GUTTER PUMPER'S anti-vortex baffle prevents air spiralling down the vertical drop once the water depth exceeds 25 mm, allowing the pipe to flow full of water. Gravity then pulls this full flow downwards, creating a vacuum that sucks water into the pipe at high velocity. Longer vertical drops generate higher flow rates.

The first vertical drop must prime the second vertical drop to generate higher flow rates. To ensure the second drop primes, the total of the length of the initial horizontal pipe plus an equivalent 0.6 metre pipe length for each 90 degree elbow and an equivalent 0.3 metre pipe length for each 45 degree elbow between the Gutter Pumper and the second vertical drop is recommended to be **not more than fifty times the length of the first drop**. The first drop's length is measured from the top of the initial horizontal pipe to the gutter PLUS 25 mm from the gutter to the top of the anti vortex baffle.

EXAMPLES:
A 100mm drop will prime a **3.8 metre** initial horizontal pipe **plus** 2 x 20mm 90 degree elbows (**1.2 metres**).
A 300mm drop will prime a **13.2 metre** initial horizontal pipe **plus** 3 x 20mm 90 degree elbows (**1.8 metres**).

DO NOT slope pipework. Pipework must remain vertical or horizontal.
DO NOT increase the 20 mm pipe's diameter as this will break the vacuum but increasing a ground level HORIZONTAL pipe's diameter reduces friction loss and is recommended for long runs.

Clean gutter of all debris prior to installation. Gutter Pumper presents a minimal obstruction but gutters must be kept clean.

FITTING INSTRUCTIONS

Use a 32mm hole saw to drill a hole in a flat area on the bottom of the gutter **near the gutter's high point**. Eaves gutters are installed with a W pattern to allow slope and downpipes are plumbed at the low point.

Place the Gutter Pumper into the hole with a washer on either side of the gutter and face the baffle's lowest edge towards the gutter's high point. Hold the Gutter Pumper tightly and screw the nut with its flange side up to the Gutter Pumper and tighten.

Twist a 20mm class 12 uPVC pressure pipe (the internal diameter is 23.7 mm) into the Gutter Pumper, plumb vertically to the bottom of the fascia and fit a 90 degree PVC elbow to plumb a second 20 mm uPVC pipe horizontally to the wall. **Gutter Pumper is tapered, molds to the pipe and does not require gluing.**

HANDY HINT: Measure and twist-fit the 20 mm uPVC pipe into the Gutter Pumper before fitting the Gutter Pumper through the 32 mm hole. It is very difficult to pull the pipe out of the Gutter Pumper without a twisting motion. This allows the nut to be easily **finger tightened** by pulling the pipe downwards rather than gripping the Gutter Pumper from above the gutter.

Use saddle clamps to plumb the pipe down the wall and then horizontally to a downpipe or drain. If a second vertical drop is not used and the pipe is plumbed along the top of the wall to a downpipe or tank, maximise the length of the first drop and increase the horizontal pipe size to 25 mm to reduce friction loss.

The Gutter Pumper is usually drained into a downpipe (unless blocked, downpipes do not contain less than two thirds air). This is usually done by fitting a 45 degree uPVC elbow to the pressure pipe and then fitting a short uPVC pipe to the elbow. The pipe is then fitted into a hole drilled in the downpipe. Seal the gap.

AS/NZS 2032 states that uPVC pressure pipes installed in direct sunlight must be either painted with light coloured water-based paints or otherwise protected.

WWW.GUTTERPUMPER.COM.AU

Check local plumbing regulations for scope of allowable DIY work