

Speedy Breedy SeaSure® Specification



Speedy Breedy SeaSure® Unit Specification
Bacterial sensitivity of 1 cfu/100ml filtered ballast water sample
Two Speedy Breedy® units supplied – total of four test chambers.
Test chamber temperature control: 3° C below ambient to +65° C
Test chambers can run independent microbial tests simultaneously
Automatic pressure safety cut-off at 1.8 bar
Automatic physical thermal cut off switch at 75°C to avoid overheating
Pasteurisation protocol ^(*) at +65° C to render non spore containing culture vessels safe for disposal as per local regulations
Complete kit supplied, including filtration pump and consumables for immediate use
Downloadable online firmware updates
Encrypted tamper-proof results
Audit trail of encrypted results
Speedy Breedy® Unit Physical Specification
Weight of Speedy Breedy® unit: 3 kg
Dimensions: H: 30 cm, W: 50 cm, D: 25 cm
SD Card
USB connection
Compatible with local mains AC power supply (Europe: 230 V / 50 Hz, North America: 120 V / 60 Hz, etc.) or 12V DC
Speedy Breedy® Test Vessel Specification
Sample size: 100ml sample to be filtered
Tests <i>E.coli</i> , Intestinal <i>Enterococci</i> and Toxigenic <i>Vibrio cholerae</i> as per Ballast Water Management Convention and VGP specifications
Sealed single use vessels (sterile - gamma irradiated) – safe use
Totally enclosed for safe use in any environment
Vessel storage: According to instructions on packaging

Speedy Breedy® Culture Media Specification			
Sample Test	Selective pre-populated media	Sensitivity (CFU in 100ml sample)	IMO Requirement (CFU in 100ml sample)
<i>Escherichia coli</i>	<i>E.coli</i> Selective Media	1	< 250
Intestinal <i>Enterococci</i>	Selective Intestinal <i>Enterococci</i> Media	1	< 100
Toxigenic <i>Vibrio cholerae</i>	Selective Toxigenic <i>Vibrio cholerae</i> Media	1	< 1
* Note – The sensitivity of Speedy Breedy® to 1cfu/100ml sample as indicated above ensures it is future-proof against any changes in required legislative specifications			

Speedy Breedy SeaSure® Includes:

Hardware

2 Speedy Breedy® units, including all power supply units and associated cabling

2 SD cards

USB flash drive

USB hub

Filter pump, manifold and associated power supply and cables.

Robust carry-on-board stow-away case.

Salinity Meter (Optional extra, together with consumables)

Fluorometer (Optional extra, together with consumables)

Photometer (Optional extra, together with consumables)

Software

Speedy Breedy SeaSure® software (single user licence)

Speedy Breedy SeaSure® Software platform, Protocols, Calibration curves, User Manual, user videos

Interface platform for all partner devices

Ballast Log – Test log and ballast water record, generating a transmittable encrypted report

Speedy Breedy SeaSure® from BACTEST®, St. John's Innovation Centre, Cowley Road, Cambridge, CB4 0WS, UK

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Consumables (For microbiological sampling and testing)

8 *E.coli* selective test vessels

8 Intestinal *Enterococci* selective test vessels

8 Toxigenic *Vibrio cholerae* selective test vessels

Filtration cups, complete with 0.45 µm membrane filter (30 in a pack)

500 ml Sample pots (10 in a pack)

Sterile gloves (2 boxes – 1 size medium, 1 size large)

Sterile wipes

50ml Sterile water (30 bottles in a pack)

Software & Computer Specification Requirements

Single licence can work with multiple Speedy Breedy® units

Pre-programmed protocols and calibration curves for ease of use

Ballast Log - encrypted recording and reporting system with capability to transmit encrypted report

Downloadable online software updates

Email facility to send notification when contamination is detected (requires tablet/computer and internet connection)

Email facility to send Ballast Log to relevant parties for review (requires tablet/computer and internet connection)

Enumeration feature to show estimated colony forming units (CFUs) in a sample

Languages supported: English, German, Chinese (Mandarin)

Computer minimum spec: > Windows 7

Tablet minimum spec: > Full Windows 8

Compatible port: USB 2 (all USB ports must be full size)

RAM: minimum 1 GB

Free disk space: minimum 1 GB

Processor: minimum 1 GB

Manufacturing Accreditations
ISO9001 manufactured Speedy Breedy® units
ISO9001 manufactured Speedy Breedy® culture vessels
CE Marked - Speedy Breedy® units comply with the low voltage directive
Speedy Breedy SeaSure® Partner Products (All fully integrated in the Speedy Breedy SeaSure® software)
Fluorometer (Phytoplankton Tester)
Detects phytoplankton in the 10 – 50 µm range, as per IMO-D2 and VGP requirements, to within required levels.
Fluorometer (phytoplankton tester) components and consumables dependant on the unit selected.
Chemical Residue Tester
Tests for various residual chemicals (biocides) used in ballast water treatment, as required by the IMO-D2 and VGP standards, to within required levels.
Chemical residue tester components and consumables dependant on the unit selected.
Salinity Tester
Tests the salinity of the ballast water as per IMO requirement.
Speedy Breedy SeaSure® Output
Ballast Log
Encrypted history of tests, guaranteed security and reliability of test results, for presentation to relevant parties.
Generates reports to be viewed locally or combined into other systems allowing integration with larger data sets (exporting of data to a third-party system option available upon request).
With internet connection data can be sent to the relevant authorities ahead of arrival reducing turnaround time.
Incorporates data from partner products (phytoplankton testers, salinity & chemical testers), creating a secure audit trail.
Ballast Log incorporates the required fixed ship and voyage information, including destinations, ballast water intake, exchange and discharge data together with monitoring results from all tests to compile a comprehensive report, as per IMO ballast water reporting form.
Reports are grouped per voyage taken, from voyage start to conclusion.
Reports can be generated based on user-defined date ranges.

Notes

(*1) The pasteurisation protocol does not destroy spore-forming bacteria or extreme thermophiles. Disposal of vessels to take place in accordance with local regulations

(*2) Typical detection times vary across bacteria type and levels of contamination

Bactest Limited reserves the right to make changes to this datasheet at any time, without further notice.

BACTEST: turning microbial activity into data

BACTEST designs develops and markets microbial respirometry products based on its proprietary patented technology platform.

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