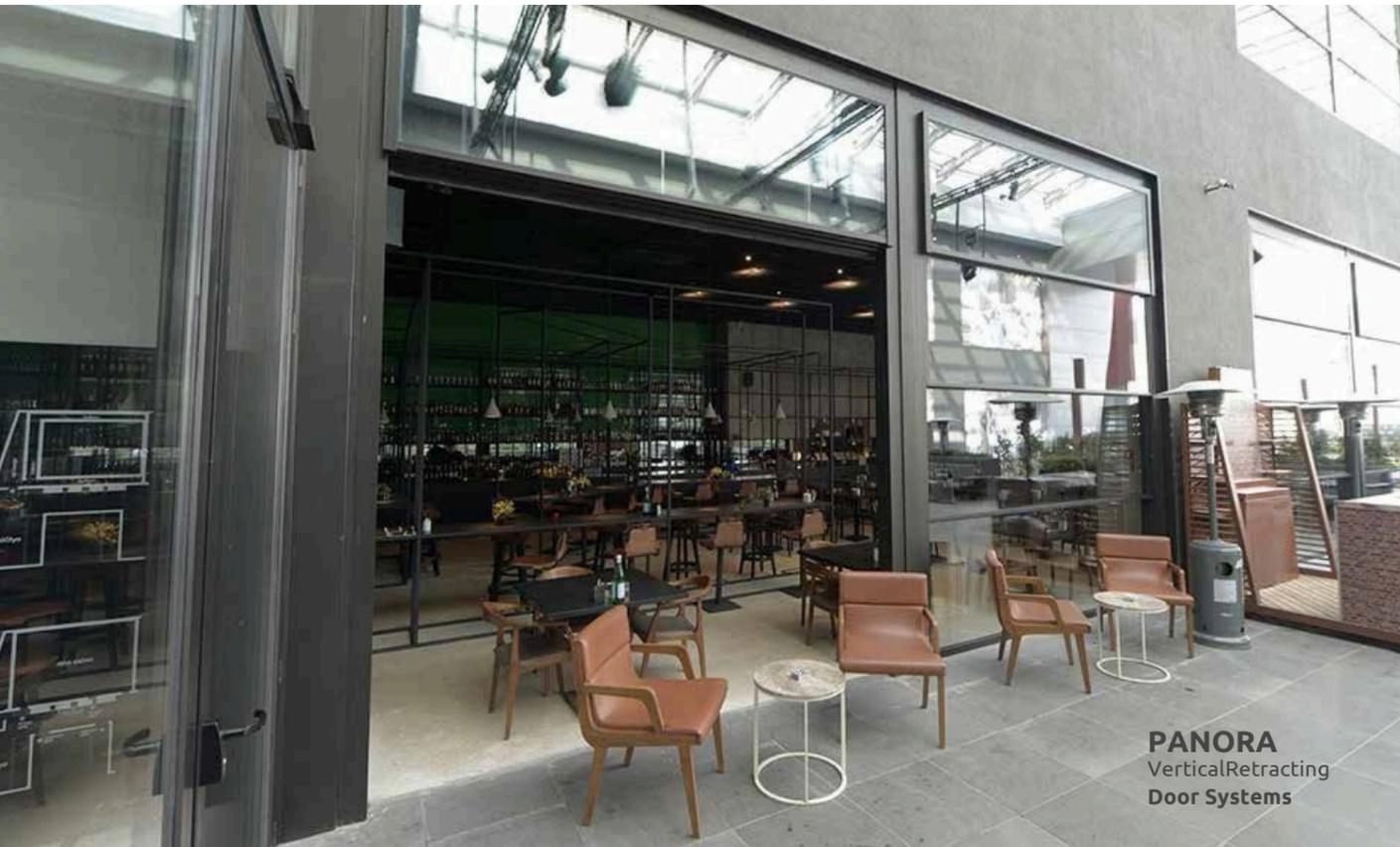


VERTICAL RETRACTING WINDOWS & DOORS



A division of





PANORA
Vertical Retracting
Door Systems



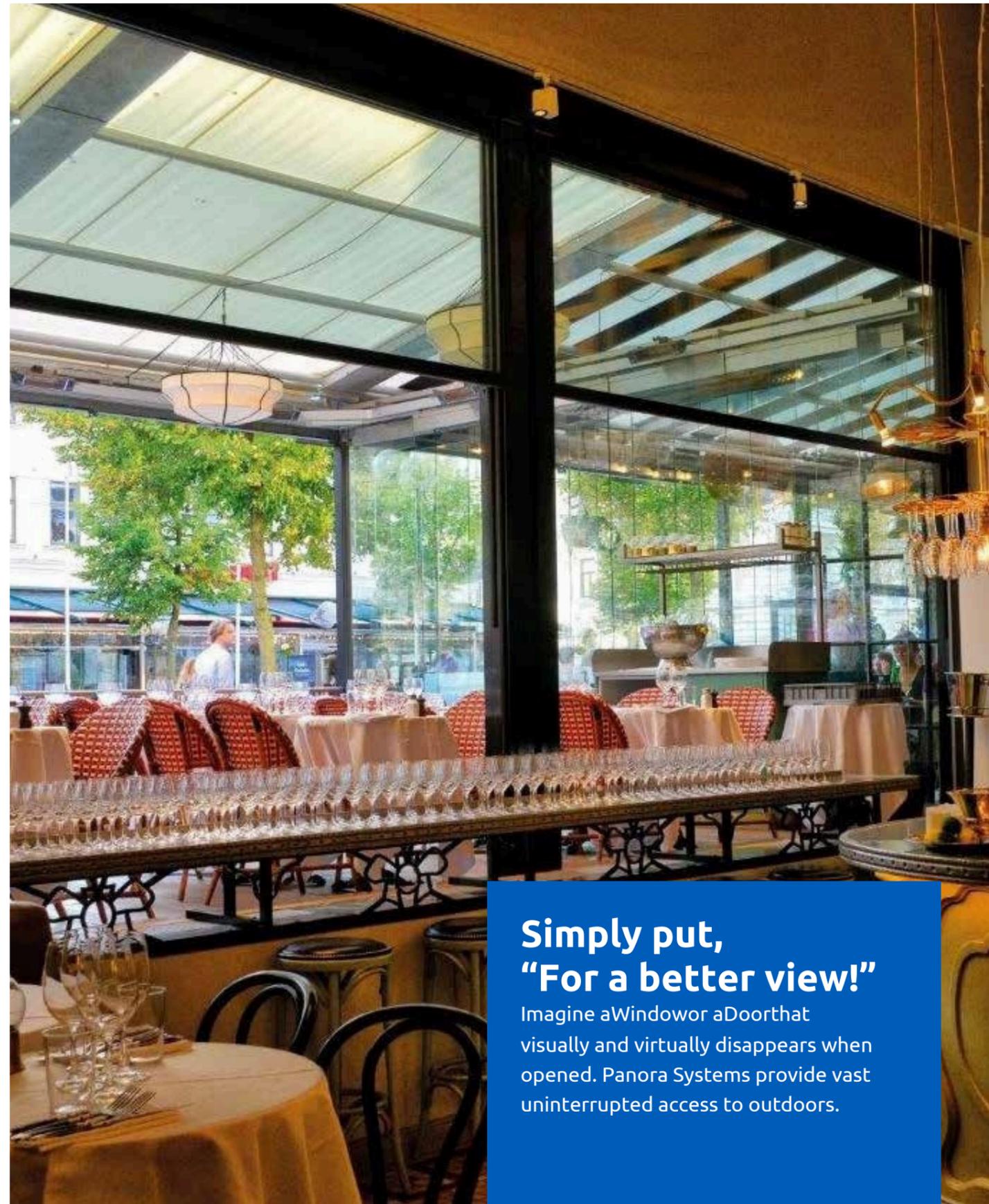
PANORA
Vertical Retracting
Window Systems

A new solution for Windows & Doors “For a better view!”

We are proud to announce the revolution in Windows & Doors.

Libart's Panora Vertical Retracting Windows and Doors presents a new paradigm.

Panora's large span, vertical retracting Windows & Doors provide you with an unobstructed view within the structural supports in your buildings.



Simply put, “For a better view!”

Imagine a Window or a Door that visually and virtually disappears when opened. Panora Systems provide vast uninterrupted access to outdoors.

NEW APPROACHES FOR A BETTER VIEW!



WHEN CLOSED

VIRTUALLY FREE OF FRAMES

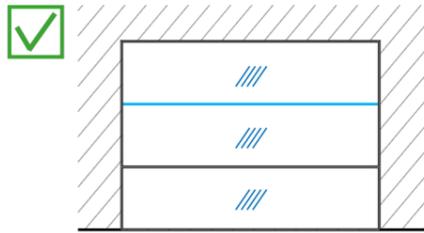


WHEN OPEN

FREE OF FRAMES

Better View With Panora Vertical Retracting Door & Window

PANORA
Vertical Retracting Door & Window

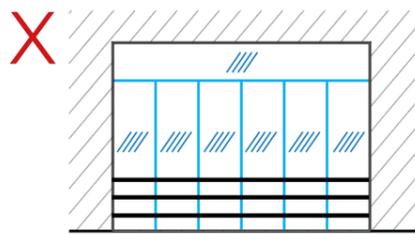


PANORA
Vertical Retracting Door & Window



Limited View With Sliding And Folding Systems

TRADITIONAL
Approaches



profiles in view when closed

TRADITIONAL
Approaches



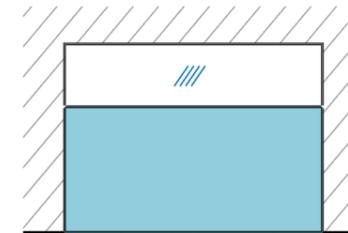
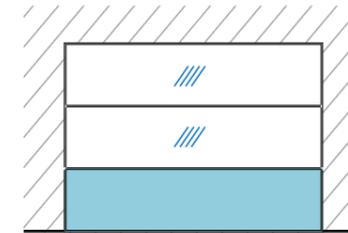
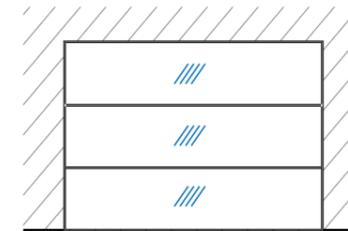
profiles in view when opened

BETTER VENTILATION

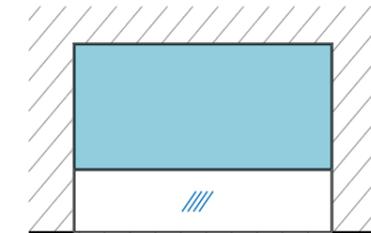
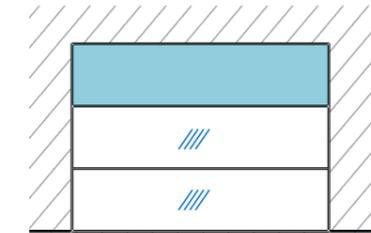
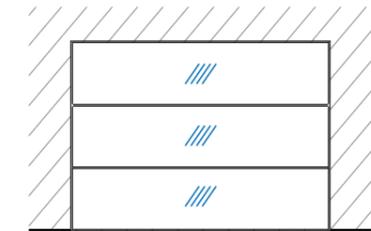
CLIMATE CONTROL

Better Ventilation Control With Panora Systems

Door Option

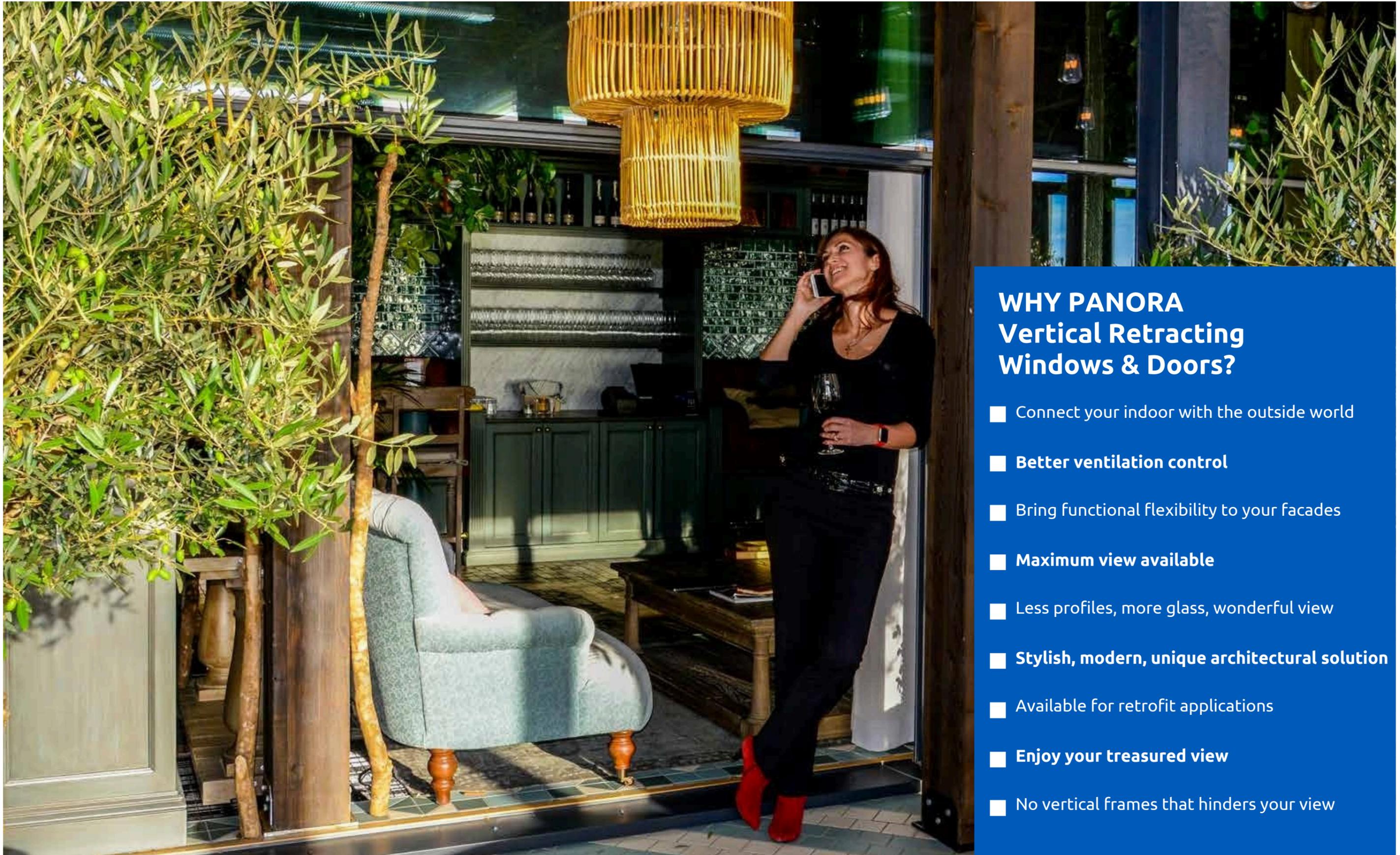


Window Option



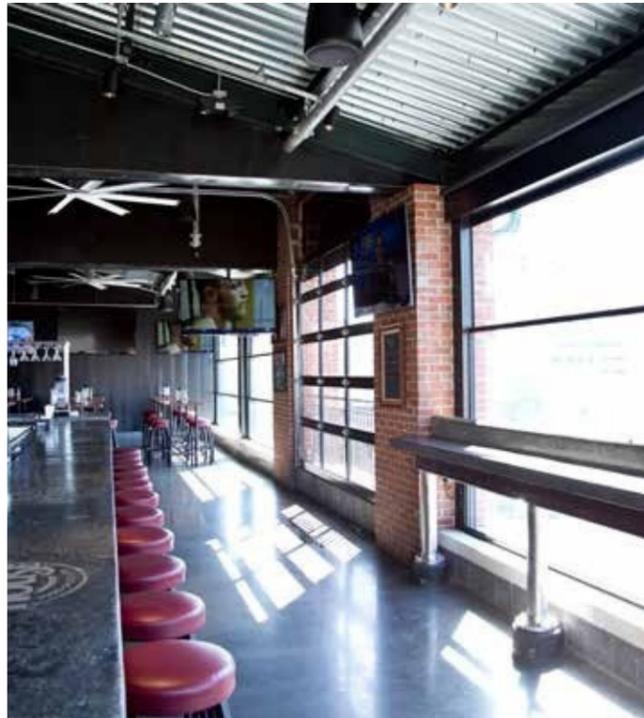
INDOOR COMFORT

Panora can protect you from wind, while regulating the amount of fresh air.



WHY PANORA Vertical Retracting Windows & Doors?

- Connect your indoor with the outside world
- Better ventilation control
- Bring functional flexibility to your facades
- Maximum view available
- Less profiles, more glass, wonderful view
- Stylish, modern, unique architectural solution
- Available for retrofit applications
- Enjoy your treasured view
- No vertical frames that hinders your view



CAROLINA ALE HOUSE

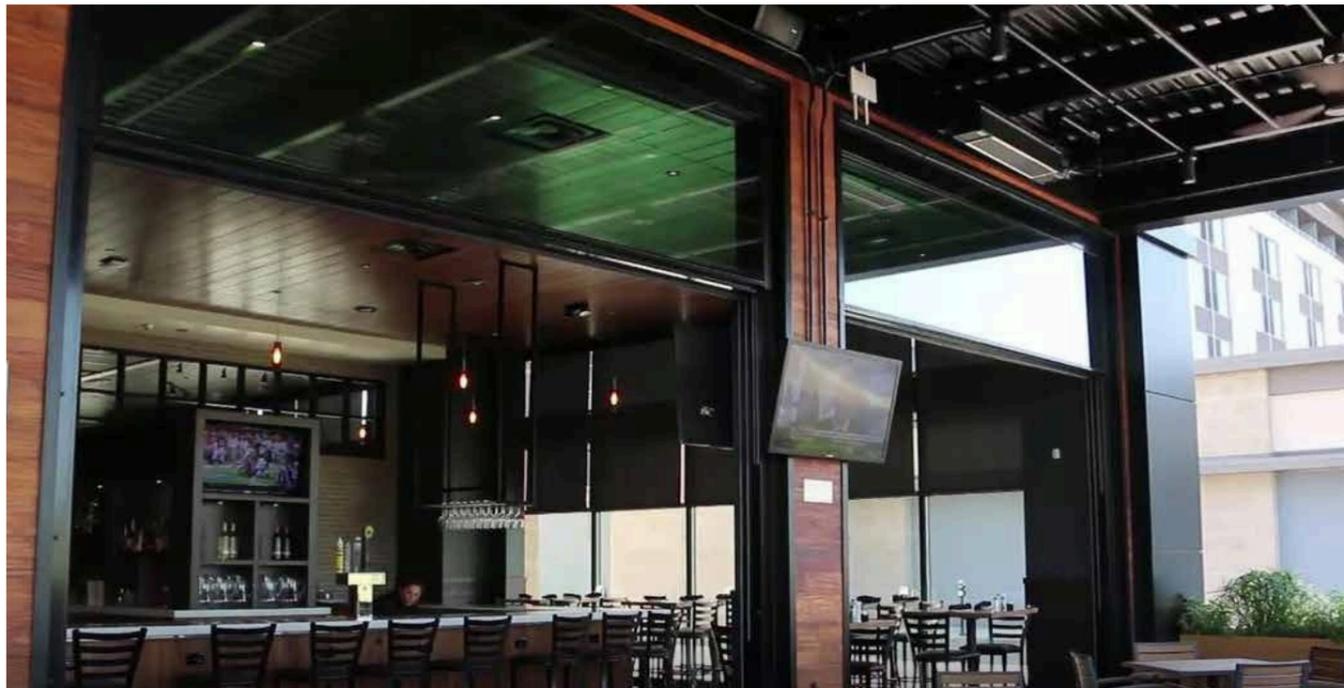
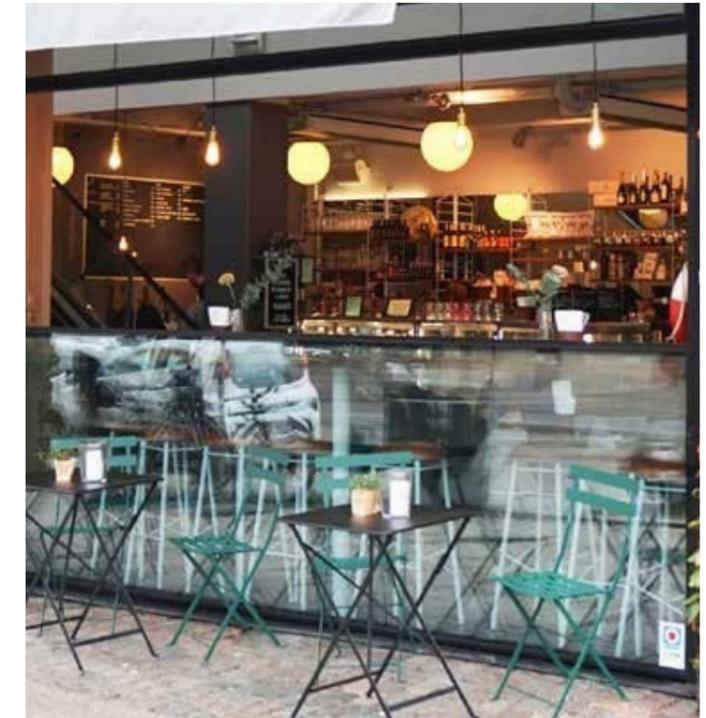
Project Code : # 4833
Location : USA
Size : 3.50 x 3.6 m
Operation Mode : W3 (Window)

Ale House is a successful restaurant chain in the USA. They wanted to create an outdoor atmosphere for their clients, while protecting their customers from changing weather conditions. Panora Vertical Retracting Windows create such an atmosphere: natural light, controllable airflow, unobstructed view. A natural microclimate solution. More window, less obstructions, higher customer satisfaction.

LONDON WALL PLACE

Project Code : # 2080
Location : United Kingdom
Size : 3 x 4 m (3 units)
Operation Mode : D4 (Door)

This Café required wide open counter space to blend the indoor space with the outside seating. Libart's Panora Vertical Retracting Windows flood the venue with natural light whilst maximizing clear opening without any loss interior or exterior space. Panora's minimalistic design complement area's blend of modern and ancient architecture. Open or closed provide a relaxing view of the landscaping at this oasis of calm in busy urban environment.



COOPERS HAWK LIBERTY

Project Code : # 2401
Location : USA
Size : 4 x 4 m (2 units)
Operation Mode : D4 (Door)

If you run a sports bar, you need the flexibility of adjusting your spaces when you can. With Panora Vertical Retracting Doors, inside venue can be integrated into the outdoor seating within minutes. Panora Door Systems can retract upwards to create unobstructed access, removing the barrier where there were once glass walls, simple connecting your indoor spaces with the out outdoors.

VALLGATAN COFFEE SHOP

Project Code : # 4126
Location : Sweden
Size : 4 x 2.8 m
Operation Mode : W2 (Window)

This special solution filled the architects and owners design dreams. Panora Window System provided wide open counter space as part of the interior counter extension when open, and full glass wall when closed. In this project a three frame Panora Window is used, with the top small glass fixed, middle retraction down.



BRASSERIE LIPP

Project Code : # 3487
Location : Sweden
Size : 3 x 3 m
Operation Mode : D3 (Door)

Classic sidewalk café, restaurant application. Client wanted to integrate their indoor spaces to their outdoor seating in good weather, while retaining maximum table space, ease of customer or server traffic. Libart's Panora Vertical Retracting Door's systems has provided this, large glass windows that retract up to provide obstruction free space between inside and outside excellent alternative to classic sliding or folding doors & windows.

PANORA FAÇADE RESIDENCE

Project Code : # 3285
Location : Turkey
Size : 3.5 x 2.3 m - 4.1 x 2.3 m
Operation Mode : W2 (Window)

Comfort of your living spaces are greatly governed by your sense of spaciousness, this is where Panora windows play a big role, providing unobstructed view that blurs the inside with the outside. This project is an excellent example of how Panora vertical retracting Maxi Façade windows can transform a living room into an exclusive resting and refreshing space, with sea and countryside views from your favorite chair.

ONE SIZE DOES NOT SUIT ALL

Options to suit unique design needs and budgets.

PANORA MAX GUL

Cost-effective system, where extreme thermal insulation is not a priority, and cost is! 5 configurations, 2 or 3 frames (50%, 66% opening) Window, Door or Countertop, Sizes 3.5m width x 3.5m in height, operable frame weigh up to 180kg
New or retrofit installation with ease, Non-thermally broken profile system Frames will accept Single or IG of up to 20mm

PANORA MAXI GUM

Residential & Commercial use, excellent weather & thermal performance, 6 configurations, 2, 3 or 4 frames (%50, 66% or 75% opening) Window or Door, Sizes 5.0m width x 5.0m in height, operable frame weigh up to 600kg, New or retrofit installation with ease, Designed with thermally broken structural system, motor box and window, Frames will accept Single or IG of up to 34mm

PANORA FAÇADE GUF

Curtain wall, Residential & Commercial use, excellent weather & thermal performance, 2 configurations (50% opening) Window or Door, Sizes 6.0m width x 4.5m in height. operable frame weigh up to 600kg, New or retrofit installation with ease Designed with thermally broken structural system, motor box and window frames, Frames will accept IG of up to 38mm, 1.3 (W/m2K) with 0.8Ug triple glass option

PANORA MAXIMA GUG

Screw drive system for large span & weight, excellent weather & thermal performance, 4 configurations, 3 or 4 frames (66% or 75% opening) Window or Door, Sizes 6m width x 5m height, operable frame weigh up to 900kg, New or retrofit installation with ease, Designed with thermally broken structural system, motor box and window frame, Frames will accept IG of up to 38mm, 1.3 (W/m2K) with 0.8Ug triple glass option

VALUE FOR YOUR INVESTMENT

4 unique systems to suit specific needs, climates, sizes, or budget

Flexibility of configuration, safety features and aesthetics

Greater window and glass wall seating leads to greater revenue potential

Function
Open / close, button, remote or central automation systems, No need additional stacking space is required for stacking when opened, Uninterrupted openings of up to 6m (18'), no vertical profiles

Quality
Custom designed aluminum system (6063-T6), Electrostatic baked on powder coating, All components and fittings are of corrosion resistance materials, 25+ years of expertise in 40+ countries

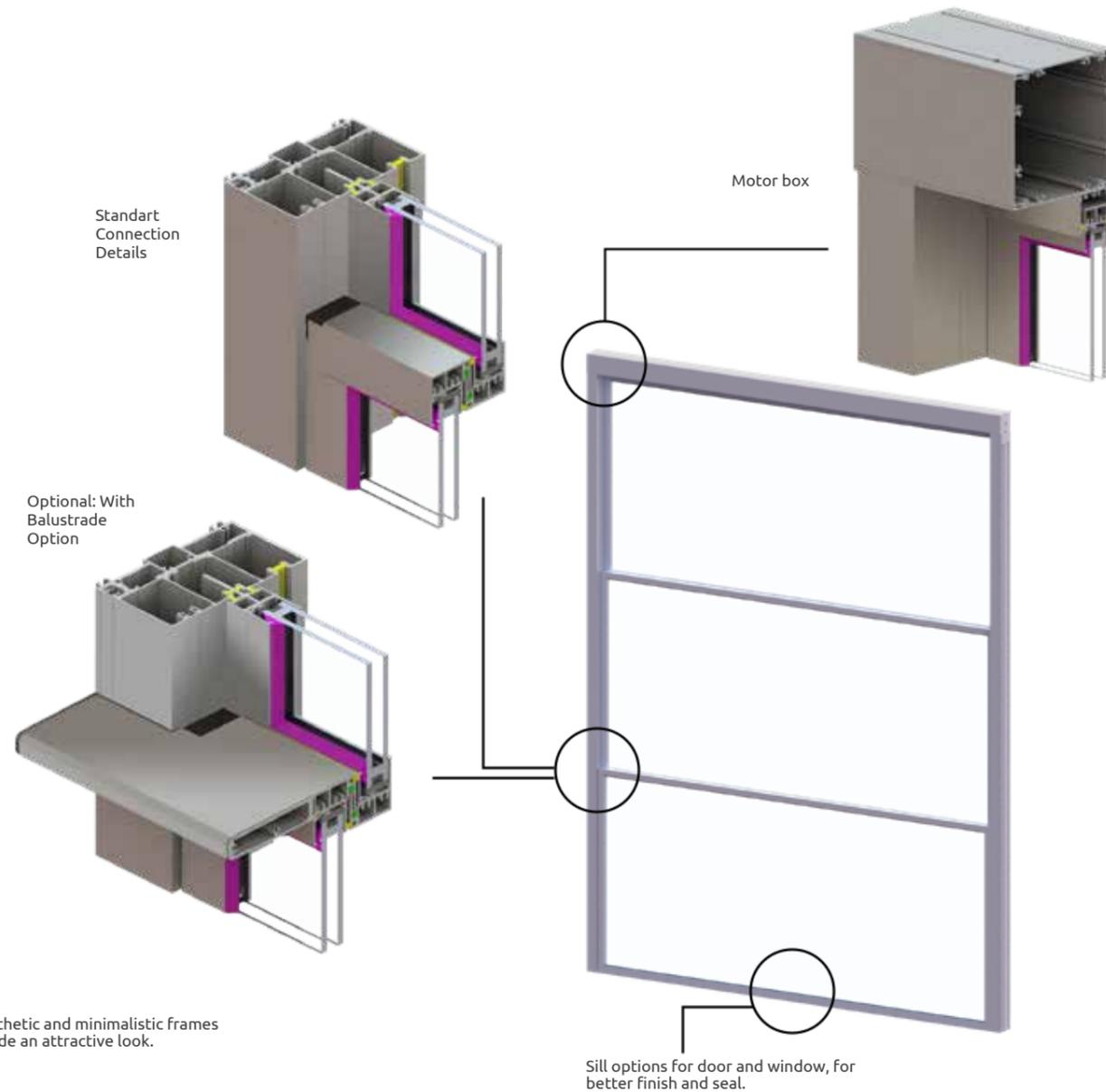
Innovation
Alternative to sliding, swinging or folding windows & doors, More glass, less frame (up to 6m without vertical profiles), No counterweights, easy retrofit option

PANORA (GU) SYSTEMS PRODUCTION PROGRAM & OPTIONS

	MAX GUL	MAXI GUM	MAXI FAÇADE GUF	MAXIMA GUG	
Mechanical & Electrical	Motor & Input Voltage	120Nm Tubular, 220VAC/50Hz	0.37kW 3-Phase Motors. 220VAC/50Hz	0.37kW 3-Phase Motors. 220VAC/50Hz	
	Drive System	Direct chain drive, 12.7mm (1/2")	Planetary gearbox, chain drive, 12.7mm (1/2")	Planetary gearbox, chain drive, 12.7mm (1/2")	
	Open & Close speed	2.2 m/min - 7,22 ft/min	Up to 1,8 m/min - 5,9 ft/min	Up to 1,8 m/min - 5,9 ft/min	2 x 0.37kW 3-Phase Motors. 220VAC/50Hz Double Vertical Screw Drive 1,08 m/min - 3,54 ft/min
	Control System	Toggle Switch (non-latching), or Remote Control Optional: Multi Channel Wireless Remote 99 channel with GUI-2024 Control System.	Multi Channel Wireless Remote 99 channel with GUI-2024 Control System.	Multi Channel Wireless Remote 99 channel with GUI-2024 Control System.	Multi Channel Wireless Remote 99 channel with GUI-2024 Control System. Programmable PLC.
	Night Lock	Optional: for Door version only	Optional: for Door version only	Optional: for Door version only	Not required due to screw drive design
	Secondary Mechanical Safety System	Standard	Standard	Standard	Not required due to screw drive design
	Safety Sensors	Optional: One Photocell	One Photocell for Doors Optional: One Photocell for Window systems	One Photocell for Doors Optional: One Photocell for Window systems	One Photocell Optional: Light Barrier (exterior). Second Photocell
	Additional Sensors	Standard: N/A Optional: Fire Sensor, Rain Sensor, Wind Sensor	Standard: N/A Optional: Fire Sensor, Rain Sensor, Wind Sensor	Standard: N/A Optional: Fire Sensor, Rain Sensor, Wind Sensor	Standard: N/A Optional: Fire Sensor, Rain Sensor, Wind Sensor
	Motor Box Sizes (w x h)	125 x 125mm, (4.9" x 4.9")	162 x 210 mm, (6.4" x 8.3")	125 x 210 mm, (4.9" x 8.3")	195 x 210 mm, (7.7" x 8.3")
	Structural	Design Options	2 sash 50%, 3 sash 66% opening. Available as Window or Door	3 sash 66%, 4 sash 75% opening. Available as Window or Door	2 sash 50% opening. Available as Window or Door
Glazing		Standard: IG, 5T+10+5T mm, (3/16" T + 3/8" + 3/16" T). Optional: Single 6T mm T (3/16" T). Max 20mm (13/16")	Standard: IG, 6T+20+6T mm, (1/4" T + 3/4" + 1/4" T) Max 34mm (1 9/32")	Standard: IG, 8T+20+8T mm, (5/16" T + 3/4" + 5/16" T) Optional: Triple 6T+10.5+5T+10.5+6T. Max 38mm (1 1/2")	Standard: IG, 8T+20+8T mm, (5/16" T + 3/4" + 5/16" T) Optional: Triple 6T+10.5+5T+10.5+6T. Max 38mm (1 1/2")
Structural Support Fin		Optional: Single or Dual, 80 or 130mm (3 5/32" or 5 1/8")	Optional: Single or Dual, 80 or 130mm (3 5/32" or 5 1/8")	Optional: Single or Dual, 80 or 130mm (3 5/32" or 5 1/8")	Optional: Single or Dual, 80 or 130mm (3 5/32" or 5 1/8")
Balustrade Bar		Optional, Windows Only	Optional, Windows Only	Optional, Windows Only	Optional, Windows Only
Operable Sash Weight		Up to 180kg (397 lb.)	Up to 600 kg (1320 lb.)	Up to 600 kg (1320 lb.)	Up to 900 kg (1985 lb.)
Max Width & Height		3.5 x 3.5 m, (137" x 137")	5.0 x 5.0 m, (196" x 196")	6.0 x 4.5 m, (236" x 177")	6.0 x 5.0 m, (236" x 196")
Min. Width		1.2 m (48")	1.6 m (63")	1.6 m (63")	1.6 m (63")
Profile Type		Non-thermally broken; Motor box, Sash, Jamb All aluminum 6063-T6 alloy Electrostatic baked-on powder coating	Thermally broken; Motor box, Sash, Jamb All aluminum 6063-T6 alloy Electrostatic baked-on powder coating	Thermally broken; Motor box, Sash, Jamb All aluminum 6063-T6 alloy Electrostatic baked-on powder coating	Thermally broken; Motor box, Sash, Jamb All aluminum 6063-T6 alloy Electrostatic baked-on powder coating
Surface Finish	Optional: Pre-treated Seaside Corrosion Protection	Optional: Pre-treated Seaside Corrosion Protection	Optional: Pre-treated Seaside Corrosion Protection	Optional: Pre-treated Seaside Corrosion Protection	
Standards	Watertightness EN 12208	Class 5A (at 250 Pa)	Class 6A (at 250 Pa)	Class 7A (at 300 Pa)	
	Resistance to Safety Load EN 12210	OK (at +800 Pa) : OK (at -800 Pa)	OK (at +1800 Pa) : OK (at -1800 Pa)	OK (at +1800 Pa) : OK (at -1800 Pa)	
	Air Permeability EN 12207	Class 2 (at +600 Pa) ; Class 2 (at -600 Pa)	Class 3 (at +600 Pa) ; Class 3 (at -600 Pa)	Class 3 & 2 (at +600 Pa) ; Class 3 & 2 (at -600 Pa)	Class 3 (at +600 Pa) ; Class 3 (at -600 Pa)
	Resistance to Wind Load EN 12210	Class B2 (at +800 Pa) ; Class B2 (at -800 Pa)	Class C3 (at +1200 Pa) ; Class A1 (at -1200 Pa)	Class C3 (at +1200 Pa) ; Class C3 (at -1200 Pa)	Class C3 (at +1200 Pa) ; Class C3 (at -1200 Pa)
	Max Thermal Insulation	Uw = 2.4 W/m2K. (IG 5T+10+5T mm)	Uw = 1.6 W/m2K, (with Ug = 1.1 IG)	Uw = 1.45 W/m2K, (with Ug = 1.1 glass) Optional: Uw = 1.3 W/m2K, (Ug = 0.8 W/m2K with Triple IG)	Uw = 1.45 W/m2K, (with Ug = 1.1 glass) Optional: Uw = 1.3 W/m2K, (Ug = 0.8 W/m2K, Triple IG)

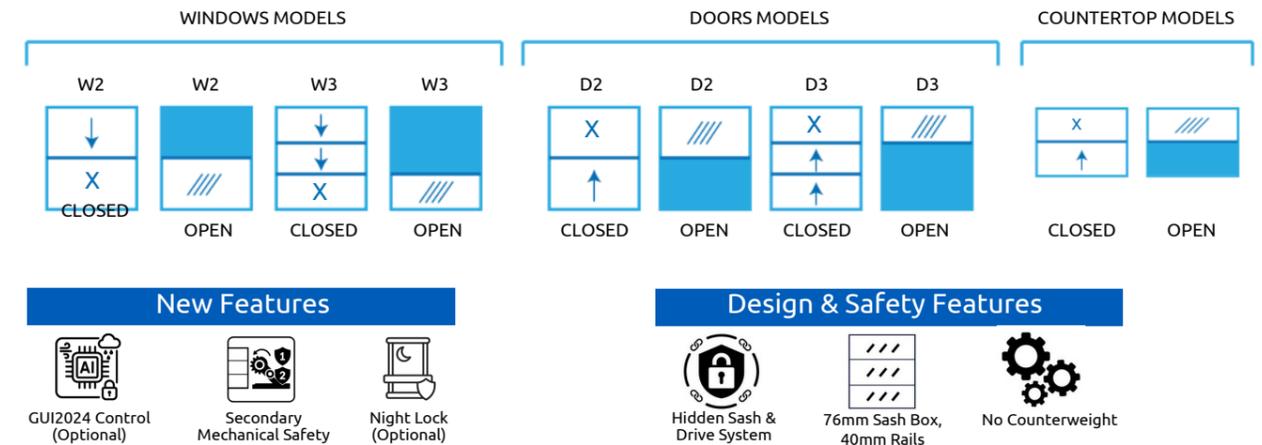
PANORA MAX (GUL)

- Cost effective system with good weather performance, ideal for installations where extreme thermal insulation is not a priority and cost is up to 5 different configurations, 2 to 3 frames allowing for 50%, 66% opening as a Window, Door, Interior Divider or Countertop Applications Operable glazed frame weight up to 180 kg, sizes ranging from 3.5m width to 3.5m in height Structural fin support system for strong wind support, balustrade option for Window models
- Minimalistic frames 125mm deep x 76mm Jambs, and 40mm frames New or retrofit installation with ease, no need for special gutter or hidden counterweights Designed with non-thermally broken profile system, Frames will accept single or IG of up to 20mm Extensive control options inclusive of connection to building automation

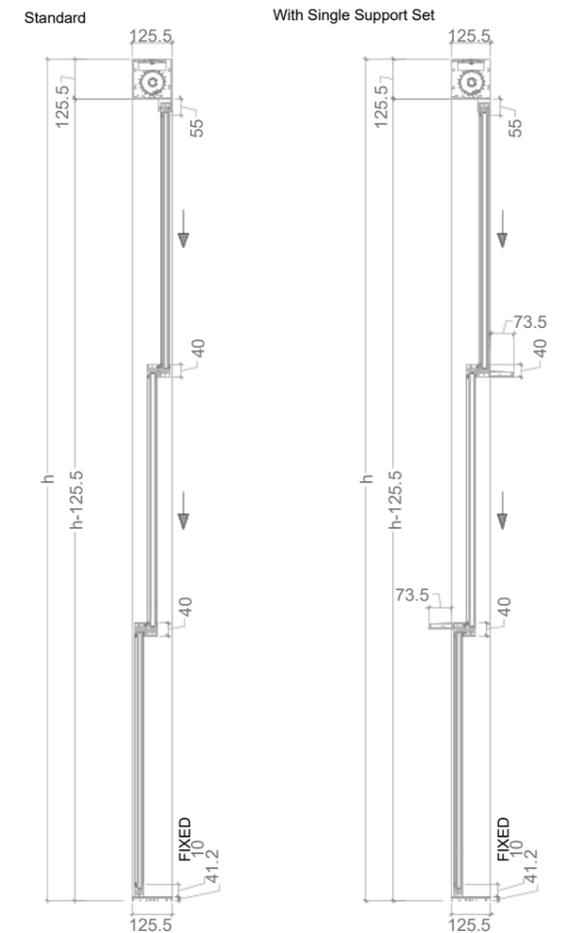
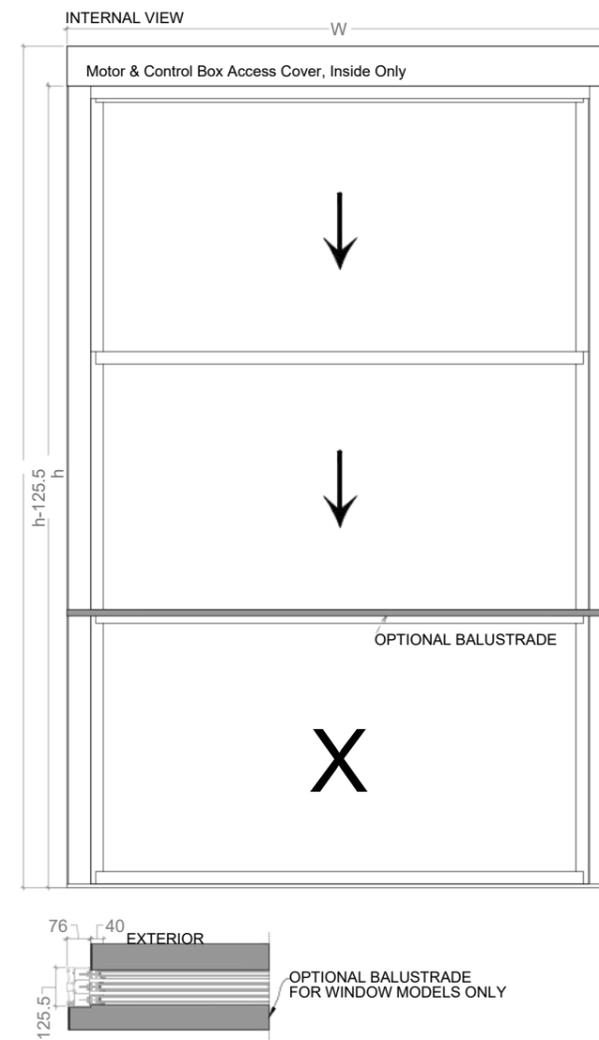


• Aesthetic and minimalistic frames provide an attractive look.

Sill options for door and window, for better finish and seal.

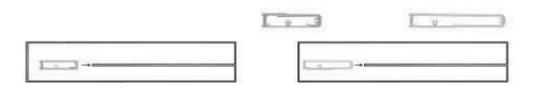
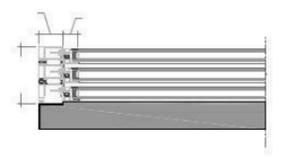
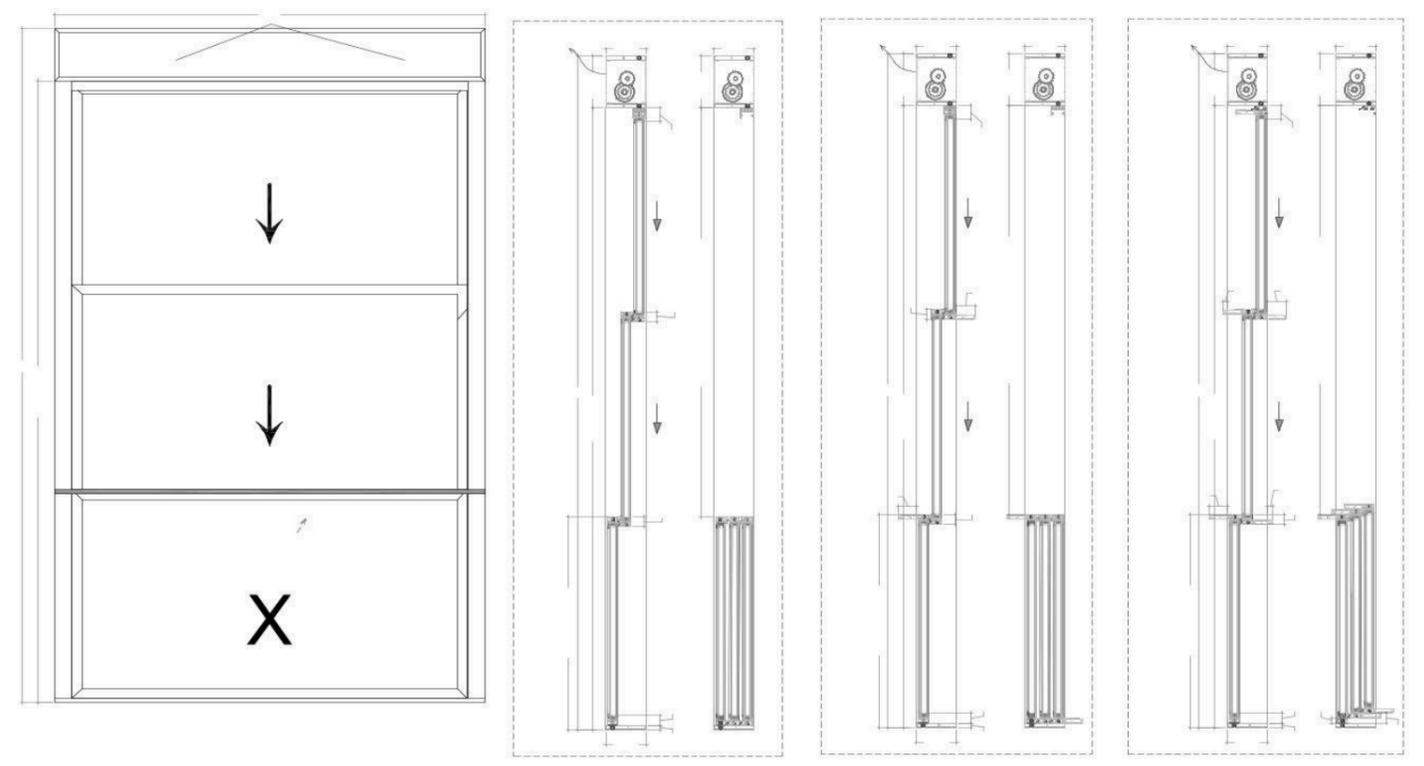
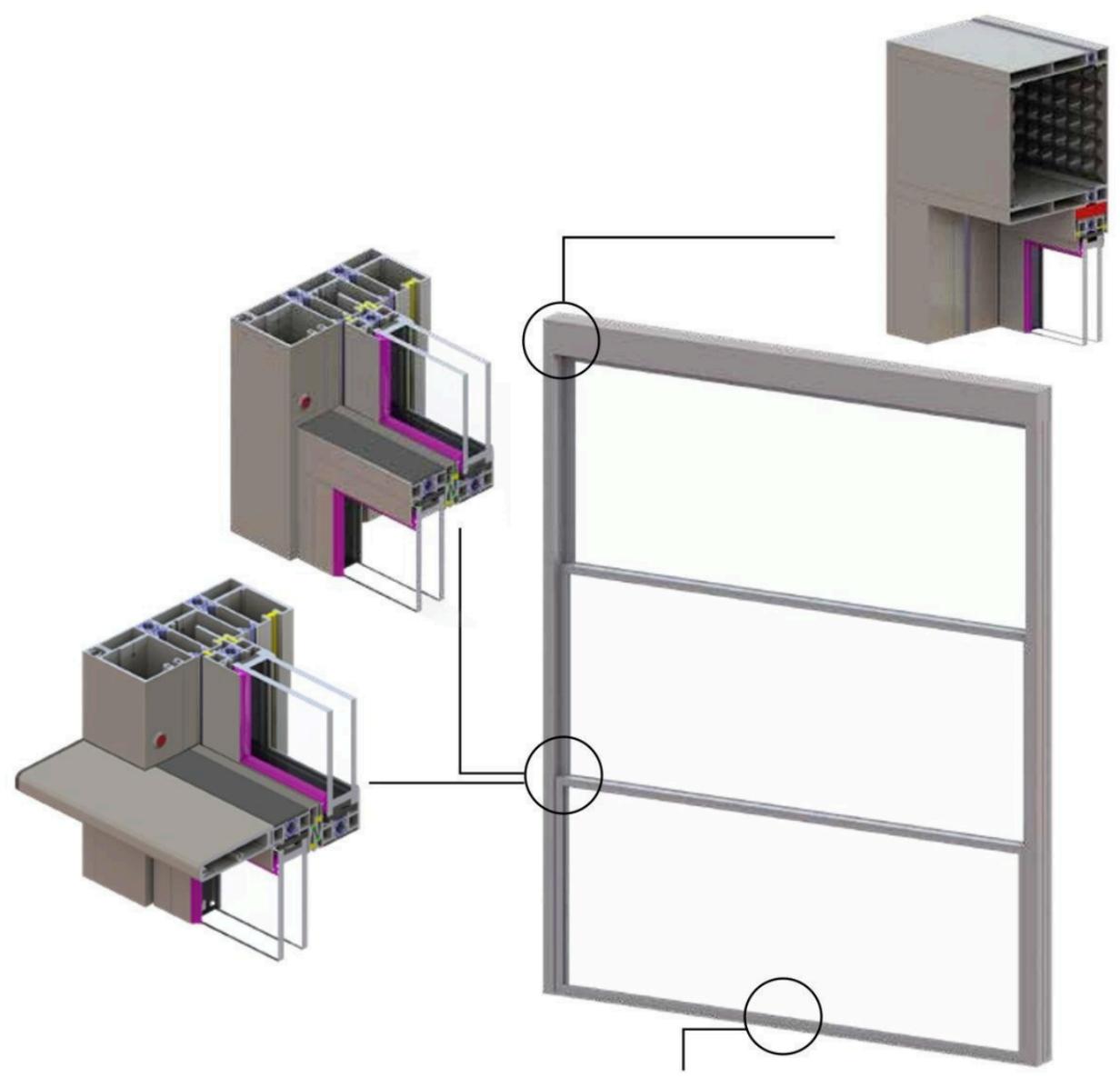
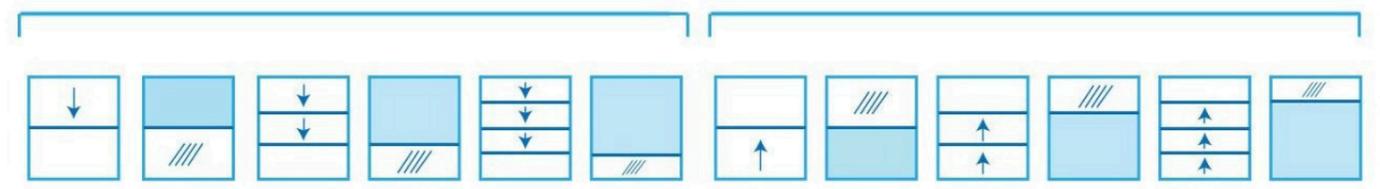


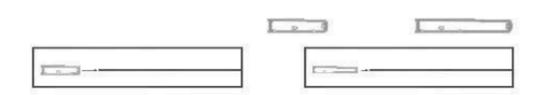
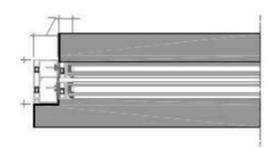
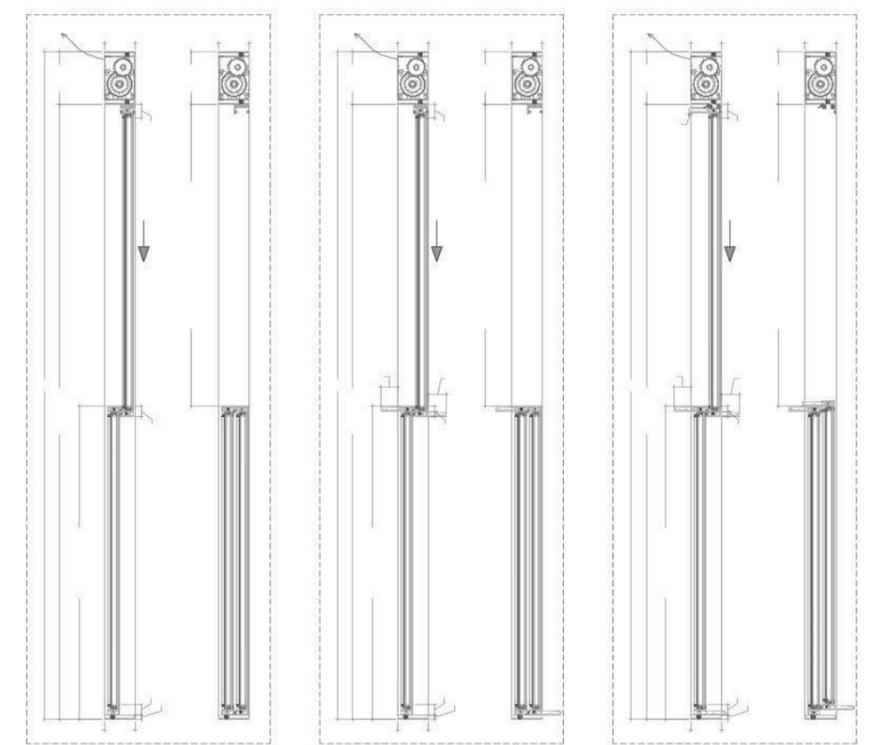
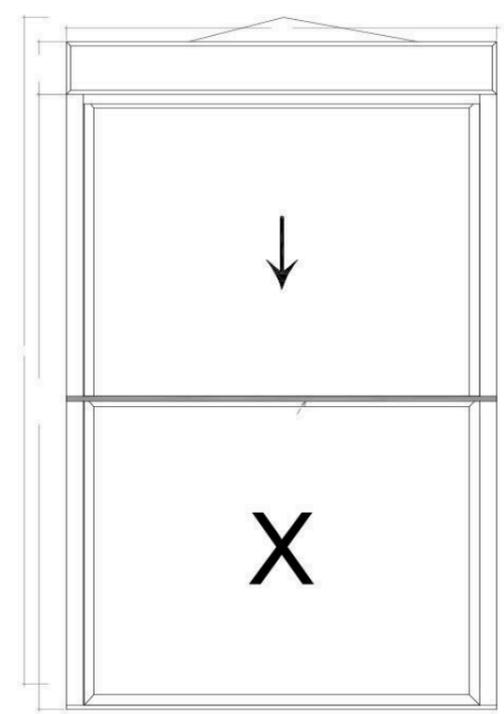
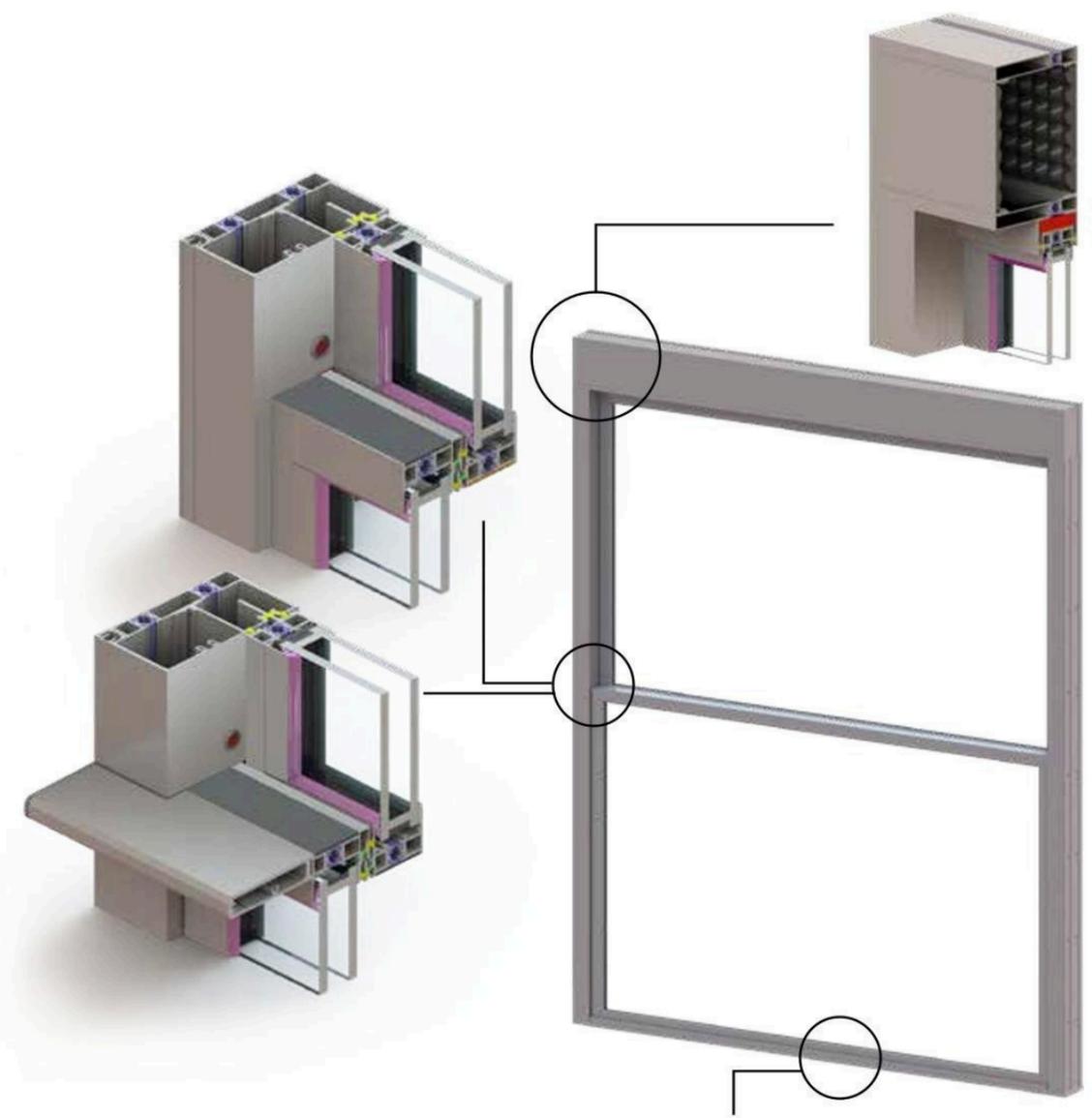
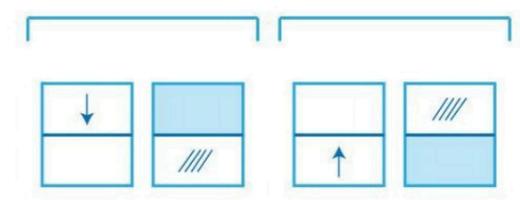
PANORA MAX-GUL W3

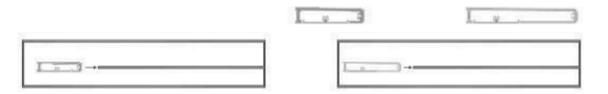
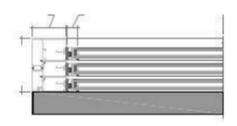
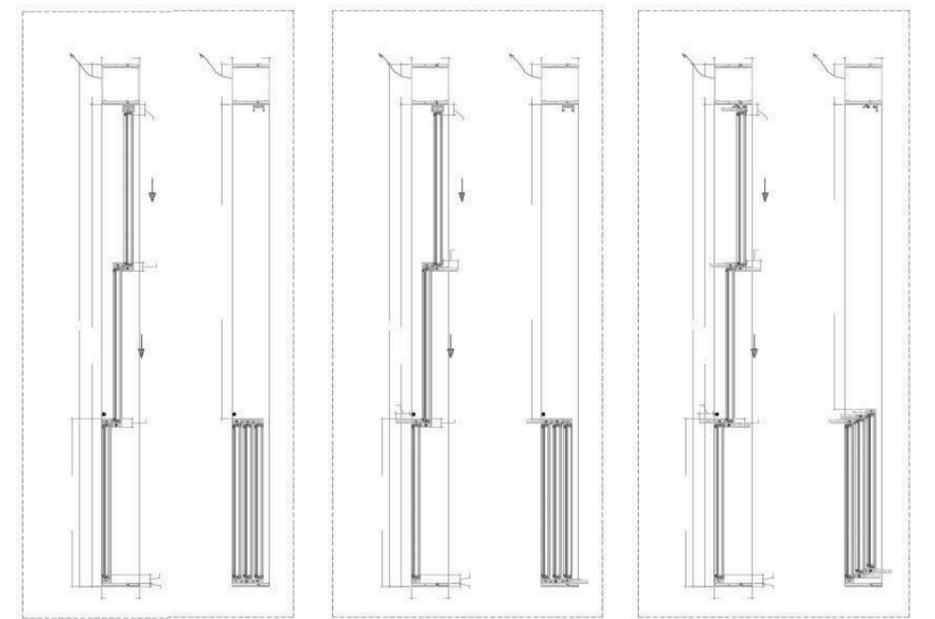
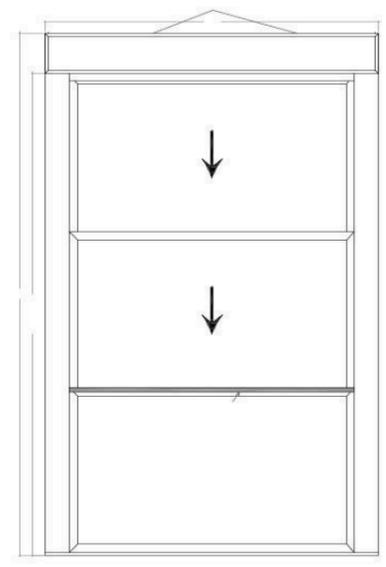
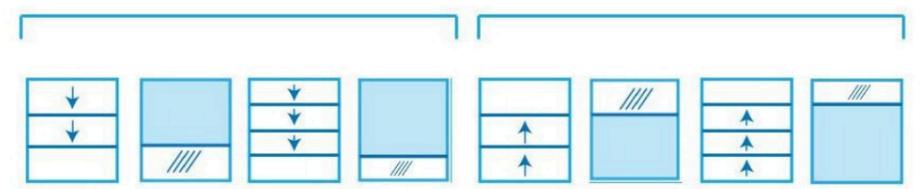
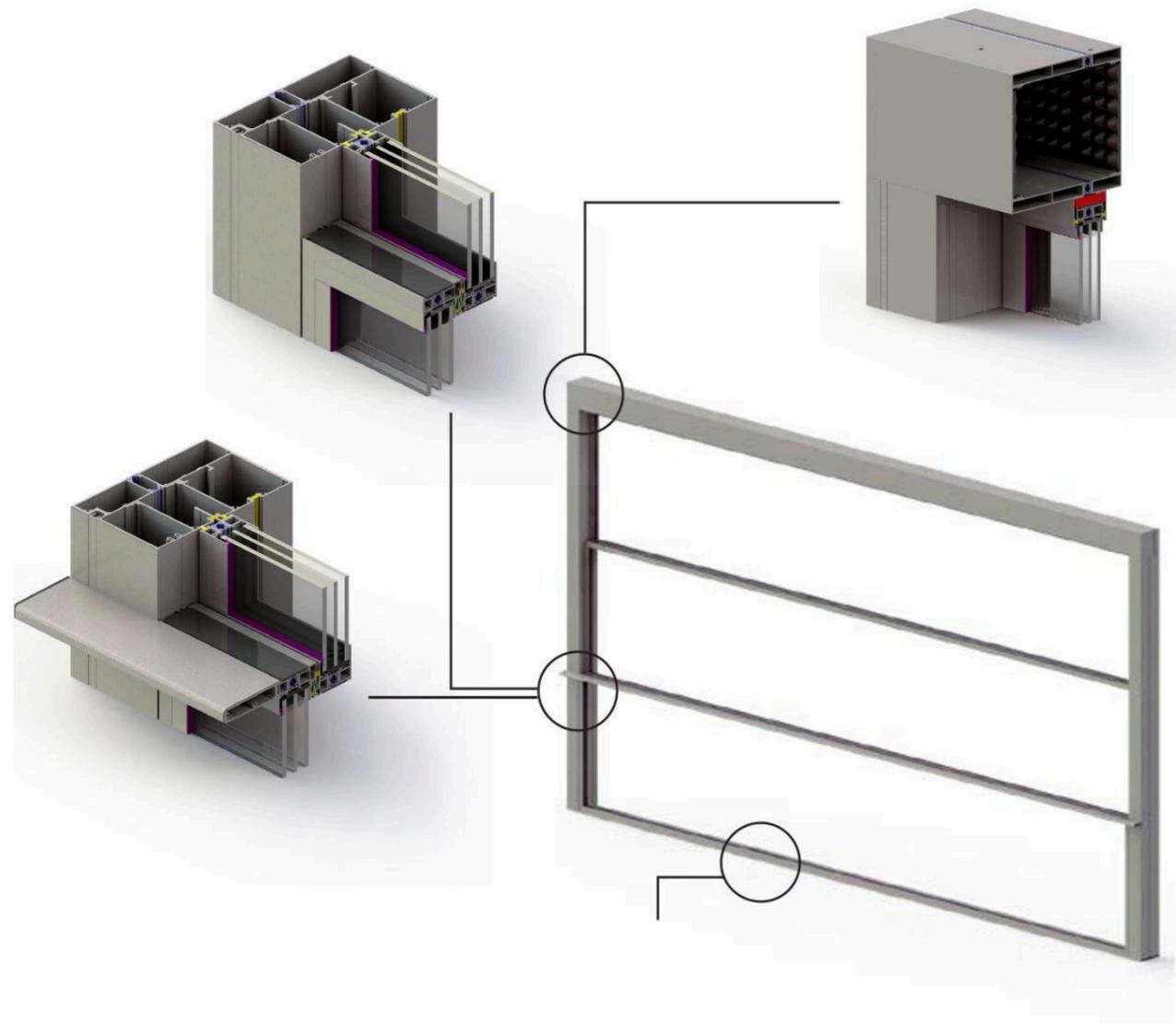


STRUCTURAL FIN /80 mm /130 mm

Total operating glazed frame weight should not exceed over 180kg. GUL systems are available with or without glazing. Frames can be locally glazed by installers. *Maximum operable dimensions are dependent on the operable glazed frame weight. **Maximum thermal insulation is possible with high performance glass. Ask your project consultant for information.









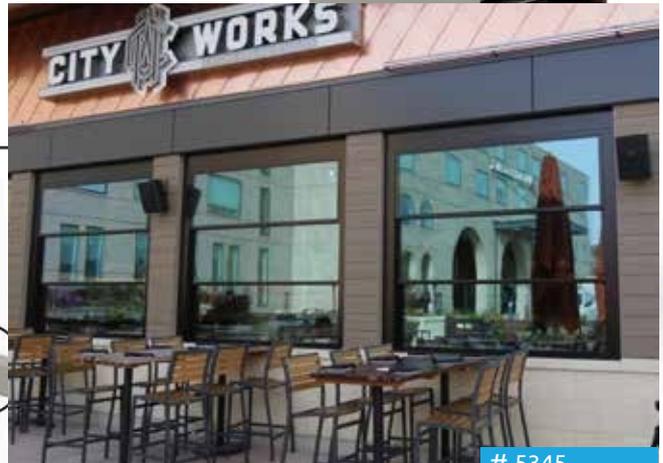
6623



4850



6527



5345



Libart designs and fabricates operable architectural systems for discerning architects and professional clients from around the world. Libart's aluminum and glass retractable structures are innovative, functional and aesthetically attractive. They are used in restaurants, cafes, hotels, commercial and residential and industrial facilities. Our commitment to research, design, engineering and manufacturing is based on providing our customers value added retractable structures that offer flexible living and working environments, for any type of weather.

Libart has been serving the architectural industry with operable solutions for over 25+ years, with manufacturing centers located in 3 continents and dealers in more than 40 countries.

To learn more about our systems and projects from around the world please visit and contact us via www.panorasystems.com

✉ sales@panorasystems.com



A division of

