

**INSTALLATION MANUAL** 



### **RUUKKI® FRIGGE - HEART OF YOUR HOUSE**

Ruukki® Frigge is modern modular steel roof with special features ensuring simple and intuitive installation. The modularity and symmetrical shape as well as specially designed components such as ridge tile and gable trim allow the choice of any installation direction, i.e. from right to left and left to ridge cap and verge trim. The Ruukki® Frigge profile also provides the possibility to mount sheets from top to bottom and bottom to top. The risk of damage during installation has been minimised due to the large support area on the battens. Special mounting recesses located in the front part of the profile ensure a stable position for the sheets with respect to each other and facilitate the placement of the screws for fastening.

For the correct installation of the Ruukki® Frigge roofing, we recommend installation on battening with wooden battens of 40 x 60 mm. Wooden battens should be dry, straight and impregnated with a fungicidal product that does not corrode the steel elements with which the battens are in contact. Regardless of the angle of inclination of the roof area, the battens must be mounted to the roof construction with a spacing of 35 cm along the batten's axis. The first batten is an exception. It must be placed in relation to the eave's batten so that the front edge of the Ruukki® Frigge roofing protrudes by about 40–45 mm beyond the eave line. (This applies in case of installation with the eaves flashing). Installation is also possible in the option without the eaves flashing – in this case the distance from the lower edge of the first batten and the upper edge of the second batten must be approx. 24 cm (see Fig. 5). In order to ensure adequate support at the eave's edge, the first batten must be mounted lengthwise. Before installing the sheets, you need to level the battens to ensure the desired visual effect of the roofing. We recommend installing Ruukki® Frigge using TORX 4.8 x 35 mm mounting screws for wooden battens, and joining the sheets using 4.8 x 20 mm TORX cladding screws that are screwed in the special recess places.

The installation methods given in these instructions are for general guidance only. The specific installation method may differ slightly from the description in the instructions depending on the roof type or installation country. For special instructions, updates and other installation instructions, please visit our website www.ruukkiroofs.com.

To follow the general installation instructions, follow the instructions of the designer or contact Ruukki Technical Support.

## **Specifications**

#### **Product**

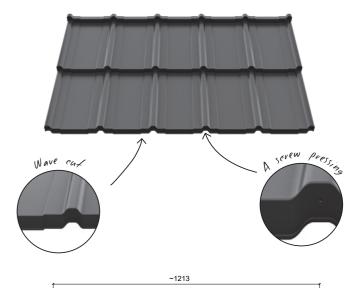
Name Ruukki® Frigge Code TS41-350-1185 Profile height 41 mm Module length 350 mm Effective width 1,185 mm Total width 1,213 mm Effective length 700 mm Total length 720 mm Effective sheet area  $0.83 \text{ m}^2$ Minimum pitch 14° Batten spacing 350 mm Sale unit pcs. Number of sheets per pallet 200 pcs.

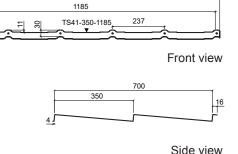
#### Material

Galvanised sheet steel PN-EN 10346 Coated sheet steel PN-EN 10169

#### **Tolerance**

Product PN-EN 508-1 Material PN-EN 10143





#### Colours

Black, Anthracite, Graphite, Chocolate Brown, Dark Brown, Brick red, Cherry red

## **Material Specifications**

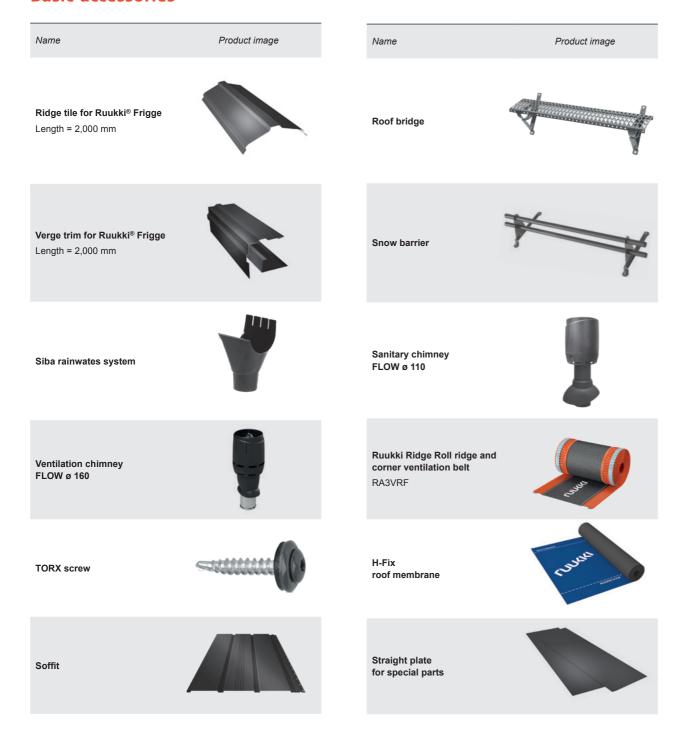
Quality class	Nominal thickness (mm) (PN-EN10143)	Weight (kg/ m²)	Coating	Minimum mass of zinc (g/m²)
Ruukki 50 Plus	0.50	4.3	GreenCoat Pural BT matt	275
Ruukki 40	0.50	4.3	GreenCoat Crown BT	275
Ruukki 30 matt	0.50	4.3	Polyester Rough matt	275
Ruukki 30	0.50	4.3	Polyester	275

Ruukki ® Frigge Installation Instructions

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## **Basic accessories**

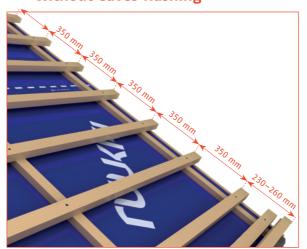


## 1. Standard layer system





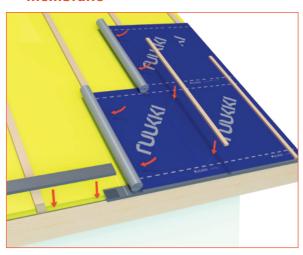
5A. Installation of wooden battens without eaves flashing



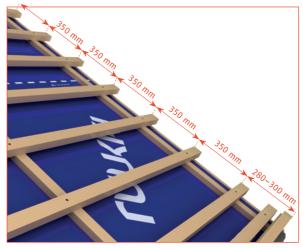
## 2. System on sheathing



4. Installation of vapour permeable membrane



5B. Installation of wooden battens with eaves flashing



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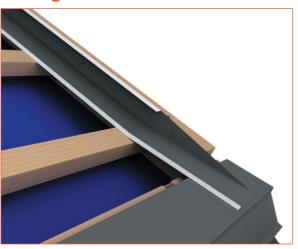
#### 6. Installation of short brackets



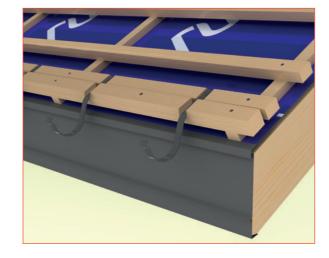
8. Installation of eaves flashing



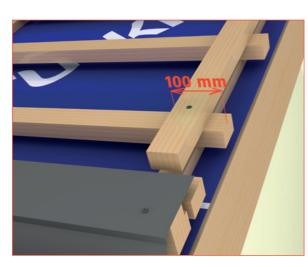
10. Installation of the lower part of the verge trim \*



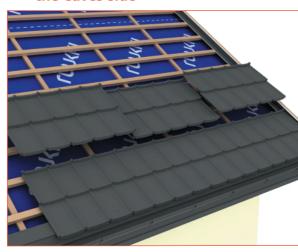
7. Installation of long brackets



9. Installation of trim batten

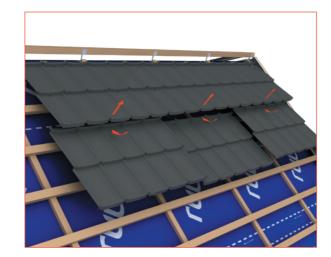


11. Installation of panels from the eaves side

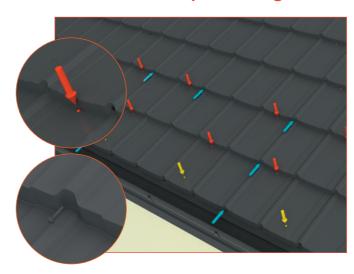


\* The option for Monterrey roofs can also be used for installation of ridge cap and verge trim (see Installation manual for this roofing).

## 12. Installation of panels from the ridge



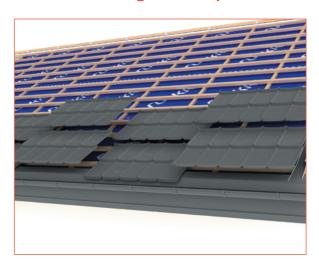
14. Installation of panels using screws



16. Installation of ridge cap \*



13. Correct arrangement of panels \*\*



15. Installation of ridge board \*



17. Installation of the upper part of the verge trim \*



- \* The option for Monterrey roofs can also be used for installation of ridge cap and verge trim (see Installation manual for this roofing).
- \*\* If you do not want the corners of four sheets to meet at one place, you can move every second row horizontally by the module width or by half of the sheet.

The producer reserves the right to make changes in colours, patterns and sizes of presented products

