Bimini detailed reference

Beta preview for prospective invited testers. Invitations and release date are to be confirmed; this guide is not an installation invitation.

Use this manual when a setting, warning or production step needs explanation. For the first design, follow the separate **Quick Start**. The GUI supplies the current labels, enabled controls and job-specific messages.



Actual fitted-model overview, 1 November. The clothed mannequin is a 66 in client reference, illustrating scale and standing clearance. Approved dimension orientation retained; see the separate side-view explanation. Example setup, not fabrication approval.

1	**Set up**	Job, units and design method
2	**Design**	Frame, fabric and optional extras
3	**Review**	Update the model and inspect it
4	**Produce**	Check production, save and export

The guides use real application captures. Some show earlier previews: labels, units and example values can differ from your build. Screenshot dimensions are examples, not recommended boat or workshop settings.

> USE THE CURRENT RESULT: a successful preview does not approve fabrication. Check the actual boat, fittings, tooling, material and current production output before making anything.

Find an explanation

Choose the subject you need, or use the PDF bookmarks. The footer links back to the separate Quick Start when both files are kept in the same folder.

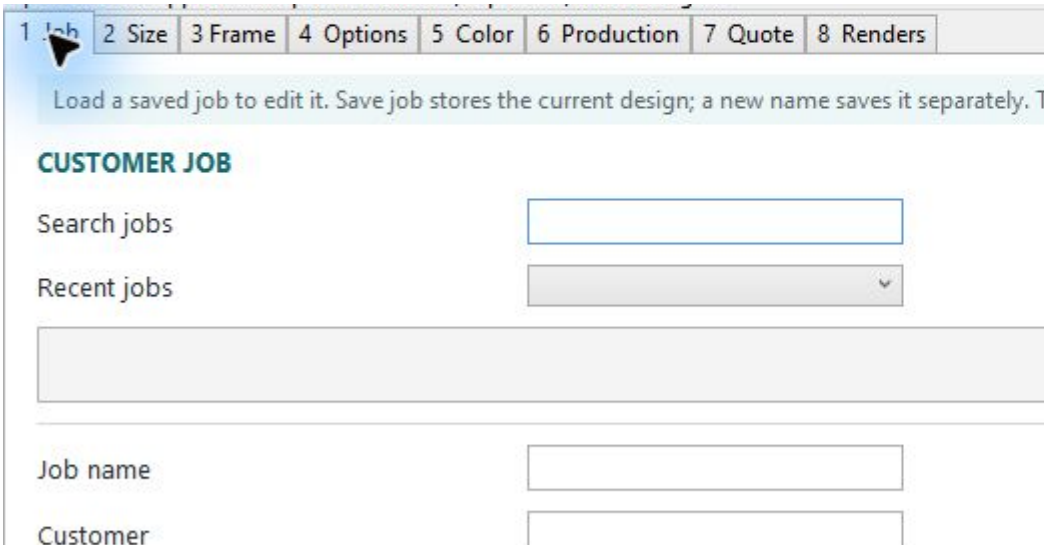
Jump to a task

2. Find an explanation
3. Jobs, settings and Rhino geometry
4. Units and the dimensions that matter
5. Read the model dimensions
6. Enter measurements or fit a boat model
7. Complete the five placement stages
8. Mesh picks, curve snaps and optional references
9. Linked points, pending changes and repair
10. Frame arrangement, tube and clamps
11. Dog legs and crank controls
12. Aft extension: frame and fabric
13. Windows on each main roof panel
14. Struts, straps and shade panels
15. Fabric identity, colour and stock
16. Actual unroll, fit and cutting boundaries
17. Seams, pockets and over-width panels
18. Nesting, orientation and cutting layers
19. Group, move and ungroup nested pieces
20. Bar patterns, cut marks and bend information
21. Quotes, rates and fittings
22. Export PDFs, patterns and presentation views
23. Save workshop defaults and presets
24. Licence, trial dates and another PC
25. Download, install and update safely
26. Receipts, interrupted setup and reinstall
27. Troubleshooting: read the result first
28. Check before cutting or bending

Jobs, settings and Rhino geometry

Two separate saves

Save job stores the design settings. Saving the **Rhino document** preserves its geometry and embedded design information. Keep both; a screenshot or exported PDF is not an editable job backup.



Job controls, 16 October preview. Save settings and Rhino geometry separately.

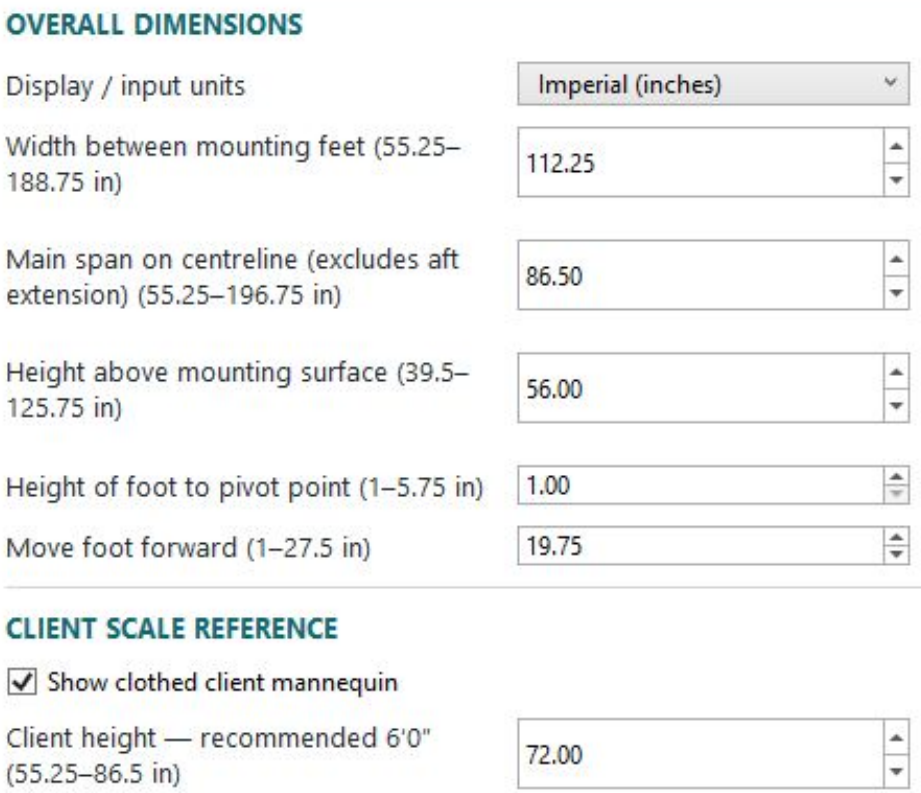
Load a saved job before editing it. To make a separate design, load the source job, choose a new name and use **Duplicate as new**. Do not overwrite a customer job merely to make an example.

Reopen and review

After reopening, confirm the job name, settings and placement references. Run **Update 3D model**, inspect it, then create production when required. Reopened quantities can be provisional until production is current.

> KEEP ORIGINALS: retain the boat model, linked references and an independent verified backup. Manually edited generated objects are not automatically checked against the settings.

Units and the dimensions that matter



Actual imperial size form, 1 November. Metric-to-imperial conversion rounds inputs to the nearest quarter inch; these are example values.

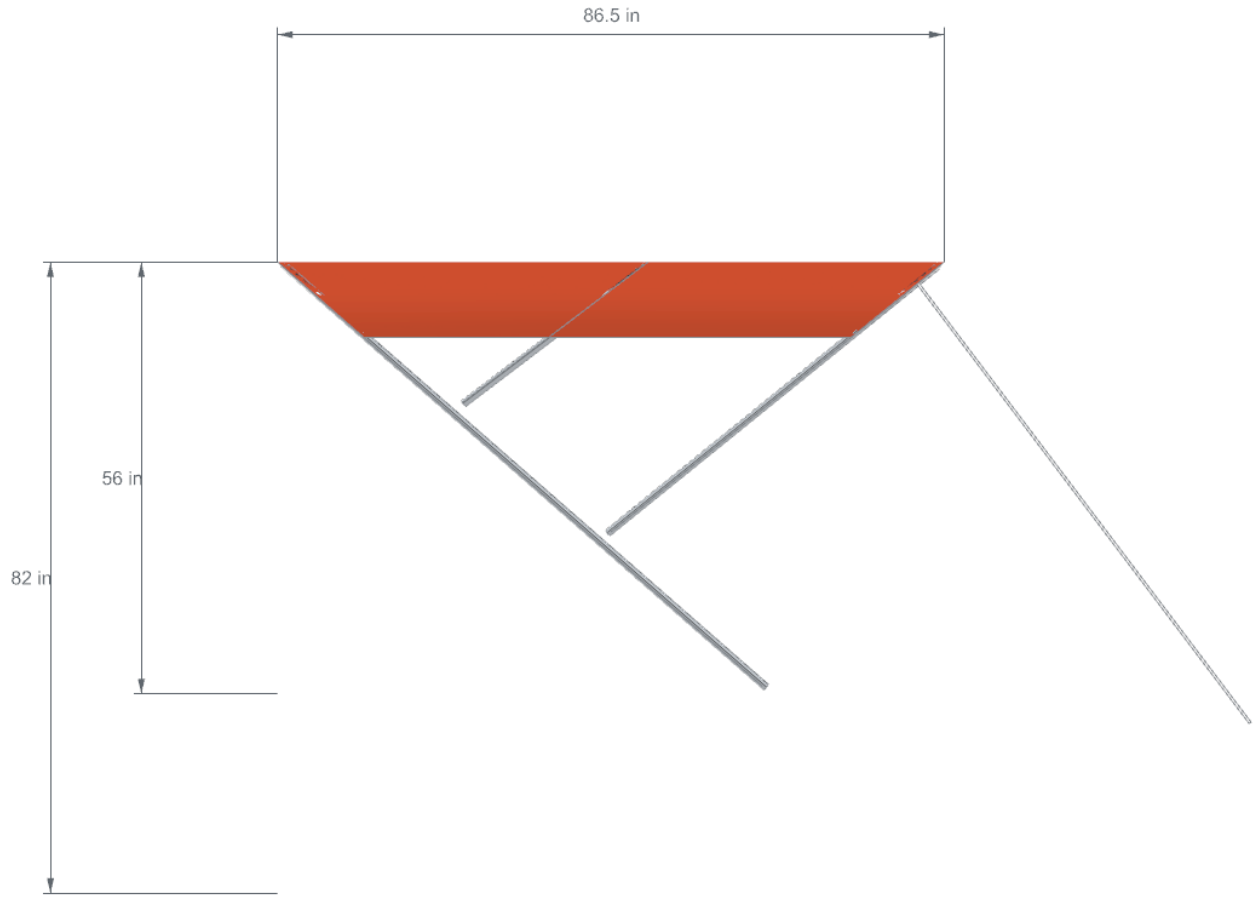
Mounting width is across the boat between the mounting feet. **Main span** runs fore and aft between the main bar references and excludes the aft extension. The height controls describe separate mounting and standing relationships; read their full labels.

Set metric or imperial before entering measurements. Imperial measurement boxes show two decimal places and use nearest ¼ inch. Switching from metric rounds the pending measurements to that increment; review them before Update 3D model. Fixed tube and fitting standards are not rounded. Existing manufacturing calculations retain their normal precision.

The **standing-height reference** positions the mannequin and informs clearance. It does not choose the mounting plane or move the feet onto the cockpit floor.

> MEASURE THE BOAT: use the intended attachment positions and standing surface. The model's bounding box and a convenient mesh vertex are not substitutes for those references.

Read the model dimensions



Actual side export, 1 November. Main span 86.50 in; heights 56 in and 82 in. Foot width is viewed from the front or aft. Example values only.

Main span sits above the canvas on the vertical centre plane, between the aft and forward main-frame reference points. It excludes the aft extension.

Both heights reference the aft main-frame centre on that same middle plane. Their witness lines extend aft, so both measurements can be read from a side view. The two values use different vertical datums; they are not duplicate width measurements.

Width between mounting feet stays at the foot base, across the boat. Read it from the front or aft view; it is omitted from side presentation exports.

Presentation labels round to the nearest quarter inch. They explain the model and do not replace the precise production output or workshop checks.

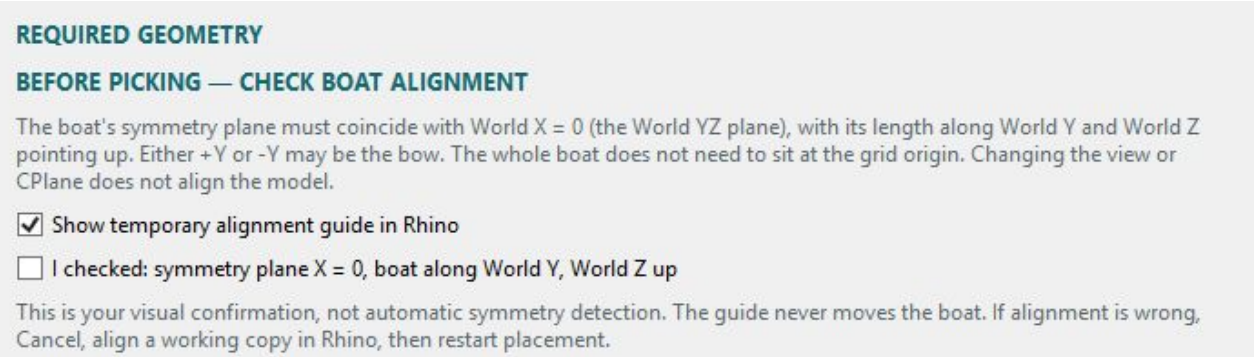
Enter measurements or fit a boat model

Enter measurements

Choose **Enter measurements** and enter the labelled dimensions in Size. Choose the frame arrangement, tube and clamps in Frame. Then select options, update the model and inspect its result.

Fit to 3D boat model

Choose **Fit to 3D boat model**, then use the placement assistant. Selecting the method alone does not place or generate a frame.

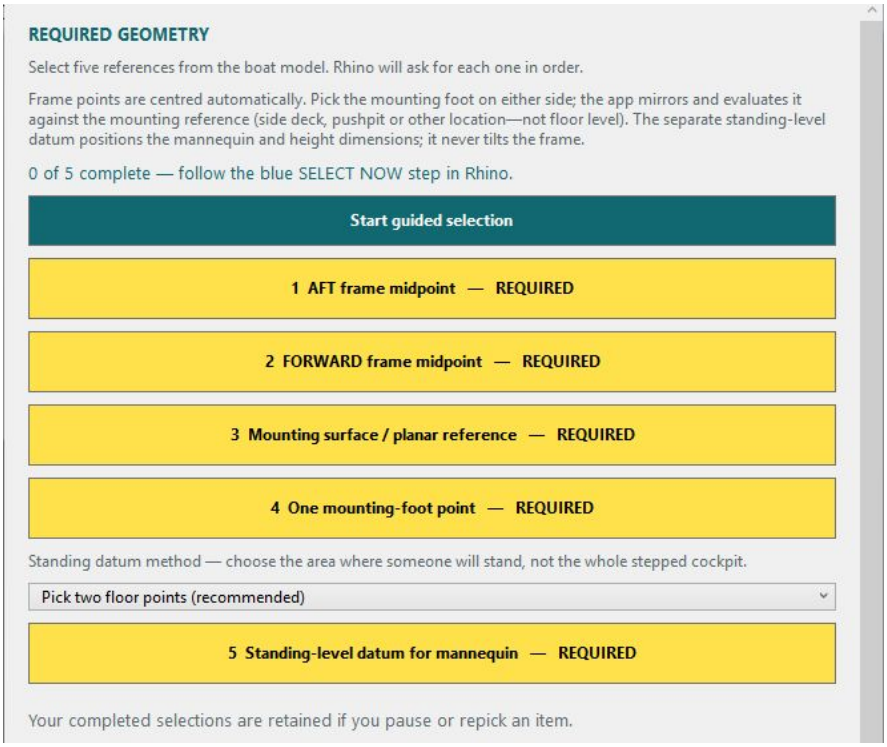


Orientation preparation, 17 October preview. A view rotation is not model alignment.

Work with **World Z up**, the boat's symmetry plane at **World X = 0**, and its length along World Y. The guide can help prepare an appropriately oriented working copy; inspect the boat rather than assuming a view rotation has changed its coordinates.

> PRESERVE THE SOURCE: keep an unmodified boat model. Orientation and placement changes belong in a working copy. Do not force an unrelated surface through validation.

Complete the five placement stages



Placement assistant, 17 October preview. Follow the current prompts and named stages.

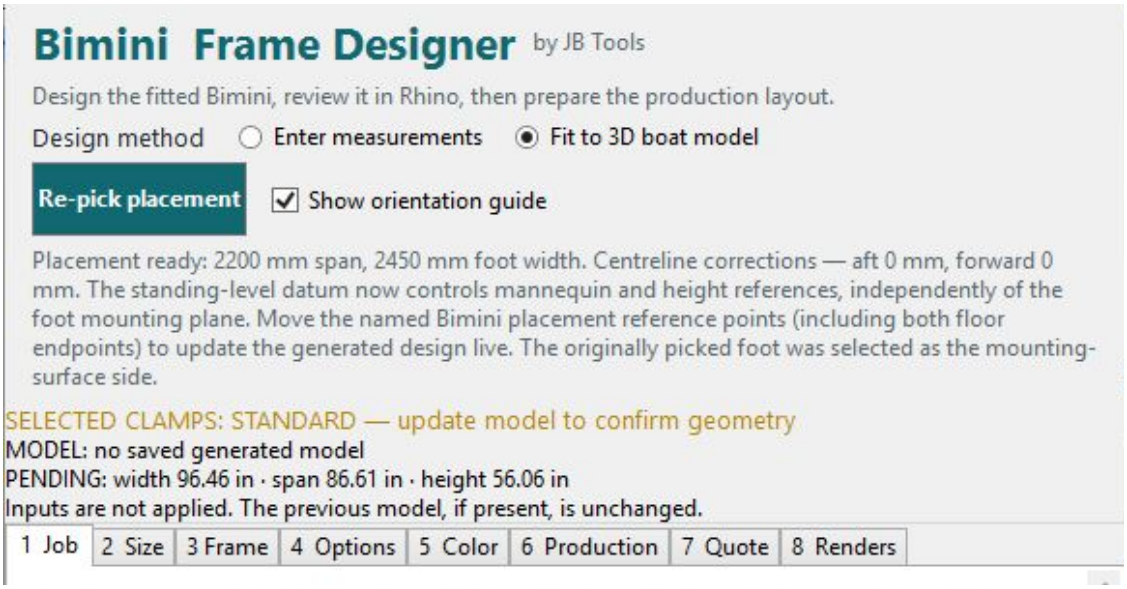
1. **Aft main-frame midpoint:** the rear main bar reference, not the end of an aft extension.
2. **Forward main-frame midpoint:** the front main bar reference.
3. **Mounting reference:** the real planar attachment orientation; a mesh triangle is not a selectable planar surface face.
4. **Mounting foot:** one intended foot, forward of the guide. The opposite side is mirrored.
5. **Standing level:** use the offered floor-reference method where the person stands. It is independent of the mounting reference.

Choose **Validate and use placement**. If a reference is wrong, re-pick it. Read the message rather than substituting another object merely to obtain a valid result.

Mesh picks, curve snaps and optional references

On mesh can pick inside a triangle; you do not need an existing vertex. Enabled native Rhino snaps can take priority on curves, lines and points. Inspect the preview marker and intended hit before accepting the pick.

Use **ChangeMeshes** to limit mesh targets when unrelated geometry intercepts a pick. **AutoMeshes** restores automatic targets. **FreePlacement** permits deliberate free or coordinate placement; it does not constrain the point to the boat.



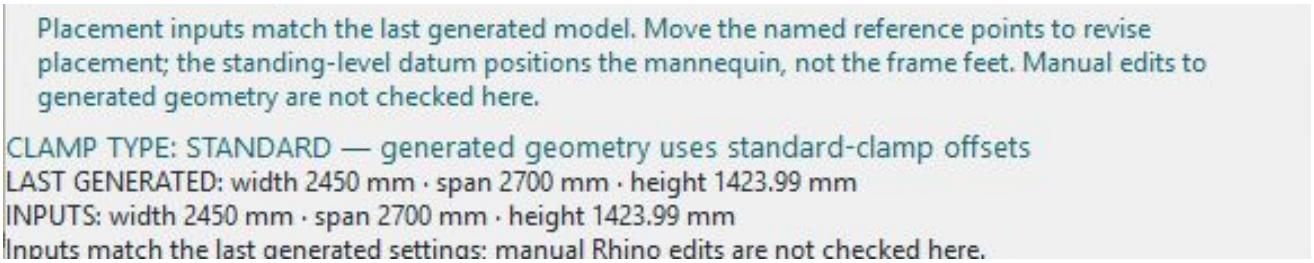
Placement example, 17 October preview. Inspect references before generation.

Struts, straps and shade features are optional. Enable only what the job needs, then follow the prompts for any required attachment references. A floor reference for the mannequin is not an accessory attachment point.

> CHECK DEPTH: a remote view or touch pick can land below the intended surface. Validate the reference, then inspect the generated geometry from more than one view.

Linked points, pending changes and repair

Move the named reference points to revise fitted placement, then choose **Update 3D model**. Moving a point alone does not make the model or cutting patterns current.



Actual linked-point update, 25 October. Compare generated settings with the requested inputs.

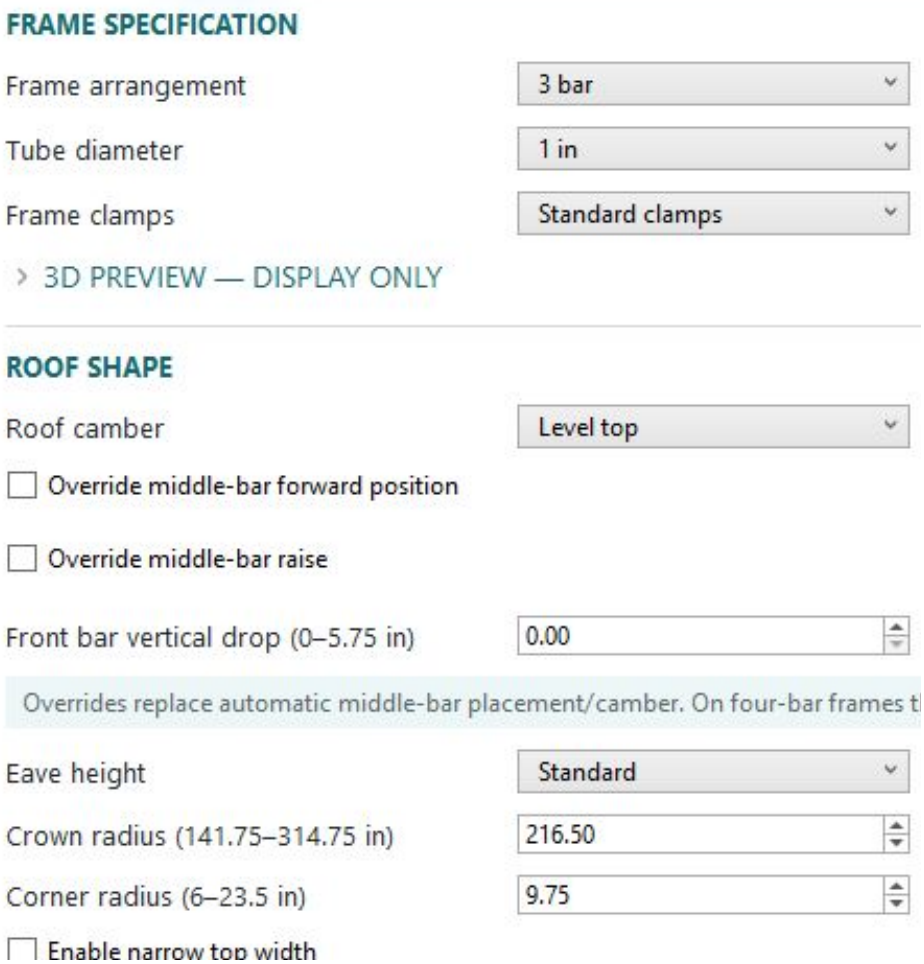
Compare **LAST GENERATED** with **PENDING** or the input summary. If a request fails, the previous model can remain visible. **Load shown** brings the form back to the last generated settings; use it only when that is what you intend.

Three-bar span above 2,800 mm

Review the offered maximum-span or four-bar choice. The maximum-span preview keeps the aft reference fixed and adjusts only the forward reference to the allowed span. Accept the preview before application. Four bars preserve the option of a longer design within its own checks.

> REVIEW THE PROPOSAL: **Preview suggested fix** tests a bounded repair. It is not a universal best-fit calculation or permission to ignore workshop constraints.

Frame arrangement, tube and clamps



Current frame controls, 1 November. Dimensional inputs use two decimal places; fixed tube and fitting standards retain their specified sizes.

Choose three or four bars, the tube diameter, the correct clamps and the required shape. Check crown and eave controls against the intended frame rather than copying example values.

Corner radius must match the real bending former. A visually smooth model does not prove that your tooling can make it. Check bend-table instructions and workshop dimensions before manufacture.

Standard and extended clamp choices affect bar-plane geometry. Their offsets depend on tube size; select the actual fittings rather than compensating for a wrong clamp with an unrelated dimension.

> CHECK STRAIGHT TUBE: clamps need usable straight tube at the joint. Resolve a clamp/dog-leg warning before treating the frame as ready.

Dog legs and crank controls

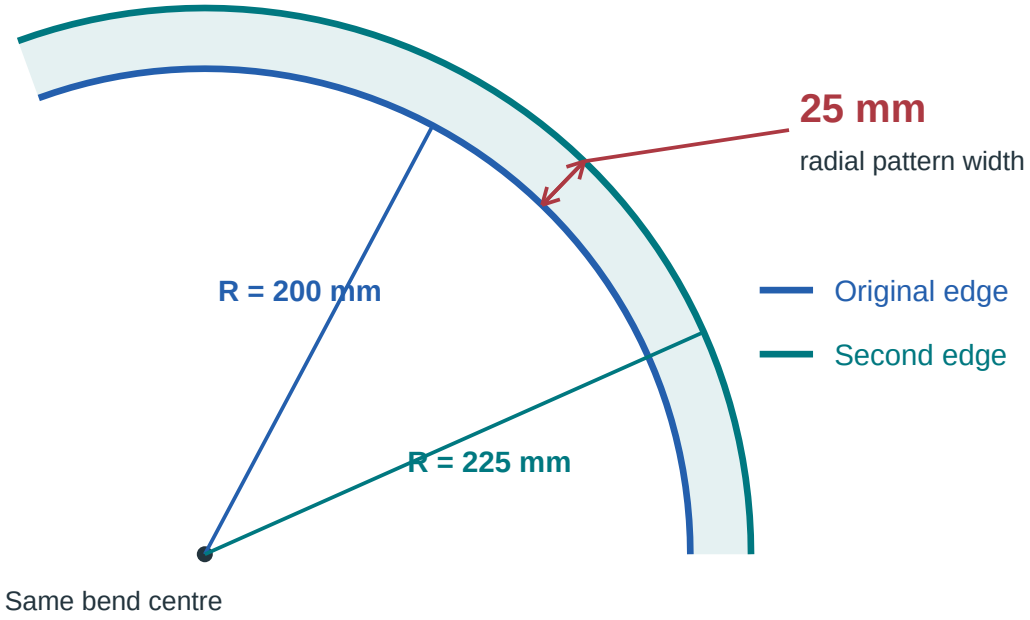


Current dog-leg inputs, 1 November. Quarter-inch example values; update and review before use.

Enable the mirrored dog-leg frame only when needed. **Additional foot shift**, **dog-leg height** and **inward movement** are different adjustments. Change one intentionally, update, then check both sides and the straight tube above the crank.

LOWER DOG-LEG CRANK EXAMPLE

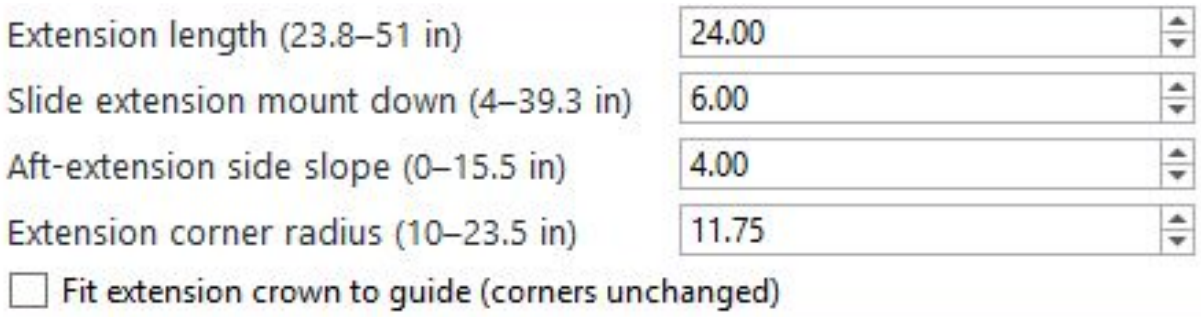
The second edge is farther from the bend centre.



The diagram is the retained workshop explanation of pattern width around a bend; it is schematic and is not a cutting template. Use the actual bar pattern and your tooling, not a dimension measured from this page.

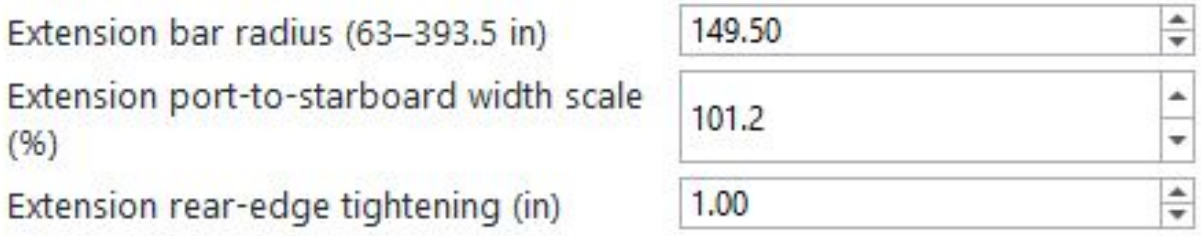
> AFTER A REPAIR: recheck feet, clamp positions and the full frame. A passing suggestion does not approve bending or fabrication.

Aft extension: frame and fabric



Current aft-extension frame inputs, 1 November. Example values; the extension is separate from the main span.

Set extension length, mounting drop, side slope and corner radius for the intended frame. **Fit extension crown to guide** requests automatic crown fitting; the manual extension-bar radius applies when that option is off.

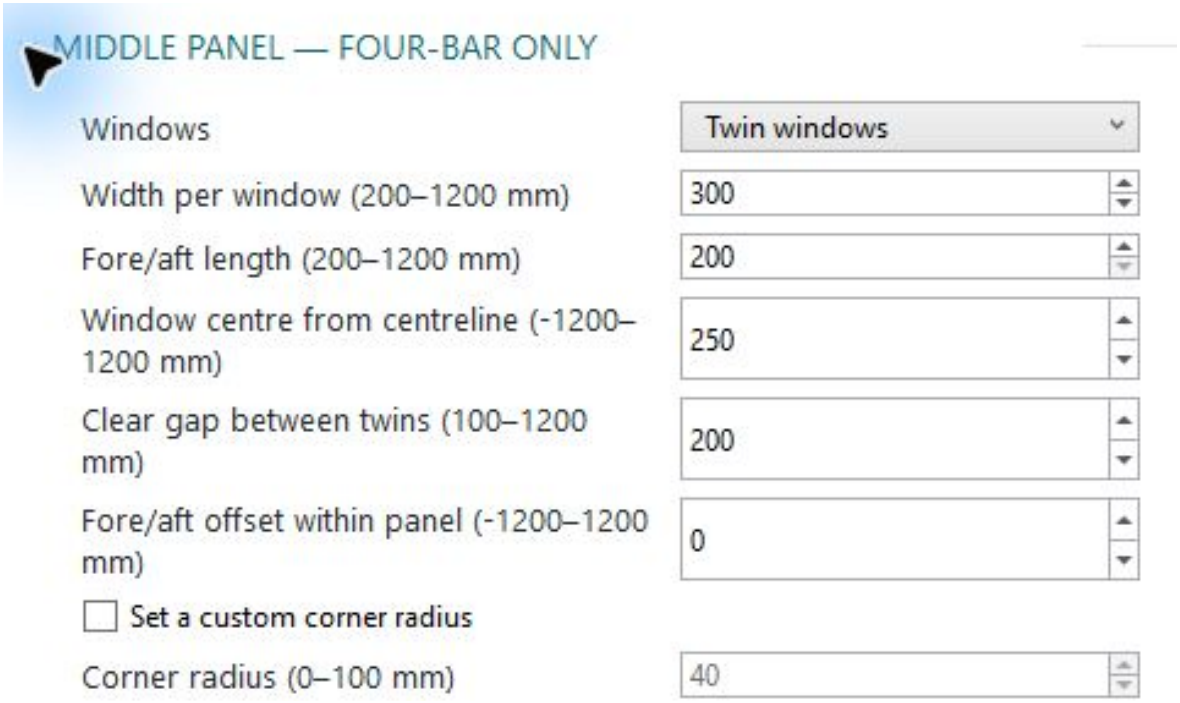


Current independent aft-canvas controls, 1 November. The percentage scale is not a length; tightening is shown in inches.

Canvas width scaling and rear-edge tightening are fabric-fit controls, separate from extension frame dimensions. Inspect the actual unroll before changing fit values. A shorter-wrap proposal changes coverage and requires review.

The extension is separate from the rear main bar. Review its own bar pattern and end-fitting allowance; do not include it in the main-span measurement.

Windows on each main roof panel



Actual four-bar middle-panel controls, 29 October. Example values only.

Choose **None, Single or Twin** independently for each main panel. Three-bar frames have aft and forward panels. Four-bar frames also have a middle panel. The aft extension has no window controls.

Width per window runs sideways; fore/aft length runs along the roof. A single window uses a signed centreline offset. Twins sit equally either side of the centreline; their clear gap controls the separation.

Link sideways widths and centreline offsets when windows should match across panels. Window count, fore/aft length and fore/aft position still belong to the individual panel. Check opening clearance after a successful update.

Struts, straps and shade panels

Enable only the supports and shade panels required by the job. Follow the app's requests for attachment points; do not invent a floor or hull point to dismiss a prompt.

Inspect straps and struts in three dimensions, including their boat attachments. Check that nothing passes through the hull or obstructs the intended space. Correct the references and regenerate rather than hiding a bad attachment in a presentation image.

Review the neck/rear shade and side-shade shapes against the required coverage. Their developed boundaries, access routes and nested copies serve different purposes.

Where intersecting backstays produce alternative access routes, each backstay retains its own routes. Remove unwanted routes only from the final cutting copies after review; regeneration restores generated routes.

> PATTERN CHECK: check coverage, access, openings and every separate piece. A clean shaded view does not prove that a developed panel or nest is complete.

Fabric identity, colour and stock



Fabric identity controls, 16 October preview. Confirm the real product and sample.

Choose the manufacturer, market, range and product identity. Screen colour is a presentation aid; confirm a physical sample and the supplier's actual product before ordering.

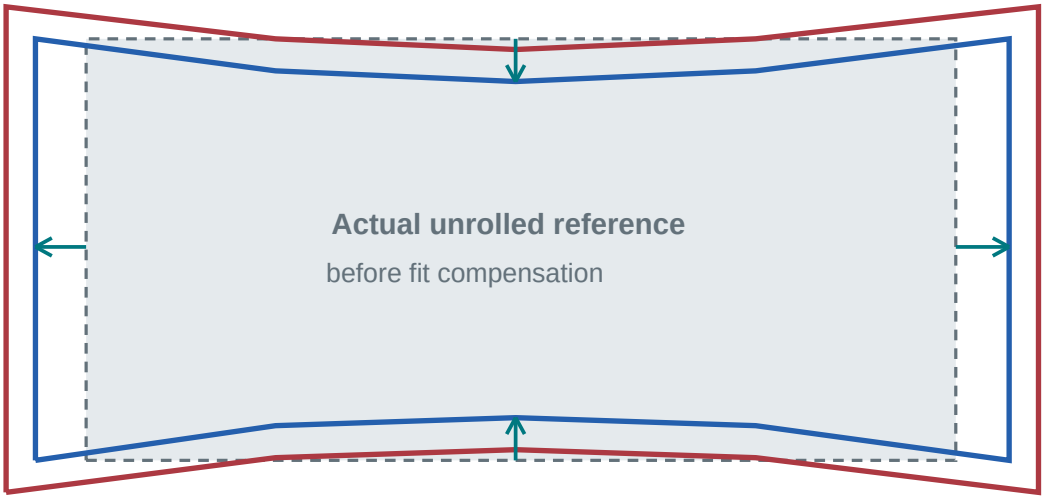
Enter the **full available roll width** in Production. A nominal **60-inch** roll is **1,524 mm**, before margins. Measure the supplied roll; do not assume every fabric is exactly the nominal width.

The splitter reserves **10 mm at each edge**. Do not subtract these margins before entering roll width or you will subtract them twice.

> MATERIAL DIRECTION: review grain, finish, pattern, face and supplier restrictions before accepting a nesting orientation.

Actual unroll, fit and cutting boundaries

THREE DIFFERENT THINGS TO CHECK



Grey: actual unroll Blue: adjusted stitch boundary Red: cut boundary

Schematic and exaggerated; not an app-generated panel or an offset oracle.

The **actual unroll** develops the model surface. The **fit-adjusted sewing boundary** compensates the intended fabric fit. The **cutting boundary** also includes the applicable construction allowances. Compare the three for their different purposes.



Independent canvas-fit controls, 17 October preview.

Sideways width, fore/aft panel length and rear-edge tightening are independent fit controls. They are not spare seam cloth and should not be used to conceal a failed development.

> BEFORE SAVING DEFAULTS: first review a real production result with your material and tooling. A changed fit value does not automatically make an old pattern current.

Seams, pockets and over-width panels

Set seam and pocket widths for the intended construction in Production. Inspect the actual panel joins and bar pockets rather than assuming every visible line is a cutting line.



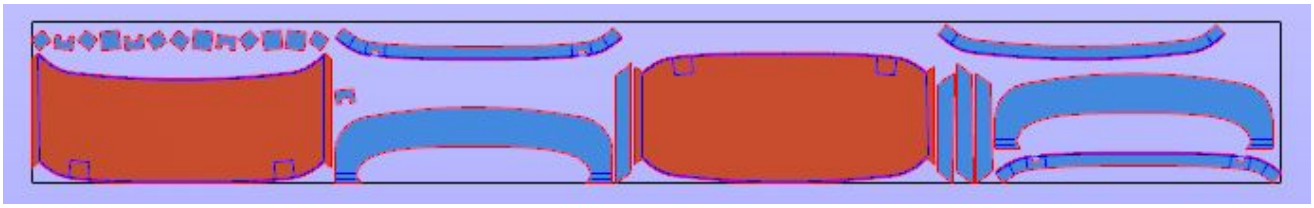
Current seam and full roll-width inputs, 1 November. Two-decimal quarter-inch examples, not recommended workshop settings.

An over-width roof panel must follow the generated roll-width split and joining construction. Check the resulting pieces and side-to-side joining seam. Do not rotate a main panel arbitrarily to avoid a width refusal.

Side-edge reinforcing pieces and side shades are turned **90 degrees for nesting only**, so their long direction can run along the roll. Their development masters and 3D shapes remain in their construction orientation.

> A REFUSAL NEEDS ACTION: an absent or failed nest is not a complete production layout. Resolve the message and check that all pieces fit the usable stock.

Nesting, orientation and cutting layers



Actual nested example, 16 October. The stock boundary is not a cutting piece.

Developed masters show construction. Nested copies arrange those pieces along the stock. Identify the long roll boundary and work on the correct copy.

The nest permits **0 or 180 degrees from each prepared part**, with no mirroring and no placing pieces inside enclosed holes. The approved nesting-only quarter-turn for side-edge reinforcement and side shades is applied before that rotation rule.

Check spacing, grain, face, completeness and required split pieces. **KNIFE** identifies cutting geometry; **PEN** identifies marks. Verify the actual layer names and toolpath export before cutting.

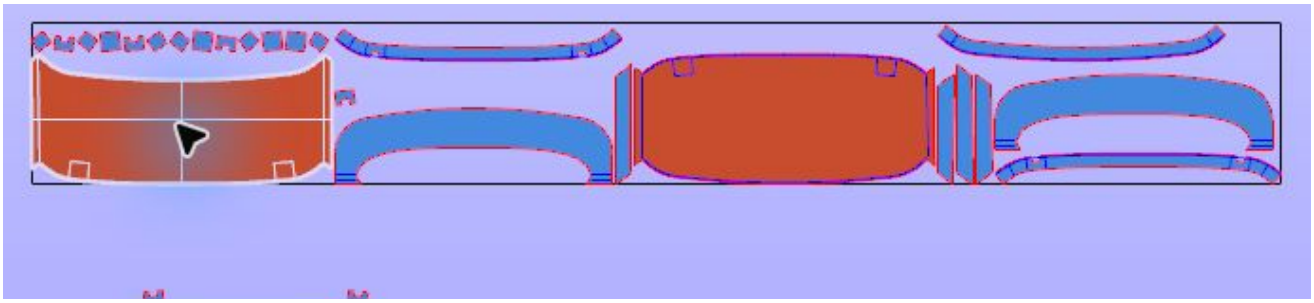
> AFTER DESIGN CHANGES: regenerate and check production. Previous quantities and patterns may be stale even when they remain visible elsewhere in the document.

Group, move and ungroup nested pieces



Optional nested-piece grouping, 16 October.

Enable **Group nested pieces for manual adjustment** before creating production when you want each generated cutting piece kept together. Leaving it enabled groups the next generated nest again.

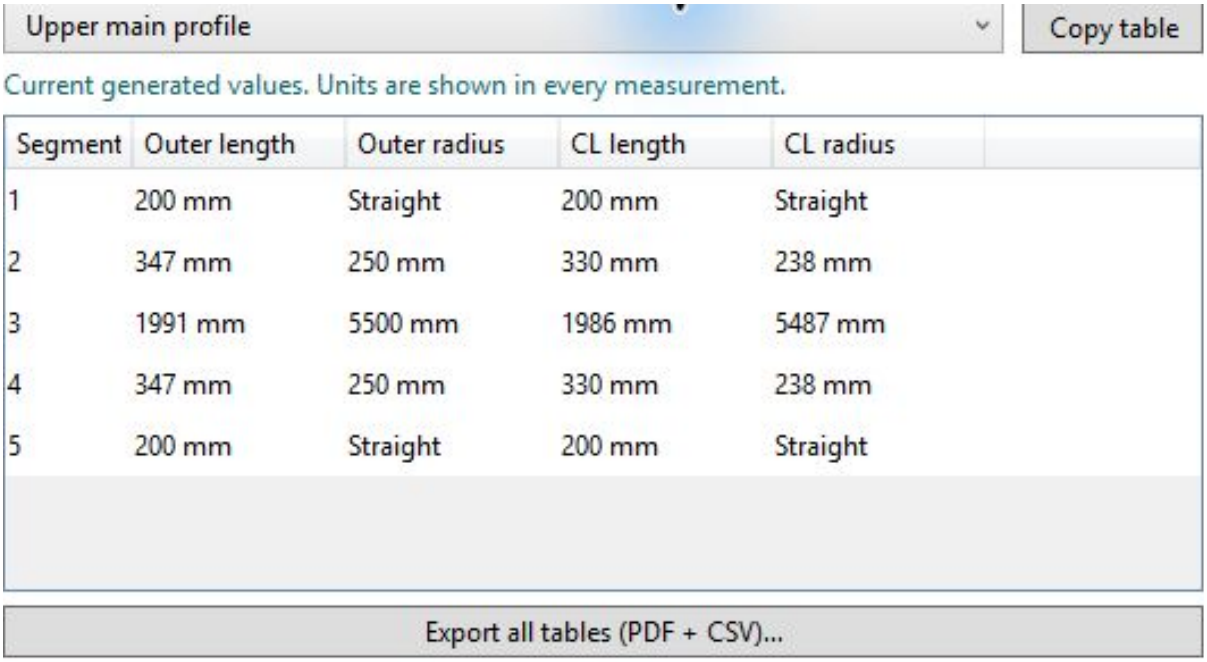


Actual selected nested piece, 16 October. Keep its cutting and marking geometry together.

Select a cutting piece inside the roll, not the stock boundary or a development master. Move the piece and inspect its marking and cutting curves together. Check spacing and stock clearance afterwards.

Use **Ungroup nested pieces** when independent edits are intended. Regeneration recreates the output and does not preserve arbitrary edits to generated pieces. Keep an independent final cutting copy if your workflow requires manual alterations.

Bar patterns, cut marks and bend information



Actual installed bend-table controls, 2 November. Export PDF and CSV together after a successful model update. Example values only.

Review the developed bar profiles with the bend table. Keep main-frame and extension-bar measurements separate, and identify the tube size and fitting selection used to generate them.

Enter the job name on **Job**, then complete **Update 3D model**. On **Production**, choose **Export all tables (PDF + CSV)** and select a destination folder. Open both files in the new export subfolder. The PDF shows the job reference and model revision on every page; the CSV includes the reference with each segment. Long references are shortened explicitly in the PDF, with the full reference in the CSV. An empty name is marked **Not specified**. After changing the design, update the model before exporting again. These tables do not replace the fabrication checks above.

Cut marks allow for the end fittings that add finished length. Clamp-position cross marks are a different reference. Do not treat a clamp mark as a tube end or add an end-cap allowance twice.

For a rear main bar with dog legs, check the combined top-hoop and two dog-leg sections against the intended 3D main bar, with the applicable end-fitting shortening allowance. Review the extension profile against its own 3D bar and allowance.

> BENDING CHECK: confirm former radius, bend sequence, cut length, clamp locations and fittings in the workshop. The roof's fabric-fit compensation is not a bar-cutting adjustment.

Quotes, rates and fittings

Complete required rates and fittings, choose the currency, then **Recalculate quote**. A provisional or incomplete quote needs review before it is sent.

Fabric and tube prices are **per metre**, including when dimensions are displayed in imperial units. Currency selection does not convert prices: enter the correct local rates.

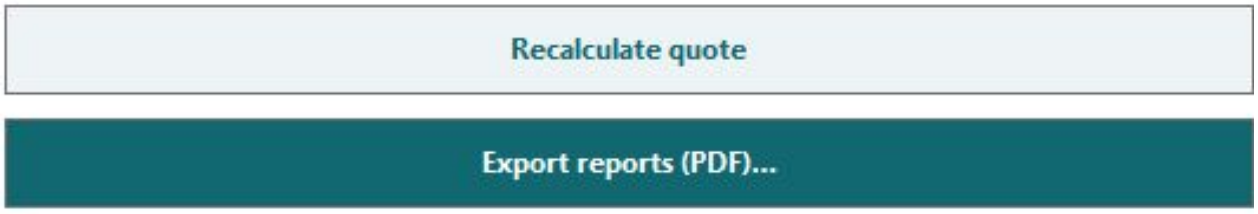
Check labour, survey/installation visits, materials markup, tax multiplier and option charges. Blank required rates need completion; an intentional zero has a different meaning.

Fitting quantities are suggestions to review and amend. Check every joint, end-cap type, mounting foot and boat-side strut attachment. The app cannot identify unknown hardware on the boat.

> CURRENT QUANTITIES: generate successful production for the current settings before using full-Bimini fabric or zip quantities. Recalculate after changing rates or fittings.

Export PDFs, patterns and presentation views

Documents



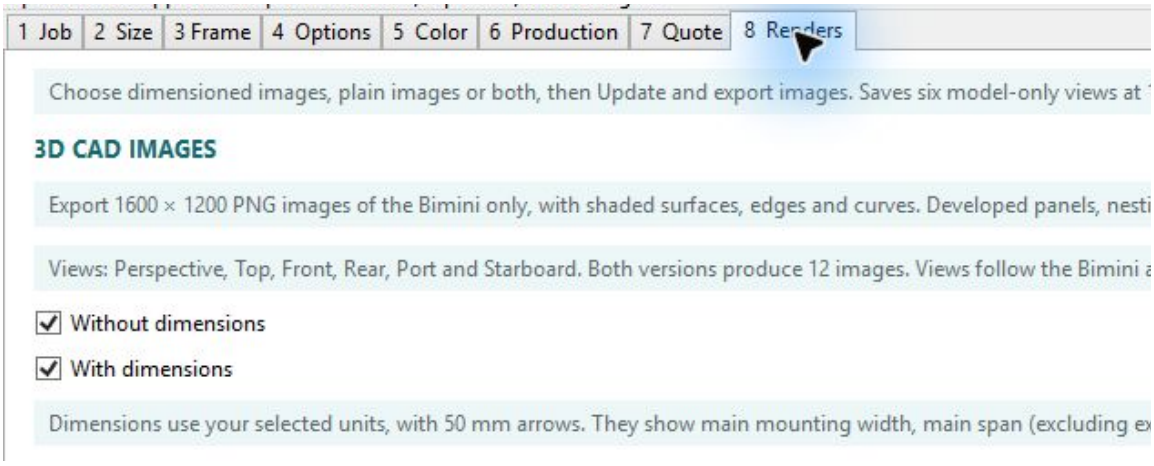
Actual installed report controls, 2 November. Choose reports in the next dialog; keep internal costing private.

On **Quote**, use **Export reports (PDF)** to choose the customer quote, technical design summary and/or internal costing. Review the selection before export. **Internal costing is not for customers.**

PDFs capture a revision; they do not update when the design changes later. Check the revision, units, quantities and provisional labels before sharing.

Fabrication output

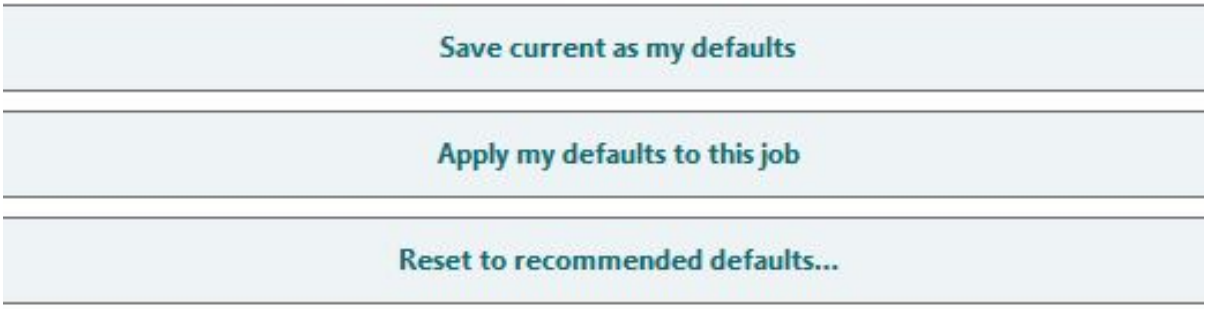
Create and inspect the production layout in Rhino. To transfer fabric marking/cutting or frame-pattern geometry, select the required generated objects and use Rhino's export commands with the receiving workshop's required file format. The bend-table PDF/CSV button exports measurements, not cutting geometry. Check scale, units, PEN/KNIFE layers, labels and completeness in the exported file or receiving software before manufacture.



Presentation choices, 16 October preview. Images are not scaled fabrication output.

Presentation views can be plain or dimensioned. They are not scaled cutting files. Review framing and attachments before sharing an image.

Save workshop defaults and presets



Startup-default controls, 17 October preview.

Set a checked workshop setup first: units, frame, tube, clamps, compatible radii and fit allowances. The startup-default controls can save the current setup, apply saved defaults or reset to the recommended baseline. Applying settings does not generate a model.



Named workshop presets, 17 October preview.

Named presets let you keep several reusable setups. Select a saved preset before applying it. Saving a preset is separate from saving a customer job and the Rhino document.

Valid rate edits and some production preferences are remembered automatically. Validate the complete combination after applying any saved setup, especially when tube, clamps or tooling change.

Licence, trial dates and another PC

The evaluation is invitation-only. The approved trial lasts **21 days from first successful activation**, with no payment card and no automatic billing. Continued access requires a paid licence under the published offer.

Check both the **trial end** and the **refresh/verification deadline** shown by the app. A trial with days remaining can still need an online refresh. Offline use is bounded by the signed verification period; it is not unlimited.

Passive reminders become more prominent near expiry. They do not change the trial or verification deadline. When access is unavailable, retain the exact message and use **Activation / licence** or support.

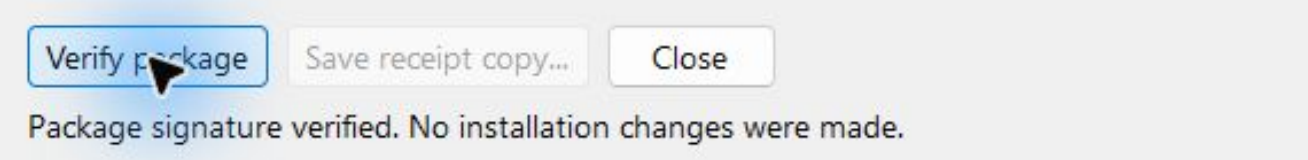
The licence is for **one user and one active PC**. Use the supported release/transfer process for another computer. Do not copy a machine-bound cache, change the clock, delete history or reinstall to obtain a new trial.

> YOUR WORK REMAINS: expiry does not delete existing Rhino geometry or saved jobs. New plug-in generation and exports still require the applicable verified entitlement.

Download, install and update safely

Download login uses your approved **email and download password**. This is separate from your licence in Rhino and from cPanel. Wrong email and wrong password use a generic error; there is no public account registration.

Use **Forgot your password?** to request a password-setting link. For an active invited download account, the website emails a one-use link. Check junk mail and use the newest link; it expires after 30 minutes or when download access expires, whichever comes first. A new link invalidates an earlier link. The same acknowledgement is shown for other addresses, so it does not confirm that an account exists or that mail arrived. Contact support if the link does not arrive. Resetting download access does not restart a software trial or replace the invitation used inside Rhino.



Actual setup verification result, 1 November. Verification does not install or activate.

Compare setup with the **SHA-256 supplied separately by support**, then use **Verify package**. Save your documents and close Rhino normally before an authorised install or update. Keep Windows protection enabled. An unknown-publisher notice is different from a malware detection or a managed-PC block; ask support about unresolved warnings rather than bypassing them.

Updates are manual for this beta. Use the version and support-supplied evidence for your installed package. Never copy a replacement plug-in over a running Rhino session, mix releases, or lower the clock to reuse expired setup.

Receipts, interrupted setup and reinstall

Keep the setup receipt and recovery copies, including when an operation fails. **PREPARED_NOT_COMPLETED** records the planned operation; it is not proof that installation or removal succeeded.

If setup reports an interruption or an uncertain result, preserve the exact message and contact support before another attempt. Use only the receipt for the actual operation. Do not delete recovery files or substitute a receipt from another PC.

Removal and recovery retain stored jobs, defaults, rates, presets and licence history. Reinstall requires the supported route from a completed removal. Reinstallation is not a new trial or a machine transfer.

An invalid receipt produces a clear refusal without applying recovery. Keep the file for diagnosis. If setup has expired, request a current approved build; do not extend access or alter the PC clock.

> AFTER AN APPROVED CHANGE: check the installed version, licence, retained jobs and workshop settings. Use a disposable design to check model, production and exports before resuming customer work.

Troubleshooting: read the result first

Changed settings, unchanged model: compare LAST GENERATED and PENDING, then use Update 3D model. Retained geometry can be the previous result.

A pick lands below the boat: inspect the preview, target meshes and enabled snaps. Re-pick the intended reference and validate it.

Clamp or dog-leg warning: check the selected fittings and straight tube above the crank. Review a proposed repair before acceptance.

Missing nest or refused development: read the roll-width and construction message. A retained master is not proof that cutting output was completed.

Quote is provisional: complete rates and fittings, generate current production and recalculate. Review currency; no conversion is applied.

Download login fails: check the approved email/password, use **Forgot your password?** and allow the ten-minute rate window to pass if attempts are limited. Check junk mail or contact support if no link arrives. Do not repeatedly guess or change the clock.

Use **Help / support** or **support@johnblandcad.com**. Include version, steps and the exact message. Share screenshots or a model only when authorised. Never include passwords, activation credentials or private keys.

Check before cutting or bending

- Confirm the intended boat, mounting feet, standing level, main span and optional extension.

- Check tube size, fittings, tooling radius, straight clamp positions and bend information.
- Confirm that settings match the successfully generated model and production layout.
- Review the actual unroll, fit-adjusted sewing boundary and cutting allowance for their different purposes.
- Check roof joins, pockets, reinforcing pieces, windows, shade panels and independent access routes.
- Verify full roll width, usable stock, grain/face, spacing and the approved nesting-only quarter-turns.
- Check PEN versus KNIFE, scale, units, labels and all exported pieces in the receiving workflow.
- Retain the editable job, Rhino document and a verified copy before manufacture.

> WORKSHOP ACCEPTANCE: a neat model, successful calculation or readable export does not replace your check of material, fittings, tooling and the actual job.