

Installing uPVC Guttering to a Domestic Property

First of all, we need to point out that this is a job for a professional, with experience in working at heights. Although guttering may seem a simple installation, Health and Safety is a far more complex subject. Guttering installations from a ladder could be dangerous, especially when you have an existing guttering to remove.

Basic tools required

Hammer
1m+ level
String line (or chalk line)
Impact driver
Brush
Pouch
Tape measure
Pencil

Choosing the materials

You as the professional will be qualified to order the correct materials and quantities. Allow a clip for every meter or guttering. Add extra clips for 90 degree bends to support the ends and avoid corners pivoting on one bracket. Popular uPVC choices in order of expense(cheapest top) are:

£ -Half round guttering – the most common type

££ - Deepflow guttering (for larger roofs to handle more rainwater)

£££ - Squareline guttering – deeper profile and aesthetically pleasing

££££ - Ogee guttering – deep profile and aesthetically pleasing

Removing the existing guttering

This is pretty simple when the existing guttering is plastic, not so simple when it is cast iron. We advise the professional cuts cast into more manageable pieces, whilst it is still bolted to the fascia. You can use a multi tool or mini grinder to do this. You can then remove the guttering in smaller sections.

If possible, try to limit any damage to the fascia by unscrewing exiting clips rather than smashing them off with a hammer. If the outlet is cast and the downpipes are not being changed, take care not to tilt or damage the pipe when removing the outlet.

Once the guttering is removed, check the fascia board is not rotten and still has a good fix to the joists/rafter feet. Fix with screws if necessary. If rot is evident, you will have to update your client & piece in a new fascia. Apply a quick dry primer in this instance to allow you to continue the installation. You do not want to leave the property without guttering overnight, incase of rainfall.

Once the fascia is checked and sound. You are ready to start the installation of the new guttering.

Installing the new guttering

First of all, put your level on the fascia board to check if it is level or how far it is out (in most cases). With that information in mind, position and fix the outlet in place, bearing in mind that the outlet has to be the lowest part of the guttering to allow the water to flow away correctly. Don't start too low, otherwise your installation will look exaggerated. You only need a small amount of fall, especially with deeper profile gutters.

Ensure that the water will drip form the roof covering, into the guttering by squirting a little water 3 or 4 feet above the outlet onto the roof. Let it run down the roof and check that it drips into the gutter. If it doesn't, the tiles are probably too short on the fascia lap & you will need to install eaves trays.

Next, place a clip next to the outlet you have just installed. Line the clip up so that the inner curve of the gutter is level with the inner curve of the outlet. Mark the underneath of the clip with your pencil & remove the clip. Place a small nail on your pencil mark & fix your chalk line/string to the nail. Ensure that after wrapping the line around the nail, the line is tight to the fascia board.

Next, go to the opposite end on the area of the fascia with your line end & level. Pull the string very tight and place the level along the string. Move the string so that the level shows a slight fall & mark the position. Fix another nail on your mark and wrap the line tightly around the nail. You now have a string-line along the fascia board with a small fall on it. This will be the bottom position of your clips. Check a clip in a few positions to make sure you have the space to fix them between the line and the top of the fascia board.

If you are installing a guttering with the outlet in the centre, just repeat the above process from both sides off of the outlet.

Installing the clips

My preferred method of installing the clips is to use my 1m length level as a spacer. Start with the end away from the outlet and fix a clip 50mm away from where the guttering will stop. Make sure that you factor in, that the gutter must serve the whole roof (not even an inch short). It is safer to plan the gutter lengths to go slightly beyond the tiles (approx 50mm or so).

Fix the clip with two screws. Usually around 30mm in length and with heads big enough to not slip through the pre drilled screw holes in the clips. Line up the bottom of your clip, with your line & fix.

Use a your meter stick or level to measure a meter along from that clip. Mark with a pencil and fix another clip. Repeat the process to the outlet. When you reach the outlet, it is unlikely it'll be exactly a meter away. If the distance is greater than a meter, add another clip. Do not miss a clip if the distance is greater than a meter. Use your level to add a clip or clips to the other side of the outlet if required.

Installing the gutter lengths

Starting at the outlet, place the gutter length inside the outlet and clip into place. There are guidelines on the inside of the outlets explaining where to fix the length. Follow these guidelines strictly. Otherwise changes in climate may pull your installation apart through expansion or shrinkage.

If your fascia line is greater than 4m, you'll need to place a union on the end of the gutter. This is to join two lengths together. There is a chance that the union will clash with one of your previously installed clips. Just remove the clip that is in the way. The union has screw holes, so it can replace the clip.

Add the next length of guttering. You'll need to add a stop end to any unfinished ends.

Lastly, check the guttering installation by pouring water onto the roof slope (or flat roof) and allowing it to naturally flow into the guttering. Don't chuck the whole bucket of water straight onto the roof, as this doesn't recreate a realistic rainfall simulation. Check that the water runs away or doesn't fill up with water in any area above an inch.

A note on bays and corners & other tricky issues

Bays and 90 degree corners add a more complex element to the installation, but the principal is the same. I personally like to use levels when installing angles. I still install the outlet 1st and then I use a level placed on the outlet and on the next clip to add a slight fall. Having a few levels of different sizes makes this job much easier, as the bends will get in the way of 1m levels on most bays. I still install the guttering based on clip spacing of 1m, but I always place a clip close to both sides of any bends to prevent the guttering from tilting on a clip. You should always install a minimum of two clips per piece of guttering to prevent this tilting.

For installations dictated by rafter feet (no fascia board), choose shorter than 1m lengths as opposed to longer than 1m.

If overlaying fascias with uPVC cover board, price for eaves trays, as the average lap of slates and tiles into guttering is

usually around 2.5". You will lose $\frac{3}{4}$ of an inch minimum (the thickness of the cover board), so the lap might start becoming a problem with rainwater not running into the new guttering properly from the roof.

By Nicky Morris of Barris Roofing Ltd
www.roofingsouthlondon.co.uk