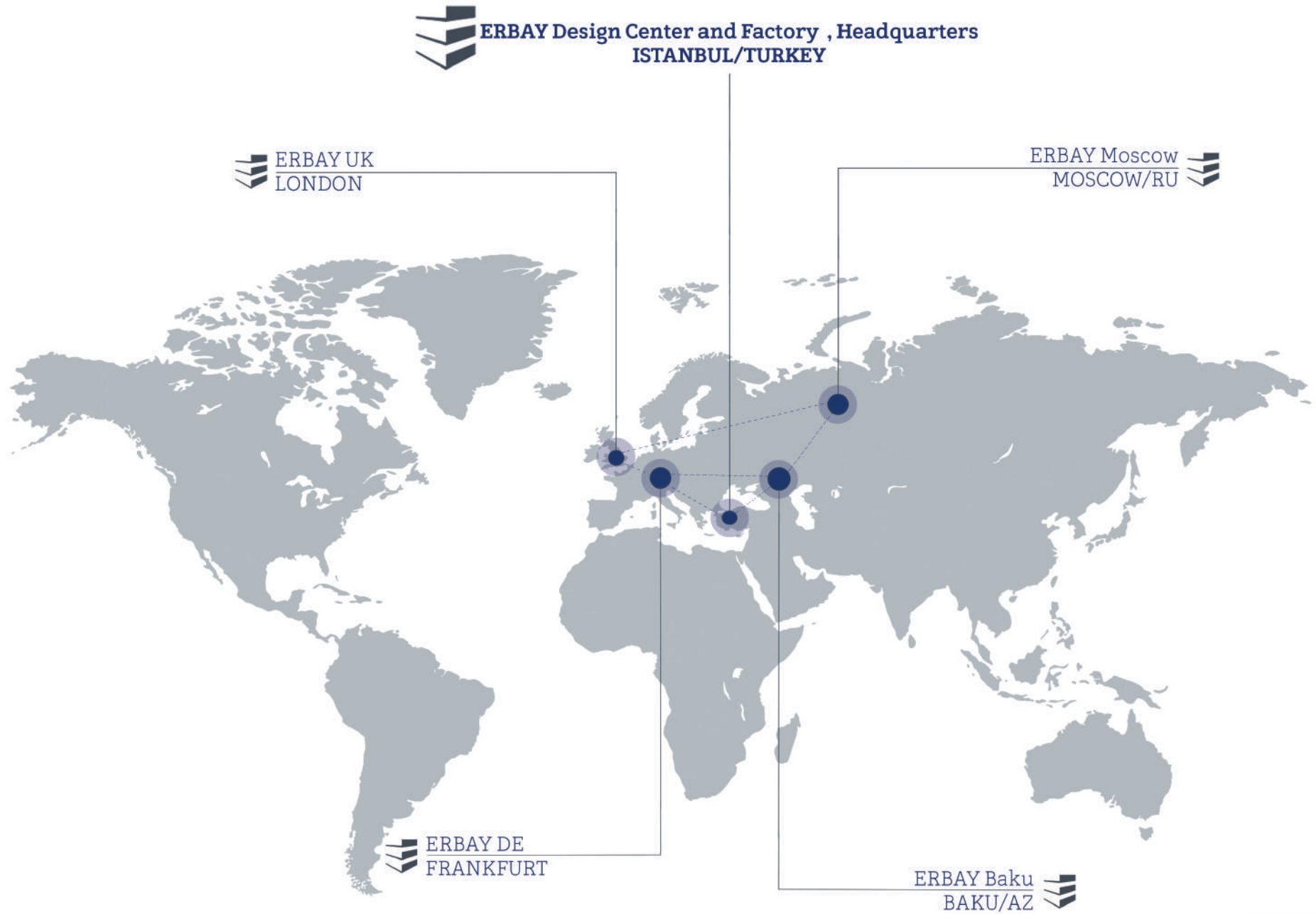




FACTORY &  
DESIGN CENTER





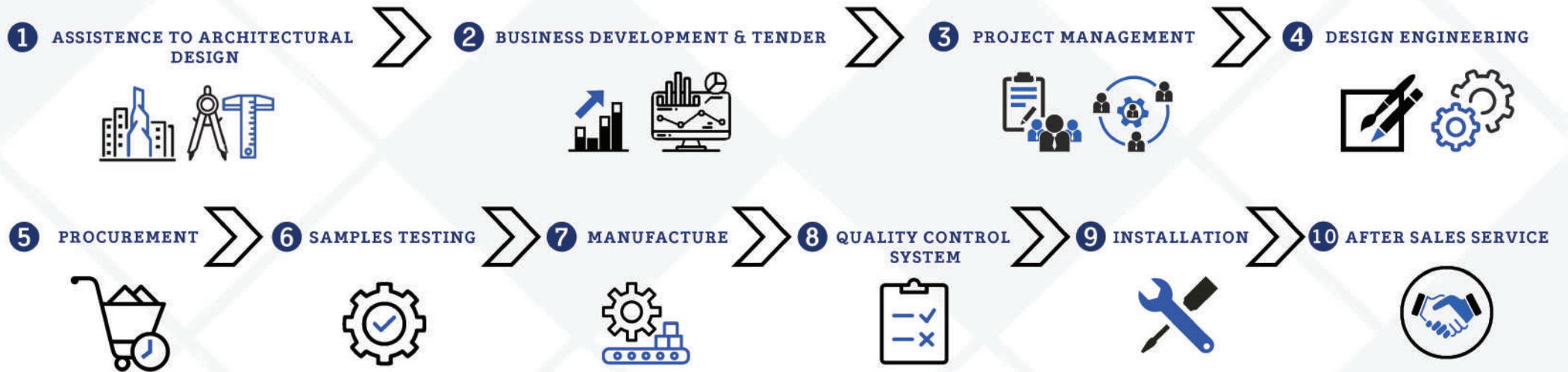


## About Us

Erbay, is a company established in Istanbul (in 1989) and is a leading aluminium window and facade manufacturing & installation company located in Istanbul, London, Frankfurt, Moscow and Baku. The company has successfully operated in the area for the past 30 years working for large size projects and serving in the construction industry, uses the most advanced materials and technologies.

Erbay, strives to offer the finest quality material, design work, engineering, cost estimates and manufacture & installation to clients needing large scale construction services, whether it will be office buildings, hospitals, warehouses, large apartment complexes, public works, etc.

## Business Model





# Products & Certificates



Erbay is selected as the most suitable partner who will deal in co-operation with SCHUCO INTERNATIONAL as \*SCHUCO PREMIUM PARTNER

## SCHUCO PREMIUM PARTNER



## CHAS CERTIFICATE



## CONSTRUCTIONLINE GOLD CERTIFICATE



## CWCT CERTIFICATE 2021



## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM



## FACTORY PRODUCTION CONTROL INSPECTION



## FACTORY PRODUCTION CONTROL INSPECTION II



## DSR CERTIFICATE



## DSR CERTIFICATE





## Design and Technical Office

Design team provides system design, calculations and related reports to client. Project design team work to prepare the followings:

### 01

- System Design Adaptation
- Structural Calculations
- Building Physics Calculations

### 02

- Partial or Entire Plans and Sections
- Building Sections
- Point Details

### 03

- Material Procurement Lists
- Shop Drawings
- Application Drawings

### 04

- As built drawings (including revisions).
- Our designers and project technicians are designing the aluminium facade system together with the employer's team by integrating the aluminium system details into architectural drawings. All structural calculations for aluminium profiles, steel, glass and sheets are done according to the related norms and the performance criteria defined by the employer. Under the worst cases of fixed and moving loads in the system, the internal force and displacement analysis are performed to provide the system stability.



Our Chief Engineer carefully coordinates with the customer to ensure that all their design and architectural concepts are met and implemented into the aluminum design. The customer can choose from a wide selection of products available with ERBAY ALUMINYUM, and in certain cases is able to custom make their own designs to promote his personal touch in the project. As necessary, calculations are also incorporated into the drawings to confirm the structural integrity of aluminum connections to withstand the imposed forces and moments, air and water tightness, and building movements.

During the aluminum shop drawing preparations, any discrepancies or problems in the architectural drawings is highlighted to the customer to avoid future conflicts during execution. Furthermore, any potential infeasible design requirement by the customer is also highlighted, and alternatives are proposed that are feasible yet do not sacrifice the quality or design envisioned by the customer.

Preparation and submission of drawings are done in sequence that are compatible with the approved programs of work. All shop drawings are thoroughly checked and reviewed by the designated Engineer for the project prior to submittal for approval. Only approved drawings are distributed and used for fabrication and erection at site. Qualified and well-experienced draughts men using the latest CAD drafting software prepare all shop drawings. Our Structural Engineers also rely on SAP2000 and other supplier software for their structural analysis. If required by the contract, on the completion of aluminum work erection as-built drawings are submitted to the Consultant/Client.



## FACTORY

Erbay has 22.000 m2 covered manufacturing area and 10.000 m2 external stock and lay down area at the factory. There is more than 320 skilled workers controlled by 13 engineers. 13 CNC machines with 3,4,5 axis, provides all necessary architectural demands from architects.

- Finance & Administration
- Tender & Business Development
- Department
- Design and Technical Office (Project Department)
- Procurement Department
- Manufacturing & Planning Department
- Quality Control Department
- Testing Spaces
- Steel Atelier
- Stainless Steel (Inox) Atelier
- Balustrade Atelier
- Aluminum Atelier
- Logistics





## MATERIAL INCOME

All incoming material is carefully inspected by our Quality Engineer to ensure it is defect free and in compliance with the approved samples. All fabricated units are arranged in a safe and suitable way of loading, transporting and unloading by our well-prepared lorries, the flow of delivery will be monitored to follow the approved program of work and or to be adjusted as determined or agreed by site requirement.

## FACTORY WAREHOUSE

The storage department consists of three separate area: main stock area, accessory stock area and outdoor stock area.

All aluminum profiles, gaskets, PVC etc. materials will be storing at main stock area. Incoming quality control (IQC), polyamide mounting department and profile taping also exists in this area.

Various kinds of screws and special materials like Schüco accessories will be storing at accessory stock area.

Outdoor stock area will be used if necessary, in case of storage of glass ready to manufacturing. Due to the manufacturing process, glasses that are not able to be accepted to the workplace will be stocked here.





## INCOMING QUALITY CONTROL (IQC)

1- Aluminum Profiles: Warehouse manager and quality control officer check the conformity of materials delivered from Schuco by in accordance with technical specifications indicated at proforma invoice and order details.

Accuracy of materials in point of length-content-amount is checked by counting with the dispatch note issued by Schuco.

Palettes are checked whether have tags and these tags are matching with the content of them.  
Packages are checked whether they meet the required standards, have damage or deficiencies lead to pulse of profiles.

After the color control of surface treatment for anodized and painted aluminum profiles and for profiles without surface treatment whether those have contact with water, the appropriate ones will be accepted.

### 2- Polyamide and PVC materials:

Conformity of Polyamide and PVC materials to dispatch notes and order details is checked by warehouse manager. The materials that meet the order details in terms of amount and quality will be stored in a dedicated section within main storage area.

### 3- Gaskets

The incoming gaskets are checked according to dispatch note information considering the content and amount of package. For every type of incoming gasket quality control is done with random selection through the package.

Packages is checked whether have tags and these tags are matching with the content of the package. Acceptable ones will be classified and stocked separately within main stock area as those which used in manufacture or sent directly to construction area.

### 4- - Accessories

After checking the conformity of various Schuco accessories, screws, special manufacturing equipment to dispatch notes and order details those which accepted will be stocked at accessory stock area.





## INCOMING QUALITY CONTROL (IQC)

### 5- Glasses

Glasses are checked superficial on truck whether had damaged and then they are stocked at outdoor stock area. Glass codes and quantities are checked according to dispatch note information and box check list. Boxes are accepted after checking quantities they contain also considering whether any damage has occurred.

Materials damage check and dispatch note -order compliance will be done after the first quality control done under the supervision of warehouse officer and quality control officer and then the approved dispatch notes will be signed and entered to warehouse stock system. If incoming materials and dispatch notes are inaccurate, according to the inaccuracy status those are either completely sent back or partially kept in defective product section to send back later.

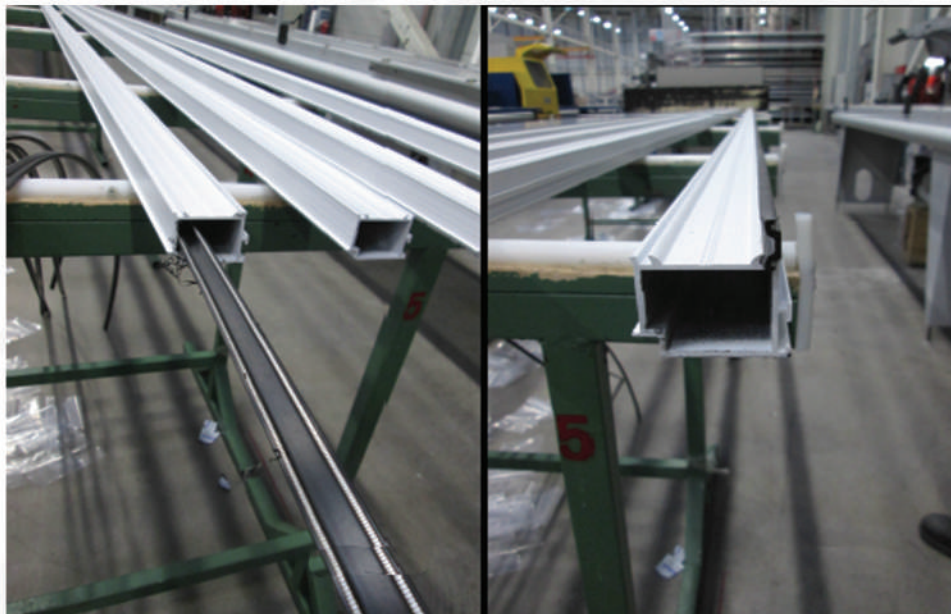
### 6- Polyamide fixing and banding

Profiles stocked in the warehouse are banded prior to manufacture with surface protection tape by passing through banding machine. After observation that this process doesn't cause any damage on profile - banded profiles will be stocked in order to use in manufacture.

In case of thermal insulation inner and outer profiles are connected with polyamide by passing through polyamide fixing machine then stocked in order to use in manufacture. After fixing through polyamide it must be observed whether connection is correct and the profile is banded or scratched.



BENDING MACHINE



POLYAMIDE FIXING MACHINE



POLYAMIDE FIXING MACHINE



## FABRICATION

All fabrication is carefully done to ensure the proper tolerances, finishes, assembly, performance and quality of the finished product are not compromised in any phase of fabrication. The design department carefully prepares the relevant cutting lists and fabrication drawings using CAD and custom-made sheets to simplify the production process and ensure it is error-free. Samples are regularly erected at site to ensure their compatibility with site conditions.

From the taping of the material, to the cutting, machining, assembly and packaging, a foreman is always present to ensure the work is done with the required quality. The standards used for this monitoring are a combination of the different supplier recommendations, and those gained through experience from years in the industry.

Materials will be requested with Material Request Form by manufacture and shipping department. Requested materials will be delivered by person in charge of warehouse and will be deducted from stock quantities.

Several tests are performed on the finished products to ensure their proper performance and quality. This reduces the probability of defective material being installed at site, causing problems during the snagging and handing over phase.



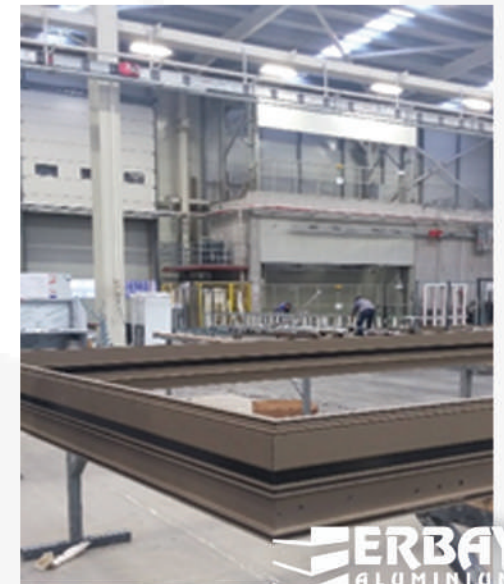
CNC ALUMINUM PROCESSING MACHINE



CORNER CLAMPING



MAIN ASSEMBLY AREA





## GLAZING - STRUCTURAL BONDING

The surface of the panels is cleaned by special premier prior to structural bonding. The sizes of the bonding silicone are calculated by statically calculation and a spacer -PE tape is placed in the cavity where the bonding will be applied. The glazing is placed on to panel by a vacuum lifter and then silicone is applied the perimeter of the panel and glazing the panel is taken to the waiting area for curing of the silicone. The curing period is calculated by the test. The test is carried out by the quality control engineers and recorded.

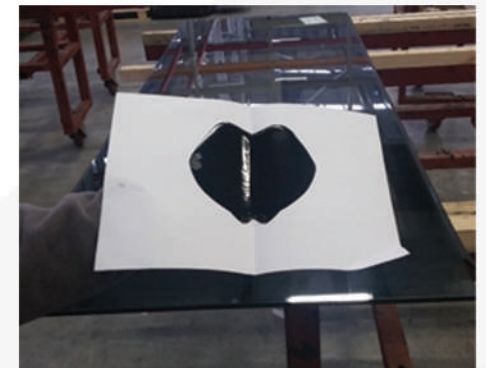
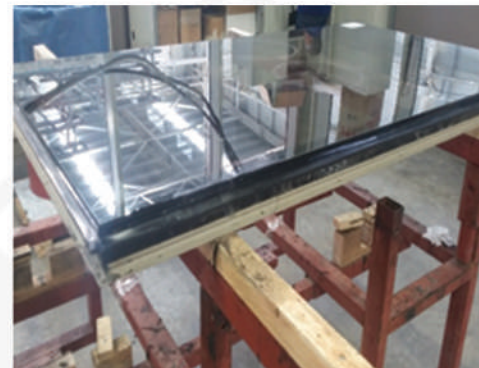
Erbay has two latest technology silicone bonding machinery in its factory and all structural bonding works is done under QC staff controls.



STRUCTURAL BONDING AREA



UNIT GLAZING AREA



STRUCTURAL BONDING TESTS



## FINISHING WORKS

After the silicone bonding is done the panels are taken to the finishing work area. In this area, glazing packers are placed for dead load of the glazing, gaskets are inserted and rest of the sealing works are done. After the QC panels are moved to the packing area.



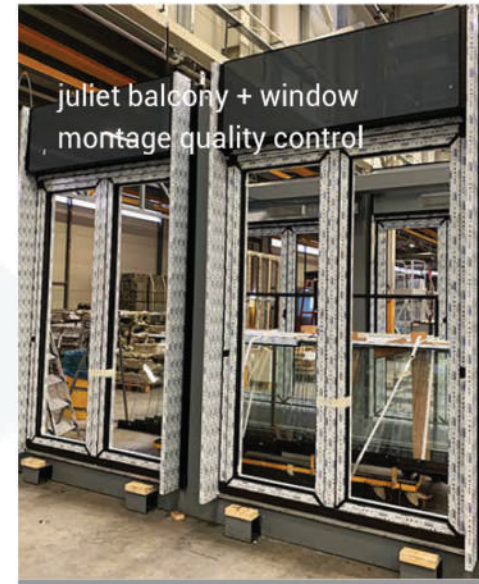
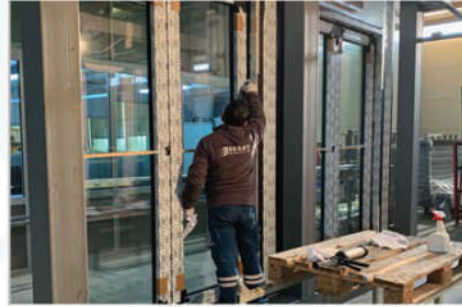


## SAMPLES

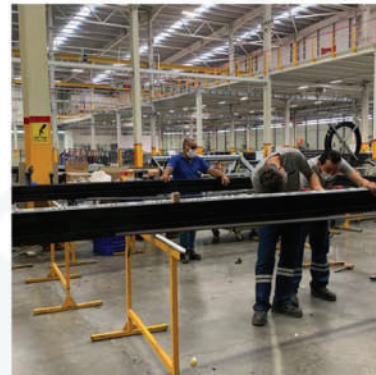
Before material approvals; the suppliers are determined. After material approvals; materials are procured as planned. All supplier's samples which has pre-qualification documents, delivery team, product quality and QC procedure qualifications are submitted to the employer with an approval form. Only approved materials are submitted.

## MOCK-UP

After site mock-up approval, a lab test mock-up is manufactured and delivered to lab test location and tested as per project technical specification. Testing data is prepared in accordance with the CWCT test sequence in compliance with the customer request. Tests are carried out on planned date and is performed by UKAS accredited independent testing laboratory.

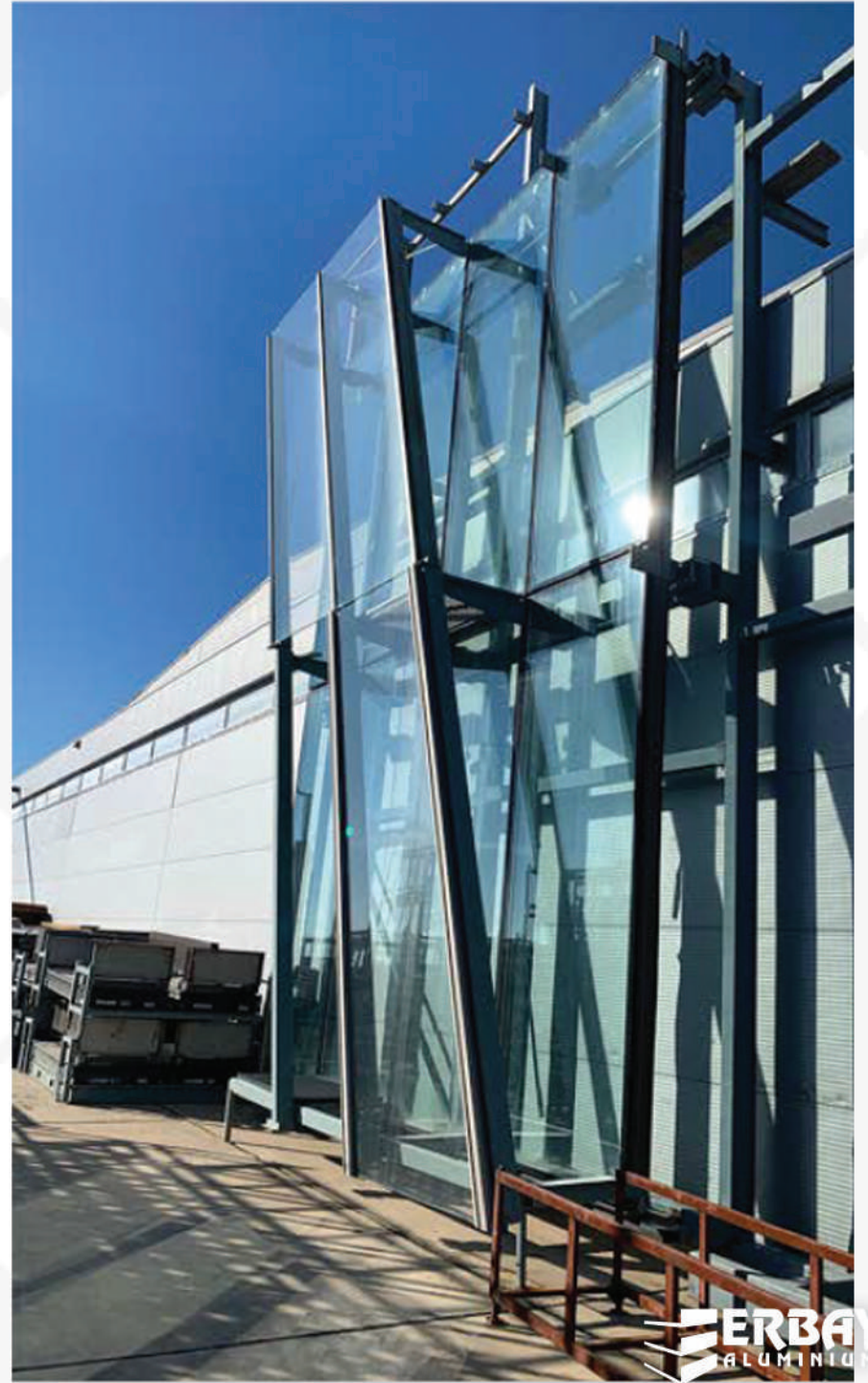


juliet balcony + window  
montage quality control



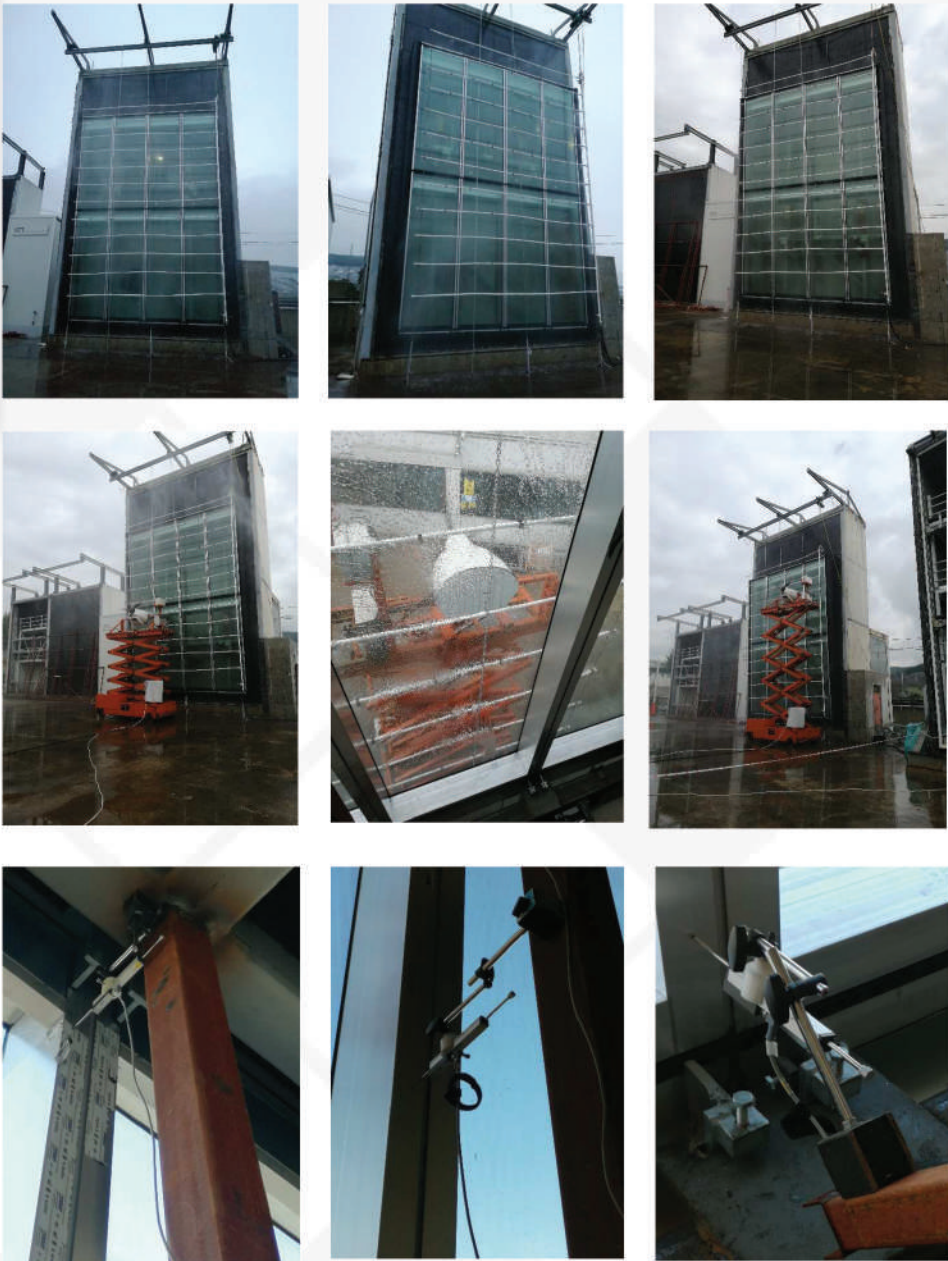


# MOCK-UP&TEST

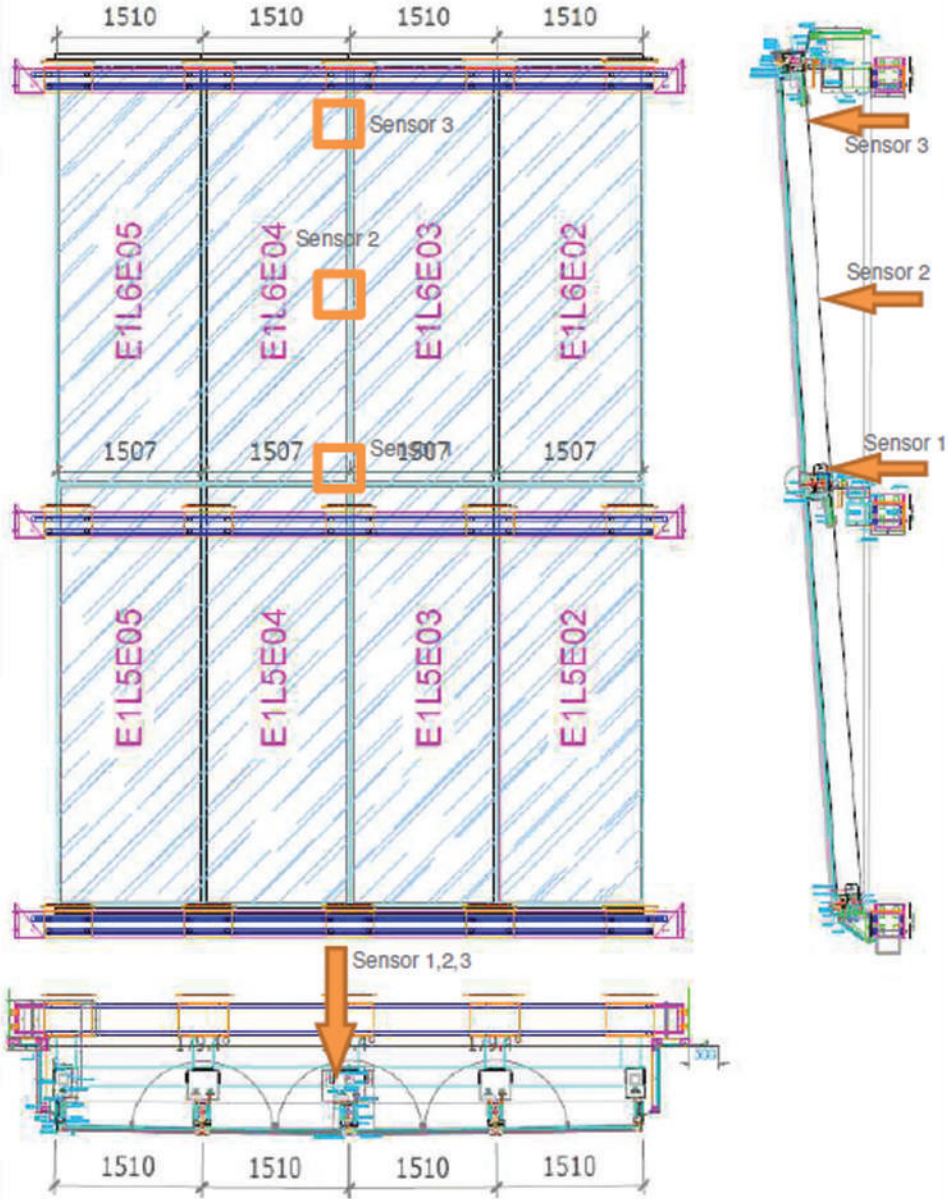




PERFORMANCE TEST (AIR, WATER, WIND)



TESTING



SENSOR LOCATION ON THE MODULE

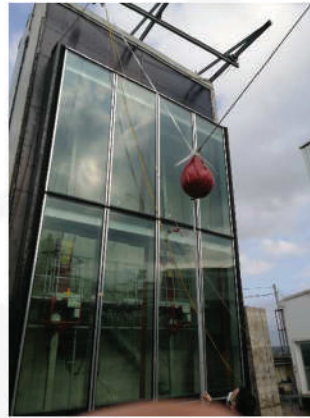
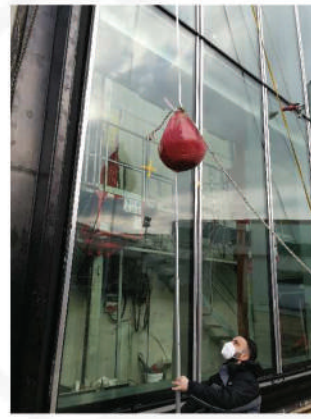


MOCK-UP&TEST

PERFORMANCE TEST (AIR, WATER, WIND)



IMPACT TEST



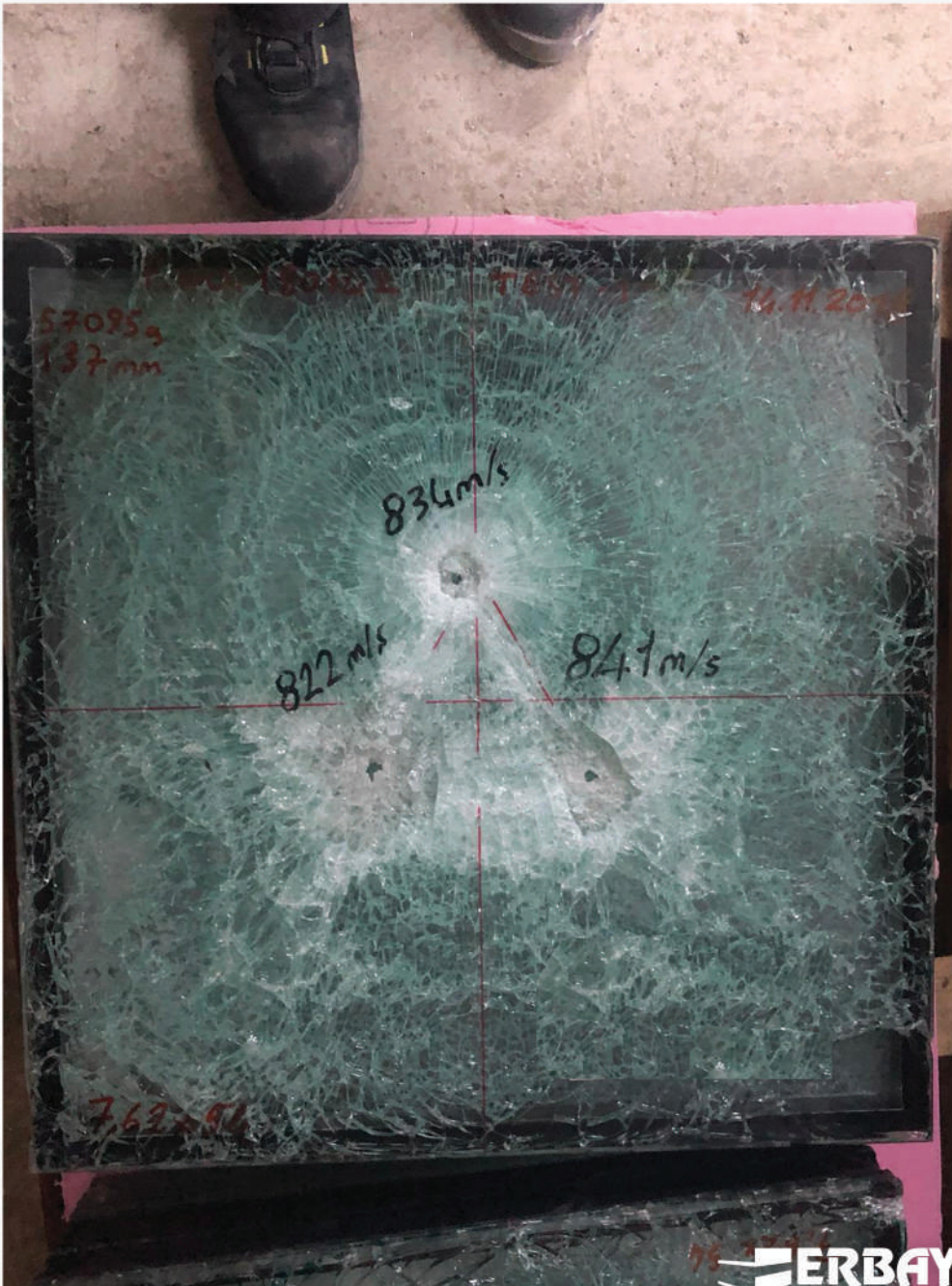
DIMANTLING



FIRE TEST



BULLETPROOF TEST





## IDENTIFICATION

Prior to packaging, each panel or item is marked with a unique alphanumeric identifier corresponding to a unique location in the completed project. This facilitates tracking of the frames, product & glass types, fabrication drawings, parts, inspection records, etc.

## PACKAGING SEQUENCE & PAKAGING

Panels are carefully packaged according to the agreed upon installation sequence. Completed panels are set on a pallet with the exterior surface facing up. This helps keep the interior surface of the panels clean, dry and damage free to speed installation. Each panel is isolated from adjacent panel, then packaged to prevent free movement and protect against damage during loading, shipping and unloading.

- Last quality control
- Packed products are loaded on trucks.
- Time, quantity and delivery address are coordinated according to the site needs.
- Related delivery documents are produced for delivery.
- Arrange a suitable vehicle according to the site needs.
- Arrange the packaging materials which will be taken back.





## RELEASE FOR DELIVERY & SHIPMENT TO SITE

Once the Quality Engineer approves the finished material, it is carefully stored until it is to be loaded to the site. The loading process is carefully done under the supervision of the Quality Engineer to ensure that it is safely transported to the site without damages occurring during the trip. Furthermore, any damaged materials received by the site stores are returned to the factory to ensure that they are not installed at site leading to the dissatisfaction of the customer.

The delivery date of the material is coordinated with the site condition, based on the input from the site engineer and the Main Contractor input. If required by the contract, the Consultant/Client is to be notified about the delivery so he may inspect the incoming material and confirm that it is to his compliance.





## Mobilization & Building Survey

- Site office will be established at shown area.
- A warehouse which is min. 500m<sup>2</sup> will be established at the site.
- Pre-assembly, if needed is made in the warehouse.
- With special equipments, surveys are prepared in order to ensure the drawings match with real.
- If the differences are more than 2.5cm, this situation is reported to the employer.

## Arrival of Plates to the Site

## Unloading from Trucks

Using resident tower crane (for big pallets) or forklift and/or trans-pallet (for small pallets).

## Lifting Pallets to Load Out or Storage Floor(s)

Using the tower crane from truck to loading platform/dock or distributed directly to installed floor with goods hoist using forklift and/or trans pallet for ground movement.



## Floor Distribution & Storage

Pallets are identified to facilitate floor distribution & storage. Distribution to installation area is completed using flatbed trolleys & portable mechanical "mini" hoist.

## Installation

Standard installation crew = three man on installation floor, one man on the upper floor operating the hoist, and two men one floor below positioning the panel vertically and applying silicone sealant at the transom joint.





## INCOMING QUALITY CONTROL

### Aluminum Profiles, Polyamide & PVC Materials, Gaskets, Accessories

Warehouse manager and quality control officer will check the conformity of material orders given to Schuco (profiles and accessories) or other brands (Knauf etc.) by the Procurement Office according to the technical specifications indicated at proforma invoice and order details. Accuracy of materials in point of length - content - amount is checked by counting with the dispatch note issued by Schuco or other brands.

Palettes are checked whether they have tags and these tags are matching with the contents. Packages are checked whether they meet the required standards, have damage or deficiencies lead to pulse of profiles. After the color control of surface treatment for anodised and painted aluminum profiles and for profiles without surface treatment whether those have contact with water, only appropriate ones are accepted.

### Glass

Glasses which are brought to factory in wooden crates, are checked on truck whether they have damages and then they are stocked in proper places. Glass codes and quantities are checked according to dispatch note information and check lists. Furthermore before the bonding process of the glass to the aluminum panel system, glasses are checked within a specific area by giving appropriate spotlights.

### Polyamide Fixing and Branding

Profiles stocked in the warehouse are first stripped off from their tapes and checked prior to manufacturing, then they are re-taped with surface protection tape by banding machine. This process do not cause any damage, rather it provides us to check, clean and re-tape the profile. In case of thermal insulation inner and outer profiles are connected with polyamide through polyamide fixing machine, then stocked in order to be used in the manufacture. After fixing through polyamide it must be observed whether connection is correct and the profile is bended or scratched.

## OUTGOING QUALITY CONTROL

### Fabrication

All fabrication is carefully done to ensure the proper tolerances, finishes, assembly, performance and quality of the finished product are not compromised in any phase of fabrication. The design department carefully prepares the relevant cutting lists and fabrication drawings using CAD and custom made sheets to simplify the production process and ensure it is error-free. Samples are regularly erected at the site to ensure their compatibility with site conditions. From the taping of the material, to the cutting, machining, assembly and packaging, a foreman is always present to ensure the work is done with the required quality.

### Release for Delivery and Shipment to the Site

Once the Quality Engineer approves the finished material, it is carefully stored until it is to be loaded to the site. The loading process is carefully done under the supervision of the Quality Engineer to ensure that it is safely transported to the site without damages occurring during the trip. Furthermore, any damaged materials received by the site stores are returned to the factory to ensure that they are not installed at the site leading to dissatisfaction of the customer.



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