



Application Note 1

Reducing the time to Test for Contamination in Potable Water Applications

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When deploying new equipment to be installed in potable water systems or after engineering work on mains supplies, testing for contamination is of key importance. It's also very time consuming. Sending samples to the lab and waiting 7 to 10 days for results to return means delays that are costly to both water companies and contractors. Delays also mean it's hard to plan for crew availability. Should multiple flushings be required the process could take weeks.

Speedy Breedy has been designed as a portable contamination test for potable water that's suitable for use in the field by engineers.

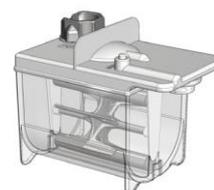
Speedy Breedy is a sensitive, precision respirometer for the rapid detection of microbial presence and bacterial contamination which is significantly faster than sending samples to the lab and waiting for their return.

Speedy Breedy can be inoculated and the test started immediately the sample is taken, meaning that Time to Detection is faster as there is no loss of time while the sample is transported to the laboratory and returned.

Using Speedy Breedy the commissioning process can be shortened as samples can be taken by engineers on site and the test run in the field in parallel to sending test results to the lab.

Should tests prove positive (contamination is present) a flushing/testing procedure can be put in place on-site days before results come back from the lab meaning that Speedy Breedy can speed up the final time for approval and reconnection of mains water or completion of commissioning of potable water equipment.

Speedy Breedy is a single (test versus control or aerobic plus anaerobic), or dual sample, two chamber instrument. Speedy Breedy maintains culture conditions within purpose designed, disposable culture vessels. Samples are inoculated into the culture vessel and Speedy Breedy closely controls growth conditions to a pre-determined protocol in order to facilitate rapid replication of cells or microbes.

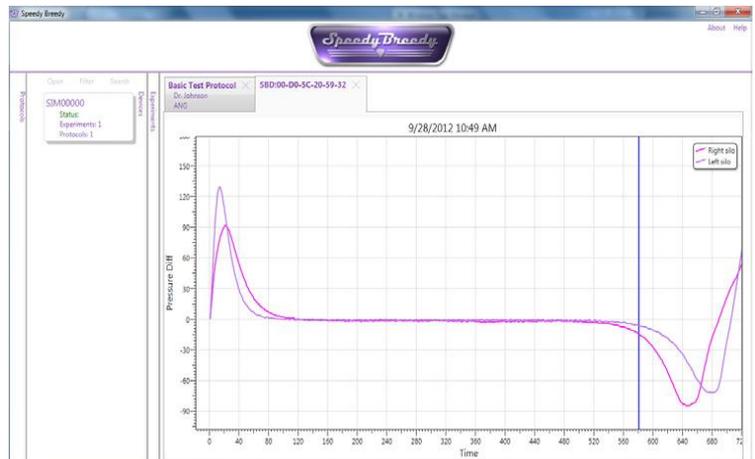




Speedy Breedy is also very useful in off-site manufacturing and factory testing meaning that equipment can be built and tested in the factory prior to shipping to the point of installation. Not only does this mean faster, cheaper deployment of commissioned equipment it also means cutting carbon emissions by reducing the need to move both people and equipment around.

Speedy Breedy can be used independently or connected to a PC. Using the PC managers can design and download pre-determined protocols to Speedy Breedy and upload experimental results for analysis. Speedy Breedy also has a removable SD card for field work.

Connecting Speedy Breedy to a PC enables data visualization should there be a need to monitor tests in near real time.



Speedy Breedy is extremely compact, weighing just 2.75 kilos it's portable and operates on 12V dc and mains adapters. Culture vessels are supplied sterile (gamma irradiated) in protective packaging.

Features

- Portable, can be used in a vehicle
- Two temperature controlled incubation chambers
- Purpose designed culture vessels with advanced mixing and temperature control for optimised growth and detection of microbial activity
- Sealed, easy to populate culture vessels
- Suitable for use with a wide range of sample types
- Temperature controlled 14 to 44 degrees
- A highly sensitive, non-invasive detection system that delivers rapid results
- Barrier protected sensors for reliability and safety
- PC (Windows compatible) software front-end that enables near real time visualisation of experiments when connected to Speedy Breedy
- Self monitoring and calibration
- Customised protocols designed off-line and downloaded to Speedy Breedy
- On board 2GB SD card for experimental results storage
- USB connection