

Installation Instructions for Shear-Fix LF 300 / LF 600

Scope of delivery:

- 1 Base plate
- 1 Retaining bracket LF 300 or LF 600
- 2 Nuts M10 (stainless steel)
- 5 Wood screws (galvanized steel)
- 2 Intermediate layers made of EPDM (1 large + 1 small)
- 1 Bit



Shear-Fix LF 300



Shear-Fix LF 600

Preliminary Remarks:

The installation steps of the Shear-Fix LF300 and the LF 600 are basically identical.

The installation and waterproofing of the base plate (fixed flange) vary slightly depending on the waterproofing material used. Installation step 3 is therefore divided into waterproofing with bituminous or polymer bitumen membranes and plastic or elastomeric membranes. Usually, Shear-Fix are installed on rafters made of solid structural timber,

(softwood strength class C24, grading class S10 or higher) or similar suitable base material. The required minimum width of rafters is 100 mm (predrilled screw holes, width 5 mm; otherwise min. 140 mm of rafter width). The base plate (fixed flange) is to be centred on the rafter.

When installing on wooden formwork or thick wood (e.g. Kerto or similar), suitable screwing devices must be provided by the installer. The required material thickness of the formwork depends on these screwing

devices. The choice of the screwing devices needs to satisfy the load requirements of the Shear-Fix LF 300 of at least 3 kN (Shear-Fix LF 600: at least 6 kN).

Note: Any illustrations in these instructions show installation at the eaves of a roof. Regardless of these examples installation is also possible within the roof area in order to provide shear protection.

Installation Steps:

1. Measure and mark the installation positions.

In case of a bituminous waterproofing, the membrane needs to be cut out in the size of the base plate, in order to avoid a significant elevation of the entire build-up around the base plate.

2. Install the base plate (fixed flange) according to regulations at the designed position using the 5 wood screws provided. Make sure that the screws are set orthogonally to the base plate. Matching bit inserts are included in the scope of

delivery. The screw holes should be pre-drilled with 5 mm.



Tighten base plate



Construction and installation based on German Standard DIN 18195 and on the Flat Roof Guidelines

Use only in non-pressurized water conditions according to German Standard DIN 18195, DIN 18531 and Flat Roof Guidelines
For the installation on concrete use four concrete screw anchors (in case of LF 600 five), type Würth W-BS/A4 Ø 6 x 65 or similar, according to manufacturer's instructions.

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3. Cut blanks from the used waterproofing material.

Waterproofing with bituminous and polymer bitumen membranes:

In the case of waterproofing with bituminous and polymer bitumen membranes, at least two layers are required according to regulations. The 1st layer is installed at least 80 mm beyond the base plate; the 2nd layer is welded at least 80 mm beyond the 1st layer. For single-layer bituminous membranes, proceed according to the

manufacturer's instructions. Mark the positions for the threaded bolts onto the blanks of waterproofing material and punch out with a 12 mm Ø hollow puncher.

Note: The supplied larger EPDM intermediate layer is not required for bituminous waterproofing.

Waterproofing with plastic and elastomeric membranes:

If plastic or elastomeric waterproofing membranes are used, place the large

EPDM protective sheet over the base plate. The size of the blank piece which is overlapping the EPDM-intermediate layer needs to allow for manual hot air welding according to manufacturer's instructions. Mark the positions for the threaded bolts onto the blanks of waterproofing material and punch out with a 12 mm Ø hollow puncher.

Note: It is not allowed to use any waterproofing membranes laminated with separating or protective sheets from below.



Place larger EPDM intermediate layer



Punched blank piece of membrane



Professional welding of the blank piece

Place smaller EPDM intermediate layer

4. Place retaining bracket (loose flange) over the threaded bolts and Tighten the two included M10 nuts

(wrench size 15) evenly alternating, applying a torque of between 20 Nm and 24 Nm.

We recommend using a torque wrench to ensure the required tightening values.



Set Shear-Fix LF 300 over threaded bolt



Set Shear-Fix LF 600 over threaded bolt



Tighten M10 nuts with 20 Nm to 24 Nm

5. Check the tightness of the nuts twice over a period of 24 hours and retighten if necessary.

6. Finally, double-check all welding joints of blank pieces and the tightness of screw connections.