

Aluminum Honeycomb Cabinet Production

Panel selection, equipment and assembly



Illustrative cabinet application

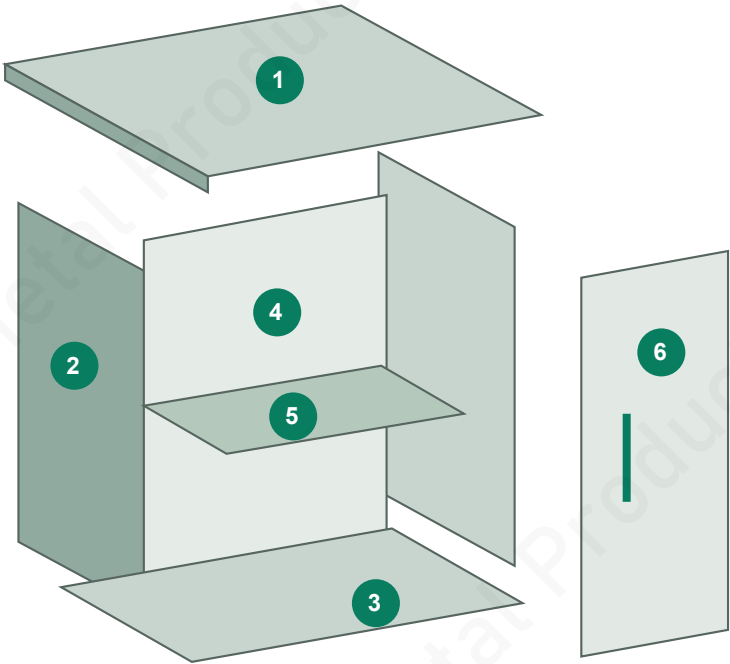
A practical guide to selecting panels, preparing the workshop and assembling aluminum honeycomb cabinets. Start with the cabinet layout, match the hardware, then approve one complete sample before batch production.

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01 CABINET COMPONENTS

Plan each cabinet component

Reference panel selections for the cabinet body, doors and back.



- 1 Top panel
- 2 Side panels
- 3 Base panel
- 4 Back panel
- 5 Shelf
- 6 Door front

Concept assembly only. Reinforcement and hardware are omitted for clarity.

Cabinet body & shelves

12 / 15 / 18 mm

Face / back skins
0.6 / 0.8 / 1.0 mm — select separately

Door panel

Project-specific thickness

Face / back skins
Confirm with door size, hinges and hardware

Back panel

Project-specific thickness

9 mm optional; 18 mm also common
Face / back skins confirmed by project

Aluminum face sheet + aluminum honeycomb core + aluminum back sheet. Diagrams are not to scale; bonding layers are omitted.
See the next page for panel selection guidance.

02 FURNITURE PANEL SPECIFICATIONS

Panel selection reference

Reference options for cabinets, wardrobes, bathroom cabinets and furniture. Final specifications are selected for the actual design and hardware.

Application	Total thickness	Face skin	Back skin	Selection guidance
Cabinet body	12 / 15 / 18 mm	0.6 / 0.8 / 1.0 mm	0.6 / 0.8 / 1.0 mm	Select face and back skins separately to suit the cabinet design, panel dimensions, connections and hardware.
Shelf	12 / 15 / 18 mm	0.6 / 0.8 / 1.0 mm	0.6 / 0.8 / 1.0 mm	Select according to shelf span, support arrangement, hardware and project requirements.
Door panel	To be confirmed	To be confirmed	To be confirmed	Select according to door size, hinge model, hardware and panel construction.
Back panel	Project-specific	To be confirmed	To be confirmed	9 mm is an optional thickness; 18 mm is also commonly used to match other cabinet components.

Total thickness refers to the complete panel. Face skin and back skin refer to the two aluminum sheets and should be specified separately. Cabinet body panels commonly use 12, 15 or 18 mm total thickness, with 0.6, 0.8 or 1.0 mm face and back skins selected separately. Door and back-panel specifications are confirmed according to the furniture design, dimensions, connections and hardware.

The configurations shown here are selection references, not fixed standard specifications for every cabinet project.

Aluminum honeycomb core

Core options can be matched to the panel construction and intended use. Confirm cell dimensions and core details in the order specification.

Panel size

Standard: 1220 × 2440 mm. Custom dimensions can be discussed for the project.

Surface options

Films and coatings: PVC / PET decorative film, powder coating and water-based coating.

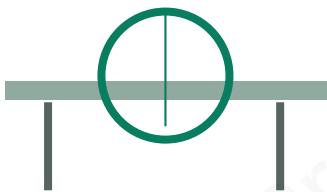
Appearance options: wood grain, stone pattern, solid color, brushed, matte and soft-touch. Available combinations depend on the finish system. The two sides can have matching or different finishes.

Match hinge and connector fixing zones to the panel construction. Select shelf supports for the span and load, and back-panel attachments for cabinet stability.

03 WORKSHOP EQUIPMENT

Use the tools your process needs

Typical equipment for local fabrication. Select only what your production route needs.



Cutting station



Drilling or routing



Edge finishing

Equipment	Purpose and selection
Panel saw or guided saw	Cut panels to size. Use a machine approved for aluminum, a suitable blade and secure panel support.
Drill and positioning jig	Make repeatable hardware holes with controlled depth.
CNC router - optional	For repeated holes, shaped parts and insert pockets. Match cutters and hold-down to the panel.
Edge-finishing tools	Use an edgebander for a qualified edge-band process, or cutting and clamping tools for rigid profiles.
Assembly tools	Use a torque-controlled driver for screw joints; add a rivet tool only for riveted connections.
Chip and dust collection	Use a system suitable for aluminum chips and fine dust; a general wood-dust system may be unsuitable.

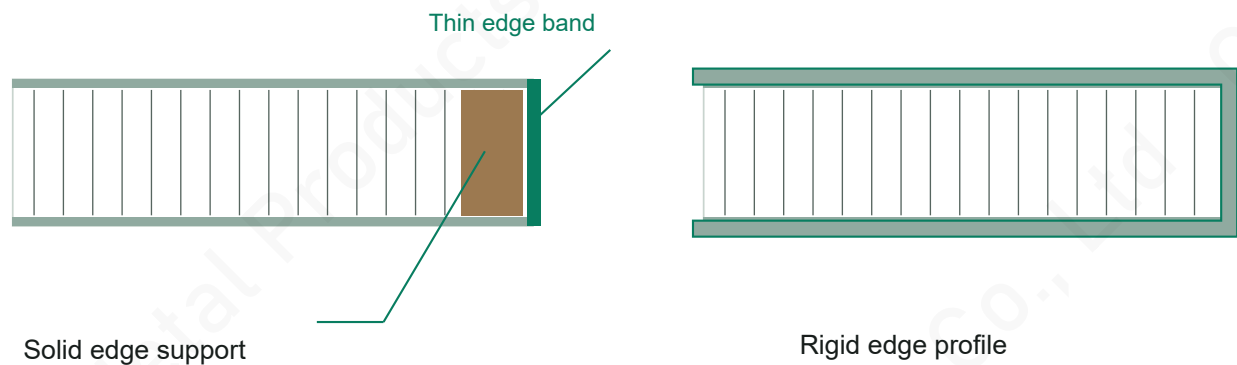
Before buying machinery, make sample cuts and joints using the intended panel and hardware. Follow the machine manufacturer's instructions for aluminum work, guarding and operator protection.

Supply scope note: These are workshop equipment references for cabinet fabrication. Standard full-panel supply from Qitianmei does not automatically include CNC machining, drilling, edging, reinforcement or hardware preparation. Special fabrication requirements are confirmed project by project.

04 EDGES AND CONSUMABLES

Finish the edges cleanly

Choose the edge system first, then match the adhesive and preparation method.



Concept sections. Select profile geometry and bonding surfaces for the actual panel.

Thin edge band

Provide a continuous, suitable edge substrate before bonding PVC banding. Open honeycomb cells alone do not provide a solid bonding surface. Use PUR only as part of a compatible, proven process.

Rigid edge profile

Match the profile to panel thickness and corner joints. Confirm fit and bond strength on a sample. Use a structural profile or added reinforcement at hardware fixing points.

Workshop supplies	What to prepare
Bonding and sealing	Compatible adhesive, approved cleaner and lint-free cloths; sealant or gasket where the design needs it.
Finishing and protection	Suitable blades and cutters, deburring tools, protective film and soft packing separators.

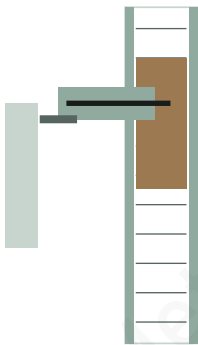
Keep bonding areas clean and allow the specified cure time. Check edge lift, corner gaps and finish damage before assembly.

Fabrication reference: Edge-finishing methods shown on this page are application and workshop references. Furniture edging is not automatically included in standard full-panel supply and should be confirmed separately if required.

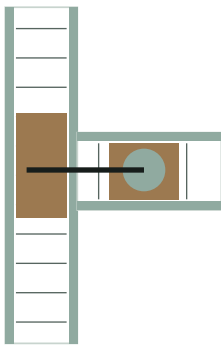
05 HARDWARE AND FIXING

Give every fixing a solid support

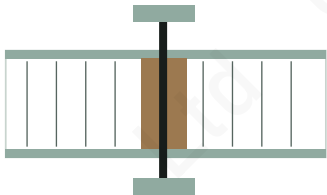
Fasten into designed inserts, solid blocks or suitable profiles, rather than open core.



Hinge fixing zone



Reinforced connector



Through-bolt spacer

Concept details only. Gold areas indicate designed reinforcement or solid spacers.

Hardware	Key selection point
Hinges and mounting plates	Match door weight, size, thickness and opening angle. Reinforce both door and cabinet fixing zones.
Cabinet connectors	Choose fittings for the reinforced panel construction; standard wood-board cam fittings are not automatically suitable.
Shelf supports	Match shelf span and load. Secure supports in reinforced fixing zones.
Drawer runners — if needed	Select for drawer weight plus contents and fix into reinforced cabinet sides.
Handles and base supports	Match the opening style and cabinet base design. Provide support at fixing points.
Screws, bolts or rivets	Match the connection. Use solid spacers where tightening could crush the core.
Wall hangers — where required	Connect to a reinforced cabinet structure. Select wall anchors for the loaded cabinet and actual wall.

Choose door thickness together with the hinge model. Thin doors may require dedicated hinges or a frame detail; check drilling depth before production.

Supply scope note: Reinforcement, inserts and hardware preparation must be designed for the actual cabinet and confirmed project by project. They are not automatically included in standard full-panel supply.

06 PRODUCTION SEQUENCE

Reference production sequence

Six typical steps from drawing to a completed cabinet.

Approve one complete cabinet before repeating the design.

01 Approve the drawing

List body, back and door panels separately. Mark dimensions, grain direction, edge details and reinforced hardware positions.

02 Cut and prepare

Cut and label each part. Prepare insert locations and remove sharp edges.

03 Reinforce and finish edges

Fit inserts or profiles, bond the chosen edge system and allow it to cure. Drill hardware holes in the prepared fixing zones.

04 Assemble and adjust

Fit the back panel, joints, shelves, doors and any drawers. Check squareness, door gaps and smooth movement.

05 Check the finished cabinet

Check finish quality and joint security. Test shelves, doors, drawers and wall supports to the agreed load and use requirements.

06 Protect and pack

Label panels and hardware by cabinet. Include an assembly drawing, protect faces and corners, and check the part count.

For installation, level and secure the cabinet using the agreed support detail. Wall cabinets also need suitable wall anchors and a secure hanging connection.

This sequence describes a typical cabinet fabrication workflow. It does not define the standard Qitianmei supply scope. Cutting, drilling, edging, reinforcement, hardware preparation, assembly and installation are confirmed separately for each project.

07 START YOUR PROJECT

Choose supply scope and send a plan

A sketch, approximate quantity and preferred finish are enough to start the discussion.

Supply route	What to agree
Prepared components — project-specific option	Cut-to-size parts, edging, reinforcement, drilling, insert preparation and other fabrication may be discussed for specific projects. Availability, tolerances, hardware details and the exact supply scope must be confirmed in the quotation and approved drawings.
Panels for local fabrication	Full panels and agreed trims. Your workshop handles cutting, reinforcement, edging, drilling and assembly unless otherwise specifically agreed in the quotation.

Standard full-panel supply does not automatically include CNC machining, drilling, furniture edging, reinforcement, hardware inserts, cabinet assembly or installation.

Send four essentials

1. Cabinet layout and dimensions
2. Quantity, colors and surface finishes
3. Doors, shelves, drawers and intended loads
4. Preferred supply route and delivery destination

Confirm before the batch

Approve panel thicknesses, hardware models, finished edges and one trial cabinet. The quotation and drawings should clearly list everything included.

Discuss your cabinet project

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General cabinet production reference. Panel sizes, thicknesses, hardware and fabrication scope are selected and confirmed for the customer's actual cabinet design.