TECHNICAL LIBRARY / FOR QUALIFIED PROFESSIONALS

Fabrication & Installation



This guide applies to all AUTHTERRA Collection and Reserve designs in 2 cm and 3 cm low-silica surfaces.

THICKNESS	USABLE SIZE	SLAB WEIGHT
3cm / 30 mm	126 × 63 inches	342 kg / approx. 754 lb
2cm / 20 mm	126 × 63 inches	228 kg / approx. 503 lb

Crystalline silica: up to 40% by weight. Read this guide with the AUTHTERRA Safety Data Sheet, project drawings and equipment instructions.

Plan the complete installation

Inspect and record the material. Confirm layout, cutouts, seams, supports and appliance requirements before fabrication. Resolve project-specific details through AUTHTERRA before cutting.

Indoor storage. Effective wet fabrication. R10 mm minimum inside corners. Independent sink and cutout support. No dry adjustment work.

WORKFLOW	PAGES
Plan, inspect & handle	02-04
Support, cut & fabricate	05-09
Install & verify	10-11
Complete the project record	12

Technical support: support@authterra.com

01 / KNOW THE LOAD AND THE MATERIAL

Slab dimensions & handling



Calacatta Macchia Vecchia 9101 shown

342 kg / approx. 754 lb per slab

3cm / 30 mm nominal

- Store upright indoors on secured racks or A-frames. Use rated lifting equipment suitable for the slab, attachments and complete load.
- Secure slabs before removing bands or restraints. Stay outside the fall shadow and never stand between unsecured slabs.
- Protect finishes with suitable separation. Support cutouts during fabrication, lifting and transport; never lift a piece by a cutout.
- Do not transport slabs horizontally. Follow the equipment manufacturer’s procedures and load limits.

02 / SAFETY BEFORE PROCESSING

Control dust at every step

Low silica does not mean dust-free or safe to process without controls. Cutting, coring, grinding, polishing, demolition and cleanup can generate respirable crystalline silica dust.

- Use effective wet methods for every dust-generating operation. No dry cutting, coring, grinding or polishing.
- Use local exhaust, dust collection and other engineering controls. Follow the employer's written exposure-control plan.
- Use employer-selected respiratory protection when required, together with task-appropriate eye, hearing, hand and body protection.
- Never dry sweep or use compressed air for cleanup. Use HEPA-filtered vacuuming or wet methods.
- Collect dust, slurry and debris promptly and at least by shift end using suitable containment. Follow applicable disposal requirements.
- Control wet-floor slip hazards and use suitable ground-fault protection for electrical tools. Keep cords out of standing water.
- Complete adjustment cutting in a controlled work area outside occupied interior space using wet methods and the exposure-control plan. Protect the site from dust and slurry.

OSHA crystalline silica information

03 / APPROVE THE LAYOUT BEFORE CUTTING

Inspect, record & template

- Remove protective film. Inspect and photograph both faces for cracks, warping, surface conditions and dimensional issues.
- Record design, Serica finish, thickness, slab/batch identity and the visible condition. Match actual slabs for shade, pattern and orientation.
- Stop and contact the seller or AUTHTERRA if a potential manufacturing defect is visible. Do not cut or install it before review.
- Use accurate digital or stable physical templates. Verify field dimensions against actual sinks, taps, appliances and their instructions.

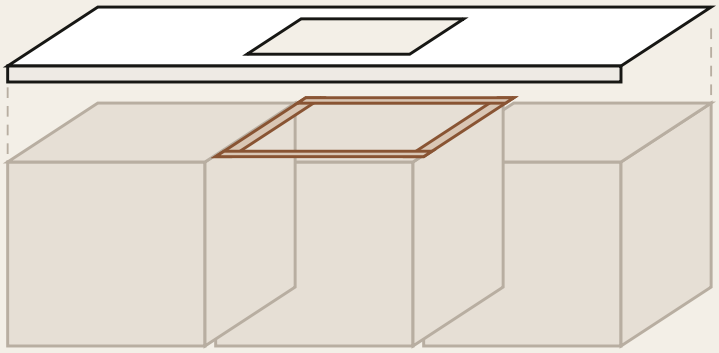
CONFIRM	PROJECT RECORD
Appearance	Design, shade/lot, pattern direction, piece layout and customer acceptance
Fabrication	Seams, edge profiles, cutouts and radiused corners
Structure	Cabinet condition, openings, spans, overhangs, sink support and anchorage
Appliances	Per-side clearances, ventilation, heat separation and required backguards

Avoid seams through the center of a sink cutout or directly above a dishwasher. Do not assume slabs form a matching left/right pair. Reconfirm the detail if dimensions change at installation.

04 / RESOLVE SUPPORT BEFORE FABRICATION

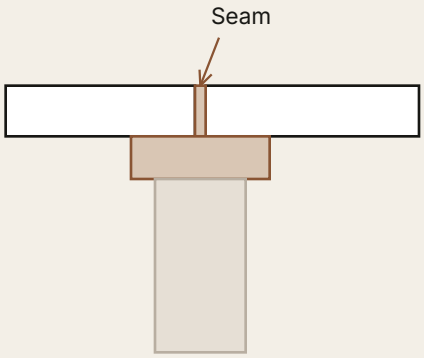
Support seams & cutouts

01 CABINET SUPPORT / EXPLODED VIEW



Exploded for visibility

02 SEAM / SECTION



Continuous bearing
directly beneath seam

Support members connect to the cabinet structure. Member sizes follow the project detail.

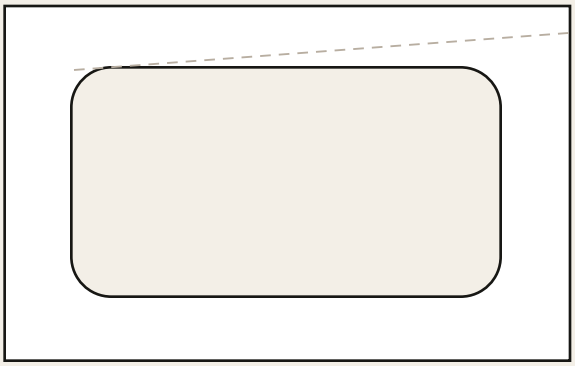
- Provide continuous structural support directly beneath every field seam.
- Support sinks, appliances and other cutouts independently on every side. Transfer the load to the cabinet structure.
- Verify that cabinets, rails and support members are stable, level and capable of carrying the complete assembly without deflection.

Overhangs require a project-specific support and anchorage detail before fabrication. Keep cutouts and holes out of overhanging areas unless AUTHTERRA has issued a written detail.

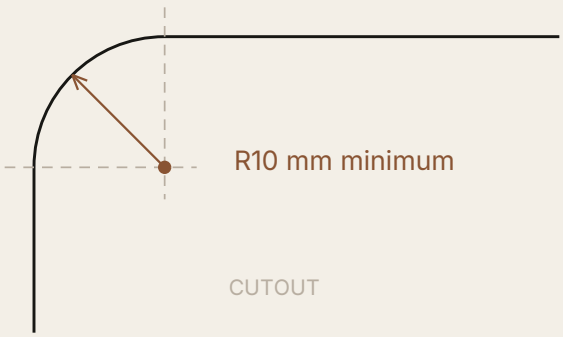
05 / DIMENSION THE RADIUS CORRECTLY

Cutouts & inside corners

01 RADIUSED OPENING / PLAN



02 ENLARGED INSIDE CORNER



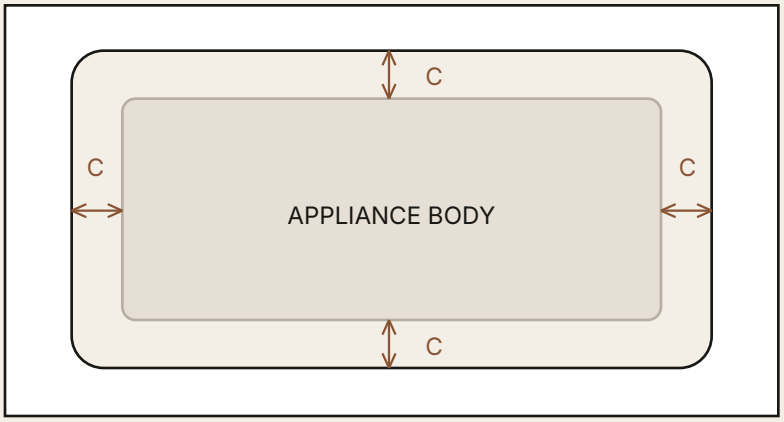
Rounded corners; no square corners or saw overcuts.

- Maintain a minimum 10 mm inside-corner radius (approximately 3/8 inch). The 10 mm minimum controls; this is a radius, not a diameter. Larger radii reduce stress concentration.
- Use water-fed diamond tools with effective continuous water delivery. Core internal corners; do not cross-cut, overcut or leave square internal corners.
- Make the first cut along the largest slab section, then proceed to shorter sections. Do not plunge-cut with a bridge saw.
- Use CNC or waterjet equipment only with suitable tool/process instructions. Inspect bowing before cutting; do not assume cutting will correct it.
- If a cutout is within 6 inches of a seam, support the seam on a cabinet cross member or provide additional structural support. Support all sides of a cutout throughout handling and installation.

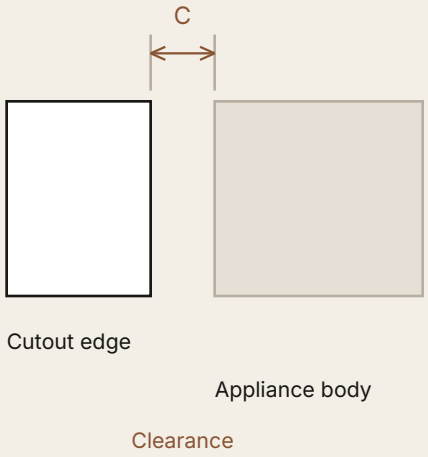
06 / CHECK THE ACTUAL APPLIANCE

Appliance cutouts & heat

01 APPLIANCE BODY INSIDE CUTOUT / PLAN



02 CLEARANCE DETAIL



C is measured from the cutout edge to the appliance body on every side.

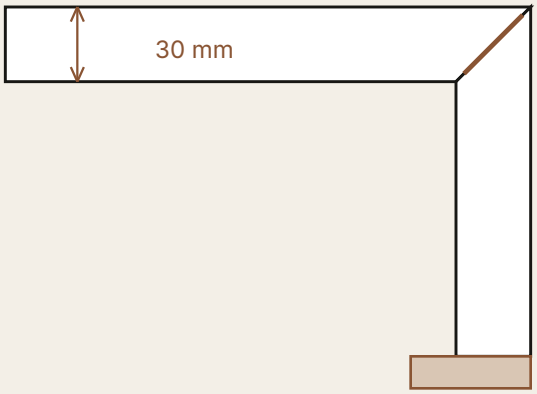
Follow the appliance instructions for clearance, support, ventilation and heat separation.

- Allow at least 1/8 inch of clearance around inserted units. Confirm the required allowance on each side in the approved appliance/project detail before final cutting; larger appliance requirements govern.
- Follow appliance ventilation, insulation, backguard and clearance instructions. Keep the surface clear of direct flame and hot exhaust.
- Use the approved heat-separation detail at cooktop cutouts and behind ranges. Foil tape alone is not a substitute for required clearances or protection.
- If the proposed layout cannot meet both appliance and AUTHTERRA requirements, resolve the design before proceeding.

07 / MATCH THE MATERIAL AND CONTROL THE JOINT

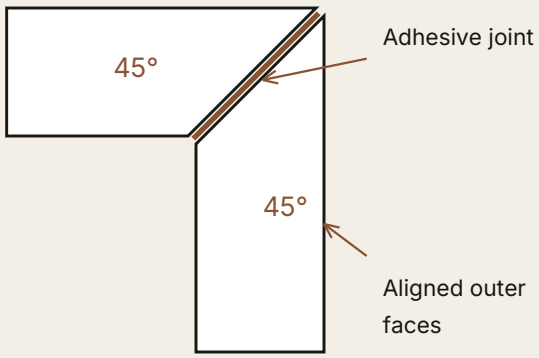
Mitered edges

01 ASSEMBLED MITER / SECTION



Support the return while adhesive cures.

02 ENLARGED JOINT



Joint enlarged for clarity.

- Cut adjoining pieces at 45 degrees to form a clean 90-degree miter. Maintain the intended finished dimensions and edge geometry.
- Select the adjoining pieces from the same slab and confirm pattern continuity, color and appearance before cutting.
- Dry-fit the assembly. Confirm face alignment, joint closure and the finished corner before applying adhesive.
- Use a compatible stone-to-stone adhesive and even clamping pressure without distorting the assembly. Support the return until the adhesive has fully cured.
- Provide a project-specific support detail for deeper returns or larger edge assemblies. Do not rely on the adhesive joint alone to carry unsupported loads.

Inspect the actual slab face, edge and joint under project lighting. Do not promise an invisible seam or continuous vein where the chosen layout cannot achieve it.

08 / PROTECT THE SERICA FACTORY FINISH

Adhesives & wet polishing

Stone-to-stone adhesive

- Use a compatible cartridge-style acrylic or two-part epoxy seam adhesive selected for the material and design. Verify color on an offcut; include lighting conditions where the design transmits light.
- Follow the adhesive manufacturer's compatible preparation method, mixing/purge procedure, working time, temperature and cure instructions. Mask the factory face.
- Use flexible 100% silicone for the cabinet attachment described in this guide; rigid seam adhesive is not a substitute.

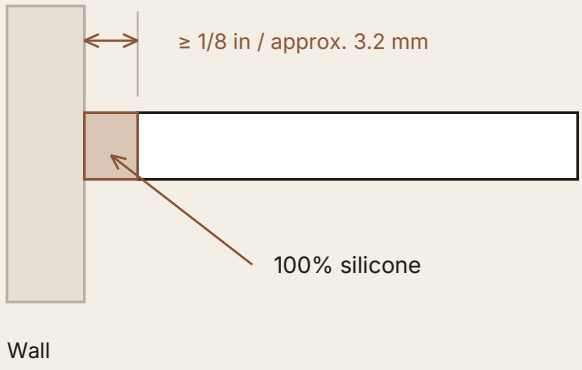
Wet edge polishing

- Use wet polishing and white resin diamond pads. Colored pads may transfer color. Use suitable backers and tooling for the profile.
- Maintain effective water delivery, light pressure and a supported workpiece. Avoid heat buildup and dry contact.
- Finish the wet edge process with a 3000-grit diamond pad; do not use granite buffing pads. Verify the complete tooling sequence on an offcut.
- For the miter's top edge, use 400 then 600 grit with very light pressure after adhesive cure. Protect the factory face and intended edge geometry.
- Do not hone, polish or resurface the original factory surface. Stop if heat, discoloration, uneven gloss or damage develops.

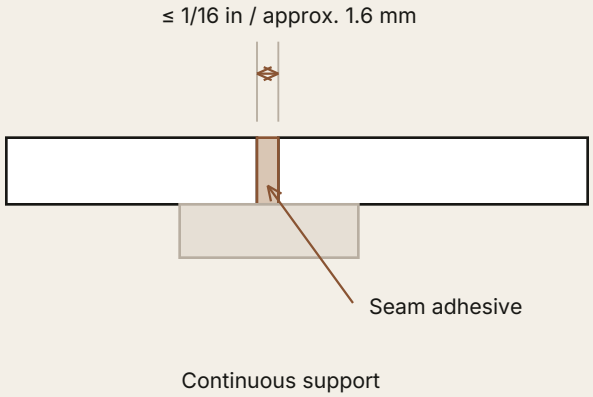
09 / GAPS, SEAMS AND FLEXIBLE FIXING

Dry fit, attach & assemble

01 WALL JOINT / SECTION



02 SUPPORTED SEAM / SECTION



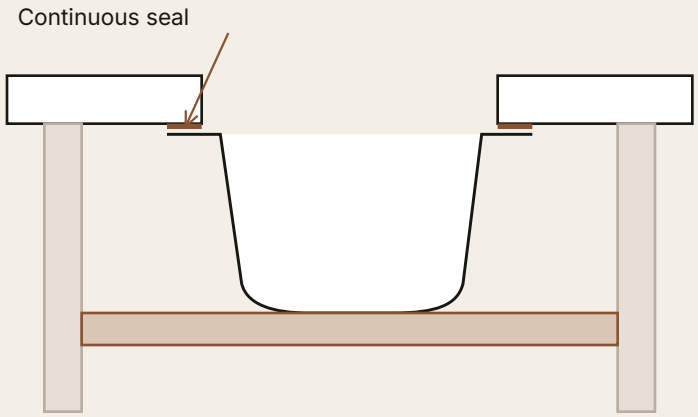
Joints enlarged for clarity.

- Verify stable, flat, level, properly shimmed cabinets. Maintain level within 1/16 inch across the cabinet run; confirm the measured run and support detail before installation. Correct rocking or uneven bearing; do not bend the slab to fit.
- Install the required supports, then dry-fit pieces individually. Do not force pieces into openings.
- Allow at least 1/8 inch at adjacent walls and fill with 100% silicone, not grout or rigid material.
- Apply 100% silicone around cabinet perimeters and cross supports, with beads approximately every 8-12 inches. Do not use rigid seam adhesive to fix the slab to cabinets.
- Keep seams uniform and no wider than 1/16 inch. Align faces flush; use straight, true edges and compatible adhesive preparation. Complete curing before use.

10 / SUPPORT THE FIXTURE INDEPENDENTLY

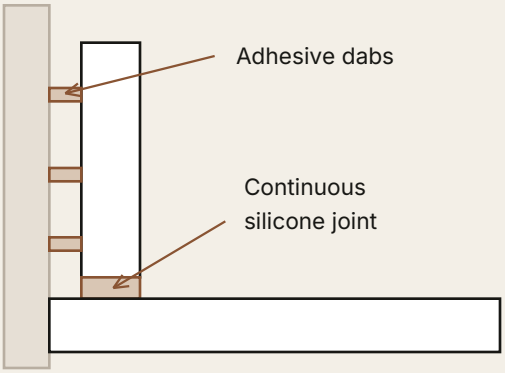
Sinks & backsplashes

01 UNDERMOUNT SINK / SECTION



Rail / cradle secured to cabinet sides

02 BACKSPLASH / SECTION



Backsplash sits above countertop

Full-height panels need their own support detail.

- Support the sink and its contents independently with a suitable cradle, rails or sink setter secured to the cabinet structure. Follow the sink manufacturer's instructions and seal continuously around the opening with a compatible sealant.
- For backsplashes, dry-fit matching pieces. Use a continuous 1/8-inch bottom bead of 100% silicone and rear dabs every 4-6 inches. Confirm suitability for the actual wall, panel dimensions and weight.
- Do not hard-seam the backsplash to the countertop. Full-height or unusually large panels require a separate wall-support and attachment detail.

11 / COMPLETE THE PROJECT RECORD

Final inspection & handover

CHECK	RECORD
Support	Cabinet bearing, sink/cutout supports, bracket anchorage and flexible attachment
Seams / edges	Alignment, finish, pattern, adhesive cleanup and completed cure
Appliances	Clearances, ventilation, heat separation, backguards and water seals
Documentation	Slab identity, approved drawings, installation date, photos and installer details

Clean and protect

Remove installation residue only by an approved compatible method. For routine care, use warm water, mild dish soap and a soft cloth, then rinse and dry. Protect the completed installation from remaining trades.

Share resources with the new owner

- Provide the Care & Maintenance Guide, Residential Warranty Overview and complete Limited Lifetime Residential Warranty.
- Explain trivets, cutting boards, edge protection and routine cleaning.
- Distinguish manufacturing-defect material coverage from fabrication/installation workmanship. Keep the full warranty terms available.

Technical support: support@authterra.com

Warranty claims: warranty@authterra.com