



WORLD GUTTER SYSTEMS | SLATE AND COPPER SALES™

# Premier Steel Gutter System™ Assembly instructions



PREMIUM QUALITY PRODUCTS  
Div. of SlateAndCopper.com

[www.premiersteelgutters.com](http://www.premiersteelgutters.com)

# Assembly - Roof Drainage System

## Transport, storage, unpacking

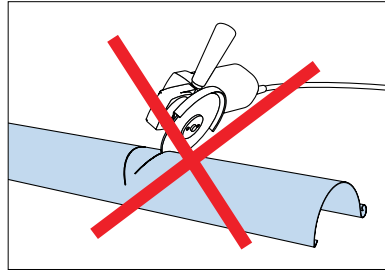
Make sure that the roof drainage components are handled with care during transport, storage and unpacking to avoid damage to the painted surface.

## Cutting

Cut the gutters and pipes with hand shears or a hacksaw. Never use an angle grinder or power saw. this will generate heat and destroy the galvanization. the coating may also be scorched by hot chips.

## Touch-up

If the coating has been damaged, touch it up with Premier Steel's repair paint to prolong the lifespan of the roof drainage system.



No High speed power tools!

## Maintenance

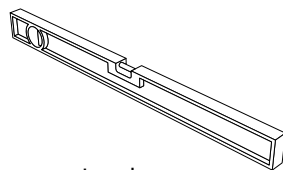
To keep the roof drainage system in top condition, give the system a good cleaning once a year. Clear the gutter and pipes from leaves and twigs and wash heavy dirt buildup with a mild soap. Dont use high presure power washer.

## Tools

The Premier Steel Gutter Sytem can be installed with ordinary hand tools like pliers, rubber mallet, hacksaw, screwdriver, tape rule and string. for bending hangers, you will need a roof hanger bending tool.

## Fasteners

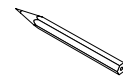
We recomend that you always use stainless steel screws and use the proper screw for each material. (wood, brick etc.)



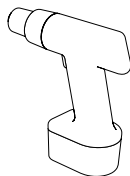
Level



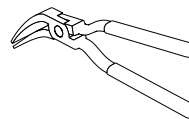
Tape rule



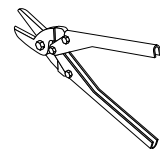
Pencil



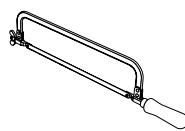
Power screw driver



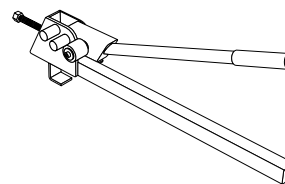
Seam plier



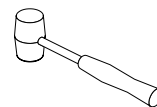
Steel scissors



Hack saw

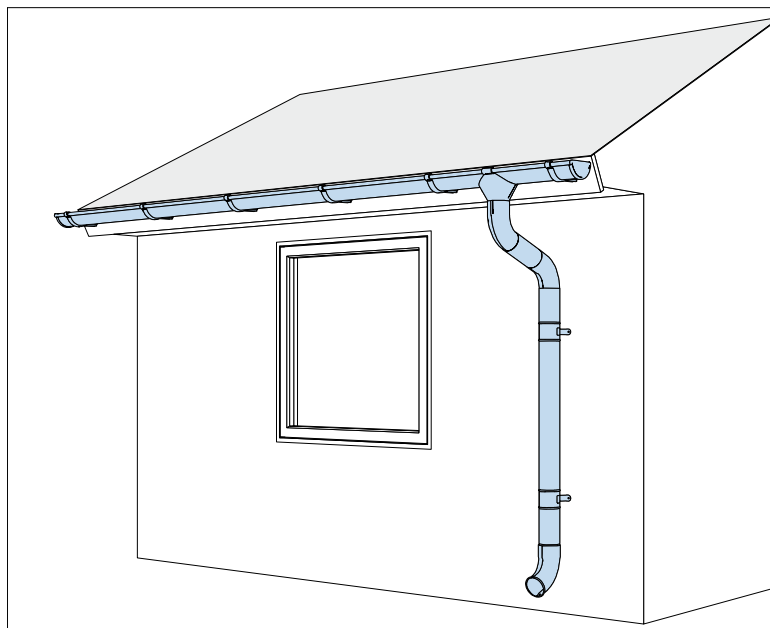
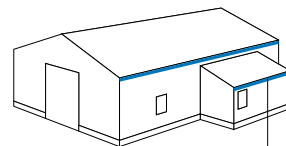


Hanger bending tool



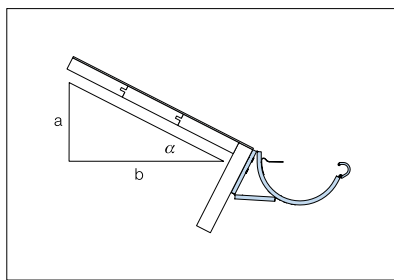
Rubber mallet

# Assembly - Roof Drainage System

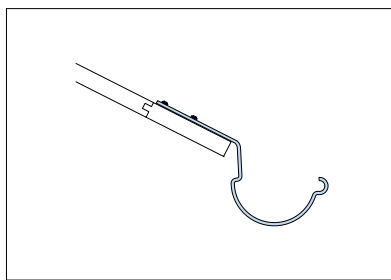


**Roof base**

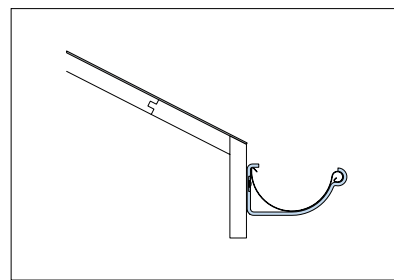
Depending on the roof construction, different types of hangers can be used. An adjustable type hanger is used in the assembly instructions that follow. on page 16. Other hanger applications are also shown as separate instructions. **The hangers options are as follows:**



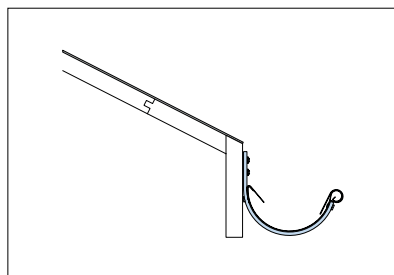
Adjustable heavy duty fascia hanger



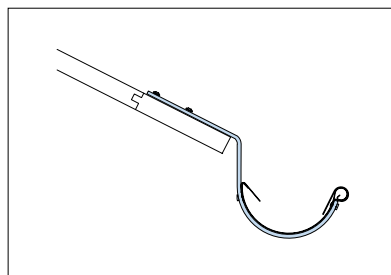
Self locking heavy duty roof hanger



Self locking heavy duty fascia hanger



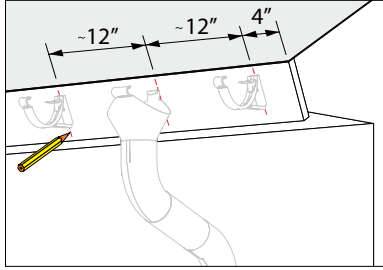
Heavy duty fascia hanger



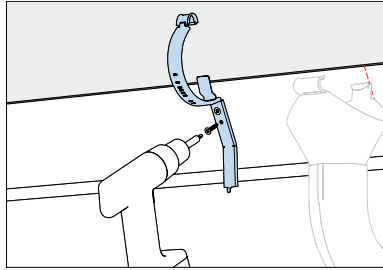
Heavy duty roof hanger

# Assembly - Roof Drainage System

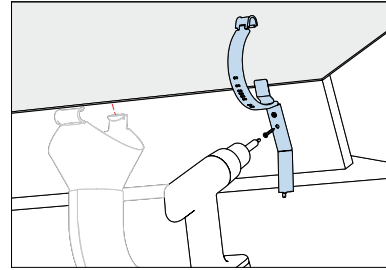
## Adjustable hanger installation



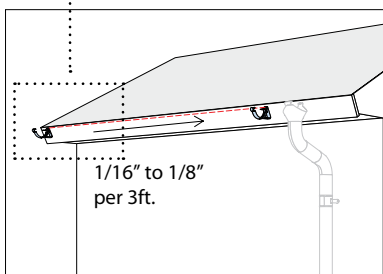
Mark out for the hangers around the downspout.



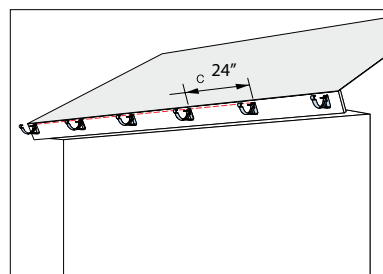
Fasten the "Low Hanger" 12" left of the downspout mark.



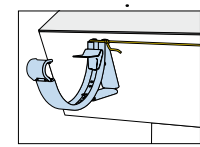
Fasten the hanger to the right of the downspout mark- 1/16" to 1/8" higher than the low hanger.



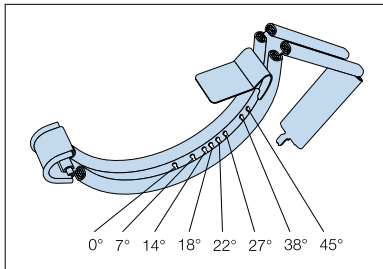
Fasten the "High Hanger" at opposite end of roof base. The slope to pipe should be 1/16" to 1/8" per 3ft.



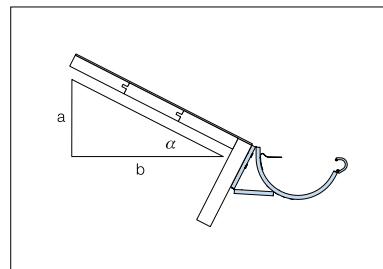
Fasten the other hangers along the string with 24" c/c max.



Put a string between the high and low bracket. It will help you to place the other brackets.

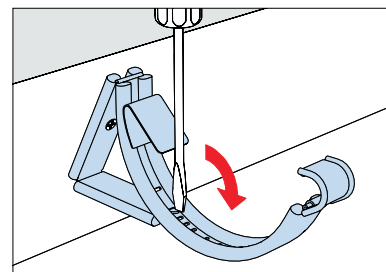
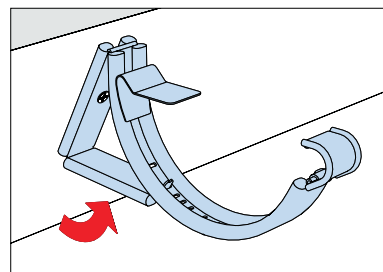
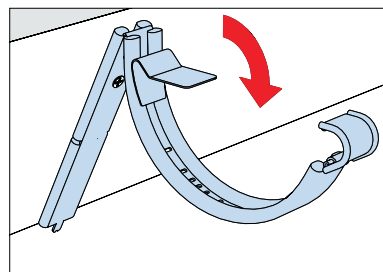


The hanger can now be adjusted



Calculate your roof pitch and adjust the hangers accordingly.

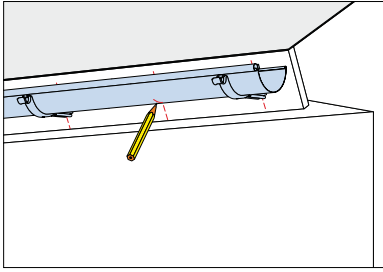
a	b	α
1	1	45°
1	1.25	38°
1	2	27°
1	2.5	22°
1	3	18°
1	4	14°
1	8	7°
1	~	0°



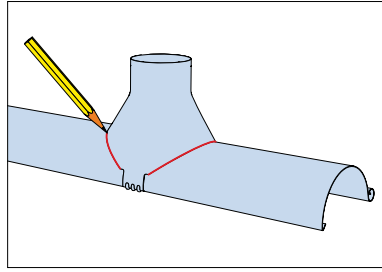
Use a screwdriver to fold the tab forward for low angles and back for angles > 22°

# Assembly - Roof Drainage System

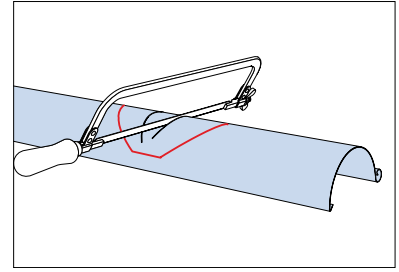
## Gutter assembly



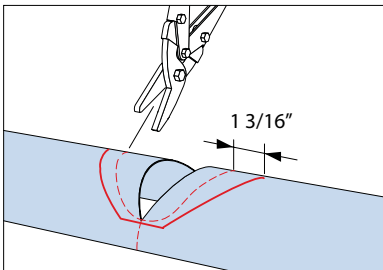
Place gutter in the hangers and mark location of the plug-in outlet



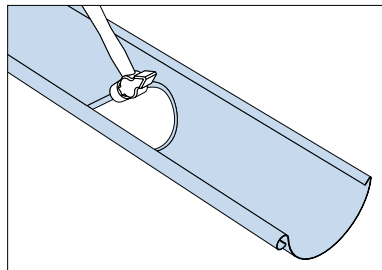
Use the outlet as a template on the gutter



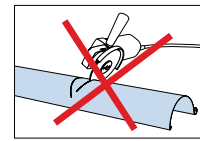
Use a hacksaw to make hole in the gutter



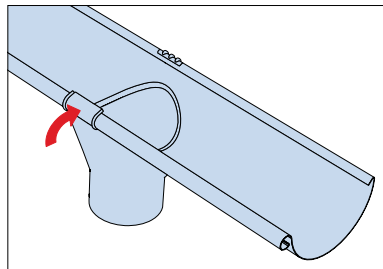
Finish by cutting up to the bead and backside as shown.



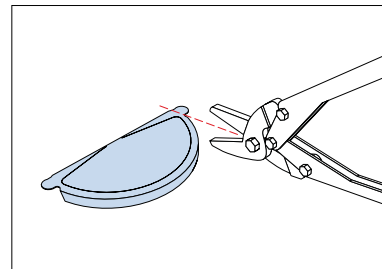
To get a smooth water fall, use a hammer to bevel the edges.



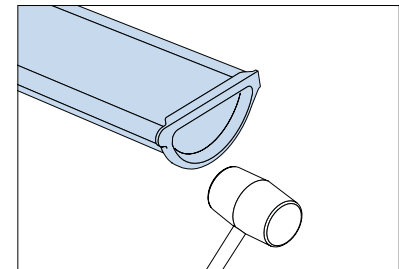
Do not use grinder or power saw, the excessive heat caused by these tools will destroy the galvanization!



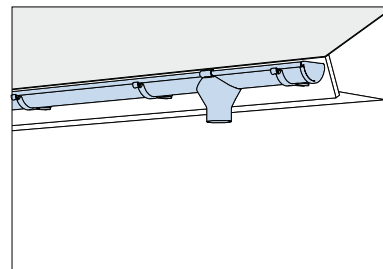
the plug-in outlet easily snaps onto the gutter.



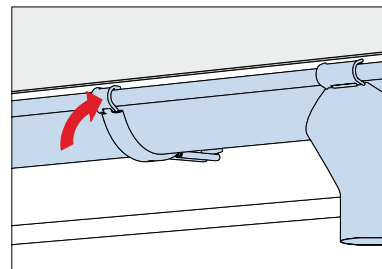
Cut or fold the ear not used.



The universal end cap is self sealing. use a rubber hammer to fix it to the gutter.



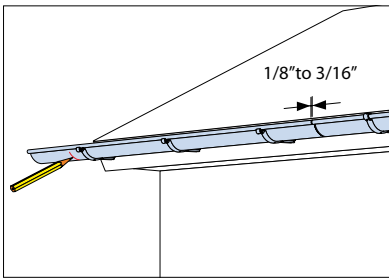
Place the gutter into the rear of the brackets.



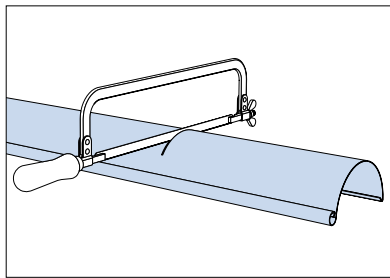
Just snap the bracket closure onto the bead of the gutter.

# Assembly - Roof Drainage System

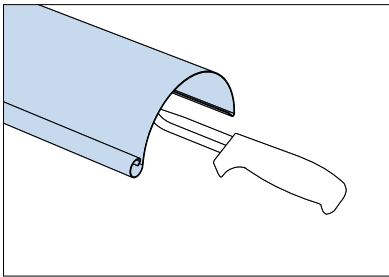
## Gutter joint



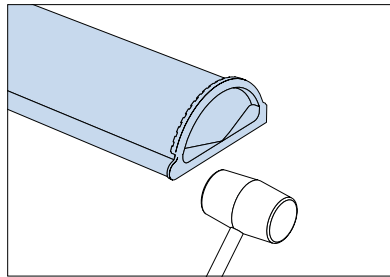
Place the gutter to be joined in the hangers and mark correct length.



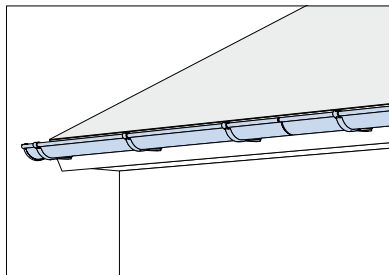
Use a hacksaw to cut the gutter.



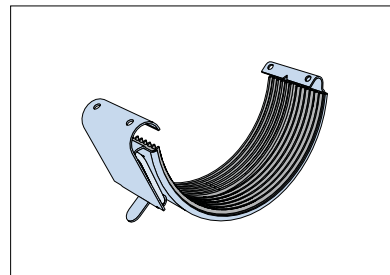
Remove the sharp fillings.



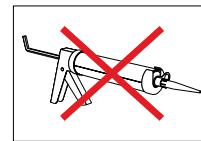
Assemble the end cap.



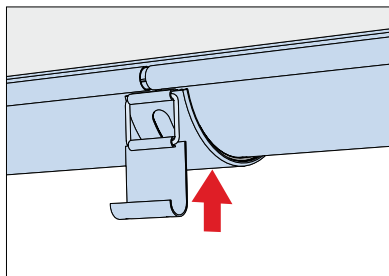
Place gutter in hanger.



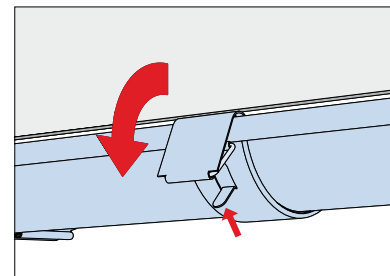
Use self sealing gutter connector



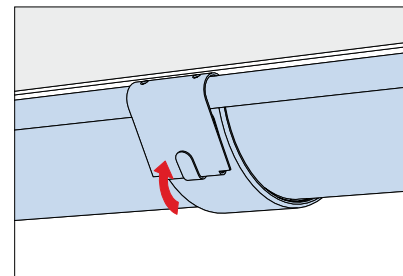
No silicone or sealer should be used.



Press the EDPM rubber to the gutter.

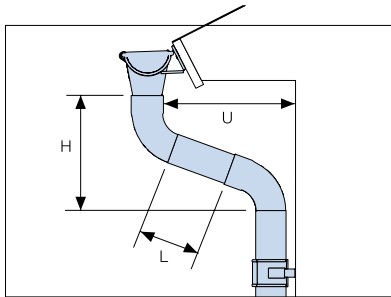


Hook over the bead and snap down.

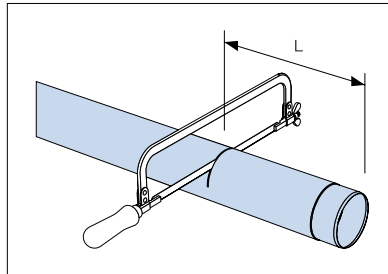


and lock

# Assembly - Roof Drainage System



Check measurement "U" to get the length of the bridge pipe. use table on right.

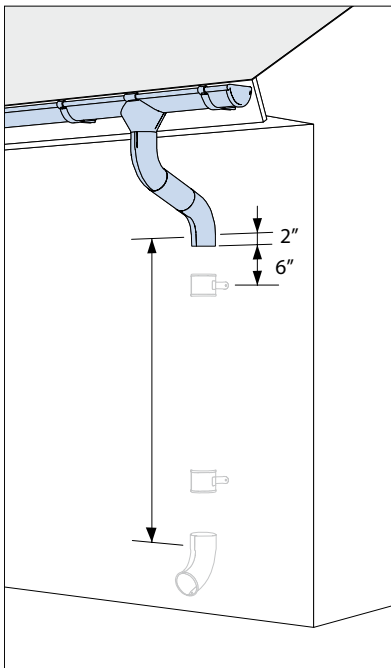


use a hacksaw to cut the bridge pipe. Remove sharp metal burrs!

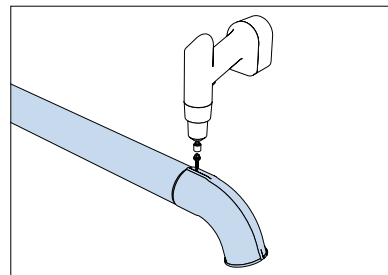
## Bridge pipe length

70 degree bends

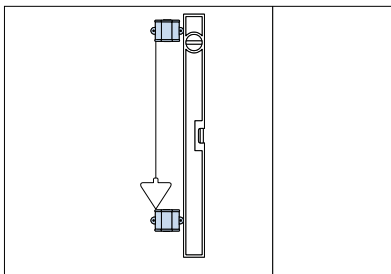
U inches	H inches	L inches
8.66	10.84	0
10.63	11.45	3.94
11.81	11.80	5.31
13.78	12.6	7.28
15.75	13.4	9.45
17.75	13.98	11.42
19.7	14.75	13.58
21.65	15.5	15.75
23.62	16.14	17.91
25.6	16.93	19.88
27.5	17.75	22.05
29.5	18.31	24.02
31.5	19.10	26.18
33.45	19.88	28.35
35.45	20.47	30.31
37.40	21.26	32.48
39.40	21.85	34.65
41.35	22.64	36.61
43.30	23.43	38.78
45.25	24.02	40.94
47.25	24.8	42.91



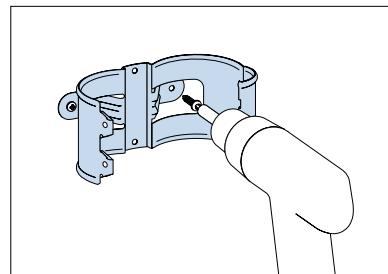
Measure the length of the downspout. Mark out the position of the brackets.



Attach the ground level beaded elbow using self tapping screw on backside.



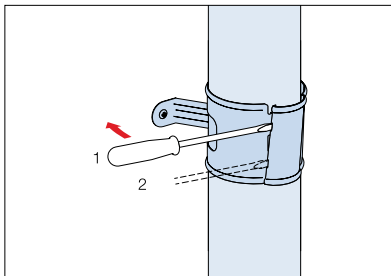
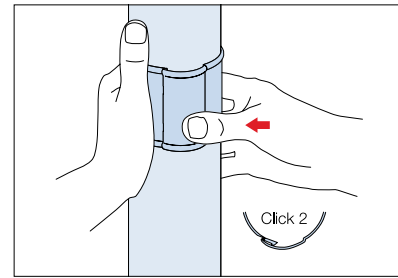
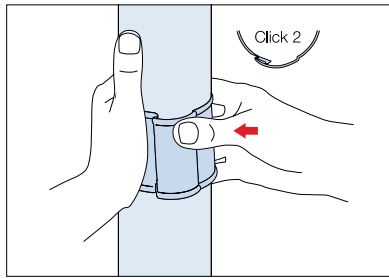
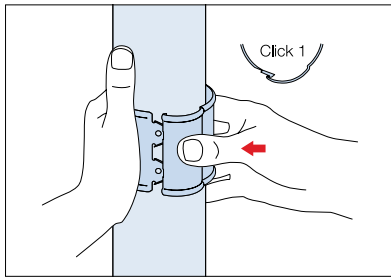
Level the brackets with level or plumb.



Fasten the brackets to the wall.

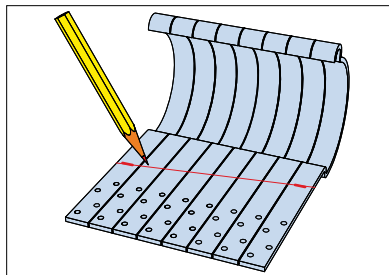
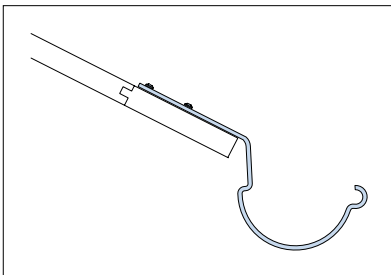
# Assembly - Roof Drainage System

## Wide bracket installation

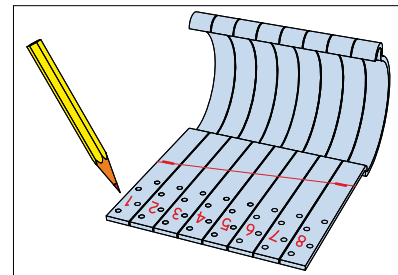


It's easy to dismount the downspout

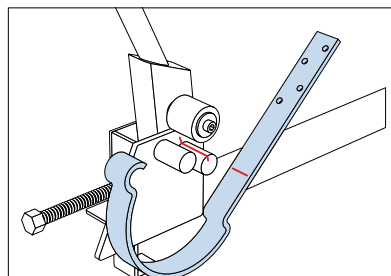
## Self locking roof hanger



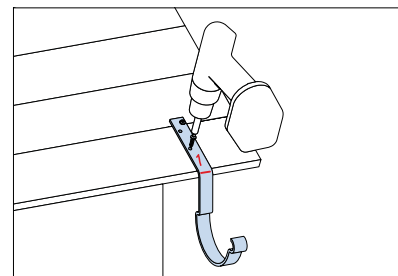
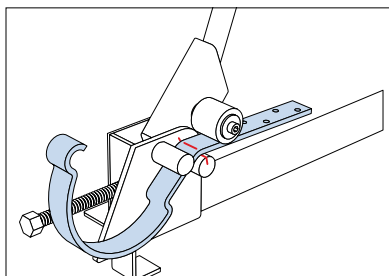
Mark the hangers for gutter incline.  
1/16" per 3'



Number the hangers. 1 is the "Low hanger"  
Last number is the "high hanger"



Bend the hangers at themarking

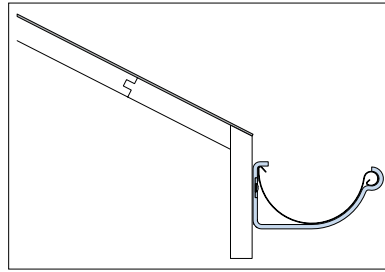


Mount hanger #1 (low hanger) and  
fasten the other hangers at 24" maximum  
spacing

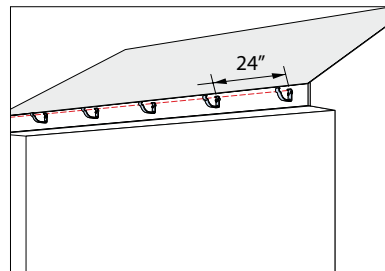
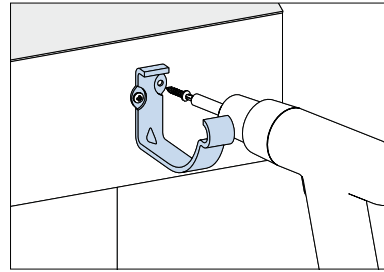


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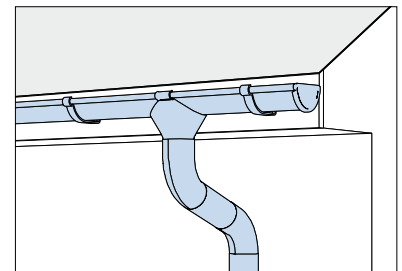
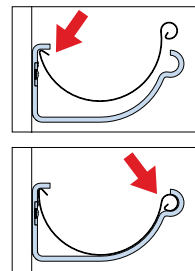
## Self locking heavy duty fascia hanger



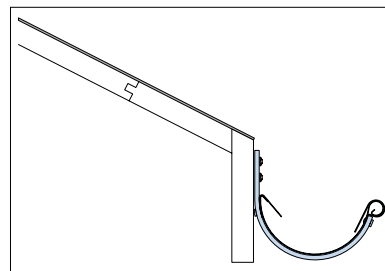
For use with plum fascia board



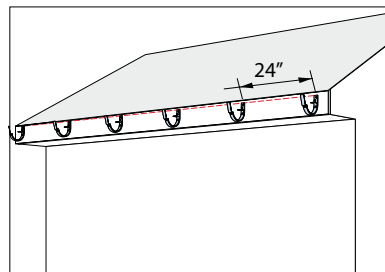
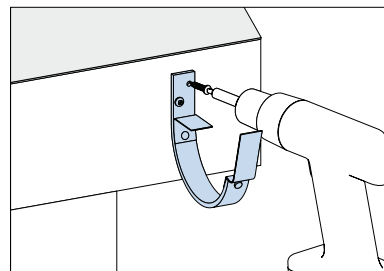
The inclination shall be 1/16" per 3'



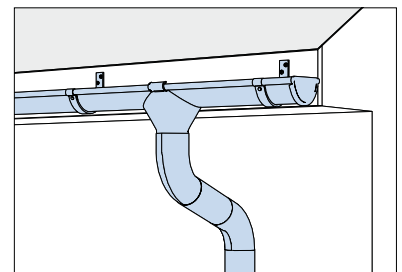
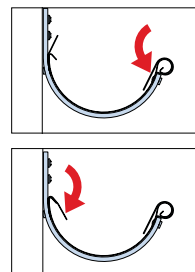
## Heavy duty fascia hanger



For use with plum fascia board

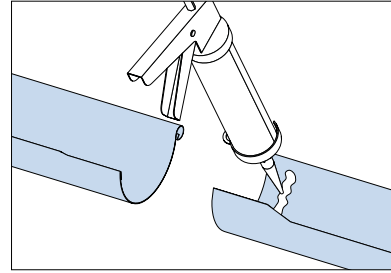
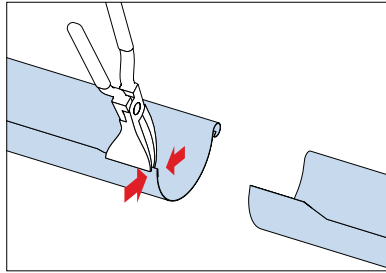
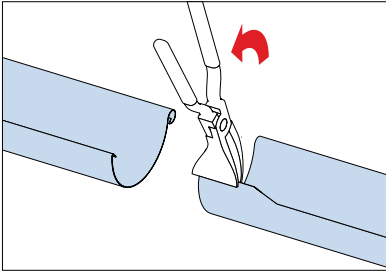


The inclination shall be 1/16" per 3'

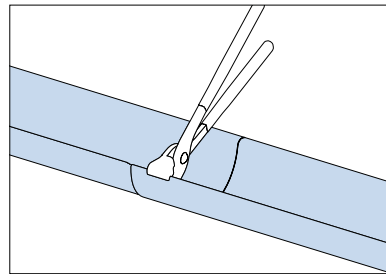
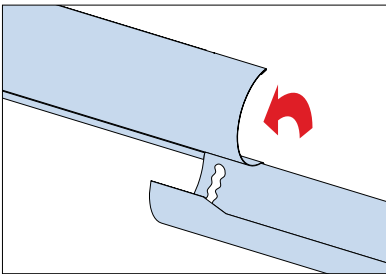


# Assembly - Roof Drainage System

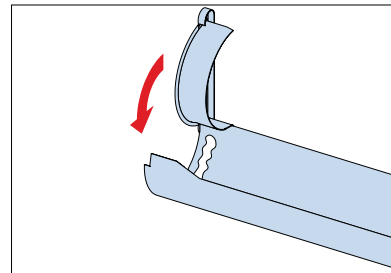
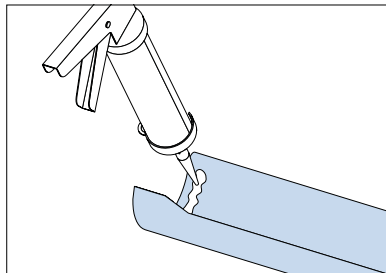
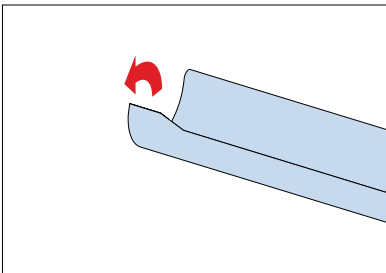
## Traditional gutter joint



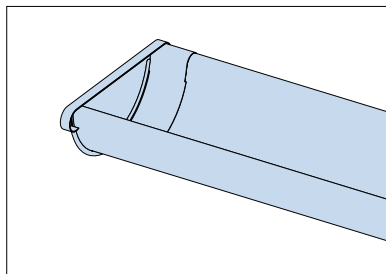
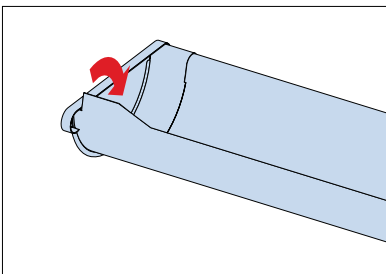
Use a quality silicone sealant



## Traditional flat end cap

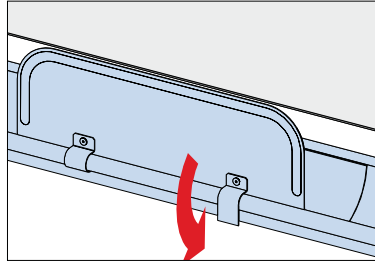


Use a quality silicone sealant

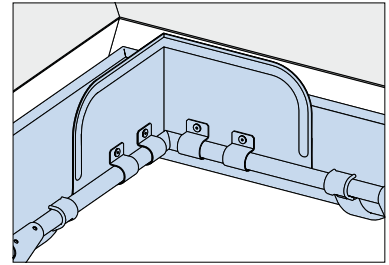


# Assembly - Roof Drainage System

## Overflow protection

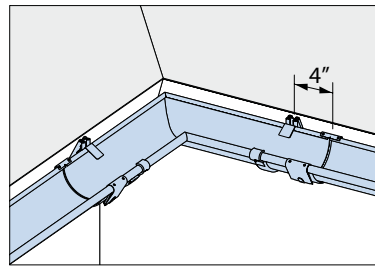


Place overflow protector in gutter

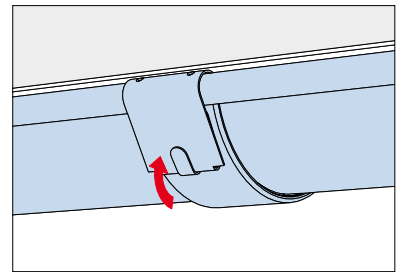


Overflow protection for miters

## Gutter miters

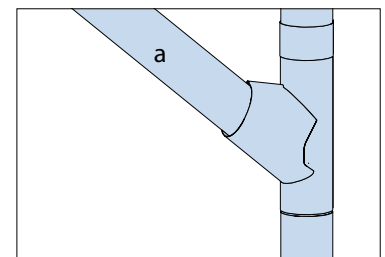
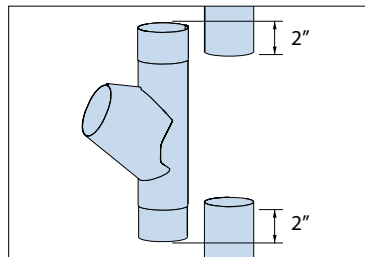


Use gutter connector w/rubber seal



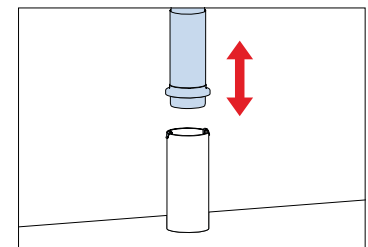
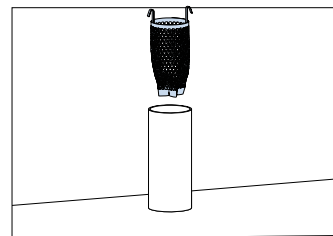
Gutter connector

## Y-pipe



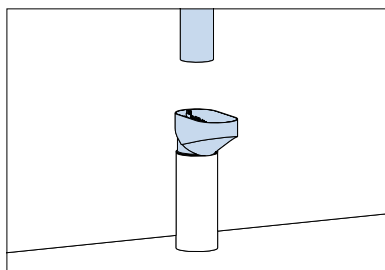
Down-pipe (a) can be mounted in any angle from 50 - 80 degrees

## Stainless steel strainer

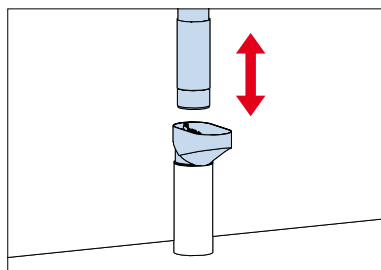


Connect the drain tile extension

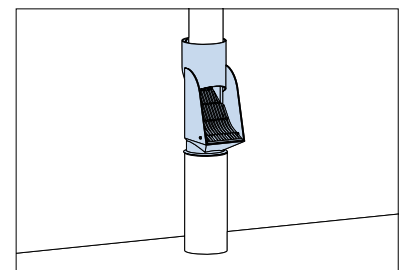
## Leaf trap



Place the leaf trap in the ground pipe



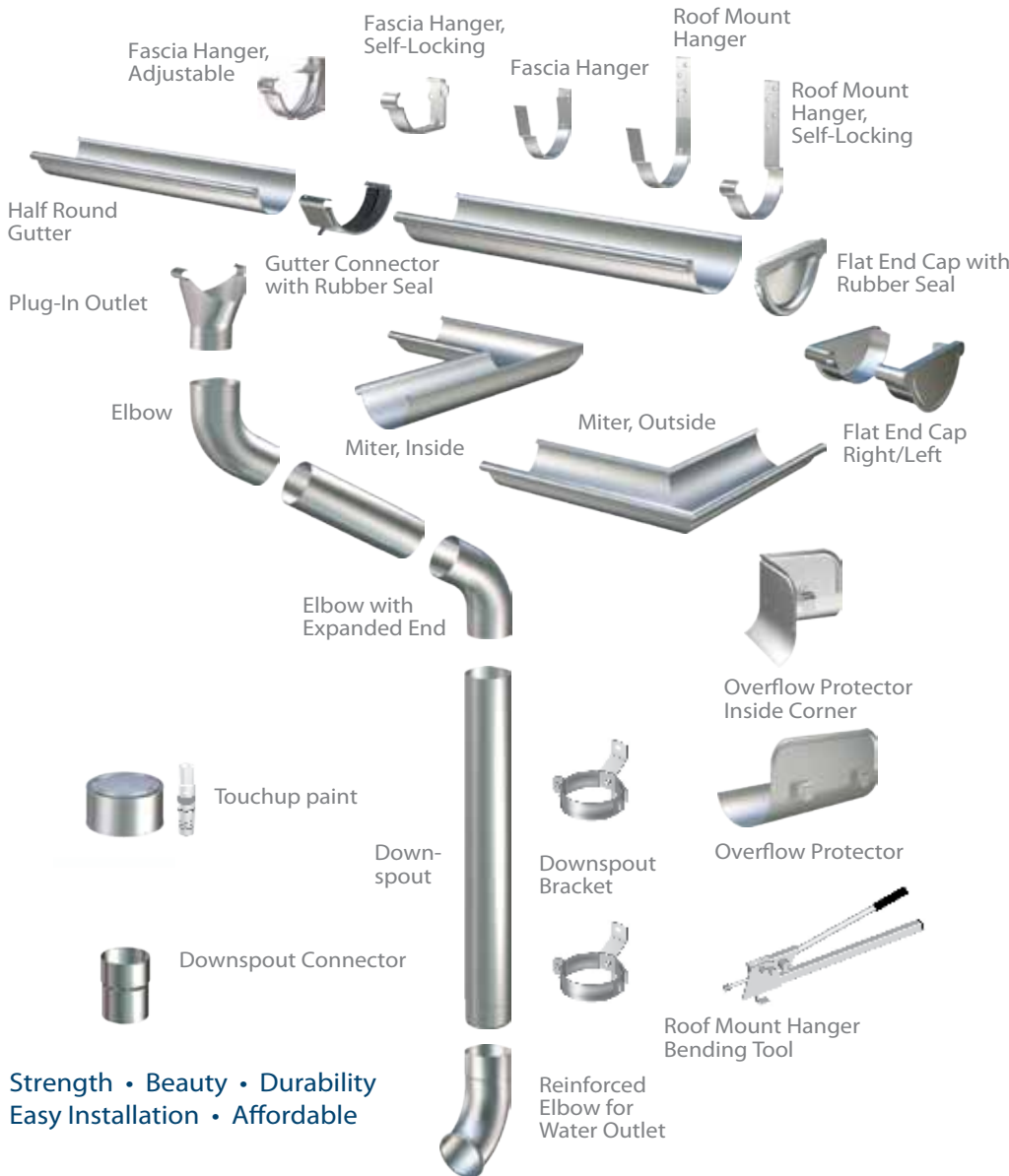
Connect the sliding pipe



Self cleaning leaf chute also available

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