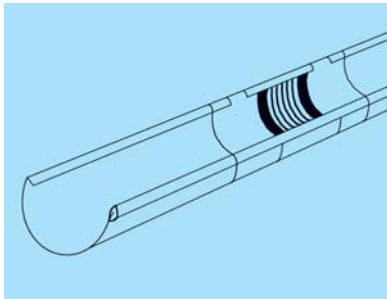
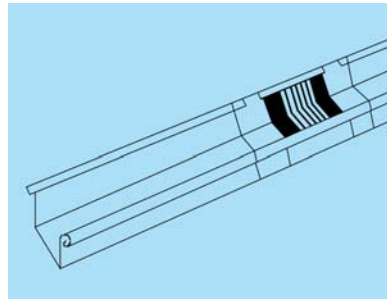


# Installation guidelines for Semmler Expansion Elements



See flip side for example.

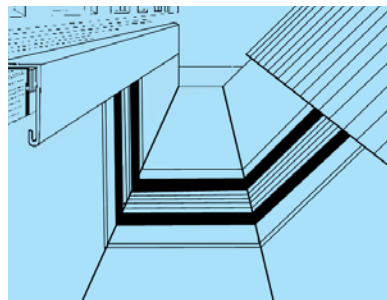
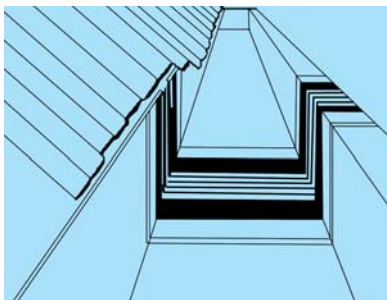


## Guttering hung from eaves: semicircular or box-type gutters

How far apart Semmler Expansion Elements should be positioned:

	aluminium	copper, zinc, stainless steel
gutters up to 500 mm in size*	12 m	15 m
gutters over 500 mm in size*	8 m	10 m

At the outside corners or at the beginning of the guttering the given distance has to be divided by two; at the inside corners the given distance has to be divided by four.



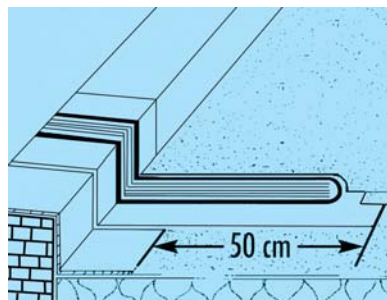
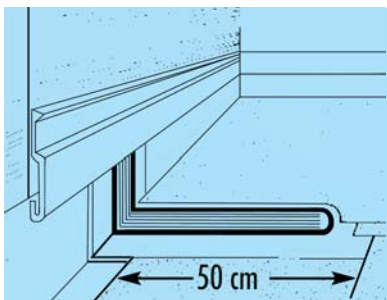
## Inlet type gutters:

box-type gutters, water gutters, coping – not bonded

How far apart Semmler Expansion Elements should be positioned:

	aluminium	copper, zinc, stainless steel
gutters up to 500 mm in size*	8 m	10 m
gutters over 500 mm in size*	6 m	8 m

At the outside corners or at the beginning of the guttering the given distance has to be divided by two; at the inside corners the given distance has to be divided by four.



## Single-Head Elements:

for roof-skirting or wall joints on flat roofs

How far apart Semmler Expansion Elements should be positioned:

	aluminium	copper, zinc, stainless steel
	5 m	6 m

At the outside corners or at adjoining/the beginning of roof sheeting the given distance has to be divided by two; at the inside corners the given distance has to be divided by four.

### Please note:

Elements must be at least 50 cm longer than the width of the adjoining wall plate or roof sheeting!

## Useful tips on machining and installing Expansion Elements:

When bending or canting Semmler Expansion Elements special attention should be paid to the following points:

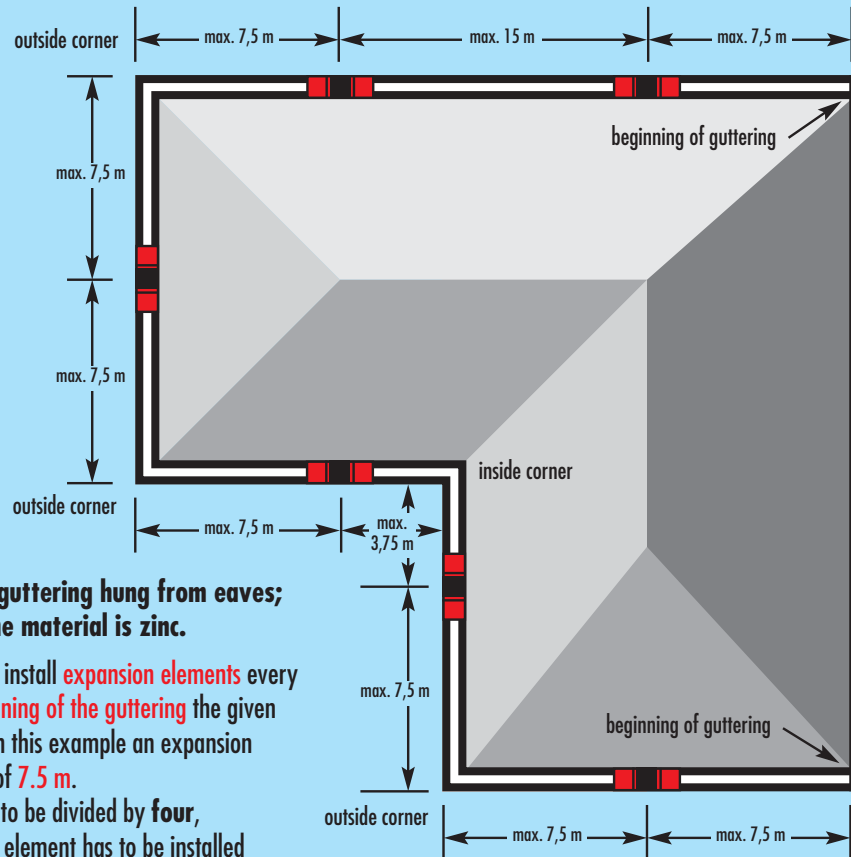
- The bending rail should have a radius of at least 2 mm.
- When bending material of over 1 mm in thickness, a bending radius of 5 mm is needed.
- In order to avoid a shearing effect, the bending cheek must be lowered by approximately 3-4 mm (dependent upon the thickness of the rubber at its centre point).
- Be careful not to squash or damage the rubber part. It is advisable to make a metal shoe to cover the bending rail; this can be done by bending a 2-5 mm thick strip of aluminium sheeting so that it fits over the rail, thus providing a larger bending radius and preventing damage to the rubber part of the element.
- Semmler Expansion Elements can be fitted into any existing profile simply by soldering or welding.
- Be careful to cover the metal strips adjacent to the rubber/metal joint as well as the actual rubber part with a wet cloth before beginning any soldering or welding work. This prevents heat being conveyed to the rubber part. A minimum of 6 cm between the rubber part and the soldering or welding joint should be allowed. At no time should the rubber be exposed to a naked flame.



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\*The size of the guttering refers to the measurement along the bend from edge to edge.

### Installation Example:



The figure represents an example of guttering hung from eaves; the gutter is up to 500 mm in size; the material is zinc.

With guttering of this kind it is necessary to install **expansion elements** every **15 m**. At the **outside corners** or at the **beginning of the guttering** the given distance has to be divided by **two** so that in this example an expansion element has to be installed at a maximum of **7.5 m**.

At the **inside corners** the given distance has to be divided by **four**, meaning that in this example an expansion element has to be installed at a maximum of **3.75 m**.

*For other materials and dimensions of guttering, please refer to the table overleaf.*

### Tips on bending expansion elements.

The rubber part of the expansion element should not be squashed or damaged in any way during the process of bending. A 2-5 mm thick strip of aluminium sheeting can be bent to form a metal shoe which will fit over the bending rail, thus providing a larger bending radius and preventing damage to the rubber part of the element.

The ideal type of bending machine is one fitted with a row of rail parts. Part of the row can be removed from the bending rail, thus preventing the rubber part from being squashed or damaged.



A bending machine with a metal shoe. © Semmler GmbH 2011



A bending machine with removable rail parts. © Semmler GmbH 2011



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