ROOFART®
The long-lasting roof

Scandic® rainwater system

An optimal solution for various types of roofs

Example of a roof with Scandic® rainwater system and Umbrella® metal tile - RAL 3009

swedish steel • swedish steel • SSAB

Scandic® rainwater system

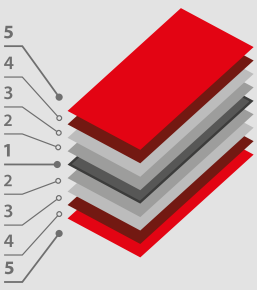
The basic purpose of the rainwater system is to provide access for the precipitations from the roof to be directed to the ground or an external collection tank or sewerage system, to avoid any infiltration into the building structure or uncontrolled discharges into the yard, parking, garden or other open space.

Benefits

- Functionality, design and easy fitting of the various elements
- High resistance to loads due to elements stiffening through pressure
- Sealed joints secured by gaskets
- A variety of colours
- Colours and gloss lasts over time under extreme temperatures
- Extended applicability: houses, historic buildings, apartment blocks, industrial buildings
- 15-year guarantee for Scandic® Color, 10-year guarantee for Scandic® Zinc

Raw material

The materials used for the rainwater systems must be resistant to corrosion under the conditions of constant humidity, bad weather, as well as the UV-radiation. The most important purpose of the roof drainage system is the removal of rainwater, snow and melting ice from the roof of a building to maintain the facades clean and the territory around the building dry. Gutters must withstand water, ice and silt both inside and outside. The production of the rainwater system elements requires compliance with the high demands for the quality of steel.
For decades, SSAB has engaged in the production and creation of special types of steel for applications in a wide variety of conditions.



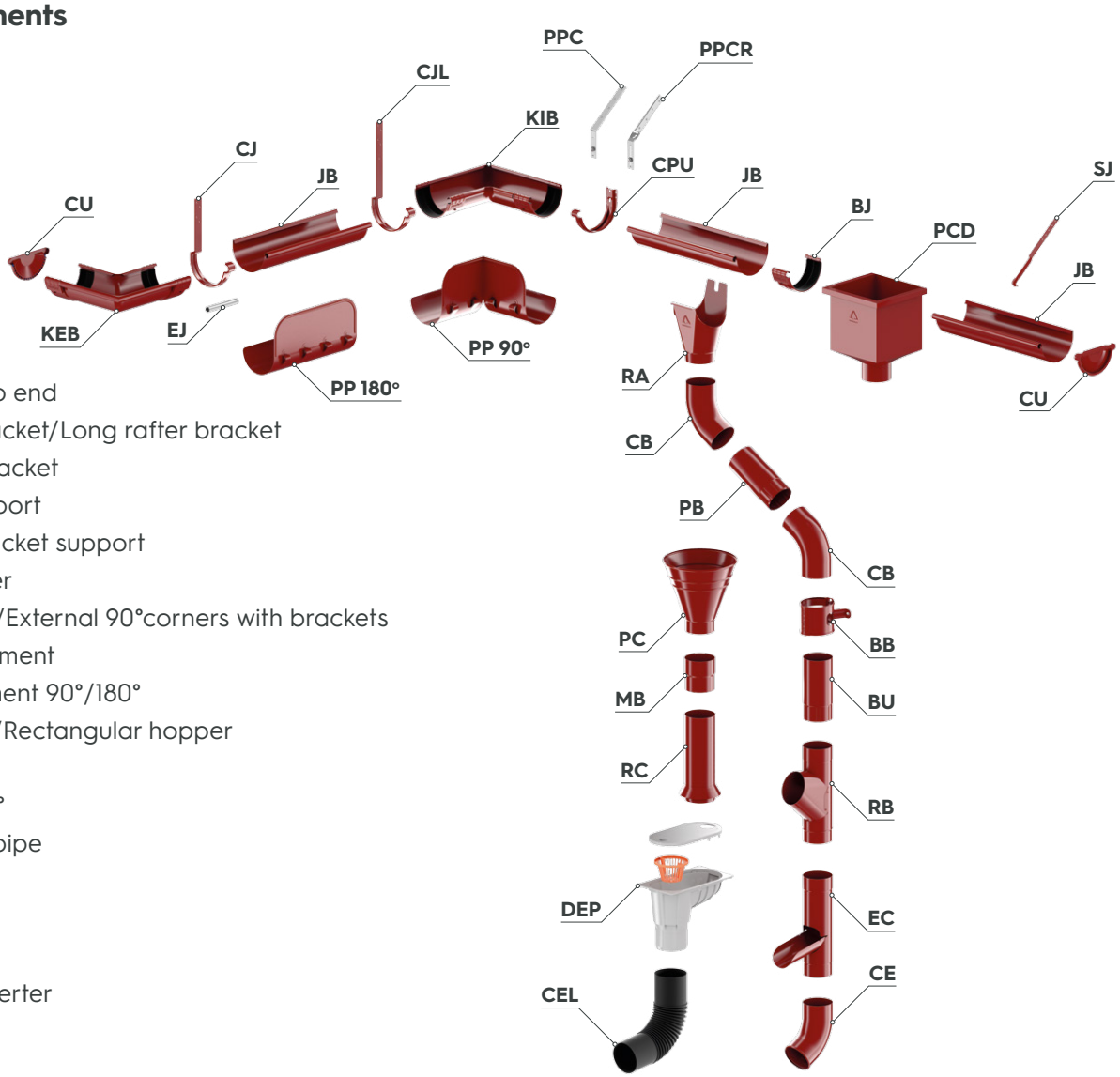
GreenCoat RWS sheet structure:
1. Steel sheet
2. Zinc coating 275gr/m2
3. Passivation layer
4. Primer
5. Coat of paint GreenCoat RWS 35μ

SSAB

Manufacturing technology, high-end equipment and high quality raw materials by SSAB guarantee the quality of RoofArt products.

Roof drainage system elements are produced in compliance with the European standards SR EN 612:2006 and SR EN 1462:2006.

System components



B - Gutter
BJ - Gutter joint
CU - Universal stop end
CJ/CJL – Rafter bracket/Long rafter bracket
CPU - Universal bracket
PPC – Bracket support
PPCR - Twisted bracket support
SJ – Gutter stabilizer
KIB/KEB – Internal/External 90°corners with brackets
EJ - Gutter joint element
PP - Overflow element 90°/180°
PC/PCD - Hopper/Rectangular hopper
RA – Gutter outlet
CB – Pipe bend 60°
PB - Intermediate pipe
BU - Downpipe
BB – Pipe holder
RB - Pipe branch
EC – Rainwater diverter
MB – Flare fitting
CE – Shoe 60°
RC - Drain connector
DEP - Decanter
CEL - Elastic bend

Available sizes

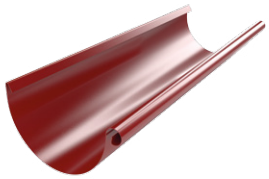
Systems are available in two sizes: 125/87 and 150/100. Gutters with 125 mm diameter are recommended for small and medium sized homes, gutters with 150 mm diameter can be used in industrial buildings with a considerable roof area.

Range of colours

Wine red	Brick red	Red	Green	Iron grey	Bricky	Grey brown	Brown	Black	White	Copper brown	Zinc
RAL 3005	RAL 3009	RAL 3011	RAL 6020	RAL 7011	RAL 8004	RAL 8017	RAL 8019	RAL 9005	RAL 9010		

* Differences are possible between colours shown and actual colours. Check out the sheet samples.
** Certain colours are available for special orders. Please ask for information by calling us +373 22 24 91 10.

Gutter



- Designed to collect rainwater from the roof, the gutter is a basic elements of the rainwater system
- Made of a pre-painted sheet with thickness of 0.55 mm and length of 3m
- Fixed to the eaves of the roof with rafter brackets or universal brackets

Gutter joint

- Seals the connections between gutter - gutter and gutter - corner
- Manages the differences resulting from linear expansions of gutters under temperature oscillations
- Ribbed gasket for increased sealing

Rafter bracket

- Is mounted on the rafter to support the gutter
- Stiffening profile for increased resistance to high loads
- Use the bending tool to bent the hooks and adjust them according to the slope of the roof
- Pressed base for stiffening

Long rafter bracket

- Has the same role as the rafter bracket
- The tailpiece is longer. It is recommended to be used in conjunction with covers made of ceramic tiles or concrete roof tiles

Universal bracket

- An optimal alternative to the rafter bracket.
- Universal - can be mounted directly on the fascia board or the rafter by using the bracket support
- Decreases up to 60% the system mounting time by avoiding the need to take various measurements and the bending of rafter brackets
- Pressed base for stiffening

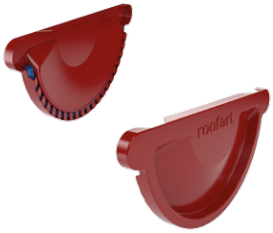
Twisted bracket support

- Used to fix the universal bracket on the rafter
- Adjusts the gutter slope for water drainage to the downpipe, with predetermined gradations
- Includes a screw and a nut
- The twisted piece is fixed to the side of the rafter. When replacing the rainwater system, there is no need to remove the tiles

Gutter joint element

- Provides enhanced strength of the gutter - gutter connections
- Made of 0.55 mm galvanized steel

Universal stop end



- Is mounted onto the gutter on both ends of the water catchment system
- Tightly sealed profile due to internal gasket
- Do not use silicone sealant, given it could lead to the deterioration of the gasket over time
- Pressed stop end for reinforcement

Gutter stabilizer

- Aims to provide an additional support to the gutter in case of large loads (for example: snow, ice) or due to other pressure (manually applied pressure such as sitting) that may affect the system from reverting back to the initial state

Internal/External 90° corners with brackets

- It is mounted on the interior/ exterior corners of the building, and connects two gutters
- The included gutter brackets provide increased tightness to the rainwater system
- Made from a single piece of material

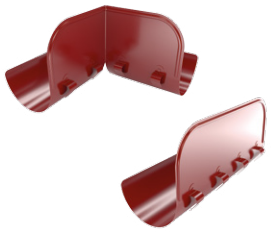
Hopper

- Provides water collection from the eaves without eaves and directs it into the downpipe
- Its circular form allows the gutters to be mounted in any angle to one another
- Is provided with double stiffening for better rigidity and strength

Rectangular hopper

- Has the same role as the circular hopper
- The difference is the rectangular form, which allows it to meet specific design or architecture needs

Overflow element 90°/ 180



- PP 90° is mounted with the help of brackets directly on the corners of the gutters
- PP 180° is mounted with the help of brackets directly on the corners
- It is installed using brackets directly on the corner

Gutter outlet

- The main element to connect the horizontal system of water diverters (consisting of gutters) with the vertical system of water drainage to the ground (consisting of pipes)

Pipe bend

- Joining element between the gutter hopper and the downpipe
- Useful for changing the direction of water drainage through the downpipe
- For easy assembly, the pipe bent is larger at the upper end

Downpipe / downspout extension

- Ensures the flow of water through the gutter either into the drains or onto soil/ ground.
- The piece is adjusted at an end for easy combination with another pipe
- Is fastened on the building wall with a pipe joint
- The pipe is available in 3m lengths – with an extension pipe available of 1m

Pipe holder

- Fixes the downpipe on the building facade
- "Click" type locking system
- Triple clamping possibilities, depending on the type of the facade: two lateral ears, centrally, with dowels or vertically with pop-rivets (on brickwork with thermal system and metal walls)
- Masks joints between two downpipes

Flare fitting

- Combines two cutted downpipes together.
- Efficient for customers to reduce waste of material/ units

Pipe branch

- Joins two water drainage columns (helps reduce costs by eliminating one of the columns)
- Element with an adjustable joint angle
- An optimal solution when one drainage column has to be diverted into another direction

Rainwater diverter

- Directs water to another route or tank.
- Adjustable diverter - possibility to keep it opened, for water collection, or closed for water drainage into the ground

Shoe 60°

- The final element for water evacuation
- The free end features a reinforcing ring
- When the purpose of the gutter systems is to connect to the sewage system with a drain connector element, the shoe is no longer required

Drain connector

- Connection of the downpipe directly to the drainage system or universal gully, when you don't opt for water evacuation through the shoe 60°
- Ensures optimal sealing with the sewage system
- Bottom skirt covers any inaccurate cuts and prevents waste infiltration (leaves, gravel)

Decanter

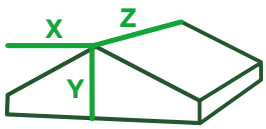
- Directs water directly into the drainage system or other tank
- Keeps the circulation of warm air from the drainage to the downpipe (in cold weather, prevents water freezing inside the downpipe).
- Allows the removal of any accumulated leaves, due to the sieve included. Eliminates the necessity of cleaning the gutter from the leaves
- Colour options: gray, brown, black

Elastic bend

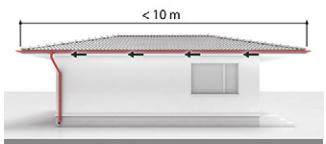
- Connecting element between the decanter and the sewage pipe
- Diameter 110mm

* For more technical details about our products please visit **www.roofart.eu** or request the **Technical catalogue.**

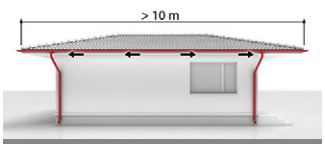
Choosing the right system



S = (Y/2 + X) * Z



For a roof with a length of up to 10 meters, install one drainage.



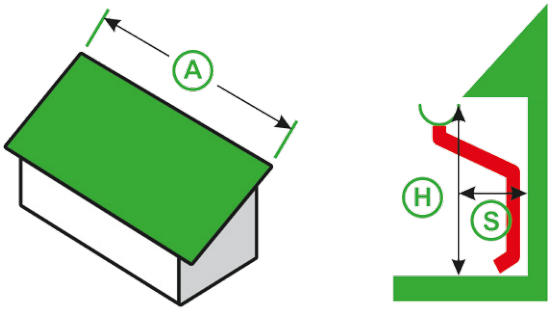
For a roof with a length exceeding 10 meters, install two drainages at the corners.

For a roof with a surface of a maximum of 100 m2, install a minimum of one drainage.

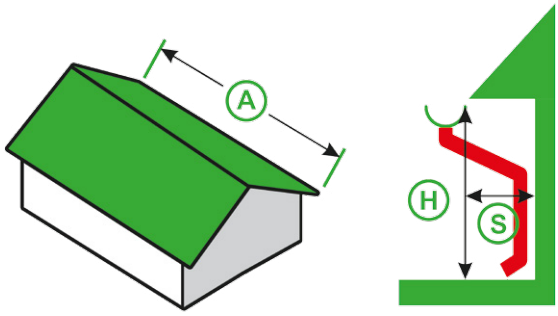
MOUNTING SCHEME FOR RAINWATER SYSTEMS:

Roof surface (m^2)	Dimensions gutter/downpipe (mm)	Positioning of the downpipe
100	125 / 87	
150	150 / 100	
180	125 / 87	
300	150 / 100	

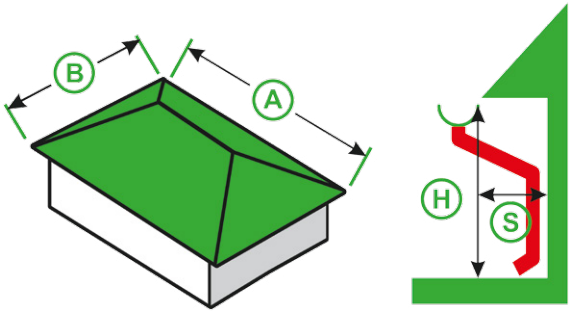
NOW YOU CAN CALCULATE THE AMOUNT OF REQUIRED ELEMENTS, YOU JUST NEED TO ADD THE DIMENSIONS OF THE HOUSE



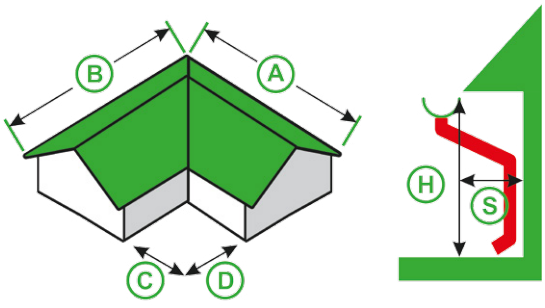
Simple roof			
JB (X)	A ÷ 3 (m)	=	
*BJ, EJ	X - 1	=	
CJ, CPU	A ÷ 0,8 (m)	=	
CU		=	2 dishes
RA (Y)	A ÷ 10 (m)	=	
BU	Y × H ÷ 3 (m)	=	
BB***	Y × H ÷ 2 (m)	=	
CB	Y × 2	=	
PB	Y	=	
CE	Y		



Double-pitch roof			
JB (X)	A × 2 ÷ 3 (m)	=	
*BJ, EJ	X - 2	=	
CJ, CPU	A × 2 ÷ 0,8 (m)	=	
CU		=	4 dishes
RA (Y)	A × 2 ÷ 10 (m)	=	
BU	Y × H ÷ 3 (m)	=	
BB***	Y × H ÷ 2 (m)	=	
CB	Y × 2	=	
PB	Y	=	
CE	Y		



Four-pitch roof			
JB	(A+B) × 2 ÷ 3(m)	=	
*BJ, EJ	X - 4	=	
CJ, CPU	(A+B) × 2 ÷ 0,8 (m)	=	
KEB			4 dish
RA (Y)	(A +B) × 2 ÷ 10 (m)	=	
BU	H × Y ÷ 3 (m)	=	
BB***	H × Y ÷ 2 (m)	=	
CB	Y × 2	=	
PB, CE	Y	=	



Complex roof			
JB (X)	(A+B+C+D) ÷ 3 (m)	=	
*BJ, EJ	X - 4	=	
CJ, CPU	(A+B+C+D) ÷ 0,8 (m)	=	
CU, KEB, KIB		= = =	CU 4 dish, KEB - 1 dish, KIB - 1 dish
RA (Y)	(A+B) ÷ 10 (m) = Y1 (C+D) ÷ 10 (m) = Y2 Y1 + Y2 = Y	=	
BU	H × Y ÷ 3 (m)	=	
BB***	H × Y ÷ 2 (m)	=	
CB	Y × 2	=	
PB	Y	=	
CE	Y	=	

A - Length of eaves
H - Height up to eaves
S - Distance from the wall to the edge of the roof. If S> 0.9m, use two intermediate pipes (PB)
B, C, D - lengths of guttering for complex roofs

NOTE: The results will be rounded to the decimal for a more precise calculation of the elements

Installation instructions

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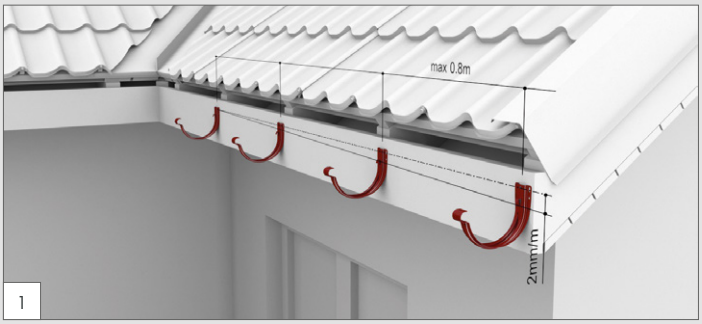
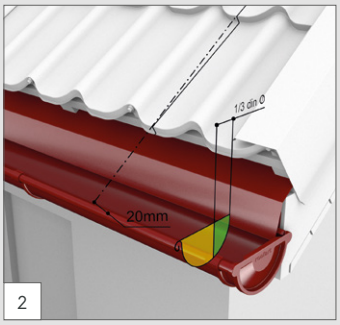


1

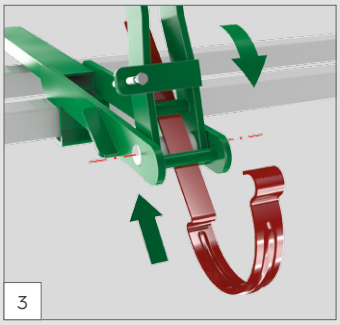
Before mounting the hooks, you should draw a drainage slope towards the place where you will place the pipes. It is preferable to make the slope of the gutter about 2 mm for each meter of its length. The distance between the hooks should not exceed 0.8 m, and the hooks at the ends should be placed 0,1 m from the edge of the roof.

NOTE: The use of the angle grinder for these jobs will result into the loss of warranty for the entire rainwater system.

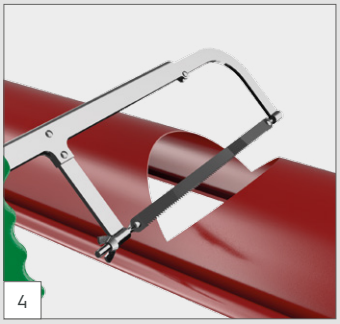


2

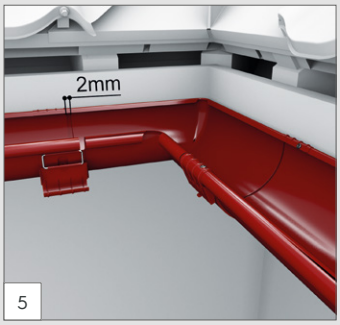
It is recommended to mount the gutter so that its outer side is 20-30 mm lower than the imaginary extension of the roof structure. Thus, the flow of water from the roof will not go over the gutter.


3

Before you mount the hooks (CJ), you should bend them so they match the angle of the roof inclination with a special device, according to the drainage slope

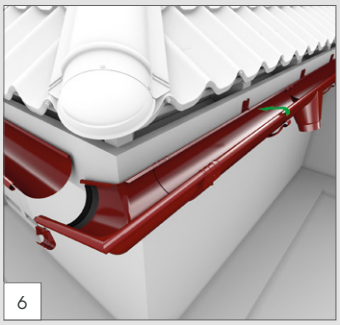

4

Mark a spot and use a saw and tinsnips to cut a drainage slot in the gutter, which should not be larger than the diameter of the pipe.

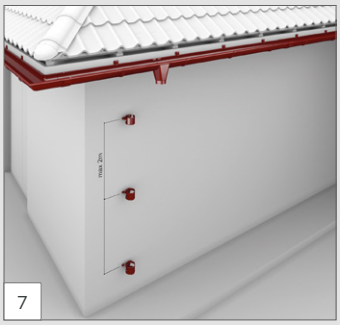


5

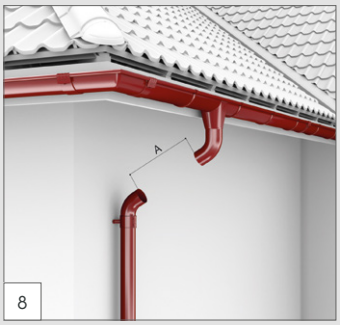
Two gutters that are to be joined should be placed on the hooks without being fixed. The distance between the edges of the gutters should be approximately 2-3 mm.


6

Internal/external corners (KIB/KEB) are fixed through bonding with the help of the gutter joint (BJ) and the gutter joint element (EJ).

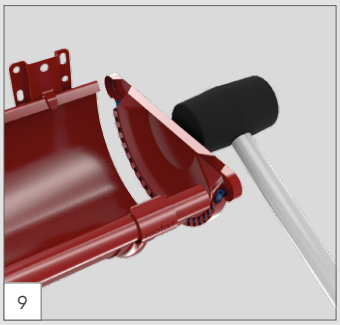

7

Pipe holders (BB) are fixed on the wall one under the other with dowels before the pipes (BU) are installed. The maximum distance between two BB should not exceed 2 meters *** (the BB calculation can sometimes not meet your requirements. Calculate the amount of BB for each drainage).



8

Pipe bends 60° (CB) are mounted on the gutter outlet (RA) and down onto the pipe (BU). They can be joined through the intermediate pipe (PB). Measure the distance between the bends "a", add 100 mm to it, for both ends of the intermediate pipe, each of which enter the bends by 50 mm.


9

The universal stop (CU) end is fixed manually or using an elastic hammer at the end of the gutter, without using silicon because it destroys the gasket through time.

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