

Syphonic WC pans – information supplied by Ideal-Standard

Thank you for your e-mail regarding regarding syphonic WCs compared to washdown. We no longer manufacture double trap syphonic pans simply because modern low volumes are insufficient to activate the pressure reducing valve that we used, which requires at least 7.5 litres to activate. Following the Water Regulations 1999 requirement for maximum flush to be 6 litres from 1st January 2001 we withdrew the product from the UK market and export markets soon after.

We have offered single trap syphonic and double trap syphonic with the latter more successful and commonly known. A single trap syphonic pan had a narrow bore sump which would give the appearance of a blockage causing the flush water to back up in the bowl until the sheer weight of the water would convey the contents of the bowl through the pan. A double trap syphonic pan was much more sophisticated and renowned for its quiet flush performance.

A double trap syphonic wc has two water traps (chambers) which are separated by an air trap. This naturally made them a little larger by design. They are distinguished from an ordinary wash down wc by the higher level of the water reservoir which is the first trap. When the cistern is flushed the water travels through the syphon and past a component in the tail of the syphon which initiates a secondary syphoning procedure. The part known as an Airex is a pressure reducing valve which syphons the air from the middle trip creating a partial vacuum (negative pressure). Atmospheric pressure (positive) will automatically restore the vacuum and in doing so expels the contents of the bowl. The flush water from the cistern simply refills the first water trap.

Double trap syphonic pans were our flagship ranges, such as Kensington (introduced 1973), Clarendon and Liberty. Because of the complex nature of the pan design they were made in the traditional way of being bench cast, effectively individually hand made in small quantities, rather than the mass volume battery casting launched circa 1968. Although expensive to manufacture and of course purchase, they were very robust and reliable. The most likely cause of poor flush performance with this design of wc is a faulty Airex which has either become blocked or degraded due to old age. We continue to sell the Airex as a spare coded S952367 and we also recommend as a precaution the purchase of a close coupling kit (wing nuts/bolts/washers) coded S952567, as they may have corroded with age.

We trust that this will be of some assistance to you but will gladly answer any queries that you have. This reply has been copied into our Product Training Specialist, Sharon Dimmer, who organises courses for all levels of the industry and may be of assistance with presentation data.

Regards

John Lynam
Pre Sales Product Information