

Technology [™] *From the manufacturers of Pulse Eco Shower*

We wanted to find a way to improve the pleasurable experience of showers while reducing water consumption.

We noticed that shower designs had not evolved much over the last 100 years. They were still delivering water through numerous holes – the spray plate – to create a stream from individual jets.

By examining rainfall, we realised that if we could deliver water in a way that made the most of its natural properties, we would dramatically improve the efficiency of existing shower heads. We achieved this by removing the traditional spray plate and inserting a turbine vane into the chamber.

How the turbine vane works

Water travels along the shower handle at full pressure to a compartment in the shower head where it is deflected backwards into an expansion chamber. This action causes pressure to build and when it reaches a certain level, the water bounces back out of the chamber. The resulting pulsation occurs between 30 and 40 times per second and manipulates the surface tension of the water to ensure that the pressure is as high as possible in every single drop.

Rather than creating an illusion of more water by filling the flow of water with air – as in aerated eco shower heads – Pulse Eco Showers simply maximise the propulsion and impact of fuller drops of water while consuming less energy.

A more hygienic shower with no limescale clogging

No spray plate

Bacterial cultures require certain conditions to flourish and they need to anchor to a suitable surface. The design of traditional shower heads means they will usually have a film of water, rubber material or recesses where this can occur. As a result, layers of deposited material, which provide nutrients for bacteria, build up in areas that are aerated and moist. Bacteria can thrive in such pockets and as limescale accumulates, clogging the holes in the spray plate, the efficiency of the shower will also be affected.

Pulse Eco Showers have been specially designed to rethink these problem areas. Having removed the spray plate, there is only one point where bacteria could grow, which is a fraction of the surface area of other traditional and eco showers. However, as the material at this point is metal, microbial growth is very unlikely. The build-up of limescale to the extent that clogging occurs is simply not possible, ensuring Pulse Eco Showers are more hygienic, efficient showers that do not require the same levels of maintenance.

Pulse Eco Shower Performance: Suitability and Key Points

- Suitability - Suitable for all shower systems including most electric showers. (Only systems with very low pressure are unlikely to reach the required level of 0.5 bar.)
- Pressure - Understandably, comfort and sustainability are of equal importance to our customers. As a result, we were determined to develop a product that would not force ecologically responsible consumers to sacrifice the pleasurable effects of a shower. We also recognised the demand for an eco shower head that would function with electric shower systems, allowing consumers to choose a product that meets the demands of a modern-day

lifestyle. Other eco shower heads to some degree sacrifice the sensation of water on the skin, either by restricting the flow of the water or aerating the flow and creating the illusion of higher pressure. Pulse Eco Showers maintain a powerful impact on the skin by releasing cascades of thick droplets (like rainfall) which are forced out at high pressure by imperceptible pulsations. Only shower systems with very low pressure will not be able to reach the minimum requirement of 0.5bar.

- Temperature - Competing eco shower systems tend to expel water in small drops or sprays that increase the exposure of the water (via higher surface area) to the air, causing a considerable drop in temperature. Indeed aerated showers, which introduce air to the flow of water to create a 'champagne effect', are particularly inefficient for this reason. In contrast, Pulse Eco Showers deliver thick cascades made up of large water droplets which hold their temperature well thanks to minimal heat exchange with the air before making impact with the body.
- Reliability - Most of our competitors offer a one year guarantee. However, as Pulse Eco Showers function with a very simple yet effective design, they are remarkably durable. This is why Pulse Eco Showers offer a two year manufacturer's warranty.