

Step-by-step Installation  
instructions for Scandic®  
rainwater system

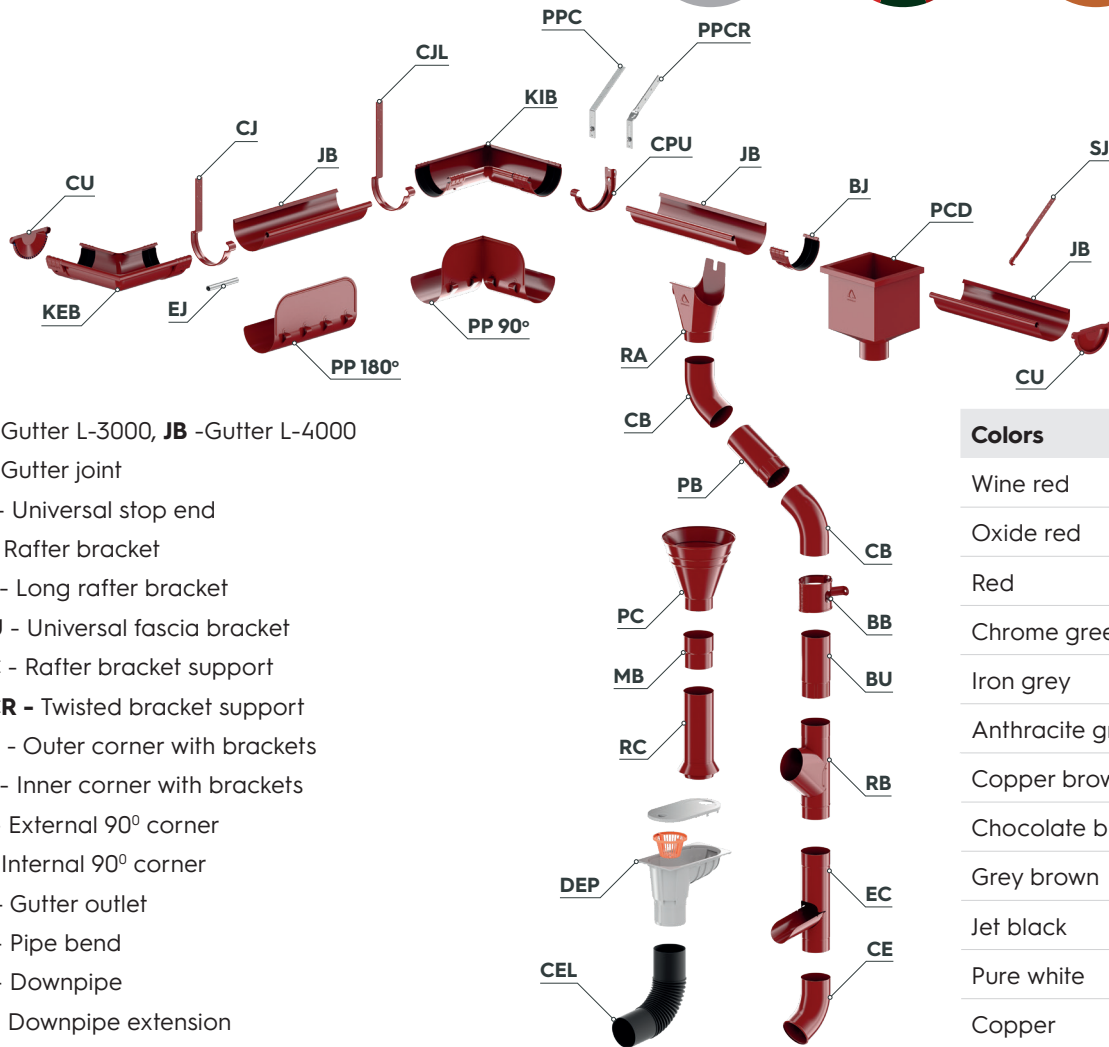
Scandic® rainwater system ensures the outflow of precipitation from any type of roof.

The installation guide will help you select and install properly all the elements that are part of this innovative system.

# CONTENT

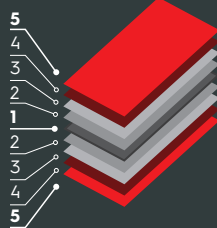
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# The elements of Scandic® rainwater system



- JB** - Gutter L-3000, **JB** -Gutter L-4000
- BJ** - Gutter joint
- CU** - Universal stop end
- CJ** - Rafter bracket
- CJL** - Long rafter bracket
- CPU** - Universal fascia bracket
- PPC** - Rafter bracket support
- PPCR** - Twisted bracket support
- KEB** - Outer corner with brackets
- KIB** - Inner corner with brackets
- KE** - External 90° corner
- KI** - Internal 90° corner
- RA** - Gutter outlet
- CB** - Pipe bend
- BU** - Downpipe
- PB** - Downpipe extension
- BB** - Pipe holder / downpipe bracket / downpipe holder
- CE** - Shoe
- RB** - Pipe branch
- EC** - Rainwater diverter
- PC** - Round hopper
- PCD** - Rectangular hopper
- EJ** - Gutter joint element
- SJ** - Gutter stabilizer
- MB** - Pipe Connector
- PP** - Corner overflow element 90°
- PP** - Straight overflow element 180°
- RC** - Drain connector
- DEP** - Decanter
- CEL** - Elastic bend
- DIC** - Device for bending the brackets
- RC** - Drain connector
- DEP** - Decanter, **CEL** - Elastic bend

Colors	RAL
Wine red	3005
Oxide red	3009
Red	3011
Chrome green	6020
Iron grey	7011
Anthracite grey	7016
Copper brown	8004
Chocolate brown	8017
Grey brown	8019
Jet black	9005
Pure white	9010
Copper	
Zinc	



### GreenCoat RWS sheet structure:

1. Steel sheet min. 0.57mm
2. 275gr/m2 zinc coating
3. Passivation layer
4. Primer
5. GreenCoat RWS 35µm pain coating

# SSAB

Manufacture technology, high-end equipment and high quality materials by SSAB guarantee the performance of our products. The roof drainage system elements are produced in compliance with the European standards SR EN 612:2006 and SR EN 1462:2006. The elements are produced within RoofArt factories that have implemented a quality management system certified by AER according to SR EN ISO 9001:2015, certificate no. 2318/2018.

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# HOW TO CHOOSE THE RIGHT SYSTEM

The rainwater system is available in two sizes: 125/87mm and 150/100mm. For roofs with surfaces of up to 150m<sup>2</sup>, we recommend using gutters of 125mm thickness and downpipes of 87mm thickness. The 150mm gutters thickness and 100mm downpipes thickness are recommended to be fitted on roofs with surfaces that exceed 150m<sup>2</sup>.

For eaves of up to 10m in length one downspout will be used, in cases where the length of the eaves exceeds 10m two downpipes will be fitted, one at each end.

For roofs up to 10m in length, one downpipe will be installed.

For roofs exceeding 10m in length, two downpipes will be installed, one at each corner.

The sketch for installing the downpipes on different types of roofs

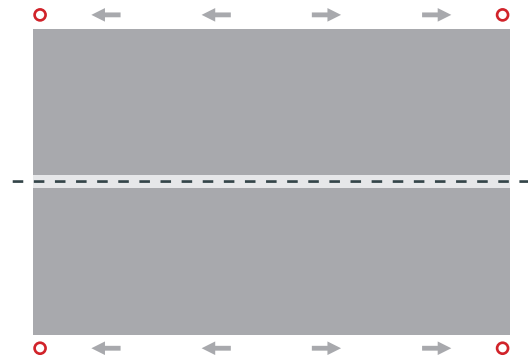
Roof with two-way water flow

Roof with four-way water flow

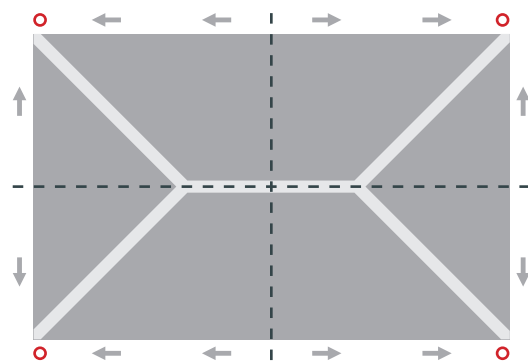
Roof with more water flows

## Sketch for fitting outlets/ drainages on different types of roofs

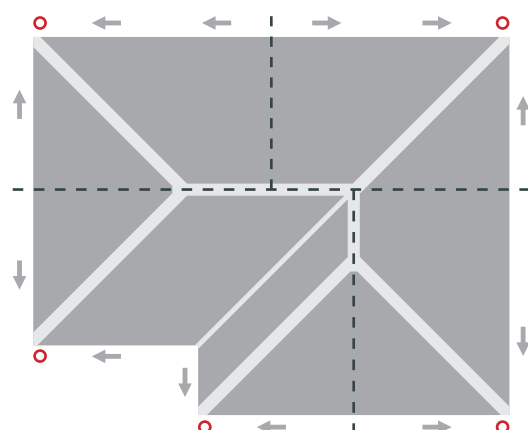
**Roof with two-way flow of water**



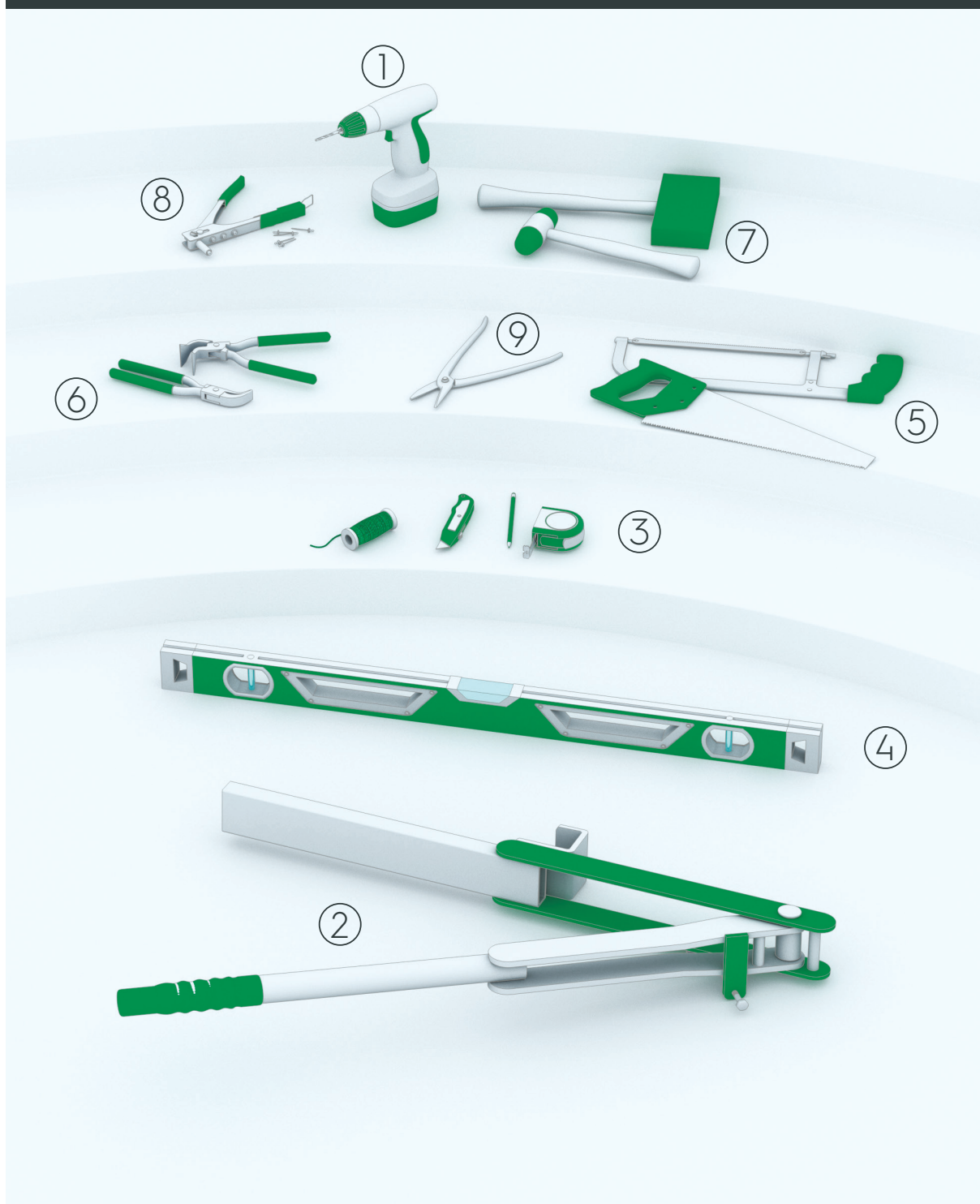
**Roof with four-way flow**



**Roof with many flows**



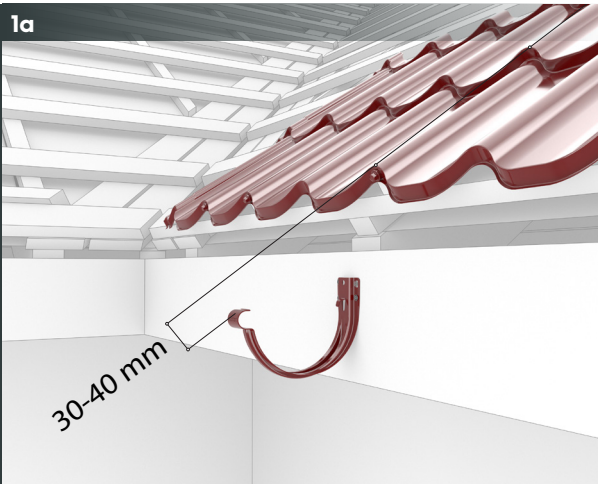
## REQUIRED TOOLS FOR INSTALLING THE RAINWATER SYSTEM



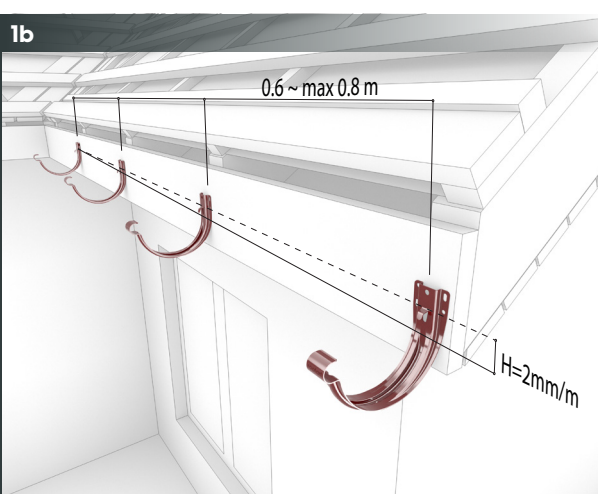
1. Cordless drill	4. Spirit level tool	7. Rubber and metal hammers
2. Bracket bending tool	5. Manual saw	8. Hand rivetter
3. Measure tape, pencil, rope, cutter	6. Metal sheet pliers	9. Metal sheet scissors

# INSTALLING THE BRACKETS

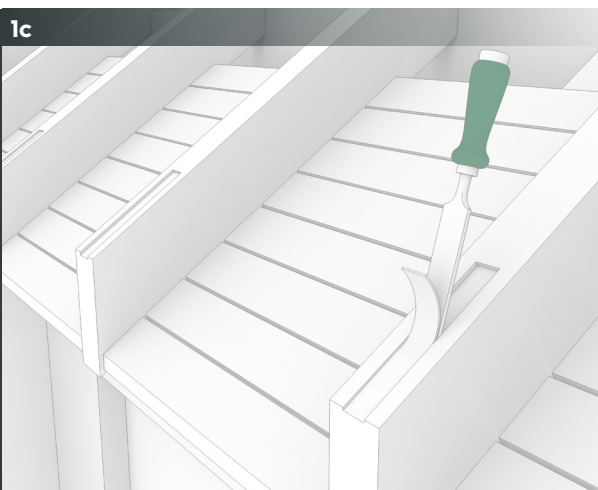
Attach the first bracket so that its outer end is 30-40 mm lower than the imaginary extension of the frame.



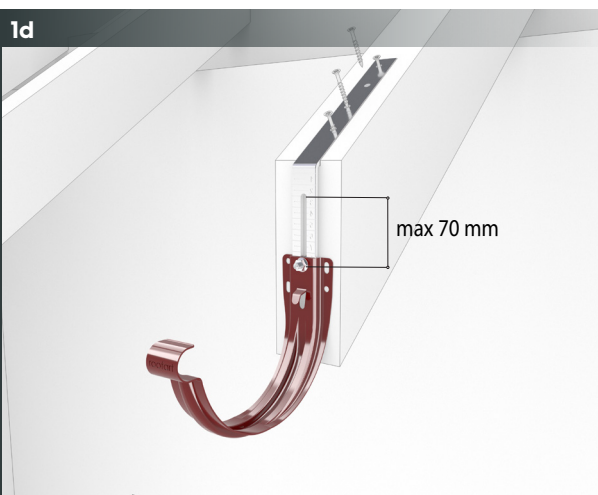
Before installing the brackets, we need to draw a drainage slope to the location of the downpipe (BU). A 2 mm slope is recommended for every 1 m of gutter. The distance between brackets will be 0.6-0.8 m, equal to the distance between the rafters.



Use the chisel to perform a cut of the thickness of the short /long gutter bracket (CJ / CJL) or of the bracket support (PPC) if universal fascia board brackets (CPU) with subsequent mounting are used.

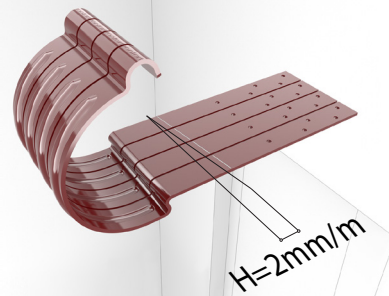


The rafter bracket support (PPC) is fastened with screws on the rafter, while the universal fascia board bracket (CPU) is attached with a screw and nut on the rafter bracket support (PPC), up to a maximum of 70 mm from the top edge of the intended clamping groove.



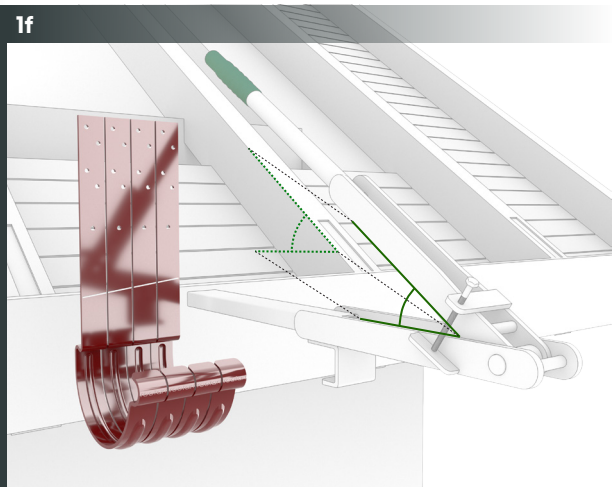
In the case of mounting using the gutter hooks (CJ / CJL), they are aligned side by side to draw the bending line, according to the 2mm inclination every 1 m of gutter.

1e



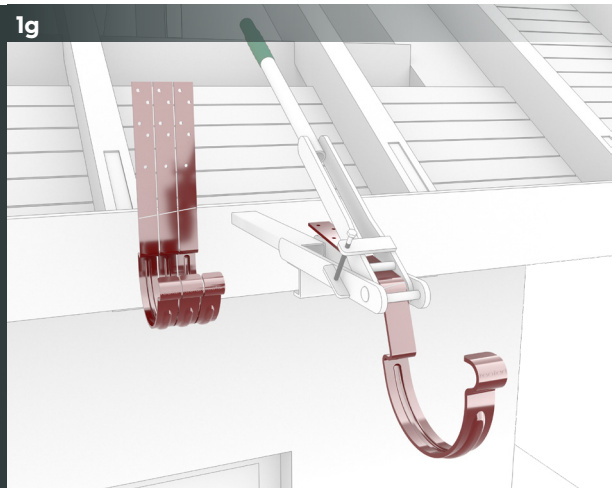
Set the roof inclination angle into the device for bending the brackets (DIC).

1f



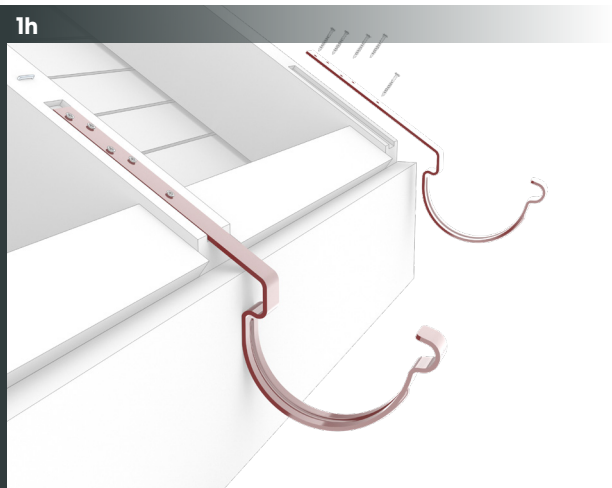
Brackets bending according to the slope fixed in the device for bending the brackets (DIC).

1g



Brackets installation. For a proper alignment, between the two end brackets two strings are stretched: at the lower side of the brackets and in the bend of the bracket tip. Based on this, the rest of the brackets are aligned and attached.

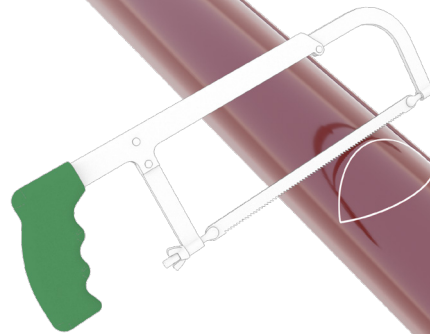
1h



# INSTALLING THE GUTTERS

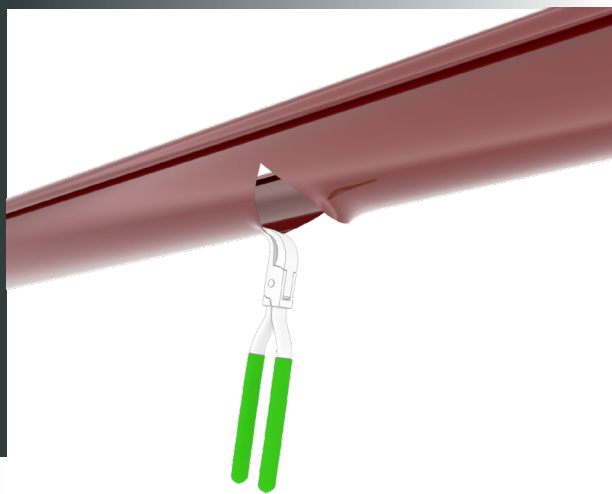
The gutter (JB) is cut at the place where the part that connects the gutter system to the downpipe, respectively, the gutter connection (RA) will be fitted. This is done using the special sheet saw.

2a



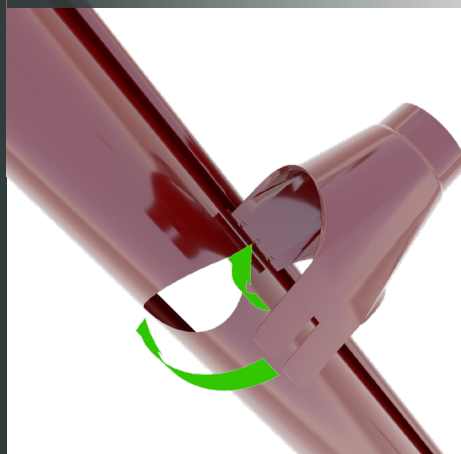
After cutting, the bottom edges of the gutter bend to the outside, so that the water is directed into the gutter connection (RA), and then into the downpipe (BU).

2b



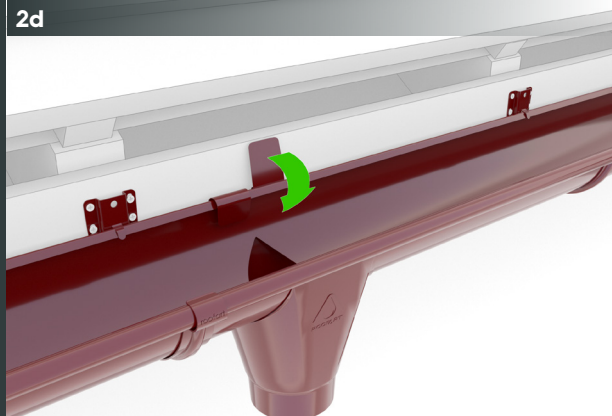
The gutter connection (RA) is mounted in two stages. First, attach the bent edge of the connector to the outer edge of the gutter and then attach the connector to the gutter.

2c



Installation of the gutter connector (RA) is completed by bending the two clips over the gutter.

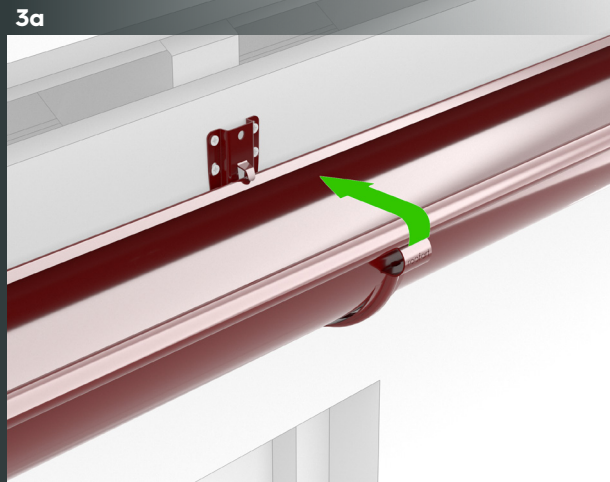
2d



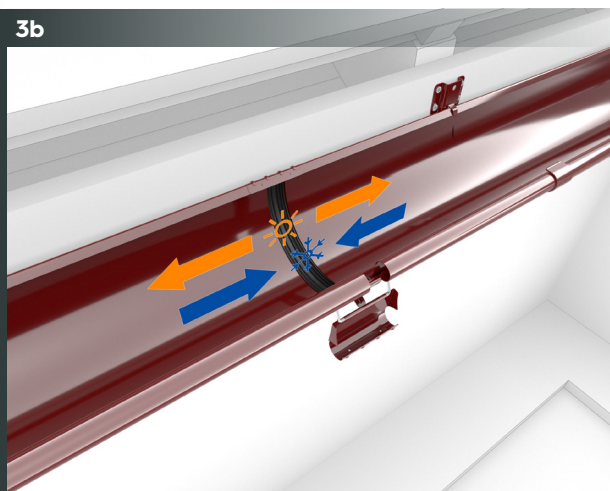


# COMBINING THE GUTTERS

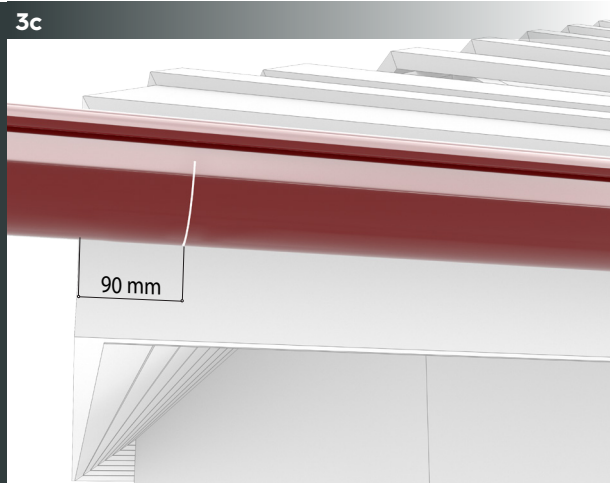
The gutter is placed on the brackets already mounted and is attached, by pressing, on their outer edge.



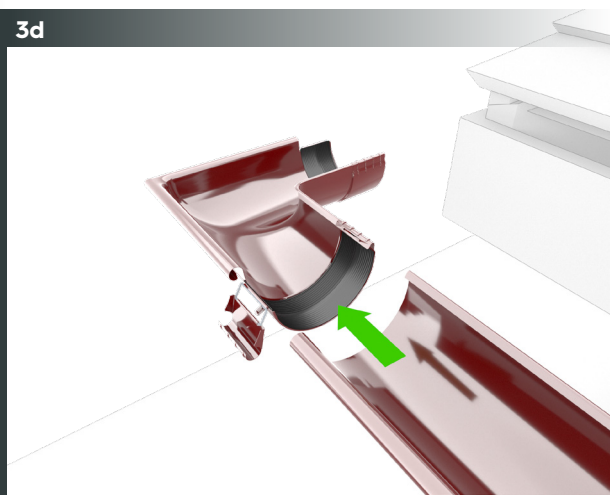
The gutters and the corners (KEB / KIB) have the property to expand and contract according to the temperature variations. Considering this, they will be mounted keeping a distance of 2-3 mm between them.



If an outer / inner corner (KEB / KIB) that will make the connection to the gutters on another side of the house needs to be fitted, the gutter will be cut 90 mm from the end of the eaves, the distance needed to place the corner.

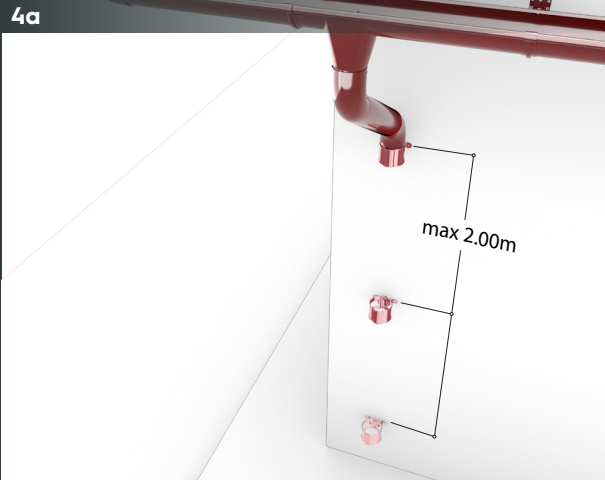


The gutter joins the corner with embedded holder. Between the gutter on the corner holder and the edge of the corner remains a distance of 2-3 mm, which is required for expansion and / or contracting due to temperature variations.

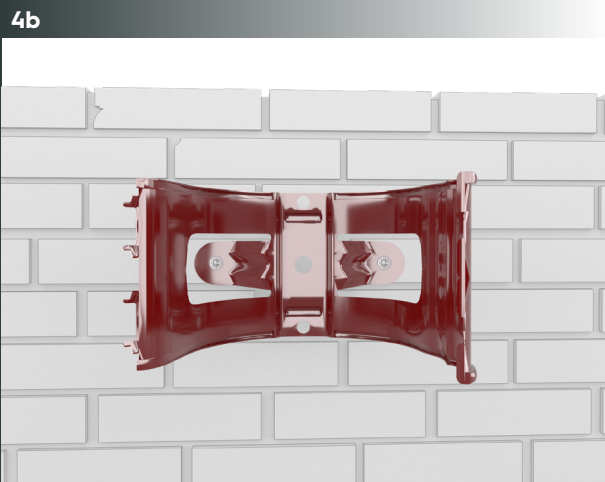


# INSTALLING DOWNSPOUTS

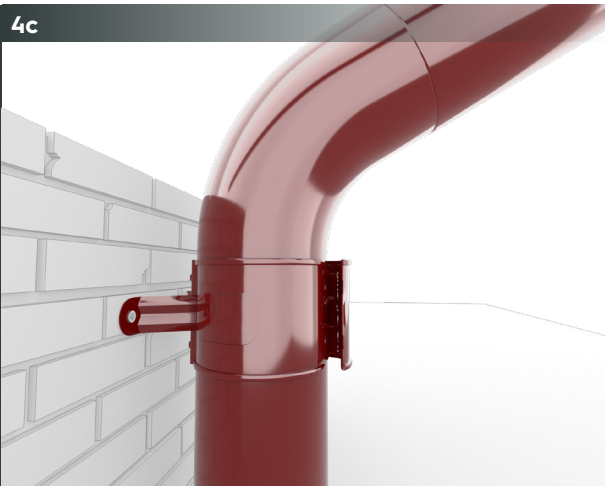
For installation of downpipes (BU), attach the downpipe holders (BB) on the wall, one below the other, depending on the type of facade: in two side ears, central with a stud or vertical with pop-rivets. The maximum distance between two holders will not exceed 2 meters, while for each downpipe at least two support brackets will be used.



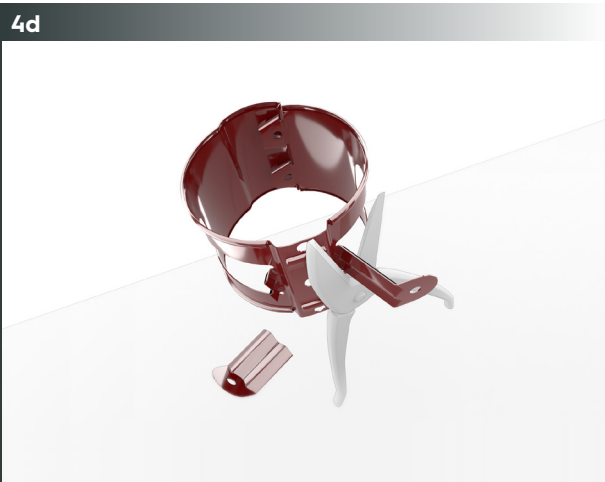
The downpipe holders are attached to the wall by means of dowels.



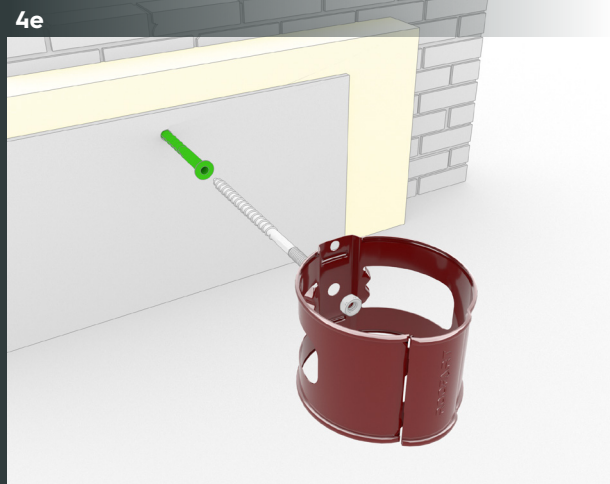
Downpipe holders are attached using the click method, by simply pressing them, so that after attachment, they cannot be opened accidentally.



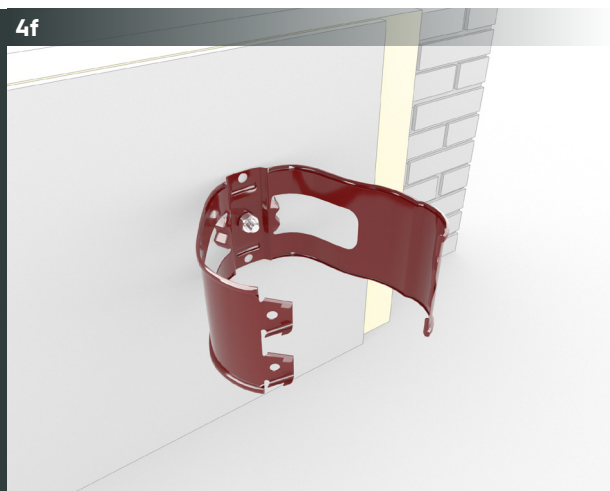
In the case of facades insulated with a heat-insulating product, the downpipe holder is fastened with a dowel, and the two legs of the holder are removed by cutting.



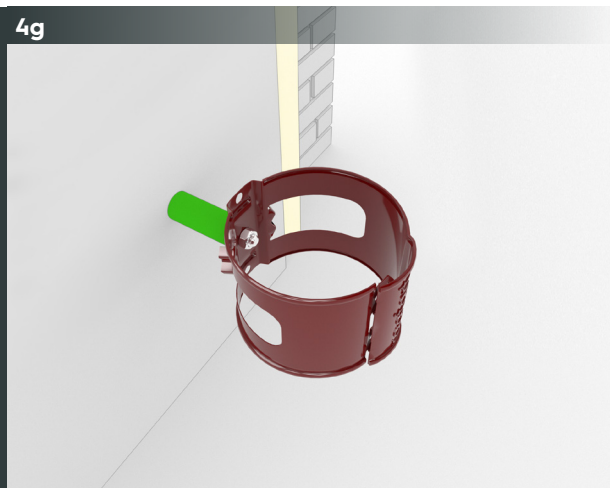
The downpipe holder is attached to the wall using a dowel.



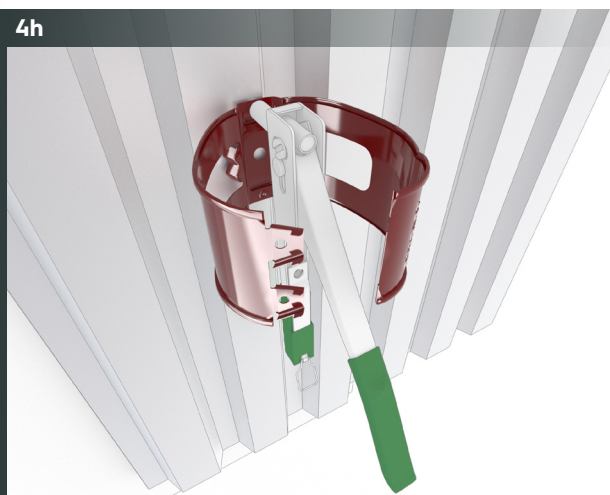
The downpipe holder is attached and open to insert the downpipe.



The method for dowel masking involves its "concealing" it with a plastic or even a copper pipe.

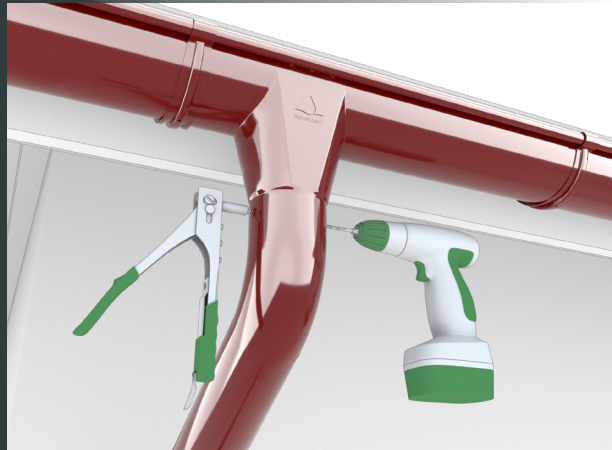


The attachment of the downpipe holder on a plated sheet wall is done using pop-rivets.



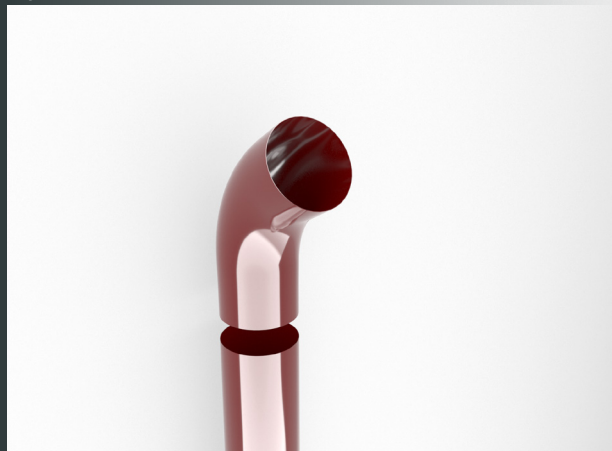
The first pipe bend (CB) is attached to the gutter outlet (RA). For this the drill and the riveter are used.

4i



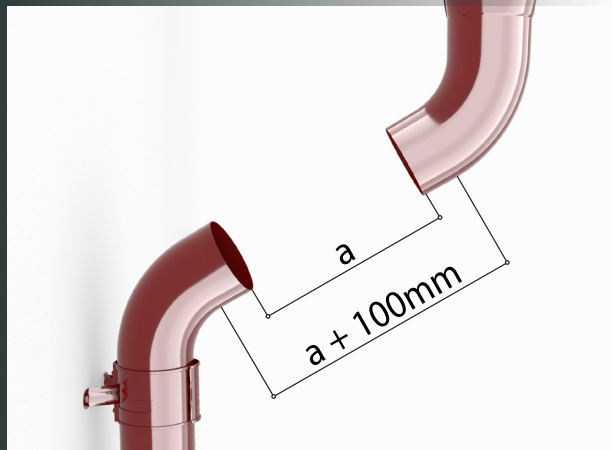
The second pipe bend (CB) is inserted into the downpipe (BU).

4j



Between the two bends, a downpipe extension (PB) is provided. Its length will be equal to the distance between the ends of the two downpipe bends plus 100 mm.

4k



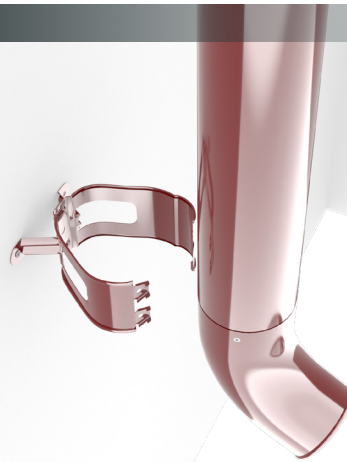
The connection between a downpipe extension (PB) or a downpipe (BU) with a pipe bend (CB) is made very easy, due to the fact that in the joint area, both the extension and the downpipe, are provided with one embossed end with a diameter smaller than the downpipe bend diameter (CB), to allow the connection of these items.

4l



The discharge bent (EC) is fitted at the bottom of the downpipe (BU). In the joining area, they are fixed to the facade of the building using a downpipe bracket (BB).

4m



The rainwater system can also be connected to the sewerage system. In this case, the downpipe (BU) is connected to the drain connector (RC), and this to the decanter (DEP) through which the water flows into the sewerage system. The decanter is provided with a screen intended to retain the impurities accumulated through the gutters.

4n



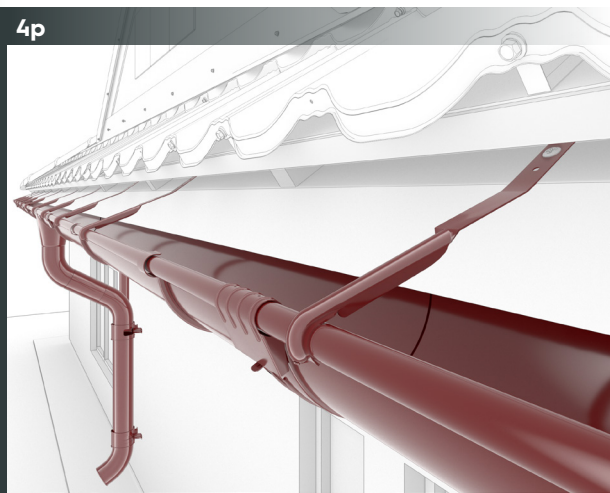
The universal stop end (CU) is attached to the end of the gutter (JB) by manually pressing or using a non-rebound rubber hammer.

4o



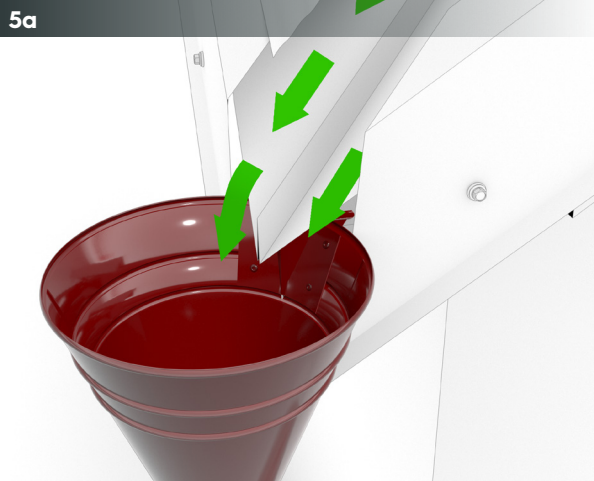
In geographical areas with massive snow or ice accumulations, or on the roofs where the snow stops are lacking, gutter stabilizers (SJ) are recommended. They will provide extra support for the gutters to avoid the risk of rainwater system damage.

4p



## 5. OTHER ACCESSORIES

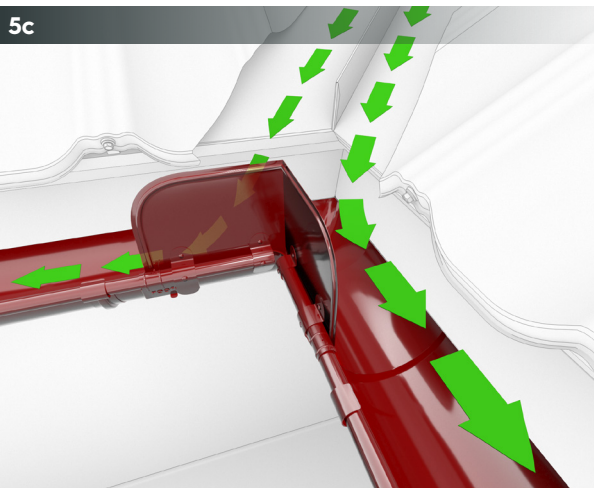
The water can be drained out of the nozzle without eaves and directed into the downpipe (BU) using the round hopper (PC). The part is equipped with double reinforcement for a better rigidity and strength.



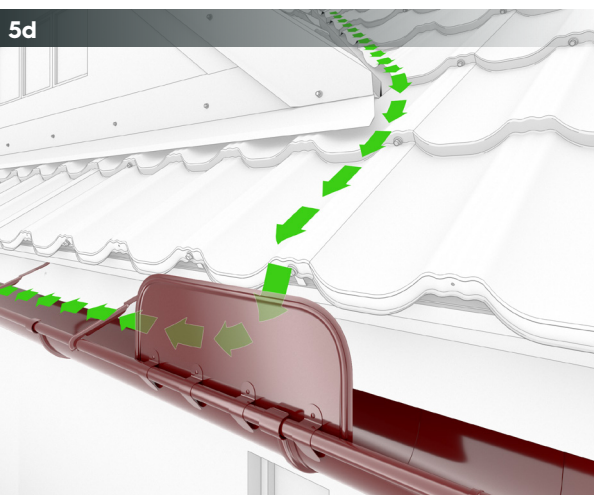
In the case of special constructions, where it is not possible to place the gutter outlet (RA) or the round hopper (PC), the rectangular hopper (PCD) will be used, that ensures collection and direction of the water into the pipe. For example, in the case of flat roofs, where water is drained through the wall.



At the roof valley, an area of accumulation of a larger water volume, a 90 ° overflow piece (PP 90 °) is attached on the outer edges of the corner (KIB), which does not allow the high flow of water to exceed the level of the corner and the gutter.

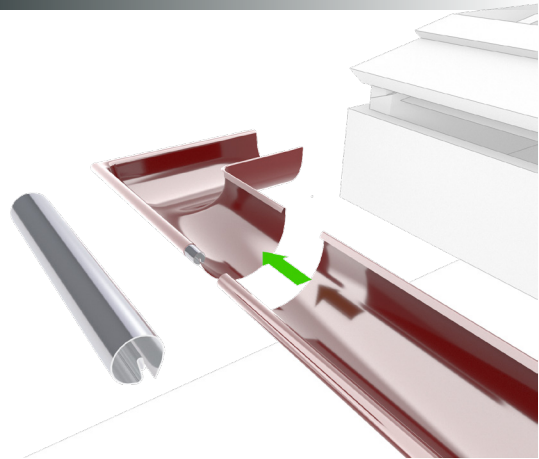


In other areas where it is estimated that the accumulated water flow will also be high, attach the overflow part 180 ° (PP 180 °) on the outside of the gutter, which prevents water discharge over the gutter and to lead it uniformly in its continuity.



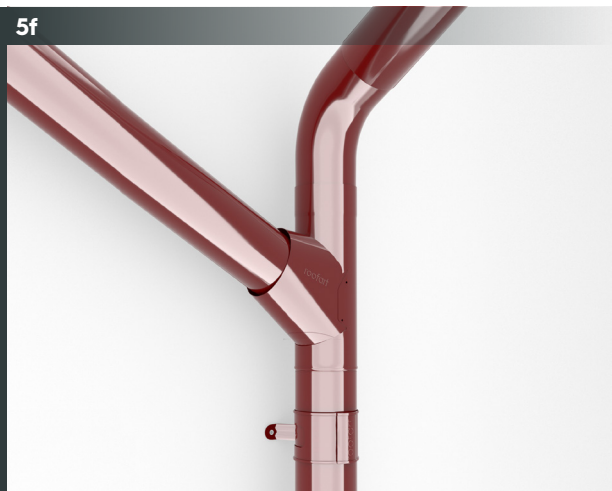
If the inner or outer corner (KI / KE) does not sit on the brackets, it can be better attached to the gutter using the gutter joint element (EJ), which offers a greater connection strength. Also, the gutter joint element will also be used at the joints between two gutters.

5e



Two water drainage columns can be joined using a downpipe branch (RB). This is the optimal solution for deviating a drainage column. The element has an adjustable tilt angle.

5f



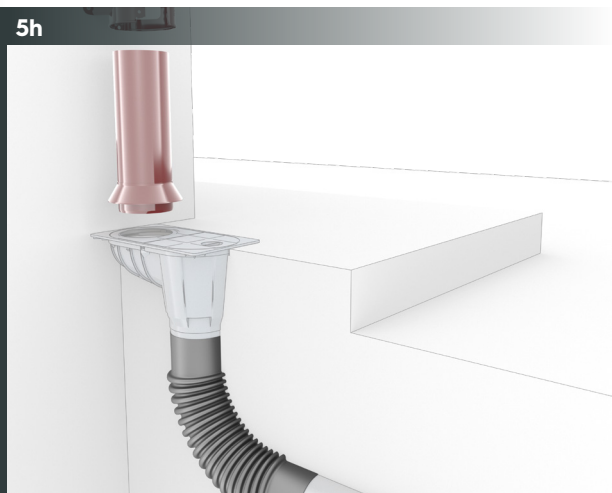
Rainwater can be collected for household purposes using the rainwater diverter (EC). This ensures that water is routed to another circuit or tank. The diverter is adjustable and offers the possibility to keep it open, to catch the water, or closed, to drain the water to the ground.

5g



The decanter (DEP) routes the water directly into the sewerage system or to another tank, eliminating any possible infiltrations to the foundation. It also keeps the hot air circuit from the sewer to the downpipe (during the cold season, it does not allow water to freeze on the downpipe). The strainer included offers the possibility to clean the accumulated leaves.

5h



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