



ARROWSMITH SHUTTERS

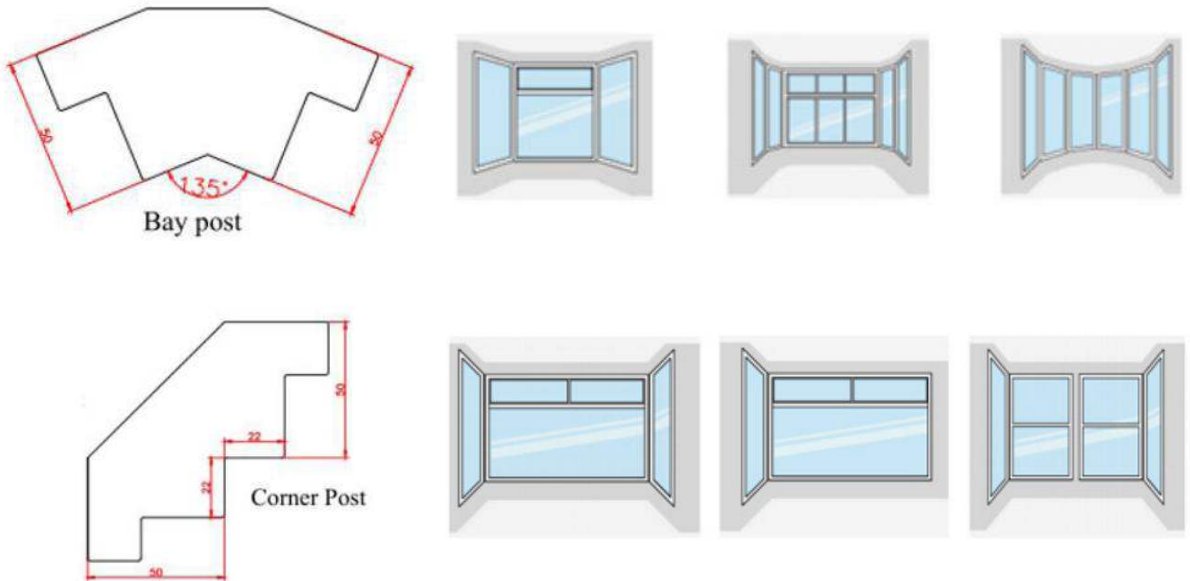
BALFRON - HOW TO MEASURE BAY WINDOW

How to Measure Back of Bay Guide (Only)

Our suggested method for fitting shutters in Angled bays & Corner bay windows is to fit with multiple individual shutter frames. Using either triangular posts or corner posts to join the shutters together.

Fitting with individual frames is a great choice when the window is not 100% level. This technique also allows for greater levels of adjustment at the point of installation.

Separate frames give the fitter more flexibility and can be easier to manage when working alone. *(This is because separate frames will be lighter in weight and easier to lift into the window versus using one large Bay Post Frame)*



However, some customers prefer to fit shutters in a bay using a Bay Post Frame. This method requires that 1 large frame is assembled on the floor with the integrated posts prior to installing in the window.

The survey requires very special attention, and you will need an Angle Finder to measure the angles.

The Angled bay post is referred to as (B) when inputting it into the configuration on the portal.

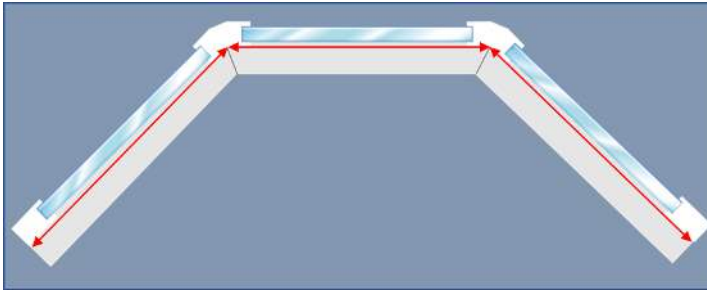
A Corner bay post (for a box bay) is referred to as (C) when inputting it into the configuration on the portal. This post is at a 90° angle. Up to 2 x (C) posts can be requested within a bay shutter configuration.

How to Measure Back of Bay Guide (Only)

Step 1) Identify where to measure

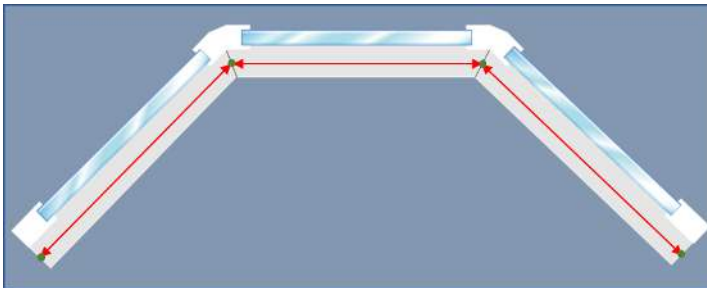
Bay Windows without window handles

If there are no handles you are able to measure close to the window.



Bay Windows with window handles

To ensure that the shutters do not make contact with the handles you will need to identify how far away from the window the back of the bay can be positioned.



As a guide, we would recommend a minimum of 10mm between the front of any window handle and the rear of the frame. Depending on the size of louvre you are using and which frame, will determine whether you need to allow for any additional space.

Louvre Size	Minimum Frame size were louvre does not open up beyond the rear of frame
63mm	50mm frame
76mm	60mm frame
89mm	70mm frame
114mm	80mm frame

If required, you can use a larger louvre with a shallower frame, however you will need to increase the distance between the front of the window handle and the rear of the frame.

e.g. If using an 89mm louvre with a 60mm frame, add an additional 10mm to the clearance between the window handle and the rear of the frame to account for the frame being 10mm less depth compared to the 70mm frame.

Louvre Size	Clearance between front of window handle and back of frame dependant on frame and louvre size			
	50mm frame	60mm frame	70mm frame	80mm frame
63mm	10mm	10mm	10mm	10mm
76mm	20mm	10mm	10mm	10mm
89mm	30mm	20mm	10mm	10mm
114mm	40mm	30mm	20mm	10mm

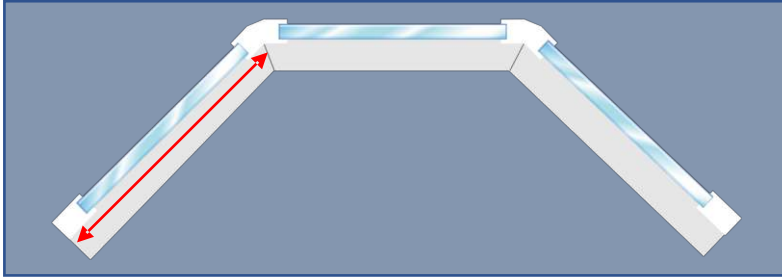
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Step 2) Measuring

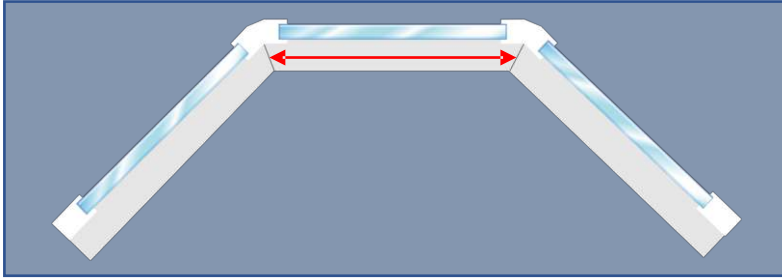
Having identified where the back of the frame will be positioned in relation to any window handles, you are now able to measure the bay.

(when bay has window handles, decide how far forward you need to position the back of the shutters and measure at that depth)

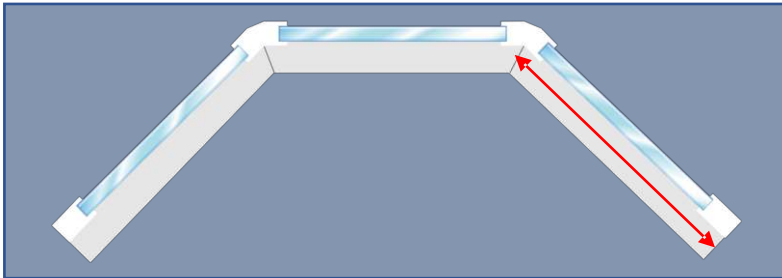
1) Measure the left section of the bay and record the measurement.



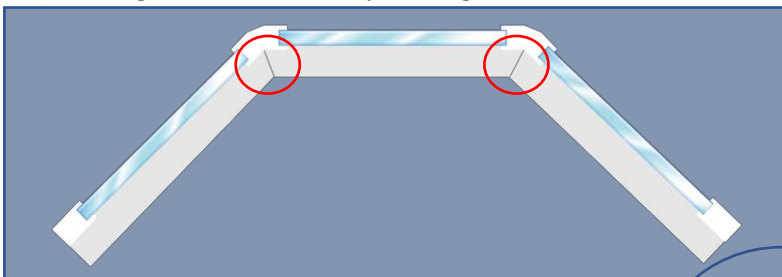
2) Measure the central section of the bay and record the measurement.



3) Measure the right section of the bay and record the measurement.



4) Use angle finder to identify the angles where the sections meet.



5) Identify the measurements for the bay posts

- 1st bay post = Width of left section
- 2nd bay post = Width of left section + width of central section

6) Calculate total width of bay

- Left section + central section + right section = Total width
(Total width is the measurement width required in the portal)

Example

Left Section = 1000mm

Central Section = 1500mm

Right Section = 1000mm

We recommend making a deduction of 2-3mm from both the left and right sections

- 1st bay post = 1000mm
- 2nd bay post = 2500mm

Width of Bay

997mmmm + 1500mm +
997mm =
3494mm

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Step 3) Accounting for runoff

If the shutters are going to be installed within a recess, we need to ensure that they fit into the space available. As recess's regularly runoff we need to take that into account when finalising the sizes needed.

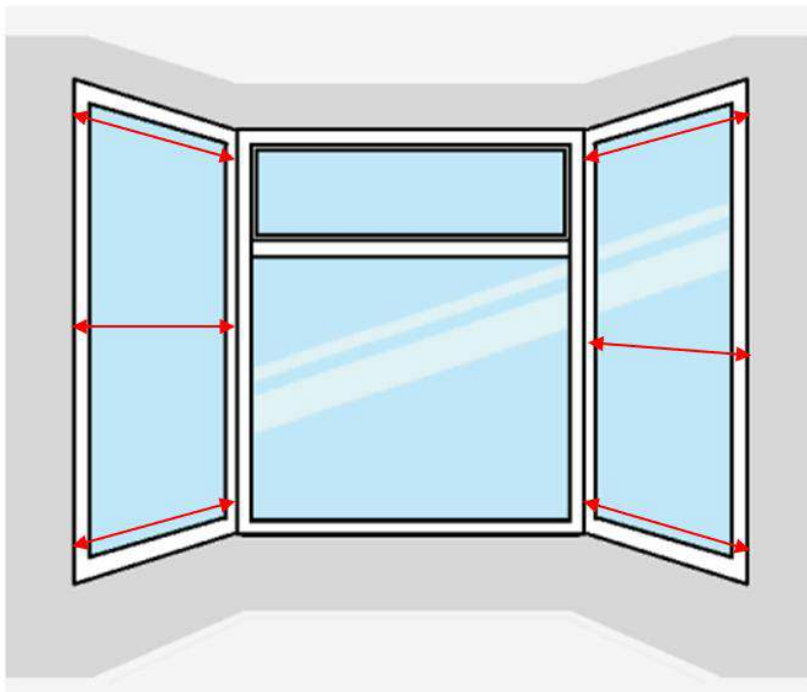
Depending on whether you need to account for window handles or not will change how you proceed at this point.

Windows with no handles

Measure the far left and far right windows three times for width taking the measurement from the far side of the window to the point where the window meets the wall.

Measure at the bottom, middle and top. Whichever of these three is the smallest, use that figure for the measurement for the shutter. We advise a deduction of 2-3mm on this figure.

This figure is what you will use to order the shutter.



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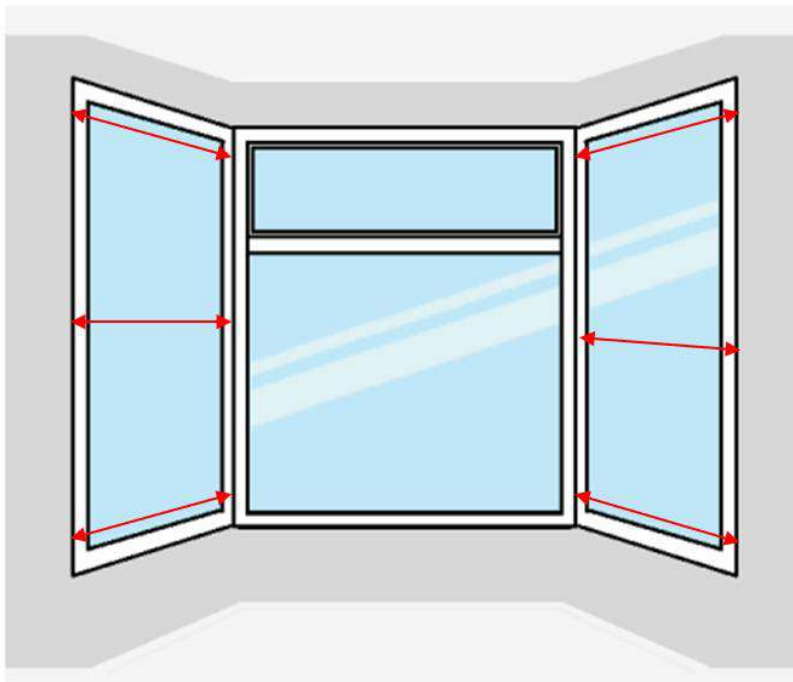
Windows with handles

When there are handles to avoid, as outlined in step 1 we advise to position the shutter in front of the handles (refer to table on page 3 for clearance required).

Having completed the measurement as outlined in Step 2, we will now take further measurements to calculate any runoff.

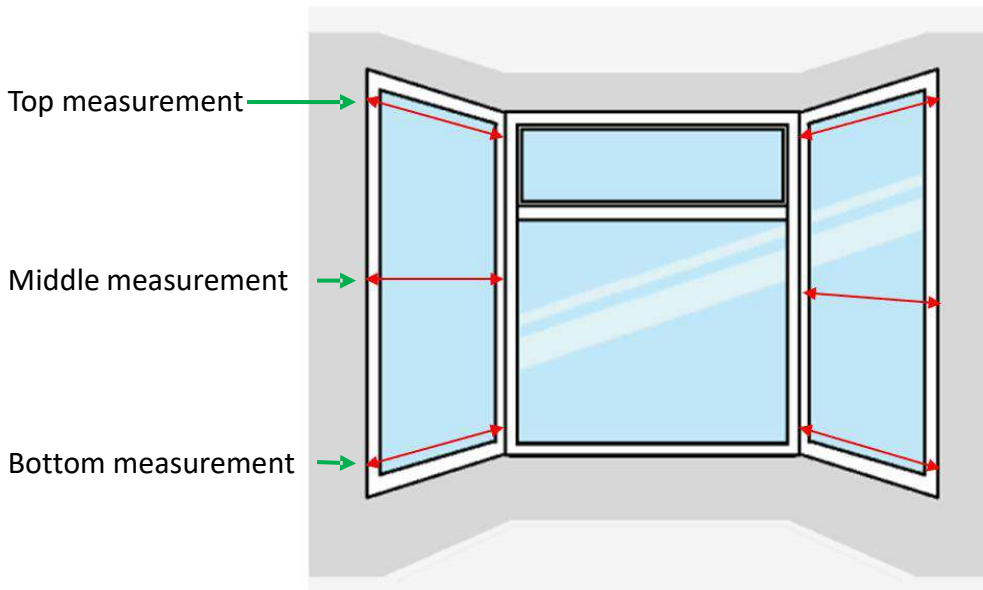
We will start the process on the left window and then repeat it on the right.

- Identify a consistent measurement point on the righthand side of the left window (reverse this when measuring the right window). This will typically be where the window meets the window next to it.
- Measure from the measure point across to the where the window meets the wall at the bottom of the window. Make a note of the measurement.
- Repeat this process at the middle and top of the window.



You now have 3 measurements which will typically be slightly different.

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Example

Windowsill measurement = 1000mm

- Top measurement = 1015mm
- Middle measurement = 1012mm
- Bottom measurement = 1008mm

As the bottom measurement is the smallest measurement, that means we do not need to make any alterations for runoff.

If however, the measurements were:

- Top measurement = 1008mm
- Middle measurement = 1012mm
- Bottom measurement = 1015mm

As the top measurement is now the smallest, we now need to make a calculation. We take the bottom measurement and deduct the top measurement from it. The figure from this calculation is the runoff. *(If the middle measurement is the smallest, use its measurement in place of the top measurement.)*

e.g. $1015\text{mm} - 1008\text{mm} = 7\text{mm}$

Now that we know that the runoff is 7mm, we deduct that from the original Windowsill measurement so that we have accounted for runoff from our shutter measurement.

e.g. $1000\text{mm} - 7\text{mm} = 993\text{mm}$

993mm is our new shutter measurement accounting for runoff.

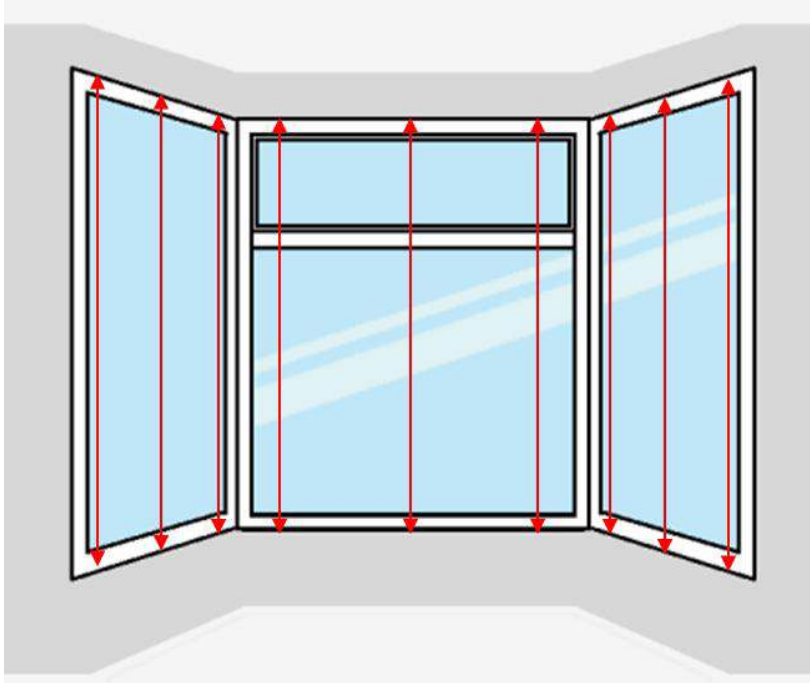
Follow this process for both left and right sections of the bay.

After adjusting measurements for runoff, we recommend making a deduction of 2-3mm from both the left and right sections

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Step 4) Measuring the drop

- Measure each section 3 times



- Identify the smallest drop across the whole bay and use this measurement
- If the bay has its own ceiling recess, make a deduction to the height of the shutters (*our guidance is 5mm*)
- If the bay has no ceiling recess, make no deduction.
- If the bay has no ceiling recess, make sure you account for battens to be positioned behind the top of the shutters to connect the shutters to the wall.

