



## VacuFlush Toilet - Preventative Maintenance

VacuFlush is a common vacuum toilet brand in recreational boats. Its benefits include low water usage and a sealed bowl which limits unwanted odour. When used correctly, it is a very convenient item on a boat. However, it is a system that does not have high tolerance for being neglected or misused.

Its working principle is based on the creation of vacuum in the discharge line. This vacuum is held in the line until the toilet seal is intentionally broken. During flushing, waste is sucked from the toilet bowl and quickly discharged to a holding tank. The vacuum pump simultaneously kicks in to create a vacuum again in the discharge line.

A very common field problem in this type of toilet is the introduction of foreign material into the line, causing vacuum leak or line blockage. Foreign material can damage the rubber seals, vacuum pump, pressure switch, or other components. It can even rupture the vacuum tank in severe cases. Subsequently, fault finding and repair becomes a costly exercise. Below is an example of a blocked system where fabric material was flushed into the toilet. The vacuum generator tank had to be dismantled to trace and repair the fault.



Another common problem is the built up of scale around sealing faces or the distortion of

rubber seals due to age. This leads to the vacuum pump going on and off consistently as the vacuum is not able to build up due to leakage. This can subsequently lead to failure of other components in the system.

Repair work on a vacuum toilet can be expensive. This is not necessarily due to material cost but the time it takes to trace a vacuum leak. An annual service will certainly ensure that the toilet stays healthy and works effectively when you need them.

An annual service comprises the following,

***Replacement of rubber seals*** - As the rubber seals, including the toilet bow seal and duckbill valves change in shape over time due to wear and tear, they will fail to seal. This causes the vacuum pump to activate regularly.

***Replacement of toilet ball seal*** - The ball in the toilet seals against a rubber seal. Overtime, calcification can occur and scratches can be introduced to its surface. This causes vacuum leak.

***Replacement of odour filter*** - The content in the odour filter has a limited life span. Once saturated by foul organism, it no longer has any significant odour absorbent properties and hence will need to be replaced.

***Vacuum check*** - All reputable service technicians who are skilled in vacuum toilet repair and maintenance will have an accurate electronic vacuum gauge. He or she will test the system to ensure that it complies to the minimum acceptable vacuum holding capability and rectify as necessary.

**All Marine Solutions** has extensive experience in repairing and maintaining vacuum toilets. Plan to service your vacuum toilet annually to avoid costly repairs and unnecessary inconvenience.

Call **07 5665 8166** or email [info@allmarinesolutions.com.au](mailto:info@allmarinesolutions.com.au) to book in a job with **All Marine Solutions**.