

B-Clamps



The S-5![®] B-Clamps, made of Brass, with an opening slot of 6mm are designed for Copper roofs with double-folded standing seams.

The S-5![®] B-Clamps allow material compatible and professional installation on Copper roofs without piercing it.

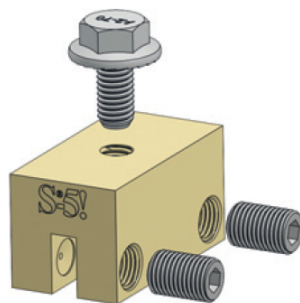
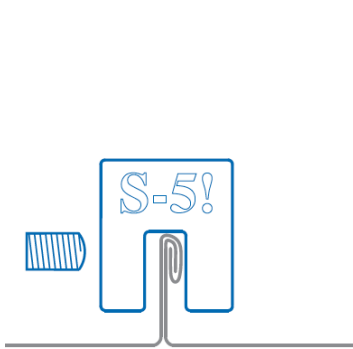
The B-Clamp with two set-screws, centered M10 thread on top and one M10 stainless steel screw is used for heavy demands including fall protection systems.

PU: B-Clamp-M10 is packed with 24 pieces per box.

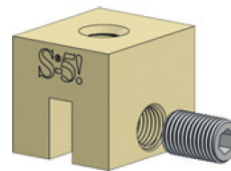
The B-Mini with one set-screw and one M8 thread on top is utilized in various instances when multiple clamps are required for the attachment of rigid objects to the seams, e.g. rails, the S-5![®] PV-Kit 2.0, the RoofTech one- and double-tube holder for snow retention, etc..

The S-5![®] Mini clamps are now supplied without M8x16 stainless steel screws. These screws can be ordered separately from us. PU: 100 pieces per box.

PU: B-Mini is packed with 40 pieces per box.



B-Clamp - M10



B-Mini



Examples of applications: Fall Protection, Solar Installations, Signs, Walkways, Steps, Rail-Systems, etc..

Please note for Copper applications - also with the S-5![®] B-Clamps made of Brass - in combination with other metals:

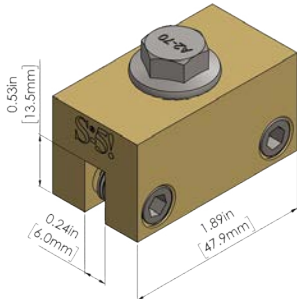
Copper is not endangered by other metals due to its position on the positive side of the electrochemical voltage width. Copper can be safely combined with lead and stainless steel. In principle, any combination of copper with lead and stainless steel (material nos. 1.4321, 1.4401, 1.4571) is harmless. An assembly of copper (also S-5! B-Clamps made of brass) and aluminium is relatively unproblematic if the aluminium has an electrically non-conductive surface due to coating or anodization, so that water containing copper cannot form an electrochemical element with the aluminium. Direct contact between the two metals must be prevented by arranging a joint or an intermediate layer of non-conductive materials (e.g. stainless steel). The copper ions contained in the water cannot then form an electrochemical element with the aluminium.

The arrangement of copper above titanium zinc or galvanized steel should be avoided, as copper ions carried along by draining water can lead to element formation on the titanium zinc or galvanized steel and destroy it. No iron elements should be placed above copper components. In the course of further weathering, these tend to become rusty. Rinse off of this iron oxide can form brown run-off marks on the forming copper protective layer, which are perceived as optical disturbances. However, a danger to the copper material is not to be feared in these cases either. *Further information can be obtained from: Deutsches Kupferinstitut, Düsseldorf (www.kupferinstitut.de).*

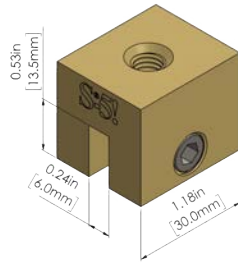
All S-5![®] Clamps are tested on different materials and profiles by a third-party A2LA accredited US lab - the highest regarded in the industry - and follow strict ASTM standards. This type of test tests the clamp itself and the connection of the clamp to the profile under test conditions. Tests made with load pulling parallel (shear) to seam and with load pulling normal (tensile) to seam. The test results proved the outstanding performance of the S-5![®] clamps.

Please don't hesitate to contact us for more information, test results and technical assistance.

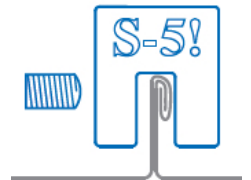
B-Clamps



S-5!® B-Clamp



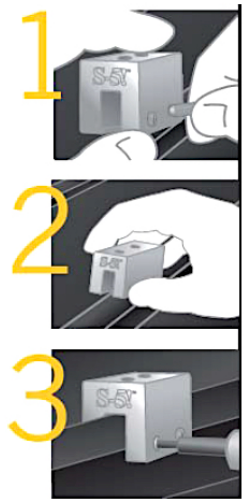
S-5!® B-Mini



To install the S-5!® B-Clamps:

The S-5!® B-Clamps, made of Brass, are designed for Copper double-folded standing seam paneling. The material properties of the respective metals, the brass B-Clamps and the combination with each other must be checked in advance due to possible contact corrosion.

- Partially thread the setscrews into the clamp by hand. Determine how to position the clamp. When attaching to machine-folded seams (regardless of panel profile and geometry), S-5!® B-Clamps are designed to engage the seam, as shown in illustration on the top right, with setscrew opposite seam fold.
- If the foot of a sliding clip extends into the clamping area of the clamp, the thermal elongation of the seam can be hindered. The clamps must then be placed at a distance of approx. 25 mm from the sliding clip.
- The set screws are fitted with the S-5!® mounting bit with a tightening force of 15 -17 Nm.
- Tighten the set screws on the B-clamps and tighten both again.
- Many screw-drivers do not always offer a constant tightening force. The tightening force must therefore be checked with a calibrated torque wrench and the set screws tightened if necessary.
- If an M8x16 stainless steel screw is used for the installation in the M8 thread on the top side, it must be tighten it with a torque of 18 Nm.



Please note in general: (Please also note the S-5! installation instructions that are included in every S-5! product box)

- Installation with our products should only be carried out by specialists and specialist companies with qualifications for the respective installation and with experience in working on roofs. During installation, the warranties of all trades and the roof as well as the regulations for work on roofs (e.g. the use of fall protection, safety catches from an eaves height of 3m, accident prevention, building regulations, etc.) must be observed.
- In the event of non-observance of our installation instructions, when installing or assembling our products with components of the competition and when using and combining further components that were not purchased from us, we shall not accept any liability for any resulting defects and damage. The warranty is excluded in this respect.
- The suitability of the clamps for the intended metal roof profile must be checked before installation. Depending on the use of the respective clamp, it must be ensured that the forces transferred from the clamp to the seam can be absorbed by it and by the supporting structure. In particular, the snow and wind loads, the additional loads from the installations attached to the clamps, as well as the increased stresses in the edge and corner areas of the roof structure must be taken into account. A sufficient number of clamps must be provided. For statically relevant clamps, a distance of at least 500 mm from the standing seam profile end must be maintained.
- The building owner or operator is responsible for the stability of a structural system. The installer of the system is responsible not only for the system but also for the roof on which he installs the system. Anyone who installs a system on an existing roof without first checking its stability is violating existing law! The sufficient holding force of the roofing on the substructure must always be ensured. Verification must be provided by the client. In cases of doubt, a structural engineer must be consulted in advance to determine the load and its removal.
- In the case of handcrafted metal roofing on wooden formwork, the edge and corner areas should not be covered with PV-modules due to the limited load-bearing capacity of the roofing and the adhesion. In the middle area, it is usually not possible to skip over the seams. We therefore recommend installing clamps on each seam. The installation of g. PV systems represents a punctual load application, therefore we recommend reduced clip distances and screwed clips. The clamp should be installed and fixed between the clips to achieve optimum load distribution.
- The thermally induced change in length of the roofing must not be hindered! When mounting rigid objects such as rails, pipes, cable ducts, etc. on the clamps, these must be separated at regular intervals (after max. 3m) to limit deformation due to thermally induced changes in length (in longitudinal and transverse direction).
- The respective installation instructions do not release the executing company from clarifying the application possibilities and use of our products, also in connection with the other materials used, on the individual object in advance. The material properties of the respective metals, the combination with each other as well as the processing instructions and regulations of all manufacturers involved (also those of the metal roof) must be observed.
- RoofTech and S-5! recommend that the planned installation, PV system, snow guard, etc. be checked by a qualified specialist who is responsible for the snow and wind loads, the loads of the installation, the statics and assembly as well as the planning and construction of and on metal roofs.
- S-5! clamps are not suitable for use as fall protection or guardrails. The S-5! clamps may only be used for this purpose in a certified and approved fall protection system. The respective system provider for fall protection is responsible for this and must provide proof of this.
- The suitability of our products for the intended use is checked by the planner and user himself. If technical details are not described separately, this does not release the executing company from checking in individual cases and prior clarification of a technically correct issue. As a matter of principle, RoofTech GmbH, S-5!-Metal Roof Innovations Ltd. and our producers do not accept any responsibility for the installation, suitability and applications. S-5! products are protected by international patents of Metal Roof Innovations, Ltd.

Further installation instructions and information can be found on our homepage www.rooftech.de or please request them from us.