## Roof ladder for tile roof

## 1. Instructions for use

- Roof ladders are designed and manufactured according to EN 12951, class 2. When installed according to these instructions, the roof ladder can be used as a safety line anchor point (= class 2).
- We recommend attaching the safety line around the side rails, but it can also be attached to the rungs.
- NOTE! The safety line may not be attached to the fixtures
 or the plastic feet.
- The safety line may only be used on the same roof plane as the ladder, in the direction of the eaves, and the line must be dimensioned in such a way that the user cannot fall over the eaves.
- An approved safety line (EN 353-2) with fall arrest system and length adjustment must be used. Retractable type fall arresters (EN 360) may be used instead of safety line.
- A roof ladder may only be used as safety line anchor point by one person at a time. The maximum weight of the person using the anchor point, incl. equipment, is 100 kg .


## 2. Planning

- Safe access must be provided for all items on the roof that need regular maintenance or inspections if the slope of the roof is steeper than $1: 8\left(7^{\circ}\right)$.
- Using a separate snow guard at the roof ladder location is recommended. The roof ladder is not a snow guard.
- Plan the placement of the roof ladder and the wall ladder so that they are at the same place.
- Vesivek vertical safety rail can only be installed on class 2
 roof ladders.


## 3. Dimensions and dimensioning of roof ladders

- The distance of the bottom rung of the roof ladder from the top rung of the wall ladder may not exceed 400 mm .
- Step diameter 25 mm .
- The step distance of the ladder is 300 mm and the internal distance of the side rails is 400 mm .
- If the roof ladder extends until the ridge, the suitable length equals the roof plane length minus 200-300 mm.
- The products are designed to sustain a point load of 1.5 kN (approximately 150 kg ).


## 4. Parts of the roof ladder



## 5. Installation order

1. Measure the required ladder length. If necessary, cut with a hacksaw or extend with another ladder. One end of the ladder is narrower than the other so that the sections overlap when placed in a row. Use M8 $\times 30 \mathrm{~mm}$ bolts to lock the connections. If the ladder length is over 6 m , the ladder should be extended on the roof.
2. Place a Roof ladder top fixture for tile roof (KTYK/T) on the top two rungs while the ladder is still on the ground. To do this, pass the fixture handles around the rungs and tighten them in place with an M8 x 20 mm hexagonal screw and an M8 nut.
3. Place the plastic feet provisionally in the ladder side rails already on the ground. Place the feet at approximately 1.5 m intervals. The feet can be rotated around the side rail. Place the tightening screws ( $5 \times 60 \mathrm{~mm}$ ) of the feet in their places but do not tighten them yet. The fit of the feet into the "waves" can be adjusted by turning one or both feet the other way.

4. Attach the temporary supports.

- Use strength classified (min. C24) wooden planks, minimum dimensions $50 \times 100 \mathrm{~mm}$ or similar closegrained wood of good quality. Attach the temporary support to three roof trusses (two is enough if the ladder is placed in the middle between two roof trusses).
- Fix the temporary supports as shown in the figure so that the top edge of the support is approximately
 $150-180 \mathrm{~mm}$ from the top edge of the tile roof's roof batten.
- Use minimum two $6 \times 120 \mathrm{~mm}$ screws or 6 " hot-dip galvanised nails to attach the temporary support through the spacer lath to the roof truss. Place screws (nails) to every roof truss so that one of the screws is at an angle as shown in the figure. The screws must be placed at minimum 15 mm from the edge of the temporary support.

5. Lift the ladder to the correct place on the roof. Attach the roof ladder top fixture for tile roof (KTYK/T) to the temporary support with four $7 \times 50 \mathrm{~mm}$ HVAC screws.
6. Adjust the plastic feet by sliding them on the rail to places where the foot rests on or immediately next to where a batten is located. Before tightening, ensure that the feet fit the waves as well as possible. Tighten the screws.
7. Use the roof ladder top fixture for tile roof KTYK/T to attach the bottom of the ladder in the same way as the top of the ladder or use U-flanges to fix it to the top curves of the wall ladder. The ladder can be attached with the top and bottom fixtures if the length is maximum 6 m . KTYK/T fixtures must be installed every three metres in ladders longer than that.

## 6. Maintenance

- In order to keep the installation as a class 2 system, the installation must be inspected once a year by an inspector authorised by the manufacturer.
- The roof ladder is not dimensioned to sustain the snow load of the entire roof and especially not moving masses of snow. Snow must, therefore, be prevented from moving and the stress must be directed at the snow guards. If no snow guards have been installed, snow must be cut regularly on both sides of the roof ladder to reduce loads.


