

NOW THE INSTALLATION OF A METAL ROOF IS EFFICIENT

The intelligent design of KINGI® Metal Roofing Screw enables efficient installation. The CrownD designed screw head ensures a tight grip on the screw head for the socket, and FastFX Express Screw Tip™ penetrates even overlapped steel sheets extremely quickly. The head and the tip of KINGI® Metal Roofing Screw allow the screw to go exactly to the desired spot – without scratching the metal sheets. Therefore repair painting due to scratches by screws is avoided. Installation at once means money and time savings, and ensures that the metal steel roof will last.

When installing, always use KINGI® Socket (ø 8.27 mm) to avoid damaging the extra thick KINGI® Metal Roofing Screw 3-layer coating system during the installation. The roofing screw remains tightly secured in KINGI® Socket due to a strong magnet.



USER MANUAL

Congratulations! You have chosen the only carbon steel roofing screw that is certified for outdoor use. In this Manual, you will find all the needed information about the use, installation, maintenance and warranties of KINGI® Screw. If you need additional information, please contact your reseller or Kingi Customer Service: kingi@kingi.fi or +358 400 154 888.

APPLICATIONS

KINGI® Metal Roofing Screw is meant to be used to attach metal steel sheets on ventilated roof and wall structures. Typical applications are roofs and walls of residential and office buildings; industrial, agricultural and storage buildings.

KINGI® Metal Roofing Screws can be used to attach thin steel sheet structures to steel and wooden support structures. The thickness of a steel sheet to be attached and the possible steel support structure should both be maximum 0.7 mm, in total no more than 1.4 mm.

KINGI® Metal Roofing Screws can be used in the climate stress categories C1, C2, C3 and C4. Only in a very harsh marine or industrial climate, it is not recommended to use the KINGI® screws.

STORAGE

Store KINGI® Metal Roofing Screws in a dry place.

INSTALLATION INSTRUCTIONS

CORRECT INSTALLATION

Install the screw perpendicularly to the surface of the steel roofing. We recommend that you use a screwdriver with a moment trigger when attaching. Prior to the installation work, make a compression test for seals of the washers in order to adjust the tightening torque correctly. Adjust the screwdriver's moment trigger so that the EPDM seal of the washer is compressed approx. 1mm over the edge of the aluminium washer, as seen from the top.



Incorrect installation. As the screw is askew, the joint is not waterproof.



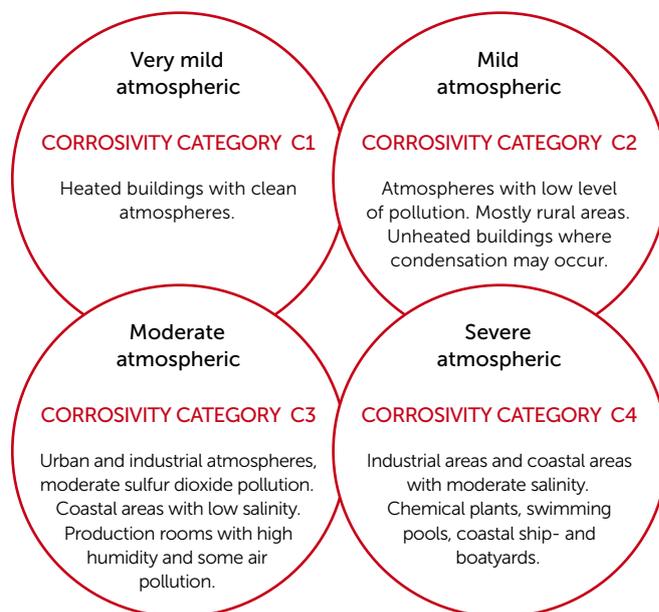
The installation is too loose. EPDM Seal does not settle tightly against the plate to be installed.



Correct tightness. The seal of the washer is tightly against the plate, and EPDM Seal is compressed about 1 mm over the edge of the aluminium washer, as seen from the top.



Installation is too tight. The seal of the washer is compressed too much, and it overflows from underneath the aluminium part.



INSTALLATION STEPS

Step 1



The correct rotational speed is 1000–2500 rpm. When screwing, the screwdriver should be pushed with a force min. 15 kg. The higher the speed and the bigger the weight, the quicker the drilling will happen. However, the risk of drilling too deep increases at the same time. As soon as you have selected the correct adjustments, check the installation instructions provided by the steel metal roofing manufacturer one more time. Now you are ready to start the installation.



Step 2

Set the screw into KINGI® Socket (Ø 8.27 mm), and place the screw tip to the right spot according to the steel metal roofing manufacturer`s instructions.



Step 3

Keep the screw straight when drilling. If you drill the screw askew, the seal of the washer does not compress tightly enough against the sheet metal and the joint does not become watertight.



Step 4

Drill the screw as deep as it takes to fit the EPDM seal of the washer firmly against the metal sheet, which makes the joint watertight. However, do not drill too tight to avoid the washer to bend into a cup shape. The edges of the washer folding upwards create a cup for rain-water, which creates a corrosion risk. If the paint coating of the screw is damaged for some reasons the installation revealing the galvanized surface, replace the screw with a new one.



Step 5

After the installation, check that the screws are fastened according to the instructions. Replace all incorrectly fastened screws with new, correctly fastened screws.

MAINTENANCE INSTRUCTIONS

If you take a good care of your sheet metal roof, it will last longer. KINGI® Metal Roofing Screw is designed to work together with the best steel metal sheet roofing on the market to make the service life of a steel metal sheet roofing as long and carefree as possible. KINGI® Metal Roofing Screw is the only roofing screw that lasts as long as the best steel metal roofings on the market – in all conditions. Regular maintenance ensures the durability of the steel metal roof.

In autumn, the steel metal roof gutters are cleaned from leaves and other particles that have filled them during the summer. Check also the condition and tightness of the screws. Screws can loosen because of the wood's natural shrinkage and expansion and/or the thermal expansion of the profile.

In those countries, where the roofs are covered with snow in winter, it is recommended to check the roofing in spring after the snow has melted, especially if snow was dropped from the roof in winter. Dropping the snow may damage the roofing screws.

Check the screws and replace the damaged screws with new ones promptly.

WARRANTIES

When you have done the assembling of the KINGI® screws as instructed, Kingi Oy will grant unique warranties.



APPEARANCE AND RUSTFREE WARRANTY FOR 20 YEARS

It is warranted that the coating of KINGI® metal roofing screws will not chip, crack or loosen, and there is no rust on the painted CrownD-head for 20 years.



LEAKAGE FREE WARRANTY OF 30 YEARS

It is warranted that KINGI® metal roofing screws are waterproof for 30 years.



TECHNICAL WARRANTY OF 50 YEARS

A technical warranty ensures that the rusting will not break the threaded part of the KINGI® screw for 50 years.

WARRANTY TERMS

1. Keep the merchant receipt throughout the duration of the warranty. The warranty starts from the date of the purchase, provided that the screw was bought from Kingi Oy or its authorised dealer, and that it was used in normal climate conditions.
2. Warranty is not valid if the screw was used in extremely harsh or corrosive climate conditions, such as, in places where the screw is exposed to water, chemicals, ash, cement, dust, soot, algae or animal manure for a prolonged period of time.
3. The validity of the warranty is subject to the condition that the screw was installed according to the provided instructions. For example, if the paint coating was damaged or the seal was overcompressed, the warranty will become invalid.
4. The warranty is not valid, if the defect was mainly caused by the following factors:
 - a. The installation or maintenance was not made in conformity of these instructions or these warranty conditions;
 - b. the moisture level in the materials under/behind the installed profile was exceptionally high or the ventilation was not sufficient for the circumstances;
 - c. natural disaster or environmental disaster or exceptionally high concentration of pollutants, radiance, fire or other exceptional circumstance;
 - d. mechanical, external stress, such as, for example, damages due to snowdropping;
 - e. chemical reaction between the screw and some other building material (for example, mortar);
 - f. transportation, storage or handling at the site.
5. The buyer must monitor the condition of the screw and maintenance it according to the instructions provided by the manufacturer. If scratches, cuts or abrasions appear on the paint coating of the screw, which go through the protective surface layer of the screw, the screw must always be replaced with an undamaged screw.
6. The claim concerning the warranty must be presented to Kingi Oy without undue delay after a defect has been detected, and no later than the expiry of the warranty. In order to provide the manufacturer the needed information for starting the case investigation, the written claim must include the name, address and the telephone number of the person invoking the warranty. Additionally, he shall present the purchase receipt and describe the nature of the defect, date of its appearance and detection.
7. Kingi Oy reserves the right to visit the site and check the damaged screw, and to remedy the detected shortcomings, at their own choice, by repair painting or replacing the damaged screw with another or by compensating the buyer from the damaged screw. The warranty obligations are fully limited to the price of the delivered products. The warranty does not, in any circumstances, cover any indirect losses or damages, which may have been caused by the defect in the screw. Replacement of the screw by another, its repair or renovation of the finishing does not extend the length of the original warranty.
8. This warranty is an additional benefit provided by the seller, and it does not affect the consumer's legal protection. This warranty is governed by the Finnish laws. The warranty is valid provided that the buyer has fulfilled all his obligations to the seller and importer of the screw. This warranty replaces all other possible warranties, with the scope determined in this document, irrespective whether the other warranties were provided directly or indirectly (for example, by agents, resellers or any other party than Kingi Oy).

METAL ROOFING ATTACHMENT TO LAST FOR A LIFETIME.