

How a Bell Siphon Works

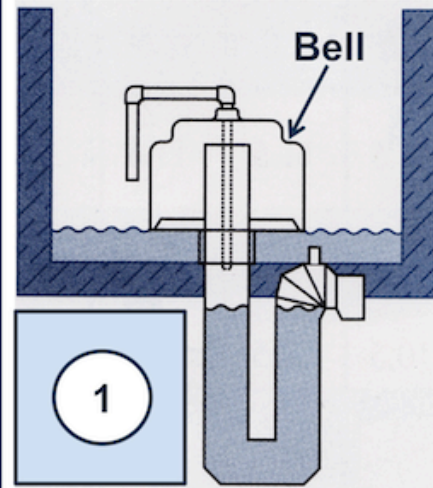
Created by C. Kupferschmidt,
2010.

www.uoguelph.ca/orwc

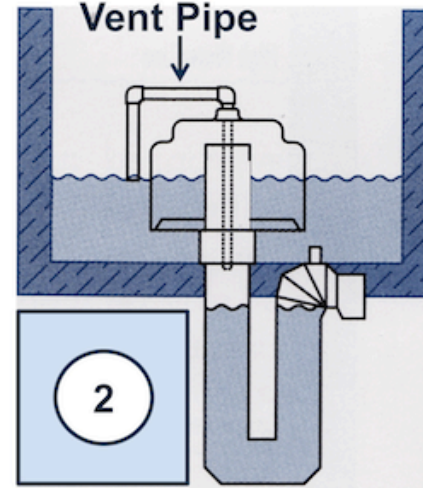


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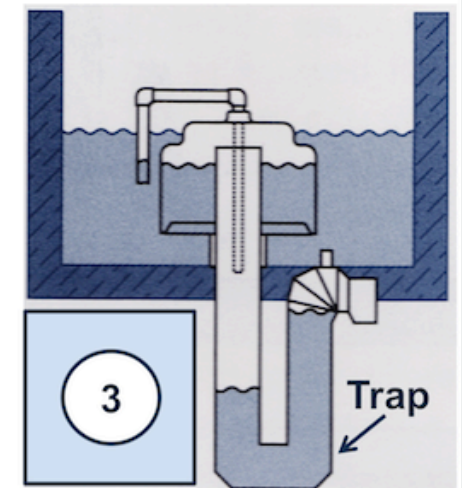
Images courtesy of Fluid
Dynamic Siphons, Inc.
www.siphons.com



The water level rises past the bottom of the bell and a seal is formed. Trapped air exits through the vent pipe.



Air continues to exit from inside the bell until the water level reaches the bottom of the vent pipe.



The water level continues to rise and the trapped air is forced towards the invert of the trap.

Once the trapped air reaches the bottom of the trap, all remaining air is forced out of the siphon.

Water from the tank quickly rushes in to fill the space occupied by the air and the siphon begins to flow.

The water continues to drain out of the tank until the water level reaches the bottom of the bell.

When the water level reaches the bottom of the bell the seal is broken and the process restarts.

