

## DESCRIPTION OF FRAME INSTALLATION

DEAR SIR/MADAME,

Please find below a short description of individual stages of mosquito screen installation in PVC, wooden and aluminium windows. Firstly, properly measure the clear opening of the window frame (width x height) where the frame with the screen will be installed.

There are several systems as regards PVC windows:

- non-faced profile: VEKA, KBE, Komerling, IDEAL 2000, Styl 2000 etc.
- faced profile: Knipping, Panorama, Intertec, Plus-Tec, Rolplasto etc. or both profiles in one system.

Despite the fact that there are so many various window profile systems, their measurements are taken in the same way.

The measurement of width is taken by measuring the smallest window clear opening i.e. from the left side rabbet of the window frame to the right side rabbet (or to the fixed mullion or floating mullion in the case of casement windows).

In casement windows, screens are usually fitted in the tilt-turn window sash.

Height should be measured from the top rabbet to the bottom rabbet of the window frame.

The method of taking measurements is shown in Fig. 1.

Next, subtract constant values from the width (W) and height (H) for individual systems of window profiles.

For example:

- non-faced profile: VEKA S – (39mm), H – (39mm), KBE S – (40mm), H – (40mm), REHAU S – (37mm), H – (37mm) etc.

Table of constant values no. 1.

- faced profile: Panorama S – (42mm), H – (42mm), Plus-Tec S – (41mm), H – (41mm) etc.

Table of constant values to be subtracted no. 1.

Having subtracted constant values from the measurements taken before, you acquire width and height that the profiles should be cut to.

In the case of wooden single-frame windows with drips e.g. Stolbud Włoszczowa, Wołomin, Stolbud Wrocław, Sokółka etc. the difference in taking measurements compared to PVC windows is in measuring the height. With wooden windows, height should be measured from the top rabbet of the window frame to the top edge of the drip alongside the frame rabbet, as shown in Fig. 2.

From the measurements taken in this way, two constant values are now subtracted: width W - (42 mm),

height H - (51 mm).

Having subtracted such constant values, you acquire width and height that the profiles should be cut to.

After the completion of the above, you have two width profiles and two height profiles ready for assembly.

The next operation is drilling of holes in these profiles for bolts to fix the rotating grips as demonstrated in Fig. 3. Fig. 3 shows the positions of drilled holes in wooden and PVC window profiles.

The number of drilled holes is specified in Table no. 2.

Before drilling any openings in the profiles (2.5 mm) for M3 bolts, a PVC block should be inserted into every profile in the place designated for the given opening.

PVC blocks can be pushed through the profile to the desired position with the use of PVC corner or any other suitable metal tool. Make sure that the middle of the block is in line with the point where the opening will be drilled in the profile.

Example: Profile length equals 1300 mm and additional opening must be drilled in the middle of the profile height. Mark the middle of the profile by drawing a line with a pencil, insert the PVC block in the profile and push it all the way through the profile until the block reaches the position desired (the line you marked). When the block reaches the line you marked on the profile, you can start drilling openings both in the profile and through the PVC block.

Having inserted all the PVC blocks and PVC corners, place all frame elements in the guide (Fig. 3) and drill the openings 2.5mm each.

Having drilled all the openings, you can assemble the screen frame using PVC corners. One of the last elements of the assembly is fitting the screen in the assembled frame. This should be done on a special assembly table which is different from a regular table because it is a little tilted and is equipped with strips which make 90° angle in its left bottom corner.

These two strips, screwed to the table at an angle of 90° between them, are necessary to make sure that the frame will not move when you press the clamping rubber into the groove of the profile and you get the required rectangular and not rhomboid shape, which may happen after the screen is assembled.

Next, you can proceed with fitting the screen in the frame. The frame should be placed on the table in such a way that you can start pressing the gasket into the groove in the right top corner of the frame when you look at the frame lying on the table. Lay the screen over the frame and start pressing the gasket. The gasket should be pressed with a special roller, starting from the right top corner of the frame. Watch the screen all the time to make sure that its fibres are parallel to the edge of the profile. Press the gasket slowly but without interruptions. When you reach the end of the profile, put the gasket along the width of the frame and repeat this operation. Firstly, press the gasket into the groove of the profile and move smoothly downwards so that the screen fibres are parallel to the edge of the profile. Once you reach the second corner, turn the frame by 180° to the right. Now comes a crucial moment since this is the last stage of the assembly and you must pull the screen tight over the frame, which will determine the final result of your work. Like before, press the gasket into

the groove and, using your left hand, smoothly stretch the screen. You can't stretch the screen too much as it can pull the profiles inwards.

Before you fit the screen in the last section (width section), attach a plastic handle half way along the profile in its groove. The screen will be stretched over such handle. Now, press the gasket into the groove, pressing harder in the place where you placed the handle so that the gasket would not protrude from the groove. After pressing the gasket into the profile groove, cut the excess gasket with a sharp knife. Press the end of the cut gasket back into the groove with a use of a screwdriver. Now you can cut the excess screen. Use a knife with an adjustable blade to cut the excess screen along the frame perimeter and be careful not to damage the screen which has been already stretched.

The last stage of the assembly is attaching the rotating grips (metal fittings). All the grips have numbers attached, depending on the profile system that you want to make your frame for. Table no. 2. Each rotating grip is attached with a cross-head screw. A brass washer should be placed between the profile and the revolving grip.

Since the screws have fine thread, using a screwdriver can be time consuming. Therefore, it is much easier to use a cordless screwdriver.

It seems obvious that this instruction is rather theoretical and the assembly itself should be demonstrated more practically.

At our plant, we provide training for those interested in getting more practice. This training will certainly be helpful and make frame assembly much easier so that it could bring satisfaction and financial benefits.

In case of any problems, do not hesitate to contact us for further instruction and support.

We wish you enjoyable frame assembly, hoping that it will bring you a lot of satisfaction.