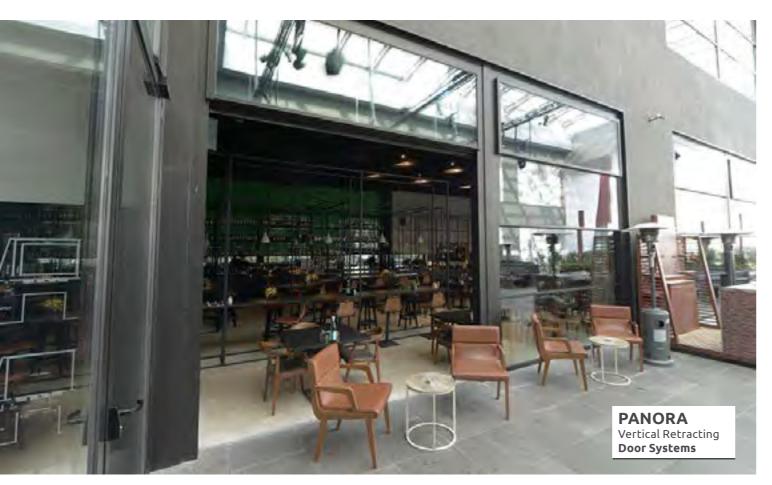
PANDRA FOR A BETTER VIEW by Libart

VERTICAL RETRACTING WINDOWS & DOORS









A New Solution for Windows and Doors "For a Better View!"

Libart's Panora vertical retracting windows and doors are shifting the paradigm of architectural window and door solutions.

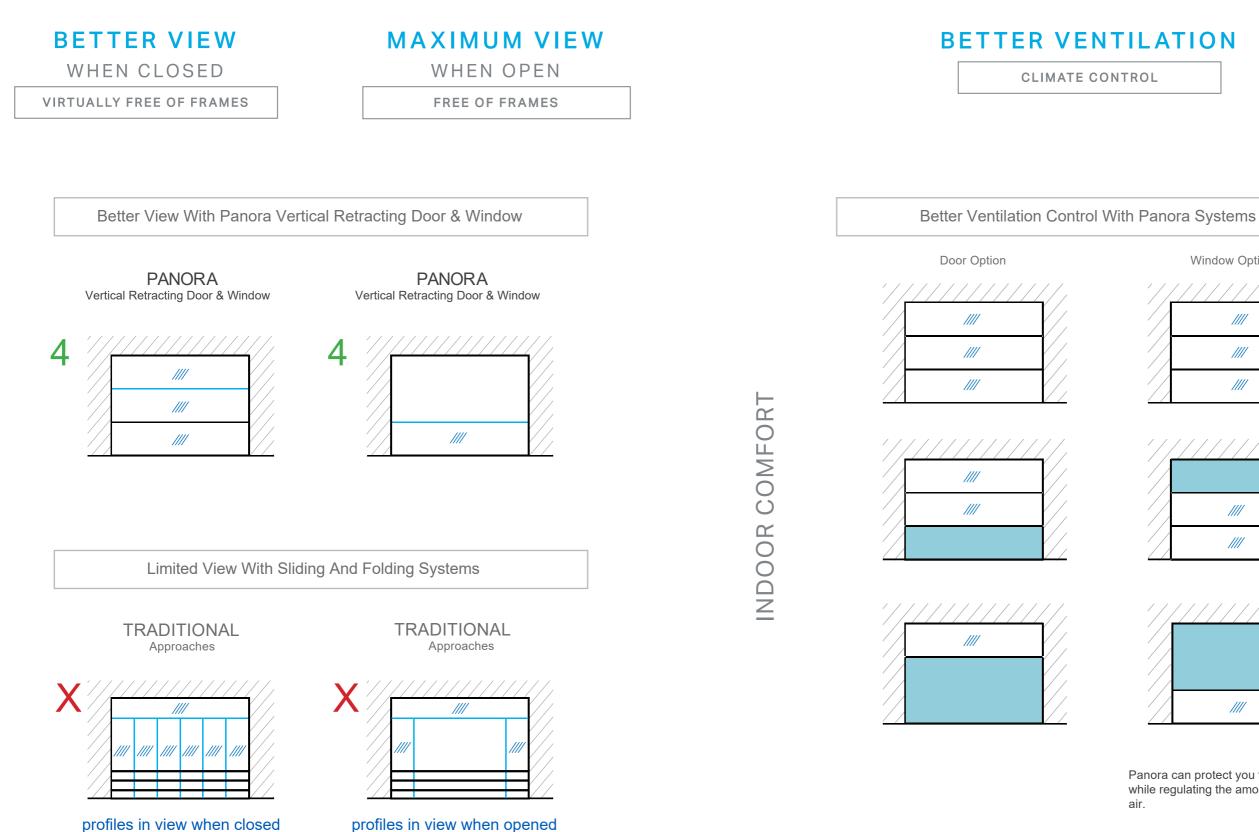
Panora's large span, vertical retracting windows and doors provide you with an unobstructed view within the existing structural supports of your building.





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.

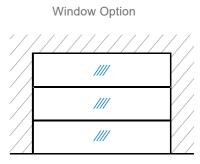


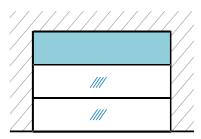
NEW APPROACHES FOR A BETTER VIEW!

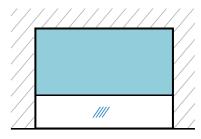
VALUE OF VIEW



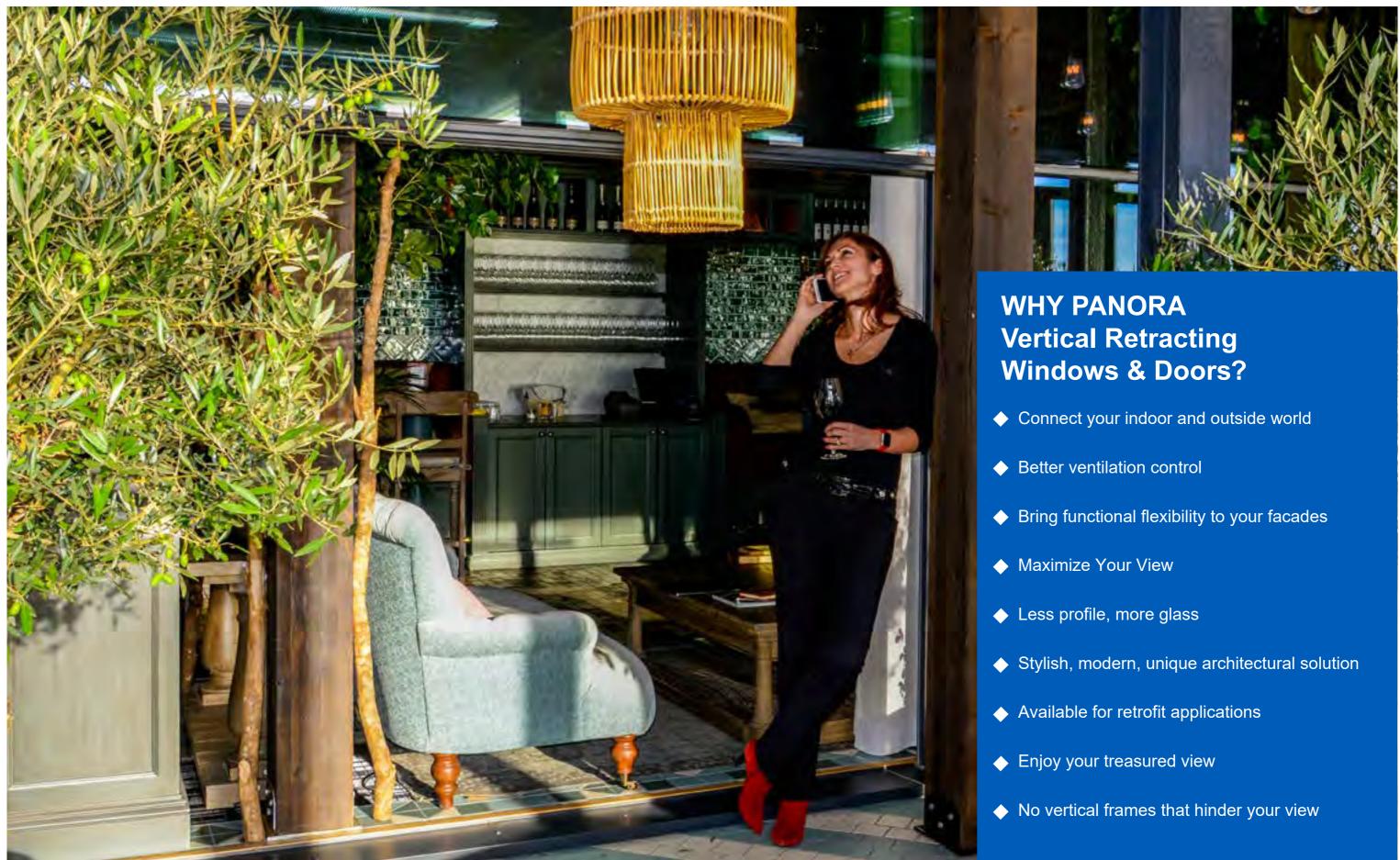








Panora can protect you from wind, while regulating the amount of fresh air.







CAROLINA ALE HOUSE

ow)

Project Code	: # 4833
Location	: USA
Size	: 11.5' x 11
Operation Mode	: W3 (Win

The Carolina Ale House is a successful US restaurant chain. The proprieters wanted to create an outdoor atmosphere for their clients while protecting them from changing weather conditions. Panora Vertical Retracting Windows accomplishes that with natural light, controllable airflow, and unobstructed views. A natural microclimate solution that provides more window, less obstruction, and higher customer satisfaction.





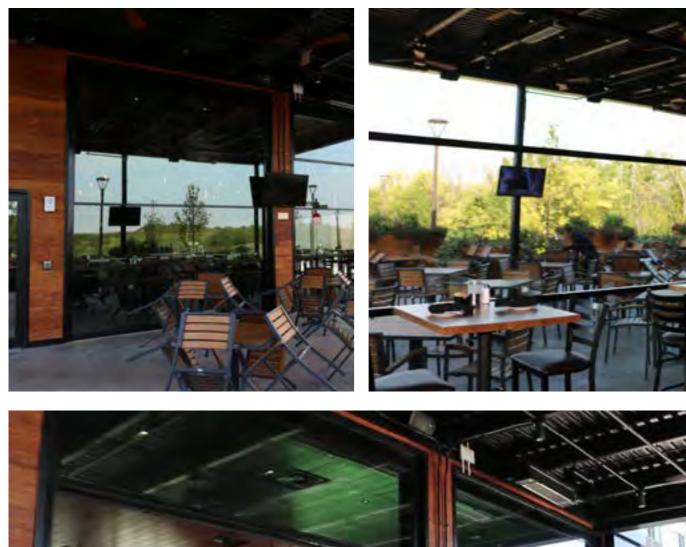
LONDON WALL PLACE

Project Code: # 2080Location: United KingdomSize: 9.8' x 13.1' (3 units)Operation Mode: D4 (Door)

Th to Ri ar cc ca



This café wanted to blend their indoor space and outside seating to maximize their patron's experience. Libart's Panora Vertical Retracting Windows allow the spaces to flow together without any loss of interior or exterior space. Panora's minimalistic design complements the blend of modern and classic architecture of the cafe. Open or closed Panora provides a relaxing view of this oasis of calm in the middle of the busy city.





COOPERS HAWK LIBERTY When you run a sports bar, you need the flexibility to increase

Project Code	: # 2401
Location	: USA
Size	: 157" x 157" (2 units)
Operation Mode	: D4 (Door)

when you run a sports bar, you need the flexibility to increase your usable space during the big game. 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 outdoors.





VALLGATAN COFFEE SHOP

: # 4126 Project Code Location : Sweden Size : 157" x 110" Operation Mode : W2 (Window)



The Panora fulfilled the architect 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

: # 3487	
: Sweden	
: 9.8' x 9.8'	
: D3 (Door)	

The Client wanted to integrate their indoor space and outdoor seating in good weather while retaining maximum table space. Libart's Panora Vertical Retracting Door's systems has provided this in a big way. Large glass windows that retract up to create an unobstructed space between inside and outside provide an excellent alternative to classic sliding or folding doors & windows.





PANORA FAÇADE RESIDENCE

: # 3285 Project Code : Turkey Location : 138" x 90" - 162" x 90" Size Operation Mode : W2 (Window)



Creating a comfortable home with a sense of spaciousness is a foundational design goal. Integrating Panora windows into your home can play a big role in creating Panora windows into your home can play a big role in creating the space you want by providing unobstructed views that blur the inside and out. This project is an excellent example of how Panora vertical retracting maxi façade windows can maximize your sea and countryside views from your favorite chair.

ONE SIZE DOES NOT FIT ALL

Options to suit unique design needs and budgets

PANORA MAXI GUM & GUM+

Ideal where design flexibility, excellent weather, and thermal performance is of importance. Up to 8 different configurations, 1 to 4 frames allowing for 50%, 66%, or 75% opening as a window or a door. Sizes ranging from 196" width to 236" in height. New or retrofit installation. Designed with thermally broken structural system, motor box, and window. Frames will accept IG of up to 1.25".

PANORA FAÇADE GUF & GUF+

Designed for curtain wall or residential applications where excellent weather and thermal performance is of importance. 2 frame system allowing for 50% opening as a window or a door. Sizes ranging from 177" width to 236" in height. New or retrofit installation. Designed with thermally broken structural system, motor box, and window frames. Frames will accept IG of up to 1.4".

PANORA MAX GUL

Cost effective system, good weather performance, ideal for installations where extreme thermal insulation is not a priority, and cost is! Up to 6 different configurations, 1 to 3 frames allowing for 50%, 66% opening as a window, door, interior divider or countertop application. Sizes ranging from 142" width to 142" in height. New or retrofit installation. Nonthermally broken profile system. Frames will accept Single or IG of up to .7".

VALUE FOR YOUR INVESTMENT

3 Unique Systems to Suit Specific Needs, Cimate, Sizes, and Budget Flexibility of Configuration, Safety Features, and Aesthetics Integrated Indoor/Outdoor Space Increases **Revenue Potential**

Function

Open/close with button, remote or central automation systems. No additional space is required for stack-ing when opened. Uninterrupted openings of up to 19.7' with no vertical profiles

Quality

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

Innovation

Alternative to sliding, swinging or folding windows & doors. More glass, less frame (up to 19.7' without vertical profiles). No counterweights. Easy Retrofit Option.

PANORA (GU) SYSTEMS PRODUCTION PROGRAM & OPTIONS

	MAXI (GUM & GUM+) MAXI FAÇADE (GUF & GUF+)					
		Standard GUM	Optional GUM+	Standard GUF	Optional GUF+	
-	Motor Type & Voltage	120Nm - 220VAC/50hz	300Nm - 220VAC/50hz	120Nm - 220VAC/50hz	300Nm - 220VAC/50hz	
<u><u> </u></u>	Retraction Mechanism Type			Proprietary gearbox. 1/2" chain driven system		
Mechanical & Electrical	Opening & Closing speed	About 9.1" min			About 5.0' min	Ab
		Single Chanel Wireless Remote Control (MC200 Receiver) Optional: Multi Channel Wireless Remote (6, 18, 99 channel)		Single Chanel Wireless Rem	ote Control (MC200 Receiver)	
60	Control System			Optional: Multi Channel Wireless Remote (6, 18, 99 channel).		Optio
ज		My Nice Automation (BAS) integration.		My Nice Automation (BAS) integration.		
ic l	Closed Door Lock	Optional: Electro Mechanical Latch System (for Door version only)		Optional: Electro Mechanical Latch System (for Door version only)		Optiona
a	Safety Sensors	One inferred safety sensor		One inferred safety sensor for Doors		
N		Optional: Light Barrier (exterior). Second inferred safety sensor Optional: One inferred safety sensor for Window s		sensor for Window systems		
Me	Motor Box & System Width	w x h: 6.4" x 7.2"	w x h: 6.4" x 8.3"	w x h: 4.9" x 7.2"	w x h: 4.9" x 8.3")	
	Design Options 1 sash (100% opening), 2 sash		sh (%50 opening), 3 sash (66%	1 sash (100% ope	ning), 2 sash (50%	
		· · · · ·	bening). As window or door	opening) As Window or Door		
	Glazing	IG up to 1 9/32"		IG up to $1 \frac{1}{2}$ "		
	Structural Fin	Optional: Single or Dual Structural Fin, 3 5/32" or 5 1/8"		Optional: Single or Dual Structural Fin, 3 5/32" or 5 1/8")		Oŗ
_	Balustrade Bar	Optional, Windows Only		Optional, Windows Only		
Structural	Operable Glazed Sash Weight	Up to 460 lbs. Up to 1,300 lbs.		Up to 460 lbs.	Up to 1,300 lbs.	
<u>c</u>	Maximum Height	236"		236"		
E	Maximum Width	196"		177"		
N N	Weather Seals	Silent-fin, Brush Pile with PVC fin and EPDM gaskets		Silent-fin, Brush Pile with PVC fin and EPDM gaskets		S
	Profile Type	Thermally broken; Motor box, Sash, Jamb. All aluminum 6063-T5 alloy		Thermally broken; Motor box, Sash, Jamb. All aluminum 6063-T5 alloy		Non-therm
	Surface Finish Electrostatic baked-on powder coating		Electrostatic baked-on powder coating			
		Optional: Pre-treated Seaside Corrosion Protection		Optional: Pre-treated Seaside Corrosion Protection		
Sy	System Color		9010, 1019, 7016, 8014, 9006,	Standard RAL (8003, 9005, 9010, 1019, 7016, 8014, 9006,		5
		7024) Optional: Other RAL colors & Custom colors		7024) Optional: Other RAL colors & Custom colors		
<u>v</u>	Watertightness EN 12208	Class 7A (at 600 Pa)		Class 7A (at 600 Pa)		
Standards	Resistance to Safety Load EN 12210	OK (at +1200 Pa) ; OK (at -1200 Pa)		OK (at +1200 Pa) ; OK (at -1200 Pa)		
	Air Permeability EN 12207	Class 4 (at +600 Pa) ; Class 4 (at -600 Pa)		Class 4 (at +600 Pa) ; Class 4 (at -600 Pa)		
a	Resistance to Wind Load EN 12210	Class A1 (at +800 Pa) ; Class A1 (at -800 Pa)		Class A1 (at +800 Pa) ; Class A1 (at -800 Pa)		
Š	Maximum Thermal Insulation (Uw)	U _w = 1.60 (W/m²K) [wit	h Ug=1.1(W/m²K) glass]	U _w = 1.56 (W/m ² K) [wit	h Ug=1.1(W/m²K) glass]	



MAX (GUL) Standard

120Nm - 220VAC/50hz Direct drive, 1/2" chain driven system About 2.2 m/min (7.5' min) | About 2.8 m/min (9.2' min) Toggle Switch (Non latching) otional: Multi Channel Wireless Remote (6, 18, 99 channel). My Nice Automation (BAS) integration. nal: Electro Mechanical Latch System (for Door version only) N/A Optional: One inferred safety sensor w x h: 4.9" x 4.9"

2 sash (50% opening), 3 sash (66% opening) As Window, Door or Countertop IG up to 20mm or Single Glazing 6, 8, 55.4mm Optional: Single or Dual Structural Fin, 3 5/32" or 5 1/8"

> Optional, Windows Only Up to 410 lbs., for 220VAC 142"

142" Silent-fin, Brush Pile with PVC fin and EPDM gaskets rmally broken; Motor box, Sash, Jamb. All aluminum 6063-T5 alloy Electrostatic baked-on powder coating Optional: Pre-treated Seaside Corrosion Protection 5 standard RAL colors (7024, 9005, 9010, 9006, 1019)

Class 5A (at 250 Pa) OK (at +800 Pa) ; OK (at -800 Pa) Class 2 (at +600 Pa) ; Class 2 (at -600 Pa) Class B2 (at +800 Pa); Class B2 (at -800 Pa) $U_{w} = 2.9 (W/m^{2}K)$ [with 5mm + 10 + 5mm]

PANORA MAXI (GUM & GUM+)

Ideal where design flexibility, excellent weather, and thermal performance is of importance.

Up to 8 different configurations, 1 to 4 frames allowing for 50%, 66%, or 75% opening as a window or a door

Operable glazed frame weight up to 1455 lbs

Sizes ranging from 196" width to 236" in height

Structural fin support system for strong wind support

Balustrade option for window models

Minimalistic frames 6.4" deep x 2.6" jambs, and 1.5" frames

New or retrofit installation with ease, no need for special gutter or hidden counterweights

Designed with thermally broken structural system, motor box and window frames to provide excellent insulation, up to .28 U-Value

Frames will accept IG of up to 1.25"

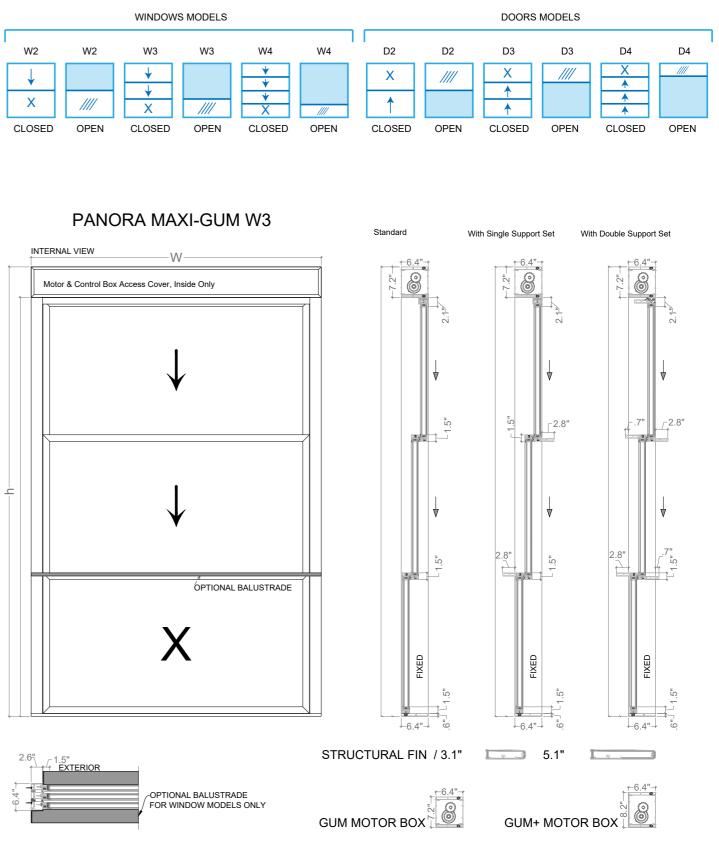
Extensive control options inclusive of connection to building automation

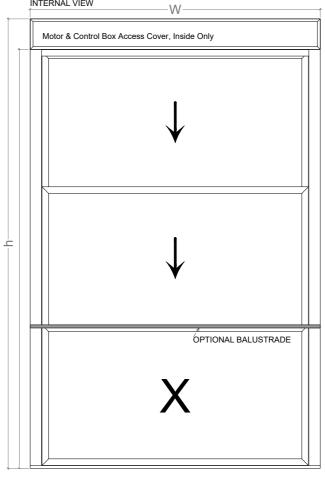
Design & Safety

"Hidden Sash Guide" for aesthetics and "Finger pinch" for safety, Minimalistic Sash and Jamb profiles, No counterweight system resulting narrow jambs and ease of install, especially for retrofit, Safety options; toggle SW, single or double safety beam

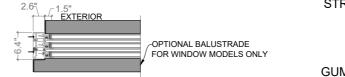
Standart Connection Details Optional: With Balustrade Ontio Thermally broken profiles and frames create high thermal insulation. · Aesthetic and minimalistic frames provide an attractive look

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





Motor & Control Box



Total operating glazed frame weight should not exceed over 660 lbs. GUM 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.

• 1.25" of glazing depth for frames creates

various options for insulated glazing.

PANORA FAÇADE (GUF & GUF+)

Designed for curtain wall or residential applications where excellent weather and thermal performance is of importance

2 frame system allowing for 50% opening as a window or a door

Operable glazed frame weight up to 1609 lbs

Sizes ranging from 177" width to 236" in height

Structural fin support system for strong wind support

Balustrade option for Window models

Minimalistic frames 4.9" deep x 2.6" jambs, and 1.5" frames

New or retrofit installation with ease, no need for special gutter or hidden counterweights

Designed with thermally broken structural system, motor box and window frames to provide excellent insulation, up

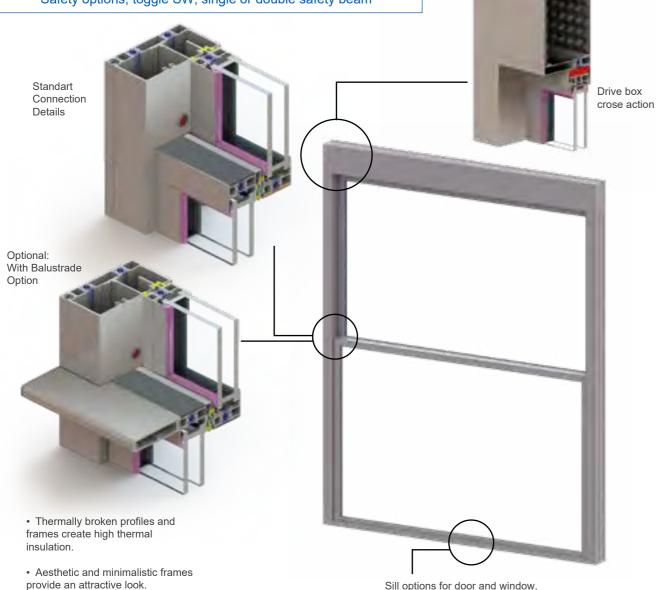
to .28 U-Value

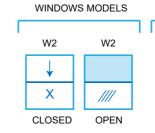
Frames will accept IG of up to 1.4"

Extensive control options inclusive of connection to building automation

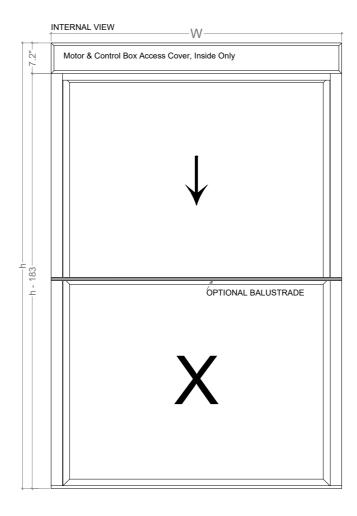
Design & Safety

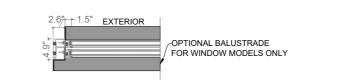
"Hidden Sash Guide" for esthetics and "Finger pinch" for safety, Minimalistic Sach and Jamb profiles, No counterweight system resulting narrow jambs and ease of install, especially for retrofit, Safety options; toggle SW, single or double safety beam





PANORA FACADE-GUF W2



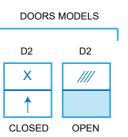


Total operating glazed frame weight should not exceed over 617 lbs GUF systems are available with or without glazing. Frames can be locally glazed by installers. *Maximum operable dimensions are dependent on the operable glazed frame weight **Maximum thermal insulation is possible with high performance glass. Ask your project consultant for information.

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

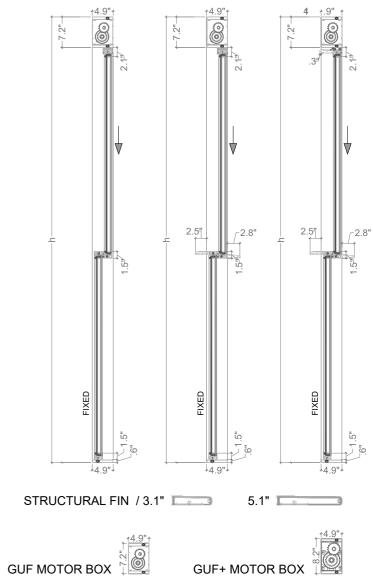


With Double Support Set





Standard



With Single Support Set

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 counter top applications

Operable glazed frame weight up to 418 lbs, sizes ranging from 142" width to 142" in height

Structural fin support system for strong wind support, balustrade option for Window models

Minimalistic frames 4.9" deep x 2.9" jambs, and 1.5" frames

New or retrofit installation with ease, no need for special gutter or hidden counterweights

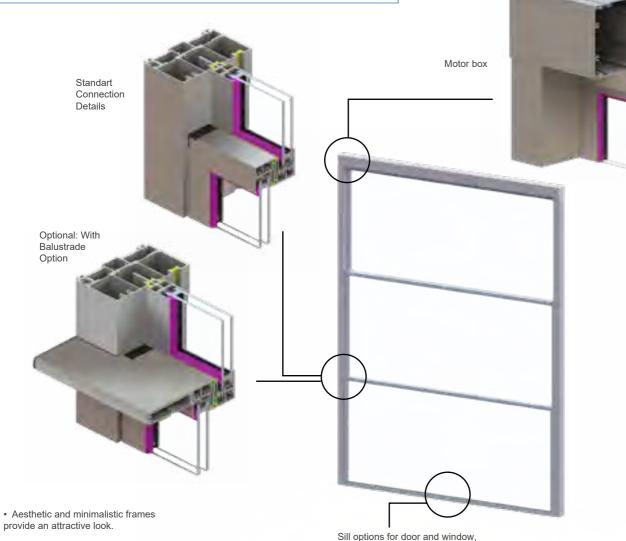
Designed with non-thermally broken structural system, motor box and window frame to provide insulation up to .42 U-Value

Frames will accept single or IG of up to .78"

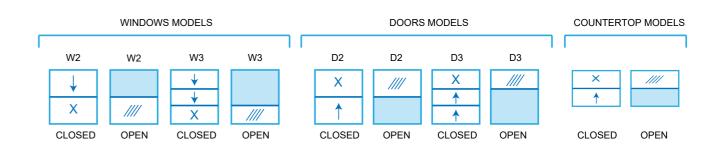
Extensive control options inclusive of connection to building automation

Design & Safety

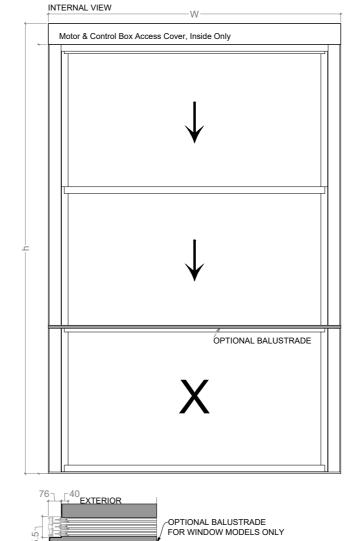
"Hidden Sash Guide" for aesthetics and "Finger pinch" for safety, Minimalistic Sash and Jamb profiles, No counterweight system resulting narrow jambs and ease of install, especially for retrofit, safety options; toggle SW, single or double safety beam



for better finish and seal.

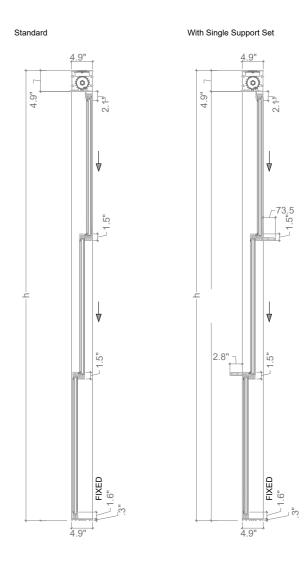


PANORA MAX-GUL W3



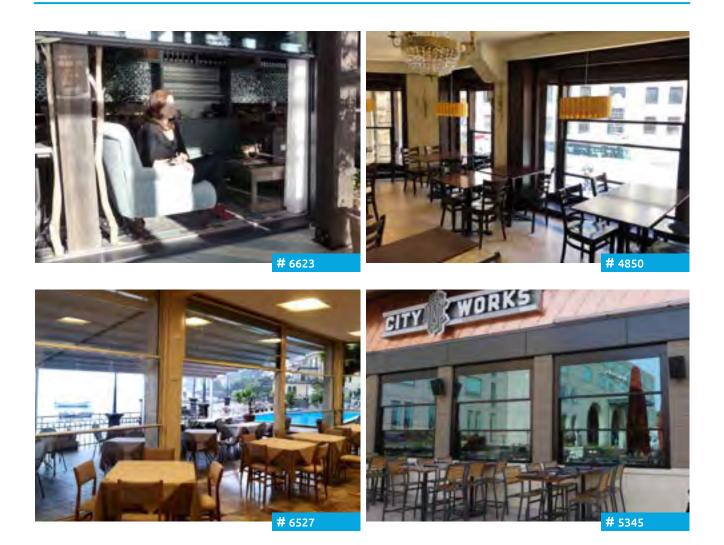
Total operating glazed frame weight should not exceed over 308 lbs GUL systems are available with or without glazing. Frames can be locally glazed by installers. *Maximum operable dimensions are dependent on the operable glazed frame weight. **Maximum thermal insulation is possible with high performance glass. Ask your project consultant for information.





STRUCTURAL FIN / 3.1" 5.1 L a





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.

Go From A Busy Season To A Busy Year

To learn more about our systems and projects from around the world please visit us at, www.stoett.com

Contact Us at info@stoett.com

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