



## Double bending tinning technology.

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### IS IT:

*Product*

*Technology*

*Equipment*

### APPLICABLE FOR:

*Restoration*

*Rehabilitation*

*New Construction*

### APPLICABLE ON:

*1. Foundations and underground structures*

*2. Vertical structures*

*3. Horizontal structures and vertical connections*

*4. Roof and terraces*

*5. Façade and building envelope*

*6. Finishes and completion elements*

*7. Integrated services*

*8. General strategies for building recovery*

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***Related companies: DOUBLE STANDING SEAM.***

## DESCRIPTION

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The STANDING seam technique allows the jointing of previously profiled sheets and strips, obtained by layering and folding the edges. The fastening to the substructure is made with the aid of fixed and sliding clips anchored by screws or nails. The double standing seam technique is the most versatile solution that best suits the more complex shapes that may be encountered in a roof. The minimum height of the finished seam is 23 mm, resulting from lateral bending of the sheets which, through various operations, are joined to form a double seam. Employing profiling machines and seamers for bending, each section loses about 70 mm of material; the play that is formed, equal to 3-5 mm, absorbs the transverse expansion of the sheets due to heating. The minimum roof inclination required is 5% (3 °).

## WHY TO USE

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The particularly delicate seams have an attractive, slim appearance and ensure the harmonious integration of roof surfaces in traditional or modern buildings.

Double standing seams are ideal for shallow roof slopes and can be used starting from a gradient of 3°.

They can be perfectly adapted to various building elements for existing buildings with more complex architecture. Tapered, concave or convex rounded surfaces can be accurately formed.

Standing seam panels up to 7 m long are economical to fit. Panel lengths of up to 16 m can be flexibly employed, including on roofs with large surface areas. We can provide rental machines for processing greater lengths on site.

The seams are rainproof and so protect the building structure against wind and weather.

Planners and professional specialists can also decide whether to produce the double standing seams manually or using a profiling machine.

## HOW TO USE AND APPLY

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The double standing seam can be fitted on roofs with inclinations from 3°. Seam sealant tapes must be used on roof inclinations from 3° to 7° and where there is a danger of ice dams forming near the eaves. The profile edges are

produced using roll formers or by hand. The seams are also sealed using a seam sealer machine or by hand.

The installation of pre-profiled double standing seam panels has become established as an international standard. Roof surfaces can be very finely segmented thanks to the seam height of approx. 25 mm and slender seams.

Concave and convex rounded surfaces can also be easily roofed using double standing seam systems.

Double standing seam systems are of impressive product quality and are based on well-engineered system technology. For instance, perfectly matching sealant tapes are available for roofs with low gradients and are especially necessary in regions where snow and ice are common.

Double standing seam systems are attached using fixed and sliding clips made from high-quality stainless steel. The screws are corrosion-protected and also fulfil the high requirements for a long-lasting roof covering.

Technical procedure:

1. Standing seam panel:

Standard panel width approx. 530 mm (coil width 600 mm); common panel widths 400 mm to 600 mm; metal thicknesses 0.7 mm/0.8 mm; normal panel length up to 10 m, in special cases up to 16 m; deliverable length max. 7 m.

2. Seam sealant tape:

For bonding to the bottom seam.

3. Notching for standing seam panels.

4. Eaves flashing:

In different dimensions and nominal sizes.

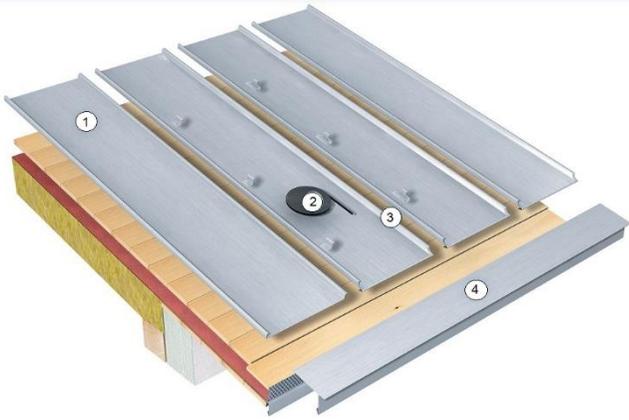


Fig.1: Technical procedure of double bending tinning.  
© <https://www.rheinznk.com/products/roofing/double-standing-seam/>

## TECHNICAL CHARACTERISTICS

- Standard panel width approx. 530 mm (coil width 600 mm).
- Common panel widths 400 mm to 600 mm.
- Metal thicknesses 0.7 mm/0.8 mm.
- Normal panel length up to 10 m.
- In special cases up to 16 m.
- Standard transport length is 7 m.

## RECOMMENDATIONS AND OTHER INFORMATION

The international standard size for roofs in double standing seam systems is a panel width of approx. 530 mm (coil width 600 mm) and a metal thickness of 0.7 mm. We recommend limiting the panel width to 430 mm and the metal thickness to 0.8 mm for mono pitch roofs with overhangs based on practical construction experience. This measure prevents noises that can occur in strong winds due to the natural curvature of the panels.

The generally common maximum panel length is 10 m. Using our clips, this can be extended to 16 m. However, the roof inclination then remains limited to max. 30°. In this case, panel attachments and connection details must be adapted to the increased length variation.

If the max. possible panel length is insufficient, individual lengths can be connected using cross seams.

## EXAMPLES

The double standing seam is a further development of the original hollow folded joint or single standing seam. This reliable system has been referenced in technical literature since 1899 and is the top choice for roof pitches from 3° to 25°. Here, the name “double standing seam” characterizes one of the conventional types of longitudinal joints above the water level. A fine-lined seam height of 25 mm is rainproof without any additional measures. The double standing seam, manufactured with pre-profiled panels, has gained international recognition. Seams are folded and closed manually or with a seaming machine. Custom shapes such as convex and concave curves and conical panels are produced without difficulty. Thanks to a multitude of detail variations, the double standing seam emphasizes both traditional and modern architectural design.

## REFERENCES / SOURCES AND LITERATURE

[http://www.mazzonettometals.com/designerarea\\_roofing-double-standing-seam.html](http://www.mazzonettometals.com/designerarea_roofing-double-standing-seam.html)

<https://www.rheinznk.com/products/roofing/double-standing-seam/>

## WEBSITE OF THE COMPANY

<http://www.mazzonettometals.com>

<https://www.rheinznk.com>



## IMAGES AND CAPTIONS

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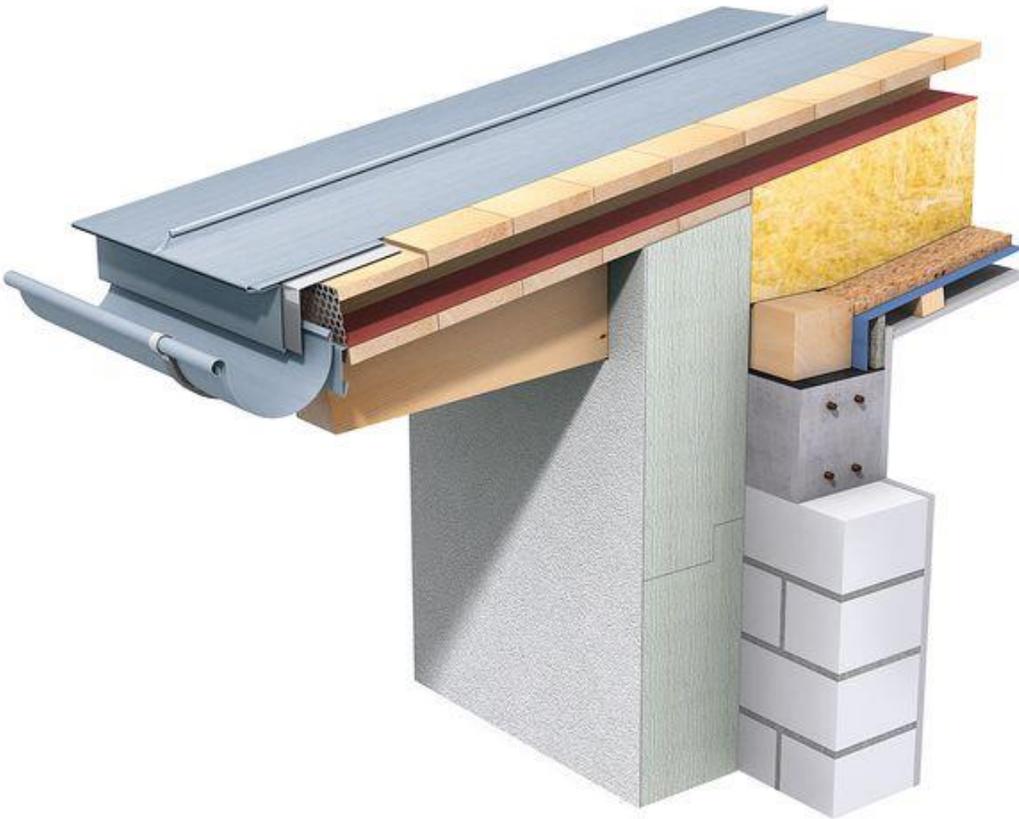


Fig.2: Details of construction. The double standing seam can be fitted on roofs with inclinations from 3°. Seam sealant tapes must be used on roof inclinations from 3° to 7° and where there is a danger of ice dams forming near the eaves. The profile edges are produced using roll formers or by hand. The seams are also sealed using a seam sealer machine or by hand. © <https://www.rheinzink.com/products/roofing/double-standing-seam/>

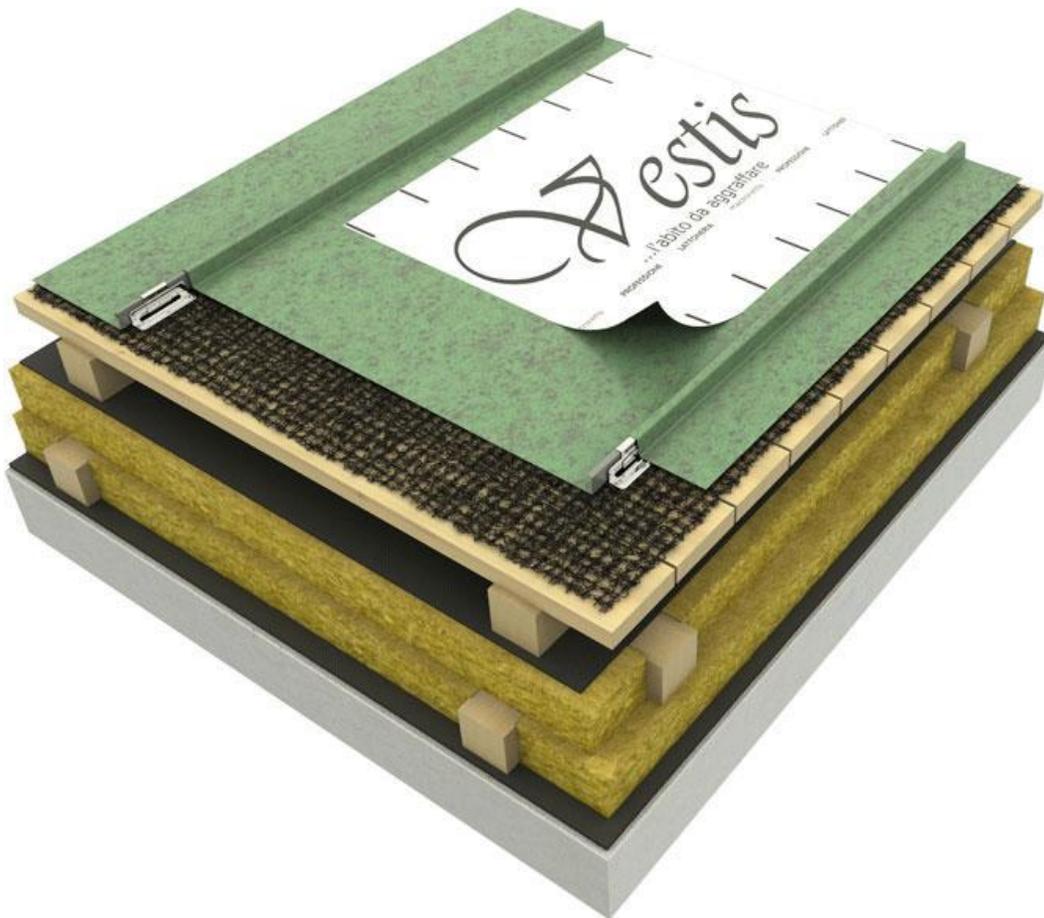


Fig.3-4: Details of construction. © [http://www.mazonettometals.com/designerarea\\_roofing-double-standing-seam.html](http://www.mazonettometals.com/designerarea_roofing-double-standing-seam.html)



Fig.5-7: Examples. © [http://www.mazonettometals.com/gallery\\_roofing-double-standing-seam.html](http://www.mazonettometals.com/gallery_roofing-double-standing-seam.html)