

INSTALLATION INFORMATION

Installing your Door - Specific Information for Solid Timber Doors

When installing your new timber door, the first step is to ensure that the door is sized correctly. We recommend during ordering that the door is specified a few mm oversize to allow for final planing to fit on site. This ensures a good fit, particularly if you are installing to an existing frame which may not be perfectly square.

Your door has fixed beading and a sealing gasket to the outer face. The inner face has separate beading fitted. Check carefully, you must fit the side with the loose beading to the inside.

Unless otherwise specified your door will have been supplied with an oak weather bar to help exclude rain penetrating under the door to the cill threshold. This should be glued and pinned to the door as close to the bottom as practical once the door is at its final size.

We recommend the use of quality branded hardware when installing your door, and there are numerous locking and other options available for you to choose from. When selecting your hardware there are a couple of things to remember that are unique to a solid oak door.

Your new Heritage door is much heavier than most normal engineered doors. You should use at least 3 x 75mm ball bearing hinges of a quality brand when installing your door. Ensure that the hinges have a total load rating of a minimum of 65kg. Adjustable hinges can be a great help in getting a perfect fit.

Also remember that acids in oak will react with mild steel screws and cause dark staining in the immediate vicinity, therefore you should always use stainless steel or brass screws. Both oak and Accoya are very dense timbers so it is necessary to pilot drill all holes to prevent the timber splitting or the screws snapping.

We recommend the use of Stormguard thresholds when installing your new doors and, used alongside a Heritage oak weather bar, these are ideal for installing your new door to an existing frame.

Where a new frame is required a Heritage solid oak external door frame is a good option. Heritage external frames are made from solid prime grade oak and supplied with sealing strips which fit to premachined grooves to provide a good rain and wind seal. The frames are supplied with a substantial solid oak cill which should be completed with a Stormguard threshold strip of your choice.

Where you have ordered a prefinished door, you must carefully finish around any areas where installation causes the finish to be removed. The finishing process must include end grain sealer where end grain has been exposed, followed by 2 coats of a good quality top coat.

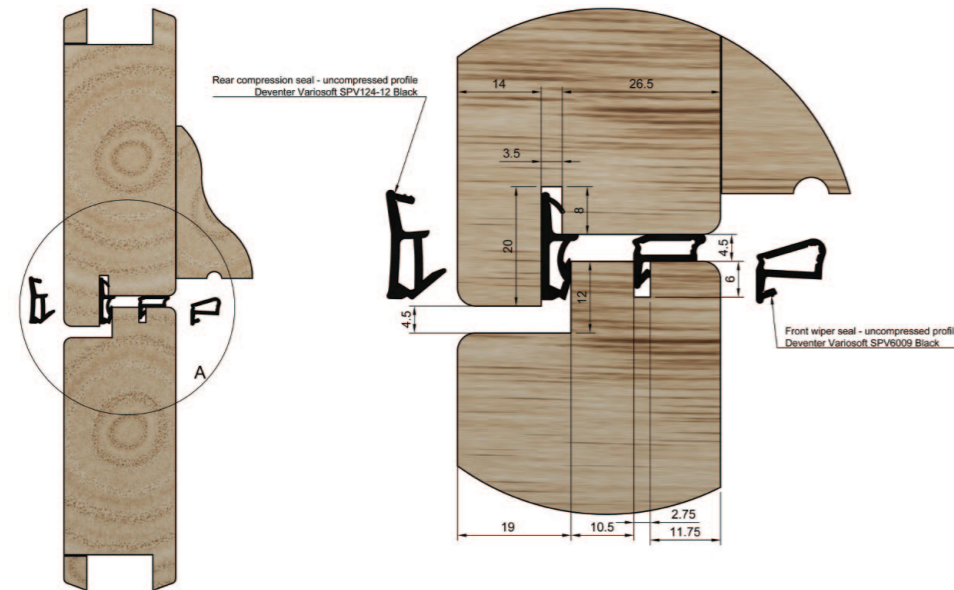
Installing your Door - Specific Information for Stable Doors

Stable doors need to be installed in a specific way. Your door will have been supplied with 2 weather bars and these should be trimmed and fitted to each leaf, including finishing the bars as necessary.

You should use 2 x 75mm ball bearing hinges of a quality brand when installing each leaf. Ensure that the hinges have a total load rating of a minimum of 40kg. Adjustable hinges can be a great help in getting a perfect fit, particularly with a stable door as the gap between the leaves also must be adjusted.

Your stable door has a twin seal system where the leaves meet. The door should be finished with the seals removed. Once the door is finished the seals can be pushed into the relevant grooves.

When installed the leaves should be adjusted to ensure that they are between 4 and 5mm apart to ensure that the two seals operate correctly.



DOORSETS

Installing your Door - Specific Information for Doorsets

Heritage doorsets have been designed to minimise installation time on site as much as practical. If you have chosen the prefinished option then no further finishing will be needed in most instances. However please note that as a large and heavy item, minor damage during site installation is common. For this reason a touch up kit is supplied with each door. You will require 2 people in most instances to install a door set due to its weight.

Where you have chosen Accoya or a contemporary door then these can be installed in most normal locations. For oak doors, or where doors are subjected to severe weather conditions we recommend the use of a porch or canopy to protect the door from wind driven rain.

Where a door with no side or toplight has been specified then your door will come pre-hung in its frame. For larger installations with sidelights and toplights, the frame will be supplied in component form for onsite assembly. Your frame will have been premachined to fit together with a combination of mortice and tenon and dowel joints. In this instance you should first assemble the frame, using glue and where necessary screws to hold the frame square whilst the glue sets.

The next step is to install the frame. For prehung doors it can often be easier to remove the door from its frame by removing the screws holding the door hinge leaf.

Check that the frame is perfectly square both after assembly and also after installation to your brickwork opening. Whilst both the hinges and the lock keeps are adjustable, a square frame is critical to ensure that your door will close smoothly. Your door has been CNC manufactured and factory tested to close smoothly so where hinge and keep adjustment do not allow the door to close smoothly you should check the frame squareness by measuring from corner to corner.

Locks and barrels are pre-fitted however door handles are left off during factory assembly to avoid transit damage. With the door on its hinges, these can be fitted into place, making sure to install the bolts from the inside. Carefully measure and cut the bolts as required. Leaving them overlong can damage the handle faceplate.

Once the handle is in place, the door should be carefully adjusted on its hinges to create an approximate 4mm gap to the side and the top. Depth into the frame should be adjusted to create good weather seal compression whilst allowing the door to latch easily.

For stable doors, there should also be a 4mm gap between the two leaves to allow for proper weather seal compression. The hinges can be adjusted in 3 dimensions following the diagram opposite with a 4mm allen key.

This will leave an approximate 16mm gap at the bottom where the supplied aluminium threshold strip will be fitted. This strip will occasionally require trimming to fit and can be cut on most mitre saws with a wood blade. You will require a file to notch the ends around the door frame outer edges.

With the door hinges adjusted to place the door in the correct location, you can move on to adjusting the keeps. This is easily done with a flat bladed screwdriver. The objective is to allow the door to close smoothly whilst compressing the weather seal in the frame.

For doorsets with side and toplights, you will need to install the glass as per the instructions supplied in the glazing section of this leaflet. Your doorset will have been supplied with beading and sufficient glazing tape. Where a glazed door has been specified, in most instances the door will be factory glazed and will require no further attention.

Where a letterbox has been specified, the opening will have been machined. To avoid damage in transit the letterbox is packed separately and can be easily fitted to the door. Individual preference on the location of door knockers and spyholes mean it is best to install these on site, and therefore these are supplied separately, ready to install where you prefer them. Where you drill holes in the door, make sure to use the supplied touch up kit to cover any areas left unfinished as a result, even where these will be covered by the hardware.

VERTICAL ADJUSTMENT

Slacken 'A' screws on hinges. Adjust door to correct height and retighten screws.

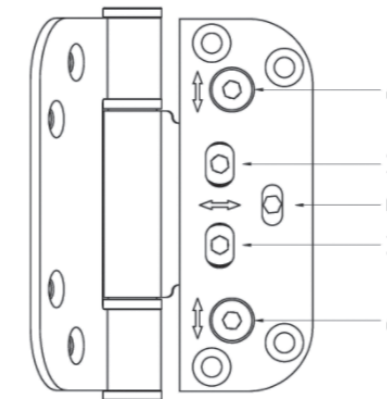
HORIZONTAL ADJUSTMENT

Partially slacken 'B' screws on hinge. Turn 'C' screw anticlockwise to move leaves apart and clockwise to bring them together. Retighten 'B' screws after adjustment.

NOTE: Hinges supplied set with 2mm hinge gap.

SEAL COMPRESSION ADJUSTMENT

Slacken 'B' screws. Adjust door to correct compression on seal and retighten screws.



HERITAGE EXTERIOR DOORS & DOORSETS

INSTALLATION & CARE INSTRUCTIONS





Your New Heritage Exterior Door

Thankyou for purchasing a Heritage exterior door. Your door has been carefully manufactured at our Sheffield factory using state of the art CNC machinery and is one of the best quality external doors on the market today.

It is very important that your door is properly installed. Please follow the instructions below carefully to ensure a lifetime's trouble free service from your new door.

Door Construction

Your door is manufactured to a high standard in our factory in Sheffield. For traditional style doors we start with prime grades of solid oak or Accoya timber. Our oak is mostly sourced from the central and northern regions of France. All of the oak we use is processed through our PEFC certification scheme, so you can be sure that the timber used to manufacture your door has been responsibly sourced.

This timber is first quality graded by our team before it is prepared for use. All of the timber sections of your door are processed through state of the art computer controlled moulding machinery to ensure close adherence to sizing tolerances.

The rails and stiles of your door are made using 2 sections of solid oak which we laminate together in house. Whilst this is a slower and more expensive method of production, laminating timber adds tremendously to its strength and makes the door much more resistant to any bowing and twisting. Where appropriate cross laminated panels are used for the core of the door to add stability under adverse weather conditions.

Accoya is a acetylated dimensionally stable wood, delivering remarkable levels of performance that is guaranteed for 50 years. It is designed not to visibly swell, shrink or distort, with minimal actual movement. Therefore for adverse weather locations or where performance is particularly important, Accoya is highly recommended.

Contemporary doors are made using premanufactured slabs offering useful properties such as thermal performance depending on the range selected.

Door Finishing

As well as providing the visual look, the finishing system used on your door is its primary protection again moisture ingress and related failures. We strongly encourage you to consider a factory applied multi-stage finish. This is applied in a controlled environment using professional quality finishes and cured in a computer controlled infrared booth.



There are a number of finishing systems available for onsite application, with varying levels of performance. If you choose a site applied finish, please read and carefully follow the finishing instructions in this leaflet. We will not accept claims for door failures where a non approved style finish is used and has lead to moisture ingress.

Receiving and Storing Your Door

Your door has been supplied carefully packaged, however it is very heavy and easy to damage if not handled correctly. Please check the door carefully upon receipt for any significant damage. Timber is comparatively soft and the occasional light surface mark can happen during transit even with the best packaging. It most cases these can be easily sanded out with no adverse affect on the door. Where your door has been prefinished we are happy to send out touch up pots as required. However if the damage is more significant please do let us know within 24hrs of receiving the door.

Storing your Door and Avoiding Issues With Moisture Expansion

Any timber will react to significant changes in the humidity of the environment that it is stored in, particularly prior to having a surface finish applied. Timber will expand across its width and thickness, (but not its length), as it takes on moisture.

To avoid problems your door **must** be stored away from building works that can generate an increased humidity such as plastering or decorating work, particularly in their unfinished state. It is strongly recommended that your door is left in its protective shrink wrap until you are ready to begin the finishing and installation process.

Failure to follow this step can lead to the door taking on moisture which will cause swelling and can cause structural problems. It is worth noting, that your door does not need to be in physical contact with water to take on moisture. Your door has been designed to allow some expansion of the timber without causing bowing, but excessive increases in moisture content will almost certainly lead to problems.



Finishing your Door

Timber is a beautiful natural material but for satisfactory service in an external environment it is absolutely critical that it is correctly protected. Timber, even Accoya, will always expand and contract as it takes on and loses moisture. If left unchecked this will cause problems with your door. Expansion can cause the door to stick in the frame and become difficult or impossible to close without additional planing. If only one section of the door is affected this can lead to the door bowing, as that section expands whilst another unaffected section does not.

Therefore the primary goal of finishing your door is to reduce or slow down moisture content changes as much as possible. Your door has been designed to be resistant to moisture related problems and is built to the recommendations in BS644.

However it remains the responsibility of the installer to ensure that the door is correctly protected from moisture ingress. Even where your door has been supplied prefinished, you must follow good maintenance practice. Almost all premature door failures are moisture related. If you live in an area where your new door will be exposed to significant wind driven rain, it is well worth considering a canopy style porch to help provide additional protection to oak or where this is not possible then consider one of our Accoya doors.

Please consider using our multi stage factory applied finishes. These are applied using a Wagner Aircoat system and IR cured in a controlled environment. In addition the door is prefinished in a partly disassembled state and thus can be finished much more thoroughly than on site finishing. Where this is not possible please read this section carefully. For your door to perform to an acceptable level, you must follow a similar process to that used in our factory finish.

Please Note: Many finishing products are advertised as being able to protect timber external doors, often with just one or two coats of a single product, with no base coat or end grain sealer. For example "exterior varnish". In our experience these products cause premature door failure on a regular basis. Oak as a timber is particularly susceptible to movement and to ensure acceptable performance you must use a multi stage finish including end grain sealers. Please DO NOT use these single stage finishes. We cannot guarantee the performance of your door if you ignore this advice.

A suitable multistage product would be the Sikken's Cetol range. Skiikens recommend a 4 coat process; 1 coat of Cetol WP550 HLS Plus base stain, (light oak is the best option for the most natural oak look). Follow this up with an end grain sealer from a company such as Impira or Teknos. Finally you should apply 3 top coats of Cetol Filter 7 Plus. Please read this paragraph in conjunction with the factory finishing process below, and follow the steps below, substituting the product above when completing steps 4 - 7.

To assist customers who prefer to finish their own doors we have detailed our factory finishing procedure below. For good results you must follow these instructions and use a similar multistage product.

- Once you are happy with your doors fit, remove the door and place it onto a sturdy worksurface so that you can access all sides of the door including the underside and top side. This also allows you to finish in the hinge rebates as well as apertures such as for a letterbox. Any unfinished surface will allow moisture in.
- Prior to applying any finish you should prepare your door. Check your door for any remaining sharp edges, such as where you have cut in hinge rebates or letter boxes. Blunt any sharp edges with 240 grit sandpaper as coatings will naturally lay much thinner on sharp edges and become a weak point.
- Oak is an oily timber, and it helps adhesion of water based microporous finishes to remove excess oils. Using a white lint free rag, clean the surface down with thinners or a suitable degreaser such as methylated spirits. Do not use white spirits as this will leave a residue. With oak you will see the oil on the rag as a yellow stain.
- You should now apply a water based base stain. Oak requires UV protection, and this protection will only come with a pigmented (coloured) stain. This will also help to equalise colour across the grain of the timber. Be aware that clear finishes cannot provide UV protection, and whilst this can be used your oak is likely to discolour over time. This coat is likely to raise the grain and your door should be gently denibbed with 320 grit sandpaper once the door is completely dry.
- With the stain applied, you should now apply two coats of end grain sealer to all exposed end grain. Do not apply this prior to applying your stain, as it will stop the stain from colouring the timber. Pay particular attention to the ends of stiles on the top and bottom of your door. Do not skip this step, end grain is much more susceptible to water ingress than other parts of your door.
- You are now ready to apply your first top coat. Use a water based microporous clear topcoat. Apply a generous coat and allow to thoroughly dry. Check to see whether any localised denibbing is required, again using 320 grit sandpaper.
- With the first coat dry, you now need to ensure the door is fully weather sealed. Your door is built with internal sealing systems but you must also add a V Joint sealer over the first top coat. This should be added into the joint area between inner door panels and the outer frame. A thin bead is all that is required.
- The final top coats can now be applied.

It is vital to maintain the finish on your door. You should check annually for any apparent issues, and refinish where any problems are suspected.

Unglazed Doors - Glazing Your Door

Where you have purchased an unglazed door, you will need to source and specify your own sealed unit. This section is designed to help you understand how to specify and then install your glazing. Note you should always finish your door prior to glazing it.

Specifying Your Glazed Unit

Your door will have been supplied with a fixed beading to the outside, and loose beading to allow you to secure the glazing. Please be careful to fit your door with the fixed beading to the outside. The rebate is designed to accept glazed units with a maximum total thickness of 24mm. Thinner units can be fitted, and the beading will be fitted further into the rebate to accomodate this.

Note that for new builds you may need to source a glazing unit that meets Approved Document Q covering security against physical attack. This standard requires the use of glass which achieves a minimum of class P1A when tested to EN356. In practice you can ask your glazing supplier for a unit that will meet this standard.

With most suppliers you can also choose the level of thermal performance built into your new glazing. Shown to the right is the construction of an example base level unit, and a much more thermally efficient unit, showing the difference in U value that can be acheived.

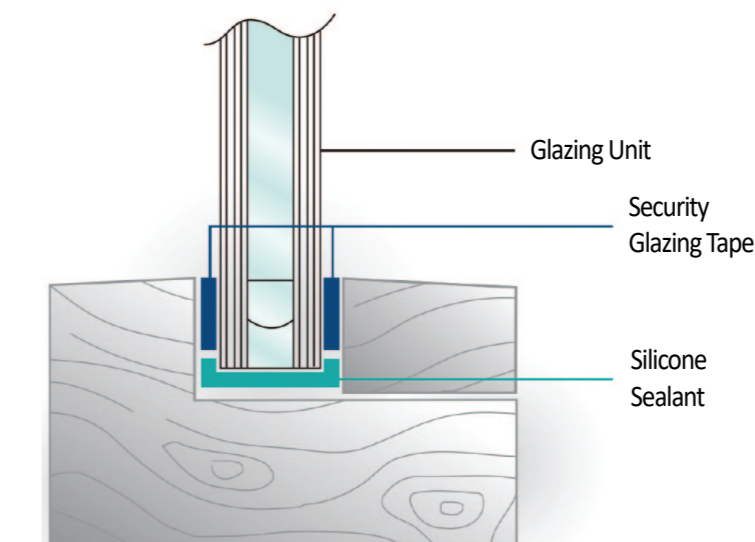
Your glazing unit should be specified to leave a 2-3mm gap all around the unit in the rebate. Where you are unsure, you can ask our technical team for the glass size specifiction that suits your door.

The beading is designed for units with 10-12mm sight lines. This relates to the total thickness of the sealant and edge spacer. When specified in this way, the beading will perfectly cover these sealing strips around the perimeter of the glass.

Installing Your Glazing Unit

Your new door has been built to use a fully bedded non drained glazing installation method. You will need to source 2mm x 12mm security glazing tape, 2mm packers as well as a low modulus silicone sealant.

You can apply the security tape either to the glazing unit or the rebate upstand. However, particularly on the outer rebate, remember that it is the tape that is providing the weather seal so be sure to position it accurately. The tape should sit slightly proud of the upstand, and once the glazing unit is installed, should be trimmed flush with the beading. Use a sharp blade on the slope of the beading to continue that slope onto



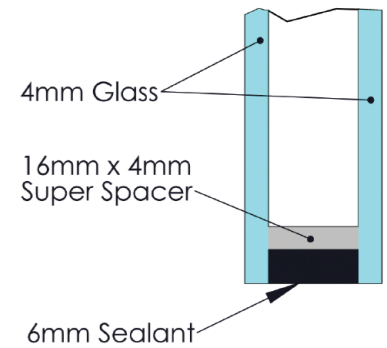
the tape. This will create a 20 degree angle to the tape, helping to shed water.

Place packers on the bottom rebate so that the unit sits centrally in the aperture, test fitting to ensure accuracy. You can now peel the backing paper from the glazing tape and using the packers carefully fit the unit to the tape.

Fill the void around the edge of the unit with the silicone sealant prior to finally installing the inner beading. The beading should be pushed firmly up against the glazing unit before being pinned in place. The pins should be no more than 50mm from either end of a beading strip and not more than 150mm apart.

With the beading installed you can now trim the glazing tape, remembering on the outside to ensure you trim the tape at angle continuous to the slope of the outer beading to help shed water.

Standard
U Value: 2.74W/m2K



Energy Plus - Laminate Option
U Value: 1.5W/m2K with Argon
U Value: 1.7W/m2K with no gas

