

1. GENERAL

These installation instructions apply to REHAU window/door systems. They regulate the installation of the windows by the fabricator or the installation firm. If the windows are distributed via dealers, home improvement centres, etc., attention has to be drawn to these instructions accordingly.

2. TRANSPORTATION

During transportation the windows must be protected against damage caused by slippage, distortion, twisting or bowing. Soft interlayers should be used to prevent windows lying directly against each other. If packaging is used that completely encloses the windows then, because of the possible heat build-up, sealed transparent foils must not be used with coloured windows. The packaging must have no adverse effect on the quality of the window element.

3. STORAGE

When stored on the construction site, the windows should be stored on firm ground and protected from soiling. They must also be protected against direct sunlight using tarpaulin or other similar material.

4. PREPARATION FOR INSTALLATION

Clearance to proceed with the installation work must be obtained from the customer. The going-in allowance must be adhered to.

5. FIT

The installation must be perfectly level, vertical and correctly aligned. The fabricator must notify the customer in writing of any deviation from these regulations. Failure to do so may invalidate the guarantee.

6. FIXING

Special window fixings such as stepped metal strips can be used. These can be used in most situations and permit expansion movement, particularly with larger elements. They are fixed to the frame with screws or by hammering between the lugs on the frame, and can be fixed to the building fabric with screw and wallplug, nails or by shot riveting.

Fixing plugs, principally hollow dowels of steel or plastic with a central screw, can be used directly through the frame profile and into the building fabric. They provide both horizontal and vertical support. They are not suitable for the lower member of a window as the water chamber is punctured.

All anchoring materials must be protected against corrosion. The anchoring aids must also be suitable for the stresses that will be transmitted and for the particular type of masonry. With any walls of light construction, breeze, aerated concrete, etc., extra long plugs should be used to ensure a good fixing.

Because of possible thermal expansion, fixings must be set at least 20cm from the external corner (or alternatively 15cm from the internal corner) and from any welds or joints. To spread the load, the fixings should, if possible, be positioned close to the hinges.

The distance between fixings must not exceed 70cm. When fixing the elements to steel rails or surrounds, the fixings should be set at a minimum of 50cm centres. Expansion joints must not be "bridged" by sills or any other fixed profiles which will effect the joint movement.

Packing to be located at the fixing points.

7. COMPENSATING FOR MOVEMENT

Care should be taken to ensure that no damage can result from the linear expansion and contraction of the profile and any distortion of the building. Accordingly, the joint between the window and masonry must incorporate an adequate gap.

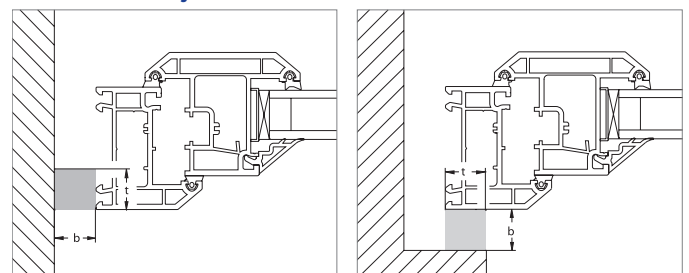
This will depend on the size of the element, the colour, and the type of mastic chosen for the external seal. The expansion range of silicone, for instance, is 25% of the gap width.

Where the reveal is rebated, a minimum distance of 10mm between edge of window and rebate must be maintained.

Differences in expansion dependant upon temperature and frame material.

Frame material	Difference in expansion (mm/m)
PVC-U white	1.6 (max)
PVC-U coloured	2.4 (max)

Minimum sealant joint width

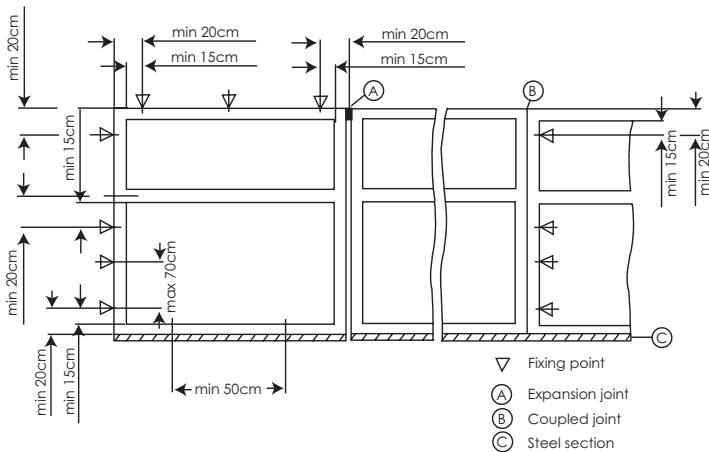


White Profile	Element size up to 3.0m = 5mm	Element size up to 3.0m-4.0m = 7.5mm
Non-White Profile	Element size up to 2.5m = 7.5mm	
The gap depths -t- depends on the gap width -b- and has to be checked against sealant manufacturers recommendations.		

For further assistance, call 01702 613733

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8. INSTALLATION

The window is trued up by means of wedges. The wedges should be removed after the window has been fixed. If this is not possible, care must be taken to ensure that stresses set up by the building cannot be transmitted to the window via the wedges and that the linear expansion of the window is not inhibited.

For this reason, the wedges must not be set directly at the corners, but at the points where the window is attached to the building fabric.

Because of the particular characteristics of the PVC, extreme care must be taken when windows are installed at temperatures below 5°C. In such circumstances, any impact to frame and sash is to be avoided.

With coloured profiles, the protective foil must be removed as soon as the windows have been installed. When plastering in, profile surfaces must be protected.

9. UNION WITH MASONRY

The joint between windows and masonry must contain a foam sealing strip or similar material to act as a backing for the pointing mastic. If thermal or sound insulation is critical then the joint can be completely filled with mineral wool or sound insulation wool. Filling the gaps with mortar or plaster is not permissible. If filling foam is to be used, the manufacturer's instructions must be carefully read, and strictly adhered to.

They must be compatible with the material of the window frame and with the sealing mastic. (REHAU-PU foam Art. No. 257371 is recommended). Contact with any woodgrain surfaces must be avoided. Areas of cured PU foam must not remain exposed to the atmosphere. Bituminous materials must not be used for these joints.

Expansion joints must not be bridged by rails or sills etc., and their freedom of movement must not be impaired. If filling

foam is to be applied to the areas between windows and building fabric, windows should be attached by fixing bolts and not by fixing brackets.

10. SEALING

The external seal should be formed by the use of elastic mastics (eg RAULASTIC M Art. No. 258023 or similar). The mastic must be compatible with the window frame material. The instructions issued by the mastic manufacturer should be observed. If damp proofing membrane has been specified for application between windows and building fabric, construction must be carried out in accordance with the circumstances prevailing, which should be specified by the architect or surveyor.

11. CLEANING AND ACCEPTANCE

The windows should be cleaned up after installation and accepted by the customer. Failure to do so may result in later complaints about dirt or damage. The windows can be quickly and easily cleaned by using REHAU special cleaner Art. No. 252190 or normal domestic washing up fluids. The use of domestic abrasive cleaners and particular solvents such as acetone, cellulose thinners etc., must be avoided, as otherwise the smooth surface will be roughened. Where soiling is of a strong, greasy or oily nature, special cleaners can be used. Details of cleaning agents that have been tested by REHAU can be obtained from the Technical Applications Department.

12. ADDITIONAL INSTRUCTIONS FOR SECURITY INSTALLATIONS

Rigid packing must be inserted between the frame and wall adjacent to fixings and locking points. All fixings must be suitable for the wall material and be positioned close to the locking points.

Our application technical advice, verbal and written, is based on experience and is to the best of our knowledge correct but is given without obligation in regard to claims made for the products.

We recommend that the suitability of any REHAU product for a specific application should be checked. Utilisation and processing of our products are beyond our control and are therefore exclusively your responsibility. In the event that a liability is nevertheless considered, any compensation will be limited to the value of the goods supplied by us and used by you. Our warranty covers consistent quality of our products in accordance with our specification and in accordance with our conditions of sale.

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