SILK - (colour similar to Dark Grey Silk PVC)\*

\*PLEASE NOTE! - suggested matching, the final choice depends on the customer's preferences



#### Film coatings - standard colours







#### Film coatings - non-standard colours





#### Special colours (mat structure)



#### Special RAL (mat structure) colours

RAL 1001, RAL 1003, RAL 1015, RAL 1016, RAL 1018, RAL 1019, RAL 1021, RAL 1023, RAL 1028, RAL 1032, RAL 2000, RAL 2001, RAL 2002, RAL 2003, RAL 2004, RAL 2008, RAL 2009, RAL 2010, RAL 2011, RAL 3001, RAL 3002, RAL 3003, RAL 3004, RAL 3005, RAL 3007, RAL 3009, RAL 3011, RAL 3012, RAL 3013, RAL 3016, RAL 3018, RAL 3020, RAL 3031, RAL 4004, RAL 4005, RAL 4006, RAL 4007, RAL 4008, RAL 4010, RAL 5000, RAL 5001, RAL 5002, RAL 5005, RAL 5007, RAL 5010, RAL 5011, RAL 5012, RAL 5013, RAL 5014, RAL 5015, RAL 5017, RAL 5018, RAL 5021, RAL 5022, RAL 5023, RAL 5024, RAL 6001, RAL 6003, RAL 6004, RAL 6007, RAL 6008, RAL 6011, RAL 6014, RAL 6015, RAL 6016, RAL 6017, RAL 6018, RAL 6019, RAL 6021, RAL 6022, RAL 6027, RAL 6029, RAL 6033, RAL 6034, RAL 7000, RAL 7001, RAL 7002, RAL 7003, RAL 7004, RAL 7005, RAL 7008, RAL 7009, RAL 7010, RAL 7011, RAL 7012, RAL 7015, RAL 7022, RAL 7023, RAL 7030, RAL 7031, RAL 7032, RAL 7033, RAL 7034, RAL 7036, RAL 7037, RAL 7038, RAL 7039, RAL 7040, RAL 7042, RAL 7044, RAL 7045, RAL 7046, RAL 8000, RAL 8001, RAL 8002, RAL 8003, RAL 8004, RAL 8007, RAL 8008, RAL 8011, RAL 8012, RAL 8015, RAL 8016, RAL 8017, RAL 8019, RAL 8022, RAL 8023, RAL 8025, RAL 8028, RAL 9002, RAL 9003, RAL 9004, RAL 9005, RAL 9010, RAL 9011, RAL 9017, RAL 9018



## STANDARD GLASS

4LE/18/4/18/4LE Ug=0.5 W/m<sup>2</sup>K 6LE/18/4/15/6LE Ug=0.5 W/m<sup>2</sup>K

# COLOURS OF OTHER ELEMENTS

Gasket colour(s) – black Cap, drainage, bumper colour(s) – black

#### HANDLES FOR THE HST ULTRAGLIDE PATIO DOORS

As standard, the HST patio door includes an aluminium handle with a flush pull







# Double-sided HST handle with a lock cylinder

available colours:

white brown silver

old gold titanium black mat RAL 9005

#### ALUMINIUM WINDOWS | HST FUTURO ULTRAGLIDE







Window type	FUTURO HST ALU ULTRAGLIDE MONORAIL
Number of chambers in the frame	5 chambers in the frame, 3 in the leaf
Profile thickness	176 [mm] frame, 67 [mm] leaf
Gaskets around the circumference	2
Structural reinforcement	Selected based on static calculations
Standard glazing unit	two-chamber 4/18/4/18/4 Ug=0.5 W/m²K
Hardware	lift and slide Siegenia bolt drive gear
Handle	aluminium
Also available in class	Х
Widening (optional)	from 50 [mm] – 300 [mm]



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