



# INSTALLATION INSTRUCTIONS





Acceptance of the roof and preparation for installation of a gutter system and roof covering.



Installation of the starter strip.



Attaching the cover to the starter strip.  
The lower bend enables the mounting of the soffit lining on the roof flashings - see the installation for the soffit lining on page 25.

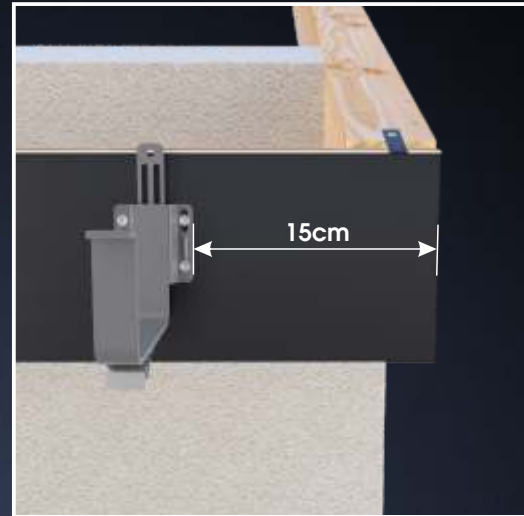


The top cover is fastened with special fixing elements to the rafters.

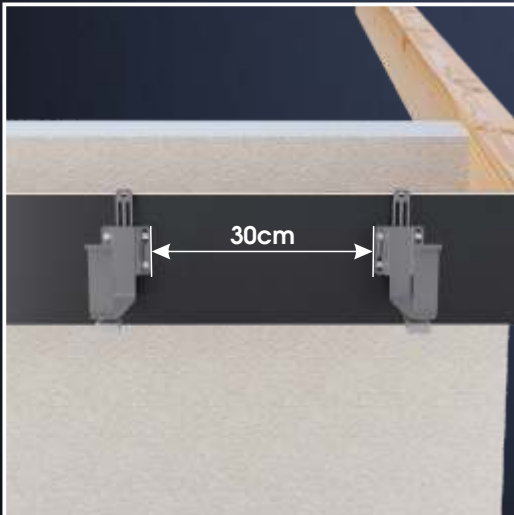
# INSTALLATION ON FRONT HOOKS



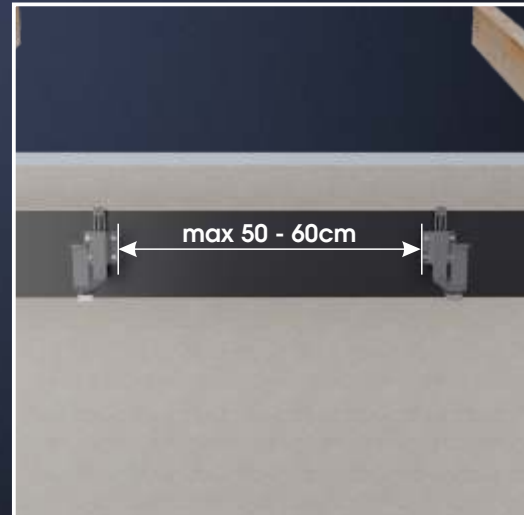
Cross-section after the installation of the flush-mounted strip.



The first hook should be located approximately 15 cm from the edge of the rod.



The spacing of hooks in the place of the down tube assembly should be at least 30 cm.



The remaining hooks are fastened at a maximum distance of 50-60 cm from each other.



Recommended slope of 3 mm per 1 m in the case of installation without a front panel. In the case of installation with a front panel, it is recommended to install horizontally (without a slope).

In the case of installation on the butt hooks, the treatment of the eaves, the membrane and the substructure elements are installed after the installation of the gutter system (see page 24).

# INSTALLATION ON RAFTER HOOKS



Installation of a gutter (condensate) belt.



Cross-section after the installation of the flush-mounted strip.



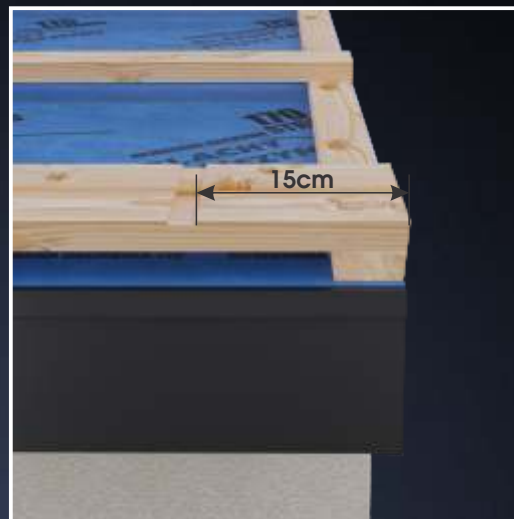
Installation of the roof foil on rafters. Adhesion of the diaphragm to the under-gutter belt.



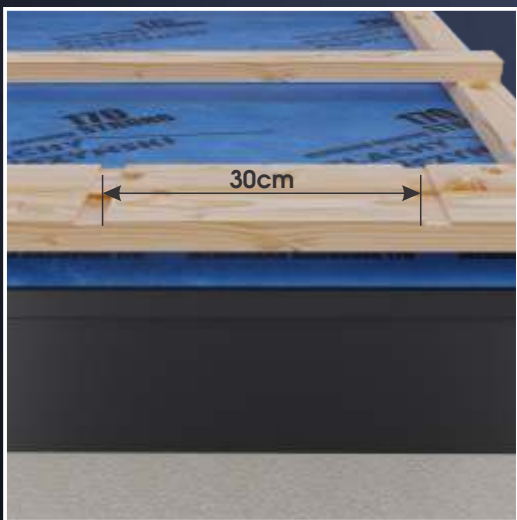
Installation of substructure according to the roofing assembly instructions. Recommended dimensions of patches and counterfeits - 40 x 60 mm.



Carrying out of chases for rafter hooks



The first hook should be located approximately 15 cm from the edge of the rod.



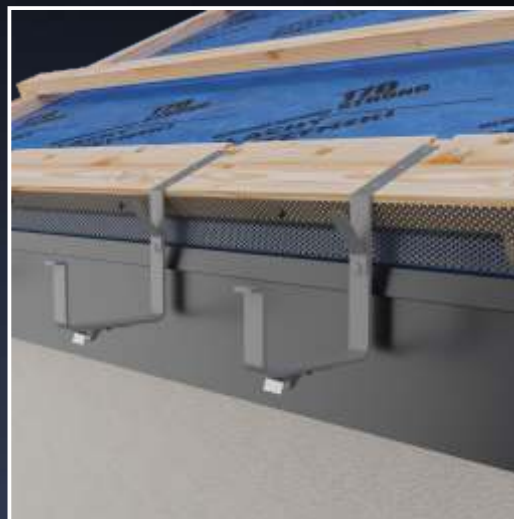
The spacing of hooks in the place of the down tube assembly should be at least 30 cm.



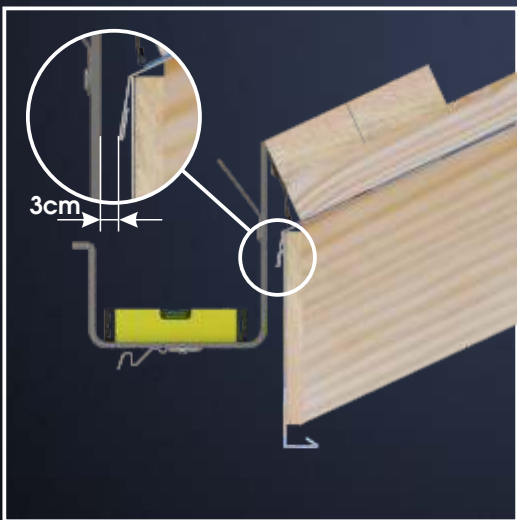
The remaining hooks are fastened at a maximum distance of 50-60 cm from each other.



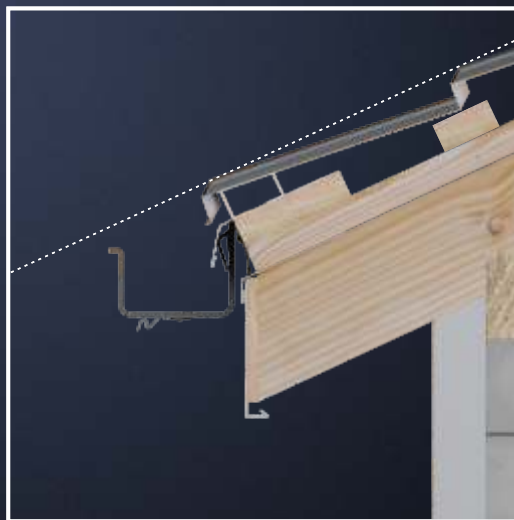
Installation of eaves mesh - protection of eaves against insects and rodents - Metal perforated mesh by Blachy Pruszyński.



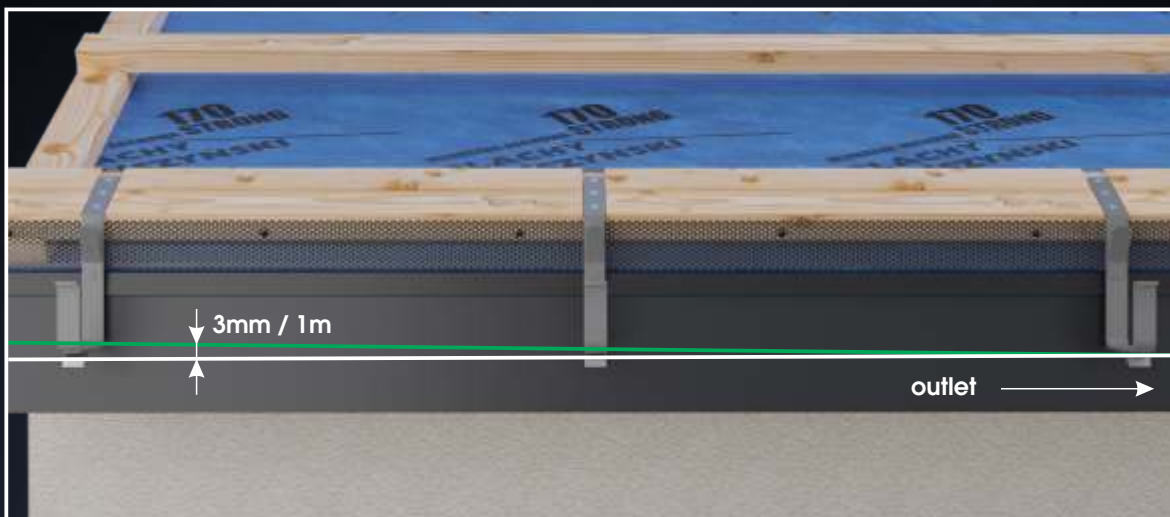
Installation of rafter hooks in the recesses of the roof board.



The hooks should be mounted horizontally in order to maintain the aesthetic installation of the front panel and with a gap of 3 cm left from the front panel, so as to allow the free flow of air behind the gutter.

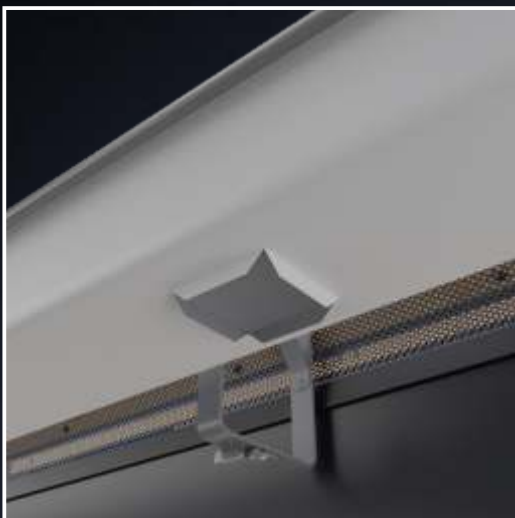


We recommend bending the hooks at a minimum of 3 cm above the rivet of the rear plate in order to obtain the appropriate height of the gutter in relation to the eaves.

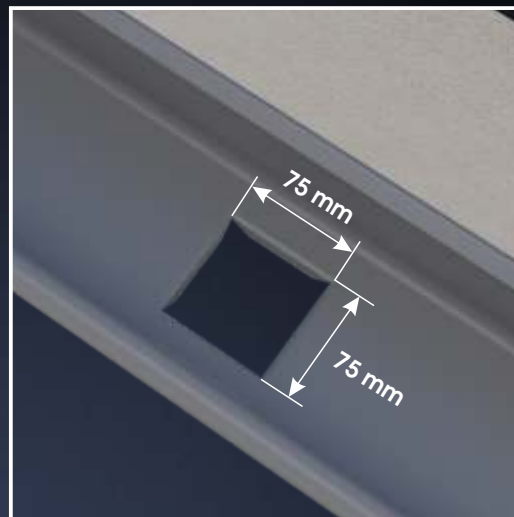


Recommended slope of 3 mm per 1 m in the case of installation without a front panel. In the case of installation with a front panel, it is recommended to install horizontally (without a slope).

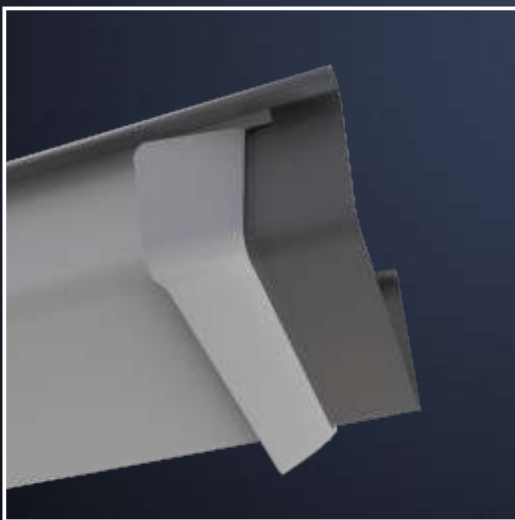
# INSTALLATION OF GUTTER AND OUTLET



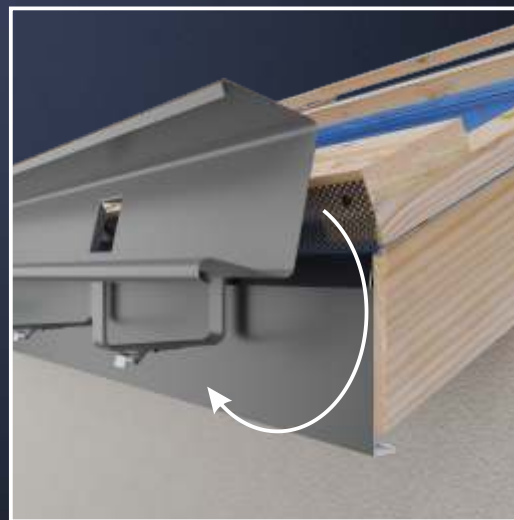
Before attaching the chute to the hook, the outlet opening must be determined and cut off, and the water breakpoint must be performed.



The hole should have the dimensions of 75x75 mm.

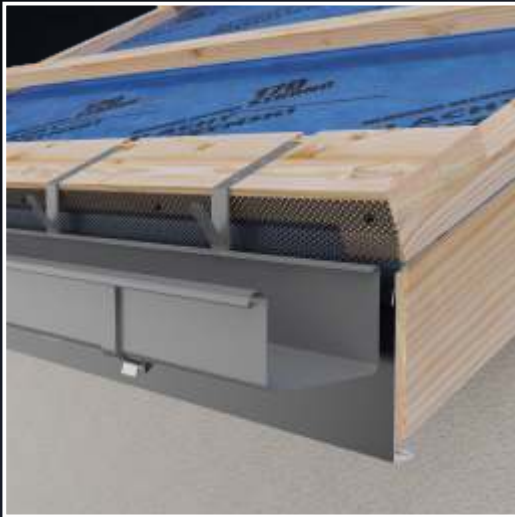


Peel off the protective foil before putting the gutter on the hooks.



Installation of guttering in hooks.

# INSTALLATION OF GUTTER AND OUTLET



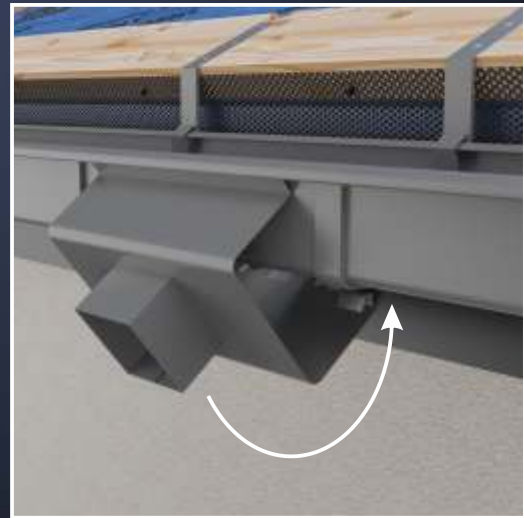
Gutter on hooks.



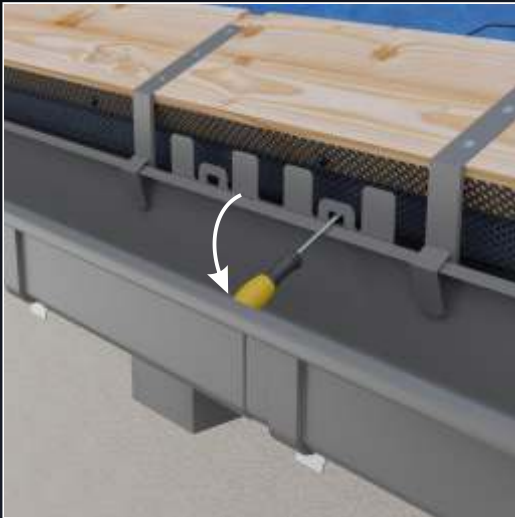
Bending the tabs.



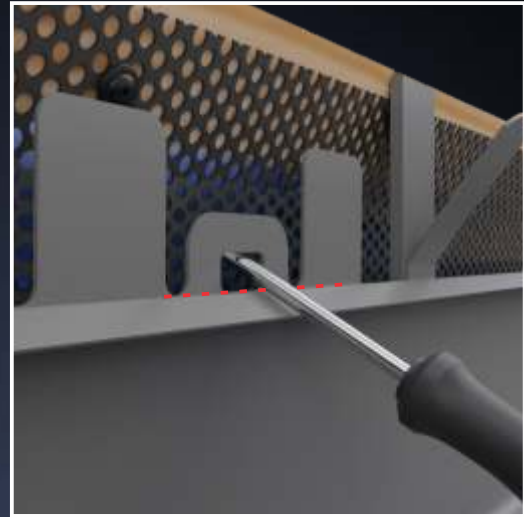
Application of binder to seal the connection between the gutter outlet and the outlet.



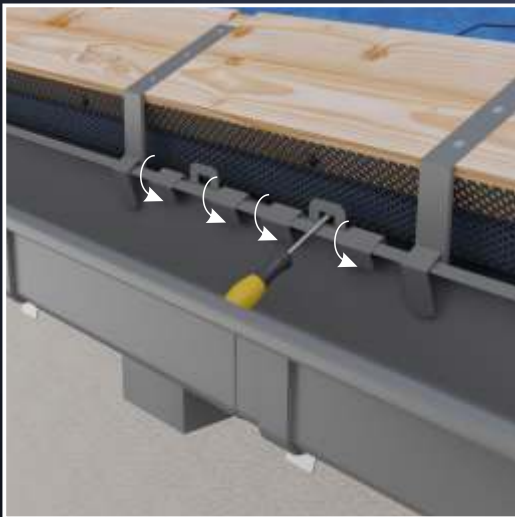
Installing the outlet.



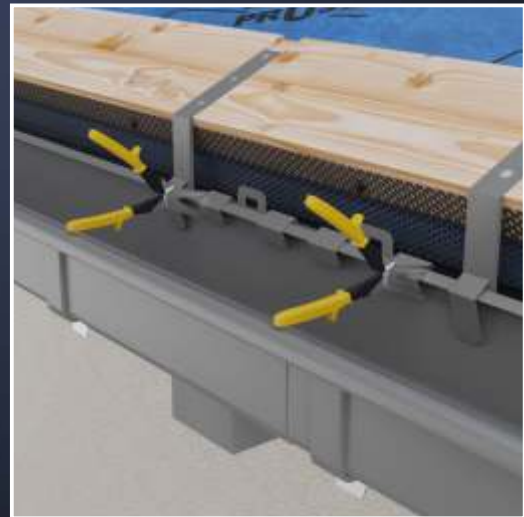
The use of a screwdriver as a lever, in order to fit the outlet to the gutters.



The outlets should be tightened so that the lower edge of the opening aligns with the rear edge of the gutter. Attempting to further tighten the outlet can deform the gutter.



Bending of the installation plates of the outlet.



Incision of the rear stiffening of the gutter with left/right cutters - creating fixed points of the outlet that prevent its movement.

# INSTALLATION OF THE COUPLING



Attaching the gutter connector while maintaining the expansion joint 5-10 mm, starting with inserting the connector clip under the gutter.



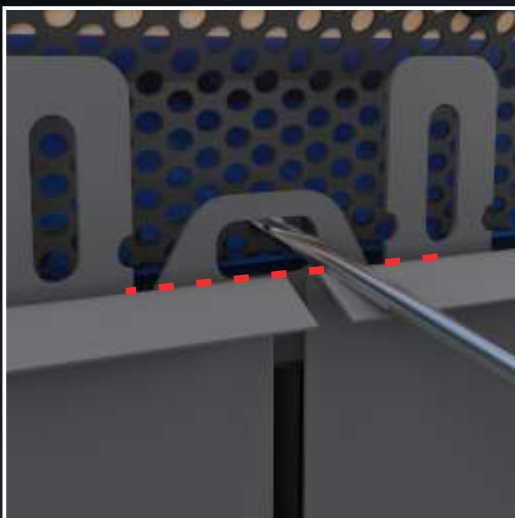
Connector attached to gutter, clip pulled to the connector.



Bending in of the safety clip.



The rear of the connector is pulled up using a flat screwdriver.



The connector should be tightened so that the lower edge of the opening aligns with the rear edge of the gutter. Attempting to further tighten the connector can deform the gutter.

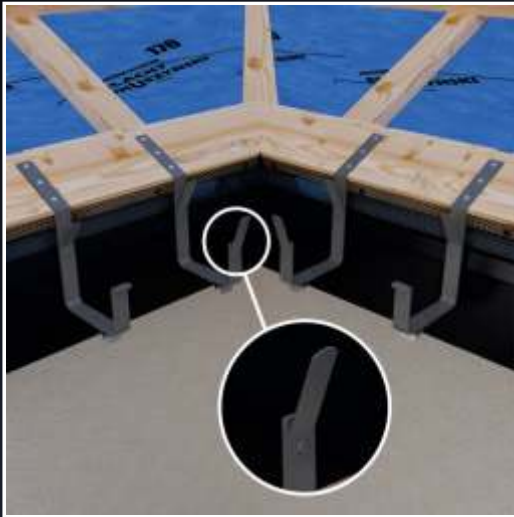


Bending of the installation plates of the connector.

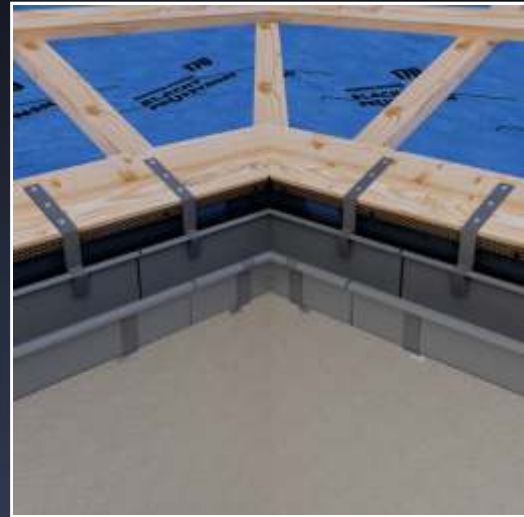


We create a fixed point of the expansion joint by cutting the rear stiffener on both sides of the central-most hook using left and right scissors. The fixed point of the middle hook shortens the expansion joint by half.

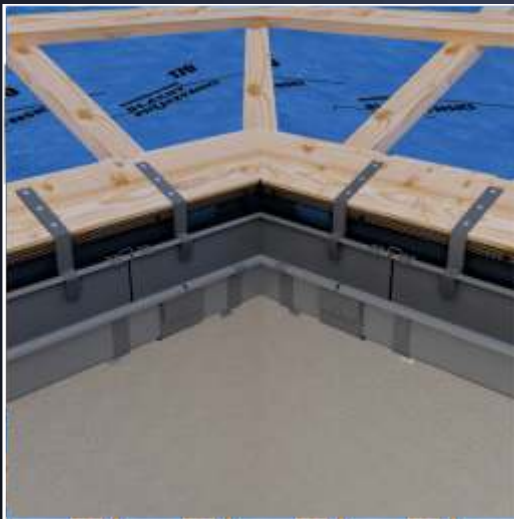
# CONNECTING OF CORNERS WITH THE GUTTER



Hooks mounted on the eaves. For installation of corners we use hooks with a plate.

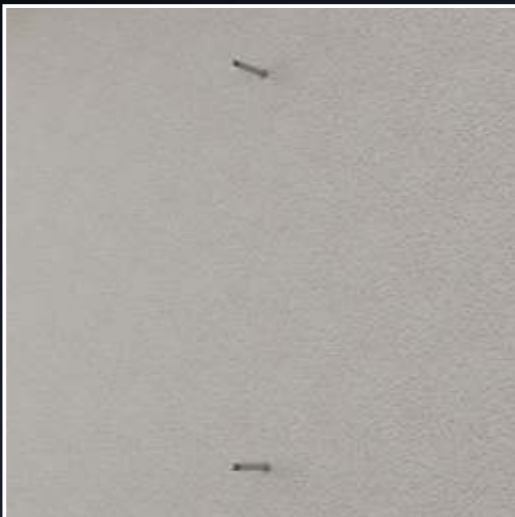


Gutters and corner mounted on hooks with a 5-10 mm expansion joint.



Installation of connectors.

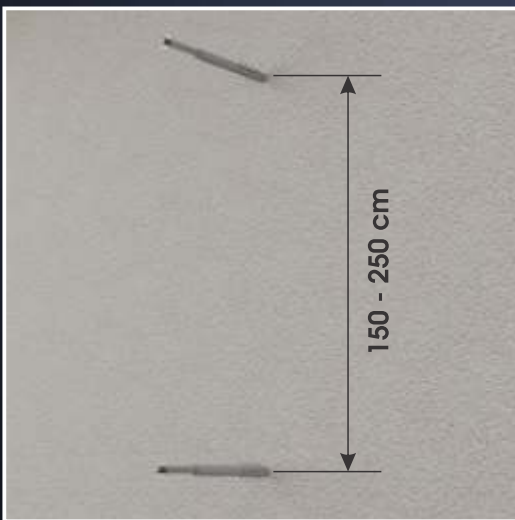
# INSTALLATION OF DRAIN PIPE



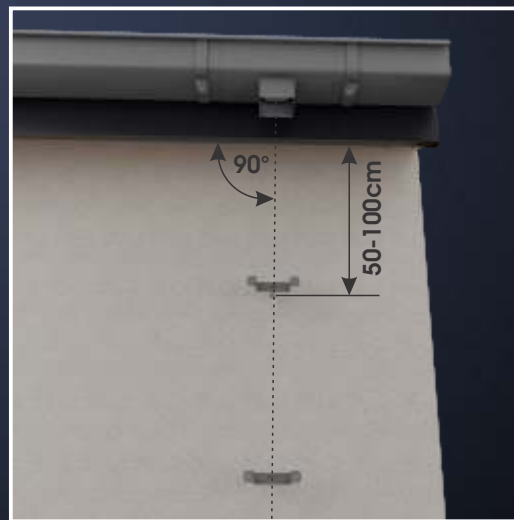
Plugs are used for polystyrene insulated buildings. We offer plugs for clips with lengths of 100, 160, 200, 250 and 300 mm.



In the case of non-insulated buildings or buildings with walls, e.g. made of sandwich panels, clamp plates can be used, which are attached directly to the facade.



The plugs or plates for the assembly of the drain pipe should be placed at a distance of 150 to a maximum of 250 cm from each other.



The plates should be placed in a line with the spout of the cutlery and at an angle of 90° to the eaves. The first clamp shall be located 50 to 100 cm from the eaves.



Installation of a drain pipe in clamps, connecting of a drain pipe with a coupling.



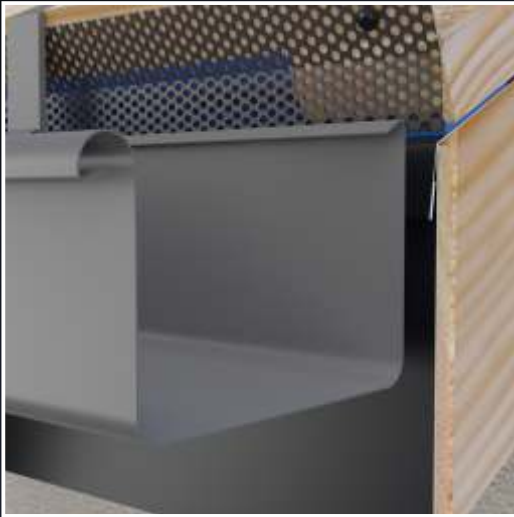
Installation of a 68° elbow in the outlet pipe without the use of a muff.



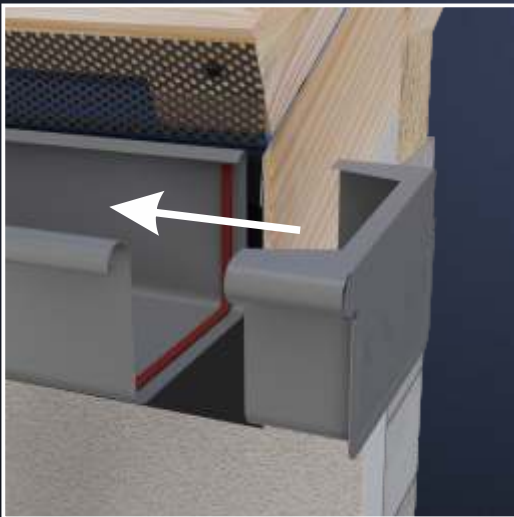
Installation of elbows is carried out by press fitting, without screws and glue.



# INSTALLATION OF GUTTER END



Sealing the gutter end with the use of an appropriate binder - application of binder onto the gutter.

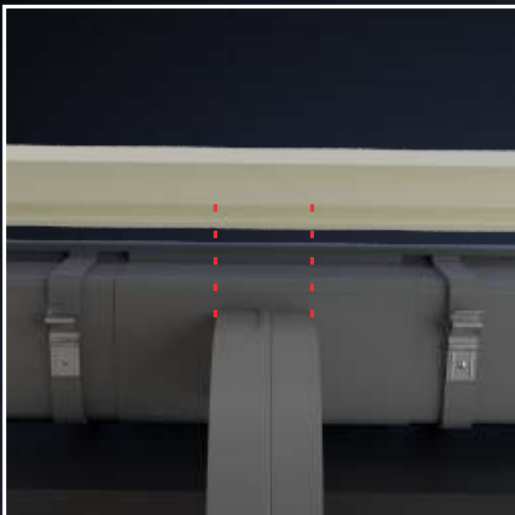


Installation of the gutter end into the gutter.

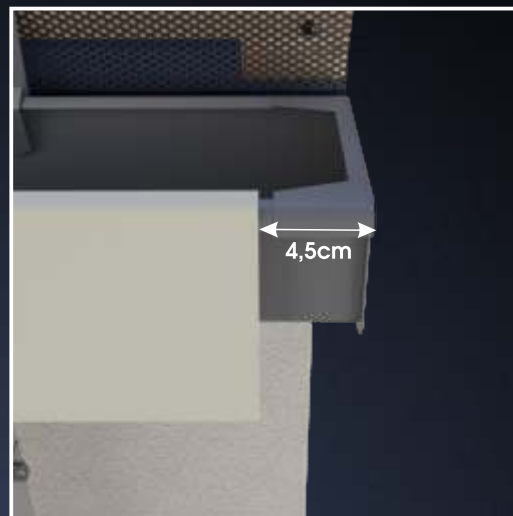


Installed gutter end.

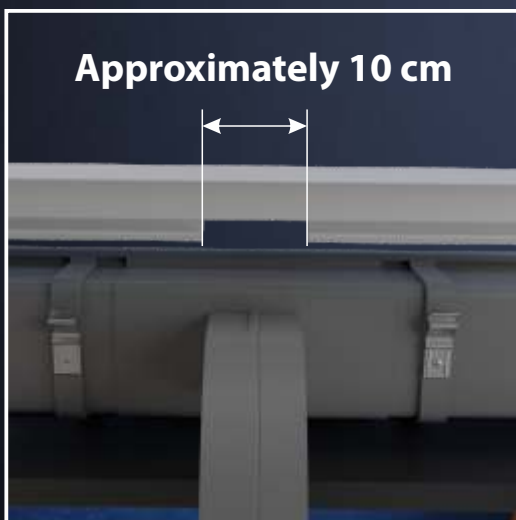
# INSTALLATION OF FRONT COVER PLUG



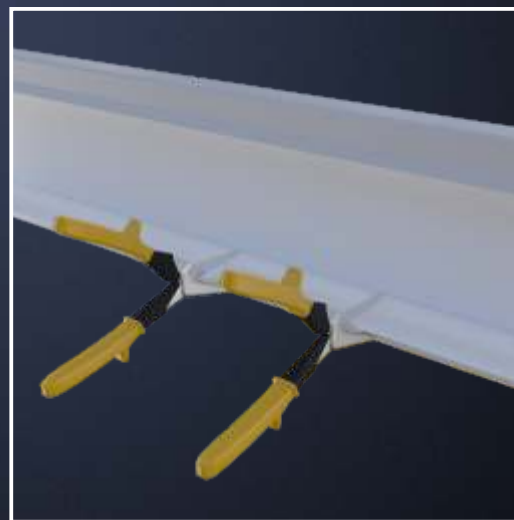
Determination of the cut point of the cover plug.



The front panel should be mounted approximately 4.5 cm from the gutter end. Otherwise the cover plugs cannot be mounted. Installation should be performed with a protective film.



The cutout for the drain should be about 10 cm wide.



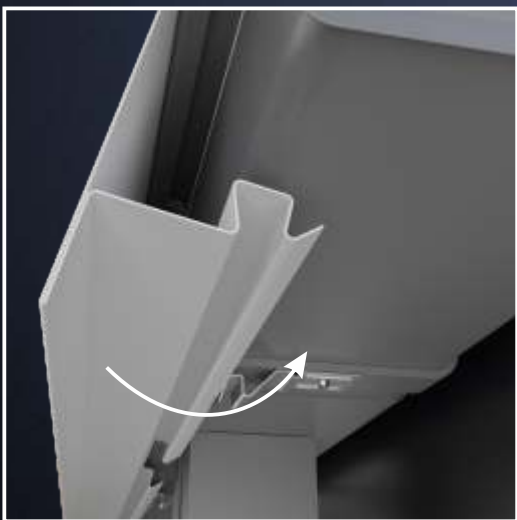
Cut the front panel only for stamping as in the picture, while for cutting use left/right metal cutters.



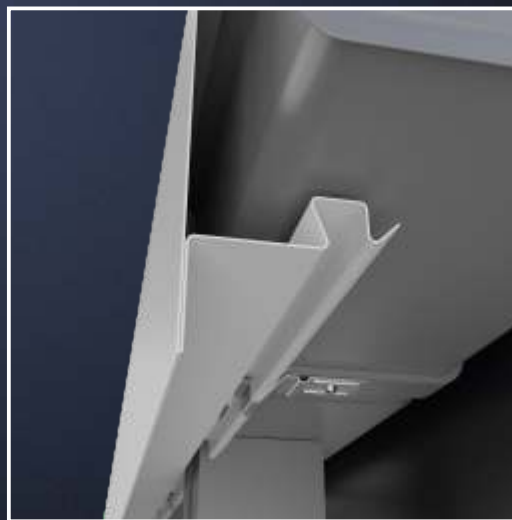
Bending of the cover plug.



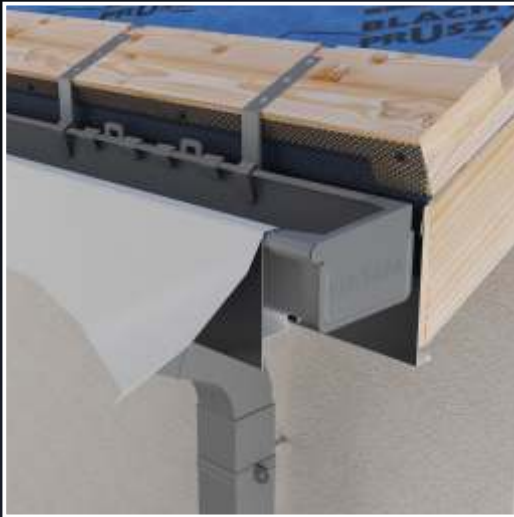
The cover plug mounted on top of under bend.



Fastening the front panel into the hook pins.

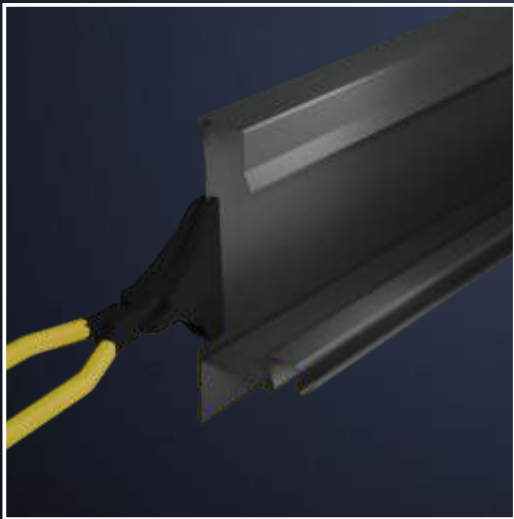


The cover plug is properly attached to the clips.



Peeling off the protective foil when the cover plug is fastened into the front of the gutter.

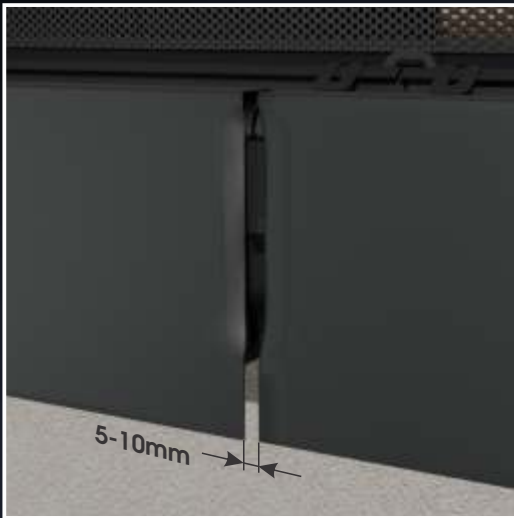
## CONNECTING THE FRONT COVER PLUG



The ends of the cover plugs should be slightly bent by means of sheet metal pliers at the joint.



Curved end of the cover plug.



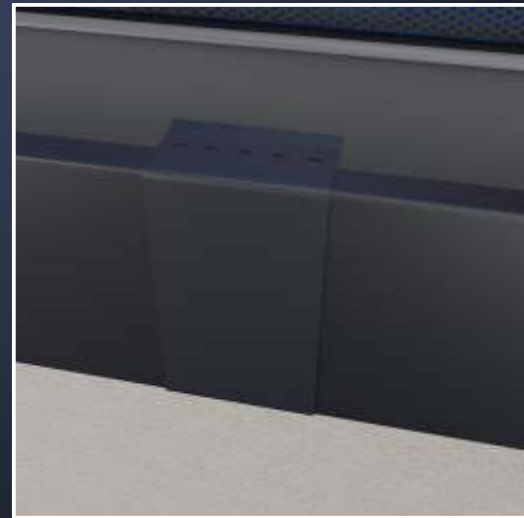
The cover plug installed with a 5-10 mm expansion joint.



Cover plug connector.



Sliding connector into the cover plug from the bottom



The connector mounted on the cover plug.

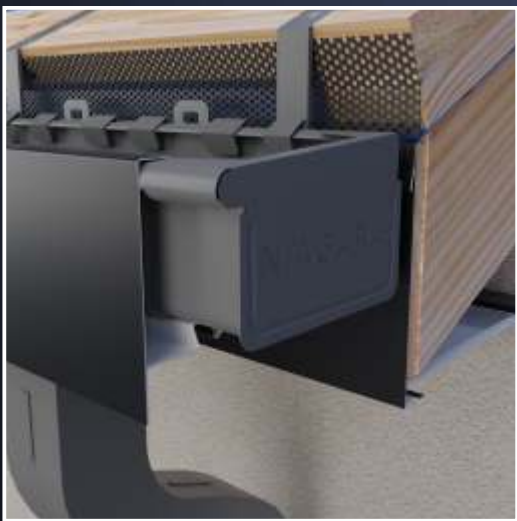


Bending the connector

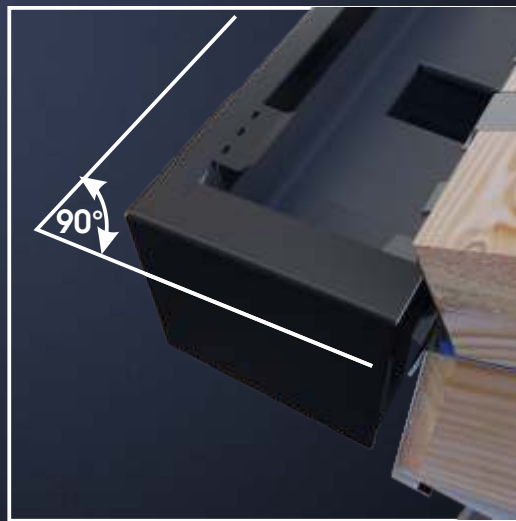


Bent cover plug connector.

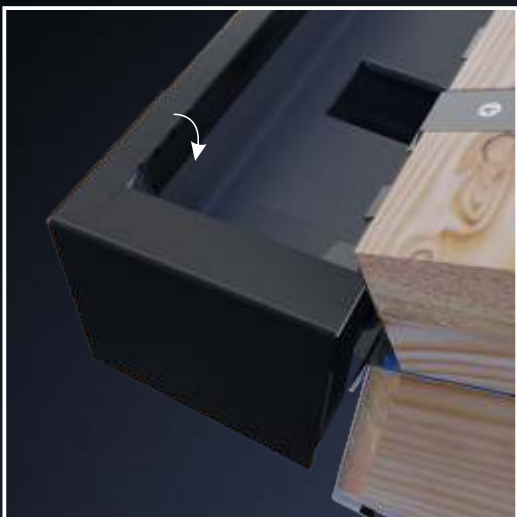
## INSTALLATION OF A COVER PLUG END



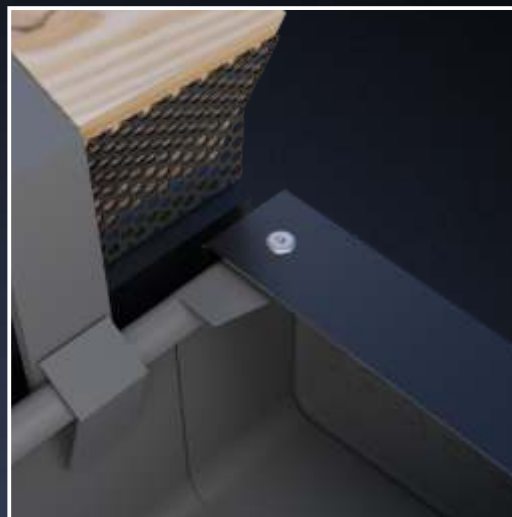
Blindless gutter.



The cover plug placed on the gutter. Fasten the blank plug at 90 degrees to the cover plug.



Bend the blanking plug behind the under bend

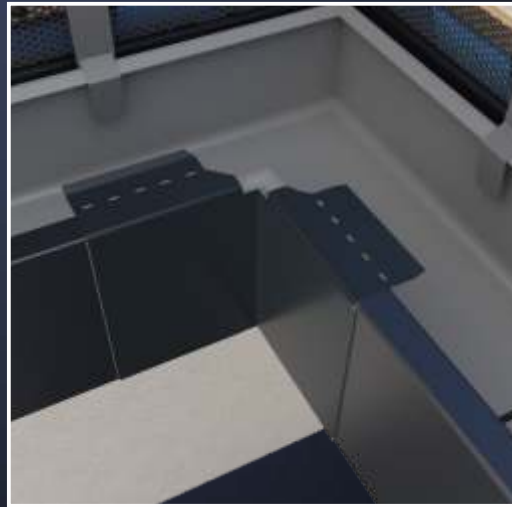


We recommend riveting or screwing the plug from the eaves to the bottom

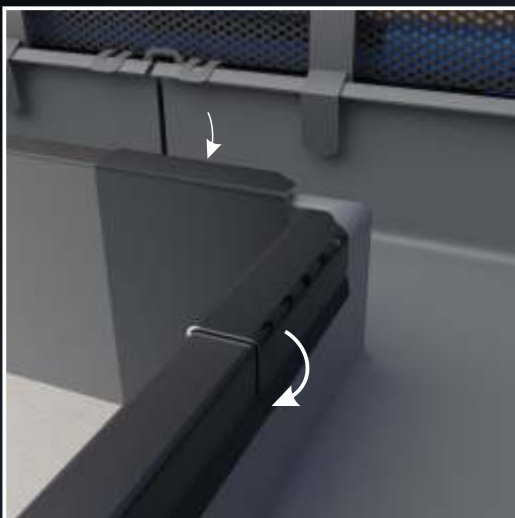
## INSTALLATION OF THE CORNER FOR COVER PLUG



The cover plugs ending 4.5 cm from the corner.



The corner mounted on the cover plug.



Bending of the corner on the under bend.

## INSTALLATION OF EAVES

(installation on front hooks)



Installation of eaves processing.



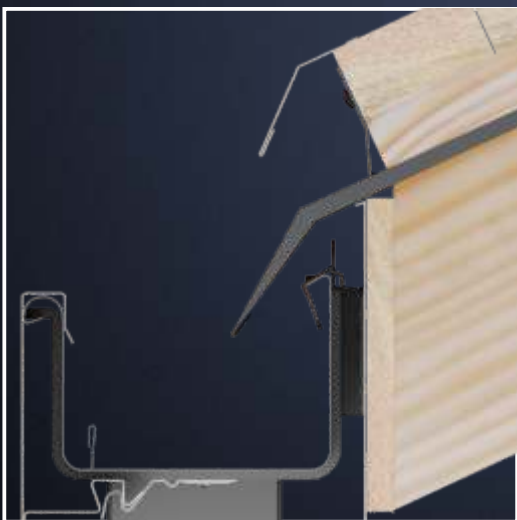
Installation of substructure according to the roofing assembly instructions. Recommended dimensions of patches and counterfeits - 40 x 60 mm.



Installation of eaves mesh - protection of eaves against insects and rodents - Metal perforated mesh by Blachy Pruszyński.



Installation of the above-gutter belt.



Installation of eaves processing.

# INSTALLATION OF THE SOFFIT LINING



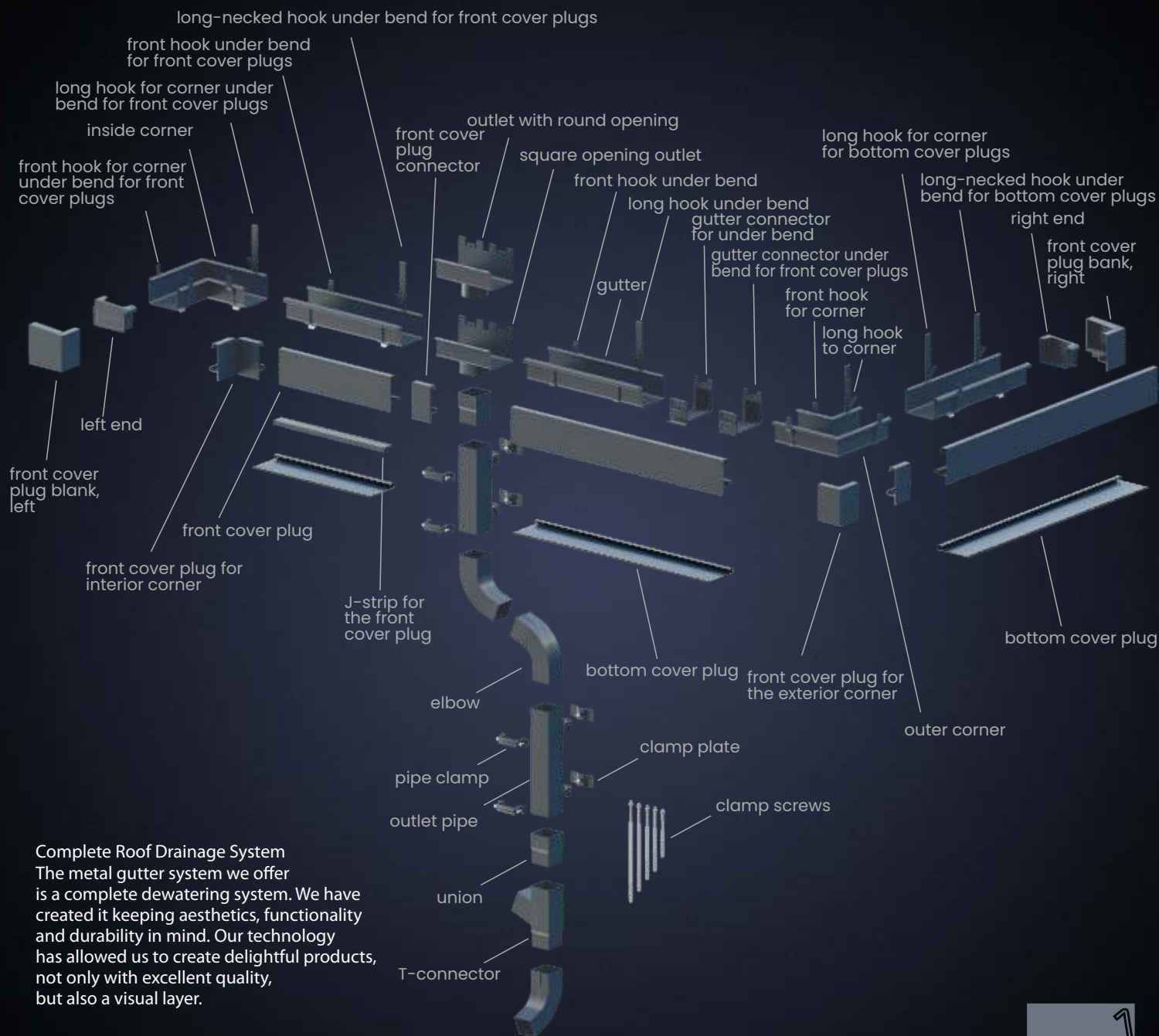
Installation of a rack for the mounting of the soffit lining.



Installation of J-strip to the roof board.  
We recommend installation with staples for sheet metal.



A soffit lining mounted on the flashings.



### Complete Roof Drainage System

The metal gutter system we offer is a complete dewatering system. We have created it keeping aesthetics, functionality and durability in mind. Our technology has allowed us to create delightful products, not only with excellent quality, but also a visual layer.





## N/AGARA METAL GUTTER SYSTEM

### WARSZAWA

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99-300 Kutno  
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### LUBLIN

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### POZNAŃ

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e-mail: poznan@pruszynski.com.pl

## PRODUCTION PLANT

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26-340 Drzewica  
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fax. 48/383-31-13  
e-mail: system@pruszynski.com.pl

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