Panora | View
Windows & Doors
“For a better view”
Libart is proud to announce the revolutionary next step in doors and windows. For centuries there have been continuous improvement in the flexibility and variety of doors and windows. However, they have always been limited in their primary function of providing uninhibited views and utilizing net openings available in your buildings.

Libart’s Panora-View presents a new paradigm to the architectural door and window world. Panora-View’s large spans, vertical retracting frames (up to 6m) provides you an unobstructed view and maximum use of every opening in your buildings.

Simply put, “For a better view!” Imagine a glass wall that virtually disappears to create a door or window function by sliding up or down, without taking up any space in its operation.
TRADITIONAL APPROACHES
Are you aware of the disadvantages?

LIMITED VIEW WITH SLIDING AND FOLDING SYSTEMS

Sliding systems closed -> some view is obstructed by profiling.
Sliding systems open -> continued obstruction with limited opening.

LIMITED OPENING AND WIND CONTROL OPTIONS

Open or partially closed, sliding panels can't regulate fresh air and wind control.

BETTER VIEW WITH PANORA VIEW SYSTEMS

Panora-View with panels closed -> very little view obstruction.
Panora-View with panels open -> no view obstruction.

MAXIMIZE YOUR WINDOW SEATING & VIEW

Panora-View systems do not require any additional space for their operation. Also, PanoraView systems increase the net opening for all window and door spaces in your buildings.

Horizontal retraction
Vertical retraction
PANORA VIEW SYSTEMS
New approaches for a better view!
If you run a sports bar, you want the people to enjoy their time, while visiting. There will be a lot of people traffic in the bar. You would want to use the area at maximum limits. Libart Panora-View door systems will retract up and create an unobstructed access area for you connecting your outdoors with indoors, simplifying people traffic.

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When you take the elevator to the roof top, a wonderful view of the Bosporus wellcomes you. The restaurant did not want to lose their panoramic view, Libart has helped them to create a space where there are more tables next to the window and more people can enjoy the view of Bosporus.

The café at this new development required an open frontage to blend the indoors with the outdoors. Libart’s PanoraView windows maximise the space inside, and flood the venue with light. They also complement the area’s blend of modern and ancient architecture. Whether open or closed, they provide a relaxing view of the landscaping at this oasis of calm in busy urban environment.
OPERATION MODES

Standard variation are shown below. On request, Panora-View systems can extend beyond these variations depending on the project-specific applications. Custom designs are available to suit the project requirements, building codes, and wind considerations.

Panora-View Window Systems
- Operate from top to ground
- Balustrade option available
- Use 1, 2, 3 or 4 panels
- Up to 25 square meter of application
- Form a glass railing which can be redesigned to requested height.

Panora-View Door Systems
- Operate from bottom to top
- Net opening creates door or access point
- Use 1, 2, 3 or 4 panels
- Up to 25 square meter of application
- When fully opened glass panels stack behind the top fixed panel.

One size does not suit all!
Three variations to suit unique design needs and budgets.

Panora-View GUL - Lite WINDOW & DOOR
- Economical alternative
- Single or double insulated glazing
- Non Thermally insulated framing
- Up to 20mm of glazing thickness
- Direct drive, 120Nm tubular motor
- Maximum retraction area of 12 sqm
- Maximum operable frame 140 kg
- Aesthetic look
- Minimalistic frames 125mm Motor Box

Panora-View GUM - Medium WINDOW & DOOR
- Best for residential & commercial projects
- Thermally broken profiles & frames
- Excellent thermal insulation, up to 1.6Uw
- Up to 32mm of glazing thickness
- Geared drive, 120Nm tubular motor
- Maximum retraction area 16 sqm
- Maximum operable frame 300 kg
- Aesthetic look
- Minimalistic frames

Panora-View GUG - Grand WINDOW & DOOR
- Best for large opening & commercial operation
- Thermally broken profiles & frames
- Excellent thermal insulation, up to 1.6Uw
- Up to 32mm of glazing thickness
- 3 phase 0.55 Kva Screw drive operation
- Maximum retraction area of 25 sqm
- Maximum operable frame 600 kg
- Aesthetic look

INNOVATION, FUNCTION, QUALITY & VALUE
Innovation, Function, Value & Quality are key criteria of our design philosophy.

INNOVATION
- A new alternative to classic sliding, swinging, or folding windows & doors
- More glass, less frame (up to 5m without vertical profiles)
- "Magnifying and expanding" effects in the spaces
- Horizontal retracting (guillotine action) sash window & door.
- Operation does not require any extra stacking space
- Engineered to provide clear openings of up to 6m (18’) without any vertical profiles
- No counter weights.

VALUE
- Extensive design options
- 3 unique systems to suit specific needs, climates, sizes, or budget.
- Different glazing configurations
- Flexibility of configuration, safety features and aesthetics
- Easy installation and operation
- Greater window and glass wall seating leads to greater revenue potential.

FUNCTION
- Natural light due to large glazing
- Uninterrupted views
- Quiet, simple and safe motorized operation
- Can be incorporated in to home or commercial automation & security systems.
- No added space is required for stacking the panels when opened.
- UPS backup power options

QUALITY
- Safety & user satisfaction
- Manufactured from custom-designed aluminum extrusions of 6063-T6.
- Electrostatic backed on powder coating with 5 standard colors and dozen of custom colors.
- All components and fittings are made of non-corrosive materials
Panora-View GUL - Lite Window & Door

GUL View is our most cost effective Panora-View system. Ideal for projects where extreme thermal insulation is not a priority and cost is an important factor. The Frame is designed to accept single or double insulated glass up to 20mm. All Panora-View Lite systems are available in door and window operation with 8 different configurations and multiple options.

**Description**
- **Thermally Broken Profile System**: Not Available
- **Glazing**: Standard 8mm Tempered Clear, Double insulated (optional)
- **Balustrade & Horizontal frame support**: Optional
- **Max operable Glazed Frame Weight**: 140kg
- **Maximum Height**: 3.0m (118")*
- **Maximum Width**: 4.0m (157")** Min width 1.2m (47")
- **Maximum size**: 12 square meters*
- **Surface finish**: Electrostatic powder coating
- **Motor Type**: 220 VAC 50/60Hz Tubular Motor 120Nm Direct Drive
- **Control system**: Rocker SW or Wireless remote, photo electric safety (optional)
- **Maximum Thermal Insulation Uw**: 2.1 Uw**
- **Air Permeability**: TS EN 12207 Class 4 (at +600 Pa); Class 4 (at -600 Pa)
- **Watertightness**: TS EN 12208 Class 6A (at 250 Pa)
- **Resistance to Wind Load**: TS EN 12210 Class B2 (at ±800 Pa)
- **Resistance to Safety Load**: TS EN 12210 OK (at ±1200 Pa)
- **Standard Glazing**: 8mm Tempered Clear Glass
- **Laminated Single Glazing**: 5mm T + 1.52pvb + 5mm T
- **Double Insulated Glazing**: 5mm T + 10 air gap + 5mm T

**Glazing Test Reports**

<table>
<thead>
<tr>
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Total operating glazed frame weight should not exceed over 140kg. 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.**

20mm of glazing depth for frames creates various options for single and insulated glazing.

Aesthetic and minimalistic frames provide an attractive look.

Tubular motor direct drive up to 140kg of operable panel weight. Minimalistic Motor box 125mm x 125mm

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

*[All measurements are in millimetres]*

**[Drawings are for W3 retraction type]**
Panora-View Medium (GUM) Window & Door

Ideal for projects where thermal insulation is of importance. GUM systems are fabricated with thermally broken profiles on structural system, motor box and window frames to provide excellent insulation. Total glass thickness can be up to 32mm. Overall heat transfer efficiency ($U_w$) can reach 1.56 $U_w$ with the use of 1.1 $U_g$ glazing. This system redefines the façade design and walls in architecture. The system is able to be installed as a door or window. All Panora-View Medium systems are available in door and window operation with 8 different configurations and multiple options.

### Thermally Broken Profile System
- All models

### Glazing
- Double insulated Glass (various options)

### Blustrade & Horizontal frame support
- Optional

### Max operable Glazed Frame Weight
- 300 kg max.

### Maximum Height
- 5.0m (196")

### Maximum Width
- 4.0m (157") * Min width 1.2m (47")

### Maximum size
- 16 square meters*

### Surface finish
- Electrostatic powder coating

### Motor Type
- 220 VAC 50/60Hz Geard Tubular Motor 120Nm, Gear Drive

### Control system
- Rocker SW, photo electric safety optional or remote control

### Maximum Thermal Insulation $U_w$
- 1.56 $U_w$**

### Air Permeability
- TS EN 12207 Class 4 (at +600 Pa); Class 4 (at -500 Pa)

### Watertightness
- TS EN 12208 Class 6A (at 250 Pa)

### Resistance to Wind Load
- TS EN 12210 Class B2 (at ±800 Pa)

### Resistance to Safety Load
- TS EN 12210 Class A (at ±1200 Pa)

### Standard Glazing
- 6mm T + 20 air gap + 6mm T

### Laminated Double Glazing
- 6mm T + 20 air gap + 44T 4

### High Wind / Large Span
- 8mm T + 16 air gap + 6mm T

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### GUM Technical Information

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### Test Reports

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Panora-View Grand (GUG) Window & Door

Ideal for projects where thermal insulation is of importance and required dimensions are large. GUG systems are fabricated with thermally broken profiles on structural systems, motor box and window frames to provide excellent insulation. The total glass thickness can be up to 32mm. Overall heat transfer efficiency (Uw) can reach 1.56Uw with the use of 1.1Ug glazing. This system redefines the façade design and walls in architecture. The system is able to be installed as a door or window. Retraction is done with a screw drive system that provides extensive safety. All View Grand systems are available in door and window operation with 8 different configurations and multiple options.

Industrial (0.55 KvA, 3 phase) motor with a capacity of 600kg of operable panel weight. Screw drive system enables retraction under heavy duty operations with extensive safety.

Thermally broken profiles and frames create high thermal insulation. Aesthetic and minimalistic frames provide an attractive look.

32mm of glazing depth for frames creates various options for insulated glazing.

Thermally broken profiles on structural systems, motor box and window frames to provide excellent insulation.
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 pools, patios, 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 us at, www.libart.com