

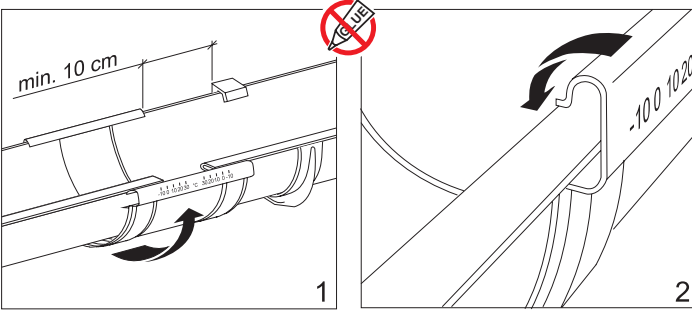
### Gasket union piece for "125" gutter system



Following the Customer's requirements we have introduced a gasket union piece, which speeds up the assembly of Plastmo PVC gutters maintaining its 100% tightness. Perfectly set shape of the union and a gasket made of high quality material, ensures perfect gutter's joining. **The system connected by the gasket union pieces eliminates necessity of using glued connections (fig. 6) and expansion union (fig. 7).**

### Gasket union piece – assembly instruction

Assembling a gutter system with the use of gasket union piece, the general principles of the Plastmo PVC gutter's assembly should be maintained.



- Gasket union piece assembly:
1. The gasket union piece should be fixed in a distance not less than 10 cm from the next gutter bracket,
  2. Place the ends of the gutters on the scale of temperatures accordingly to the ambient temperature in the day of assembly. The ends of the gutters should not be inserted into the union further than till the mark "End of the gutter".
- On the front edges of the joint gutters, fasten the click on the union.



POLSKA  
**Plastmo**

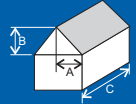
### Design and assembly of gutter system



Matching the size of the gutter system to the given roof's area, the following should be considered:

- effective roof's area (E) that the water is to be drained from,
- a place on a building where the down pipe is to be placed.

Pitched roof's effective area (E) is calculated as follows:  
 $E = (A+B/2) \times C$  [m<sup>2</sup>].

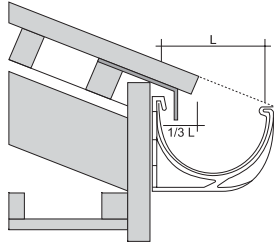


A- length of the inclined hip's plan [m];  
 B- roof's height [m];  
 C- roof's length [m].

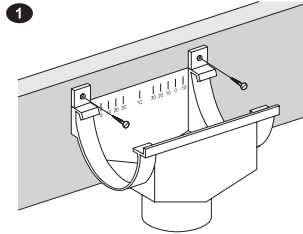
In case of buildings having flat roofs or pitched roofs inclined less than 10°, an effective roof's area is equal to roof's area  $E_r = A \times C$  [m<sup>2</sup>]

The down pipe's placements	Gutters			Down pipes		
	100 mm	125 mm	150 mm	75 mm	90 mm	110 mm
<b>m<sup>2</sup> of the area to be drained from</b>	177	235	380	217	355	614
	111	147	238	166	273	471
	89	118	190	149	245	423

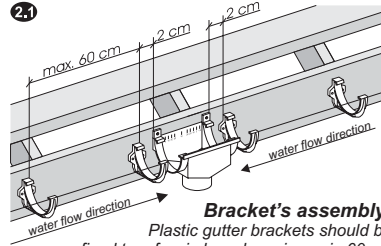
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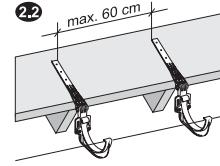
Properly assembled Plastro gutters.



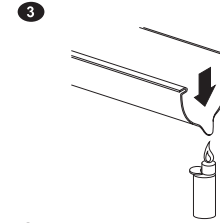
**1**  
**Outlet's assembly:**  
Decide the outflow place and fix the outlet. Detailed assembly instruction is enclosed to each outlet.



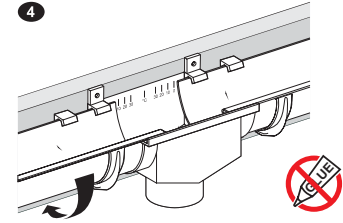
**2.1**  
**Bracket's assembly:**  
Plastic gutter brackets should be fixed to a fascia board maximum in 60 cm distance. Using a bit of string, mark the downgrade towards outlet (minimum 2 cm for each 10 running m of a gutter).



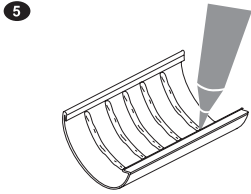
**2.2**  
Adjustable gutter brackets should be fixed to the construction of a roof maximum every 60 cm. Using a bit of string, mark the downgrade towards outlet (minimum 2 cm for each 10 running m of a gutter).



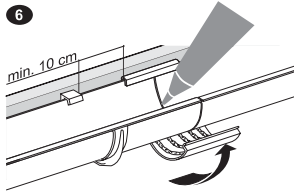
**3**  
**Gutter assembly:**  
Warm up the edges of the both gutters that are to be installed in the expansion outlet and form the lip.



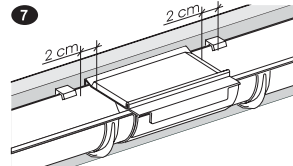
**4**  
Fix the gutters in the outlet and in brackets. On the temperature's scale inside the expansion outlet, set the edges of the gutters accordingly to the temperature of the day of assembling (in °C). **Do not use glue.**



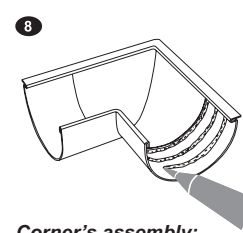
**5**  
**Joining gutters:**  
Apply the stripes of the glue of approx. 0,5 cm width each.



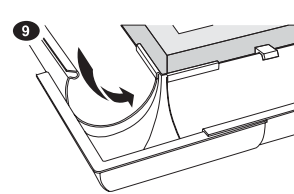
**6**  
Due to the natural thermal expansibility of gutters this union should be fixed minimum 10cm from the bracket. Gutter's contact area fill in with the glue.



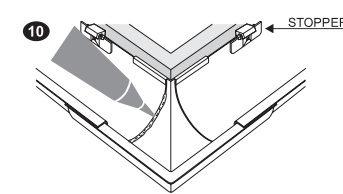
**7**  
Expansion union should be used when:  
- the distance between the two outlets is bigger than 15 m,  
- the distance between the two corners is bigger than 6 m and there is no outlet between these corners. Detailed assembly instruction is enclosed to each expansion union. On the scale of temperatures inside the expansion union set the ends of gutters with glued to them stopends.  
**Do not use glue to assembly the union.**



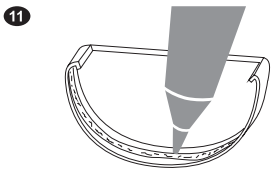
**8**  
**Corner's assembly:**  
Apply the stripes of the glue of approx. 0,5 cm width apart and place the gutter.



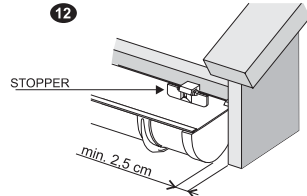
**9**  
Apply the glue on the second arm of the corner and fix the gutter.



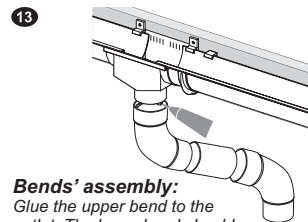
**10**  
A contact space between the gutter and the corner fill in with the glue. **Glue the gutter's movement stopper.**



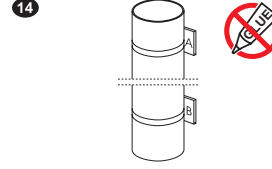
**11**  
**Stopend assembly:**  
Put the layer of glue approx. 0,5cm wide. Connection between a gutter and a stopend fill in with glue.



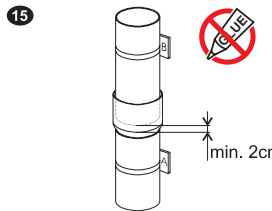
**12**  
Keep the minimum distance of 2,5 cm from the roof's side board. **Glue the gutter's movement stopper.**



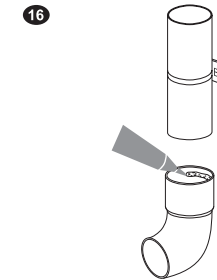
**13**  
**Bends' assembly:**  
Glue the upper bend to the outlet. The lower bend should be joined with the upper one without using glue, always by using a segment of the down pipe in between.



**14**  
**Down pipe's assembly:**  
The down pipe should be installed using the down pipe brackets compensating thermal expansibility. Detailed down pipe brackets assembly instruction is printed on each packing. **Do not use glue.**



**15**  
**Joining the down pipes:**  
The down pipes are put together by using sockets. Keep the 2 cm distance. **Do not use any glue.**



**16**  
**End of a down pipe:**  
A gutter system can be ended with the shoe glued to the down pipe or with gully collar that is put on the profiled pipe.