



EDUCA
DESIGN | GROUP

Panel
System



Introducing Educadesign

At Educadesign, we take pride in presenting ourselves as a team that confidently takes strong steps at every stage. From design to production, and on to on-site implementation, we are deeply involved, offering a specialized professional approach in every detail.

Our experienced and talented team delivers unique and captivating designs for each project, turning our clients' dreams into reality. With confidence, we approach each project with passion, maintaining our determination to overcome even the most challenging design obstacles.

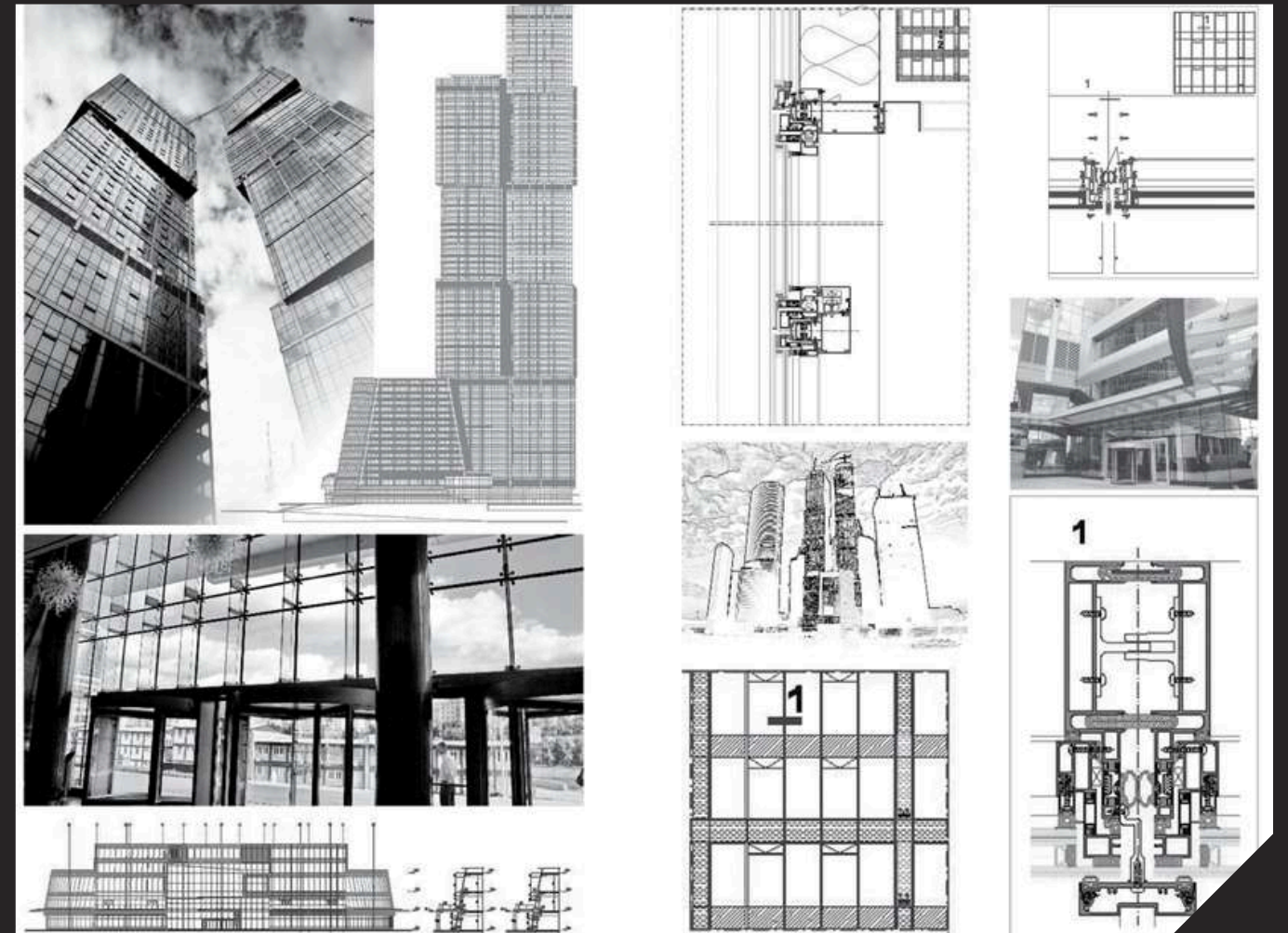
During the manufacturing process, we operate with high industry standards of quality control and expertise. Utilizing SAP-ERP software and state-of-the-art CNC machines, we ensure that each product is meticulously crafted and assembled to perfection.

In the field application, we conduct our work with meticulous planning and a professional approach. Collaborating closely with our clients at every stage, we aim to exceed their expectations and deliver results that surpass.

Educadesign is known as a reliable and trustworthy partner in our projects. We are dedicated to maintaining the highest level of customer satisfaction and project success at all times.

We are here to design, manufacture, and build for you.

Educadesign



PANEL SYSTEMS

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PANEL SYSTEM



Panel facade systems are considered a significant component of contemporary architectural projects. They offer important advantages in terms of aesthetics and functionality. With different material options and modular design features, they provide a unique aesthetic and visual understanding tailored to each project. Panel facade systems, produced using high-quality materials, are characterized by their long-lasting and durable structure, as well as their resistance to environmental effects. Well-insulated panels provide energy savings, offering a sustainable solution. Modular design and low maintenance requirements reduce operational costs and facilitate long-term use.

FACTORY

Basic production possibilities: division, excision, and perforation of sheet metal up to 3 mm in thickness, cutting and bending up to 6 m in length, straightening out sheet metal, once unwound from the coils of individual parts, on straightening levelers. Basic production possibilities: division, excision, and perforation of sheet metal up to 3 mm in thickness, cutting and bending up to 6 m in length, straightening out sheet metal, once unwound from the coils of individual parts, on straightening levelers. Basic production possibilities: division, excision, and perforation of sheet metal up to 3 mm in thickness, cutting and bending up to 6 m in length, straightening out sheet metal, once unwound from the coils of individual parts, on straightening levelers.

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MACHINERY



SATELLITE 5 Axis - XL CNC

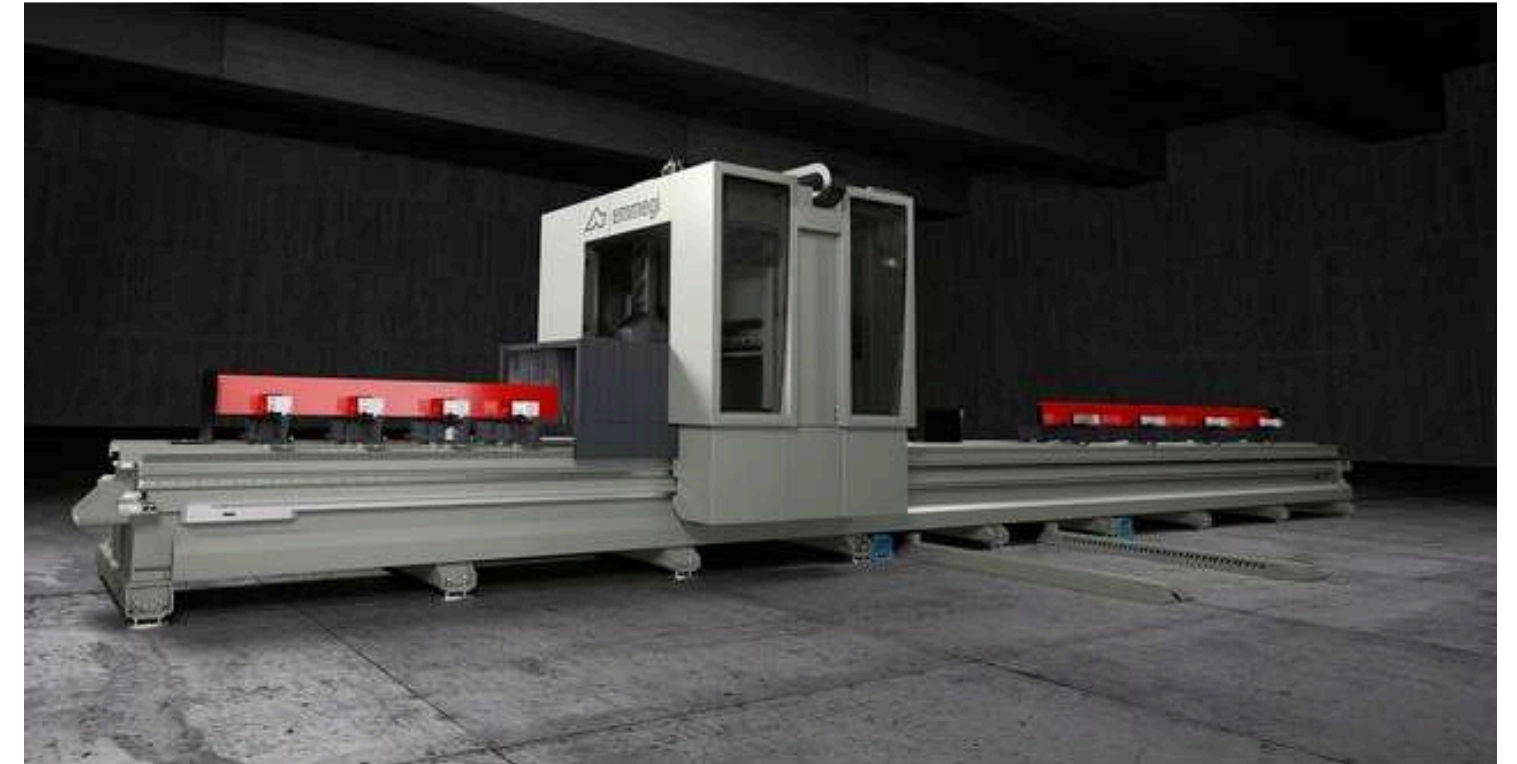
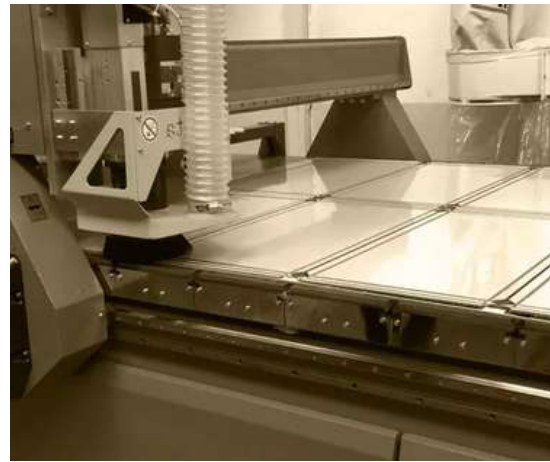
Basic production possibilities: division, excision, and perforation of sheet metal up to 3 mm in thickness, cutting and bending up to 6 m in length, straightening out sheet metal, once unwound from the coils of individual parts, on straightening levelers.

Production of regular sheet metal elements for façade and roof systems, special flashings, as well as atypical elements, are all custom-made, according to individual client expectations

BAYKAL CUTTING SHEAR



BAYKAL CUTTING SHEAR



EMMEGI COMBI DOUBLE HEADED

BAYKAL CUTTING SHEAR

NATA COMPOSITE PROCESSING MACHINE



BAYKAL CUTTING SHEAR

METHODS

SUPPLY AND STORAGE

The supply department operates across three distinct areas: the main stock area, accessory stock area and outdoor stock area.

All aluminum profiles, gaskets, PVC, and other materials are stored in the main stock area, alongside facilities for incoming quality control (IQC), polyamide mounting. Various screws and special materials, such as System Company accessories are housed in the accessory stock area.

The outdoor stock area serves for the temporary storage of glass ready for manufacturing and for storing glasses unsuitable for immediate use due to manufacturing constraints.



METHODS

PRODUCTION

The constituent profiles of the panel (vertical and horizontal panel profiles, meeting rails, adapter profiles) are cut using a double-head cutting machine according to shop drawings provided by the Project department.

Following the cutting process, profiles are labeled with codes and numbers.

Holes and notches on the panel profiles are processed using CNC machines. All joint parts are drilled and shaped as per specifications outlined in the shop drawings using appropriate milling and drilling tools.



METHODS

PRODUCTION

The panel's main structure is fabricated by connecting rails and plantings using corner presses and adapter profiles. Before pressing, suitable profiles are combined with adapter profiles and auxiliary materials, then secured with press aid.

Profiles are assembled according to manufacturing drawings, and epoxy application is carried out during corner combining operations.

Once corner press processes are completed, profiles are left to cure with epoxy before further assembly.



METHODS

PRODUCTION

Panel profiles, framed with corner presses, are then moved to workbenches for accessory and insulation work. Following completion of these processes, they are taken to the bonding workshop for glass installation, where the distance band is initially adjusted as per specifications provided in the manufacturing drawings.

Quality control measures are implemented to ensure proper placement of type characteristics according to measurements on manufacturing drawings onto the distance band, using suction cups or manual placement depending on glass size and weight.

After silicone application, glasses are transferred to a stacking area for silicone curing.



METHODS

PRODUCTION

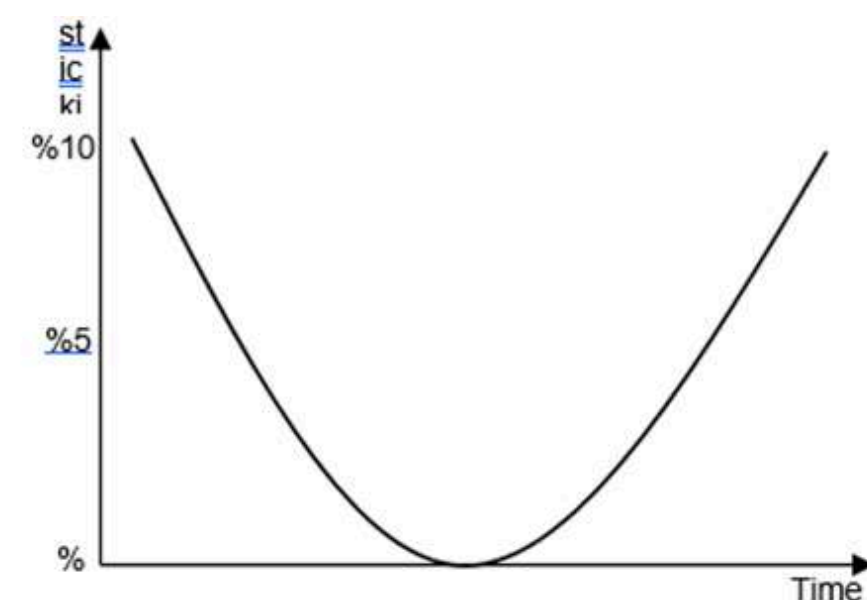
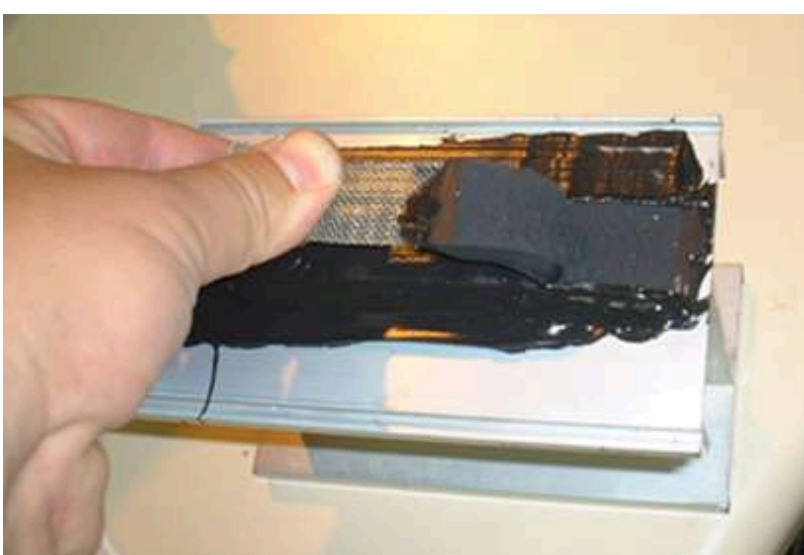
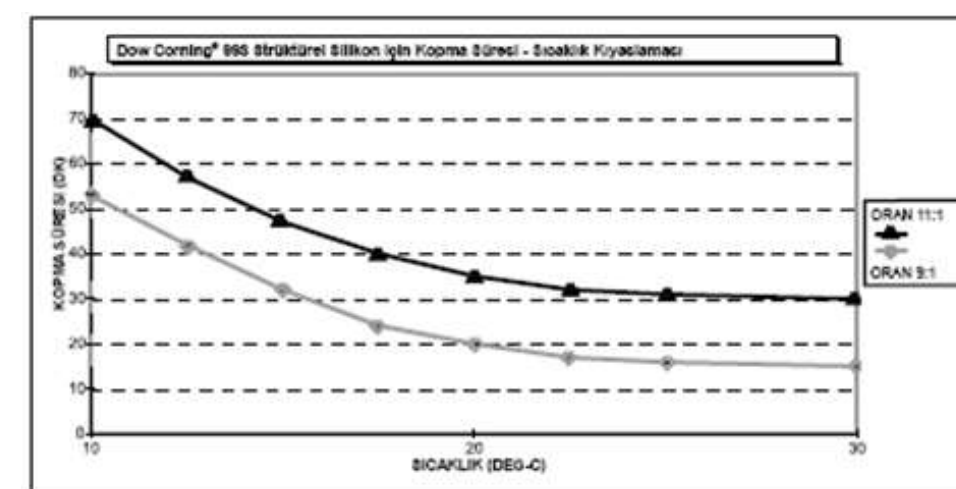
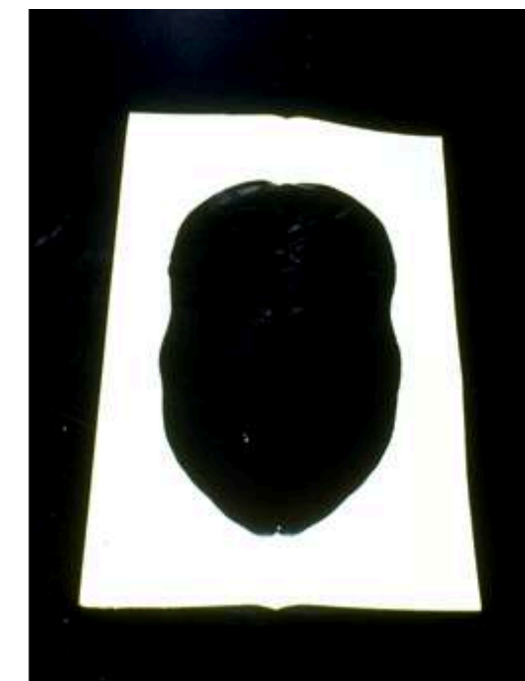
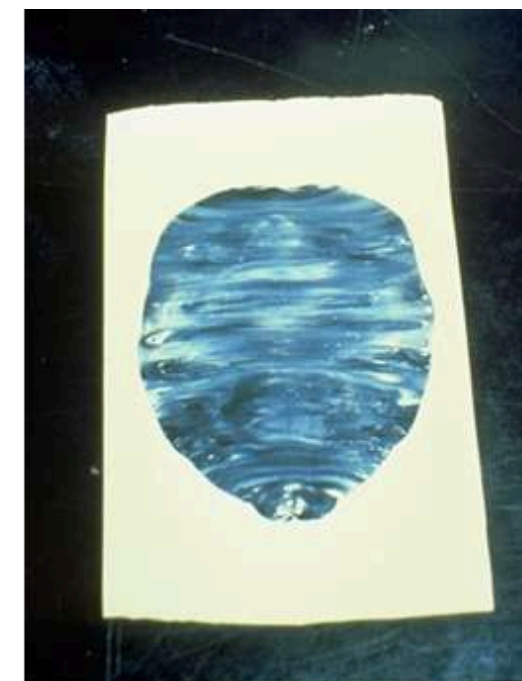
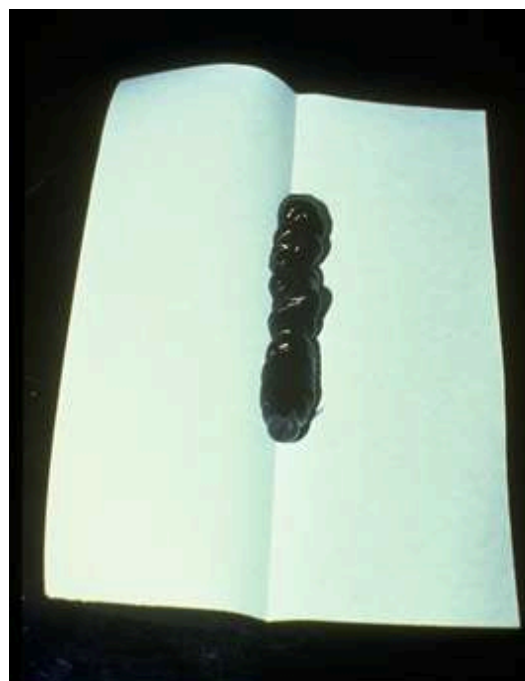
TESTS

Throughout the bonding process, various tests are systematically conducted to ensure that the bonding process meets quality standards and is suitable for the intended application. These tests include:

Butterfly Test: This test examines the uniform mixing of the base and catalyst components by the pump. It ensures that the components are thoroughly mixed, as incomplete mixing can lead to inadequate curing and adhesion. If the result of the test indicates improper mixing, further investigation into the thrombone and static mixers is necessary.

Rupture Time Test: This test assesses whether the mixing ratio of the adhesive is correct and checks for the initiation of curing. By observing the time it takes for the material to rupture, this test provides insight into the curing process and confirms that it has commenced as expected.

Peel Adhesion Test: This test is performed to evaluate the strength of adhesion achieved by the bonding process. It involves applying controlled force to the bonded materials to measure the resistance to separation. The test is repeated at specific intervals, such as every 12, 24, and 36 hours, to ensure consistent and durable adhesion over time.

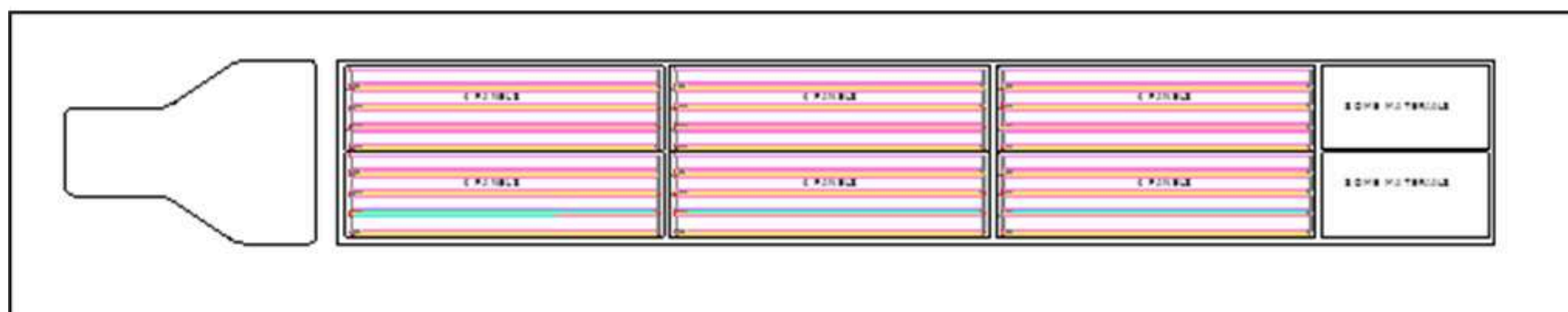
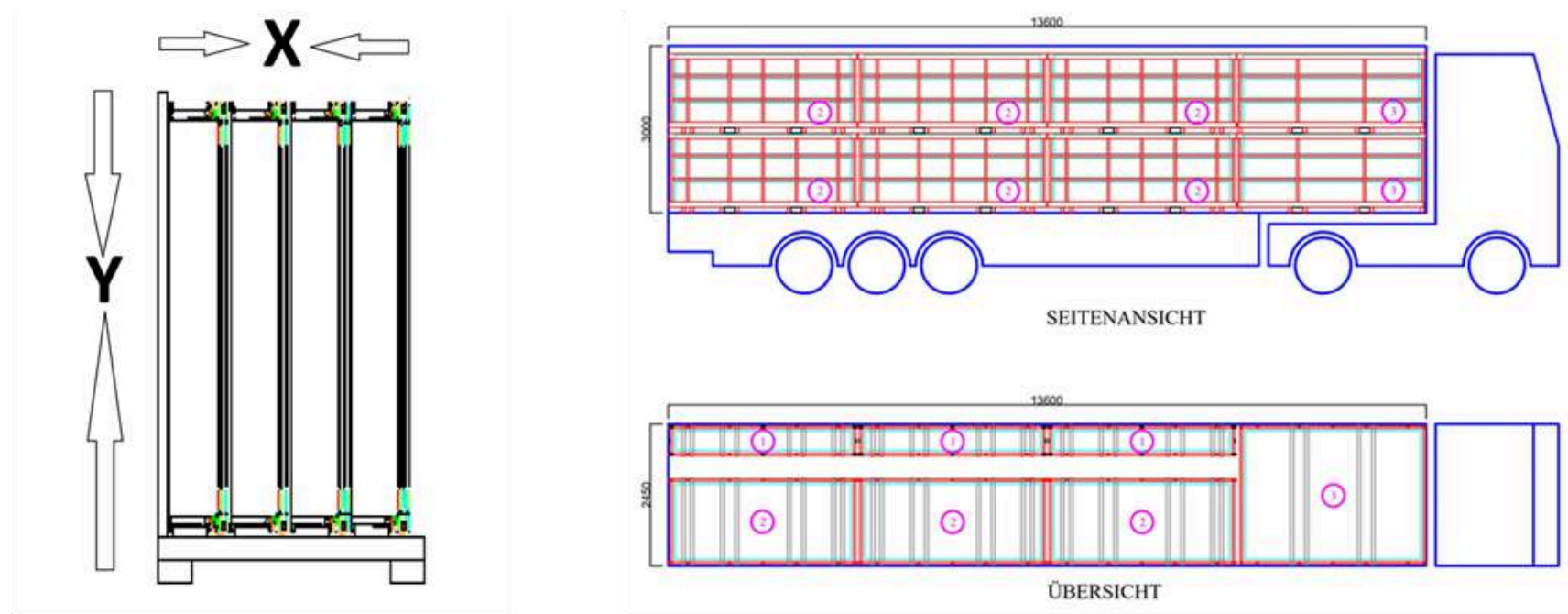


METHODS

SHIPMENT

The shipment department oversees dispatch of materials and installation coordination. After silicone curing, glass panels are placed on steel pallets, reserved for dispatch based on installation order outlined in shop drawings.

Glazed panels are packed into steel crates with insulation pieces inserted between them to prevent damage from friction. Each pallet is labeled with properties and quantities.



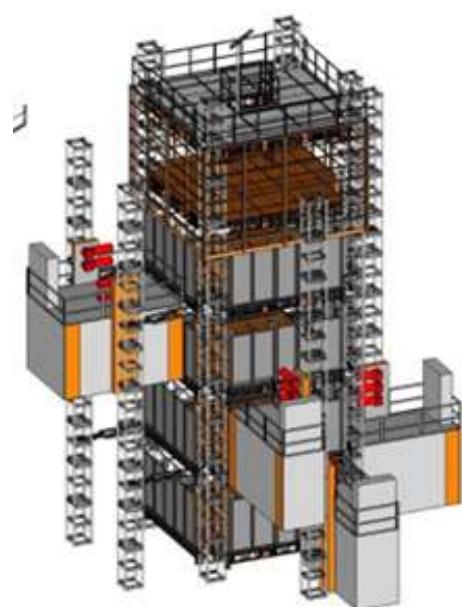
METHODS

INSTALLATION

Upon unloading from trucks via forklifts, elements are transported directly to the corresponding floor using construction elevators or freight elevators. Electric forklifts and rolling tables facilitate transportation within floors.

Element pallets are conveyed using construction elevators, with clear internal dimensions coordinated with office packaging units.

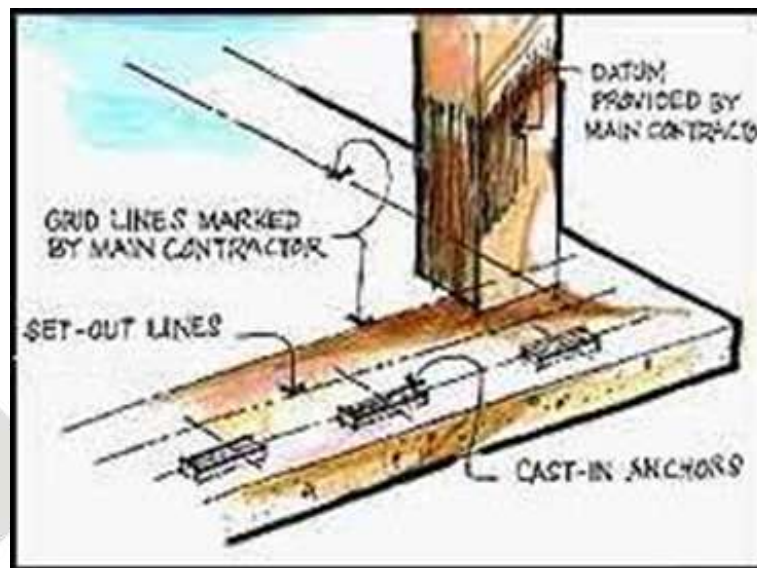
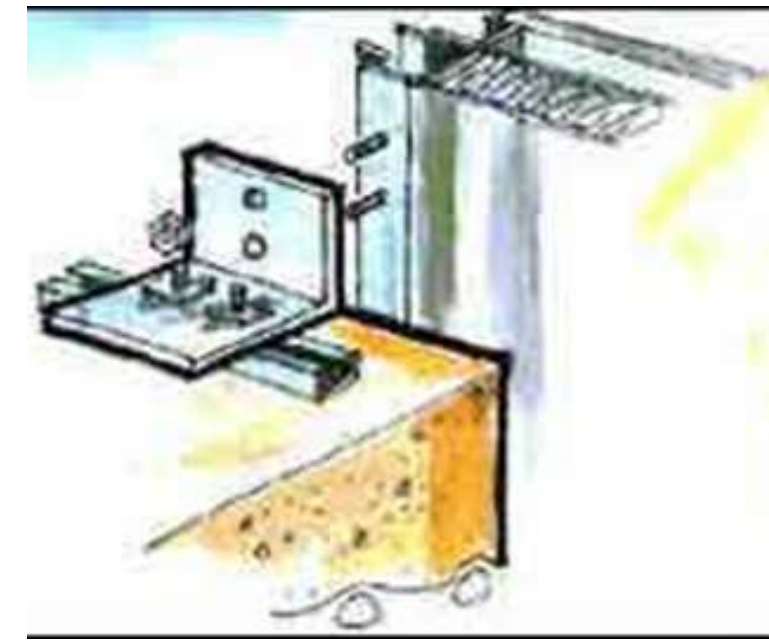
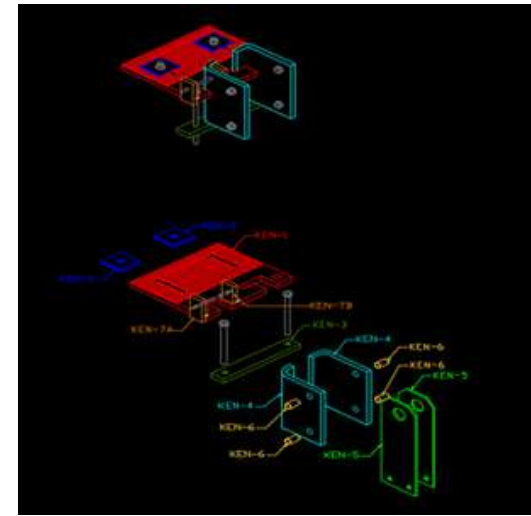
An electric chain hoist, operated from above, is used to transfer elements from pallets to element tables on respective floors.



METHODS

INSTALLATION

Bracket installation on the floor involves checking holes drilled on concrete slabs, marking anchor points on steel, installing appropriate anchors based on shop drawings, ensuring proper positioning, and fixing with nuts and bolts using torque keys.

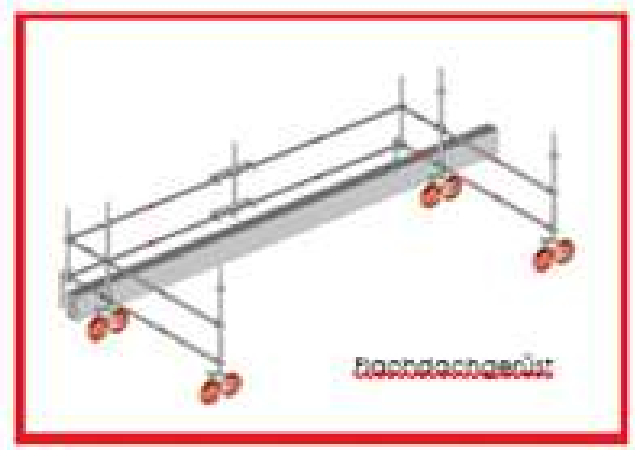
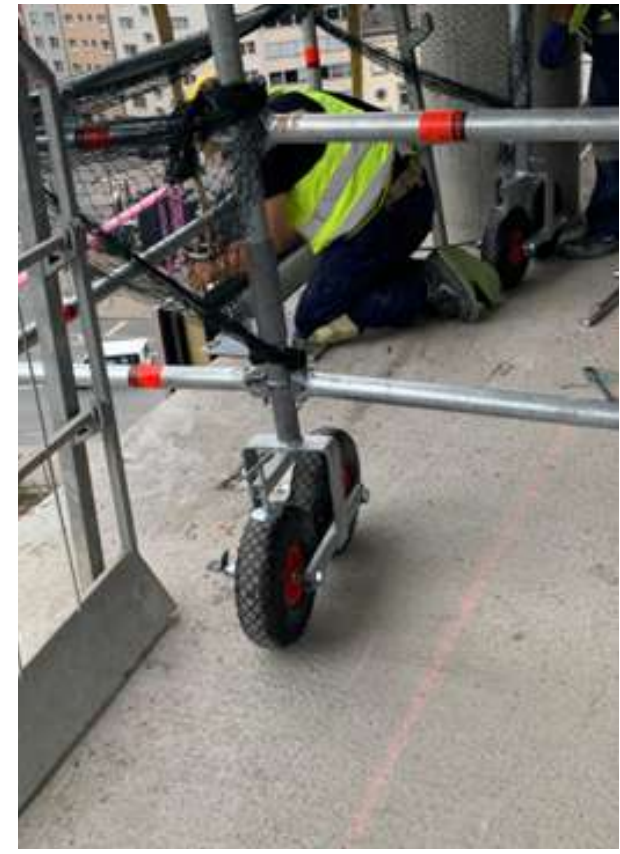
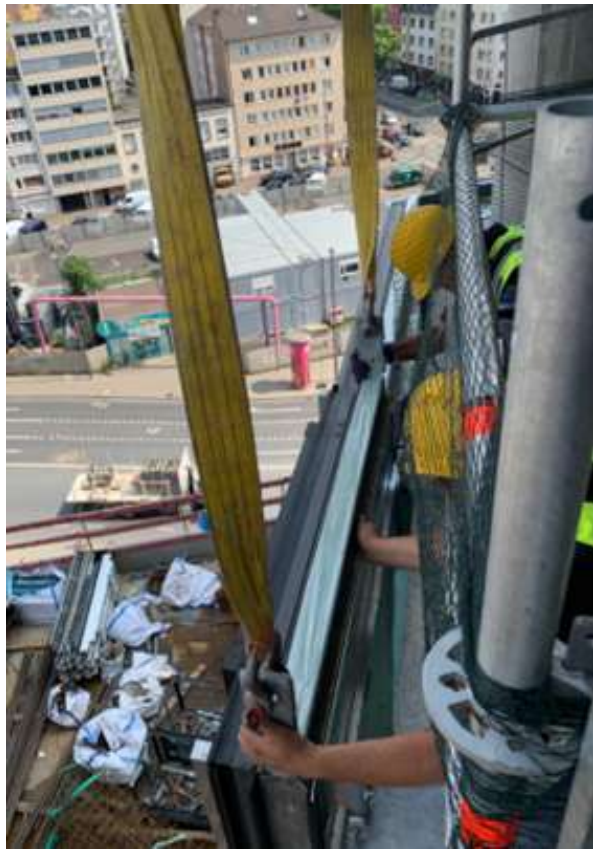
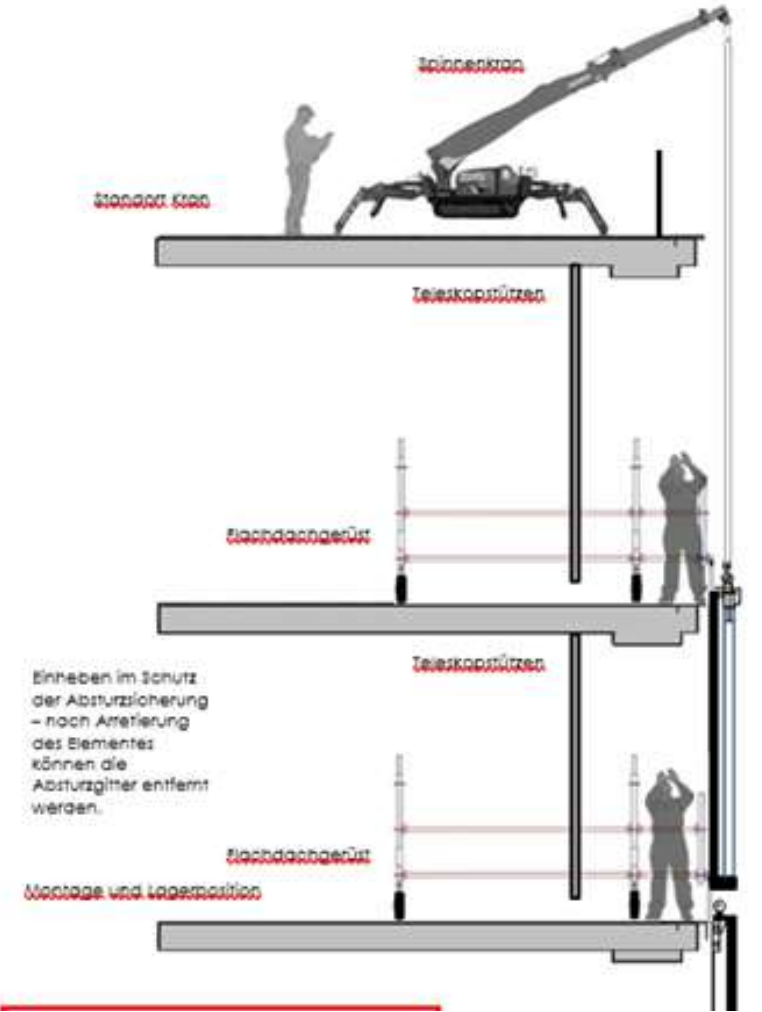
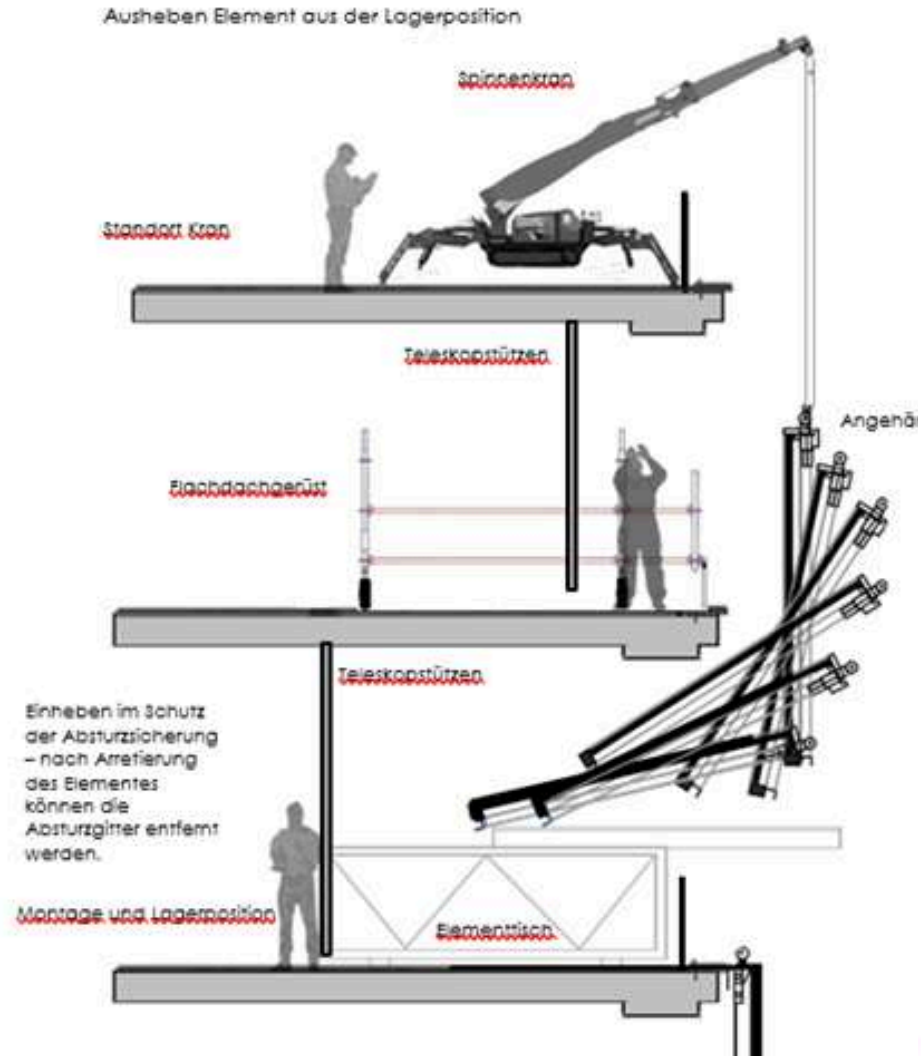


METHODS

INSTALLATION

Standard elements are installed using a mini crane (spider). Guardrails are removed, and work areas are cordoned off with barriers.

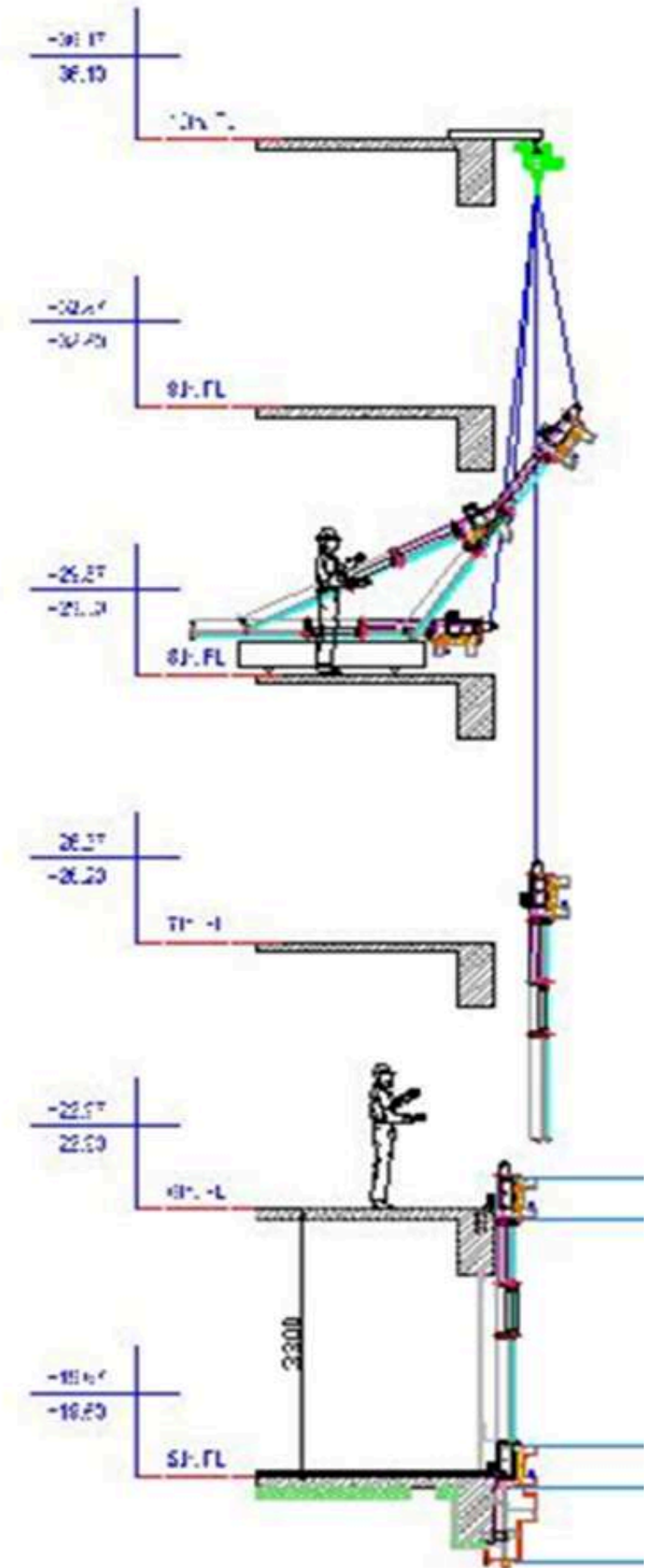
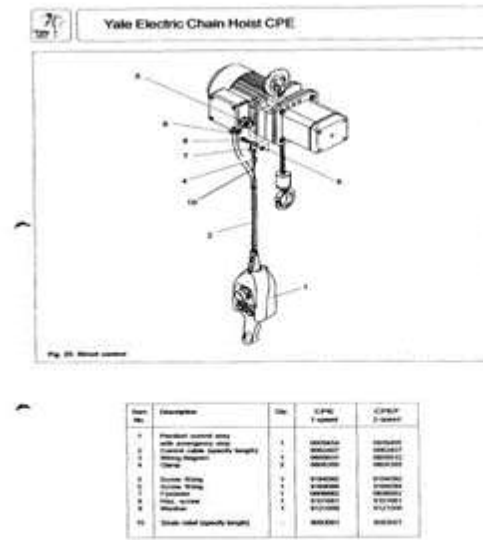
Assembly employs flat roof scaffolding, with wheels aligned parallel to the ceiling edge. Protective scaffolding is secured against movement and tipping over using weights and braked double wheels.



METHODS

INSTALLATION

Alternatively, installation can be performed using a monorail crane positioned on upper floors to align panels. The crane lifts panels to the installation area, where they are axled to the mounting location.



Plot-9, Moskow

The project features a cassette silicone panel facade system with integrated Hunter Douglas metal claddings. Motorized ventilation flaps are installed in the residential block.



Plot-16, Moskow

Constructed with a cassette silicone panel facade system, Renson brand natural ventilation louvers are seamlessly integrated into the system.



Therapoda

A double-skinned panel facade system with hinged covers is chosen for this project. Natural ventilation is ensured with Ventilation Vent blades, and a Varema brand motorized louvre system is incorporated.



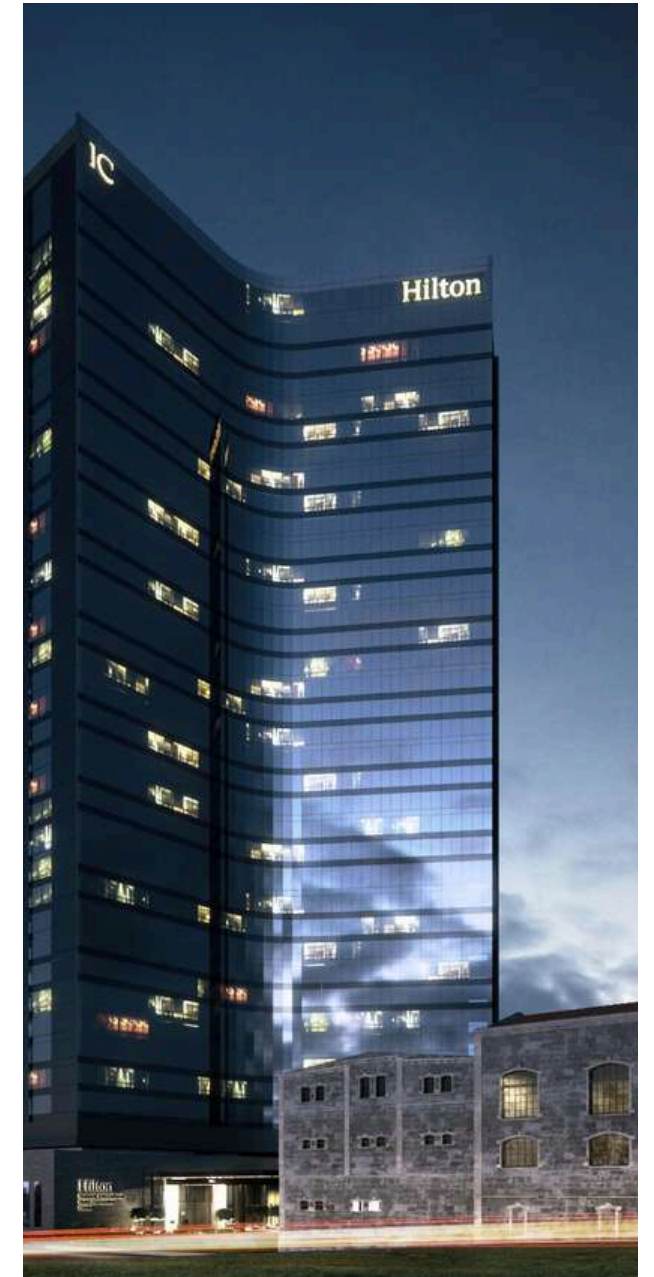
Emaar Square, Istanbul

This project utilizes a silicone panel facade system. Natural ventilation is achieved with custom-designed louvers for parallel opening (PAF). Special anodized Novalis brand panels are integrated into the panel system.



Bomonti Hilton, Istanbul

Implemented with a standard silicone panel facade system, shadow box application and enameled glass transitions are available in spandrel areas.





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