METAL HONEYCOMB PANELS

Stainless steel & aluminum face options

PRODUCTS / APPLICATIONS / SPECIFICATION

Large surfaces. Considered construction.

A metal face, a cellular core and a bonded backing form one composite panel.

Specify stainless steel or aluminum faces for the intended finish, environment and panel design. Coordinate the whole assembly from the first drawing.



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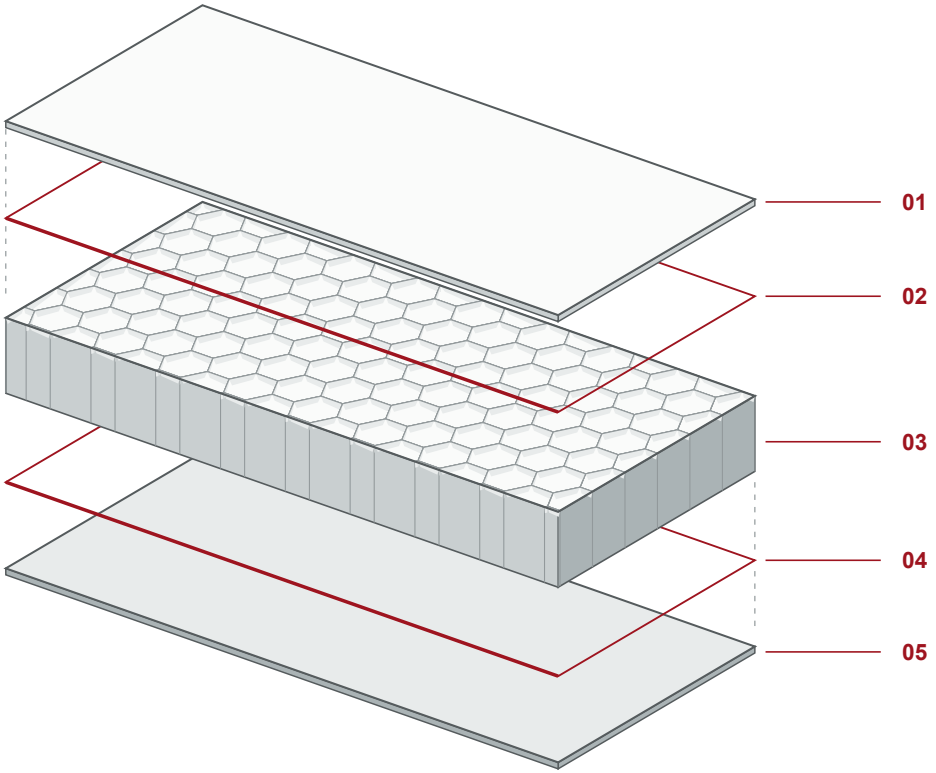
Face, core and backing

The layers work together. The sample window reveals the cellular core beneath the finished face.



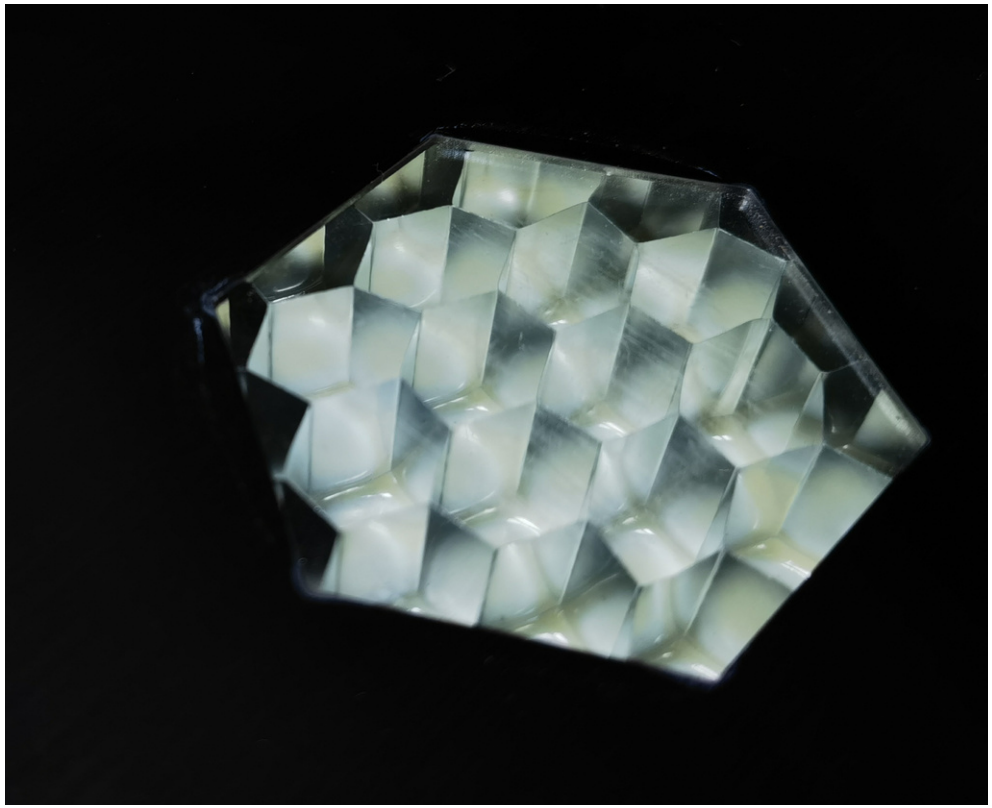
01 Face sheet

02 / 04 Bond lines

03 Honeycomb core

05 Backing sheet

Schematic; layers are separated for clarity.



ORIGINAL SAMPLE DETAIL

A cut-out in the sample face exposes the honeycomb cells. Window geometry is for display only.



01 / MATERIAL & FINISH

Read the surface in real light

Color, reflection and texture change with the viewing angle. Review the physical sample under the intended lighting.

01 **Dark surfaces**

Check reflection, grain direction and the relationship between adjacent panels.

02 **Warm metallic tones**

Agree the color and gloss from a physical sample.

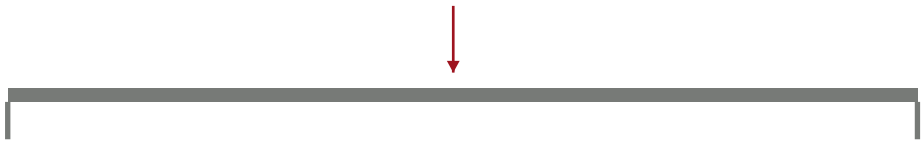
03 **Textured surfaces**

Confirm the visual effect together with the specified face metal and finishing process.

A sandwich structure for broad panels

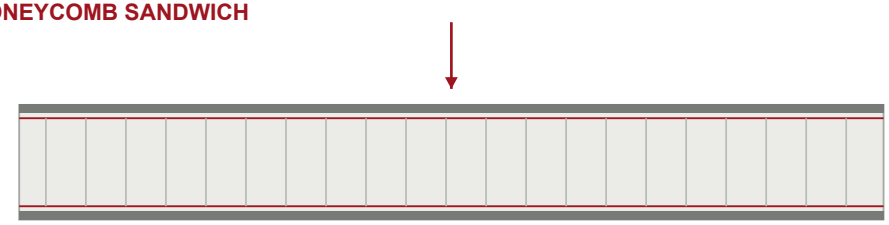
Separating the face sheets gives a sandwich panel structural depth. The core supports the faces and transfers shear.

SINGLE METAL SKIN



One formed skin; stiffness depends on sheet thickness, returns, reinforcement and support.

HONEYCOMB SANDWICH



Bonded skins work with a lightweight cellular core. Panel depth and support design influence bending stiffness.



Specify the complete panel build-up.

Face and backing thickness, core depth, bonding, panel span and fixing positions all affect the finished panel.

Conceptual comparison. No equal-weight, load-capacity or deflection rating is implied.

Sound & thermal insulation

Define comfort requirements for the complete construction.

Sound insulation

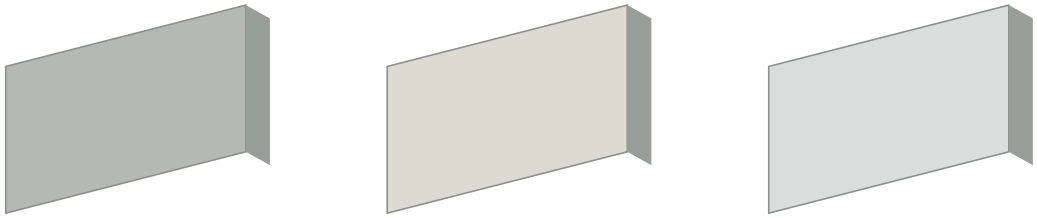
Sound transmission depends on the panel build-up, acoustic layers, sealed joints and connections.

Sound absorption is a separate requirement.

Thermal insulation

Thermal performance depends on insulation layers, panel construction, edges, joints and supports.

Coordinate insulation continuity and thermal bridges.



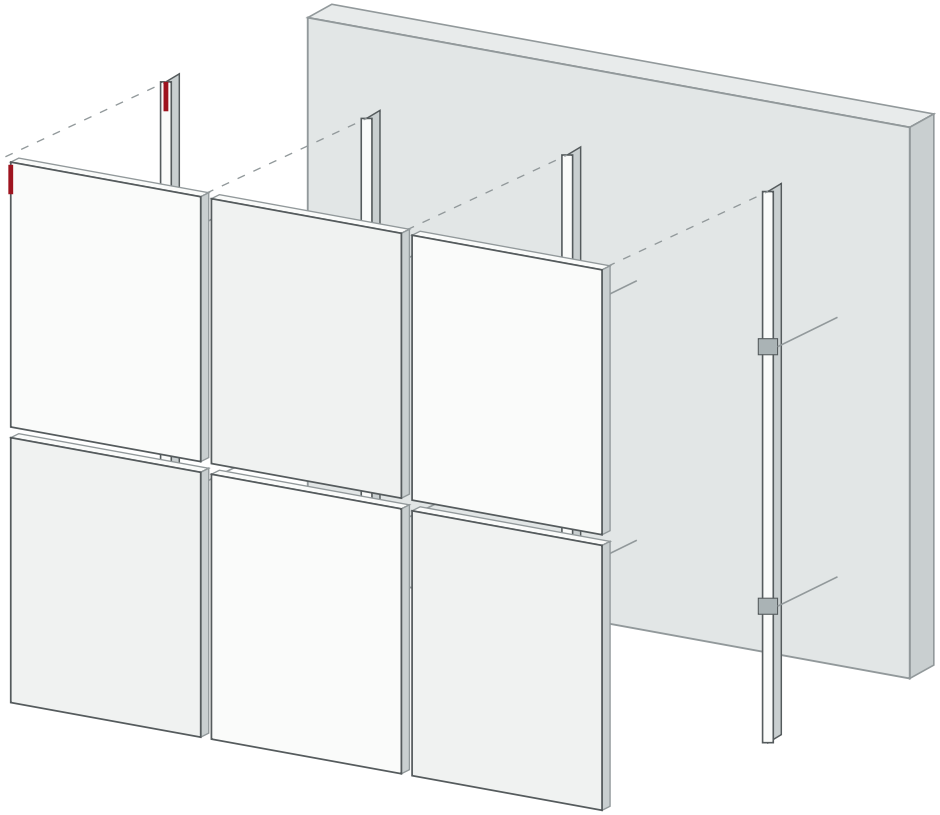
Metal panel **Additional layers** **Supporting construction**

Confirm the required acoustic and thermal performance against the proposed assembly and applicable test evidence.

Layer relationship only. The honeycomb core alone does not establish an insulation rating.

Curtain wall cladding

A primary application for broad, continuous panel surfaces.



Panel layout

Coordinate large panel modules, joints, corners and openings with the architectural elevations.

Supports & movement

Establish fixing zones, support locations and movement allowances for the project.

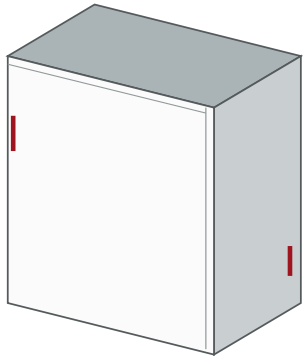
Weathering & insulation

Coordinate drainage, weather seals, insulation continuity and thermal bridges within the facade system.

Non-load-bearing cladding in a coordinated facade system. Schematic arrangement; final details follow the approved project drawings.

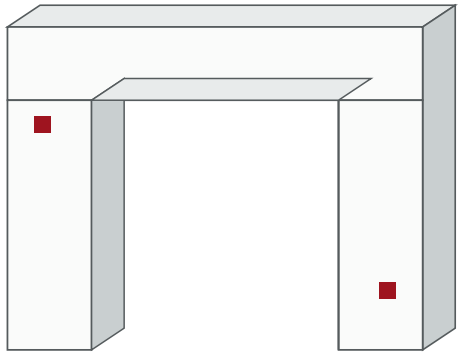
Beyond the facade

Use the composite construction where broad panel faces are required; resolve edges and attachment points with the assembly.



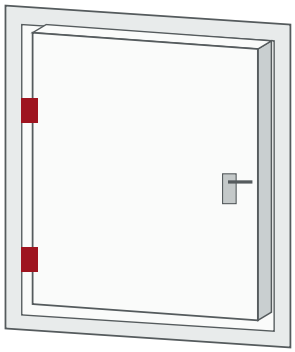
Column cladding

Panel divisions, corners, mounting clearance and access.



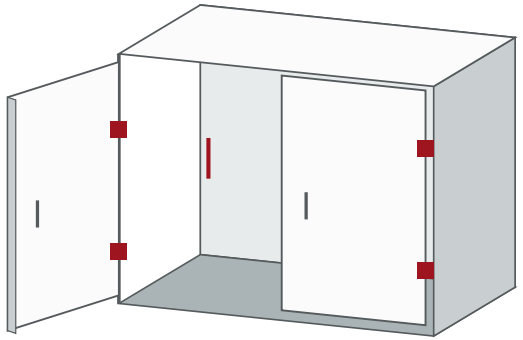
Door surrounds

Broad reveals, opening clearance and connection to the frame.



Door leaves

Leaf weight, hinge and lock reinforcement, frame and seals.



Cabinet doors & back panels

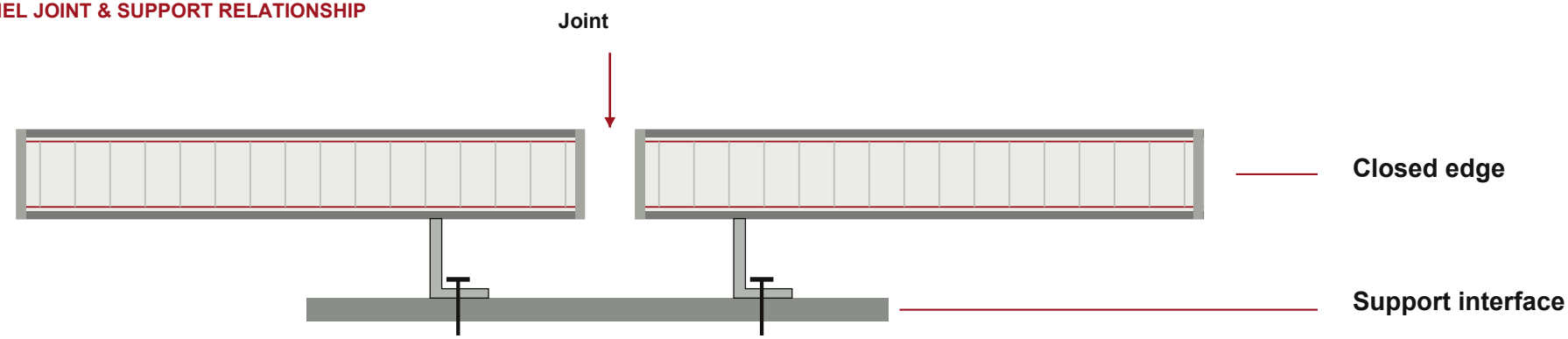
Door hardware, closed edges, cut-outs and back-panel support.

Application forms are schematic. Panel construction is confirmed for each design.

Resolve the edges and supports

Panel face, edge closure and fixing detail should be resolved as one assembly.

PANEL JOINT & SUPPORT RELATIONSHIP



Conceptual section; fixing types, dimensions and loads are project-specific.

01

Edge construction

Confirm core depth, edge returns, closure and local reinforcement.

02

Corners & interfaces

Coordinate panel meeting lines with the adjacent walls, soffits and openings.

03

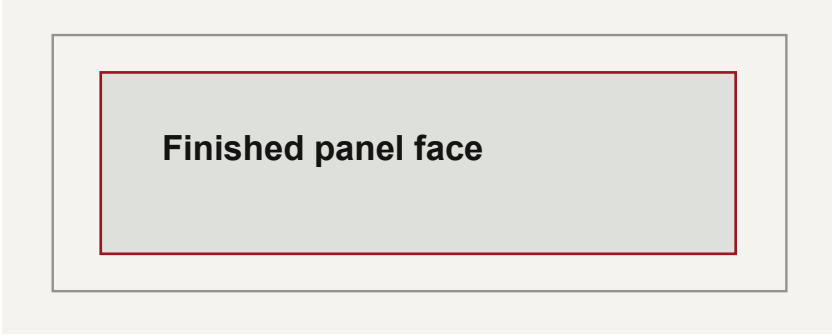
Installation sequence

Agree panel access, support setting-out, joint width and protective-film removal.

Sheet formats & finished sizes

What are the material-sheet dimensions?

FACE-SHEET MATERIAL	WIDTH	LENGTH
Stainless steel	**1000 / 1219 / 1500 mm** Common sheet widths	**Up to 8000 mm**
Aluminum	**Up to 2000 mm** Material-sheet width limit	**Up to 8000 mm**



Source-sheet outline

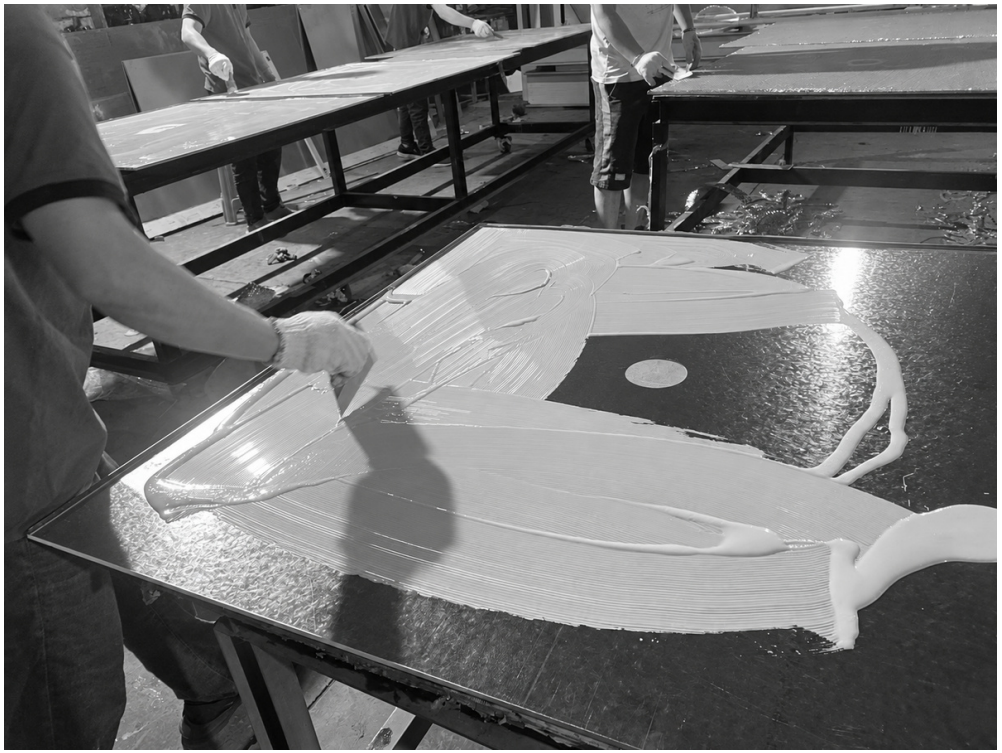
Are these finished-panel sizes?

No. The finished face is smaller than the source sheet. Core thickness, edge construction and fabrication allowances determine the usable size.

There is no fixed deduction. Confirm the finished format in the fabrication drawing before ordering.

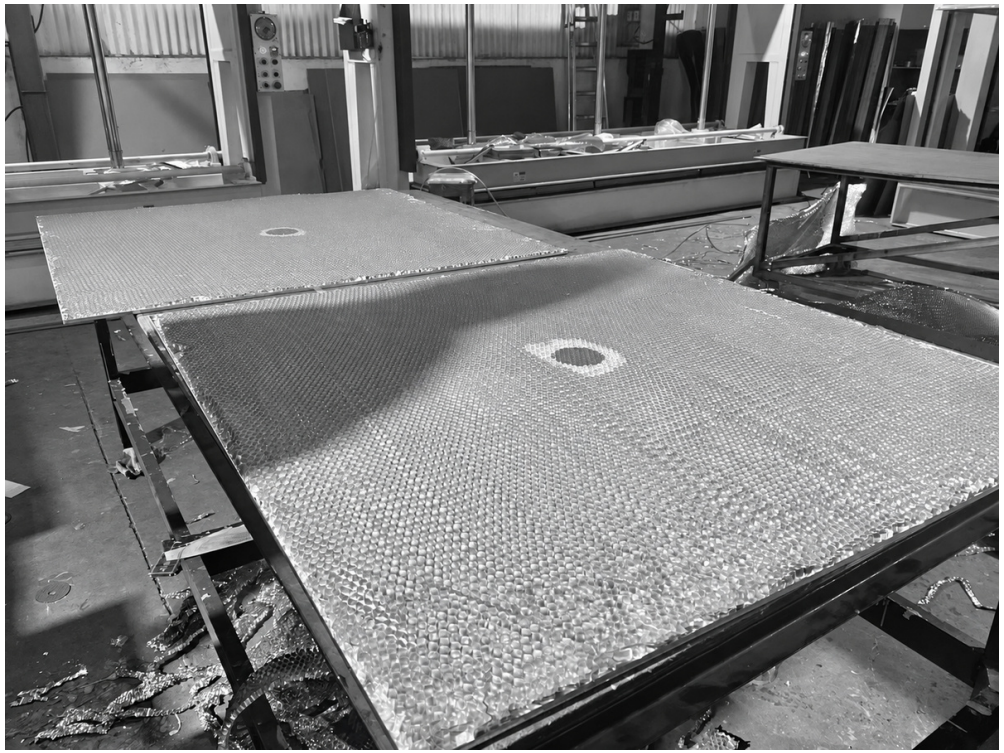
From face sheet to bonded panel

Workshop photographs record the preparation of the bonded assembly.



01 / ADHESIVE APPLICATION

Adhesive is spread across the metal sheet before the layers are brought together.



02 / CORE PREPARATION

Expanded honeycomb core is prepared on the work surface for panel assembly.

Handling the panel as a whole



Broad format. Coordinated handling.

Workshop personnel move a large panel together, with its protective surface covering in place.

Plan handling, access and protection alongside the panel layout.

Shantou International Convention and Exhibition Center

Atrium and Mezzanine

01 / 04





Broad soffit and wall panels are shown in relation to the open hall and mezzanine.

Shantou International Convention and Exhibition Center

Broad Ceiling Planes

02 / 04





Two views show the ceiling layout, panel joints and coordinated lighting positions.

Shantou International Convention and Exhibition Center

Ceilings in Circulation Spaces

03 / 04





Two circulation-space views show ceiling panel runs and their relationship to adjacent walls.

Shantou International Convention and Exhibition Center

Hall Entrance





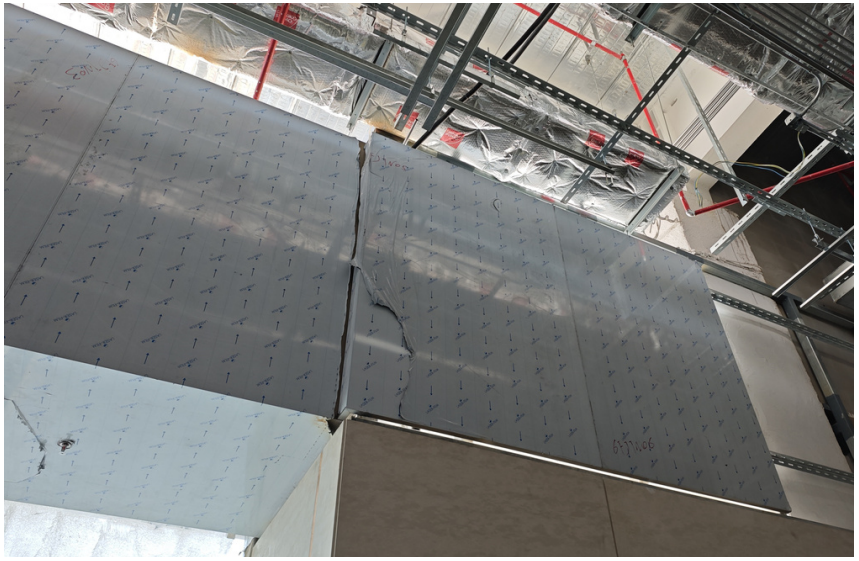
Wide and closer views retain the relationship between the ceiling, side walls and entrance.

Shenzhen International Exchange Center

Site context & protected panels

01 / 03





Construction-stage views connect the building setting with broad panel surfaces during installation.

Shenzhen International Exchange Center

Large Panel Assemblies on Site

02 / 03

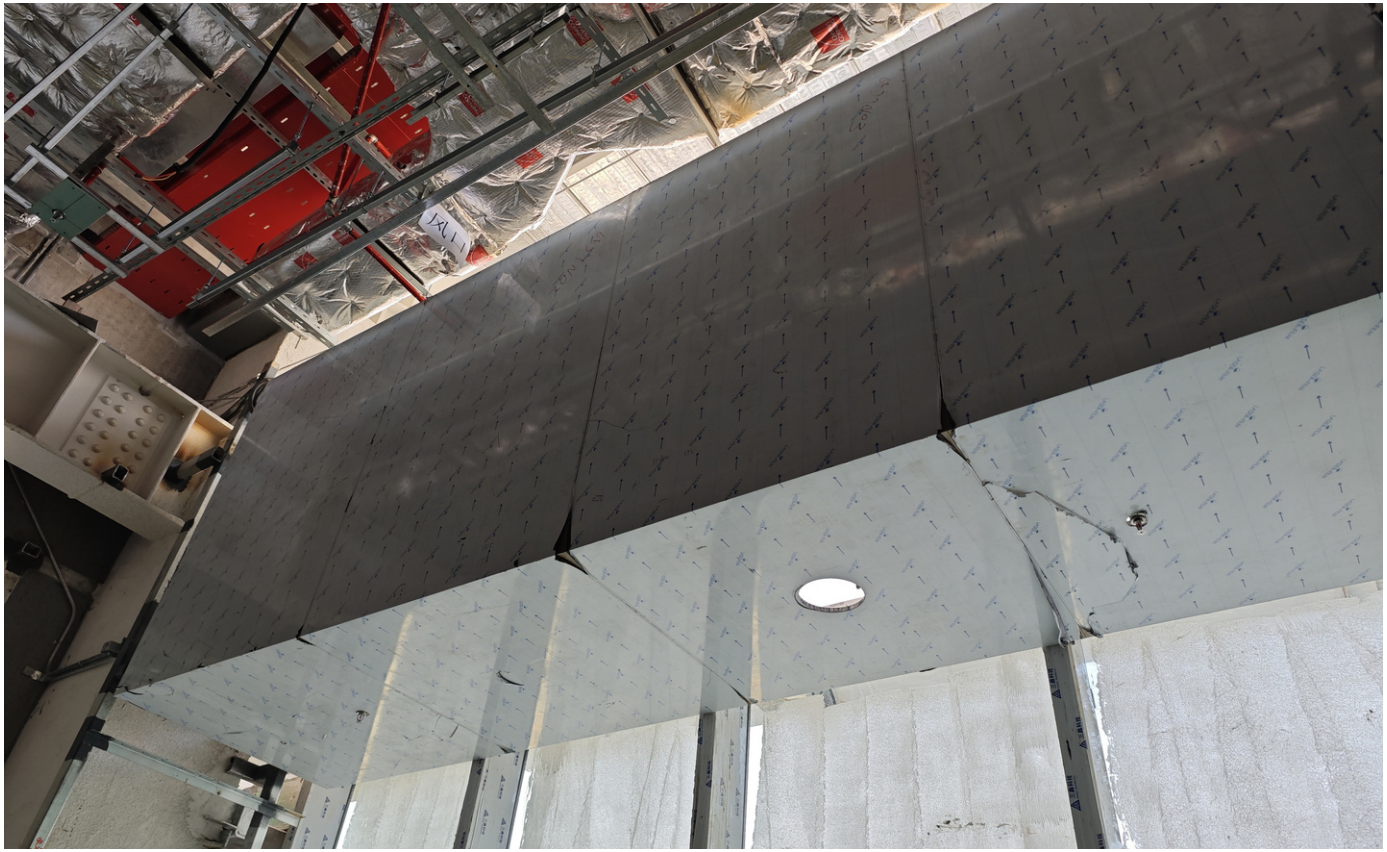


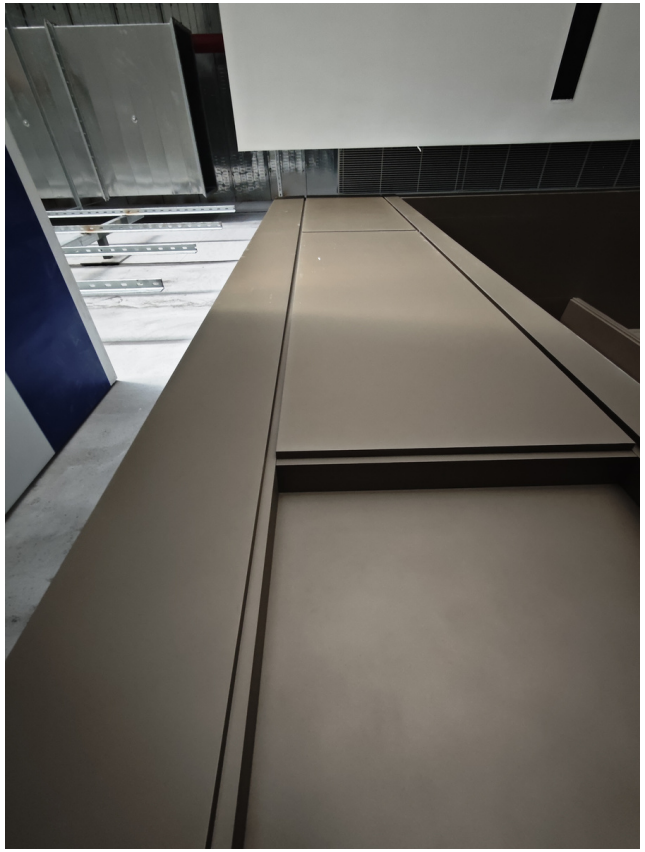


Complete panel assemblies are documented from above and from the end while staged on the work deck.

Shenzhen International Exchange Center

Panel Planes During Installation





Broad protected surfaces and installed planar cladding remain visible alongside unfinished surroundings.

Hengshan Yuexiufu Phase 2

Entrance hall & courtyard

01 / 04





A broad entrance hall connects the arrival area with the landscaped courtyard.

Hengshan Yuexiufu Phase 2

Panels along the covered walkway

02 / 04





Long ceiling runs follow the sheltered route beside the courtyard.

Hengshan Yuexiufu Phase 2

Ceiling & wall transitions

03 / 04





Plain ceiling faces meet tall wall surfaces where the entrance opens onto the courtyard passages.

Hengshan Yuexiufu Phase 2

Courtyard-facing wall surfaces

04 / 04

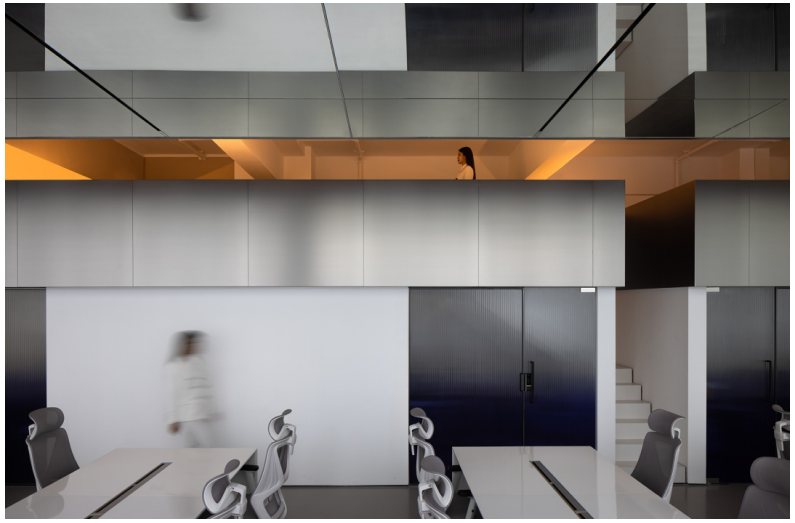




Wide wall faces and deep eaves frame the landscaped court.

Planes, light and volume

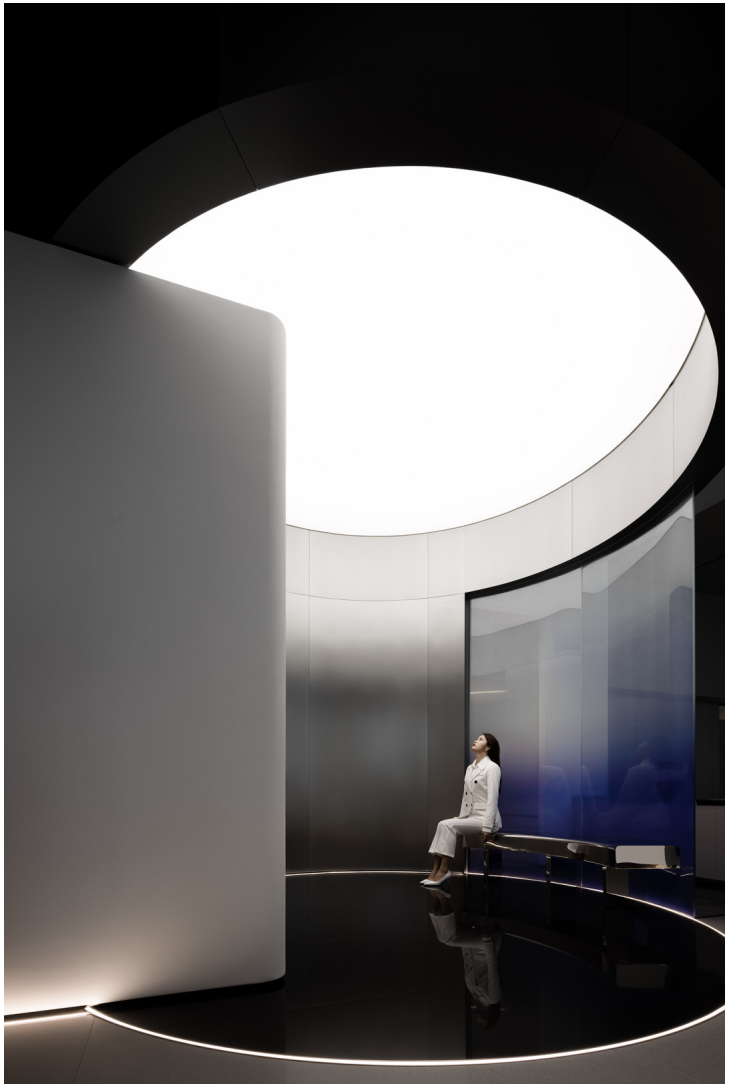






Broad ceiling and wall planes frame the stair and double-height interior.

Circular openings





Circular apertures and tall wall surfaces create changing views through the interior.

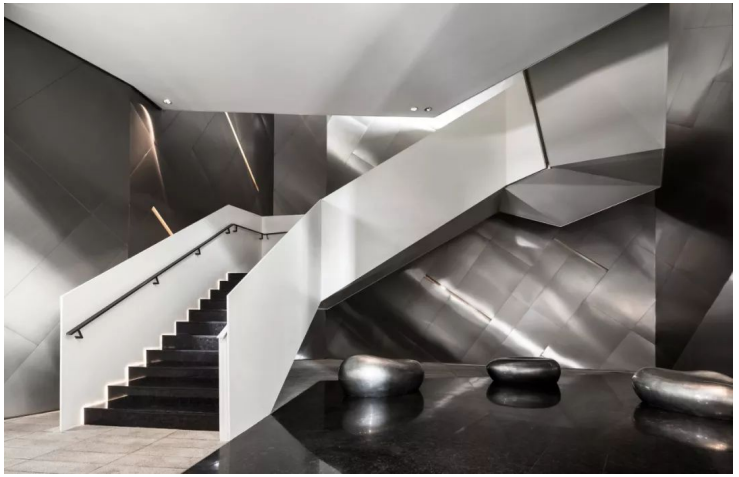
Wall planes at the entrance

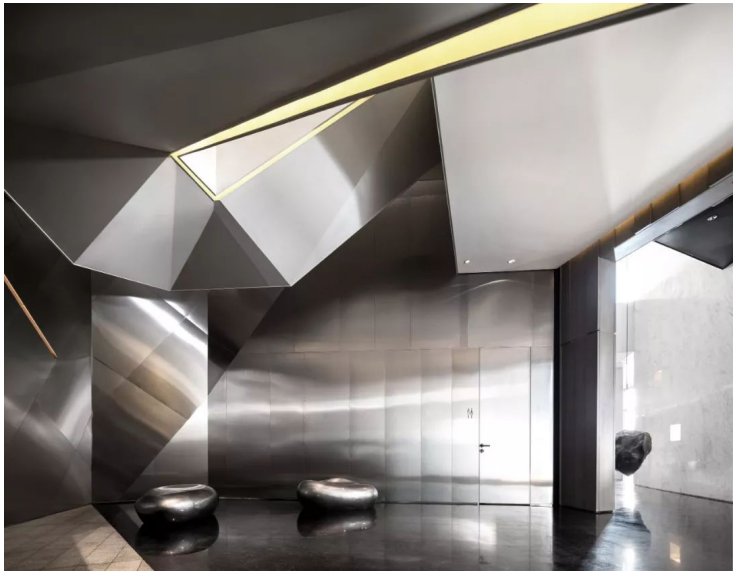


Two views of the reflective wall faces around an interior threshold.

Ceilings with folded geometry

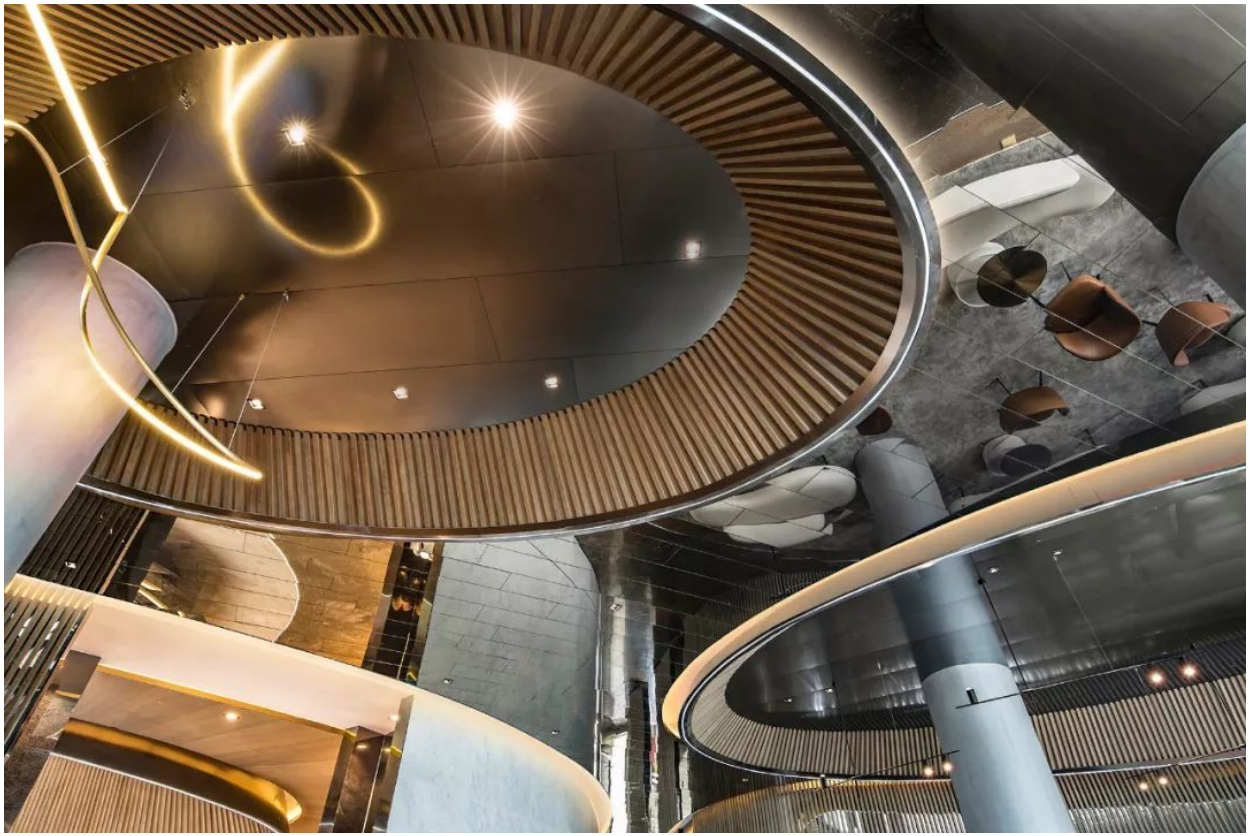


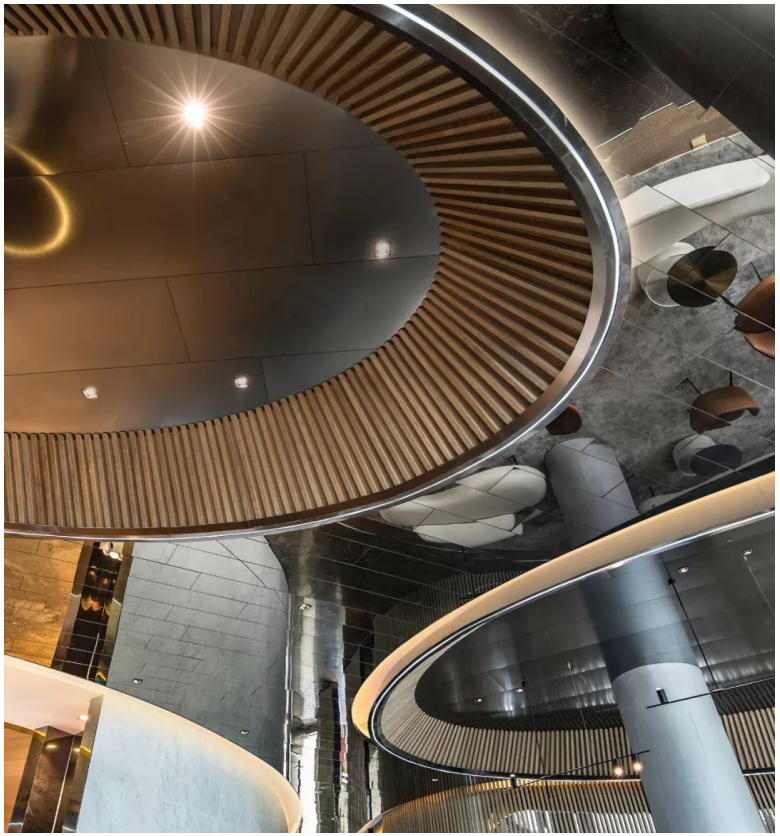




Ceiling planes meet the stair, walls and open lobby.

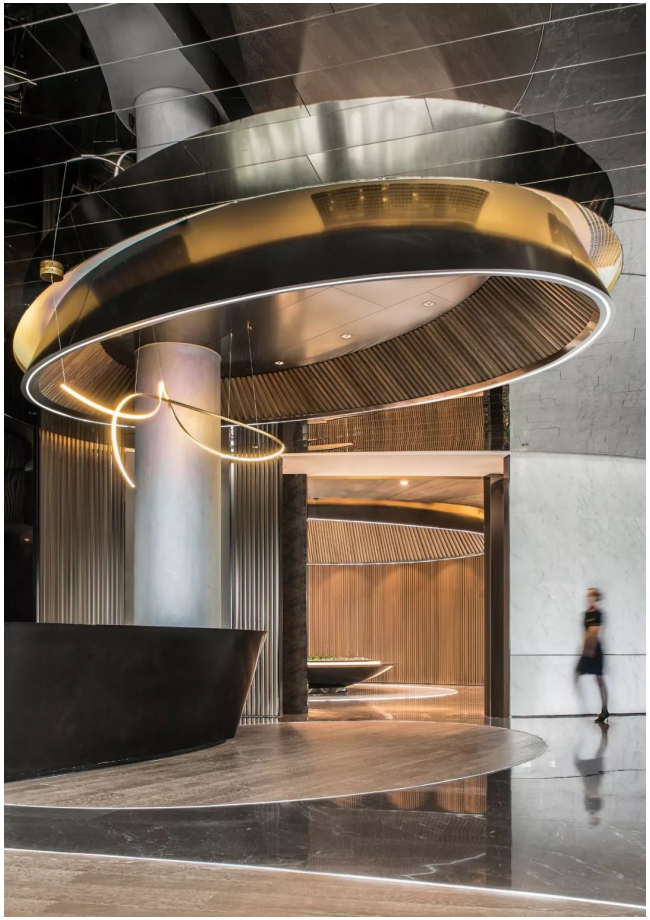
Circular canopy / upward views





Views of the circular canopy and the reflective ceiling around it.

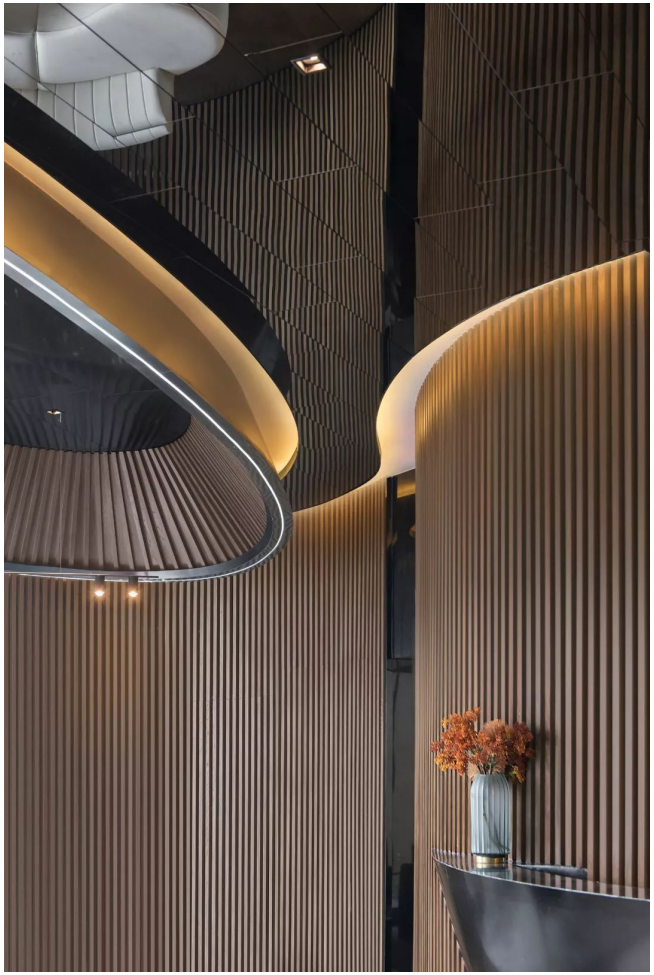
Circular canopy / lounge





The canopy is seen from the lounge and the circulation space.

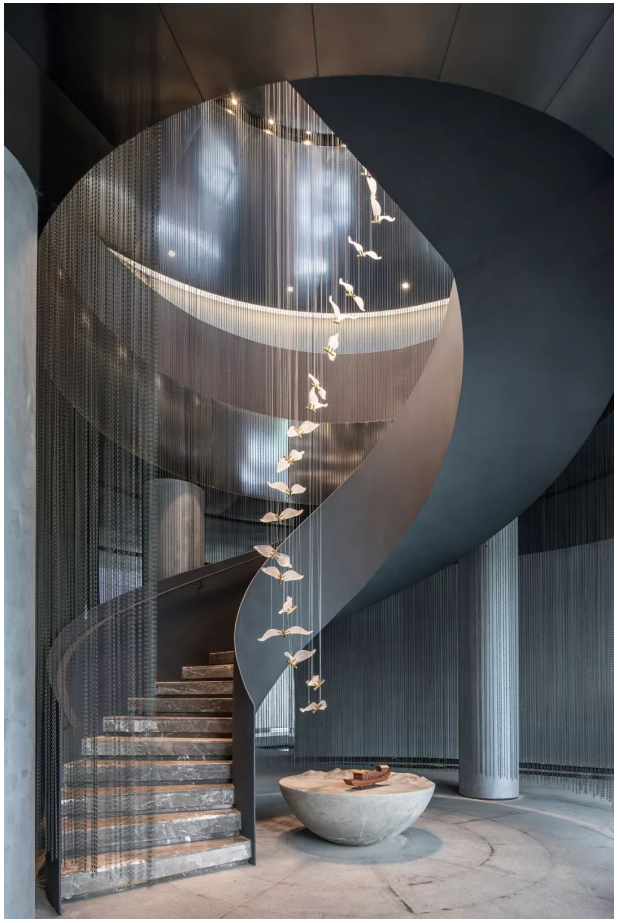
Circular canopy / edges and space





Alternate views show the canopy edge and the space beneath it.

Ceiling planes around a stair





Broad ceiling surfaces continue around the curved stair and entrance.

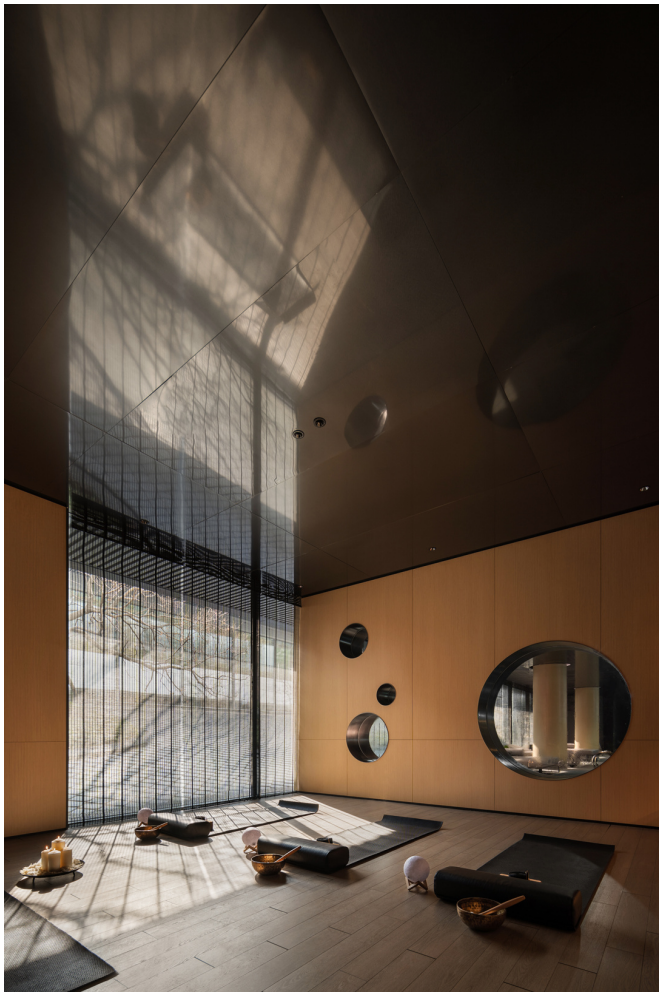
Warm ceilings in a fitness space





A long ceiling plane follows the training area and its glazed edge.

Reflections across a high interior



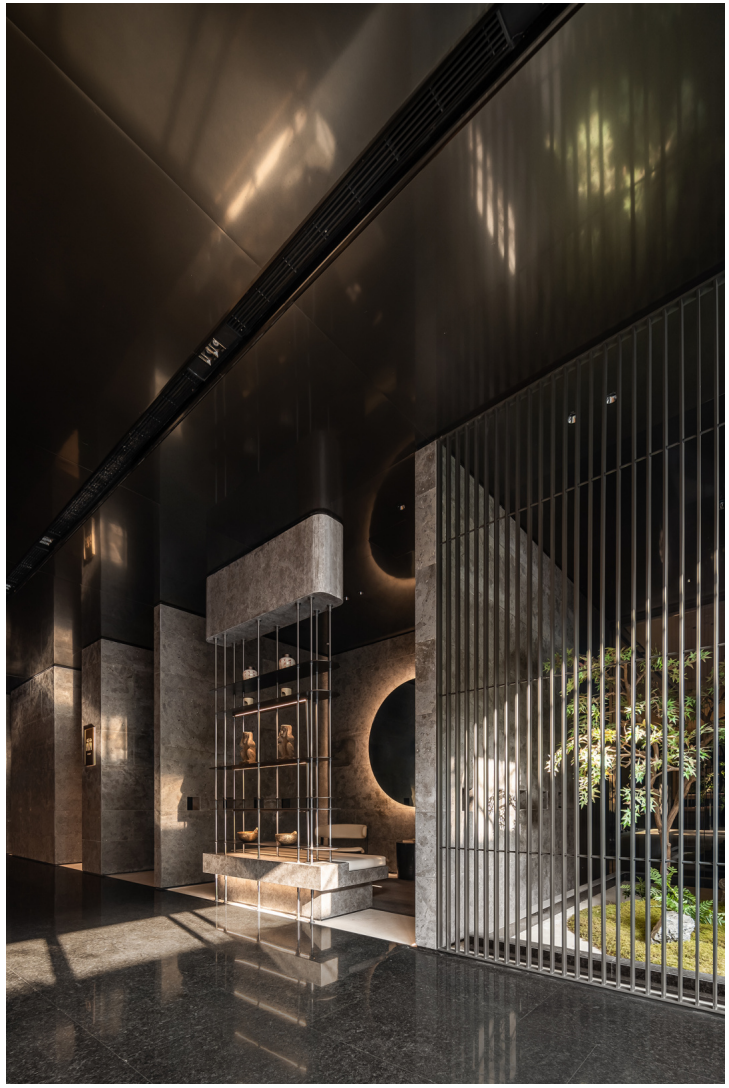




Three perspectives of the tall room and its reflective ceiling.

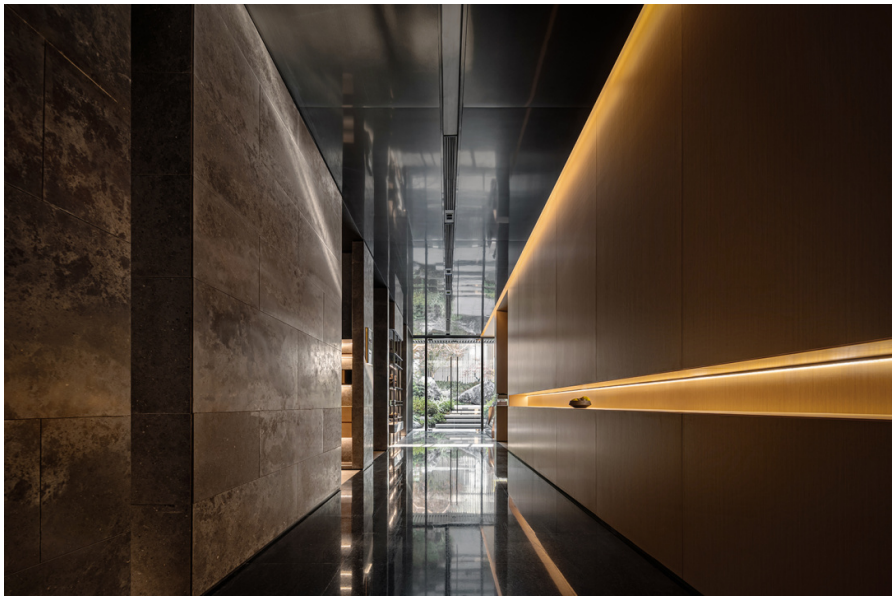
Tall wall and ceiling surfaces





Two views show the relationship between the high ceiling, wall and glazed facade.

Circulation and lounge





Long views through the interior connect the ceiling, wall planes and daylight.

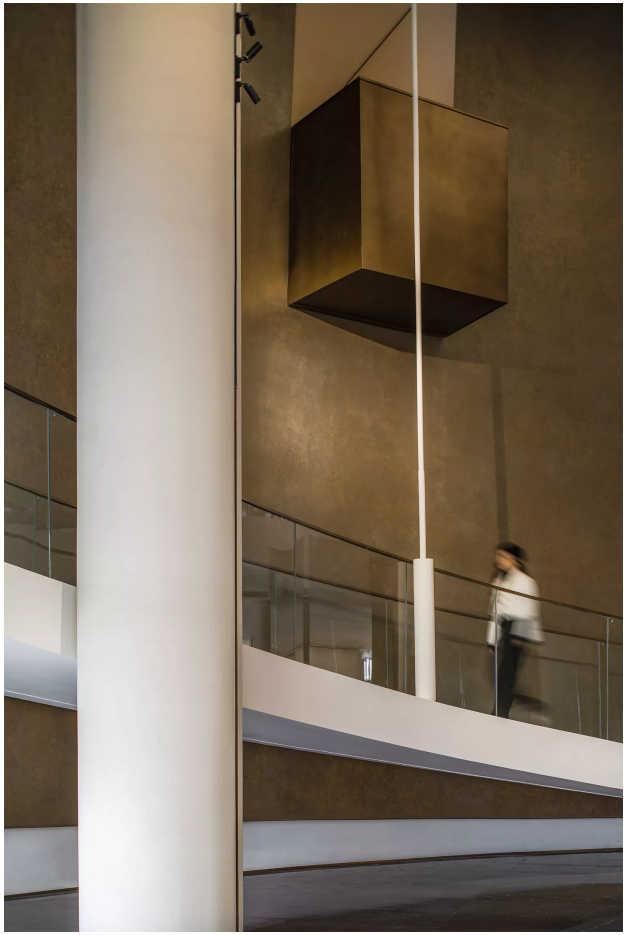
Ceilings in enclosed spaces





Ceiling and wall relationships in the adjoining interior spaces.

Warm metallic wall planes





Tall warm-toned surfaces define the open interior and mezzanine edge.

Canopy above a bar



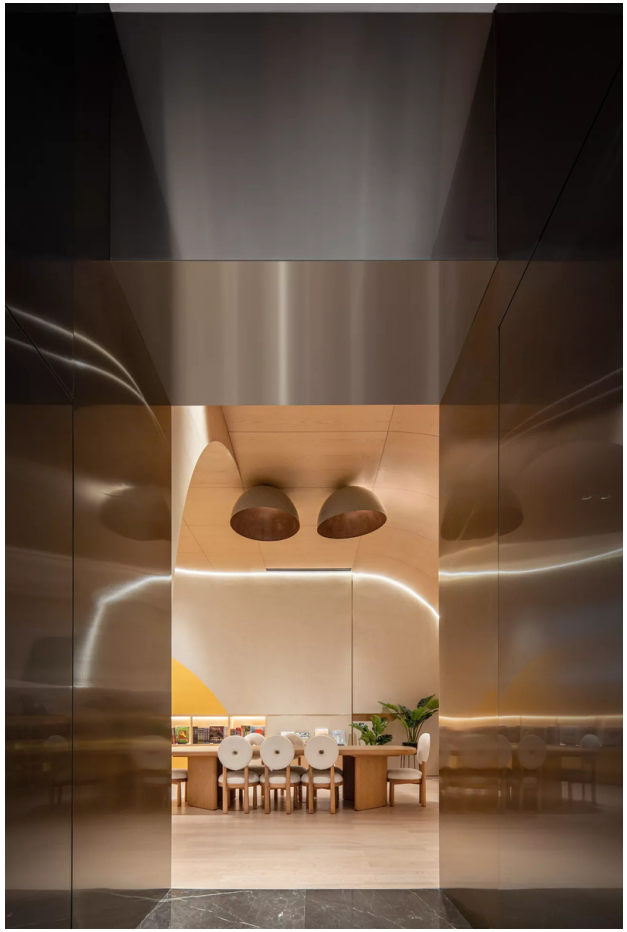




Three views show the circular canopy, counter and surrounding space.

Surface, threshold and ceiling

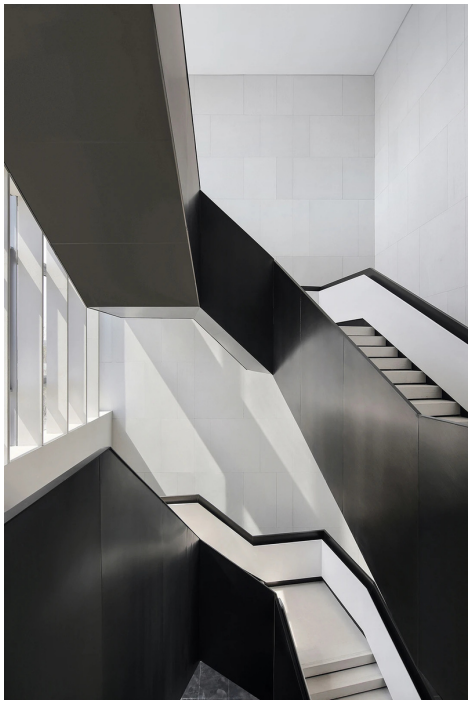


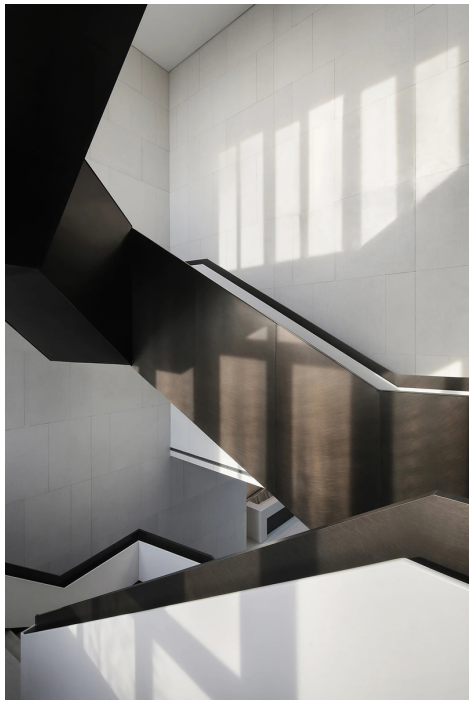




Close and wider views of wall surfaces, tall openings and a broad white ceiling.

Daylight at the stair







Three views of the stair, upper ceiling and adjacent wall planes.

Reflective interior surfaces







Wall faces and display recesses within the office and lounge interior.

Entrance settings







Different entrance settings show the relationship between broad surfaces and openings.

Exterior soffits







An upward site view and two wider architectural views of exterior soffits.

Reflective retail interiors

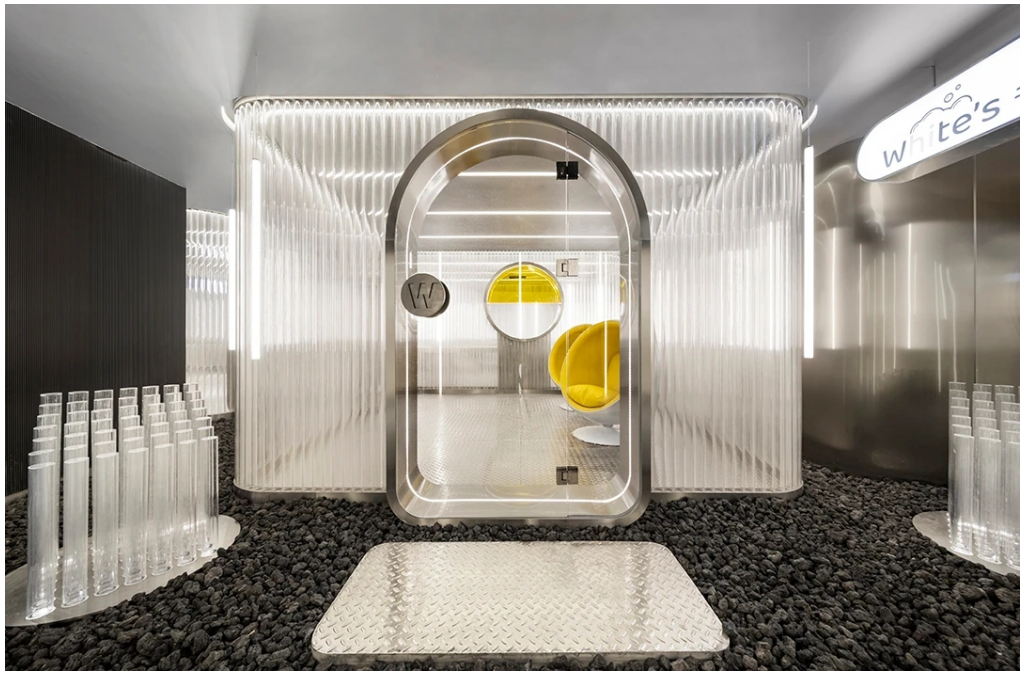




Two views of the retail interior and its ceiling and wall surfaces.

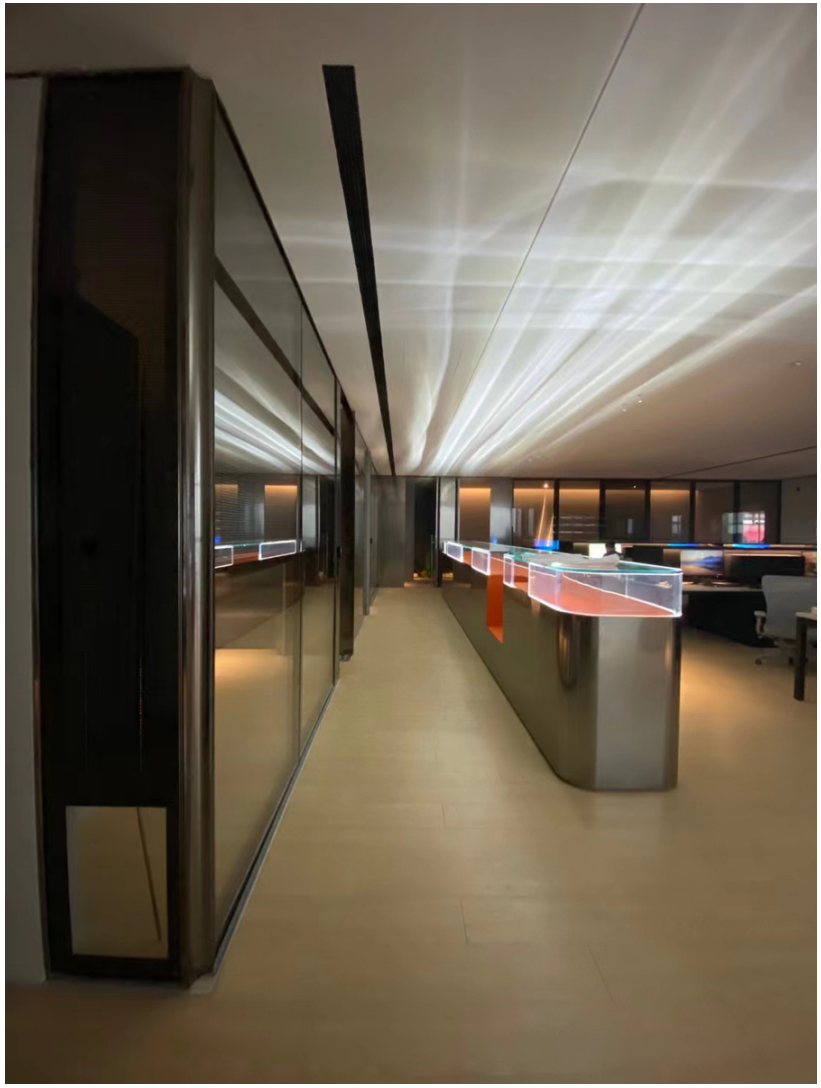
Retail interior / alternate views



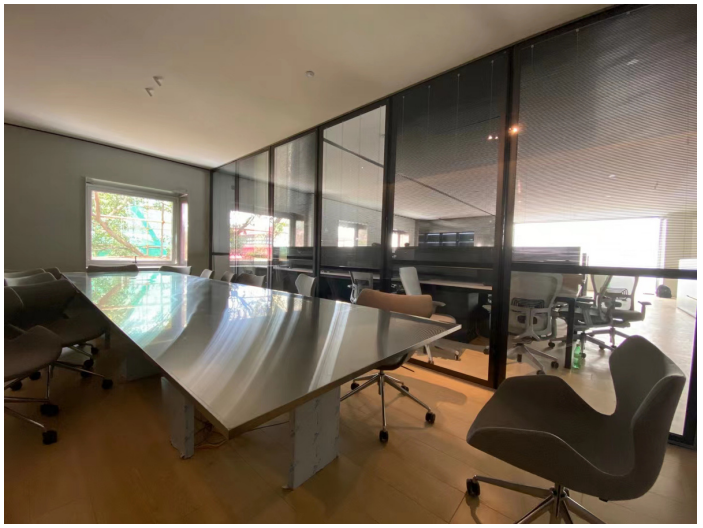


Reflective ceilings and curved wall faces connect the display areas and circulation routes.

Workplace / site views



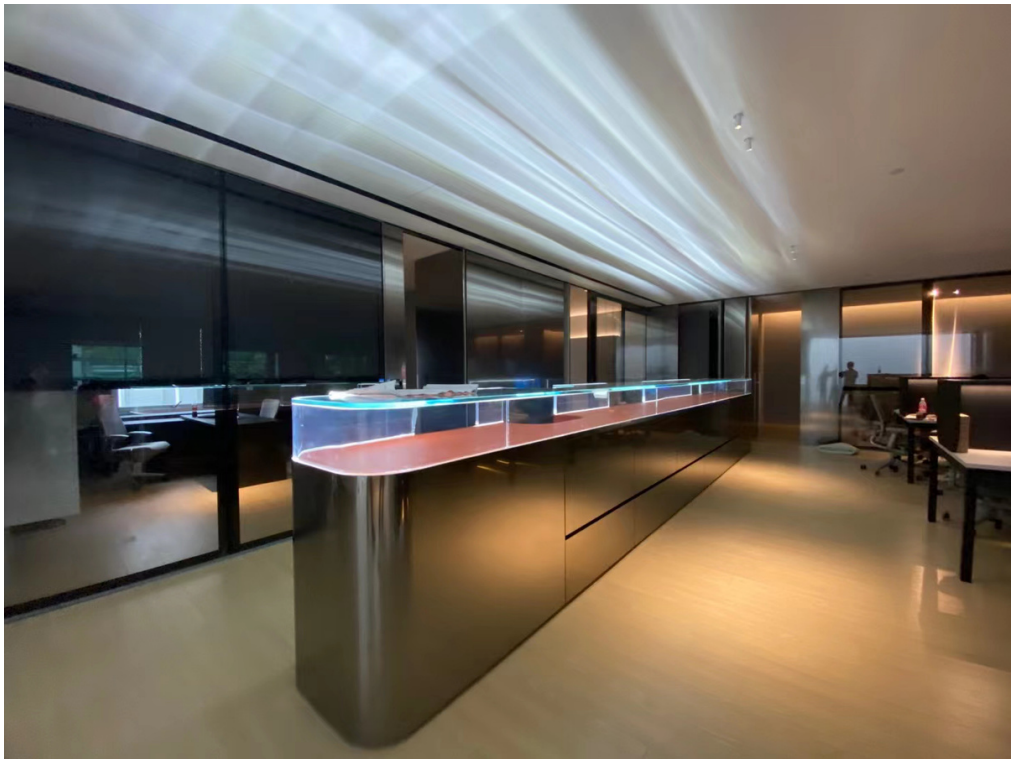




Site photographs record the interior, ceiling field and adjacent meeting area.

Workplace / ceiling reflections





Ceiling reflections extend along the glazed partitions and display counter.

Warm and bright wall surfaces





Two interior views show broad wall surfaces around seating and circulation spaces.

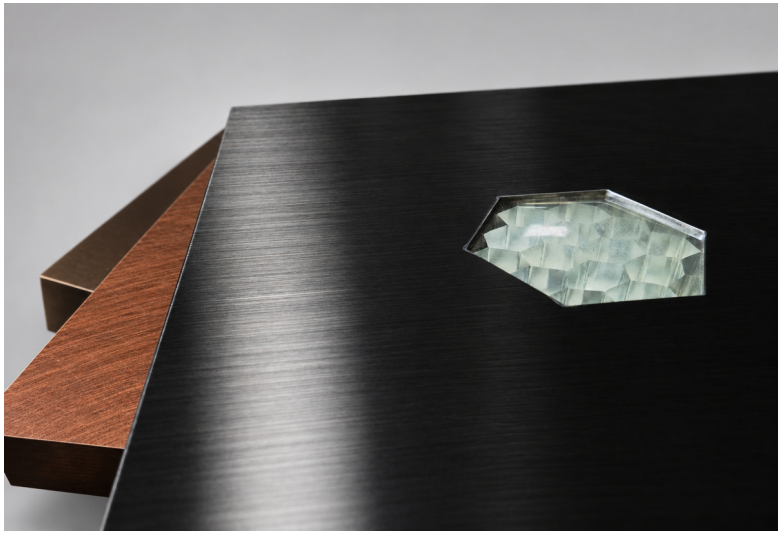
Intimate interior settings





Wall and horizontal surface references in two small interior settings.

From sample to project specification



AGREE THE PHYSICAL SAMPLE

Review color, reflection and grain in the intended light. Record the approved finish, orientation, edge and sample reference.

How is panel thickness selected?

Confirm face and backing thickness, core depth, spans, edge construction and fixing zones for the intended use.

What should an enquiry include?

Send drawings, areas of use, quantities, preferred face metal and finish, required panel dimensions, delivery destination and programme.

What is agreed before production?

The physical sample, panel schedule, final build-up and fabrication details, including supports and interfaces.

METAL HONEYCOMB PANELS

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