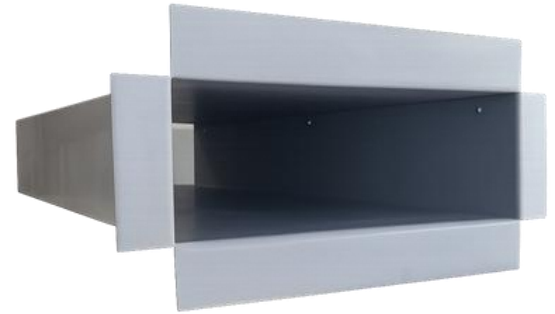


Installation instructions

ProRoof emergency overflow

Emergency drainage system for flat roofs



Application

The ProRoof emergency overflow is a safety element of the drainage system of flat roofs.

Its task is to discharge excess water when the main drainage cannot keep up with the water or becomes partially blocked.

Principle of operation

The overflow starts working when the water on the roof reaches a defined level and discharges the excess to the outside of the building, reducing the risk of overloading the structure and flooding the roof layers.

Installation principle

The element is installed from the inner side of the parapet (from the roof side).

The flange stays on the roof side and is connected watertight to the waterproofing.

The pipe passes through the parapet and discharges the water beyond the outline of the building.

Scope of use

- flat roofs
- installation in a parapet or an external wall
- waterproofing systems with PVC membrane (welding)

Key features

- watertight connection to the PVC membrane by welding
- installation from the roof side
- water discharged away from the façade
- safety element of the drainage system

Before starting work

Before starting installation:

- check that the dimensions of the overflow match the design
- determine the installation height of the element
- check the type of substrate and the waterproofing system
- prepare the tools for installation and welding
- make sure the surfaces are clean and ready for work

Scope of the instructions

The instructions cover:

- preparing the opening and fitting the overflow
- connection to the PVC membrane
- routing of the outlet and water discharge
- inspection and acceptance of the installation

1. General rules

What is the emergency overflow for?

The emergency overflow starts working when the main roof drainage cannot keep up with the water or becomes partially blocked.

Its task is to discharge excess water to the outside before the water level on the roof reaches sensitive areas.

The most important installation rule

The element is installed from the roof side, i.e. from the inner side of the parapet.

The flange stays on the roof side and is welded watertight to the PVC membrane.

The pipe outlet must be on the outer side of the wall. Install the overflow so that the pipe joint is in the upper part of the overflow.

2. Preparing the opening and fitting the element

2.1. Marking the installation location

Determine the installation location of the overflow in accordance with the design documentation. The position should ensure effective emergency drainage and safe discharge of water beyond the outline of the building.

2.2. Determining the installation height

The lower edge of the overflow should be at a level that allows the water to start flowing out before it reaches sensitive elements (e.g. windows, doors, sheet metal flashings).

2.3. Making the opening in the parapet

Make an opening in the parapet matching the cross-section of the overflow pipe, allowing for installation clearance.

The opening should be made accurately, with even and cleaned edges.

2.4. Preparing the substrate

Clean the installation surfaces of dust, material residues and other contamination that could affect the correctness of the installation and the tightness of the joints.

2.5. Trial fitting

Before the actual installation, a "dry" trial fitting is recommended to check:

- dimensional fit,
- installation height,
- correct passage of the pipe through the parapet.

2.6. Fitting the overflow

Slide the overflow in from the roof side (from the inner side of the parapet) so that:

- the flange lies flat on the roof surface,
- the pipe is led out to the outside of the building.

2.7. Positioning the element

Position the element on the axis of the opening.

Make sure the outlet of the overflow is beyond the face of the wall and allows the water to flow away freely.

2.8. Mechanical fixing

After positioning the overflow, fix it mechanically to the parapet structure using suitable fasteners selected for the substrate.

2.9. Filling the installation gap

Fill the free space between the pipe and the opening with thermal insulation or installation foam.

The filling should stabilise the element and limit thermal bridges.

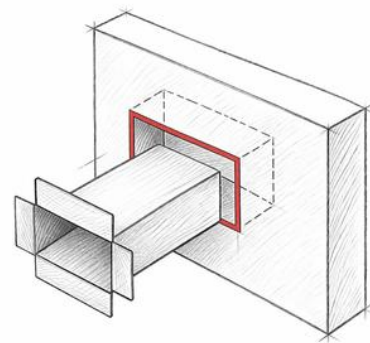


Diagram of making the opening in the parapet

3. Connection to the PVC membrane

3.1. Preparing the membrane sheet

Prepare a membrane sheet to be welded to the flange of the emergency overflow. The sheet must be at least 200 mm larger than the opening of the rectangular pipe of the emergency overflow. Round the corners of the cut membrane sheet.

3.2. Preparing the surfaces

The surfaces to be welded must be:

- clean,
- dry,
- prepared in accordance with the membrane manufacturer's technology.

3.3. Positioning the flange

The flange of the overflow should lie evenly on the parapet surface, without stress or deformation.

3.4. Making the weld

Connect the flange to the PVC membrane by hot-air welding.

Make the weld around the entire perimeter of the previously prepared sheet.

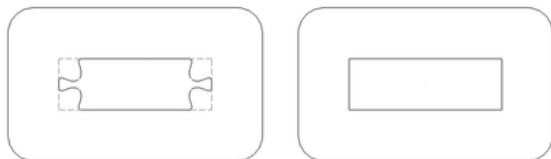
3.5. Welding parameters

The weld width must be at least 30 mm.

Select the welding parameters (temperature, speed) in accordance with the membrane manufacturer's recommendations.

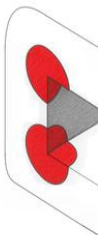
3.6. Cutting out excess membrane

Excess membrane in the opening of the emergency overflow can be cut out in two ways, shown in the sketch below.



3.7. Sealing the corners inside the overflow

Seal the corners inside the emergency overflow using the excess of the previously cut sheet or unreinforced membrane.



3.8. Direction of overlaps

Run the membrane overlaps in the direction of water flow so that they do not cause water to seep underneath.

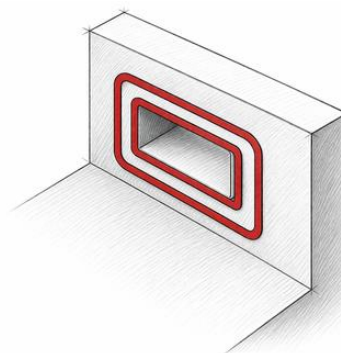
3.9. Checking the connection

After welding, check:

- continuity of the seam,
- absence of insufficiently heated spots,
- tightness of the joint around the entire perimeter.

3.10. Additional protection (optional)

If necessary, the joint can be additionally protected with a sealing material compatible with the waterproofing system.



The weld width of the flange patch to the parapet waterproofing must be at least 30 mm

4. Water discharge and outlet geometry

4.1. Routing the overflow beyond the façade

The overflow pipe must be led out beyond the face of the wall so that the water is visibly discharged to the outside of the building.

4.2. No connection to the sewer system

Do not connect the emergency overflow to the sewer system.

The element should work as an independent emergency water discharge system.

4.3. Ensuring free outflow

Make sure that:

- the pipe cross-section is not restricted,
- nothing blocks the outlet,
- the water has a free path to flow out.

4.4. Making a drip detail

It is recommended to make a detail at the end of the pipe that prevents water from running down the façade (e.g. a drip edge).

4.5. Water discharge zone

Design the area below the overflow so that, at maximum flow, the water does not cause damage (e.g. flooding of the façade, pavements or installations).

4.6. Final function check

After completing the installation, check:

- free passage of the overflow,
- correct direction of outflow,
- absence of obstacles in the water path.

5. Inspection, cleaning and operation

Periodic inspections

Inspect and clean the emergency overflow at least twice a year.

If the roof is heavily soiled, for example by leaves or dust, carry out inspections more often.

What to check during inspection

- free passage of the inlet and outlet
- condition of the weld between the flange and the membrane
- condition of the mechanical fixing
- whether the water has a free path to flow out to the outside

6. Installation conditions and execution recommendations

6.1. Working conditions

Carry out the installation work in conditions suitable for the waterproofing system used and in accordance with the guidelines of the PVC membrane manufacturer.

6.2. Preparing materials before installation

Before installation, check the condition of the product, the cleanliness of the flange and the absence of mechanical damage that could affect the tightness of the joint.

6.3. Material compatibility

Use only materials compatible with the roof waterproofing system to make the connection.

6.4. Installation limitations

Do not install on a dirty, wet or unprepared substrate. Do not allow stress or deformation of the flange during fixing.

6.5. Acceptance after installation

After completing the work, check the stability of the fixing, the free passage of the overflow, the quality of the weld and the correct routing of the outlet beyond the face of the wall.

6.6. Operating notes

The emergency overflow should remain accessible for inspection and cleaning throughout the operation of the roof.

7. Acceptance checklist

Checkpoint	Yes / No	Remarks
Opening made to the product dimensions	☐ YES ☐ NO	
Overflow fitted from the inner side of the parapet	☐ YES ☐ NO	
Element fixed mechanically	☐ YES ☐ NO	
Space around the pipe filled	☐ YES ☐ NO	
Flange welded to the PVC membrane	☐ YES ☐ NO	
Outlet led out beyond the face of the wall	☐ YES ☐ NO	
Pipe joint in the upper part of the overflow	☐ YES ☐ NO	
Drip detail made	☐ YES ☐ NO	
Free passage checked after installation	☐ YES ☐ NO	