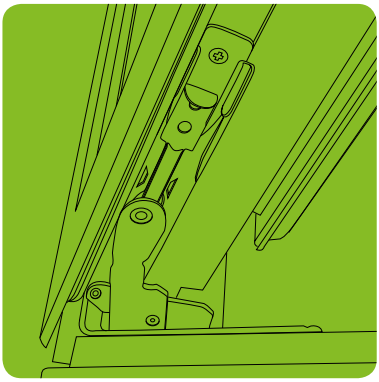
futura+

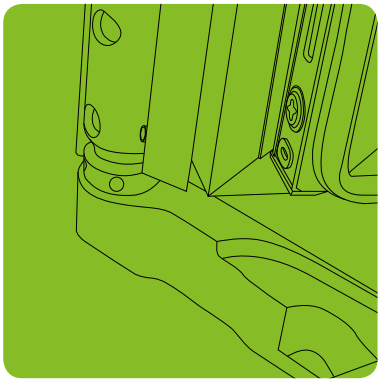
futura+i

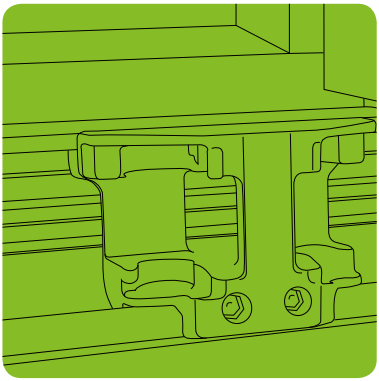
Installation manual

windows and doors

timber | aluminium







idealcombi

***Ideal**combi is delighted that you have chosen our windows and external doors which we hope you will enjoy for many years to come.*

Idealcombi A/S is one of the largest and most well-consolidated window manufacturers in Denmark. When purchasing windows and doors from Idealcombi, you are aquiring guaranteed beautiful and durable products requiring only a minimum of maintenance.

Idealcombi also enjoys a reputation for using the best raw materials available. With one of Denmark's largest window production facilities under one roof in north-western Jutland, we combine high standards of craftsmanship with state-of-the-art production technology.

Windows and doors from Idealcombi are your guarantee of high-quality products. Idealcombi is a member of the Association of Danish Windows Manufacturers, and all our products and elements conform to the Danish Window Certification standard (DVC).

Our production is based on good craftsmanship and state-of-the-art technology. The result is quality products which, with normal maintenance, will last for many years.

Content

The User and Maintenance Manual

For adjustments of the elements we refer to the Futura+ "User and Maintenance manual".

Receipt and storage

Correct installation and maintenance is important to ensure full warranty coverage.

To ensure that the windows and doors function and operate optimally, it is important that they are installed correctly. Incorrect installation may result in product failure which is not covered by the warranty.
If you have any questions regarding the installation of the elements, please call our Technical Department on tel. **01582 860 940. They will be happy to help you.**

When unloading and handling the elements, use tools and methods which do not damage the elements.

Upon receipt, the purchaser must check that the consignment complies with the agreement and that the elements are free from apparent defects, faults or transportation damage. If there is any cause for complaint, please notify Idealcombi's Technical Department on tel. **01582 860 940 before installing the elements.**

Stickers and cork chips on window glass and other protective packaging must only be removed before installing the elements.

If stored outdoors, the elements must be placed on battens or pallets to keep them clear of the ground. The elements must be covered with a suitable and secure material to protect them from precipitation and dirt. Allow for sufficient ventilation around the elements in order to reduce the risk of condensation forming underneath the covering and excessive heat building up due to direct sunlight. Individual window elements should be stored under a roof structure, in a container or preferably inside.

Our doors and windows are supplied with a small tin of paint in their particular colour and with this Installation manual. The paint is intended for repairing any minor damage caused during installation, but can also be used subsequently. Idealcombi's Technical Department is always willing to offer help and advice on surface treatment maintenance and on where to buy additional paint in a particular colour.

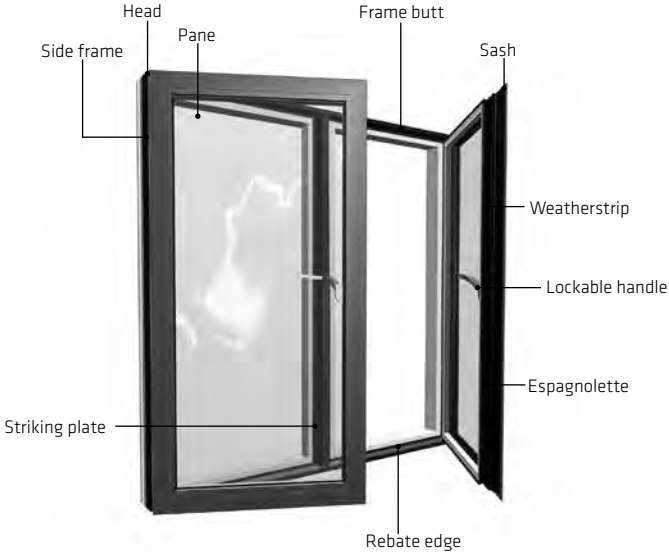
!

In accordance with the general conditions set out by the Association of Danish Windows Manufacturers (DVC) concerning general requirements for installation of windows and doors, the contractor responsible for the installation must ensure that the installation requirements stipulated by Idealcombi and DVC are observed. Complaints or requests for service in connection with failure or defects which are the result of inadequate installation or lubrication are not covered by Idealcombi's warranty.

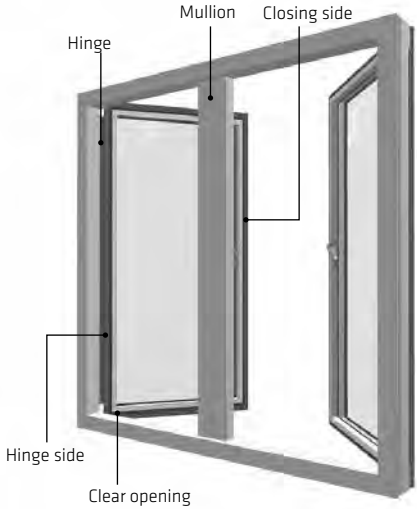
Window construction

To make it easier to understand the technical terms used in this Installation and user manual, the terms are shown on the two general drawings below.

From outside



From inside



Installation, general

Correct installation is important for the function and life of the elements. The installation should therefore be carried out by professional fitters of windows and external doors.

The instructions in this manual cover some of the main issues – but not every detail – which may be relevant during installation.

The window is usually placed within the outer leaf construction of the wall. It should be fitted centrally giving uniform gaps between the frame and structure – ideally the gaps should be 10 to 15mm. The window should be installed with the frame plumb both horizontally and vertically and should be adjusted and fixed to ensure the correct closing position between the frame and sash.

Securing, general

Windows and external doors should always be fixed to the building structure using mechanical fixings such as frame bolts / screws. If any foaming material is used to fill the gap between the outer frame surface and the structure the element must be fixed first using mechanical fixings.

Never use the windows / external doors as structural supports for any part of the building.

Please note that installed elements which are covered by plastic before the outer wall is constructed may be scratched by the flapping plastic combined with construction dust and condensation water.

General

The sealant work must be carried out in accordance with sealant manufacturers recommendations and current standards.

When filling gaps with insulation (expanding foam) never put in too much so that it bows the frame. After the expanding foam has cured a waterproof sealant should be applied to the outside (see paragraph on sealant types). To make sure you have enough depth (in accordance with the sealant manufacturers recommendations) you may have to rake back the expanding foam insulation.

Sealant types

There are a wide range of sealing products to choose from for use between frames and outer walls.

The two most common types are:

Plastic or elastic mastic

Asphalt saturated plastic foam

(Illmod sealing tapes)

Please refer to sealant manufacturers guide lines to ensure correct product and size before applying.

In order to preserve the wood and reduce heating consumption, it is important that the sealant stays intact. The sealant should therefore be inspected at least once a year, and any flaws should be remedied using the same type of sealant as the original. In case of any major flaws, all the sealing material must be replaced. In such cases, it must be assessed whether a different type of sealant would be more suitable than the existing one.

Top-guided window

When positioning the window element before fixing, never tap directly on the PUR frame; always use a tapping block ***(fig. 1).*** Never tap on the outer rebate ***(fig. 2).***

Wedges can be used to position the window element before fixing. Place the wedges at the corners ***(fig. 3)*** to avoid distorting the PUR frame or damaging the corner joint ***(fig. 4).***

Place wedging under side frames and any mullions to ensure that the weight of the window element is supported by the underlying brickwork/construction ***(fig. 5-A).*** The wedging material must be moisture-resistant and be placed max. 19 mm behind the front edge of the frame **(fig. 6).** Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be plumb and level. It must not under any circumstances bow upwards or downwards.

Adjust the side frames so they are plumb and vertical both sides.

Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

Fig. 1. Using a hammer and tapping block

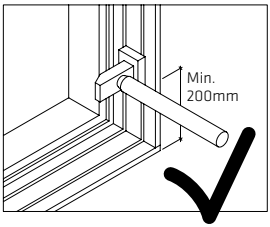


Fig. 2. Incorrect use of hammer

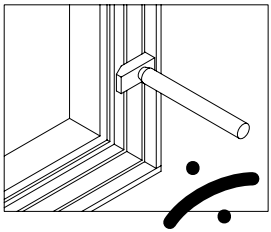


Fig. 3. Correct wedge position

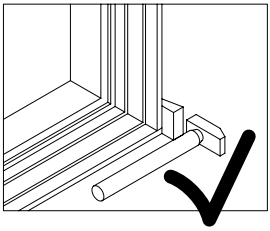


Fig. 4. Incorrect wedge position

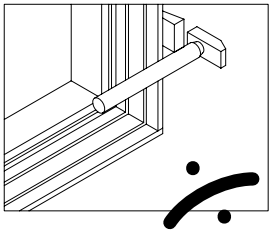


Fig. 5. Wedging

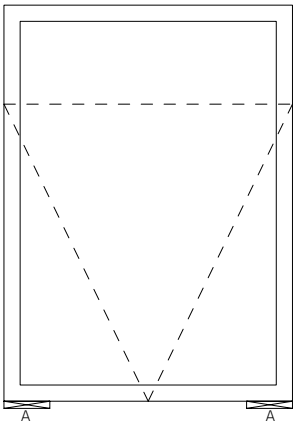
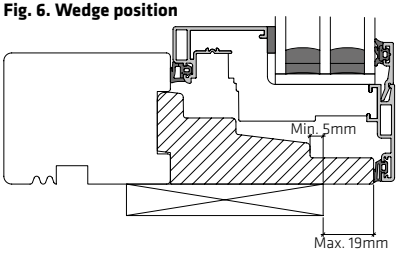


Fig. 6. Wedge position



Top-guided window

Place permanent wedging at head/side frame at least 33 mm behind the front edge of the frame ***(fig.7).*** This allows space for the sealant and sealant backer rod.

When fixing directly through the frame in to the building structure place the fixings in the shaded area shown in fig. 8, 150-200mm from the corners and at centres of 600mm ***(fig 10)*** **It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.**

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig 9)*** 150-200mm from the corners and at centres of 600mm ***(fig 10)***

Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

Never screw fix through the frame without wedges in place ***(fig 11)***. The front 33mm outer edge of the PUR frame ***(fig 13)*** has been prepared to ensure good sealant adhesion. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

When securing the element with screws, fix the joint spacing using a wedge or permanent wedging ***(fig. 11).*** The figures show how the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 13)***. If the sealant is placed outside the specified areas, adhesion must be ensured by cleaning the PUR frame with acetone.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Apply mastic between the window elements and spacer strip/ cross tongue. Seal outside using sealing tape or mastic ***(fig. 12).***

Fig. 7. Wedge position

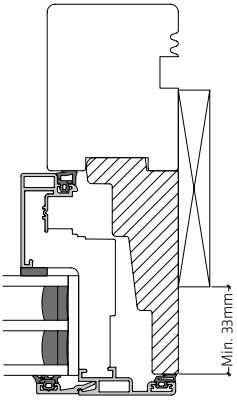


Fig. 8. Direct fixing

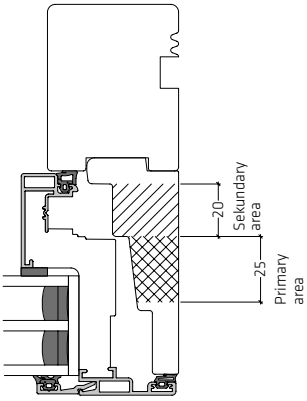


Fig. 9. Fixing with brackets/cramps

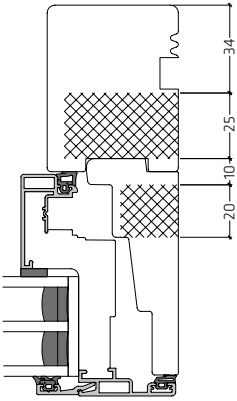


Fig. 10. Spacing, mechanical securing

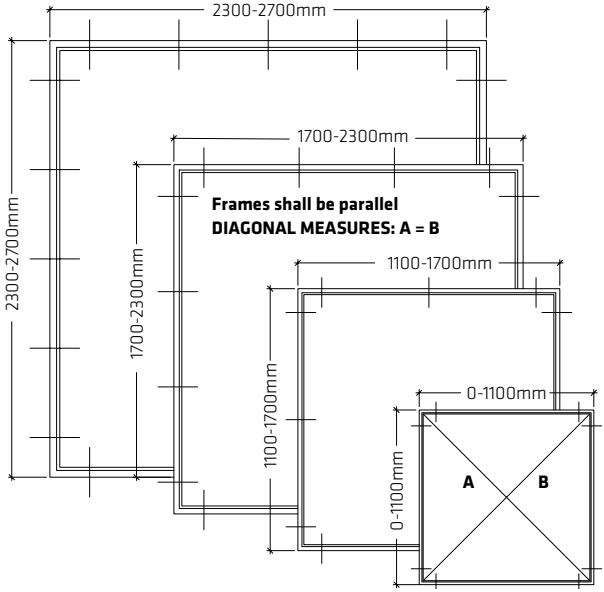


Fig. 11. Fixing joint spacing

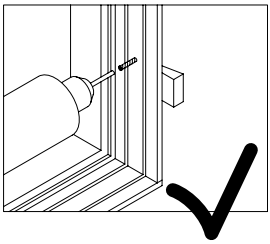


Fig. 12. Combined elements

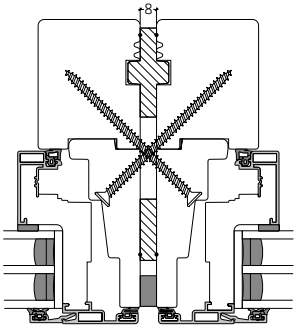
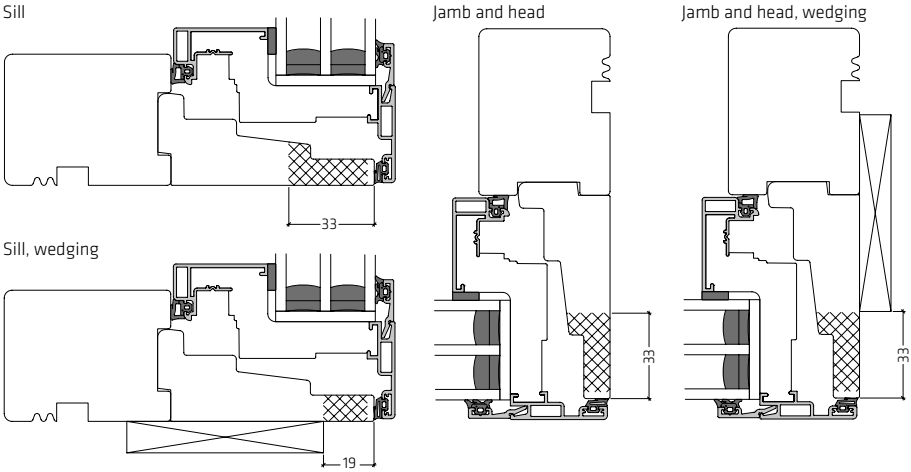


Fig. 13. Area for good sealant adhesion



Side-hung/side-guided windows and doors

For installing doors with low threshold, see Terrace door, p. 24

When positioning the window/door element before fixing, never tap directly on the PUR frame; always use a tapping block ***(fig. 1).*** Never tap on the outer rebate ***(fig. 2).***

Wedges can be used to position the window/door element before fixing. Place the wedges at the corner ***(fig. 3)*** to avoid distorting the PUR frame or damaging the corner joint ***(fig. 4).***

Place wedging under side frames and any mullions to ensure that the weight of the window/door element is supported by the underlying brickwork/construction ***(fig. 6-A).*** The wedging material must be moisture-resistant and be placed max. 19 mm behind the front edge of the frame ***(fig. 7)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

For double doors, place wedging under side frames and loose mullion to ensure that the weight of the element is supported by the underlying brickwork/construction ***(fig. 5-A).*** If the spacing between the wedges is >1000 mm, place permanent wedging between the wedges ***(fig. 5-B)***. The wedging material must be moisture-resistant and be placed max. 19 mm behind the front edge of the frame (fig. 7). Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be horizontal and straight. It must not under wany circumstances bow upwards or downwards.

Place permanent wedging at the bottom of the side frame on the hinge side of the element ***(fig. 6-B / double doors, fig. 5-C).*** When securing, ensure that the point can absorb compressive forces.

Place permanent wedging at the top of the side frame on the hinge side of the element ***(fig. 6-C / double doors, fig. 5-D)***. When securing, ensure that the point can absorb tensile forces. An alternative to this wedging is permanent wedging at the top of the side frame in the closing side of the element (fig. 6-D); when securing, this wedging must ensure that the point can absorb compressive forces. For an element height of >1600 mm, wedging on both sides at the top of the frame is required.

Adjust the hinge side so that it is vertically plumb.

During installation, the clearance, i.e. the space between the frame and sash, should be adjusted according to the function of the element. The closing side must be adjusted so it fits the sash and closes fully.

When installing double doors, it is important that the doors close fully in the centre joint and that the two door plates are flush.
The frame head must not curve downwards.

Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

Fig. 1. Using a hammer and tapping block

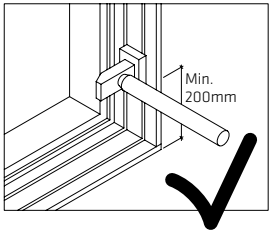


Fig. 2. Incorrect use of hammer

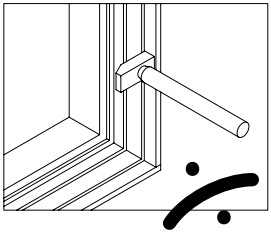


Fig. 3. Correct wedge position

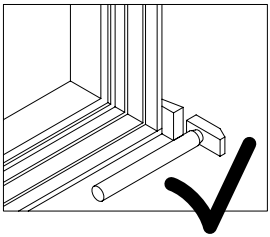


Fig. 4. Incorrect wedge position

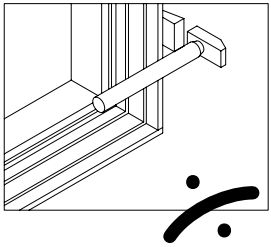


Fig. 5. Wedging

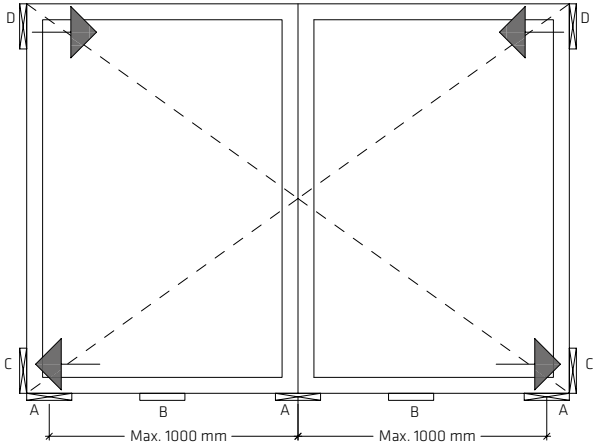


Fig. 6. Wedging

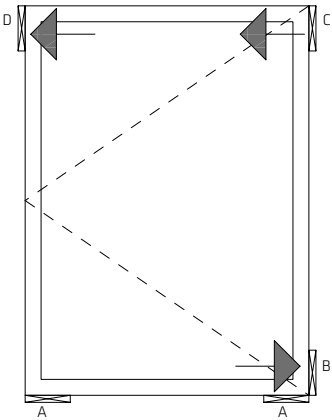
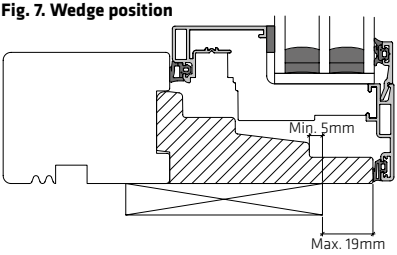


Fig. 7. Wedge position



Place permanent wedging at head/side frame at least 33 mm behind the front edge of the frame ***(fig.8).*** This allows space for the sealant and sealant backer rod.

When fixing directly through the frame in to the building structure place the fixings in the shaded area shown in fig. 9, 150-200mm from the corners and at centres of no more than 600mm ***(fig 11)*** **It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.**

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig 10)*** 150-200mm from the corners and at centres of no more than 600mm ***(fig 11)***

Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

Never screw fix through the frame without wedges in place ***(fig 12)***.

The front 33mm outer edge of the PUR frame ***(fig 13)*** has been prepared to ensure good sealant adhesion. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

The figures show how the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 14)***. If the sealant is placed outside the specified areas, adhesion must be ensured by cleaning the PUR frame with acetone.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using sealing tape or mastic ***(fig. 12).***

Fig. 8. Wedge position

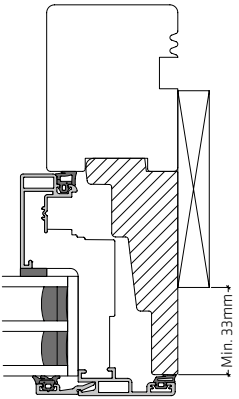


Fig. 9. Direct fixing

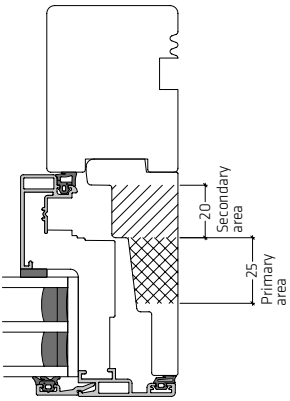


Fig. 10. Fixing with brackets/cramps

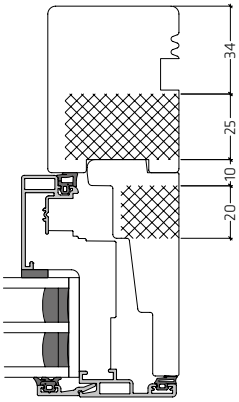


Fig. 11. Spacing, mechanical securing

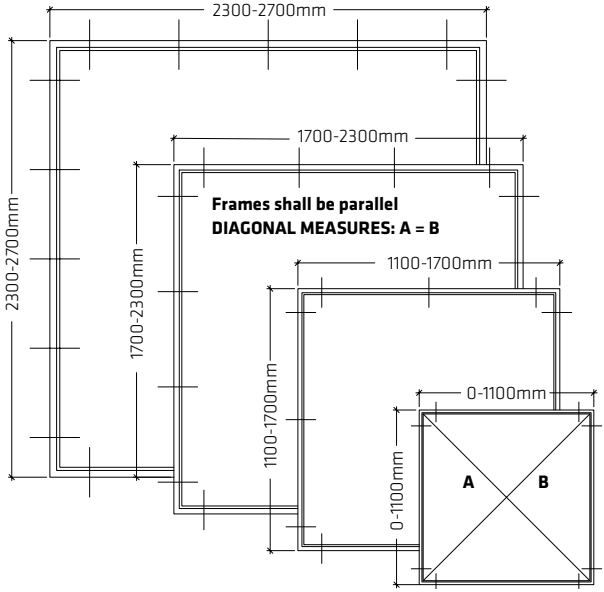


Fig. 12. Fixing joint spacing

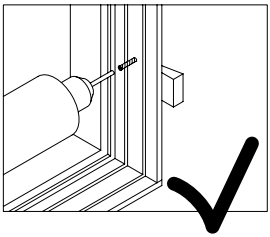


Fig. 13. Combined elements

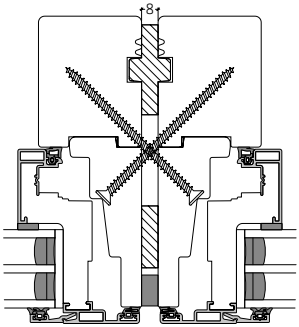
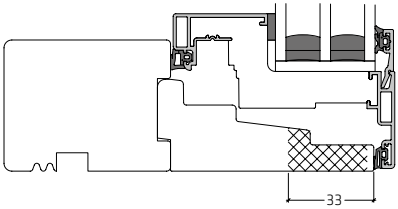
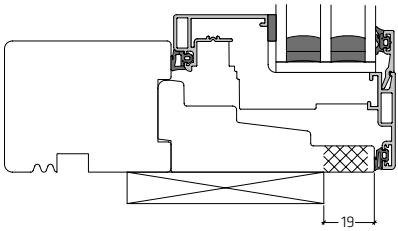


Fig. 14. Area for good sealant adhesion

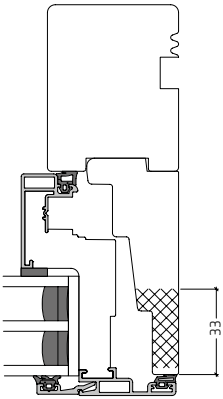
Sill



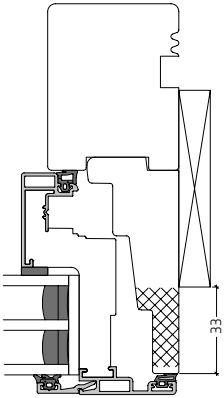
Sill, wedging



Jamb and head



Jamb and head, wedging



Reversible window

When positioning the window element before fixing, never tap directly on the PUR frame; always use a tapping block ***(fig. 1)***. Never tap on the outer rebate ***(fig. 2).***

Wedges can be used to position the window element before fixing. Place the wedges at the corner ***(fig. 3)*** to avoid distorting the PUR frame or damaging the corner joint ***(fig. 4).***

Place wedging under side frames and any mullions to ensure that the weight of the window element is supported by the underlying brickwork/construction ***(fig. 5-A)***. The wedging material must be moisture-resistant and be placed max. 19 mm behind the front edge of the frame ***(fig. 6).*** Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

Place permanent wedging directly below the point of rotation of the top lever of the fitting ***(fig. 7)***, approx. at the centre of the side frame ***(fig. 5-B).*** The wedging material must be moisture-resistant and be placed max. 27 mm behind the front edge of the frame ***(fig. 8)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.
The sill must be horizontal and straight. It must not under any circumstances bow upwards or downwards.

Adjust side frames so they are vertically plumb both sides. Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

When fixing directly through the frame in to the building structure place the fixings in the shaded area ***(fig. 9)***, 150-200mm from the corners and at centres of 600mm ***(fig 11)*** **It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.**

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig 10)*** 150-200mm from the corners and at centres of 600mm ***(fig 11)***

Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

Fig. 1. Using a hammer and tapping block

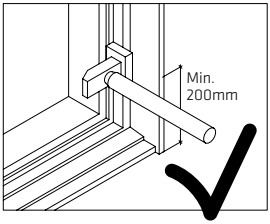


Fig. 2. Incorrect use of hammer

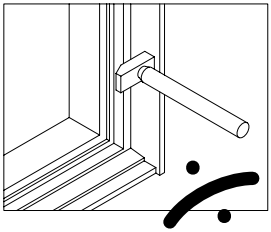


Fig. 3. Correct wedge position

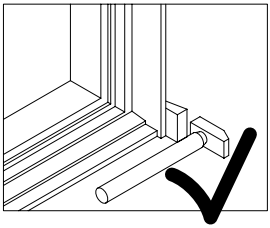


Fig. 4. Incorrect wedge position

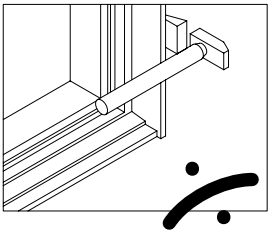


Fig. 5. Wedging

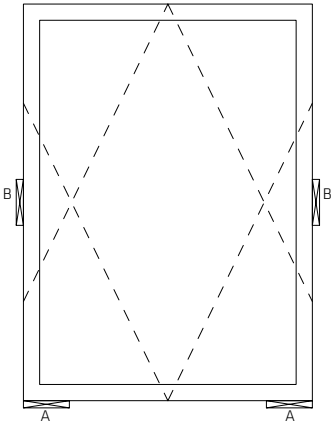


Fig. 6. Wedge position

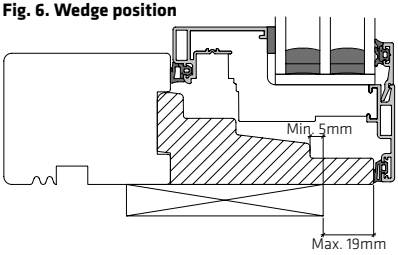
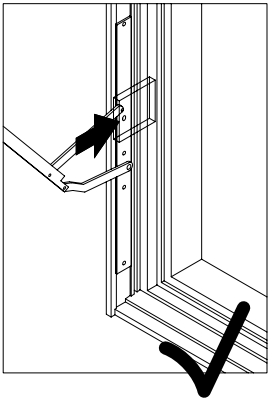


Fig. 7. Wedge position



Never screw fix through the frame without wedges in place ***(fig 12).***

The front 33mm outer edge of the PUR frame ***(fig 14)*** has been prepared to ensure good sealant adhesion. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Apply mastic between the window elements and spacer strip/ cross tongue. Seal outside using sealing tape or mastic ***(fig. 13).***

Fig. 8. Wedge position

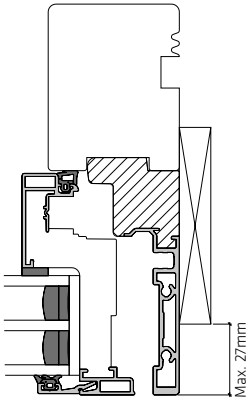
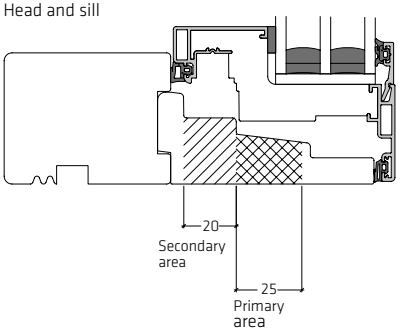


Fig. 9. Direct fixing

Head and sill



Jamb

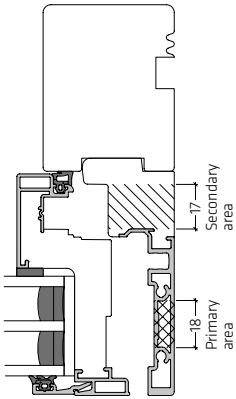
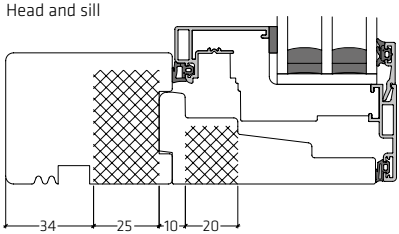


Fig. 10. Fixing with brackets/cramps

Head and sill



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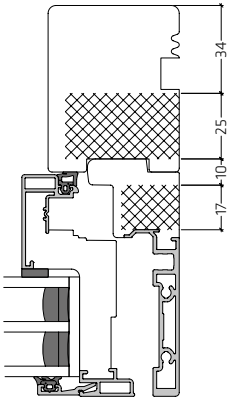


Fig. 11. Spacing, mechanical securing

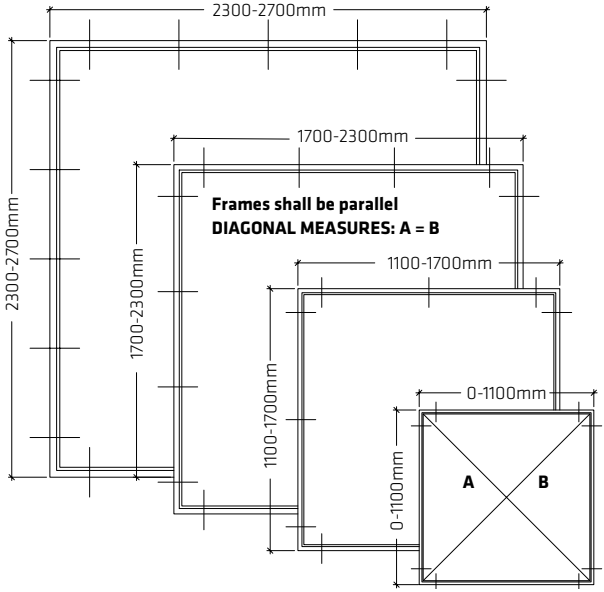


Fig. 12. Fixing joint spacing

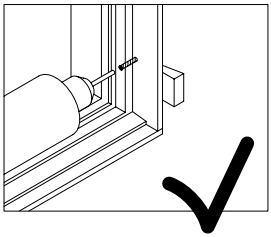


Fig. 13. Combined elements

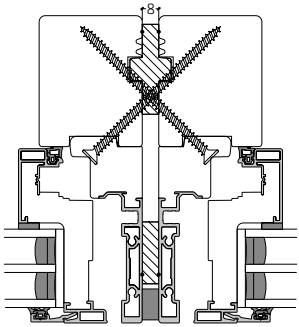
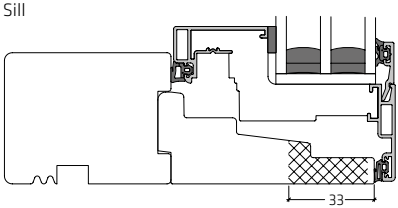
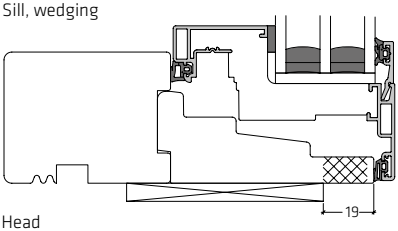


Fig. 14. Area for good sealant adhesion

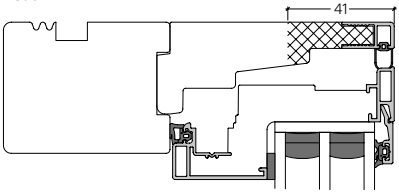
Sill



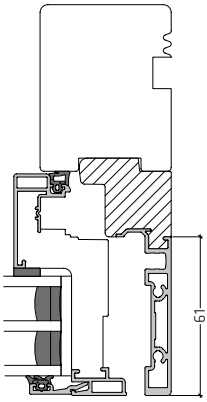
Sill, wedging



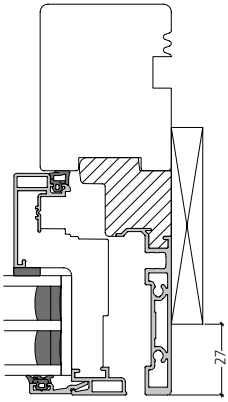
Head



Jamb



Jamb, wedging



Fixed window

Use a tapping block if a hammer is used to position the window element before fixing ***(fig. 1).***

Wedges can be used to position the window element before fixing. Place the wedges at the corner ***(fig. 2)*** to avoid distorting the PUR frame or damaging the corner joint ***(fig. 3).***

Place wedging under side frames and any mullions to ensure that the weight of the window element is supported by the underlying brickwork/construction ***(fig. 4-A)***. The wedging material must be moisture-resistant and be placed max. 19 mm behind the front edge of the frame ***(fig. 5)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be horizontal and straight. It must not under any circumstances bow upwards or downwards.

Adjust side frames so they are vertically plumb both sides. Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

Place permanent wedging at head/side frame at least 33 mm behind the front edge of the frame ***(fig.6).*** This allows space for the sealant and sealant backer rod.

When fixing directly through the frame in to the building structure place the fixings in the shaded area ***(fig. 7)***, 150-200mm from the corners and at centres of 600mm ***(fig 9).***

It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.

Fig. 1. Using a hammer and tapping block

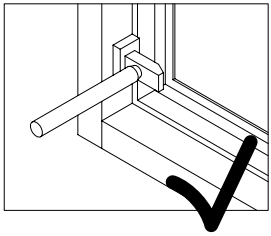


Fig. 2. Correct wedge position

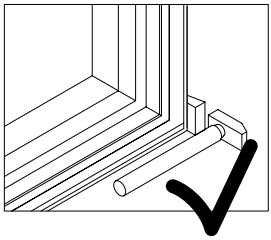


Fig. 3. Incorrect wedge position

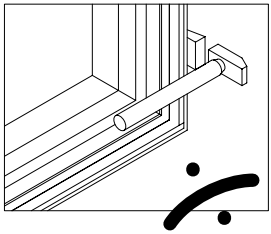


Fig. 4. Wedging

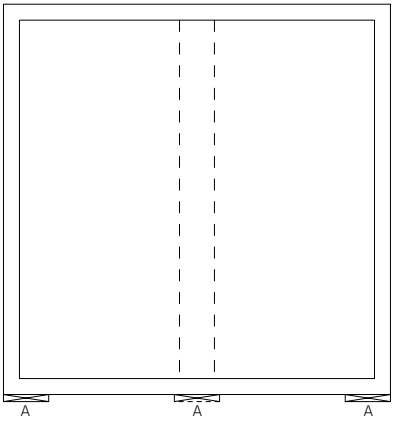


Fig. 5. Wedge position

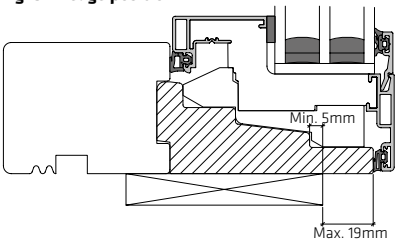


Fig. 6. Wedge position

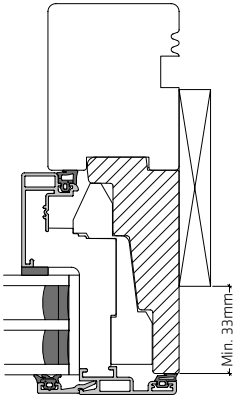


Fig. 7. Direct fixing

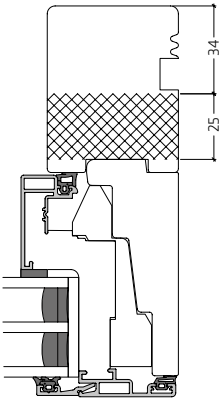
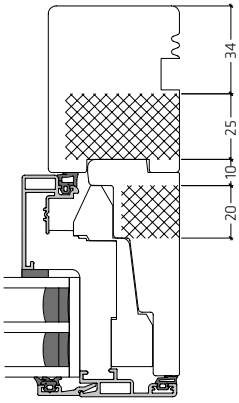


Fig. 8. Fixing with brackets/cramps



Fixed window

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws (fig 8) 150-200mm from the corners and at centres of 600mm (fig 9)

Never screw fix through the frame without wedges in place (fig 10).

The front 33mm outer edge of the PUR frame (fig 11) has been prepared to ensure good sealant adhesion. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using sealing tape or mastic ***(fig. 12).***

Fig. 9. Spacing, mechanical securing

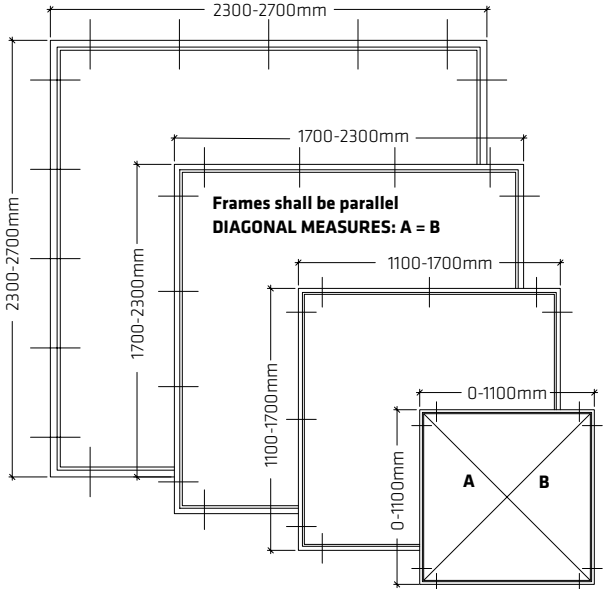


Fig. 10. Fixing joint spacing

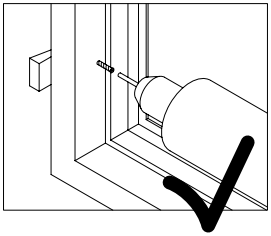


Fig. 11. Area for good sealant adhesion

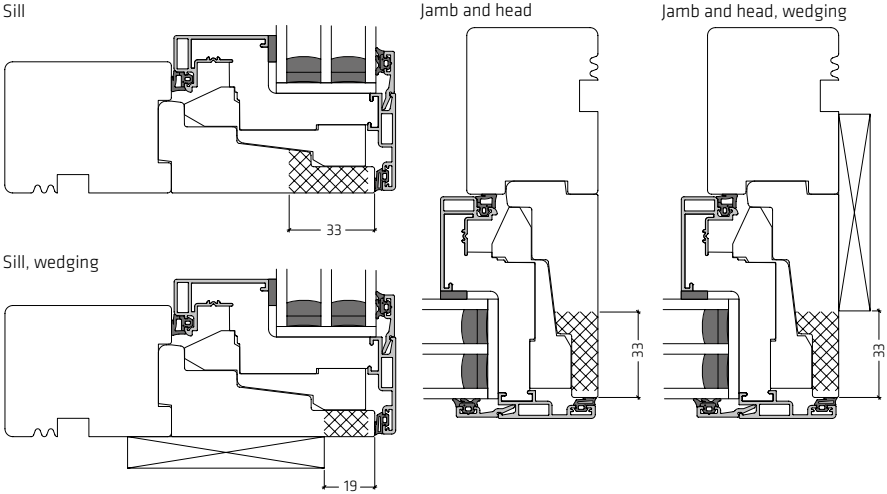
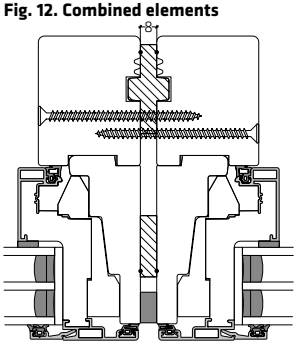


Fig. 12. Combined elements



Tilt and turn window

> **!** Please note that bolts on the bottom sash can scratch the sill if the window is opened ***before*** the frame has been securely affixed in the window opening.

When positioning the window element prior to securing, never tap directly on the frame ***(fig. 1)***; always use a tapping block ***(fig. 2)***.

Wedges can be used to position the window element before securing. Place the wedges at the corner ***(fig. 3)*** to avoid distorting the frame or damaging the corner joint ***(fig. 4)***.

Place wedging under side frames and any mullions to ensure that the weight of the window element is supported by the underlying brickwork/construction ***(fig. 5-A)***. The wedging material must be moisture-resistant and be placed so that it at least supports the PUR component under the fitting groove ***(fig. 7)***.

For windows with loose mullions, place wedging under side frames and loose mullions to ensure that the weight of the element is supported by the underlying brickwork/construction ***(fig. 6-A)***. The wedging material must be moisture-resistant and be placed so that it at least supports the PUR component under the fitting groove ***(fig. 7)***.

The sill must be horizontal and straight. It must not under any circumstances curve upwards or downwards. Place permanent wedging at the bottom of the side frame on the hinge side of the element ***(fig. 5-B / windows with loose mullions, fig. 6-B)***. When securing, ensure that the point can absorb compressive forces.

Place permanent wedging at the top of the side frame on the hinge side of the element ***(fig. 5-C / windows with loose mullions, fig. 6-C)***. When securing, ensure that the point can absorb tensile forces. An alternative to this wedging is permanent wedging at the top of the side frame on the closing side of the element ***(fig. 5-D)***; when securing, this wedging must ensure that the point can absorb compressive forces. For an element height of >1600 mm, wedging on both sides at the top of the frame is required.

Adjust the hinge side so it is in plumb on both the wide and the narrow side. During installation, the clearance, i.e. the space between the frame and sash, should be adjusted according to the function of the element. The closing side must be adjusted so it fits the sash and closes fully.

When installing windows with loose mullions, ensure that the sashes close fully in the centre joint and that the two door plates are flush.

Scan the code with your smart phone or tablet and watch the video on how to install the sash on a tilt and turn window and tilt and turn terrace door.

Fig. 1. Using a hammer and tapping block

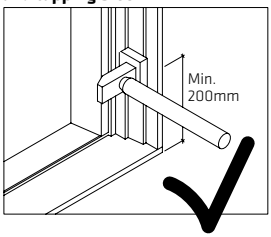


Fig. 2. Incorrect use of hammer

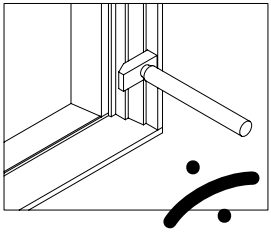


Fig. 3. Correct wedge position

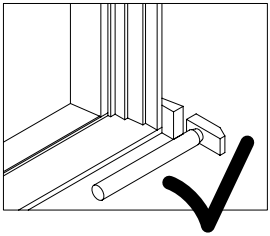


Fig. 4. Incorrect wedge position

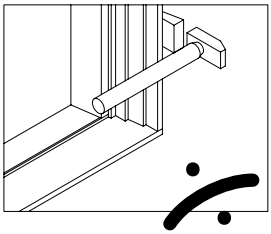


Fig. 5. Wedging

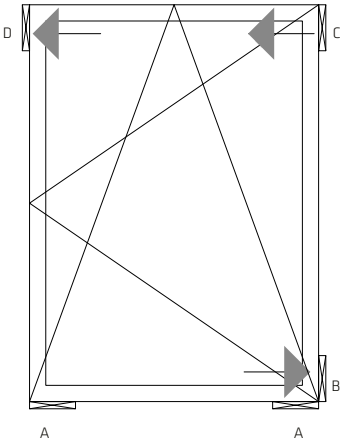
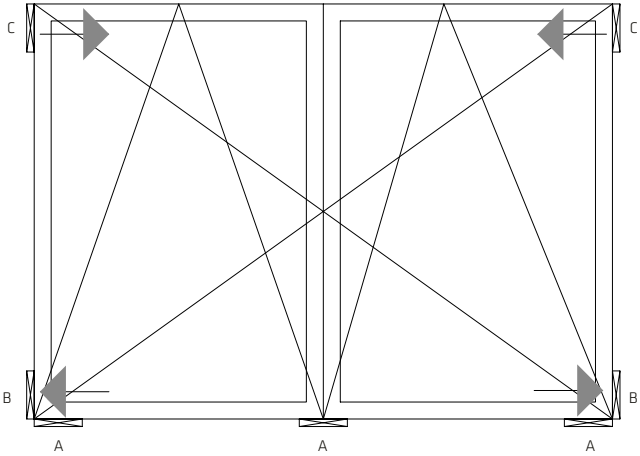


Fig. 6. Wedging



Tilt and turn window

The frame head must not curve downwards. Permanent wedging on the frame head may only be used if the load from any window/door elements above does not subject the element to stress apart from on the side frames and mullions. Permanent wedging at the top/side frame should be placed at least 41 mm behind the front edge of the frame ***(fig. 7)***. This allows space for the sealant and backer rod.

Place hidden mechanical fixtures installed from the inside in the marked area ***(fig. 8)***, 150-250 mm from the corner and with a maximum spacing of 600 mm ***(fig. 10)***.

It is recommended that headed fitting screws be used. If fitting screws are placed in the PUR component of the primary area, the screw heads should be countersunk in the profile.

If fitting screws are placed in the secondary area, they should be recessed and covered with a plastic cap.

Place mechanical fixtures installed from the outside in the marked area ***(fig. 9)***, 150-250 mm from the corner and with a maximum spacing of 600 mm ***(fig. 10)***.

Never use an impact drill to pre-drill through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

When securing the element with screws, fix the joint spacing using a wedge or permanent wedging ***(fig. 11)***.

The figures show how the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 12)***. If the sealant is placed outside the specified areas, adhesion must be ensured by cleaning the PUR frame with acetone.

Adjoining elements should have a spacing of 8 mm. Clip the elements together in the inside aluminium frame using aluminium cross tongue CBF1613. Screw the elements together in the rebate using 5x45 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 13)***.

If an element adjoins an outward opening Futura+ element, affix aluminium cross tongue CBF1613 to the outward opening element using a 4x20 mm screw and clip the inward opening element in the cross tongue. Screw the elements together in the fitting groove using 5x40 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 14)***.

If elements adjoin an inward opening Frame door, screw the frames together using a 5x40 mm wood screw in the rebate. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 15)***.

If an element adjoins an outward opening Frame door, affix aluminium cross tongue CBF1613 to the outward opening door using a 4x20 mm screw and clip the inward opening element in the cross tongue. Screw the elements together in the rebate using 5x50 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 16)***.

Fig. 7. Wedge position

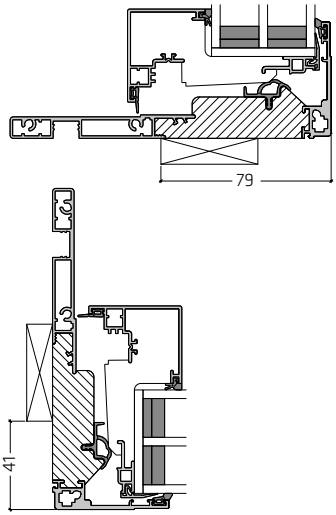


Fig. 8. Direct fixing

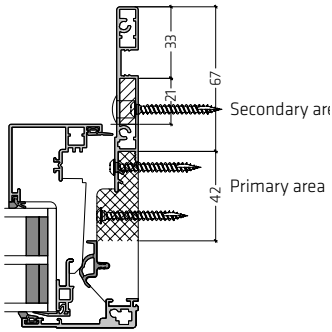


Fig. 9. Fixing with brackets/cramps

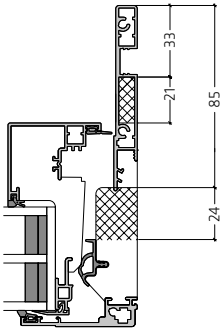


Fig. 10. Spacing, mechanical securing

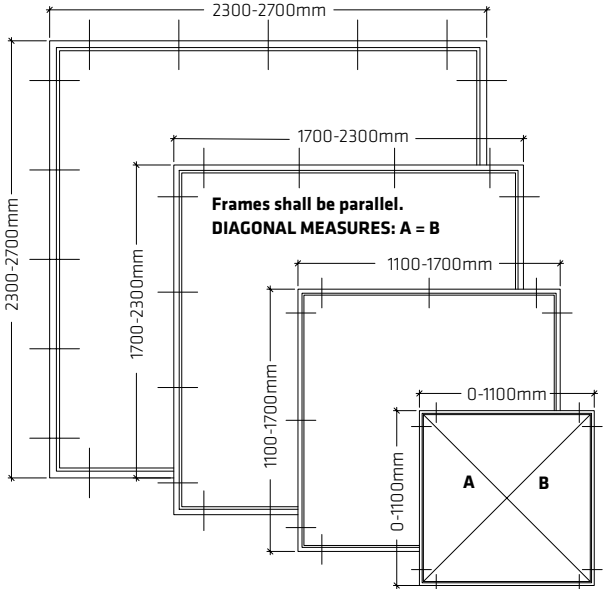


Fig. 11. Fixing joint spacing

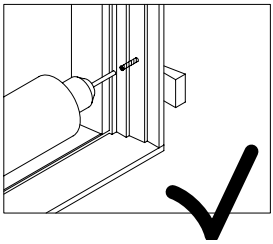


Fig. 12. Area for good sealant adhesion

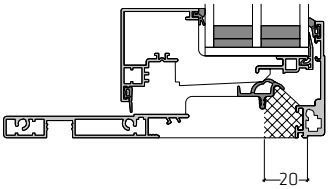


Fig. 13. Combined elements

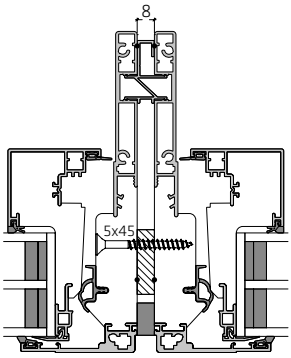


Fig. 14. Combined elements

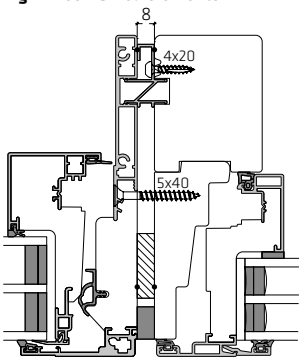


Fig. 15. Combined elements

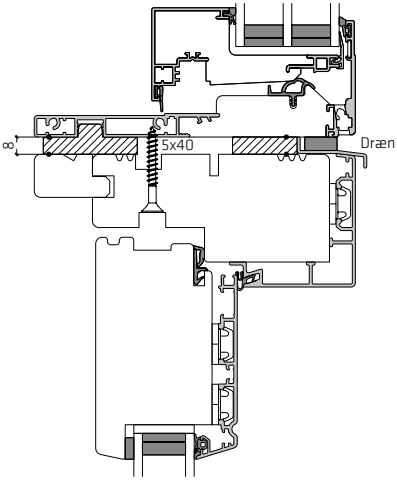
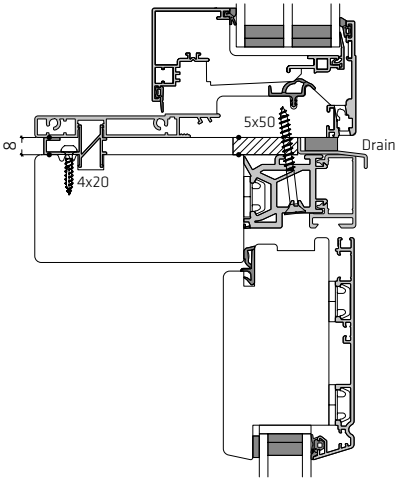


Fig. 16. Combined elements



Terrace doors *with low threshold*

For installation of doors with ordinary door sill, see Side-hung/side-guided windows and doors, p. 12

When positioning the door element before fixing, never tap directly on the PUR frame; always use a tapping block ***(fig. 1)***. Never tap on the outer rebate ***(fig. 2).***

Wedges can be used to position the door element before fixing. Place the wedges at the corner ***(fig. 3)*** to avoid distorting the PUR frame or damaging the corner joint ***(fig. 4).***

Support the door element to ensure that the sill is stable. This is best done using moisture-resistant wedging at a spacing of max. 300 mm, which supports the entire width of the sill ***(fig. 7)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be horizontal and straight. It must not under any circumstances bow upwards or downwards.

Place permanent wedging at the bottom of the side frame on the hinge side of the element ***(fig. 6-A / double doors, fig. 5-A)***. When securing, ensure that the point can absorb compressive forces.

Place permanent wedging at the top of the side frame on the hinge side of the element ***(fig. 6-B / double doors, fig. 5-B)***. When securing, ensure that the point can absorb tensile forces. Place permanent wedging at the top of the side frame on the closing side of the element (fig. 6-C); when securing, this wedging must ensure that the point can absorb compressive forces.

Adjust the hinge side so it is vertically plumb.

During installation, the clearance, i.e. the space between the frame and sash, should be adjusted according to the function of the element. The closing side must be adjusted so it fits the sash and closes fully.

When installing double doors, it is important that the doors close fully in the centre joint and that the two door plates are flush.
The frame head must not curve downwards.

Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

Fig. 1. Using a hammer and tapping block

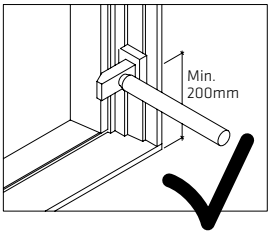


Fig. 2. Incorrect use of hammer

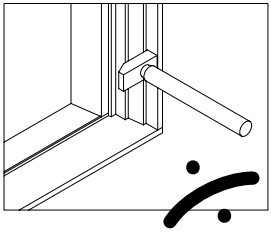


Fig. 3. Correct wedge position

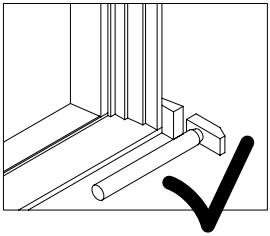


Fig. 4. Incorrect wedge position

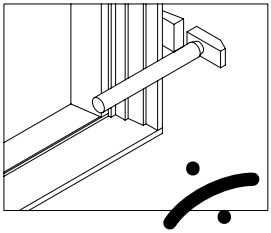


Fig. 5. Wedging

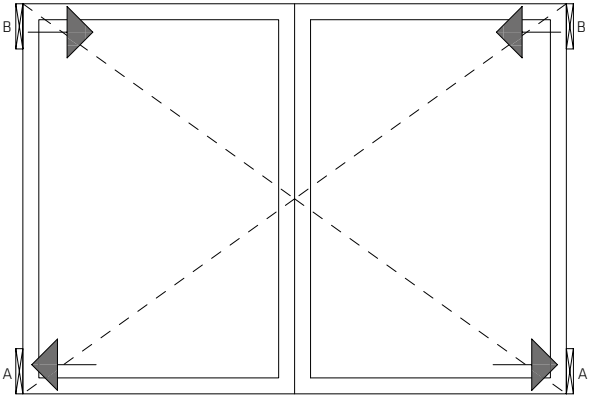


Fig. 6. Wedging

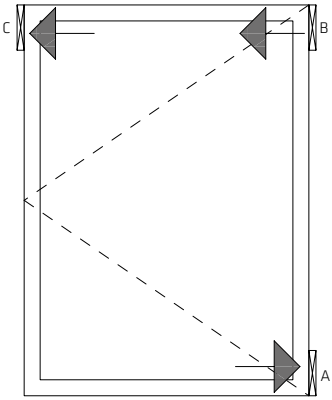
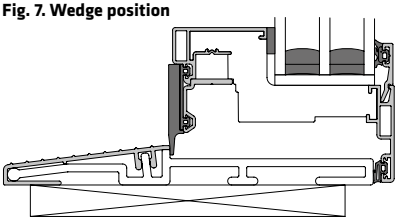


Fig. 7. Wedge position



Place permanent wedging at head/side frame at least 33 mm behind the front edge of the frame ***(fig.8)***. This allows space for the sealant and sealant backer rod.

When fixing directly through the frame in to the building structure place the fixings in the shaded area ***(fig. 9)***, 150-200mm from the corners and at centres of no more than 600mm ***(fig 11)*** **It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.** If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig 10)*** 150-200mm from the corners and at centres of no more than 600mm ***(fig 11)***

Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

Never screw fix through the frame without wedges in place (fig 12).

The front 33mm outer edge of the PUR frame (fig 14) has been prepared to ensure good sealant adhesion. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using sealing tape or mastic ***(fig. 13).***

Fig. 8. Wedge position

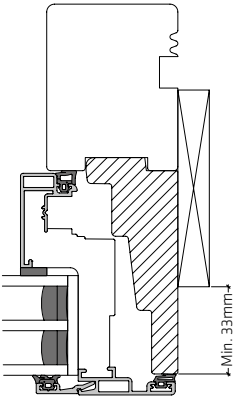


Fig. 9. Direct fixing

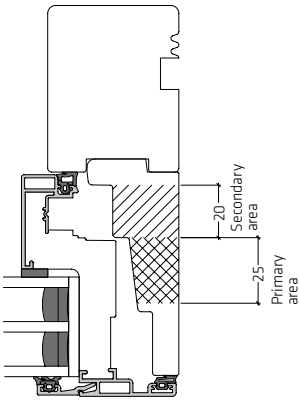


Fig. 10. Fixing with brackets/cramps

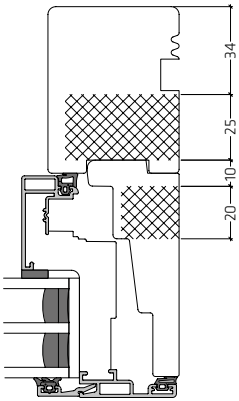


Fig. 11. Spacing, mechanical securing

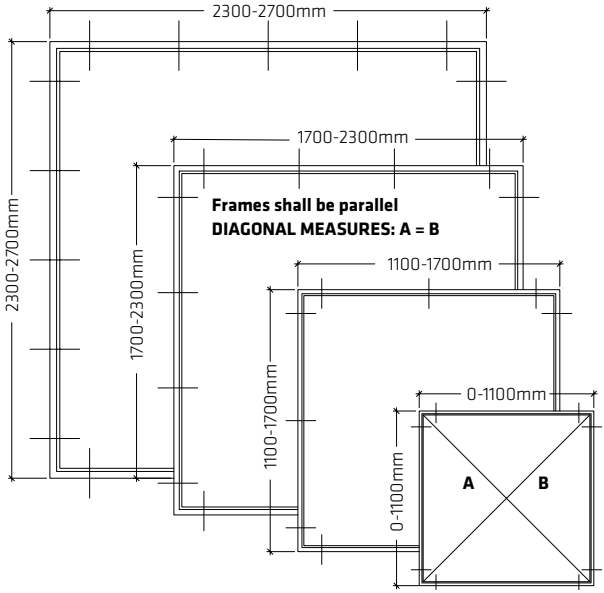


Fig. 12. Fixing joint spacing

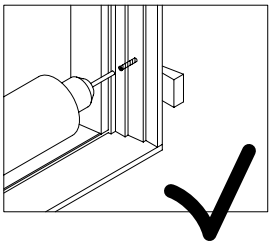


Fig. 13. Combined elements

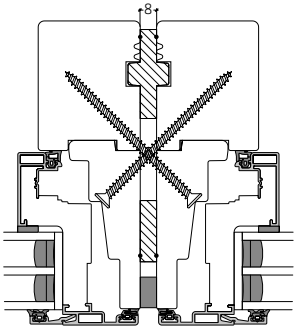
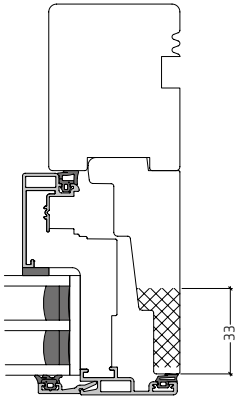
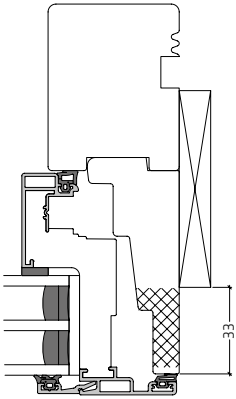


Fig. 14. Area for good sealant adhesion

Jamb and head



Jamb and head, wedging



Tilt and turn terrace doors

Please note that bolts on the bottom sash can scratch the sill if the window is opened ***before*** the frame has been securely affixed in the window opening.

When positioning the door element prior to securing, never tap directly on the frame (fig. 1); always use a tapping block (fig. 2).

Wedges can be used to position the door element before securing. Place the wedges at the corner (fig. 3) to avoid distorting the frame or damaging the corner joint (fig. 4).

Support the door element to ensure that the sill is stable. This is best done using moisture-resistant wedging at a spacing of max. 300 mm, which supports the entire width of the sill ***(fig. 5, 6 og 7).*** Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be horizontal and straight. It must not under any circumstances curve upwards or downwards. Place permanent wedging at the bottom of the side frame on the hinge side of the element ***(fig. 6-B / dobbeltdør fig. 7-B***). When securing, ensure that the point can absorb compressive forces.

Place permanent wedging at the top of the side frame on the hinge side of the element ***(fig. 6-C / dobbeltdør fig. 7-C)***. When securing, ensure that the point can absorb tensile forces.

Place permanent wedging at the top of the side frame on the hinge side of the element ***(fig. 6-D)***. When securing, ensure that the point can absorb tensile forces.

Adjust the hinge side so it is in plumb on both the wide and the narrow side.

During installation, the clearance, i.e. the space between the frame and sash, should be adjusted according to the function of the element. The closing side must be adjusted so it fits the sash and closes fully.

When installing windows with loose mullions, ensure that the sashes close fully in the centre joint and that the two door plates are flush.

Scan the code with your smart phone or tablet and watch the video on how to install the sash on a tilt and turn window and tilt and turn terrace door.

Fig. 1. Using hammer and tapping block

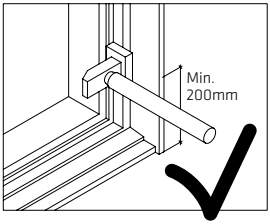


Fig. 2. Incorrect use of hammer

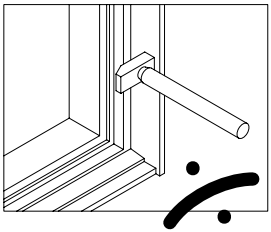


Fig. 3. Correct wedge position

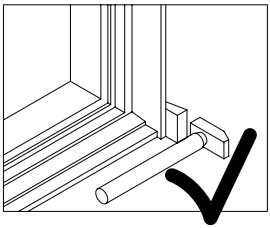


Fig. 4. Incorrect wedge position

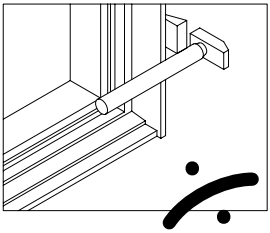
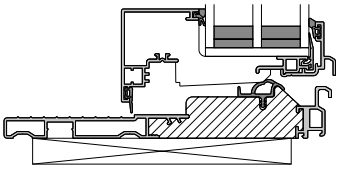


Fig. 5. Wedge position



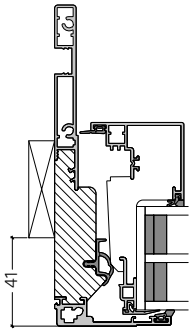


Fig. 6. Wedging

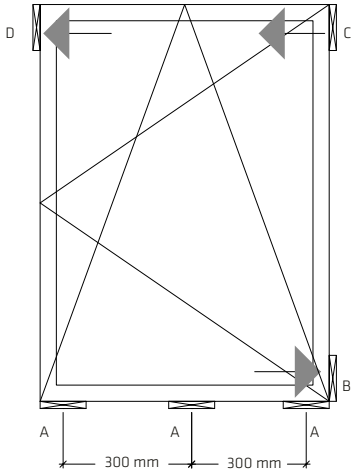
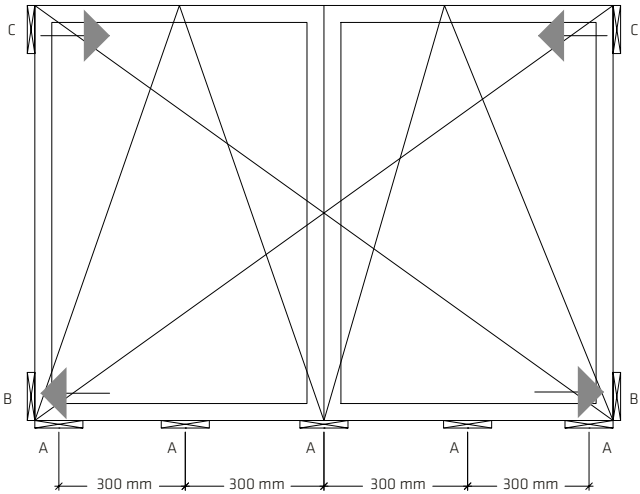


Fig. 7. Wedging



The frame head must not curve downwards. Permanent wedging on the frame head may only be used if the load from any window/door elements above does not subject the element to stress apart from on the side frames and mullions. Permanent wedging at the top/side frame should be placed at least 41 mm behind the front edge of the frame ***(fig. 7)***. This allows space for the sealant and backer rod.

Place hidden mechanical fixtures installed from the inside in the marked area ***(fig. 8)***, 150-250 mm from the corner and with a maximum spacing of 600 mm ***(fig. 10)***.

It is recommended that headed fitting screws be used. If fitting screws are placed in the PUR component of the primary area, the screw heads should be countersunk in the profile.

If fitting screws are placed in the secondary area, they should be recessed and covered with a plastic cap.

Place mechanical fixtures installed from the outside in the marked area (fig. 9), 150-250 mm from the corner and with a maximum spacing of 600 mm (fig. 10).

Never use an impact drill to pre-drill through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

When securing the element with screws, fix the joint spacing using a wedge or permanent wedging ***(fig. 11)***.

The figures show how the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 12)***. If the sealant is placed outside the specified areas, adhesion must be ensured by cleaning the PUR frame with acetone.

Adjoining elements should have a spacing of 8 mm. Clip the elements together in the inside aluminium frame using aluminium cross tongue CBF1613. Screw the elements together in the rebate using 5x45 mm wood screws. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 13)***.

If an element adjoins an outward opening Futura+ element, affix aluminium cross tongue CBF1613 to the outward opening element using a 4x20 mm screw and clip the inward opening element in the cross tongue.

Screw the elements together in the fitting groove using 5x40 mm wood screws.

Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 14)***.

Fig. 8. Direct fixing

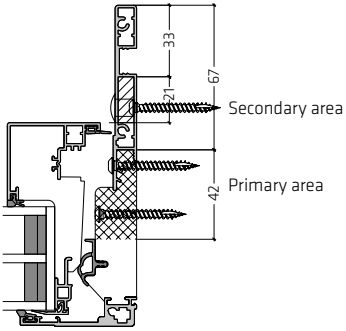


Fig. 10. Spacing, mechanical securing

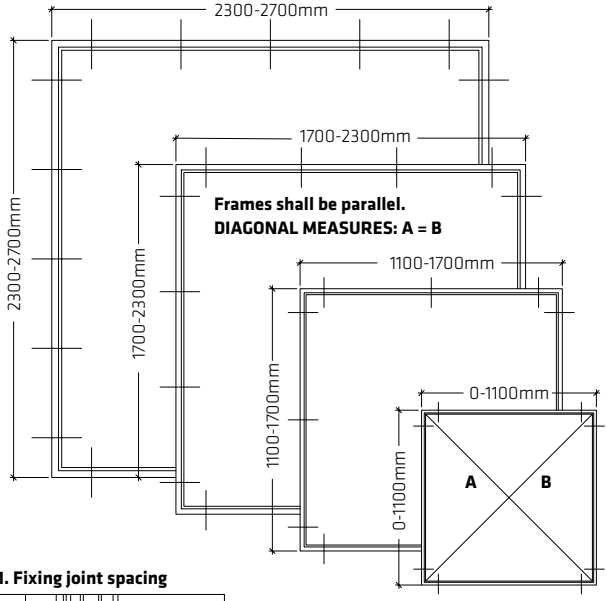


Fig. 9. Fixing with brackets/cramps

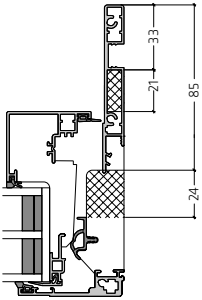


Fig. 11. Fixing joint spacing

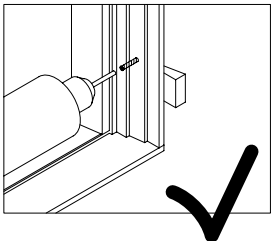


Fig. 12. Area for good sealand adhesion

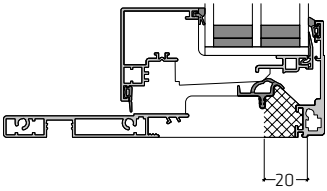


Fig. 13. Combined elements

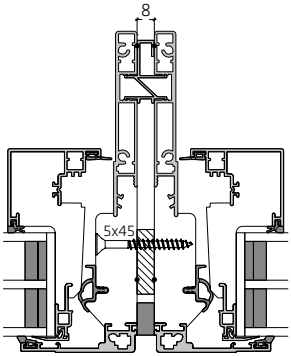
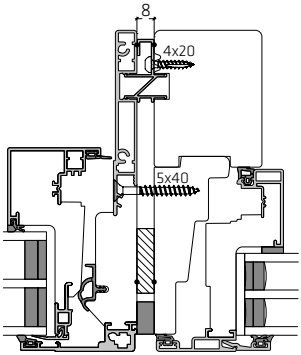


Fig. 14. Combined elements



Sliding doors

Remove transport blocks before installing split and double sliding doors. The sliding sash of a sliding door may be disassembled prior to installation.

Turn the handles so that they are horizontal and push out the frame**.** Remove the screws in the top fitting levers ***(fig. 1)*** and guide them out of the top rail ***(fig 2)***. Carefully tilt out the frame at the top ***(fig. 3)***. Lift the frame off bottom rail ***(fig. 4)***.

When positioning the sliding door element before fixing, never tap directly on the PUR frame; always use a tapping block ***(fig. 5)***. Never tap on the outer rebate ***(fig. 6)***.

Wedges can be used to position the sliding door element before fixing. Place the wedges at the corner ***(fig. 7)***, to avoid distorting the PUR frame or damaging the corner joint ***(fig. 8)***.

Fig. 1. Remove screws

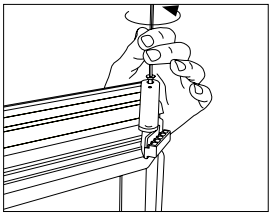


Fig. 2. Guide out top fitting levers

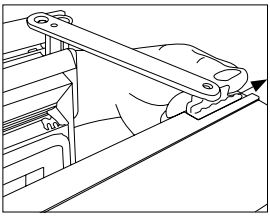


Fig. 3. Tilt the frame at the top

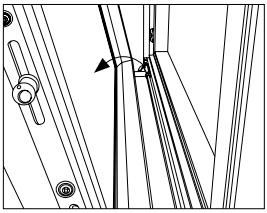


Fig. 4. Lift frame off bottom

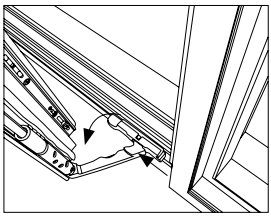


Fig. 5. Using a hammer and tapping block

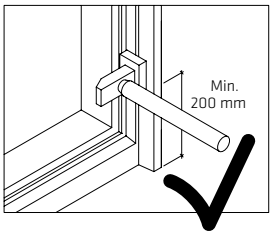


Fig. 6. Incorrect use of hammer

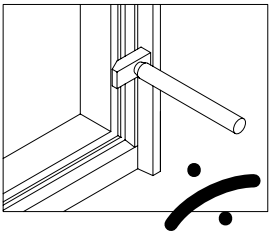


Fig. 7. Correct wedge position

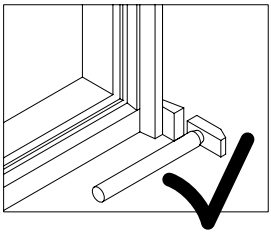
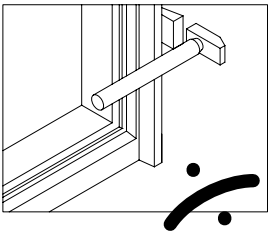


Fig. 8. Incorrect wedge position



Place wedging under the side frames and mullion to ensure that the weight of the sliding door element is supported by the underlying brickwork/construction ***(fig. 9-A***). If the spacing between the wedges is >1000 mm, place permanent wedging between these ***(fig. 9-B)*** The wedging material must be moisture-resistant and be placed max. 17 mm behind the front edge of the sliding rail ***(fig. 10)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

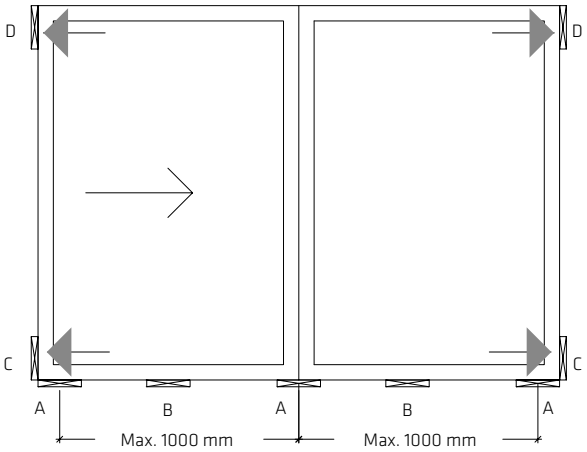
Place permanent wedging at the bottom of the side frames ***(fig. 9-C)***. When securing, ensure that the point can absorb compressive forces.

Place permanent wedging at the top of the side frames ***(fig. 9-D)***. When securing, ensure that the point can absorb compressive forces.

The sill must be horizontal and straight. It must not under any circumstances bow upwards or downwards. Adjust the side frames so that they are vertically plumb. Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

Place permanent wedging at the head/side frame at least 17 mm behind the front edge of the frame ***(fig. 11)***. Depending on the placing

Fig. 9. Wedging



of the sealant, it is recommended that anti-slip tape is used on the wedging material.

When fixing directly through the frame in to the building structure place the fixings in the shaded area ***(fig. 12)***, 150-200mm from the corners and at centres of no more than 600mm ***(fig. 14)***. **It is recommended that headed screws are used when fixing and that the profile is countersunk for the screw head.**

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig. 13)***, 150-200mm from the corners and at centres of no more than 600mm ***(fig. 14)***.

Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the

Fig. 10. Wedge position

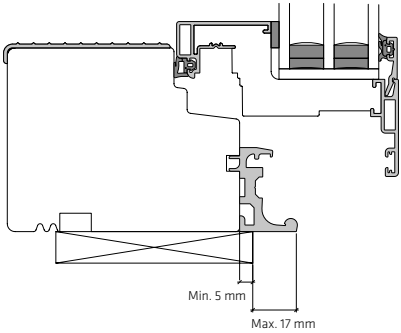


Fig. 11. Wedge position

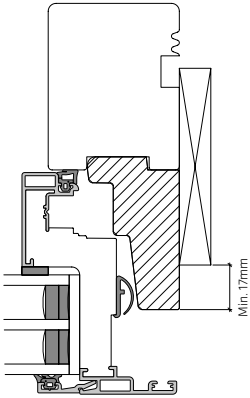
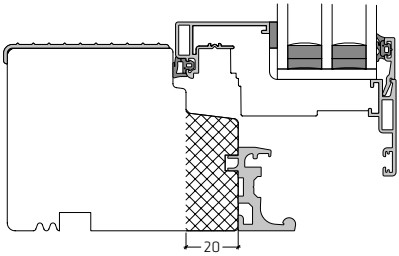
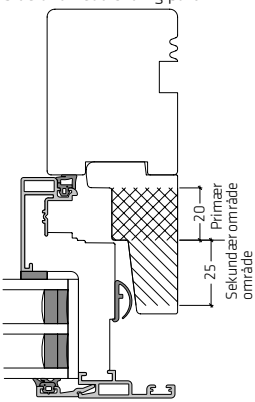


Fig. 12 Direct fixing

Sill



Side and head sliding part



Side and head fixed part

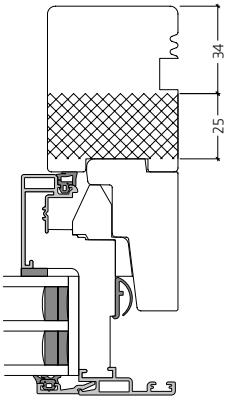


Fig. 13 Fixing with brackets/cramps

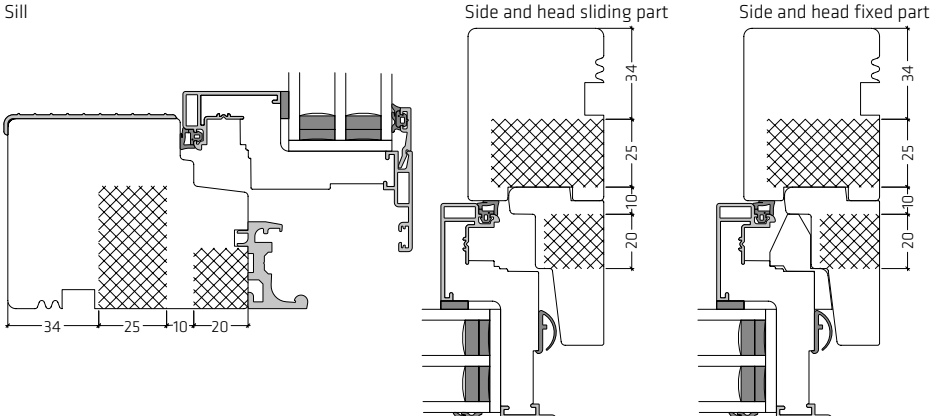
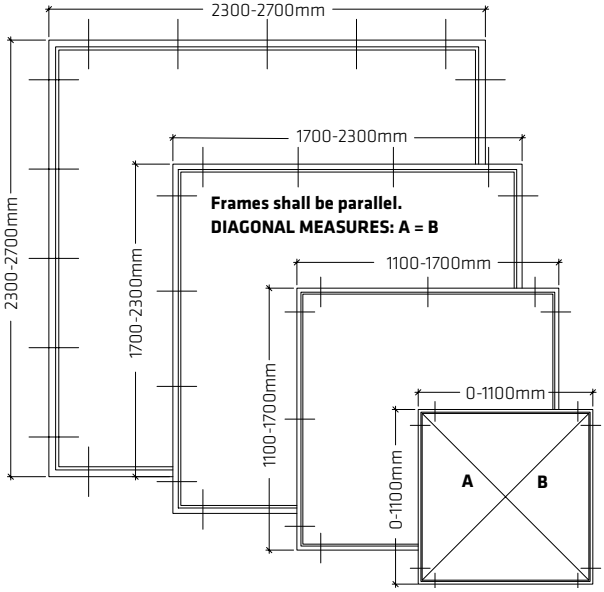


Fig. 14. Spacing, mechanical securing



reverse side and thus significantly impair the fixing of the frame.

Never screw fix through the frame without wedges in place ***(fig. 15)***.

The figur shows where the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 16)***. If the sealant is placed outside of this area, the PUR frame must be cleaned with an acetone before applying sealant.

Note that the top fitting levers protrude 7.2 mm above the frame head ***(fig. 15).***

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws. Seal outside using mastic or sealing tape. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape ***(fig. 18)***.

For split sliding doors, frame head and sill must be level ±0.5 mm. ***(fig. 19)***.

Hang the sliding sash in the reverse order of disassembly. Ensure the top fitting levers face in the same direction as the runners and are horizontal, parallel with the top rail on the frame head.

Fig. 15. Fixing joint spacing

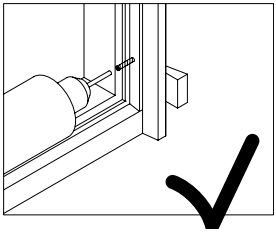


Fig. 16. Area for good sealant adhesion

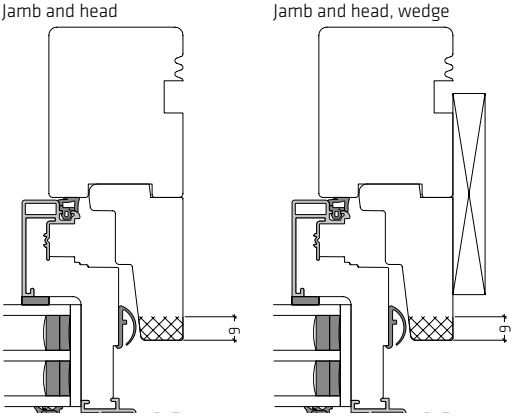


Fig. 17. Fitting lever above head

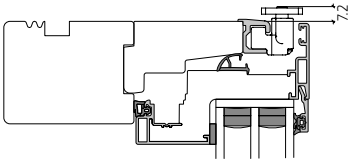


Fig. 18. Combined elements

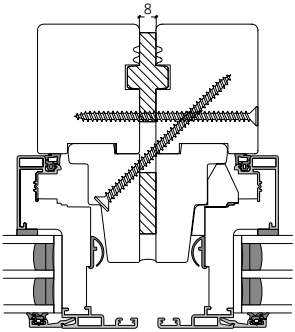
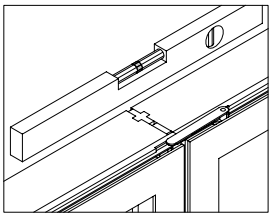
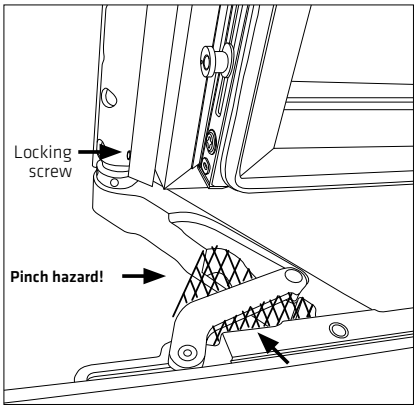
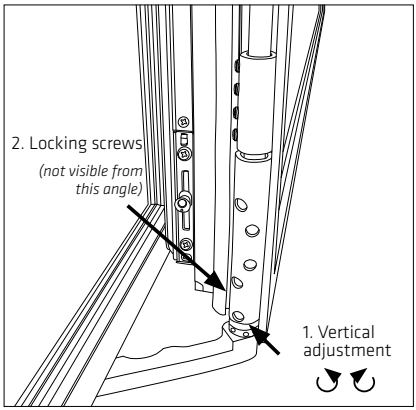


Fig. 19. Split sliding door

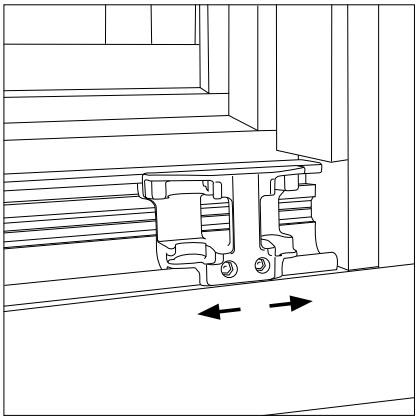




The sliding sash may be vertically adjusted. Slide the door out and loosen the locking screws on the bottom fittings.



Using a round Ø4 mm pin (possibly a drill bit), the innermost bushing in the bottom fitting may be turned to raise or lower the sash. It may be necessary to relieve the fitting of its weight during the adjustment procedure. After adjusting, re-tighten the bottom fitting's locking screws. Tighten the screws on the assembly bracket while pushing the door slightly in at the top.



The bottom rail has two end stops to ensure that the sliding sash does not slide too far forward or backwards. The end stop on the locking side may be moved forwards or backwards to adjust the door position and ensure that the door is exactly in the middle.

Sliding door with low threshold

Dissassemble the sliding sash of the sliding door prior to installation.

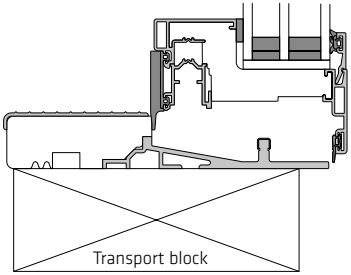
Loosen the center lock, turn the handle to horizontal and the frame will move 6 mm out. Open the sliding door approx. 100 mm and lift the frame 7 mm to free it from the bottom rail.

Pull out the bottom frame no further than 100 mm to subsequently lower the frame off the top rail.

When the sliding sash is dissasembled remove transport bloks ***(Fig. 1)***

When positioning the sliding door element before fixing, never tap directly on the PUR frame; always use a tapping block ***(Fig. 2)***, Never tap on the outer rebate ***(Fig. 3)***.

Fig. 1. Transport block



Wedges can be used to position the sliding door element before fixing. Place the wedges at the corner ***(Fig. 4)***, to avoid distorting the PUR frame or damaging the corner joint ***(Fig. 5)***.

Place support to ensure the sill is hard wearing. This is best done by punctual moisture-resistant wedging supporting the full width of the sill at no more than 200 mm. intervals.

Alternatively, place full support of the sill ***(Fig. 6)***. Depending on the placing of the sealant, it is recommended that anti-slip tape is used on the wedging material.

The sill must be horizontal and straight. It must not under any circumstances bow upwards or downwards.

Place permanent wedging at the bottom of the side frames. When securing, ensure that the point can absorb compressive forces. ***(Fig. 7A)***.

Place permanent wedging at the top of the side frames. When securing, ensure that the point can absorb compressive forces ***(Fig. 7B)***.

Fig. 2. Using a hammer and tapping block

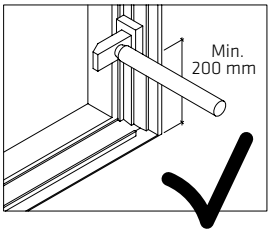


Fig. 3. Incorrect use of hammer

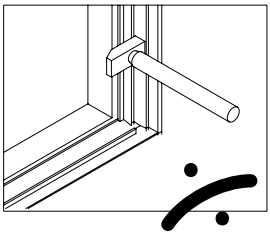


Fig. 4. Correct wedge position

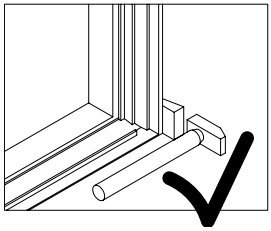


Fig. 5. Incorrect wedge position

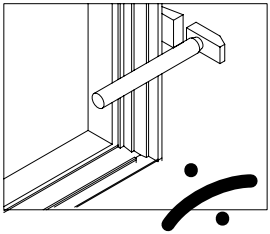


Fig. 6. Wedge position

Sill

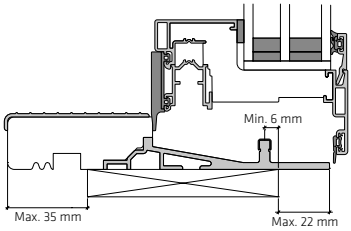


Fig. 7. Wedging

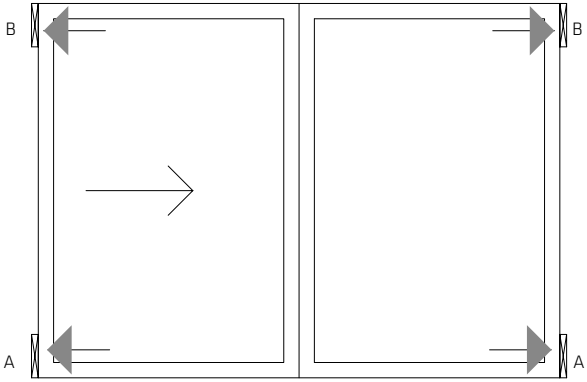
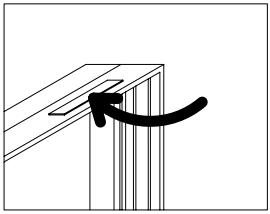


Fig. 8. Holes for installation of sliding sash



Adjust the side frames so that they are vertically plumb. Permanent wedging on the frame head may only be used if the load from any window/door element above does not subject the element to stress apart from on the side frames and mullions.

The fixed points on the top frame, indicating holes for mounting the sliding sash, must not be blocked by wedging or packers ***(Fig. 8)***.

Place permanent wedging at the head/side frame at least 33mm behind the front edge of the frame leaving space for sealant and expanding foam ***(Fig. 9)***.

When fixing directly through the frame in to the building structure place the fixings in the shaded area ***(fig. 10)***, 150-200mm from

the corners and at centres of no more than 600mm ***(Fig. 11)***.

If the window is mechanically fixed using brackets/cramps both the PUR and the timber part must be secured with screws ***(fig. 12)***, 150-200mm from the corners and at centres of no more than 600mm ***(Fig. 11)***.

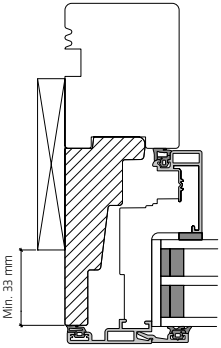
Never use the hammer drill setting when pre-drilling through the PUR frame. This will result in material being knocked off the reverse side and thus significantly impair the fixing of the frame.

Never screw fix through the frame without wedges in place ***(fig. 13)***.

The figure shows where the PUR frame has been prepared to ensure good sealant adhesion ***(fig. 14)***. If the sealant is placed outside of

Fig. 9. Wedge position

Jamb - fixed part



Jamb - sliding sash and head

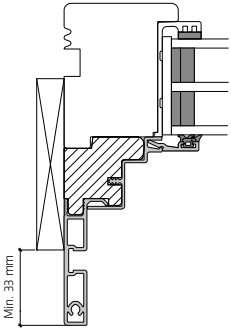
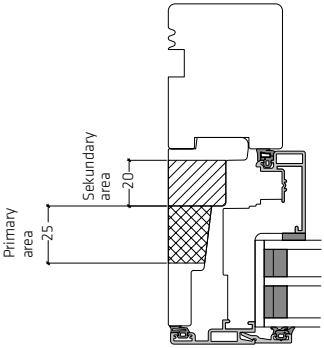


Fig. 10. Direct fixing

Jamb - sliding part



Jamb - fixed part and head

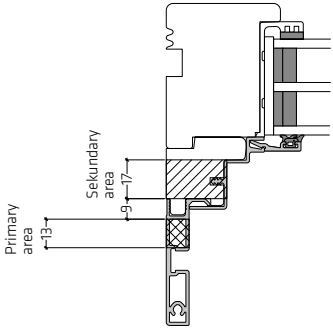
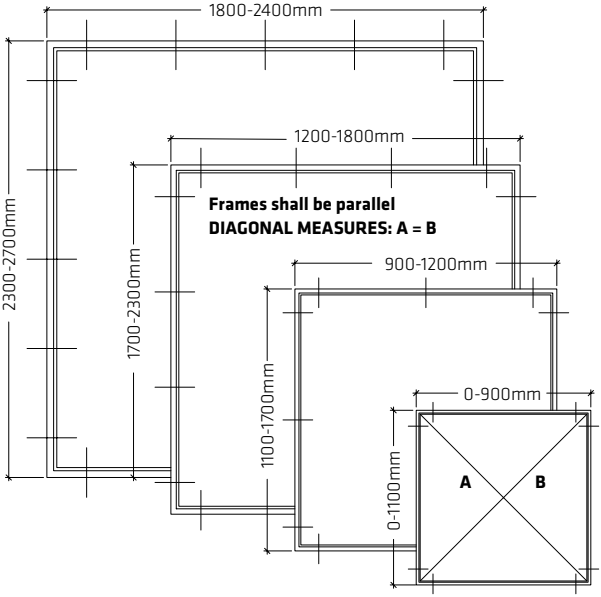


Fig. 11. Spacing, mechanical securing



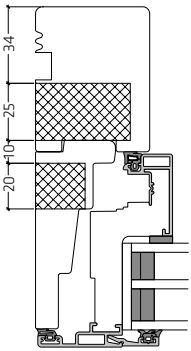
this area, the PUR frame must be cleaned with an acetone before applying sealant.

When assembling the sliding sash, place the frame no more than 100 mm from the sill, lift it and place the top fitting levers into the top rail at the milled grooves. Place the bottom fitting above the bottom rail and lower the frame. The top fitting levers and the upper edge of the sliding sash will protrude approx. 5mm above the frame head while assembling the sliding sash ***(Fig. 15)***.

Place adjoining elements with a spacing of 8 mm and screw them together using 5 x 90 mm wood screws ***(fig. 16)***. Apply mastic between the window elements and spacer strip/cross tongue. Seal outside using mastic or sealing tape

Fig. 12. Fixing with brackets/cramps

Jamb - sliding part



Jamb - fixed part and head

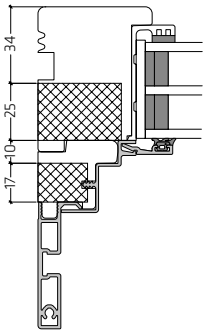


Fig. 13. Fixing joint spacing

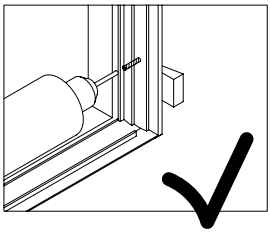
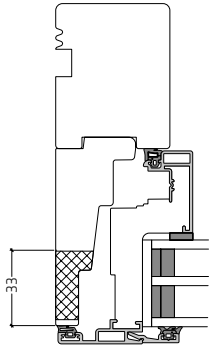


Fig. 14. Area for good sealant adhesion

Jamb - sliding part



Jamb - fixed part and head

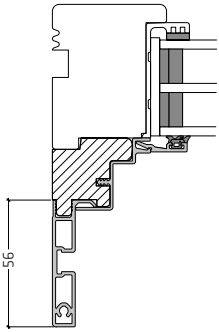


Fig. 15. Protrusion of top lever fitting and upper sash edge

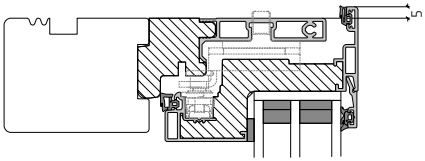
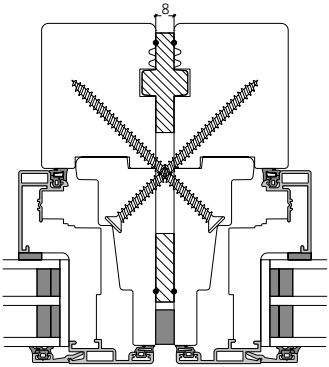
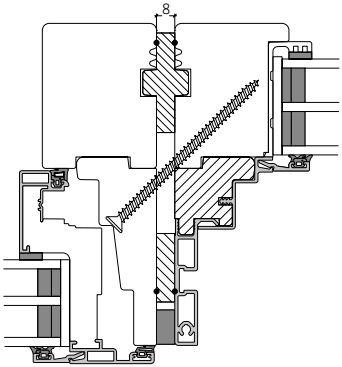


Fig. 16. Combined elements





Warranty

1. WINDOWS AND DOORS

This warranty is given by Idealcombi A/S. It does not in any way restrict or change any of the rights you may otherwise have vis-à-vis your supplier/contractor or Idealcombi A/S as provided by a contract or general legislation.

If, within a period of 10 (ten) years from Idealcombi's time of delivery, you complain about defects in manufacture or materials, this warranty shall give the rights described in item 3 against Idealcombi A/S. The time of manufacture will appear from the label on the product. If requested, you will be responsible for providing documentation for the time of delivery.

Provided that you make a legitimate complaint about defects in manufacture or materials within the period mentioned under item 2, Idealcombi A/S shall be obliged to repair the defect or, if necessary, supply a new product at its own expense. Idealcombi A/S does not, however, under this warranty cover the costs of removal and installation, just as any subsequent works arising from such replacement of a product are not covered by this warranty. If the product is no longer in production when the complaint is made, Idealcombi A/S shall be entitled to supply another similar product instead. If a defect in manufacture or materials can be properly corrected by repair/partial replacement, Idealcombi A/S may choose this solution instead. In such cases, the repair work/partial replacement will be made at the expense of Idealcombi A/S.

This warranty does not give you any rights other than those described under item 3.

If you wish to complain about defects in manufacture or materials, the complaint must be made within a reasonable period of time after the defect has been or should have been detected. Complaints can be made to Idealcombi A/S or to the contractor/dealer who has supplied the product.

This warranty does not apply in cases where the claimed defects in manufacture or materials are caused by faulty installation, missing or insufficient maintenance or faulty operation. Please see Idealcombi's Installation and user manual.

As regards the window's wood components, which have received surface treatment at the factory, please take special notice of the Installation and user manual and 'Expected outcome of surface-treated wood components' (Appendix 14 of the technical regulations of the Danish Window Manufacturers Association. The regulations can be ordered from Idealcombi A/S)

It is important that the exterior window surfaces are washed twice a year to maintain the properties of the surface treatment. If you did not receive an Installation and user manual with your consignment, you can order one from Idealcombi A/S.

This warranty does not cover defects which are the result of circumstances other than normal application and use. Idealcombi A/S is not liable under this warranty for defects which are caused by faulty storage, transportation, installation etc. by a dealer/contractor.

This warranty applies solely to products purchased and installed in England, Wales, Scotland, Ireland, Isle of Man, Orkney and Shetland Isles, Channel Isles and Iceland.

2. DOUBLE GLAZING UNITS

For a period of 10 (ten) years from the time of manufacture (as stamped into the unit), Idealcombi A/S warrants that double glazing units mounted in doors/windows remain free of dust and mist inside the units.

The warranty shall apply on the condition that:

- The unit is mounted at the factory or by one of Idealcombi's fitters
- The time of manufacture (month and year) appears from *the unit's spacer bar*
- The unit has been properly cleaned and protected during the construction period
- The glass has not been damaged on the outside by e.g. bumps, impacts, movements of adjacent constructions and the like
- There are no defects caused by frost bursts, other thermal impacts or chemical impacts on the glass
- The unit has not been subject to subsequent treatment upon delivery such as sanding, sandblasting, etching, painting, affixing or other forms of surface treatment
- Sash and frame have been subject to proper, regular maintenance.

For units with 'mounted' and/or 'built-in elements' such as lead panes, alarm systems, blinds etc., a five-year warranty is granted.

3. ELECTRICAL EQUIPMENT

A one-year warranty is granted for all electrical equipment.

The Association of Danish Window Manufacturers and Danish Window Verification (DVV)

VINDUES INDUSTRIEN

The Association of Danish Window Manufacturers

Idealcombi A/S is a member of the Association of Danish Window Manufacturers.

Founded in 1977, the Association of Danish Window Manufacturers is the trade organisation of approx. 65 Danish manufacturers of windows and external doors.

The association's general purpose is to safeguard the interests of the window and door manufacturing business, but it also gives high priority to consumer safety in connection with window and external door purchases.

Another essential function of the Association of Danish Window Manufacturers is the technical regulations which form the basis for quality control procedures carried out in pursuance of the Danish Window Certification body, DVC.

The technical regulations ensure the best possible conditions for the manufacture of windows and external doors, both in terms of function, life span and focus on energy and the environmental issues.

For further information, please visit the Association of Danish Window Manufacturers website at: **www.vinduesindustrien.dk.**

DANSK VINDUES VERIFIKATION

Danish Window Verification

All Idealcombi A/S' products are DVV-labelled.

All the Association of Danish Window Manufacturers members are affiliated with Danish Window Verification (DVV). This means that consumers are guaranteed windows or doors that have been quality inspected.

DVV is a fully independent certification body which is affiliated with the Danish Technological Institute. DVV affiliated manufacturers are subject to systematic control of their products and quality management systems twice a year.

Under the DVV programme, the manufacturers are subject to special requirements for quality assurance and management, product design, material quality and workmanship.

The Association of Danish Window Manufacturers' members include manufacturers of windows and exterior doors of wood, wood/aluminium, plastic and aluminium. Consumers can rely on all the Association of Danish Window Manufacturers' member products being DVV-labelled.

For more information about DVV and the requirements made for DVV-labelled products, please visit the DVV website: **www.dvv.dk**

The warranty conditions shall come into effect upon placing of an order. These conditions shall be valid from 1 June 2002.

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