

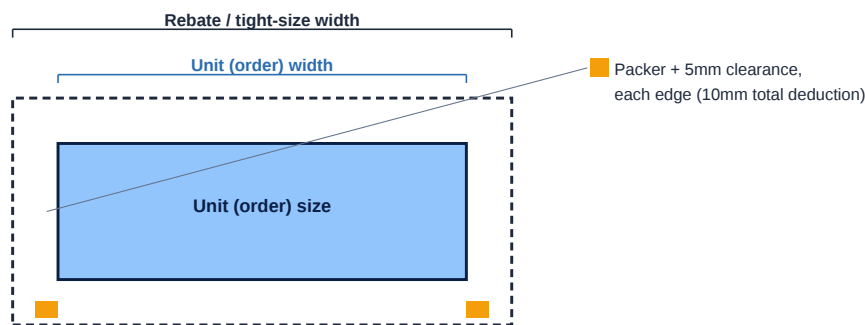
Measuring Glass Units — uPVC, Aluminium & Timber Frames

Frame-specific bead removal, measuring points and the deduction figure for ordering

This guide assumes the general opening-measurement method covered in our How to Measure guide (TG-006) — three-point measure, use the smallest figure, check for square. Here we go deeper on what changes by frame material: how to safely access the glass, exactly where to take the measurement, and the deduction figure that converts an opening size into an order size.

THE 10MM RULE

Order size = tight (rebate) opening size minus 10mm on both width and height — 5mm clearance per edge for packers and thermal movement. This is the trade-standard deduction across uPVC, aluminium and timber frames. Always order to this reduced size, never to the tight opening measurement.



Rebate (tight-size) opening vs unit (order) size — 5mm clearance per edge, 10mm total deduction on both width and height.

Shared Principles — Every Frame Type

- **Measure at three points:** width at top/middle/bottom, height at left/middle/right — always use the smallest figure.
- **Order as Width x Height**, in that order, in millimetres — never Height x Width.
- **Check existing unit thickness** with a vernier caliper at the glass edge, not by eye — confirms the rebate will take a 24mm or 28mm standard unit, or flags a non-standard depth.
- **Contact us to order:** use the standard contact details below — quote the frame material, the tight-size opening, and the unit thickness you've measured.

uPVC Frames

Most uPVC casements and sashes are internally beaded, though some commercial systems bead from the outside face — check which before you start. Beads are snap-in, held by friction clips along their length.

- **Bead removal:** use a glazing shovel or paddle tool, starting at the centre of the longest bead and working outward to the corners — never start at a corner, the clips are strongest there and the bead is more likely to crack.
- **Measure the aperture** once the old unit is out — this is the tight (rebate) size. Deduct 10mm total per the rule above for the order size.
- **Packers:** check for bridge packers (packers spanning the full rebate width, used on wide units) as well as the standard location packers — note their positions when you remove the old unit so the installer can match them.
- **Thickness check:** confirm 24mm or 28mm unit depth against the rebate before ordering — a deeper rebate with a shallower unit needs additional packers, not a different bead.

Aluminium Frames

Aluminium systems use either a beaded rebate (similar principle to uPVC) or a pressure-plate and wedge-gasket system, common on commercial curtain walling and shopfronts — identify which system before ordering, since the measuring point differs.

- **Beaded aluminium:** some systems use security-clipped beads that need a release tool or specific pressure to unclip — do not force a bead that won't lift, check for a security clip first.
- **Pressure-plate/gasket systems:** release the plate fixing screws, then remove the wedge gasket to free the unit — no bead to unclip.
- **Measure the rebate, not the sightline** — the visible glass line (sightline) sits inside the frame's decorative face and will always read smaller than the true rebate opening. Measuring to the sightline undersizes the order.
- **Thermal break:** note whether the frame has a thermal break (a non-metallic strip separating the inner and outer aluminium sections) — standard on modern systems, absent on older commercial stock, and worth flagging on the order if the unit is going into an older frame.
- **Typical unit depth:** 28mm is standard for aluminium residential systems; commercial curtain walling can vary — confirm against the rebate.

Timber Frames

Timber sashes are either bead-glazed (a timber bead pinned over the rebate) or putty-glazed (the glass bedded directly into a putty fillet, common on older and heritage sashes with no bead at all) — identify which before you start, since the two need different tools.

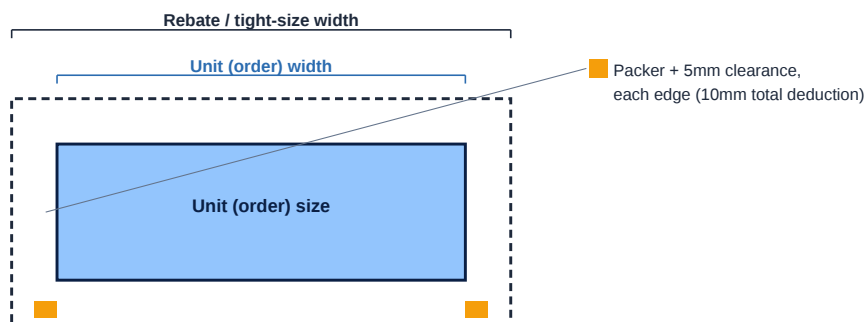
- **Bead-glazed:** beads are pinned, not clipped — ease them off gently with a chisel or flat pry bar, working along the grain. Timber beads are reusable if removed carefully; split beads need replacing before re-glazing.
- **Putty-glazed:** remove the putty fillet with a hacking knife or a heat gun to soften old, hardened putty — take care not to damage the rebate. Sashes re-glazed this way are usually converted to a bead system, or re-bedded in fresh putty.
- **Allow for paint and swelling:** timber rebates vary more than uPVC or aluminium — repeated repainting narrows the rebate over time, and timber swells seasonally. Measure at three points and take the smallest, as with any frame, but expect more variation between points on timber than on other materials.
- **Heritage and slim-fit sashes:** older sashes are commonly re-glazed with slim configurations, from 12mm up to around 20mm depending on the sash design (see our Heritage/Slim-Fit datasheet, DS-007, for the full range and typical U-values). Always confirm the sash can safely carry the extra weight of a sealed unit before upgrading from single glazing.

Measuring Without Removing the Bead

Can't or don't want to deglaze — an occupied room, a tenant who'd rather you didn't, or a quick site visit? You can still get a firm order size, not an estimate. With the bead still in place, the bead's outer face sits flush against the rebate upstand — so measuring the full opening frame to frame, across the beads, reads the same as measuring the rebate directly.

- **Measure the full width** frame to frame, across the beads, at three points — top, middle, bottom — not just the visible glass. Take the smallest.
- **Measure the full height** the same way — left, middle, right, frame to frame across the beads. Take the smallest.
- **Deduct 10mm total** — the same rule as above — and that is your order size.
- **Unusual bead or rebate profile?** Confirm with us, or remove one bead to check, before ordering.

Both methods land on the same order size — removing a bead and measuring the rebate directly, or measuring across the bead without removing it, are equally valid routes to the same figure.



The same tight-size vs order-size relationship applies whether the rebate is measured directly or across the bead — 5mm clearance per edge, 10mm total deduction.

Quick Reference by Frame Type

Frame Type	Bead / Seal System	Access Method	Key Check
uPVC (internal bead)	Snap-in clip bead	Glazing shovel/paddle, centre outward to corners	Bridge packers on wide units
uPVC (external bead)	Snap-in clip bead, outer face	Same tool, from the outside face	Confirm which face beads before starting
Aluminium (beaded)	Clip bead, sometimes security-clipped	Release tool for security clips	Don't force a bead that won't lift
Aluminium (pressure-plate)	Pressure plate + wedge gasket	Release plate screws, pull gasket	Measure rebate, not sightline
Timber (bead-glazed)	Pinned timber bead, reusable	Chisel or flat pry bar, along the grain	Beads narrow over repeat repainting
Timber (putty-glazed)	Putty fillet, no bead	Hacking knife or heat gun	Re-bed in putty or convert to bead

How to Order

Quote the frame material, the tight-size (rebate) opening and the measured unit thickness. See TG-006 (How to Measure) for the general opening-measurement method this guide builds on.

Contact our sales team: 020 8574 9342 | 07305 993794 | sales@csultd.co.uk | csultd.co.uk — quotes returned within 2 business hours (Mon-Fri, 8am-5pm).