

## Vented Loops

**Vented loops are anti-siphon safety devices for use with both manual and electric marine toilets installed below the waterline (static or heeled).**

29015-0010	38 mm (1½")
29015-0020	25 mm (1")
29015-0000	19 mm (¾")
29015-1000	Replacement Valve

NOTE: This data is only applicable to Jabsco Marine Toilets - For all other makes of marine toilet and for all other applications and all other types of product, please refer to the instructions supplied with the product concerned.

### 1. What is a Siphon?

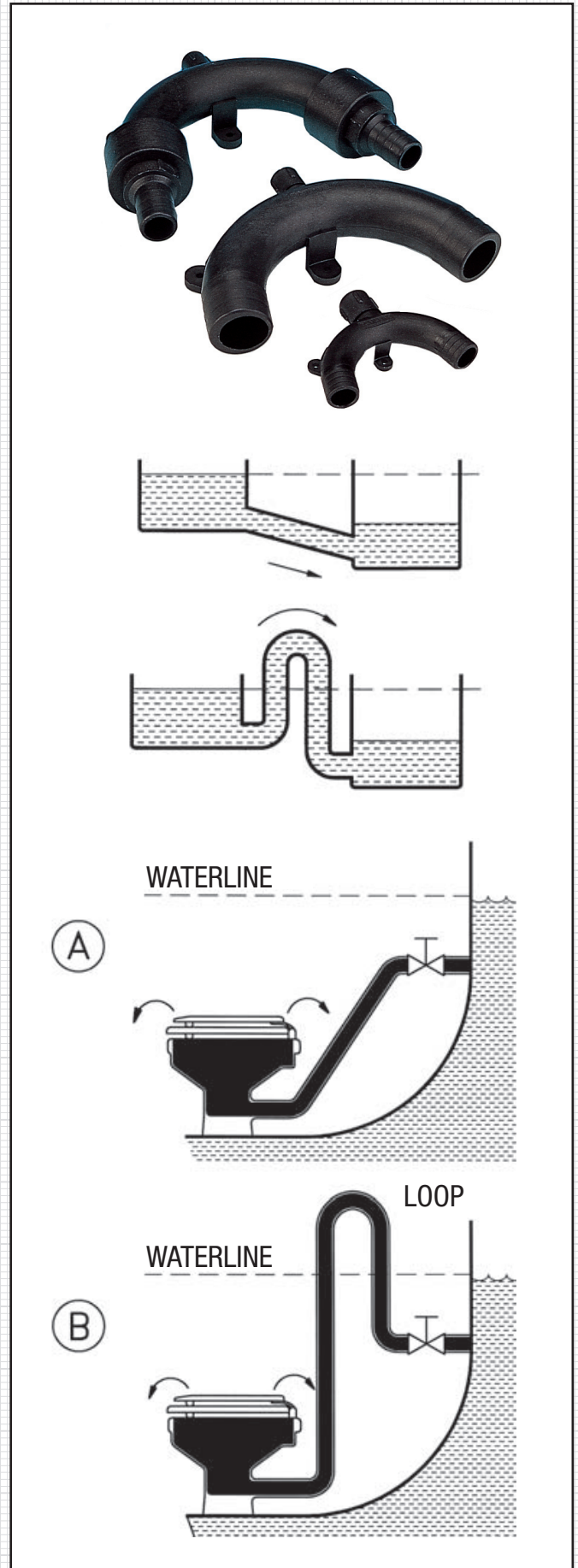
Water flows downhill whenever it can. It will do so even if it has to rise at first, provided its final level is lower than its initial level and there is no air in the connecting pipework. A system in which water rises and then falls as it flows of its own accord under gravity is called a siphon.

### 2. How to prevent a siphon

Manual and electric marine toilets flushed with sea or river water require connections through the hull below water level. If the toilet is installed below the boat's waterline, the possibility of flooding the hull through an open seacock must be prevented, not only for the discharge pipe, but also for the inlet pipe.

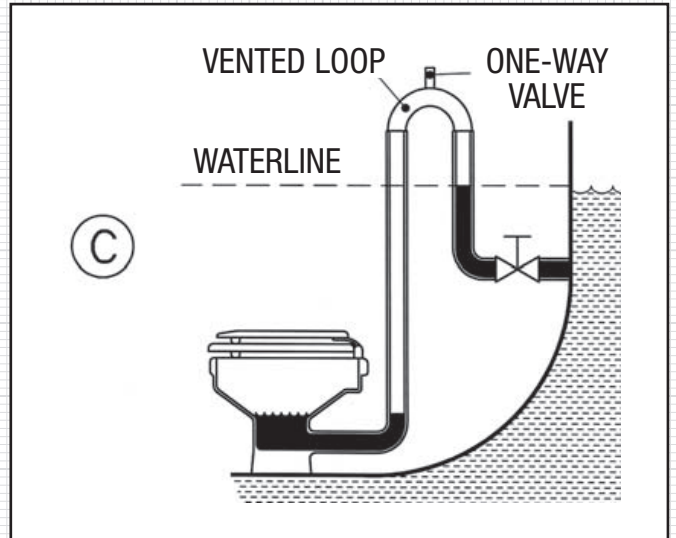
If no precautions are taken, a toilet below the waterline is at risk of flooding at all times when the discharge or inlet seacock is open (A).

A loop of pipe above water level (B) may prevent flooding, but there remains a risk that a siphon will be created by pumping the toilet, or when the boat heels, or by wave action.

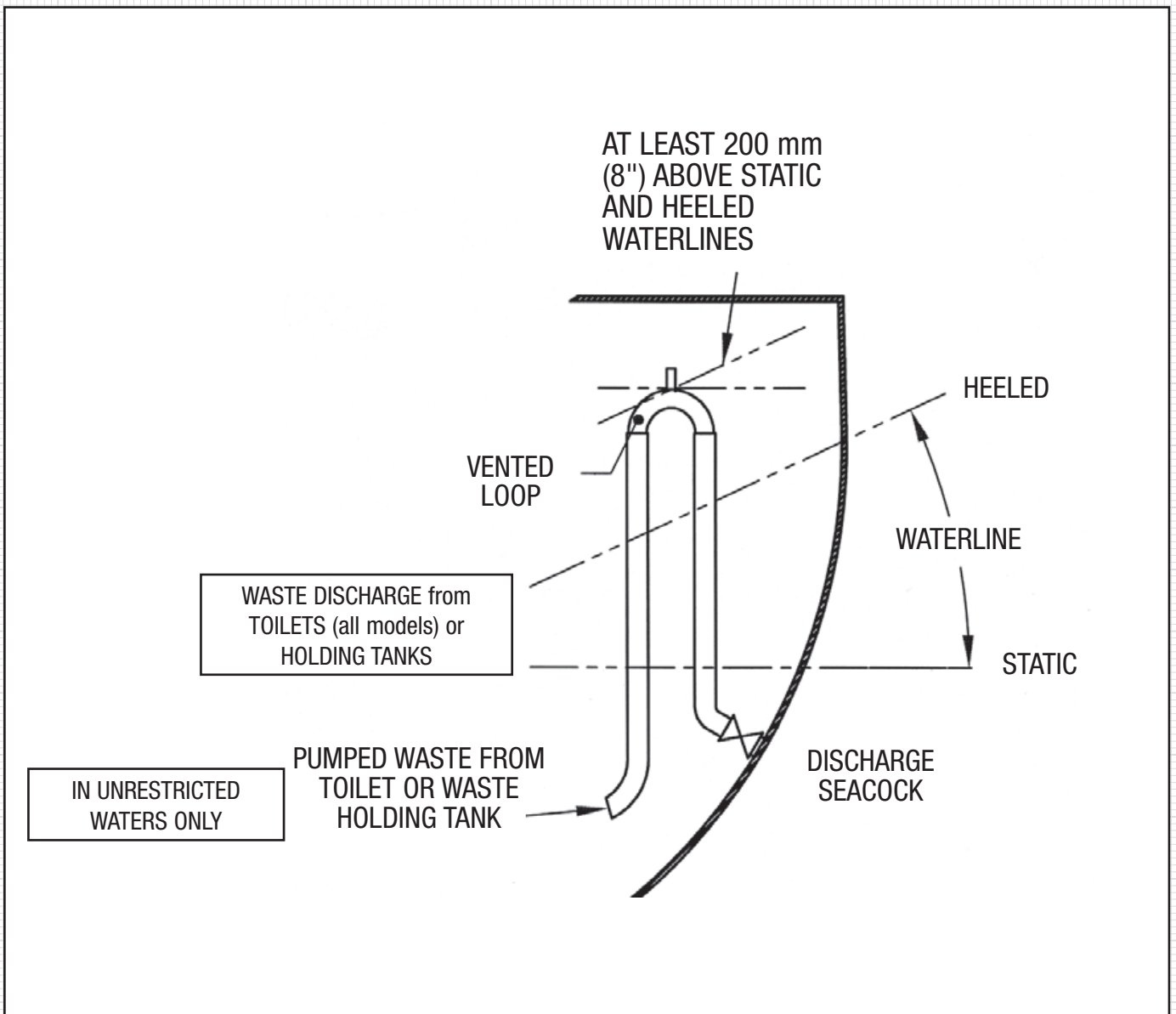


To break the siphon, air must be let into the top of the loop of pipe, allowing water to drop back on both sides of the loop, and stopping it from flowing into the hull.

A Vented Loop (C) is fitted with a one-way valve at the top, permitting water to be pumped through the loop and out of the hull, but preventing the formation of a siphon that would allow water to flow back into the hull.



**3. How to prevent a siphon in the discharge of all models of Manual and Electric Toilet and Holding Tanks**



#### 4. How to prevent a siphon in the inlet pipe



This product is designed solely for use with Jabsco Vented Loop. Do not over-tighten cap as this may damage the valve and cause a leak.

Do NOT fit a vented loop into the inlet pipework of a pump, where it will admit air (as it is designed to) and impede or prevent priming.

Trouble-shooting tip: if the anti-siphon loop makes a hissing noise when the pump is running, and the clean water flush pump won't prime, the vented loop has been fitted in the pump's suction line instead of its discharge line.

**Remedy:**

In a manual toilet system, remove the vented loop from the inlet line and fit it in the discharge line between pump and toilet bowl.

In an electric system, where the inlet line requires a vented loop, a solenoid valve must also be fitted.

#### 5. Lite Flush and 37010 Series Electric Toilets

In the Lite Flush and the 37010 series electric toilet installations where the clean water inlet line has to be protected by an anti-siphon loop, the vent in the top of the loop needs to be kept closed under suction, so that the pump can prime and run.

Fit an electrically operated solenoid air valve (37068-2000) in the top of the vented loop. The solenoid will close the air valve only when the pump is running, allowing the valve to perform its normal siphon-breaking function at other times.

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SEAWATER OR RIVER WATER INLET to MANUAL TOILET

AT LEAST 200mm (8") ABOVE STATIC AND HEELED WATERLINES

HEELED

WATERLINE

STATIC

VENTED LOOP FITTED IN PIPE BETWEEN PUMP AND TOILET BOWL

MANUAL PUMP ON TOILET

INLET SEACOCK

DO NOT FIT VENTED LOOP IN SUCTION PIPE BETWEEN SEACOCK AND PUMP

MANUAL PUMP ON TOILET

INLET SEACOCK

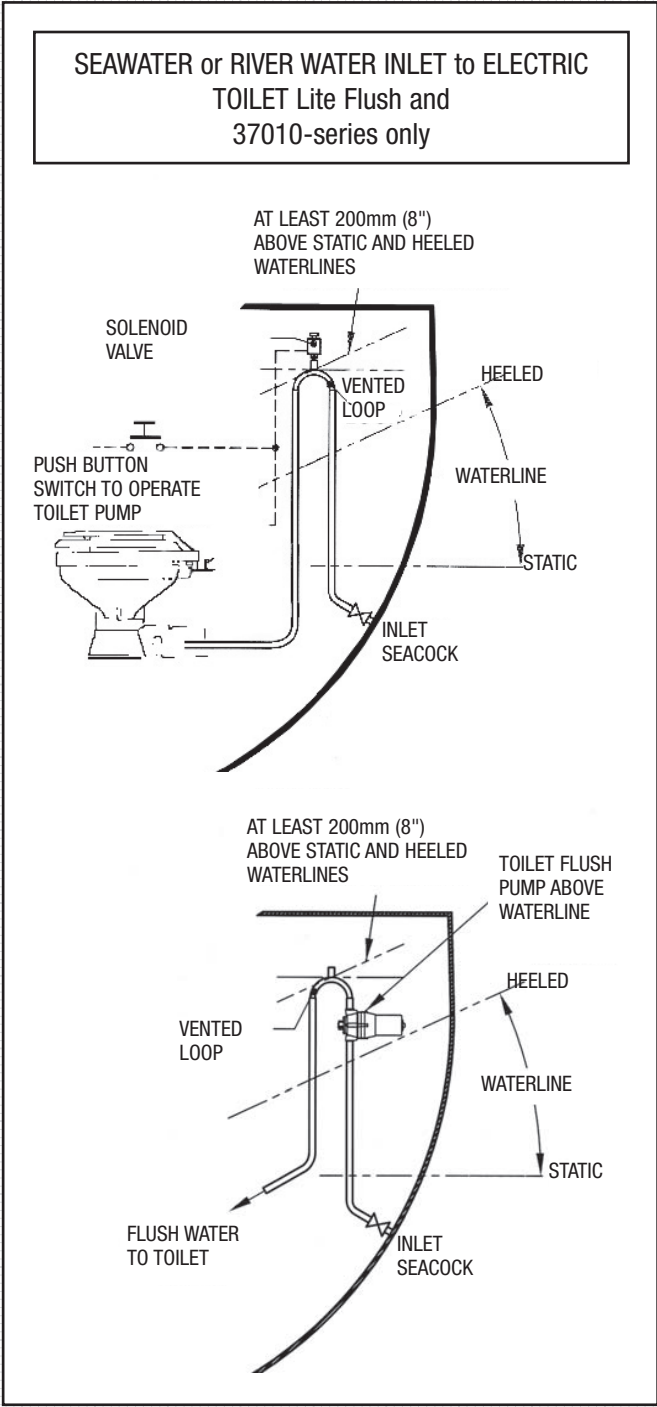
37068-2000 Solenoid Air Valve

29015-0000 Vented Loop 19mm (3/4")



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**5. Lite Flush and 37010 Series Electric Toilets**



**6. Deluxe Flush, Quiet Flush & Designer Style Electric Toilets**

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